Final
Environmental Assessment

State Highway 286, Corpus Christi District

From FM 43 to South of FM 2444

CSJ 0326-01-056

Nueces County, Texas

September 2019

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

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List of Acronyms

Acronym	Definition
ADT	average daily traffic
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ADA	Americans with Disabilities Act
AEP	annual exceedance probability
AOI	Area of Influence
APAR	Affected Property Assessment Report
APE	area of potential effects
ASTs	above-ground tanks
BFE	base flood elevation
BMP	Best Management Practices
CBRA	Coastal Barrier Resources Act
CFR	Code of Federal Regulations
CGP	construction general permit
CO	Carbon Monoxide
CR	County Road
CSJ	Control-Section-Job
CWA	Clean Water Act
dB	decibels
dB(A)	A-weighted decibels
DOI	U.S. Department of Interior
EA	Environmental Assessment
EFH	essential fish habitat
ENV	TxDOT Environmental Affairs Division
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPIC	Environmental Permits, Issues, and Commitments
ESAs	Environmental Site Assessments
ETJ	extraterritorial jurisdiction
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM	Farm-to-Market Road
FPPA	Farmland Protection Policy Act
GIS	Geographic Information System
GLO	General Land Office
HHS	U.S. Department of Health and Human Services

Acronym	Definition
ISA	Initial Site Assessment
ISD	Independent School District
LBP	lead-based paint
Leq	sound level
LPG	liquefied petroleum gas
LPST	Leaking Petroleum Storage Tank
LWCF	Land and Water Conservation Fund
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MSAT	mobile source air toxics
MTP	Metropolitan Transportation Plan
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NOI	notice of intent
NPMS	National Pipeline Management System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
PA-TU	Programmatic Agreement Regarding the Implementation of Transportation Undertakings
PCR	Project Coordination Request
PEL	Planning and Environmental Linkages
PM	Particulate Matter
PSL	project specific locations
PST	Petroleum Storage Tank
PS&E	Plans, Specifications, and Estimates
PWS	public water systems
ROE	right-of-entry
ROW	right-of-way
SAL	State Antiquities Landmark
SDWIS	Safe Drinking Water Information System
SGCN	Species of Greatest Conservation Need
SH	State Highway
SHPO	State Historical Preservation Officer

Acronym	Definition
SW3P	Storm Water Pollution Prevention Plan
SWPP	Source Water Protection Program
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
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
TSWQS	Texas Surface Water Quality Standards
TWDB	Texas Water Development Board
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
U.S.	United States
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
USIBWC	United States Section, International Boundary and Water Commission
VMT	vehicle miles traveled
VPD	vehicles per day

1.0 Introduction

The Texas Department of Transportation (TxDOT) Corpus Christi District is preparing an Environmental Assessment (EA) for proposed improvements to the existing State Highway (SH) 286 from Farm-to-Market Road (FM) 43 (Weber Road) to south of FM 2444 (S. Staples Street) in Nueces County, Texas (Appendix A, Exhibit 1). The proposed project would extend the freeway section of SH 286, known locally as Crosstown Expressway, from FM 43 to FM 2444. The proposed project would improve the existing SH 286 from a two-lane undivided highway generally within a 100-foot right-of-way (ROW) to a controlled access four-lane freeway with frontage roads, on and off ramps, and grade separations at County Road (CR) 20A, CR 22, and FM 2444 within a 400-foot ROW.

The purpose of this EA is to evaluate the potential environmental consequences of the proposed project to comply with the environmental review requirements of TxDOT and the National Environmental Policy Act (NEPA), and to determine whether the consequences warrant an Environmental Impact Statement. This Final EA documents the potential environmental consequences of the proposed project and incorporates public comments received during the environmental review process.

2.0 Project Description

TxDOT's proposed improvements to SH 286 would extend from FM 43 to approximately 3,500 feet south of FM 2444, a distance of approximately 3.2 miles (Appendix A, Exhibit 1).

2.1 Existing Facility

The existing SH 286 in the project area is a two-lane undivided highway with one 12-foot southbound main lane and one 12-foot northbound main lane generally within a 100- to 160-foot ROW. The highway includes at-grade intersections at CR 20A, CR 22, and FM 2444. North of FM 43, SH 286 (Crosstown Expressway) has been recently improved to a controlled access four-lane freeway that includes frontage roads in each direction, ramps, and grade separations at major intersections. An overpass of SH 286 at FM 43 has been constructed as part of these improvements. Additional ROW was acquired south of FM 43 to accommodate the SH 286 overpass. In this expanded ROW area south of FM 43, shoulders (four-foot inside shoulders and 10-foot outside shoulders) are present along approximately 0.35 mile of SH 286 near the northern project terminus. Narrow (approximately two feet) shoulders are present along the remainder of the existing highway.

A tributary of Oso Creek crosses SH 286 between CR 20A and FM 2444. The tributary crosses the roadway through seven 4-foot by 4-foot concrete box culverts. The general area of the proposed project is primarily in active agricultural production, with interspersed residential and some commercial development. Project photographs of the existing SH 286 are located in Appendix B, and typical sections of the existing facility are located in Appendix D.

2.2 Proposed Facility

The proposed project would improve SH 286 within the project limits from a two-lane undivided highway to a controlled access four-lane freeway with two 12-foot main lanes in each direction, the main lanes having four-foot inside shoulders and 10-foot outside shoulders, two 12-foot frontage road lanes in each direction with a 12-foot outside shoulder, entrance and exit ramps, and five-foot sidewalks outside the frontage road shoulders. The proposed improvements would include grade separations at CR 20A, CR 22, and FM 2444.

Approximately 300 feet of new ROW would be acquired to the west of the existing ROW from south of FM 43 to approximately 3,500 feet south of FM 2444 to construct the proposed roadway improvements, for a total ROW of 400 feet. Additional ROW would also be acquired to accommodate drainage improvements and storm water detention requirements. The existing bridge class culverts crossing the tributary of Oso Creek would be replaced with bridges that would span the tributary (separate bridges for northbound and southbound main lanes and frontage roads). The proposed improvements would require approximately 102 acres of new ROW.

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 northern terminus of the proposed project is FM 43, which is a major crossroad and is the intersection where the recently completed SH 286 improvements terminated north of the proposed project. The southern terminus is FM 2444, which is a major thoroughfare connecting to the proposed project. FM 2444 was recently improved to increase the capacity of this roadway. The improvements are projected to increase traffic on SH 286. Project construction would extend approximately 3,500 feet south of FM 2444 to transition the improved SH 286, including the overpass of FM 2444, to the existing two-lane highway. The proposed project limits serve as logical termini for the project.

Federal regulations require that a project have independent utility and be a reasonable expenditure, even if no other transportation improvements are made in the area (23 CFR 771.111(f)(2)). This means a project must be able to provide benefit by itself, and that the project not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built. The proposed project would improve mobility and safety on SH 286 between FM 43 and FM 2444 by adding additional travel lanes and separating through traffic from local traffic, notably at the intersections of CR 20A and CR 22. The project would have independent utility because even if no additional transportation improvements were constructed, increasing capacity (by adding travel lanes) would relieve congestion projected to result from future increases in traffic volumes. Because the proposed project would stand alone, it would not represent an irretrievable commitment of federal funds.

Federal law prohibits a project from restricting consideration of alternatives for other reasonably foreseeable transportation improvements (23 CFR 771.111(f)(3)). This means that a project must not dictate or restrict any future roadway alternatives. The proposed project would increase the capacity of SH 286 between FM 43 and FM 2444. This improved segment of SH 286 would not restrict the consideration of alternatives for other foreseeable transportation improvements. Schematics of the proposed project are located in Appendix C, and typical sections are located in Appendix D.

Estimated construction costs for the proposed improvements total approximately $72 million as of 2018, and are expected to have both federal and state funding. This estimate does not include ROW acquisition or relocation costs. TxDOT is funding the preliminary engineering design and environmental studies for the proposed project.

The proposed project is listed in the 2015-2040 Corpus Christi Metropolitan Transportation Plan (MTP) (February 2018 MTP Amendment) and the Proposed Highway Projects Fiscal Year 2019-2022 Transportation Improvement Program (TIP). The project listings for both of these documents are located in Appendix E.

3.0 Purpose and Need

3.1 Need

The proposed project is needed because the capacity of SH 286 between FM 43 and FM 2444 is inadequate to meet projected future traffic volumes and already has a higher than average crash rate.

3.2 Supporting Facts and/or Data

Population growth and residential development south of Corpus Christi have resulted in increased use of roadways within the vicinity of the proposed project. Average daily traffic (ADT) on SH 286 from FM 43 to south of FM 2444 is predicted to increase from approximately 7,500 vehicles per day (VPD) in 2017 to approximately 43,500 VPD in 2045 as a result of projected growth in the area (AECOM 2018). This equates to a Level of Service of "C" based on 2017 traffic, and a Level of Service of "F" for the projected traffic in 2045 if this section of SH 286 is not improved. A Level of Service of "C" means stable traffic flow conditions with acceptable delays. A Level of Service of "F" means heavy congestion or a breakdown in flow conditions, with vehicles experiencing unacceptable delays.

During the five-year period from 2012 to 2016, a total of 37 reported crashes occurred on SH 286 within the project limits, including one fatal crash at the intersection of SH 286 and CR 20A in 2014. This equates to an average crash rate of 114.89 (i.e., the number of crashes per 100 million vehicle miles traveled [VMT]), which exceeds TxDOT's statewide average crash rate of 87.71 for similar rural state highways during the same period (Gunda Corporation 2018).

3.3 Purpose

The purpose of the proposed project is to address anticipated mobility issues based on projected growth and improve safety on SH 286.

3.4 Additional Benefits

The proposed project would improve connectivity to FM 43, a designated hurricane evacuation route. Improving the connectivity from FM 2444 to FM 43 would afford residents residing in the southern portion of Corpus Christi the option to evacuate on FM 43.

4.0 Alternatives

4.1 Build Alternative

The goal of the proposed project is to improve safety and mobility. The Build Alternative, as described in Section 2.2, would meet the purpose and need by separating traffic and increasing capacity (adding travel lanes). The expanded capacity would accommodate future travel volumes on this section of SH 286. Overpasses of the SH 286 main lanes at the intersections of CR 20A, CR 22, and FM 2444 would separate through traffic on the main lanes from local traffic on the frontage roads at these intersections. The need and purpose of improved safety would be met by separating through traffic from local traffic, which would reduce the number of potential vehicle conflicts at intersecting roadways and driveways.

4.1.1 Right-of-Way Acquisition

Approximately 300 feet of new ROW would be required to construct the proposed roadway improvements. Available ROW acquisition options would be to purchase the new required ROW entirely to the west of the existing ROW limits, entirely to the east of the existing ROW limits, or through a combination of new ROW to the east and west of the existing ROW limits. Acquisition of new ROW would also be needed to accommodate storm water drainage improvements and detention requirements.

Project constraints were identified during project development and include a major gas utility on the east side of the existing ROW and a historic-age resource of potential local importance. Acquiring new ROW to the west would match the existing expanded ROW in the northern portion of the project area, and avoid a major utility conflict on the east side of the existing ROW.

4.2 No-Build Alternative

The No-Build Alternative was assessed during the initial planning phase of the proposed project. This alternative would retain the existing SH 286 in its current configuration. The No-Build Alternative would not improve mobility, as anticipated increases in future traffic volumes would be expected to result in increased congestion. The No-Build Alternative would not improve safety, as potential vehicle conflicts at intersections and driveways would continue, and likely worsen as congestion increases. The No-Build Alternative was eliminated as a viable project alternative because it would not meet the need and purpose of the proposed project. This alternative, however, is evaluated throughout this document for comparative purposes.

The No-Build Alternative would preclude the need to purchase new ROW and construct the proposed roadway improvements, thus allowing available funds to be redirected to other roadway projects and avoiding temporary and long-term construction impacts in the project area.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

No other alternatives were identified that would meet the need of purpose of the proposed project.

5.0 Affected Environment and Environmental Consequences

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

- Air Quality Technical Report
- Archeological Background Studies
- Biological Evaluation Form
- Community Impacts Assessment Technical Report
- Hazardous Materials Initial Site Assessment
- Historical Resources Survey Report, Reconnaissance Survey
- Indirect and Cumulative Impacts Technical Report
- Tier I Site Assessment
- Traffic Noise Technical Report
- Water Resources Technical Report

These technical reports may be viewed at the TxDOT Corpus Christi District office located at 1701 South Padre Island Drive Monday through Friday 8:00 a.m. to 5:00 p.m., excluding state holidays. Detailed information regarding the resources discussed in this section can be found in the reports noted above.

5.1 Right of Way/Potential Displacements

Within the project area, from south of FM 43 to approximately 3,500 feet south FM 2444, SH 286 is within a 100- to 160-foot ROW, as shown in the project schematics in Appendix C. The total area of the existing ROW is approximately 65.2 acres.

Approximately 300 feet of new ROW would be acquired primarily to the west of the existing ROW to construct the proposed improvements, for a total ROW width of 400 feet. In addition to the proposed roadway improvements, additional ROW would be acquired to accommodate drainage improvements

and storm water detention requirements. The proposed project would require approximately 102 acres of new ROW.

The proposed project would potentially displace five single-family homes. Three of the homes appear to be unoccupied. The two occupied residences that would be potentially displaced are located adjacent to undeveloped property that is owned by the same property owners, and these residents would likely be able to rebuild on their adjacent vacant land.

Non-residential and non-commercial potential displacements include one garage, three barns/outbuildings and two holding tanks/cisterns. One holding tank is located southwest of the SH 286 and FM 2444 intersection. The content and use of this holding tank is unknown, as this holding tank does not appear to be permanently anchored to the ground and may be moveable. The second holding tank and the four barns/outbuildings are located on the west side of SH 286 approximately 0.5 mile north of the SH 286 and FM 2444 intersection. The second tank appears to be a concrete cistern that is adjacent to an agricultural field. Three of the barns are located on the property adjacent to the concrete cistern. The fourth barn is adjacent to a neighboring single-family residence that is identified as a potentially unoccupied residential displacement.

A list of potential displacements is provided in Table 5-1, and the locations of the potential displacements are shown in Appendix F, Exhibit 1. Two utilities would require relocation, including an overhead electric line and an overhead cable line. The extent of the utility adjustments is not known at this time and would be determined during final design. Utilities are discussed in Section 5.4.

Table 5-1. Structures Displaced by Proposed Right-of-Way

Displacement ID No.	Displacement Description
1	Single-family residence
2	Single-family residence and garage
3	Single-family residence
4	Single-family residence
5	Two barns/outbuildings
6	Single-family residence, barn, and tank
7	Agricultural holding tank

When property acquisition is required, TxDOT's acquisition and relocation assistance program would provide assistance and counseling to property owners that would be required to relocate. The relocation assistance program is conducted in accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended; 49 CFR Part 24, Subparts C through F; Title VIII of the Civil Rights Act of 1968 (Federal Fair Housing Law); and TxDOT policies and procedures. Relocation resources would be available, without discrimination, to all affected property owners. Non-residential property owners may be reimbursed for related costs based on TxDOT policies and procedures.

Compliance procedures for federal projects under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) include:

- Provide uniform, fair and equitable treatment of persons whose real property is acquired or who are displaced in connection with federally-funded projects;
- Ensure relocation assistance is provided to displaced persons to lessen the emotional and financial impact of displacement;

- Ensure that no individual or family is displaced unless decent, safe, and sanitary housing is available within the displaced person's financial means;
- Help improve the housing conditions of displaced persons living in substandard housing; and,
- Encourage and expedite acquisition by agreement and without coercion.

5.2 Land Use

This section describes current land use patterns in the proposed project area and the potential effect of the proposed project on existing land uses and proposed developments. Land uses are identified within a one-half mile distance from the existing ROW, and direct impacts are estimated within the proposed ROW. Existing land uses were based on the City of Corpus Christi's Geographic Information System (GIS) data (City of Corpus Christi 2018a). Land uses were further verified during a project site visit and with aerial photographs.

5.2.1 Existing Conditions

The proposed project is located in the unincorporated area of Nueces County, Texas, south of Oso Creek and within the extraterritorial jurisdiction (ETJ) of the City of Corpus Christi. Existing land use in the vicinity of the project corridor consists primarily of agricultural development. Residential development, including estate residential (1-acre lots and greater) and low-density residential land use is mostly located near the SH 286 and CR 20A intersection (including homes on South Prairie Road and Rabbit Run).

Table 5-2 includes the total acres of existing land uses within one-half mile of the existing ROW. Existing land uses in the project area are illustrated in Appendix F, Exhibit 2.

Table 5-2. Land Uses within One-Half Mile of the Existing Right-of-Way

Land Use Description	Acres	Percent
Agriculture/Rural Enterprise	2,252.1	88.1
Commercial	3.5	0.1
Estate Residential	50.4	2.0
Low-Density Residential	3.3	0.1
Public/Semi-Public	48.1	1.9
Transportation	102.8	4.0
Vacant	96.7	3.8
Total	**2,556.9**	-

Source: City of Corpus Christi 2018a

5.2.1.1 Planned Development

The City of Corpus Christi recently annexed property located northwest of the SH 286 and FM 43 intersection. The annexation includes the initial phases of the London Towne subdivision. This subdivision, which will include single-family and multi-family homes, will be annexed and developed in stages, and will total over 200 acres. Two other developing residential communities (The Promenade and Sun George Village) are located approximately 1.5 miles east of the SH 286 corridor on the north side of FM 2444.

The tributary of Oso Creek and its associated 100-year floodplain cross the central portion of the project corridor, limiting the development potential in this area. The City of Corpus Christi and

Nueces County do not allow development to occur within regulatory floodplains without appropriate mitigation.

5.2.1.2 Local Land Use Polices

The City of Corpus Christi's Comprehensive Plan guides future development and growth of land within the city limits and within the city's ETJ, and establishes long-range planning policies. While Comprehensive Plans provide guidance for future land uses and development, these plans do not constitute zoning regulations or establish zoning district boundaries.

The proposed project is located within the unincorporated area of Nueces County and the ETJ of the City of Corpus Christi. In Texas, municipal zoning is limited to the extent of the city limits. Nueces County does not have zoning regulations; therefore, development is mostly regulated through the subdivision platting process or by individual health and nuisance codes and ordinances. The City of Corpus Christi can enforce subdivision within the ETJ regulations through platting approval. The City of Corpus Christi is responsible for extending utility services and infrastructure to new development in the ETJ, and can use this as a means of controlling development. Based on discussions with the Director of Development Services, the City of Corpus Christi does not have any plans to extend wastewater services to undeveloped areas along the project corridor, or plans for future development (City of Corpus Christi 2018b).

5.2.2 Environmental Consequences

All land uses that would be directly impacted by the proposed project would be permanently converted to transportation use. The proposed project would acquire approximately 102 acres of new ROW. Land use in the proposed ROW is mostly agricultural land.

Table 5-3 summarizes the total acres of land use within the proposed ROW.

Table 5-3: Land Uses within the Proposed Right-of-Way

Land Use Description	Acres	Percent
Agriculture/Rural Enterprise	93.1	91.5
Commercial	0.00	0.0
Estate Residential	4.3	4.2
Low-Density Residential	0.7	0.7
Public/Semi-Public	0.00	0.0
Transportation	0.00	0.0
Vacant	3.7	3.6
Total	**101.8**	**-**

Source: City of Corpus Christi 2018a

5.2.3 Encroachment Alteration Effects

The City of Corpus Christi currently does not have plans to extend wastewater services in the future to properties in the ETJ. Lack of utility infrastructure would limit development in the area of the project corridor. With limited utility services, land use would not likely change as result of the proposed project improvements.

5.2.4 Impacts of the No-Build Alternative

The No-Build Alternative would not result in the acquisition of new ROW and no existing land uses would be converted to transportation uses.

5.3 Farmlands

The Farmland Protection Policy Act (FPPA) requires federal agencies "…to identify and take into account the adverse effects of their programs on the preservation of farmland, to consider alternative actions, as appropriate, that could lessen adverse effects, and to ensure that their programs, to the extent practicable, are compatible with State and units of local government and private programs and policies to protect farmland." Under 7 CFR Part 657, the Natural Resources Conservation Service (NRCS) identifies and defines the soil units that qualify as FPPA protected farmland, and the protected farmland is evaluated using the criteria and process provided by the NRCS in 7 CFR Part 658.

5.3.1 Existing Conditions

According to the NRCS Web Soil Survey maps and soil report (NRCS 2018), the project corridor is underlain by three mapping units: Banquete clay, 0 to 1 percent slopes (Ba), Raymondville complex, 0 to 1 percent slopes (CcA), and Victoria clay, 0 to 1 percent slopes (VcA) as listed in Table 5-4. The majority of the project corridor is mapped as Victoria clay, 0 to 1 percent slopes. Soil mapping units that are identified as prime farmland or farmland of statewide importance are displayed in Appendix F, Exhibit 3. The permeability of the soils mapped within the project limits is slow to very slow, and drainage varies from moderately well drained to well drained (Table 5-4). The Banquete clay soil map unit has a hydric soil rating of five, the Victoria Clay has a hydric rating of one, while the remaining Raymondville complex has a hydric soil rating of zero (0) percent hydric.

Table 5-4. Soil Descriptions

Farmland Classification—Summary by Map Unit — Nueces County, Texas					
Map Unit Symbol	Map Unit Name	Natural Drainage Class	Farmland Rating	Acres within Project Area	Hydric Soil Rating
Ba	Banquete clay, 0 to 1 percent slopes	Moderately well drained	Farmland of statewide importance	10.8	5
CcA	Raymondville complex, 0 to 1 percent slopes	Moderately well drained	All areas are prime farmland	0.1	0
VcA	Victoria clay, 0 to 1 percent slopes	Well drained	All areas are prime farmland	156.3	1

Source: NRCS 2018.

Shallow excavation for the installation of signs, drainage modifications, minor cut and fill activities, and leveling of certain portions of the proposed project area would result in soil mixing and potential short-term erosion during the construction period. TxDOT's Hydraulic Design Manual (TxDOT 2016a) provides a discussion of storm water controls, including silt fencing, to be implemented during construction to minimize soil erosion.

5.3.2 Environmental Consequences

Soils associated with prime and unique farmlands and farmlands of statewide or local importance are subject to protection under the FPPA. Soils within the project area are designated as prime farmland and farmland of statewide importance.

The proposed project ROW is underlain by the three soil map units listed in Table 5-4. Approximately 95 acres of prime farmland and approximately seven acres of farmland of statewide importance are mapped in the area of proposed ROW. Coordination with the NRCS was completed in August 2018. The NRCS completed the Farmland Conversion Impact Rating for Corridor Type Projects form (NRCS-

CPA-106) for the project area. The combined rating of the site is 124. The FPPA law states that sites with a rating of less than 160 will need no further consideration for FPPA protection and that no additional FPPA evaluation or NRCS coordination is necessary.

Erosion and sedimentation best management practices (BMPs) as specified by the Texas Commission on Environmental Quality (TCEQ) would be implemented during construction to protect water quality. Use of BMPs during construction would minimize potential adverse impacts from erosion and sedimentation, especially in areas of water crossings.

5.3.3 Encroachment Alteration Effects

SH 286 is an established roadway; however, some areas within the proposed ROW and surrounding areas are currently undeveloped and are classified as farmland/ranch land use. Farmland impacts would be limited to areas directly adjacent to the existing roadway and would not result in the division or separation of existing agricultural land. Farmlands would continue to function as they do under existing conditions; therefore, indirect effects stemming from farmland impacts are not anticipated as a result of the Build Alternative.

5.3.4 Impacts of the No-Build Alternative

Under the No-Build Alternative, the existing soils, including soils associated with prime farmland and farmland of statewide importance would not be directly impacted by roadway construction. However, soil impacts could occur from other development projects and activities.

5.4 Utilities/Emergency Services

5.4.1 Existing Conditions

5.4.1.1 Utilities

Several utilities are within or in proximity to the proposed project area. Utilities include water wells, oil and gas wells, underground pipelines and overhead utilities. Generally, overhead electric and cable lines and a water supply line are located on the west side of SH 286. An underground gas pipeline and a fiber-optic utility line are located on the east side of SH 286. There are also several pipeline crossings along the SH 286 corridor.

Texas Water Development Board (TWDB) records were searched for information pertaining to water wells in the project area. No existing water wells are within the existing or proposed ROW, or within one mile of the project. A few widely interspersed water wells are located on the west side of the project corridor between CR 51 and CR 49.

A search of Railroad Commission of Texas records was conducted for oil and gas well information in the vicinity of the proposed project. No oil and gas wells are documented within the area of the existing and proposed ROW. Nine dry holes are located in the project area within one mile on either side of the SH 286 corridor.

5.4.1.2 Emergency Services

SH 286, FM 43, and FM 2444 are emergency response routes, and FM 43 and FM 2444 currently intersect SH 286. The City of Corpus Christi Fire Station 6 (6713 Weber Road) provides emergency response to the northern portion of the project area, and Corpus Christi Fire Station 17 (6869 Yorktown Boulevard) provides emergency response to the southern portion of the project area.

5.4.2 Environmental Consequences

5.4.2.1 Utilities

Based on preliminary determinations, two utilities would require relocation; overhead electric and cable lines and a water supply line. Other utilities may be in conflict with either the drainage improvements and/or roadway improvements. The extent of required utility adjustments is not known at this time and would be determined during final design. Once the extent of required utility adjustments is determined, coordination with utility owners would be conducted. All utility adjustments would be in accordance with TxDOT policies. The adjustment and relocation of any utilities would be performed such that no substantial interruptions in service would occur while the utility adjustments are being made.

Disturbance of underground pipelines would be avoided during construction to the extent possible. Prior to the initiation of construction activities, the locations of pipelines and underground utilities would be verified with the pipeline/utility company. TxDOT would coordinate with pipeline companies to minimize construction related and potential operational effects.

5.4.2.2 Emergency Services

The proposed project improvements would not affect access to emergency routes; therefore, no impacts to response times would be anticipated. SH 286, FM 43, and FM 2444 are emergency response routes, and FM 43 and FM 2444 currently intersect SH 286. Proposed improvements to SH 286 would include overpasses at these intersections, which would allow emergency vehicles to travel on SH 286 without having to stop at the intersections. During construction, TxDOT would maintain northbound and southbound access along SH 286, and cross streets would remain open.

The proposed improvements would include additional travel lanes on SH 286 and continuous inside and outside shoulders. With the additional capacity on SH 286, mobility would be improved, and in turn, response times would improve. The addition of inside and outside shoulders would allow stalled vehicles to be removed from the travel lane.

5.4.3 Encroachment Alteration Effects

No indirect effects are anticipated for utility services or emergency response services.

5.4.4 Impacts of the No-Build Alternative

The No-Build Alternative would not impact any existing utilities in the project area.

The No-Build Alternative would not improve mobility or response times for fire, police, or ambulance emergency services in the project area. Decreased mobility in the future could slow response times.

5.5 Bicycle and Pedestrian Facilities

5.5.1 Existing Conditions

No bike lanes or pedestrian pathways are located along the existing SH 286 project corridor, and there were no indications that pedestrians or cyclists travel on or across the existing roadway to reach local facilities or events.

5.5.2 Environmental Consequences

In accordance with the United States (U.S.) Department of Transportation "Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations", TxDOT will include bicycle and pedestrian accommodations as part of the proposed project improvements (U.S. Department of Transportation 2010). As shown in the schematics (Appendix C), the proposed project design would include two 12-foot northbound frontage road lanes, two 12-foot southbound frontage road lanes, 12-foot exterior shoulders, and 5-foot sidewalks. The sidewalks would be located outside

of the exterior shoulders of the frontage roads on the east and west sides of SH 286. The 12-foot exterior shoulders could be used as shared-use bicycle pathways. New pedestrian crossings would be added along the frontage roads at major intersections and would be designed in accordance with Americans with Disabilities Act requirements. The proposed design would include pedestrian sidewalks and exterior shoulders along the frontage road bridges crossing the Oso Creek tributary.

5.5.3 Encroachment Alteration Effects

The proposed sidewalks paralleling the frontage roads could increase bicycle and pedestrian activity in the project area.

5.5.4 Impacts of the No-Build Alternative

The No-Build Alternative would not provide accommodations for bicyclists and pedestrians in the project area. New pedestrian crossings would not be added along the frontage roads at major intersections, and sidewalks would not be added outside of the frontage roads.

5.6 Community Impacts

This section addresses impacts to community facilities, community cohesion, access and travel patterns, environmental justice (EJ) populations, and Limited English Proficiency (LEP) persons in the project area. A *Community Impacts Assessment Technical Report* was prepared for the proposed project and is available for review at the TxDOT Corpus Christi District Office. Other impacts to community resources, such as traffic noise and construction phase impacts, are discussed in Sections 5.14 and 5.17.

5.6.1 Existing Conditions

Residential areas and community facilities were identified approximately two miles on either side of SH 286 to include surrounding communities and neighborhoods that frequently access SH 286. Specific impacts to community resources were evaluated for facilities in the proposed ROW. Community facilities in the project area are illustrated in Appendix F, Exhibit 4.

Demographic and income data was compiled from the U.S. Census Bureau. The proposed project is located within one Census tract, one Census block group, and nine Census blocks (Appendix F, Exhibit 5). Due to the rural nature of the project area, the Census tract and block group include a large geographic area that may not be directly adjacent to the proposed project. A Census tract typically encompasses a population of approximately 4,000 people. Census tracts are considered small statistical subdivisions of a county. A Census block group is a collection of Census blocks within a defined Census tract (U.S. Census Bureau 2018). Race/ ethnicity, population, income, and LEP data were examined for the proposed project, as discussed in Sections 5.6.1.3 and 5.6.1.4

5.6.1.1 Community Resources and Cohesion

The proposed project is located in the unincorporated area of Nueces County, Texas, south of Oso Creek and within the ETJ of the City of Corpus Christi. The project area is generally rural and undeveloped agricultural land. Most residences along the project corridor are located on large rural parcels on the west side of SH 286 between CR 22 and FM 2444. Several residences are located near the SH 286 and CR 20A intersection (including homes on South Prairie Road and Rabbit Run). Two single-family homes are located on the east side of SH 286 between FM 43 and FM 2444. Two homes located near the intersection of SH 286 and CR 22 and a home between CR 20A and FM 2444 appear to be unoccupied. Other residential communities near the project corridor include the London area subdivisions that are approximately one mile west of the project corridor on FM 43, and The Promenade and Sun George Village subdivisions that are approximately 1.5 miles east of the project corridor on FM 2444. No residences, businesses, or community facilities are located along the project corridor on the west side of SH 286 between FM 43 and CR 22.

The City of Corpus Christi recently annexed property near the London area communities in the northwest portion of the community resources study area. The annexation includes the initial phases of the London Towne subdivision. This subdivision, which will total over 200 acres and will include single-family and multi-family homes, will be annexed and developed in stages (City of Corpus Christi 2018c).

Community facilities in the study area include places of worship and schools. Church Unlimited is located north of FM 43 and north of the project limits. The Chua Huong Dam Buddhist Center is a Vietnamese Buddhist temple located approximately 1.4 miles west of SH 286 on FM 43. The London Elementary, Middle, and High Schools and the Early Scholars Academy are located approximately 1.5 miles west of SH 286 on FM 43. The Play Extreme Sports & Store is a recreational facility located on the east side of SH 286 between CR 20A and FM 2444. No other community centers, public facilities, or parks were identified in the project area.

5.6.1.2 Access and Travel Patterns

The existing SH 286 in the project area is a two-lane undivided rural roadway with one southbound main lane and one northbound main lane. Currently, businesses and residences along the project corridor have direct access to northbound and southbound lanes on SH 286. No mass transit facilities, bikeways, or pedestrian pathways or sidewalks were identified along the project corridor. No signs for bus stops were observed along the project corridor.

The Corpus Christi Metropolitan Planning Organization (MPO) and the City of Corpus Christi are evaluating alternative transportation routes between Corpus Christi and the Padre Island area to accommodate projected growth and increased traffic along existing roadways on the south side of Corpus Christi. In 2017, the Corpus Christi MPO and the City of Corpus Christi completed the Regional Parkway Planning and Environmental Linkages (PEL) Study. The Regional Parkway study area is composed of two segments (Segments A and B) that are located east of SH 286. Information generated from the PEL Study will be used to plan future development phases of the Regional Parkway.

5.6.1.3 Environmental Justice

Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low income populations." The Federal Highway Administration (FHWA) has identified three fundamental principles of EJ:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects on minority and/or low-income populations;
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
3. To prevent the denial of, reduction in, or significant delay in receipt of benefits by minority populations.

Demographic data from the 2010 U.S. Census Bureau and median household income data from the 2012 to 2016 American Community Survey (ACS) five-year survey was used to identify high-minority and low-income population areas. Data for minority populations is provided at the Census block level, and data for low-income populations is provided at the Census block group level. Minority persons include Black (or African-American), Hispanic, American Indian, Alaska Native, Pacific Islander, and Asian-American persons (Council on Environmental Quality 1997). Census blocks with a minority population greater than 50 percent are considered high-minority areas. A low-income

population is defined as a group of people and/or a community that, as a whole, live at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines (FHWA 2012). Poverty guidelines are categorized by the number of persons living in a household. The poverty guidelines for a family of four people in 2018 (in the 48 contiguous states), as defined by HHS, is a total annual median household income of $25,100 (HHS 2018). Census block groups with a median household income that was below the 2018 HHS poverty level are considered low-income areas.

Of the nine Census blocks adjacent to the project corridor, six of the Census blocks have a reported zero population. A determination of the ethnicity of the area population was based on population data reported to be greater than zero. Three high-minority Census blocks (Census blocks 2039, 2040, and 2050) were identified adjacent to the project corridor (U.S. Census Bureau 2010). Census blocks with high-minority populations are shown in Appendix F, Exhibit 5. The average median household income for the one Census block group is $63,795 (U.S. Census Bureau 2016a), which is above the HHS poverty threshold. Race, ethnicity, and income data is provided in the *Community Impacts Assessment Technical Report*.

5.6.1.4 Limited English Proficiency

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

According to the ACS 2012-2016 five-year estimates, approximately 7.2 percent of the population within the one Census block group speaks English less than "very well," which is considered LEP. Of the 7.2 percent LEP population, approximately 62.6 percent of LEP persons speak Asian and Pacific Islander languages, and 37.4 percent of LEP persons speak Spanish (U.S. Census Bureau 2016b).

LEP population totals and languages spoken for the one Census tract and block group in the proposed project area are included in the *Community Impacts Assessment Technical Report*. No indicators of LEP populations, such as signage in languages other than English, were observed in the immediate vicinity of the project area during field investigations and surveys. A Vietnamese Buddhist temple (Chua Huong Dam Buddhist Center) was identified approximately 1.4 miles west of the proposed project (Appendix F, Exhibit 4). Public outreach to LEP populations is discussed in Section 5.6.2.4.

5.6.2 Environmental Consequences

5.6.2.1 Community Resources and Cohesion

SH 286 is an existing roadway with residential areas and communities on either side of the highway, and the proposed project would not change that separation. The project corridor is in a rural area, and most residences along the project corridor are on the west side of SH 286 between CR 22 and FM 2444. The proposed improvements to SH 286 would widen the separation between the east and west sides of the roadway and change access in some areas; however, the proposed project would not create a new barrier between communities or restrict access to residential areas.

The proposed ROW would potentially displace five single-family homes, three of which appear to be unoccupied. The loss of the unoccupied homes would not affect community cohesion. The proposed ROW would reduce a portion of some residential properties on the west side of SH 286 between CR 22 and FM 2444. These homes would not be displaced; however, the proposed ROW would move the roadway closer to the homes, potentially diminishing the rural character of the community.

No schools, churches, community centers, parks, or public facilities would be directly impacted by the proposed project.

The proposed project would not affect the way people within the community participate in local activities and would not change or restrict use of local services and community facilities. The proposed project would have minimal impacts on how residents access other parts of the project area. Consequently, the proposed project is not anticipated to affect community cohesion.

The proposed project would result in a predicted increase in traffic noise near residences on the west side of SH 286 between CR 22 and FM 2444. However, the predicted noise increase would not result in traffic noise impacts per *TxDOT's Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011). A detailed analysis of traffic noise impacts and locations of modeled receiver sites are identified and discussed in detail in the *Traffic Noise Technical Report*. As noted in the *Traffic Noise Technical Report*, none of the receivers are expected to be exposed to construction noise for a long duration; therefore, extended disruption of normal activities is not expected. Provisions would be included in the construction 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.

5.6.2.2 Access and Travel Patterns

As a proposed controlled access facility, SH 286 would have ingress and egress access points to the freeway. No SH 286 entrance or exit ramps are proposed between CR 22 and CR 20A. The residences and businesses on the east side of SH 286 that are located between these intersections would not have direct access to southbound lanes on SH 286, and residences and businesses on the west side of SH 286 that are located between these intersections would not have direct access to northbound lanes on SH 286. Vehicles would have to travel farther north or south on the frontage roads and make a U-turn at the closest intersection to access the SH 286 entrance ramps on the opposite side of the freeway, which would result in increased travel time and travel distance. Throughout the project corridor, travel distances could increase between approximately 0.8 mile to 1.5 miles, and travel times would increase by approximately 1.5 to 2.5 minutes.

The residence and businesses on the east side of SH 286 between FM 43 and CR 22 would not have direct access to southbound lanes on SH 286. A southbound entrance ramp to SH 286 would be located north of the CR 22/SH 286 intersection. Vehicles would have to travel north to the FM 43/SH 286 intersection and make a U-turn to access SH 286 southbound traffic. Residences on the west side of SH 286 between CR 22 and CR 20A would not have direct access to northbound lanes on SH 286. The northbound entrance ramp to SH 286 would be located south of the FM 43 overpass. Vehicles would have to travel south to the CR 20A/SH 286 intersection and make a U-turn to access SH 286 northbound traffic towards Corpus Christi. Residences and businesses on the west side of SH 286 between CR 20A and FM 2444 would not have direct access to northbound lanes on SH 286. Vehicles would have to make a U-turn at FM 2444 to access SH 286 northbound traffic. The businesses and residence on the east side of SH 286 between CR 20A and FM 2444 would not have direct access to southbound lanes on SH 286. Vehicles would have to travel north to the CR 20A intersection and make a U-turn to access SH 286 southbound lanes.

Within the project corridor, FM 43, CR 22, CR 20A, and FM 2444 intersect SH 286. Proposed improvements to SH 286 would include overpasses at these intersections and U-turns under each overpass. The majority of residential areas in the community study area are currently located along roadways that intersect SH 286, and residents would be able to access northbound and southbound SH 286 lanes at the intersections without increasing travel time or distance. Northbound and southbound access to SH 286 would remain at the FM 43 intersection; therefore, residential areas and businesses in the London area would not be affected. Northbound and southbound access to SH 286 would remain at the CR 20A intersection; therefore, the residents on South Prairie Road

would not be affected. The proposed improvements would not result in the loss of access to residential areas.

During construction, TxDOT would maintain northbound and southbound travel lanes along SH 286 and access to cross streets. Construction would be sequenced such that the existing lanes of SH 286 would remain open while the at-grade southbound frontage road is constructed. The southbound frontage road would then be used to accommodate two-way traffic while the at-grade northbound frontage road is constructed. The main lanes would be constructed last. Similar to existing conditions, at least one lane of traffic in each direction would remain open during construction.

The minimum clearance under the proposed SH 286 overpasses at CR 20A, CR 22, and FM 2444 would be 18.5 feet. Vehicles with oversize loads (e.g., large farming equipment) in excess of the height clearance would not be able to cross SH 286 at these intersections. CR 18, which is one mile south of FM 2444, is the closest at-grade intersection without an overpass. In Texas, the maximum height limit for vehicles and loads allowed without a permit is 14 feet from the roadbed to the highest point of the load or vehicle. The maximum height allowed for vehicles with a permit (without a route inspection certification) is 18 feet, 11 inches (Texas Department of Motor Vehicles 2018).

The proposed project would provide a safer roadway facility for traveling to local destinations, and to Corpus Christi and other surrounding towns/cities. In addition, the proposed project would provide improved connectivity to FM 43, a designated hurricane evacuation route. Improving the connectivity from FM 2444 to FM 43 would afford residents residing in the southern portion of Corpus Christi the option to evacuate on FM 43.

The proposed improvements would include additional travel lanes on SH 286 and continuous inside and outside shoulders. With the additional capacity on SH 286, mobility would be improved. The addition of inside and outside shoulders would allow stalled vehicles to be removed from the travel lane.

5.6.2.3 Environmental Justice

The proposed project is located in a rural area, and the population within the Census blocks adjacent to the proposed project is approximately 80 persons. Approximately 72.7 percent of the population within the Census blocks adjacent to the proposed project is high-minority. No low-income populations were identified in the project area. Potential impacts to EJ persons/populations in the project area include potential displacements, increased traffic noise near residences, and changes in travel patterns and access.

The proposed project would potentially displace five single-family residential structures, all of which are located within Census blocks with a 50 percent or higher minority population. Three of these residences appear to be unoccupied. The two occupied residences that would be potentially displaced are located on parcels that are not completely developed; therefore, these residents may be able to rebuild on the vacant portions of their property.

The proposed project would result in a predicted increase in traffic noise near four residences on the west side of SH 286 between CR 22 and FM 2444. However, the predicted noise increase would not result in traffic noise impacts per *TxDOT's Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011). These residences are located within Census blocks with high-minority populations. Details of the analysis are in the *Traffic Noise Technical Report*.

The proposed project would affect travel patterns in some areas; however, impacts to travel patterns and changes in access would not be limited to the high-minority Census blocks, and would not result in disproportionately high or adverse impacts to minority populations. Most of the residences in

high-minority areas are located along roadways that intersect SH 286. These residents would be able to access northbound and southbound SH 286 lanes at the intersections without increasing travel time or distance. Improved safety and mobility would be a benefit to residents in the area.

Proposed project improvements would include continuous 5-foot sidewalks and 12-foot shoulders along the outside frontage road lanes to accommodate pedestrian and bicycle traffic. These improvements would benefit adjacent property owners, including EJ individuals/populations.

The proposed project would impact areas with EJ populations; however, the project area is not densely populated, and adjacent areas are available for displaced residents to rebuild. Therefore, disproportionately high and adverse impacts to minority or low-income populations would not be anticipated.

5.6.2.4 Limited English Proficiency

The proposed project is not anticipated to have adverse impacts to LEP individuals/households in the project area because TxDOT has and will continue to ensure opportunities for community input throughout the NEPA process. TxDOT held public meetings in August 2017 and December 2017 to present the proposed SH 286 improvements from FM 43 to south of FM 2444 and to solicit community input. Public meeting notices in English and Spanish were mailed to elected officials and adjacent property owners, and published on the TxDOT website. The meeting notices were published in English and Spanish in the Corpus Christi Caller Times. Project materials were available in English and Spanish, and comment cards were available in English and Spanish for attendees to submit written comments of their concerns regarding the proposed project. As stated in the public notice, TxDOT would provide language interpreters at the meetings if requested in advance; however, no requests were received.

A public hearing was held on February 28, 2019, and similar to the public meetings, meeting notices and materials were printed in English and Spanish. No requests for language interpreters were received. A number of LEP persons in the project area were identified as speaking Asian and Pacific Islander languages. Prior to the public hearing, project information was translated into Vietnamese and provided to the Chua Huong Dam Buddhist Center located in the general vicinity of the project to provide the opportunity to participate in the in the public involvement activities for the project.

5.6.3 Encroachment Alteration Effects

The proposed project is not expected to induce development, and no indirect impacts to community cohesion would be anticipated. The proposed improvements would support ongoing and future development, which could influence property values in the project area over time. Nearby neighborhoods and communities, including areas with EJ populations, could be adversely impacted as traffic increases in future years. Increased traffic noise could affect the value of some properties adjacent to project corridor. Proposed ROW requirements that would move the roadway closer to residential areas could potentially diminish the rural character of the community.

The proposed project improvements would not displace community facilities that would result in relocation of services. The proposed project would not affect the way residents in the community access community facilities and would not change or restrict use of local services and community facilities. Consequently, no indirect impacts to community facilities and services would be anticipated.

Because the proposed project is not a new location roadway, it would not provide access to new areas for development, or substantially change access. Based on discussions with local planning officials, the proposed SH 286 project is not expected to cause induced growth; however, the proposed improvements would be able to support ongoing and future development. Future

development, coupled with potential construction of the Regional Parkway, would be supported by the improved SH 286 facility.

The proposed frontage road outer shoulders and sidewalks paralleling the frontage roads could increase bicycle and pedestrian activity in the project area.

5.6.4 Impacts of the No-Build Alternative

The No-Build Alternative would not result in direct impacts to neighborhoods or community facilities, and would not displace any homes or move the roadway closer to homes. The existing rural character of the community would not be affected. Under the No-Build Alternative, residential areas would not be subject to temporary construction noise impacts. However, the community would not experience the benefits of improved mobility and safety conditions resulting from the proposed project.

Under the No-Build Alternative, SH 286 would not be a controlled access facility, and businesses and residences along the project corridor would continue to have direct access to northbound and southbound lanes on SH 286. ADT on SH 286 from FM 43 to south of FM 2444 has been predicted to increase from approximately 7,500 VPD in 2017 to approximately 43,400 VPD in 2045 as a result of projected growth in the area. The No-Build Alternative would not improve safety, mobility, or enhance regional connectivity.

The No-Build Alternative would not provide accommodations for bicyclists and pedestrians in the project area. New pedestrian crossings would not be added at major intersections, and sidewalks would not be added outside the frontage roads.

5.7 Visual/Aesthetics Impacts

Aesthetic quality refers to an individual's perception of natural beauty in a landscape. The analysis of visual and aesthetic impacts includes a description of the existing visible natural and cultural landscape features that contribute to a viewer's perception of an area, an assessment of any beneficial, adverse, or neutral visual impacts, and any mitigation measures to minimize adverse impacts. Several factors are considered when assessing visual impacts, which may include:

- Existing landscape characteristics, including common vegetation in the area, and elevation changes
- Historical or unique landscape features in relation to the region as a whole
- Number and groups of potential viewers
- Viewshed, which includes the viewers' focus and range of sight lines
- Duration of the view
- Level of previous modifications or disturbances to the landscape

5.7.1 Existing Conditions

The area around the project occurs in the Western Gulf Coastal Plain ecoregion, which contains Agriculture, Disturbed Prairie, Open Water, Scrub, Thornscrub, Shrubland, Tallgrass Prairie Grassland, and Urban vegetation types. The topography of the area is mostly flat, and there are no key natural visual resources in the project area. The primary viewshed includes expansive views of flat land with a few rural residences and some trees in the middle-ground and background.

The majority of the project area is agricultural land with scattered rural residential areas. Low-density single-family development and rural residential properties are located along the project corridor. Two homes located near the intersection of SH 286 and CR 22 and a home between CR 20A and FM 2444 appear to be unoccupied, which reduces the orderly appearance of the area. Other residential areas are located approximately one mile west of the project corridor on FM 43 and 1.5 miles east of the project corridor on FM 2444. Four educational facilities, two places of worship, and one recreational business are also located within the project area. The schools and places of worship are located approximately one to two miles from the project corridor, and the recreational facility is located adjacent to the project corridor.

The existing transportation network is a combination of paved roads and gravel/dirt roads. At the northern portion of the project area, near the FM 43 intersection, SH 286 is a four-lane limited access freeway with two-lane frontage roads on either side. SH 286 overpasses FM 43 in the northern portion of the project area.

The project area exhibits a low to moderate degree of visual quality. There are no memorable, dramatic, or distinctive views.

5.7.2 Environmental Consequences

Visual impacts were evaluated based on professional judgement to predict potential impacts of the project design concepts effect on viewer groups' perceptions of the change to the environment. The extent of potential impacts is based on compatibility of the impact, viewer sensitivity of the impact, and the degree of impact (beneficial, adverse, or neutral). Permanent and temporary visual impacts due to roadway improvement, construction activities, and displacement of residences are expected.

The primary viewer groups in the project area are residents and travelers. Other viewer groups in the project area include students at the Early Scholars Academy, London Elementary School, London Middle School, and London High School; attendants of the Church Unlimited and Chua Huong Dam Buddhist Center; and visitors and workers at the Play Extreme Sports & Store. The schools and places of worship are not located along the project corridor, and the proposed project would not adversely impact the viewshed or aesthetic quality of these facilities. The Play Extreme Sports & Store is located along the project corridor between CR 20A and FM 2444, and visitors and workers at the Play Extreme Sports & Store would have a noticeable view of the proposed project. While those closest to the project corridor would suffer the most adverse impacts, the majority of viewers would have neutral visual impacts.

The proposed project would introduce new elevated overpasses at the CR 20A, CR 22, and FM 2444 intersections. The minimum clearance under the proposed overpasses would be 18.5 feet. The elevation of the overpasses within the project corridor would be similar to the existing elevation of SH 286 at the FM 43 intersection. Although the proposed overpasses would be new structures in the viewshed, nearby areas are primarily farmland with a few residences along the project corridor. Viewer sensitivity would be expected to be low, as transportation infrastructure, including the overpass at FM 43, is an existing element within the viewshed.

The proposed ROW would encroach on portions of some residential properties on the west side of SH 286 between CR 22 and FM 2444. While the homes on these properties would not be displaced, the proposed ROW would move the roadway closer to the homes. Ambient light from the roadway would be considered during final design to minimize impacts to residences adjacent to the project. Construction of the proposed project would remove some existing vegetation within the project ROW.

5.7.3 Encroachment Alteration Effects

No indirect effects are anticipated for visual and aesthetic resources.

5.7.4 Impacts of the No-Build Alternative

The No-Build Alternative would not change the existing visual and aesthetic qualities in the area. The SH 286 corridor would continue to be an at-grade roadway with no overpasses and serve as the primary transportation corridor in the area.

5.8 Cultural Resources

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

For transportation projects such as the proposed SH 286 improvements, the project must comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, NEPA, and the Antiquities Code of Texas, and be in accordance with the Advisory Council on Historic Preservation (ACHP) regulations pertaining to the protection of historic properties (36 CFR 800). Historic properties, as defined by the NHPA, are those properties that are included in, or eligible for inclusion in the National Register of Historic Places (NRHP). In addition, the proposed project falls under the purview of the Antiquities Code of Texas due to involving lands owned or controlled by the State of Texas. Compliance is implemented under the First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings (PA-TU) between FHWA, the Texas Historical Commission/State Historical Preservation Officer (THC/SHPO), the ACHP, and TxDOT, and in conjunction with Title 13 of the Texas Administrative Code (TAC) 26.15, Memorandum of Understanding (MOU) and Agreement between TxDOT and the THC/SHPO. Pursuant to Stipulation VI "*Undertakings with the Potential to Cause Effects*" of the PA-TU, TxDOT shall make a reasonable and good faith effort to identify and evaluate cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

5.8.1 Archeology

The following sections detail the background studies completed and the proposed archeological investigations to be completed in compliance with the applicable cultural resources laws.

5.8.1.1 Existing Conditions

The area of potential effects (APE) for archeological resources is defined on the basis of construction schematics/plans and encompasses the limits of the proposed project corridor, permanent and temporary easements, utility relocations, and project-specific locations designated by TxDOT. Background research and literature review were conducted for a 1-kilometer study area around the APE to identify known historic structures, districts, cemeteries, archeological sites, and previous archeological surveys (Appendix F, Exhibit 6). Sources reviewed included the Texas Archeological Sites Atlas and the Texas Historic Sites Atlas, databases maintained by the THC/SHPO, along with aerial photographs, topographic maps, and the Texas State Historical Association's *Handbook of Texas Online*. As a result of the background research and literature review, a single permitted archeological resources survey extends into the APE, which resulted in the discovery of three mid- to late-twentieth century archeological sites within the study area, outside the APE. The three sites – a historic fertilizer tank mount, a historic hydraulic lift, and a historic house foundation – were

removed prior to the widening of SH 286 from SH 358. No additional surveys, previously recorded archeological sites, cemeteries, or historic markers are within the APE.

5.8.1.2 Environmental Consequences

The project proposes the widening of a 3.2-mile segment of SH 286 to a four-lane, divided freeway encompassed within a 400-foot ROW, of which approximately 300 feet would be proposed ROW. Within the proposed ROW, an intensive archeological survey is required prior to construction. Where possible, cutbank profiles along the channelized tributary of Oso Creek would be inspected for the presence of buried archeological deposits, and an examination of the alluvial stratigraphy to determine whether backhoe trenches are necessary. Subsurface investigations, including judgmentally placed shovel tests, would be based on field conditions and conducted in areas designated as having potential for cultural remains (i.e., within 100 meters of the channelized tributary; in areas previously documented as containing no longer extant agricultural buildings; etc.), and areas that exhibit minimal prior disturbances and lack of previous systematic archeological investigations. The presence of intact soils in these areas may contain subsurface archeological materials with the appropriate integrity to be considered eligible for listing in the NRHP or to merit State Antiquities Landmark (SAL) designation.

5.8.2 Historic Properties

A *Project Coordination Request* (PCR) for historic-age resources was submitted to TxDOT Environmental Affairs Division (ENV). As a result of that coordination, TxDOT ENV recommended a reconnaissance-level non-archeological historic-age resources survey of the proposed project area.

5.8.2.1 Existing Conditions

A review of the NRHP, the list of SALs, and the list of Recorded Texas Historic Landmarks indicated no such resources have been previously documented within the historic resources APE. The APE was defined as 150 feet from existing or proposed ROW in sections where the roadway would be widened and require new ROW, and 150 feet from the limits of proposed grade separation structures. A Historical Resources Research Design was completed, and a reconnaissance-level field survey was conducted in December 2018 to identify and document historic-age resources constructed prior to 1977. All resources identified during the survey were evaluated for NRHP eligibility and included in the Historic Resources Survey Report of April 2019.

Pursuant to Stipulation IX "*Undertakings with Potential to Cause Effects*" of the 2015 PA-TU among FHWA, SHPO/THC, the ACHP and TxDOT, no NRHP- or SAL-eligible non-archeological sites were identified within the APE as a result of the reconnaissance field survey. TxDOT historians determined that project activities will not affect historic properties. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects and individual project coordination with SHPO was not required.

5.8.2.2 Environmental Consequences

In compliance with the First Amended Statewide PA-TU, TxDOT historians reviewed the results of the Historic Resources Survey Report of April 2019. In compliance with the Section 106 PA, TxDOT historians determined project activities will not affect historic properties. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects.

5.8.3 Encroachment Alteration Effects

Once the archeological investigations have been completed and concurrence received from the THC/SHPO, any changes to the environment around the proposed project would have no effect on

NRHP-eligible cultural resources. The project would have no indirect effects to archeological sites and historic properties within 1,300 feet of the APE.

5.8.4 Impacts of the No-Build Alternative

No impacts to archeological resources or historic properties would be anticipated as a result of the No-Build Alternative.

5.9 DOT Act Section 4(f), LWCF Act Section 6(f) and PWC Chapter 26

Section 4(f) of the Department of Transportation Act of 1966 prohibits the Secretary of Transportation from approving a program or project that requires the use of any publicly-owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or any land from a historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) unless:

(1) there is no feasible and prudent alternative to the use of such land; and
(2) the project includes all possible planning to minimize harm to the resource.

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act prohibits the conversion of property acquired or developed with a grant under the LWCF Act, as allocated by the Texas Parks and Wildlife Department (TPWD), to a non-recreational site without the approval of the U.S. Department of Interior's (DOI) National Park Service. Section 6(f) directs the DOI to ensure that replacement lands of equal value, location, and usefulness are provided as conditions to such conversion. No properties acquired or developed under LWCF grants, or state-funded projects that have adopted the LWCF guidelines, were identified in the vicinity of the project area (TPWD 2018a).

In addition to Section 4(f) involvement, the use of historic sites, publicly-owned park properties, or wildlife refuge lands requires compliance with Chapter 26 of the Texas Parks and Wildlife Code. Chapter 26 of the Texas Parks and Wildlife Code includes provisions similar to the federal Section 4(f) regulation, including requiring a finding that there is no feasible and prudent alternative to the use or taking of the protected land, that the project includes all reasonable planning to minimize harm, and that a public hearing be held prior to the approval of the use of land from these publicly-owned park properties.

The proposed project would not require the use or take of any public land designated and used as a park, recreation area, scientific area, or wildlife refuge. A reconnaissance-level historic resources survey was conducted in December 2018, and the resulting Historic Resources Survey Report was completed in April 2019. Based on the results of the report, here are no Section 4(f), Section 6(f), or Chapter 26 properties in the project area.

5.10 Water Resources

5.10.1 Section 404 of the Clean Water Act: Waters of the United States

Section 404 of the Clean Water Act (CWA) authorizes the U.S. Army Corps of Engineers (USACE) to regulate discharges of dredged or fill material into waters of the U.S., including wetlands. Additionally, the discharge of dredged or fill material into jurisdictional waters requires CWA Section 401 water quality certification from the TCEQ. EO 11990, Protection of Wetlands, directs federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands on federal lands.

5.10.1.1 Existing Conditions

An identification and delineation of waters of the U.S., including wetlands, was conducted for the existing and proposed ROW associated with the SH 286 project. The delineation consisted of a review of available published recent and historical information and a site investigation to evaluate the project area for the presence of potentially jurisdictional waters and wetlands according to criteria set forth in the 1987 Corps of Engineers *Wetlands Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (v.2). The investigation is documented in the *Water Resources Technical Report*.

Three aquatic resources, collectively totaling approximately 0.40 acre (Table 5-5), were identified within the project limits (Appendix F, Exhibit 7). Two of these resources were excavated open water bodies totaling approximately 0.26 acre. These water bodies are not hydrologically connected to other water courses or water bodies, and therefore are not expected to be aquatic resources regulated by the USACE. The third aquatic resource was a tributary of Oso Creek encompassing approximately 0.14 acre (approximately 600 linear feet) that traverses the mid-portion of the project corridor. As a tributary of a jurisdictional water (Oso Creek), the tributary is expected to be regulated by the USACE. No fringe or adjacent wetlands were observed in association with the tributary. Aquatic resources that are determined by the USACE to be jurisdictional waters of the U.S. would be subject to the permitting requirements of Section 404 of the CWA.

Table 5-5. Potentially Jurisdictional and Non-Jurisdictional Waters of the United States.

Aquatic Feature	Potentially Jurisdictional	Acreage	Linear Feet (approx.)	Square Feet (approx.)	Note
Water Body 1	No	0.14	N/A	6,225	Isolated open water body. Adjacent to CR 22 to the north and crop land to the south.
Water Body 2	No	0.12	N/A	5,373	Isolated open water body. Appears excavated within a maintained pasture. Assumed to be used to water livestock.
Tributary of Oso Creek	Yes	0.14	600	5,975	Improved/rectified channel. Conveys storm water under SH 286 through seven 4-foot by 4-foot box culverts.
Potentially Jurisdictional Waters of the United States					**0.14 Acre**

5.10.1.2 Environmental Consequences

All or portions of the excavated water bodies would likely be filled and graded to prepare the proposed ROW for roadway construction. These water bodies are identified as potentially non-jurisdictional waters of the U.S. and therefore would not require USACE permit authorization prior to the initiation of construction activities.

The tributary of Oso Creek is currently enclosed within culverts as it passes under SH 286. The proposed roadway improvements would span the tributary with bridge structures. While no discharges of dredged or fill material are anticipated to construct the bridge structures, some minor work in the tributary would be required to remove the existing culverts and grade the channel to facilitate the conveyance of storm water flows. This work would be expected to be authorized by

Nationwide Permit (NWP) 14, Linear Transportation Projects, likely without the need for pre-construction notification, as the impact area would be less than 0.10 acre and would not involve discharges into a special aquatic site (i.e., wetlands). As design plans are finalized and areas of anticipated fill are more accurately defined, TxDOT would determine the appropriate level of coordination needed with the USACE regarding permit authorization for unavoidable discharges of dredged or fill material into jurisdictional waters of the U.S. regulated under Section 404 of the CWA.

5.10.1.3 Encroachment Alteration Effects

Impacts to the tributary of Oso Creek would be limited to the proposed project footprint. Waters of the U.S., including wetlands, outside the project footprint would not be expected to be adversely affected. However, impacts to waters of the U.S. resulting from development or changes in land use may permanently remove aquatic resources from the landscape or disrupt natural processes. Such impacts would not be caused by the proposed project, as the proposed roadway improvements are not anticipated to stimulate induced development, but rather would be from growth projected to occur in the general project area. Impacts to jurisdictional waters of the U.S. would be regulated by the USACE and would likely require mitigation as needed to compensate for unavoidable losses and adverse effects.

5.10.1.4 Impacts of the No-Build Alternative

The No-Build Alternative would not result in impacts to waters of the U.S. Water bodies outside the ROW and the tributary of Oso Creek would persist unaltered in their present condition.

5.10.2 Section 401 of the Clean Water Act

The discharge of dredged or fill material into jurisdictional waters of the U.S. requires Section 401 water quality certification from the TCEQ. Prior to obtaining a Section 404 permit, the TCEQ must authorize that the discharge complies with the Texas Surface Water Quality Standards (TSWQS). The TCEQ has certified or conditionally certified that activities conducted under the authority of a USACE nationwide permit would not violate TSWQS.

5.10.2.1 Environmental Consequences

Minor impacts to the tributary of Oso Creek may occur during construction, and would be authorized under NWP 14, Linear Transportation Projects. TxDOT would be in compliance with Section 401 water quality certification conditions for the proposed project. The potential for project-related adverse effects on water quality would be mitigated through the implementation of temporary (construction) and permanent (post-construction) BMPs. To minimize the potential for adverse impacts, BMPs would be regularly inspected and proactively maintained. BMPs would minimize or avoid potential water quality impacts; therefore, mitigation is not required.

5.10.2.2 Encroachments Alteration Effects

Activities associated with the proposed roadway improvements that may require TCEQ water quality certification would be limited to the proposed project footprint. No permanent impacts to water quality would be expected. The proposed project is not anticipated to result in induced development; however, development that occurs outside the project footprint due to projected growth in the overall project area would be required to comply with the TCEQ's TSWQS through the implementation of water quality BMPs or other protective measures.

5.10.2.3 Impacts of the No-Build Alternative

The No-Build Alternative would not result in impacts to waters of the U.S.; thus, no water quality certification from the TCEQ would be required. Water bodies within and outside the existing ROW would likely persist in their present condition.

5.10.3 Executive Order 11990 Wetlands

EO 11990, Protection of Wetlands, established a national policy "to avoid to the extent possible, the long term and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative." The EO applies to the acquisition, management, and disposition of federal lands and facilities construction and/or improvement projects that are undertaken, financed or assisted by federal agencies. The roadway design for the proposed project was modified to include bridge structures to avoid, to the extent practicable, potential adverse impacts to identified waters of the U.S.

5.10.4 Rivers and Harbors Act

The tributary of Oso Creek traversing the project area, identified by the TCEQ as stream segment 2485B, is described as being a tidal stream. However, within the project area, there are no indications of tidal influence. No salt-tolerant vegetation was noted in or near the tributary at the time of the field investigations. Water flow within the tributary has been observed to be very low, and during summer months, the water course becomes intermittent. Therefore, the proposed project does not involve water bodies that are navigable and/or tidally influenced; thus, no coordination would be required with the USACE relative to waters regulated under Section 10 of the Rivers and Harbors Act or the U.S. Coast Guard for bridge structures over navigable waters. Section 14 of the Rivers and Harbors Act, as codified in 33 United States Code 408 (Section 408) allows the USACE to grant other entities permission for temporary or permanent alteration or use of a USACE civil works project. No federal civil works projects are present in the project area; therefore, no Section 408 coordination with the USACE would be required. Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.5 Clean Water Act Section 303(d)

The TCEQ has developed surface water quality standards that apply to all surface waters in the state of Texas (TAC Title 30, Chapter 307). The standards provide a basis on which TCEQ regulatory programs can establish reasonable methods to implement and attain the established goals for water quality. The TCEQ is required under Section 303(d) of the CWA to identify water bodies that do not meet, or are not expected to meet, applicable water quality standards for their designated uses. In compliance with Section 303(d) of the CWA, the TCEQ identifies water bodies in the state that do not meet the TCEQ's TSWQS. The compiled listing of these water bodies is known as the 303(d) List.

The tributary of Oso Creek is identified by TCEQ as stream segment 2485B, and is not listed as a 303(d) impaired water. However, Oso Creek is included in the TCEQ 303(d) List and the TCEQ Index of All Impaired Waters (TCEQ 2014a).

Watershed	Segment Name	Segment Number	Assessment Unit Number
Oso Creek	Oso Creek	2485A	2485A_01

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

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

5.10.6 Clean Water Act Section 402

Pursuant to Section 402 of the CWA, under TCEQ regulations for implementing the Texas Pollutant Discharge Elimination System (TPDES), the proposed project would require a CGP, and the preparation of a Storm Water Pollution Prevention Plan (SW3P).

Since TPDES CGP authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by following the policies and procedures that govern the design and construction phases of the project. TxDOT's *Project Development Process Manual* and *Plans, Specifications, and Estimates (PS&E) Preparation Manual* require that an SW3P 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 TCEQ. The manual 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.

5.10.6.1 Environmental Consequences

The proposed project would disturb more than five acres of land and would thus be considered a "large construction activity" under the CGP. TxDOT would obtain coverage by preparing and implementing an SW3P, posting a construction site notice, submitting an NOI and associated fee to TCEQ, and otherwise complying with the CGP terms.

5.10.6.2 Encroachment Alteration Effects

Indirect effects could occur primarily due to increased impervious surface area, which could result in increased non-point source runoff, altered discharge of storm water (flow and quality) into surface waters, increased localized erosion, and degraded downstream water quality. Effects could also occur in limited areas where vegetation in the proposed project area is removed during construction, which could accelerate off-site erosion due to runoff. Construction of the proposed roadway improvements could encroach on the surface drainage areas of adjacent aquatic features, altering the hydrologic regime in those features. Implementation of BMPs within the proposed project area would minimize water quality effects downstream.

5.10.6.3 Impacts of the No-Build Alternative

The No-Build Alternative would not involve construction activities and therefore would not require a CGP.

5.10.7 Floodplains

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

flood hazard areas (i.e., floodways, 100-year floodplains, and 500-year floodplains). FEMA Flood Insurance Rate Map number 48355C0515G, effective October 23, 2015, was reviewed for the project area (FEMA 2018). The map shows that the majority of the project area is outside of the one-percent annual exceedance probability (AEP or 100-year) floodplain, or other flood hazard area as determined by FEMA (Appendix F, Exhibit 7). Additional floodplain information is documented in the *Water Resources Technical Report.*

5.10.7.1 Environmental Consequences

Approximately 31 acres of the approximately 167 acres of existing and proposed ROW are within the 100-year floodplain associated with the tributary of Oso Creek. The hydraulic design of the proposed project would be in accordance with current TxDOT and FHWA design standards. EO 11988, Floodplain Management, requires that federal agencies avoid activities that directly or indirectly result in the development of floodplain areas.

Hydraulic design information would be coordinated with the local floodplain administrator for Nueces County prior to construction so that the proposed project would not have an adverse effect on floodplains/floodways in the project area. The proposed project would be designed such that natural drainage and/or ponding would not be affected and change the base flood elevation(s) (BFEs) greater than one foot above the one-percent AEP flood elevation at any point in the project area. The proposed project would not increase BFEs to a level that would violate applicable floodplain regulations and ordinances. No alteration or relocation of water bodies is anticipated as a result of the proposed project.

Section 60.3(d)(3) of the National Flood Insurance Program (NFIP) regulations states that a community is to "…prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base (100-year) flood discharge" (FEMA 2000).

Based on NFIP regulations, prior to issuance of construction permits involving activities in a regulated floodway, a letter of no objection must be obtained. The request for the letter of no objection must be supported by technical data stating that construction of the proposed project would not impact the BFEs, floodway elevation(s), or floodway data widths that are present prior to construction.

5.10.7.2 Encroachment Alteration Effects

No indirect effects to floodplains would be anticipated as a result of the proposed project. Future development projects in the general project area would be required to comply with local floodplain ordinances and regulations.

5.10.7.3 Impacts of the No-Build Alternative

The No-Build Alternative would not result in impacts to floodplains. Floodplains within and outside the existing ROW would be expected to persist unaltered in their present condition.

5.10.8 Wild and Scenic Rivers

Under the National Wild and Scenic Rivers Act an inventory is maintained of national rivers or river segments that exhibit outstanding natural, cultural, and recreational value. In Texas, the only river segment listed in the federal inventory is the Rio Grande. The designated segment begins within Big Bend National Park and extends approximately 191 miles downstream (National Park Service 2012). This segment is located over 350 miles west of the proposed project. Neither the Build nor No-Build Alternative would impact this resource.

5.10.9 Coastal Barrier Resources

Following the Coastal Barrier Resources Act (CBRA) Compliance Process within the CBRA Handbook, the CBRA would not apply, as no coastal barriers are located within the proposed project area. The nearest protected units mapped in the Coastal Barrier Resources System are located approximately 12.1 and 13.5 miles east-southeast of the proposed project. Therefore, neither the Build nor the No-Build alternative would have an impact on coastal barrier resources.

5.10.10 Coastal Zone Management

The proposed project area is situated entirely within the limits of the mapped Texas Coastal Management Zone. The Texas General Land Office (GLO) typically requires Coastal Consistency determinations for projects located in the coastal zone, if the project is required to receive permit authorization under Section 10 of the Rivers and Harbors Act or Section 404 of the CWA for impacts to waters of the U.S. The proposed project is expected to require permit authorization from USACE for unavoidable impacts to jurisdictional waters of the U.S. regulated under Section 404 of the CWA. TxDOT reviewed this proposed action for consistency with the Texas Coastal Management Program (Texas CMP) goals and policies in accordance with the regulations of the Coastal Coordination Advisory Council and determined that the proposed action will not have a direct and significant adverse effect on the coastal natural resource areas identified in the applicable policies (31 TAC 505.30(b)(2)). Therefore, no formal coordination with the GLO would be required. Based on a project scoping analysis, it was determined that neither the Build nor the No-Build alternative would have an impact on this resource category or subject matter.

5.10.11 Edwards Aquifer

The proposed project would not be constructed over recharge or contributing zones of the Edwards Aquifer; therefore, the project is not subject to regulation under the TCEQ's Edwards Aquifer rules. Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.12 International Boundary and Water Commission

No project activities would traverse or encroach onto the floodplains of any U.S. Section of an International Boundary and Water Commission (USIBWC) flood control project or ROW. Therefore, no license or permit would be required from the USIBWC. Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.13 Drinking Water Systems

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

The state's Source Water Protection Program (SWPP) is a community-based, voluntary pollution prevention program that helps public water systems (PWSs) protect their drinking water sources. A PWS provides potable water for the public's use. A system must be a certain size to be considered public. There are 20 active PWSs in Nueces County (TCEQ 2018a).

The TWDB's groundwater database was searched for water wells located within the proposed project area. No registered water wells documented in the database were identified in the proposed project area; however, twenty-nine wells are recorded within a five-mile radius of the proposed project. The surrounding wells extract water from the Evangeline and Chicot aquifers. Primary users listed for the wells include domestic, irrigation, stock, unused, geophysical logs, public supply, and plugged or destroyed (TWDB 2017).

5.11 Biological Resources

5.11.1 Texas Parks and Wildlife Coordination

According to TxDOT's *Tier I Site Assessment*, early coordination with TPWD would be required under the TxDOT – TPWD MOU due to the area of disturbance for three MOU habitats being equal to or greater than the MOU acreage thresholds. Early coordination with TPWD was initiated on December 5, 2018 and was completed on March 20, 2019.

5.11.2 Impacts to Vegetation

The proposed project occurs within the Gulf Coast Prairies and Marshes ecoregion. In accordance with the September 2013 MOU between TPWD and TxDOT, revised 2017 (TxDOT 2017), the project area was mapped using the Ecological Mapping Systems of Texas established by TPWD that categorizes the project area into five different vegetation types as described in TPWD's *Descriptions of Systems, Mapping Subsystems, and Vegetation Types for Phase III* and was verified through field investigations. Field-verified vegetation types identified within the project area include: Agriculture; Disturbed Prairie; Open Water; Scrub, Thornscrub, Shrubland; and Urban.

Disturbed areas would be stabilized as soon as the construction schedule permits. Soil disturbance within the project ROW would be minimized to reduce opportunities for invasive species establishment. In accordance with EO 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, seeding and replanting with TxDOT-approved seeding specifications would be performed.

5.11.2.1 Environmental Consequences

The Build Alternative would result in temporary and permanent vegetation impacts. The vegetation types listed above within the existing and proposed ROW would be removed and replaced with herbaceous species that would be routinely maintained by mowing. During construction, TxDOT would only clear areas necessary for required construction activities, and would revegetate these areas as soon as practicable following completion of the construction activities.

As stated in Section 5.11.1, the proposed project would exceed impact acreage thresholds established in the Threshold Programmatic Agreement between TxDOT and TPWD for three habitat types: Agriculture; Disturbed Prairie; and Shrub, Thornscrub, Shrubland. Therefore, coordination with TPWD would be required.

5.11.2.2 Encroachment Alteration Effects

Impacts to vegetation related to the proposed roadway improvements would be confined to the existing and proposed ROW. Potential impacts to vegetation communities outside the proposed project would occur as land use changes transform existing conditions to other uses, including developed conditions, which would likely be more urban in character.

5.11.2.3 Impacts of the No-Build Alternative

Under the No-Build Alternative, the existing ROW would continue to exhibit a herbaceous vegetation community that would be maintained by routine mowing. Maintained and non-maintained areas outside the proposed ROW would continue in their present condition as long as changes in land management practices or land use do not occur.

5.11.3 Executive Order 13112 on Invasive Species

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

5.11.4 Executive Memorandum on Environmentally and Economically Beneficial Landscaping

This project is subject to and will comply with the federal Executive Memorandum on Environmentally and Economically Beneficial Landscaping, effective April 26, 1994. The department implements this Executive Memorandum on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.

5.11.5 Impacts to Wildlife

5.11.5.1 Existing Conditions

The active farmland and generally maintained conditions associated with residences and businesses in the project area limit habitat available for wildlife. Wildlife anticipated to occur in the project area would be species adapted to open farmland and residential conditions. Information regarding wildlife and threatened and endangered species within the proposed project area is presented in the *Biological Evaluation Form* and *Tier I Site Assessment* completed for the project.

5.11.5.2 Environmental Consequences

Implementation of the proposed project is likely to have temporary and permanent impacts to local wildlife. Impacts to wildlife could occur on a temporary basis during construction, as individual animals could be injured or killed by moving machinery. Impacts to wildlife from operation of the improved roadway could occur through the addition of new travel lanes to accommodate increased traffic volumes, which would increase the potential for vehicle strikes. Although areas of existing habitat would be converted to maintained roadway ROW, because of the limited habitat available in the project area, habitat fragmentation would not be a concern. The proposed project would not be expected to adversely affect wildlife populations in the general project area.

In accordance with the Migratory Bird Treaty Act (MBTA), vegetation clearing would occur outside of the nesting season (February 15 through October 1). If vegetation clearing would occur during the nesting season, surveys would be conducted prior to construction to confirm that active nests are not present. If active nests are present, no work would occur in that area during the nesting and breeding season. The proposed project is not anticipated to have an adverse effect on migratory birds. Bird BMPs per the TxDOT Programmatic Agreement of the 2017 MOU between TxDOT and TPWD would be implemented for the proposed project.

The project would have no impact on bald or golden eagles, as no suitable roosting or nesting sites occur within the proposed project area.

5.11.5.3 Encroachment Alteration Effects

The effects of removing areas of particular importance as wildlife habitat would not extend beyond the conditions present within the proposed project construction footprint. Future development in the overall vicinity of the proposed project would be expected to convert areas of existing vegetation to other uses. Development, in general, encroaches on vegetation, and reductions in vegetation typically equate to reduced wildlife habitat. Wildlife habitat in the region has been impacted by prior conversion of grasslands and shrublands to agricultural production and residential/commercial development. As development continues in response to projected growth in the region, areas of existing wildlife habitat would be lost or diminished, thereby limiting habitat availability for use by wildlife. However, herbaceous, shrub, and tree vegetation typically associated with urban development may provide areas of additional habitat for species adapted to urban landscapes.

5.11.5.4 Impacts of the No-Build Alternative

The No-Build Alternative would not require the acquisition of new ROW. Therefore, the existing SH 286 roadway conditions would persist, potentially resulting in occasional vehicle strikes. No impacts to migratory birds, bald eagles or golden eagles would be anticipated.

5.11.6 Migratory Bird Treaty Act of 1918

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

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

The MBTA of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole without a federal permit issued in accordance within the Act's policies and regulations. No active migratory bird nests (nests containing eggs and/or young) would be removed or destroyed at any time of the year. No colonial nests (swallows, for example) on or in structures would be removed until all nests in the colony become inactive.

5.11.7 Fish and Wildlife Coordination Act

The proposed project would result in modifications to and/or fill within the tributary of Oso Creek traversing the mid-portion of the project area. However, the proposed project is expected to be authorized under Section 404 of the CWA by NWP 14, Linear Transportation Projects, and would likely not require pre-construction notification since the area of impact would be less than 0.1 acre and would not involve discharges into a special aquatic site (i.e., wetlands). Therefore, no coordination under the Fish and Wildlife Coordination Act would be required.

5.11.8 Bald and Golden Eagle Protection Act of 2007

Within the U.S. or anywhere within its jurisdiction, bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are protected by the Bald and Golden Eagle Protection Act of 2007. No active or potential nesting and roosting habitats for bald or golden eagles were identified in the proposed project area, as verified by a qualified biologist. Additionally, no bald eagles or bald eagle nests were observed in the project area during field investigations. No known nests are present within 10 miles of the proposed project; therefore, the proposed project is not anticipated to impact bald or golden eagles. Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.11.9 Magnuson-Stevens Fishery Conservation Management Act

The Magnuson-Stevens Fishery Conservation and Management Act, as amended on October 11, 1996, requires all federal agencies whose actions would impact essential fish habitat (EFH) to consult with the National Marine Fisheries Service regarding potential adverse effects. The proposed project does not contain tidally-influenced waters, nor are there any listed EFH areas in the general vicinity of the project area (Appendix F, Exhibit 8). Therefore, the requirements of the Magnuson-Stevens Fishery Management and Conservation Act do not apply. Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.11.10 Marine Mammal Protection Act

This project does not have the potential to affect marine mammals, therefore no action is necessary. Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.11.11 Threatened, Endangered, and Candidate Species

A review of the threatened and endangered species lists for Nueces County, Texas, maintained by the U.S. Fish and Wildlife Service (USFWS) and TPWD, identified federal- and state-listed threatened, endangered, and candidate species, as well as species considered rare by the state. A list of these species, a description of their habitat requirements, identification of habitat present in the project area, and an assessment of effect or impact are presented in the *Tier I Site Assessment* and *Biological Evaluation Form* prepared for the project. TPWD's Texas Natural Diversity Database (TXNDD), species background information, and field visits to the project area were used to assess existing habitat conditions and the likelihood of sensitive species occurrence. The TXNDD is a geo-referenced database maintained by TPWD for documented sightings of rare, threatened, and endangered species, as well as native plant communities in Texas (Appendix G).

Based on the TXNDD, four element of occurrence records were documented within a 1.5-mile radius, and nine element of occurrence records were documented within a 10-mile radius of the proposed project. A list of species and a Listing Status for each species found in the 1.5- and 10-mile radii are presented in the *Tier I Site Assessment* prepared for this project.

The USFWS lists 15 species as potentially occurring in or near the project area, or that may potentially be affected either directly or indirectly by activities within the project area. The federally-listed species include three mammals, five birds, five reptiles, and two flowering plants as noted below. No critical habitat for the listed species has been designated by the USFWS in the project area.

- Gulf Coast jaguarundi (*Herpailurus yagouaroundi cacomitli*) – Endangered
- Ocelot (*Leopardus pardalis*) – Endangered
- West Indian manatee [*Trichechus manatus*]) – Threatened
- Least tern (*Sterna antillarum*) – Endangered
- Northern aplomado falcon (*Falco femoralis septentrionalis*) – Endangered
- Piping plover (*Charadrius melodus*) – Threatened
- Red knot (*Calidris acnutus rufa*) – Threatened
- Whooping crane (*Grus americana*) – Endangered
- Green sea turtle (*Chelonia mydas*) – Threatened
- Hawksbill sea turtle (*Eretmochelys imbricata*) – Endangered
- Kemp's Ridley sea turtle (*Lepidochelys kempii*) – Endangered
- Leatherback sea turtle (*Dermochelys coriacea*) – Endangered
- Loggerhead sea turtle (*Caretta caretta*) – Threatened
- Slender rush-pea (*Hoffmannseggia tenelia*) – Endangered
- South Texas ambrosia (*Ambrosia cheiranthifolia*) – Endangered

The Eskimo curlew (*Numenius borealis*) is federally-listed as an endangered species, and while there is potential suitable habitat in the project area (plowed fields), this species has not been observed in more than 50 years. Therefore, this species is not expected to occur and the proposed project would have no effect on Eskimo curlew.

The project area supports areas of suitable habitat for three state-listed threatened species, Black-spotted newt (*Notophthalmus meridionalis*), Sheep frog (*Hypopachus variolosus*), and Texas Botteri's sparrow (*Aimophila botterii texana*), and two Species of Greatest Conservation Need (SGCN), Plains spotted skunk (*Spilogale putorius interrupta*), and Spot-tailed earless lizard (*Holbrookia lacerata*).

Direct impacts to these species would be mitigated by implementing the TPWD-TxDOT MOU. BMPs are listed in Table 5-6.

Table 5-6. Listed Species that Could Potentially Occur Within the Project Area and Applicable BMPs

Name	Status	BMP
Black-spotted newt (*Notophthalmus meridionalis*)	State Threatened	Amphibian BMPs: ▪ Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered. ▪ Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats. ▪ Maintain hydrologic regime and connections between wetlands and other aquatic features. ▪ Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may directly impact, potential habitat for the target species. ▪ Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable. ▪ Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features. ▪ When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g., downed trees, sand bars, exposed bedrock) and overwinter sites (e.g., brush and debris piles, crayfish burrows) where feasible. ▪ Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible. ▪ If gutters and curbs are part of roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm water drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetland or other aquatic features. ▪ For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction, or whichever is the lesser of the two. ▪ For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs. In addition to BMPs required for a TCEQ SW3P and/or 401 water quality permit, the following Water Quality BMPs will be implemented: ▪ Minimize the use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridge decks, or barges. ▪ When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
Sheep frog (*Hypopachus variolosus*)		

Name	Status	BMP
Spot-tailed earless lizard (*Holbrookia lacerata*)	SGCN	Terrestrial Reptile BMPs: ▪ Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable. ▪ For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling. ▪ Inform contractors that if reptiles are found on project site allow species to safely leave the project area. ▪ Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible. ▪ Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
Texas Botteri's sparrow (*Aimophila botterii texana*)	State Threatened	In addition to complying with the MBTA, perform the following Bird BMPs: ▪ Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed. ▪ Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season. ▪ Avoid the removal of unoccupied, inactive nests, as practicable. ▪ Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair. ▪ Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.
Plains Spotted Skunk (*Spilogale putorius interrupta*)	SGCN	Mammal BMPs ▪ Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.

Source: TxDOT 2017

5.11.11.1 Encroachment Alteration Effects

The project area consists primarily of agricultural cropland and areas disturbed by residential and commercial development. Habitat suitable for supporting federally-listed threatened or endangered species is not present in the general area of the proposed project; therefore, the project would have no effect on federally-listed species. Impacts to suitable habitat for state-listed species and SGCN would be limited to the area of direct project impacts. Implementation of BMPs during project construction would assist in mitigating potential impacts to these species.

As future development occurs in response to projected regional growth, areas of existing vegetation that may provide suitable habitat for sensitive species would be expected to be converted to other uses, thereby reducing the availability of habitat for these species. In addition to direct losses of habitat, continued development may diminish or degrade the quality of remaining habitat areas by adversely affecting water quality, limiting or impeding access to remaining habitat areas, and exposing wildlife to increased encounters with humans and pets.

5.11.11.2 Impacts of the No-Build Alternative

The No-Build Alternative would not require any construction activities and would have no effect on any federal or state listed threatened or endangered species or SGCN.

5.12 Air Quality

5.12.1 Existing Conditions

The proposed project is located in Nueces County, which is in an area designated in attainment or unclassifiable for all National Ambient Air Quality Standards. Therefore, transportation conformity does not apply. The project is not located within a carbon monoxide (CO) or particulate matter (PM) nonattainment or maintenance area; therefore, a project-level hot-spot analysis is not required. Information relative to air quality is documented in the *Air Quality Technical Report*.

5.12.2 Environmental Consequences

The maximum projected traffic volumes for the estimated time of completion year (2025) and design year (2045) are less than 140,000 VPD. A prior TxDOT modeling study and previous analyses of similar projects has demonstrated that it is unlikely that the CO standard would be exceeded as a result of any project with an annual ADT below 140,000; therefore, a traffic air quality analysis would not be required.

Vehicle emissions of mobile source air toxics (MSATs) would be proportional to VMT, assuming that other variables such as fleet mix are the same. VMT estimated for the Build Alternative would be expected to be slightly higher than the No-Build Alternative because the additional roadway capacity would increase the efficiency of the roadway and attract rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the Build Alternative along the project corridor, but would be accompanied by a corresponding decrease in MSAT emissions along parallel routes. The emissions increase would be somewhat offset by lower MSAT emission rates due to increased speeds. According to the Environmental Protection Agency's (EPA) MOVES2014 model, emissions of all priority MSATs decrease as speed increases. EPA regulations for vehicle engines and fuels would 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 MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for priority MSATs from 2010 to 2050, while VMT is projected to increase by over 45 percent (FHWA 2016). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the projected

decrease in emissions would reduce the background level of MSAT emissions and the possibility of even minor MSAT emissions for the proposed project.

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

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed project. A qualitative MSAT analysis is documented in the *Air Quality Technical Report*.

The proposed project is located within an attainment area for ozone and CO; therefore, a project-level congestion management process analysis is not required.

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

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

However, considering the temporary and transient nature of construction-related emissions, the use of fugitive dust control measures, the encouragement of the use of TERP, and compliance with applicable regulatory requirements, it is not anticipated that emissions from construction of the proposed project would have a significant impact on air quality in the area.

5.12.3 Encroachment Alteration Effects

Present and future VMT and the associated MSAT emissions and CO emissions resulting from the proposed project are considered a direct effect and were considered in the air quality analysis. The proposed project is not expected to have indirect impacts to air quality.

5.12.4 Impacts of the No-Build Alternative

Implementation of the No-Build alternative would not impact the overall regional air quality.

5.13 Hazardous Materials

This section describes baseline conditions and the potential for hazardous materials issues to occur for the Build and No-Build Alternatives. The information presented is summarized from the *Hazardous Materials Initial Site Assessment* (ISA) prepared for the proposed project. TxDOT District staff completed the property questionnaire for the ISA. The completed property questionnaire was accompanied by the 2015 Affected Property Assessment Report (APAR) prepared for the property adjacent to the proposed ROW in the area of the northwest corner of SH 286 and FM 43. TxDOT District staff also indicated that pits and ponds (borrow areas) within the proposed project area needed to be investigated. The completed property questionnaire is located in Appendix G and the APAR is located in Appendix H of the *Hazardous Materials ISA*.

5.13.1 Existing Conditions

SH 286 (Chapman Ranch Road) was initially constructed in 1931 to provide access to agricultural operations near the roadway that included cotton farming, cotton ginning, cattle grazing, hay production, and meat production. Cotton gins were located at road intersections with SH 286, and hazardous materials sites were likely to have been located at roadway intersections (e.g., CR 20A, CR 22, FM 43 and FM 2444).

The *Hazardous Materials ISA* conducted for the proposed project includes the GeoSearch Radius Report© issued for the proposed project (see Appendix B of the *Hazardous Materials ISA*) and also summarizes TxDOT's APAR issued to the TCEQ to document remediation that occurred and to obtain closure concurrence (Appendix H of the *Hazardous Materials ISA*). Soil excavation and the removal of three, above-ground concrete tanks containing 1,500 gallons of oily wastewater were necessary before TxDOT could continue with construction of the SH 286 overpass at FM 43. Based on the findings of the APAR, TCEQ agreed that assessment and remediation activities were complete and no further action was needed (TCEQ 2018b).

Based on the GeoSearch Radius Report©, no regulated sites with locatable addresses were identified in the vicinity of the proposed project; however, hazardous materials sites with addresses of 9995 or 9998 Chapman Ranch Road are classified as "unplottable." Using Google® maps, the addresses of 9995 and 9998 Chapman Ranch Road correspond to the southwest corner of the intersection of SH 286 and FM 43. The unplottable sites that may potentially impact the proposed project include:

- Petroleum Storage Tank (PST) and Leaking Petroleum Storage Tank (LPST) ID #109900 (former GASCO #3)
- LPST ID #111820
- PST ID #66026 ("Pronto Distributing")
- PST ID #51376 (Benefield Distributing Company)

All of the above unplottable PST and/or LPST sites have been owned by TxDOT since 2008 and are classified by the TCEQ as inactive, since the tanks have been removed from the ground and site closure has occurred (Appendix J of the *Hazardous Materials ISA*).

For PST ID #66026, registration records indicate that the above-ground storage tank was registered as a 10,000-gallon diesel tank that was used for fleet refueling. The above-ground storage tank (AST) was installed, registered, and taken out of use all within a two- week period in 1994; no further action is needed. The site is closed per TCEQ records (Appendix J of the *Hazardous Materials ISA*).

For PST ID #51376, Benefield Distributing Company, TCEQ correspondence and the registration notice describe three, 27,000-gallon, steel ASTs containing gasoline that were installed in 1989 and surrounded by an earthen berm. Installation, registration and removal occurred in a short time

period. In 2004, the status of PST ID #51376 changed to inactive and no further action is needed per TCEQ records (Appendix J of the *Hazardous Materials ISA*).

A Cole City Directory search was conducted to gain insight into past operations and potential hazardous materials use in the proposed project vicinity (Appendix E of the *Hazardous Materials ISA*).

TxDOT District staff requested additional information concerning pits and ponds located in the project vicinity (Appendix G of the *Hazardous Materials ISA*). These pits or ponds may be stock tanks, ornamental ponds, borrow areas, and drainage or landscaping improvements. Along SH 286, and near the tributary of Oso Creek, pits are present as well as haul roads, stockpiles, and staging areas. No TCEQ aggregate production operation records are available, and the TPWD has not issued a marl, sand or gravel permit for these operations (TPWD 2018b). A hazardous material site evaluation map, indicating that additional information is needed to determine potential project impacts, illustrates the location of pit and pond areas as well as those properties lacking ROE that also require additional investigation (Appendix F, Exhibit 9).

The site reconnaissance was limited to properties with approved ROE and much of the project area was not inspected, which is a limitation to the *Hazardous Materials ISA* process. An AST or stock tank (possibly concrete) was noted within the proposed ROW during the site reconnaissance at a property without ROE. The approximate address is 2063 SH 286, south of the tributary of Oso Creek and north of FM 2444. The presence of an above-ground concrete tank within the proposed project ROW is notable because TxDOT's APAR documented the disposal of 1,500 gallons of oily wastewater from concrete above-ground tanks that were associated with remediation that was required before construction could resume for the SH 286 overpass (Appendix H of the *Hazardous Materials ISA*).

5.13.2 Environmental Consequences

The proposed project would include construction of an at-grade roadway and bridge structures, relocation and installation of utilities, and demolition of structures, including buildings. These construction activities would require excavation and stockpiling of excavated surface and subsurface soils. Excavation may increase the potential of encountering hazardous material contamination. Ground-disturbing activities would likely occur along SH 286 at locations where utilities would require relocation and at the culverted crossing of the tributary of Oso Creek. Depending on the depth of planned excavation, underground petroleum product pipelines may require relocation.

Planning and hazardous materials review/management would occur prior to ROW acquisition in accordance with the latest TxDOT requirements. Existing facilities and properties that require additional investigation related to potential hazardous materials concern have been identified as shown in Appendix F, Exhibit 9. As needed, detailed subsurface investigation plans to address potential contamination issues outlined by the *Hazardous Materials ISA* will be finalized after file research and review, and the type, locations, and depths of utility excavations are determined. Necessary subsurface investigations would occur prior to construction.

The proposed project would require the demolition of building structures and the demolition of roadway structures. Building structures may contain asbestos and/or lead-based paint (LBP) that would represent a hazardous materials concern. Asbestos issues would be addressed during ROW acquisition prior to construction.

Storage and use of hazardous materials would be necessary during project construction. Construction activities associated with the use and storage of hazardous materials would be required to conform to TxDOT standards for spill containment and control strategies.

Unanticipated hazardous materials and/or petroleum contamination encountered during construction would be addressed in accordance with applicable federal and state regulations per TxDOT standard specifications. Special Provisions 006-012 and 006-013 of the *General Provisions of the Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges* would be followed. As needed, TxDOT would comply with the Texas Aggregate Quarry and Pit Safety Act requirements for waste areas or material source areas.

None of the anticipated activities associated with highway operation would be expected to cause or be affected by hazardous materials concerns.

5.13.3 Encroachment Alteration Effects

Indirect effects are those that may affect the functions of the natural or human environment due to proposed project features. Hazardous materials are not considered to be part of or a function of the natural or human environment. Indirect effects relative to hazardous materials would not occur for the proposed project.

5.13.4 Impacts of the No-Build Alternative

The No-Build Alternative would not result in hazardous materials impacts associated with the construction or operation of the proposed project. The No-Build Alternative would provide no immediate change to the land surface elevation, no excavation or soil exposure would occur, the landscape would remain unaltered, bridge support structures would not be installed, discharges of sediment to surface waters would not occur thereby maintaining surface water quality, pipelines and utilities would not be relocated, and large-scale earthmoving would not occur. Ongoing or planned remedial action, corrective action, and remediation would occur in accordance with regulatory agreements and proposed implementation schedules.

5.14 Traffic Noise

5.14.1 Environmental Consequences

The traffic noise analysis was accomplished in accordance with TxDOT's (FHWA-approved) *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011). Traffic Noise Model version 2.5 was used in this assessment.

Sound from highway traffic is generated primarily from a vehicle's tires, engine, and exhaust. It is commonly measured in decibels and is expressed as "dB."

Sound occurs over a wide range of frequencies; however, not all frequencies are detectable by the human ear; therefore, an adjustment is made to the high and low frequencies to approximate the way an average person hears traffic sounds. This adjustment is called A-weighting and is expressed as "dB(A)."

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

A traffic noise analysis typically includes the following elements:

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

The FHWA has established the following Noise Abatement Criteria (NAC), as shown in Table 5-7, for various land use activity areas that are used as one of two means to determine when a traffic noise impact would occur.

Table 5-7. FHWA Noise Abatement Criteria

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

Source: TxDOT 2011

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

Absolute Criterion: The predicted noise level at a receiver approaches, equals, or exceeds the NAC. "Approach" is defined as one dB(A) below the FHWA NAC. For example, a noise impact would occur at a Category B residence if the noise level is predicted to be 66 dB(A) or above.

Relative Criterion: The predicted noise level substantially exceeds the existing noise level at a receiver, even though the predicted noise level does not approach, equal, or exceed the NAC. “Substantially exceeds” is defined as more than 10 dB(A). For example, a noise impact would occur at a Category B residence if the existing level is 54 dB(A) and the predicted level is 65 dB(A).

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

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

Existing and predicted traffic noise levels were modeled at receiver locations (Table 5-8 and Appendix F, Exhibit 10) that represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

Table 5-8. Traffic Noise Levels (dB(A) Leq)

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2037	Change (+/-)	Noise Impact (Y/N)
R1 Residence	B	67	64	61	-3	N
R2 Residence	B	67	41	50	+9	N
R3 Residence	B	67	46	55	+9	N
R4 Residence	B	67	47	56	+9	N
R5 Residence	B	67	49	58	+9	N
R6 Residence	B	67	56	57	+1	N

As indicated in Table 5-8, the proposed project would not result in a traffic noise impact. However, to avoid noise impacts that may result from future development of properties adjacent to the proposed project Build Alternative, 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 (2037) noise impact contours identified in Table 5-9.

Table 5-9. Predicted Noise Impact Contours

Roadway Segment	71 dB(A) Impact Contour[1] Description	66 dB(A) Impact Contour[2] Description
SH 286 between FM 43 and CR 22	Within ROW	20 feet from ROW
SH 286 between CR 22 and CR 20A	Within ROW	Within ROW
SH 286 between CR 20A and FM 2444	Within ROW	30 feet from ROW

Notes: (1) NAC Category E
(2) NAC Category B and Category C

Noise associated with construction of the proposed 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 receivers would be expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities would not be expected. Provisions would be included in the construction 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.

A copy of this traffic noise analysis would be made available to local officials. On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT would no longer be responsible for providing noise abatement for new development adjacent to the project.

5.14.2 Impacts of the No-Build Alternative

If the No-Build Alternative were implemented, noise levels would be expected to increase with an associated increase in future traffic volumes.

5.15 Induced Growth

An *Indirect and Cumulative Impacts Technical Report* was prepared to analyze potential induced growth impacts for the proposed project. To determine the likelihood of the proposed project to induce growth, TxDOT's *Guidance* on *Indirect Impacts Analysis* (TxDOT 2016b) and the Induced Growth Indirect Impacts Decision Tree (TxDOT 2014a) were used in evaluating whether induced growth could occur as a result of the proposed project. Based on the Induced Growth Indirect

Impacts Decision Tree, it was determined that an induced growth impacts analysis was required. The following is a summarization of the steps that were used in the induced growth impacts analysis:

- Step 1 – Define the Methodology. The Planning Judgement methodology was used in this analysis. This approach includes professional judgement, data collected from local and regional planning entities, and the assessment of local conditions and trends to determine the potential for induced growth.
- Step 2 – Define the area of influence (AOI) and study timeframe. The AOI for the induced growth impacts analysis encompasses a total of approximately 13,119 acres, and includes areas of potential growth and development. The AOI boundaries are shown in Appendix F, Exhibit 11. The AOI represents the geographical area where induced growth impacts related to project-influenced development and land use changes would likely occur. The extent of the AOI primarily follows existing political and roadway boundaries, and represents a reasonable area of travel associated with the project corridor. The timeframe for assessing induced growth effects is from the estimated start of project construction (approximately 2022) to 2040, which is the planning horizon year for the Corpus Christi MPO's Metropolitan Transportation Plan.
- Step 3 – Identify areas subject to induced growth in the AOI. It was estimated that approximately 9,371 acres of land in the AOI were developable. These areas consist primarily of vacant and agricultural land.
- Step 4 – Determine if growth is likely to occur in the induced growth areas. An analysis was conducted to determine if growth was likely to occur in the AOI and concluded 1) local and regional trends show moderate population growth rates since 2000, and these trends are projected to continue; 2) several residential subdivisions are currently planned or are under construction in the AOI; 3) the Corpus Christi Comprehensive Plan has designated the northern and eastern portions of the AOI as "planned development areas," which are areas that may be suitable for various uses in the future based on their environmental and other constraints; and 4) the Regional Parkway Study is currently underway and if the parkway is constructed, the SH 286 improvements would facilitate the movement of traffic projected to be generated from this new roadway.
- Step 5 – Identify resources subject to induced growth impacts. While the proposed SH 286 project itself is not expected to induce growth, future growth could result from other planned projects within the AOI. Resources were identified within the project area and evaluated for how they may be influenced by growth in the AOI.

The primary reasons for the conclusion of no induced growth in the AOI directly attributable to the proposed SH 286 project were: 1) the purpose of the proposed project is not to support economic development or a specific land development, 2) although developable areas exist within the AOI, these areas would likely be slow to develop to limited utility services and infrastructure, and the City of Corpus Christi's lack of plans for expansion, 3) the proposed project would increase mobility; however, because the project is not a new location roadway, it would not provide access to new areas for development or substantially change access, and 4) based on discussions with local planning officials, data collection, and site visits, the proposed SH 286 improvements would not be expected to cause induced growth, but would be likely to support growth that is currently underway.

5.15.1 Environmental Consequences

Growth within the AOI is already occurring and the proposed project is not anticipated to advance induced growth. The proposed SH 286 improvements could influence future land use within the AOI by providing a limited access facility; however, new and planned residential developments are more likely to influence changes in land use patterns and induce growth within the AOI, rather than construction of the proposed project improvements. Development of properties adjacent to the project corridor would likely consist of land uses that support residential activities. The proposed

project would support future development in the AOI; however, the proposed project would not be a primary factor in land use decisions in the area.

5.15.2 Impacts of the No-Build Alternative

Induced growth impacts would not be expected as a result of the No-Build Alternative.

5.16 Cumulative Impacts

An *Indirect and Cumulative Impacts Technical Report* was prepared to analyze potential cumulative impacts for the proposed project. To determine cumulative impacts, TxDOT's *Cumulative Impacts Analysis Guidelines* (TxDOT 2016c) and Risk Assessment Tool (TxDOT 2014a) were used as the first step in evaluating whether the proposed project would have cumulative impacts.

To determine which resources would need to be assessed in detail in the cumulative impacts analysis, a screening table was prepared and is included in the technical report to summarize the direct and indirect impacts of the proposed project. The screening table includes direct and indirect impacts for each resource category for the Build Alternative and whether the resource is in poor or declining health or at risk.

5.16.1 Environmental Consequences

Based on the results of the screening, the proposed project would not result in substantial direct, indirect or induced impacts to any resource; therefore, no resources or subject matters were examined in further detail. Implementing BMPs for water quality and wildlife species would help ensure that the proposed project would not substantially impact natural, human, and physical resources in the project area. Therefore, no further analysis of cumulative effects is required.

5.16.2 Impacts of the No-Build Alternative

Cumulative impacts would not be expected as a result of the No-Build Alternative.

5.17 Construction Phase Impacts

Potential short-term economic, employment, and tax revenue impacts, or those occurring during the construction period, which is anticipated to be between two and three years, would be both positive and negative. Positive impacts may result from engineering and construction expenditures and short-term construction employment, including potential employment of local residents. A portion of construction wages would be spent on goods and services provided by local businesses. Short-term negative impacts may result from the loss of property tax revenue. The impact on the tax base could be offset and augmented through property and sales tax revenues over the long term if growth and development occur in the local tax jurisdictions.

Traffic control during project construction would be in accordance with Part VI (Traffic Controls for Street and Highway Construction and Maintenance Operations) of the *2011 Texas Manual on Uniform Traffic Control Devices, Revision 2* (TxDOT 2014b). During construction, TxDOT would maintain northbound and southbound travel lanes along SH 286 and access to cross streets. At least one lane of traffic in each direction would remain open during construction.

Temporary increases in PM and MSAT emissions may occur from construction activities. Emissions impacts would be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. 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, emissions from construction of the proposed project are not expected to have significant impacts on air quality near the project corridor.

Increases in noise associated with construction of the proposed project are difficult to predict. Heavy machinery, the major source of noise in construction, is moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are not as disruptive.

Project construction may require traffic detours and periods of temporary single-lane operation. Emergency services would continue in the project area; however, potential traffic congestion during single-lane operation may result in response time delays for emergency services.

6.0 Agency Coordination

TxDOT has completed coordination with NRCS and TPWD. Written documentation with the applicable resource agencies are located in Appendix G.

7.0 Public Involvement

TxDOT conducted public outreach activities for the proposed project that included several stakeholder meetings, two open house public meetings, and a public hearing as part of ongoing public involvement activities.

7.1 Stakeholder Outreach

TxDOT held stakeholder meetings with Nueces County, the City of Corpus Christi and the London ISD on July 27, 2017 to discuss the proposed project. In addition, TxDOT met with the City of Corpus Christi and the Corpus Christi MPO to discuss potential developments near the study area, ETJ, designated planned development areas, annexations, and other planning-related activities. Furthermore, TxDOT held telephone conversations regarding the project with five property owners on July 27, August 8, August 9, October 12, and November 6, 2017.

7.2 Public Meetings

On August 10, 2017, TxDOT held a public meeting at TxDOT's Corpus Christi District Office located at 1701 S. Padre Island Drive, Corpus Christi, Texas 78416, from 5:30 p.m. to 7:30 p.m. The public meeting was conducted in an open house format that included a fact sheet handout, display boards, and opportunities for the public to ask questions and provide comments on any issues in the project area. Comments were accepted until August 24, 2017. Forty-eight people attended the meeting and 61 comments (including notes on maps) were received.

The comments received at this public meeting are summarized in Table 7-1 by category.

Table 7-1. First Public Meeting Comment Categories

Comment Topic	Number of Comments
Alternatives/design – access needs, interchanges, preference for a particular alternative	14
Drainage and flooding	10
Safety – speed limit, accidents	8
ROW acquisition	5
Utilities – water lines	4
Opposition to tolling	4

The remaining comments addressed attributes of specific geographic locations.

The second public meeting was held on December 7, 2017 from 5:30 p.m. to 7:30 p.m. at the same TxDOT location as the first public meeting. The purpose of the meeting was for the public to learn about the project, ask questions, and provide comments on the proposed improvements and ROW acquisition. Comments were accepted until December 22, 2017. Thirty-one people attended the meeting and 13 people provided comments. Documentation of the public meetings, as well as the public hearing (when available) is available by request from TxDOT.

The comments received at the second public meeting are summarized in Table 7-2 by category. Some of the comments were divided into multiple topics.

Table 7-2. Second Public Meeting Comment Categories

Comment Topic	Number of Comments
Drainage and flooding	5
ROW acquisition	5
Utilities – including relocation	3
Design	2
Public involvement	1
Signage	1

7.2.1 Limited English Proficiency Accommodations

English and Spanish public meeting notices were mailed to adjacent property owners, and were published in English and Spanish in the Corpus Christi Caller Times. The public meetings were presented in English. Project materials were available in English and Spanish, and comment cards were available in English and Spanish for attendees to submit written comments of their concerns regarding the proposed project. As stated in the meeting notices, TxDOT would provide an interpreter at the meetings if requested in advance. No requests for an interpreter were received.

7.3 Public Hearing

Notices of the public hearing and availability of the environmental document were published on February 13, and February 24, 2019. The public hearing was held at the TxDOT Corpus Christi District offices on February 28, 2019 from 5:30 p.m. to 7:30 p.m. The public hearing included a formal presentation, fact sheet, display boards, and an opportunity to submit verbal and written comments for the record. The recommended ROW acquisition option for the Build Alternative was presented. Comments on the proposed project were accepted until the end of the comment period, which was March 15, 2019. Twenty-nine people attended the meeting and eight provided comments.

The comments received at the public hearing are summarized in Table 7-3 by category.

Table 7-3 Public Hearing Comment Categories

Comment Topic	Number of Comments
Water Service/Drainage	3
Retaining Wall near FM 43	1
ROW Acquisition	1
Sidewalks	1
Ramps	1
Miscellaneous (SH 70/US 77)	1

Documentation of the public hearing may be reviewed and copied, upon request, at the TxDOT Corpus Christi District offices at 1701 S. Padre Island Drive.

7.3.1 Limited English Proficiency Accommodations

TxDOT provided LEP individuals the opportunity for meaningful involvement in the NEPA process. Similar to the public meetings, public hearing notices and materials were printed in English and Spanish, and opportunities for interpreters were available, upon request, prior to the public hearing. A number of LEP persons in the general vicinity of the project were identified as speaking Asian and Pacific Islander language. Project information was translated into Vietnamese and provided to the Chua Huong Dam Buddhist Center. TxDOT received no requests for Vietnamese interpreters prior to the public hearing, although two Vietnamese speakers attended the public hearing with one individual translating for the other.

8.0 Environmental Permits, Issues and Commitments

8.1 Right-of-Way Acquisition and Relocations

Through the Acquisition and Relocation Assistance Program, TxDOT would provide assistance to property owners that would be required to relocate. Adequate replacement housing would be provided, and TxDOT would provide relocation assistance and payment for reasonable moving and related expenses. Relocation resources are available without discrimination to all facilities being relocated.

8.2 Farmlands

TxDOT would coordinate with the NRCS regarding the conversion of prime farmland and farmland of statewide importance to roadway ROW.

8.3 Utilities and Emergency Services

Underground and aerial utilities would require relocation to accommodate construction of the proposed project; however, at this time, the extent of utility adjustments is not known. TxDOT would determine needed utility adjustments during final design.

Geotechnical studies would be performed during final design to evaluate the need for dewatering based on the depth shallow groundwater and soil properties.

TxDOT would coordinate with city and county officials to minimize disruptions to emergency services during construction.

8.4 Pedestrian and Bicycle Paths

TxDOT would include bicycle and pedestrian accommodations parallel to the frontage roads and pedestrian crossings at major intersections as part of the proposed project.

8.5 Cultural Resources

TxDOT would conduct an intensive archeological survey within the proposed ROW prior to construction. In the event of an inadvertent archaeological discovery during construction, work at that location and within the immediate area that would affect the site would cease, and TxDOT archaeological staff would be immediately contacted to initiate post-review discovery procedures.

A Historical Resources Research Design was completed, and a reconnaissance-level field survey was conducted in December 2018 that identified and documented historic-age resources constructed prior to 1977. TxDOT historians determined that project activities will not affect historic properties.

8.6 Water Resources

8.6.1 Section 401 of the Clean Water Act

A Section 404 NWP 14, without pre-construction notification, is expected to be required for culvert removal where the tributary of Oso Creek traverses SH 286. No other impacts to the tributary are anticipated.

TCEQ water quality certification has been conditionally granted for NWP 14, provided soil erosion, sediment, and total suspended solids control measures are applied to the project. TxDOT would implement water quality BMPs as required by TCEQ and as specified by the SW3P prepared for the project. To minimize the potential for adverse impacts, BMPs would be regularly inspected and proactively maintained.

8.6.2 Clean Water Act Section 402

TxDOT would comply with the requirements of the TCEQ TPDES General Permit No. TXR150000 is implemented for construction activities by submitting a NOI and associated fee to TCEQ, preparing and implementing an SW3P, posting a construction site notice, and otherwise complying with the CGP terms.

8.6.3 Floodplains

Hydraulic design information would be coordinated with Nueces County floodplain administrator prior to construction to be sure the proposed project would not have an adverse effect on floodplains / floodways in the project area. Prior to issuance of construction permits involving activities in a regulated floodway, a letter of no objection would be obtained, supported by technical data stating that construction of the proposed project would not impact the existing BFEs, floodway elevations, or floodway widths.

8.7 Biological Resources

TxDOT conducted early coordination with TPWD per the TxDOT-TPWD MOU, which was completed on March 20, 2019.

Construction of the proposed project would require the removal of native vegetation within the project ROW. Vegetation removal would be avoided or minimized to the extent practicable to preserve areas of native vegetation. Disturbed areas would be seeded or planted with native species per TxDOT specifications. TxDOT would comply with EO 13112 on invasive species and the Executive Memorandum on Environmentally and Economically Beneficial Landscaping.

Vegetation clearing would occur outside of the nesting season for migratory birds. If construction would occur during the nesting season, TxDOT would conduct surveys for active nests and would avoid areas of active nests until the nests are inactive and no longer occupied.

The proposed ROW for the project contains potential habitat for six species that are either federally- or state-listed as endangered, threatened, or SGCN. Per the TxDOT-TPWD MOU, appropriate BMPs would be implemented to mitigate potential impacts to the listed species.

8.8 Hazardous Materials

Based on the findings presented in the EA, there are properties identified that exhibit possible hazardous materials concern within the proposed ROW and Phase I ESAs would be performed prior to property acquisition. Excavation would occur during project construction. If the location and presence of hazardous constituents are confirmed during subsurface investigations, appropriate soils and/or groundwater management plans may be developed. Any unanticipated hazardous materials and/or petroleum contamination encountered during construction shall be handled and

disposed of by the contractor according to applicable federal and state regulations per TxDOT Standard Specifications outlined in Section 6.10 of the *General Provisions of the Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges*.

The proposed project would require the demolition of building structures and the demolition or renovation of existing bridge structures (culverts) and these structures may contain asbestos and/or lead-based paint. As required by the Texas Asbestos Health Protection Rules (25 TAC 295.61), either TxDOT or the selected construction contractor would be required to conduct a survey for asbestos-containing materials for structures or buildings scheduled for demolition. If asbestos is confirmed, then asbestos-abatement activities shall be performed in accordance with the Texas Asbestos Health Protection Act and the National Emissions Standards for Hazardous Air Pollutants. Structures and buildings to be demolished would be analyzed for the presence or absence of LBP. If LBP is discovered, contingencies would be developed to address worker safety, material recycling, and proper management and disposal of any paint-related wastes. As necessary, the construction contractor would provide a 10-working-day, pre-demolition notification prior to the demolition of structures and buildings containing LBP.

Storage and use of hazardous materials would be necessary during construction of the proposed project and would conform to TxDOT standards for spill containment and control strategies. Construction workers would be trained in proper hazardous materials management procedures. Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable federal, state and local regulations per TxDOT Standard Specifications.

None of the anticipated activities associated with highway operation would be expected to result in adverse impacts from use of hazardous materials, or be affected by the presence of existing hazardous materials.

8.9 Construction Phase Impacts

TxDOT would maintain both northbound and southbound travel lanes along SH 286 and access to cross streets. The frontage roads would be constructed initially and the main lanes would be constructed last. At least one lane of traffic in each direction would remain open during construction. Efforts would be made to provide appropriate construction detours, informative signage, and access to residences, farms, businesses, and community facilities.

The potential impacts of emissions would be minimized by using fugitive dust control measures contained in standard specifications, as appropriate.

Reasonable efforts would be made to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

9.0 Conclusion

The final EA and technical reports contained in the file of record have been independently evaluated by TxDOT and indicate the Build Alternative best meets the need and purpose of the proposed project and would not have a significant impact on the human and natural environments. The No-Build Alternative would not meet the need and purpose of the proposed project. As a result of the findings of the EA, it is recommended that a Finding of No Significant Impact be issued for the proposed project.

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11.0 Appendices

Appendix A – Project Location Map

Appendix B – Project Photographs

Appendix C – Schematics

Appendix D – Typical Sections

Appendix E – Plan and Program Excerpts

Appendix F – Resource-specific Maps

Appendix G – Resource Agency Coordination

Appendix A – Project Location Map

Exhibit 1 – Project Location Map

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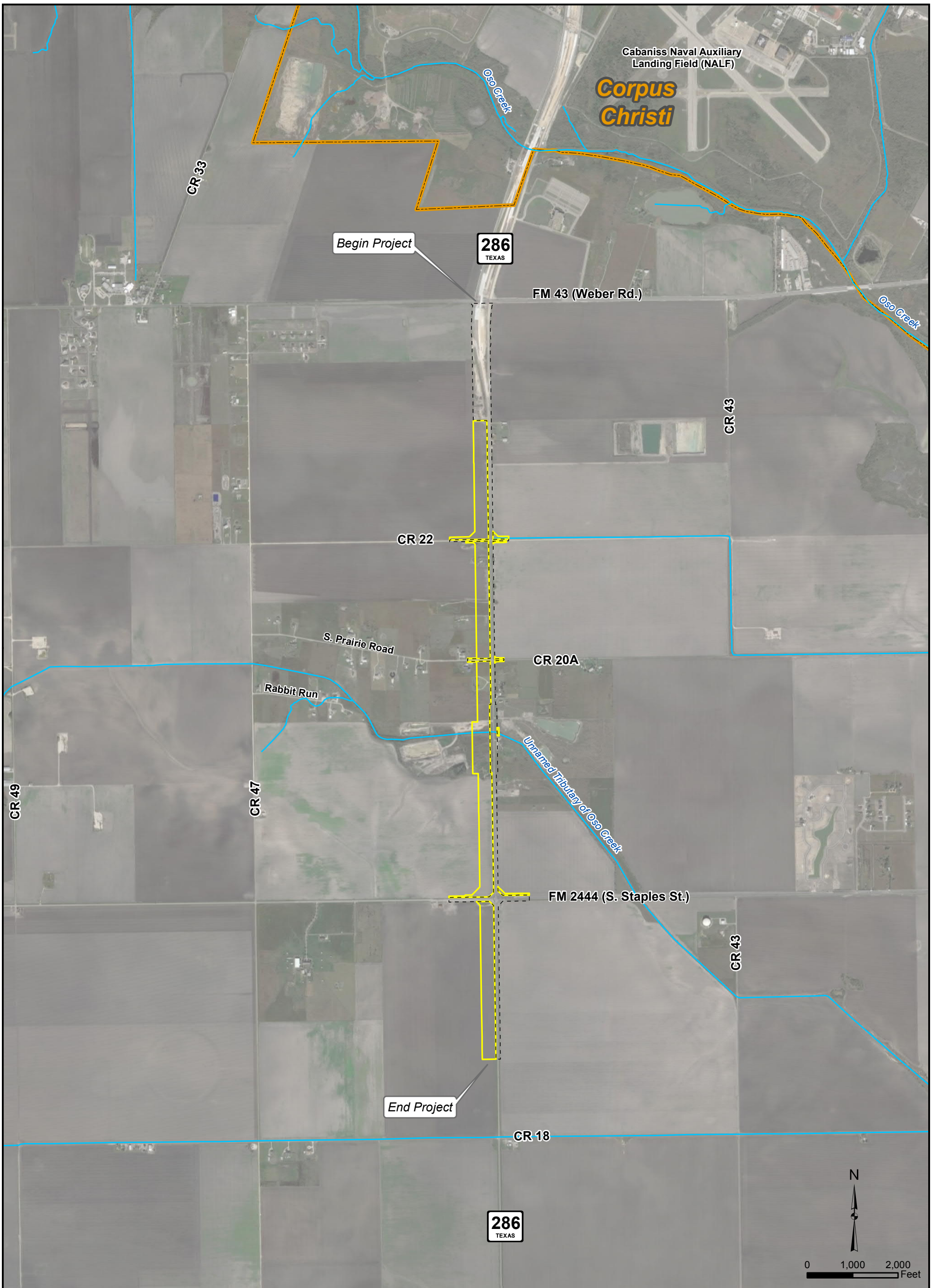

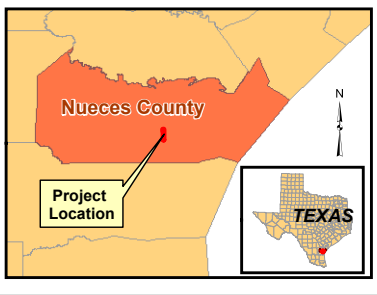

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- City of Corpus Christi
- Rivers/Streams

SH 286
FM 43 to South of FM 2444

Appendix A - Exhibit 1
Project Location

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Appendix B – Project Photographs

Exhibit 1 – Project Photographs 1 through 7

Exhibit 2 – Project Photographs 8 through 17

User Name: limd Date: 12/4/2018
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1- London School building

2. Chua Huong Dam Buddhist Center

3- Typical agricultural field within the proposed ROW

4- Typical roadside drainage ditch looking south

5- Unoccupied single-family house (circa 1950); potential displacement

6- Unoccupied single-family house (circa 1960s) and garage; potential displacement

7- Typical open area within proposed ROW

286 TEXAS

Begin Project

FM 43 (Weber Rd)

CR 22

S PRAIRIE RD

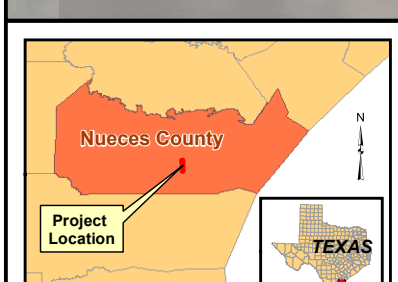
CR 20A

RABBIT RUN

Unnamed Tributary of Oso Creek

N

0 500 1,000 Feet



Legend

- Photo Location
- Existing Right-of-Way
- Proposed Right-of-Way
- Rivers/Streams

SH 286
FM 43 to South of FM 2444

Appendix B - Exhibit 1
Project Photographs

Texas Department of Transportation

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Document Path: P:_TRANS\TxDOT\60538368-SH286-ENV-SCH\900-CAD GIS\C_GIS\Exhibits\Appendix_B_Project_Photos\Exhibit2_Project_Photographs.mxd

8- Single-family house; potential displacement

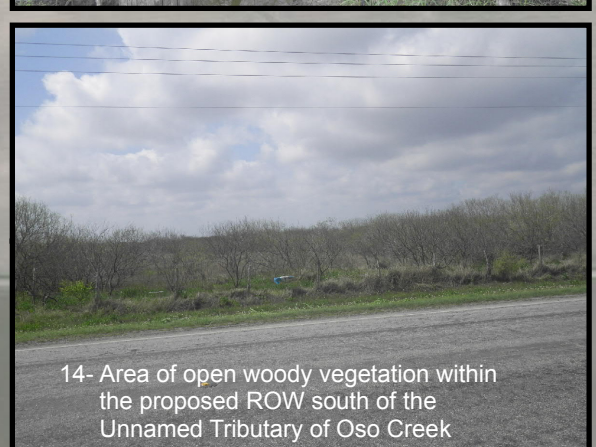
9- Single-family house; potential displacement

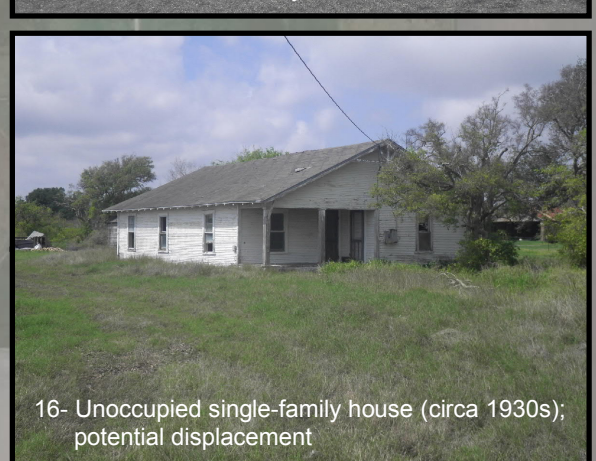
10- Commercial, agricultural and residential complex; site contains non-historic-age and historic-age resources

11- Structures on site in photo 10

13- Looking upstream (west) at Unnamed Tributary of Oso Creek traversing the proposed ROW

12- Looking downstream (east) at Unnamed Tributary of Oso Creek from SH 286

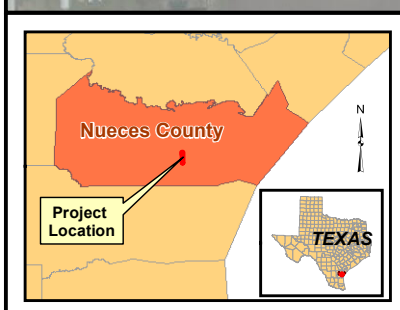

14- Area of open woody vegetation within the proposed ROW south of the Unnamed Tributary of Oso Creek


16- Unoccupied single-family house (circa 1930s); potential displacement

15- Play Extreme Sports & Store

17- Typical agricultural field within the proposed ROW

CR 22
S PRAIRIE RD
CR 20A
Unnamed Tributary of Oso Creek
FM 2444 (S Staples St)
CR 18
End Project
N
0 500 1,000 Feet



Legend

- Photo Location
- Existing Right-of-Way
- Proposed Right-of-Way
- Rivers/Streams

SH 286
FM 43 to South of FM 2444

Appendix B - Exhibit 2
Project Photographs

Texas Department of Transportation

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Appendix C – Schematics

Schematics, Sheets 1 through 4

Texas Department of Transportation
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CORPUS CHRISTI DISTRICT

SCHEMATIC LAYOUT
NUECES COUNTY
CSJs: 0326-01-056
SH 286
LIMITS FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
RECOMMENDED
APPROVAL DATE

NUECES COUNTY

PROJECT LIMITS: FM 43
TO SOUTH OF FM 2444
APPROXIMATE LENGTH OF
PROJECT = 16,210 FT = 3.1 MI
CONTROL: 0326-01-056

VICINITY MAP

LEGEND

- PROPOSED MAINLANES
- FRONTAGE ROADS
- RAMPS
- PROPOSED BRIDGE STRUCTURES
- PROPOSED DRIVEWAY
- SIDEWALKS
- TEMPORARY PAVEMENT
- FLOODWAY
- 100 YEAR FLOODPLAIN
- PROPOSED MEDIANS
- PROPOSED FRONTAGE ROADS
- PROPOSED RAMPS
- PROPOSED RETAINING WALL
- PROPOSED RIGHT-OF-WAY
- PROPOSED CONTROL OF ACCESS (COA)
- PROPOSED LIGHTING
- EXISTING PLANIMETRIC
- EXISTING LANE INDICATOR
- PROPOSED LANE INDICATOR

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
MAINLANES	URBAN FREEWAY	70 MPH
FRONTAGE RD	URBAN COLLECTOR	45 MPH
RAMPS	URBAN FREEWAY	50 MPH
SIDE STREETS	URBAN COLLECTOR	45 MPH
	URBAN COLLECTOR	15 MPH

2019 ADT 19,310
2045 ADT 45,450
ADT = AVERAGE DAILY TRAFFIC

NOTE: ALL COORDINATES ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, SOUTH ZONE (4205), NAVD 88 AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00004.

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF FINAL SCHEMATIC DESIGN UNDER THE AUTHORITY OF RAJESH JANAITHANAN, P.E. 99487 ON MARCH 11, 2019. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

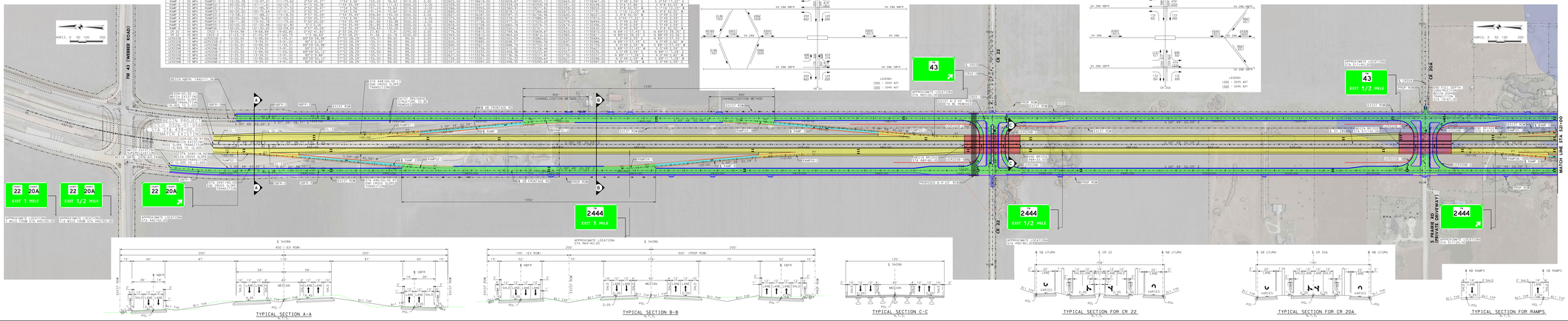
PRELIMINARY
Document Incomplete; not intended for regulatory or construction use
Engineer: Raj.Eric.Janaithanan, P.E.
P.E. Serial No. 99487
Date: 3/11/2019

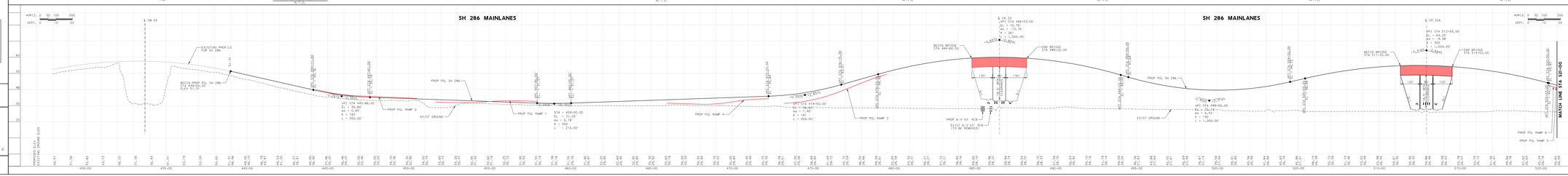
SHEET 1 OF 4

AECOM
AECOM TECHNICAL SERVICES, INC.
8117 PRESTON ROAD, SUITE 300
DALLAS, TEXAS 75225
TBPE REG. NO. F-2080

CURVE AND COORDINATE DATA

ALIGNMENT NO.	DESIGN SPEED	CURVE NO.	P.C. STATION	P.I. STATION	P.T. STATION	DELTA	DEGREE	LENGTH	TANGENT	RADIUS	ASY MAX DEG	P.C. EASTING	P.C. NORTHING	P.I. EASTING	P.I. NORTHING	P.T. EASTING	P.T. NORTHING	BACK TANGENT DIRECTION	AHEAD TANGENT DIRECTION
SH 286	70 MPH	C1	421+42.48	423+80.41	426+18.34	9°15'39.79"	0°43'46.4"	1375.86	687.93	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
SH 286	70 MPH	C2	423+05.48	442+15.19	445+18.41	9°15'39.79"	0°43'46.4"	1912.93	956.59	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
SH 286	70 MPH	C3	445+18.41	447+18.41	449+18.41	9°15'39.79"	0°43'46.4"	1000.00	500.00	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
SBFR	45 MPH	C1	421+42.48	423+80.41	426+18.34	9°15'39.79"	0°43'46.4"	1375.86	687.93	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
SBFR	45 MPH	C2	423+05.48	442+15.19	445+18.41	9°15'39.79"	0°43'46.4"	1912.93	956.59	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
SBFR	45 MPH	C3	445+18.41	447+18.41	449+18.41	9°15'39.79"	0°43'46.4"	1000.00	500.00	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
NBFR	45 MPH	C1	421+42.48	423+80.41	426+18.34	9°15'39.79"	0°43'46.4"	1375.86	687.93	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
NBFR	45 MPH	C2	423+05.48	442+15.19	445+18.41	9°15'39.79"	0°43'46.4"	1912.93	956.59	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
NBFR	45 MPH	C3	445+18.41	447+18.41	449+18.41	9°15'39.79"	0°43'46.4"	1000.00	500.00	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 1	RAMPS	C1	421+42.48	423+80.41	426+18.34	9°15'39.79"	0°43'46.4"	1375.86	687.93	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 1	RAMPS	C2	423+05.48	442+15.19	445+18.41	9°15'39.79"	0°43'46.4"	1912.93	956.59	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 1	RAMPS	C3	445+18.41	447+18.41	449+18.41	9°15'39.79"	0°43'46.4"	1000.00	500.00	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 2	RAMPS	C1	421+42.48	423+80.41	426+18.34	9°15'39.79"	0°43'46.4"	1375.86	687.93	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 2	RAMPS	C2	423+05.48	442+15.19	445+18.41	9°15'39.79"	0°43'46.4"	1912.93	956.59	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 2	RAMPS	C3	445+18.41	447+18.41	449+18.41	9°15'39.79"	0°43'46.4"	1000.00	500.00	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 3	RAMPS	C1	421+42.48	423+80.41	426+18.34	9°15'39.79"	0°43'46.4"	1375.86	687.93	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 3	RAMPS	C2	423+05.48	442+15.19	445+18.41	9°15'39.79"	0°43'46.4"	1912.93	956.59	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 3	RAMPS	C3	445+18.41	447+18.41	449+18.41	9°15'39.79"	0°43'46.4"	1000.00	500.00	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 4	RAMPS	C1	421+42.48	423+80.41	426+18.34	9°15'39.79"	0°43'46.4"	1375.86	687.93	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 4	RAMPS	C2	423+05.48	442+15.19	445+18.41	9°15'39.79"	0°43'46.4"	1912.93	956.59	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
RAMP 4	RAMPS	C3	445+18.41	447+18.41	449+18.41	9°15'39.79"	0°43'46.4"	1000.00	500.00	7,850.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 9°43'46.4" E
JR 22	URCOLL	C1	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E
JR 22	URCOLL	C2	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E
LOCOLD	URCOLL	C1	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E
LOCOLD	URCOLL	C2	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E
LOCOLNB	URCOLL	C1	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E
LOCOLNB	URCOLL	C2	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E
LOCOLSB	URCOLL	C1	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E
LOCOLSB	URCOLL	C2	412+34.55	414+34.55	416+34.55	90°00'00.00"	57°17'44.8"	200.00	100.00	100.00	2.00	1193229.00	11749206.00	1193229.00	11749206.00	1193229.00	11749206.00	N 9°43'46.4" E	N 90°43'46.4" E





Texas Department of Transportation
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CORPUS CHRISTI DISTRICT
SCHEMATIC LAYOUT
NUECES COUNTY
CSJs: 0326-01-056
SH 286
LIMITS FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
RECOMMENDED
APPROVAL DATE
NUECES COUNTY
PROJECT LIMITS: FM 43
TO SOUTH OF FM 2444
APPROXIMATE LENGTH OF
PROJECT = 16,210 FT = 3.1 MI
CONTROL: 0326-01-056
VICINITY MAP
LEGEND
ROADWAY | FUNCTIONAL CLASSIFICATION | DESIGN SPEED
MAINLANES | URBAN FREEWAY | 70 MPH
FRONTAGE RD | URBAN COLLECTOR | 45 MPH
RAMPS | URBAN FREEWAY | 50 MPH
SIDE STREETS | URBAN COLLECTOR | 45 MPH
| URBAN COLLECTOR | 15 MPH
2019 ADT 19,310
2045 ADT 45,450
ADT = AVERAGE DAILY TRAFFIC
NOTE: ALL COORDINATES ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, SOUTH ZONE (4205), NAVD 88 AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00004.
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PRELIMINARY
Document Incomplete; not intended for regulatory or construction use
Engineer: Raj.Eric.Janaithanan, P.E.
P.E. Serial No. 99487
Date: 3/11/2019
SHEET 1 OF 4
AECOM
AECOM TECHNICAL SERVICES, INC.
8117 PRESTON ROAD, SUITE 300
DALLAS, TEXAS 75225
TBPE REG. NO. F-2080

Texas Department of Transportation
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CORPUS CHRISTI DISTRICT

SCHEMATIC LAYOUT
NUECES COUNTY
CSJs: 0326-01-056
SH 286
LIMITS FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
RECOMMENDED: DATE
APPROVED: DISTRICT ENGINEER, DATE

NUECES COUNTY

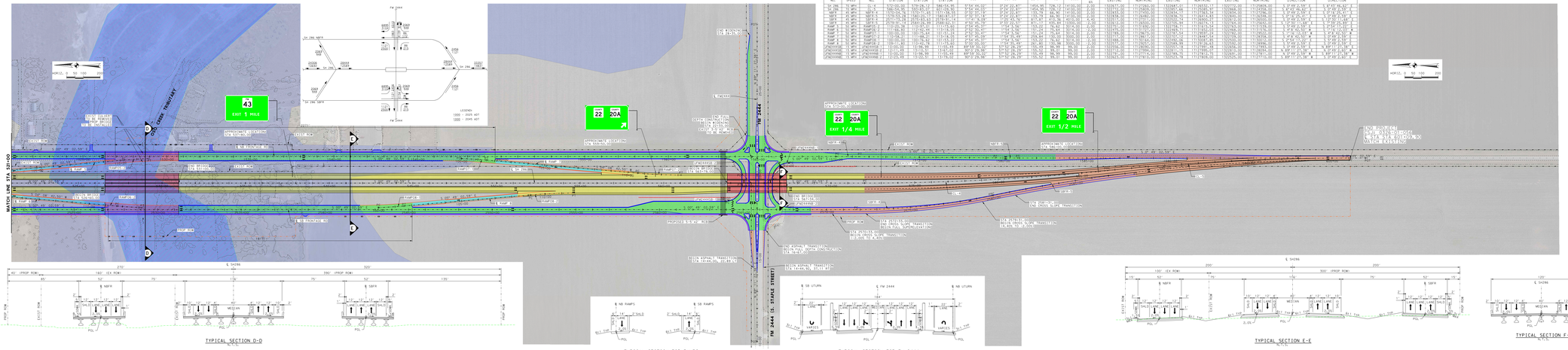
PROJECT LIMITS: FM 43
TO SOUTH OF FM 2444
APPROXIMATE LENGTH OF
PROJECT = 16,210 FT = 3.1 MI
CONTROL: 0326-01-056

VICINITY MAP
N.T.S.

HORIZ. 0 50 100 200
VERT. 0 5 10 20

LEGEND

- PROPOSED MAINLANES
- FRONTAGE ROADS
- RAMPS
- PROPOSED BRIDGE STRUCTURES
- PROPOSED DRIVEWAY
- SIDEWALKS
- TEMPORARY PAVEMENT
- FLOODWAY
- 100 YEAR FLOODPLAIN
- PROPOSED MAINLANES
- PROPOSED FRONTAGE ROADS
- PROPOSED RAMPS
- PROPOSED RETAINING WALL
- PROPOSED RIGHT-OF-WAY
- PROPOSED CONTROL OF ACCESS (COA)
- EXISTING RIGHT-OF-WAY
- EXISTING PLANIMETRIC
- EXISTING LANE INDICATOR
- PROPOSED LANE INDICATOR



CURVE AND COORDINATE DATA

ALIGNMENT No.	DESIGN SPEED	CURVE No.	PI STATION	BEGIN STATION	END STATION	DELTA	DEGREE	LENGTH	TANGENT	RADIUS	BEG. PT. TYPE	BEG. PT. EASTING	BEG. PT. NORTHING	END. PT. EASTING	END. PT. NORTHING	PI EASTING	PI NORTHING	BACK TANGENT BEARING	AHEAD TANGENT BEARING
SH 286	70 MPH	IT-1	548+00.00	543+50.00	552+50.00	0°00'00.00"	0°00'00.00"	900.00	450.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
SH 286	70 MPH	IT-2	566+00.00	563+50.00	568+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
SH 286	70 MPH	IT-3	584+00.00	581+50.00	586+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
SH 286	70 MPH	IT-4	601+00.00	598+50.00	603+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
SBFR	45 MPH	SBFR-1	251+17.19	249+67.19	252+67.19	31°41'16.55"	19°06'27.54"	300.00	163.47	300.00	2-CC	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
SBFR	45 MPH	SBFR-2	263+17.19	262+67.19	264+67.19	31°41'16.55"	19°06'27.54"	300.00	163.47	300.00	2-CC	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-1	110+00.00	107+50.00	112+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-2	117+00.00	114+50.00	119+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-3	124+00.00	121+50.00	126+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-4	131+00.00	128+50.00	133+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-5	138+00.00	135+50.00	140+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-6	145+00.00	142+50.00	147+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-7	152+00.00	149+50.00	154+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
RAMP 1	70 MPH	RAMP1-8	159+00.00	156+50.00	161+50.00	0°00'00.00"	0°00'00.00"	500.00	250.00	INF	POT	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
LPCROSS1	70 MPH	LPCROSS1-1	12+00.00	11+50.00	13+50.00	90°00'00.00"	57°29.58"	200.00	150.00	200.00	2-CC	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
LPCROSS1	70 MPH	LPCROSS1-2	14+00.00	13+50.00	15+50.00	90°00'00.00"	57°29.58"	200.00	150.00	200.00	2-CC	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
LPCROSS1	70 MPH	LPCROSS1-3	16+00.00	15+50.00	17+50.00	90°00'00.00"	57°29.58"	200.00	150.00	200.00	2-CC	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E
LPCROSS1	70 MPH	LPCROSS1-4	18+00.00	17+50.00	19+50.00	90°00'00.00"	57°29.58"	200.00	150.00	200.00	2-CC	1197250.00	17159000.00	1197250.00	17159000.00	1197250.00	17159000.00	N 90°00'00.00" E	N 90°00'00.00" E

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
MAINLANES	URBAN FREEWAY	70 MPH
FRONTAGE RD	URBAN COLLECTOR	45 MPH
RAMPS	URBAN FREEWAY	50 MPH
SIDE STREETS	URBAN COLLECTOR	45 MPH
FM 2444	URBAN COLLECTOR	15 MPH

2019 ADT 19,310
2045 ADT 45,450
ADT = AVERAGE DAILY TRAFFIC

NOTE: ALL COORDINATES ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, SOUTH ZONE (4205), NAVD 88 AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00004.

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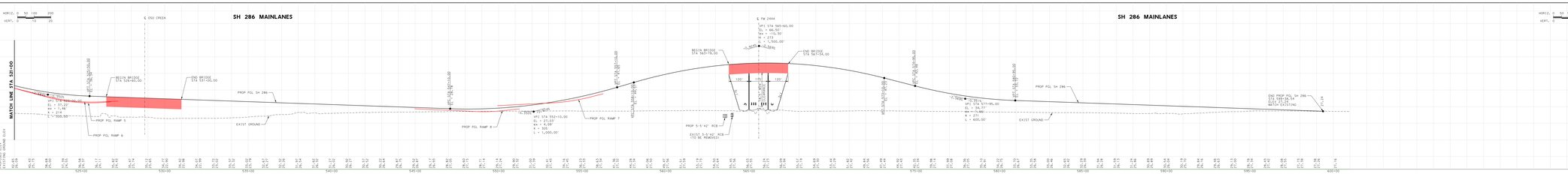

SHEET 2 OF 4

AECOM
AECOM TECHNICAL SERVICES, INC.
8101 N. STATE HWY 161
IRVING, TEXAS 75039
TBPE REG. NO. F-2080

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CORPUS CHRISTI DISTRICT
SCHEMATIC LAYOUT
NUECES COUNTY
CSJs: 0326-01-056
SH 286
LIMITS FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
RECOMMENDED: DATE
APPROVED: DISTRICT ENGINEER, DATE
NUECES COUNTY
PROJECT LIMITS: FM 43
TO SOUTH OF FM 2444
APPROXIMATE LENGTH OF
PROJECT = 16,210 FT = 3.1 MI
CONTROL: 0326-01-056
VICINITY MAP
N.T.S.
HORIZ. 0 50 100 200
VERT. 0 5 10 20
LEGEND
PROPOSED MAINLANES
FRONTAGE ROADS
RAMPS
PROPOSED BRIDGE STRUCTURES
PROPOSED DRIVEWAY
SIDEWALKS
TEMPORARY PAVEMENT
FLOODWAY
100 YEAR FLOODPLAIN
PROPOSED MAINLANES
PROPOSED FRONTAGE ROADS
PROPOSED RAMPS
PROPOSED RETAINING WALL
PROPOSED RIGHT-OF-WAY
PROPOSED CONTROL OF ACCESS (COA)
EXISTING RIGHT-OF-WAY
EXISTING PLANIMETRIC
EXISTING LANE INDICATOR
PROPOSED LANE INDICATOR
ROADWAY | FUNCTIONAL CLASSIFICATION | DESIGN SPEED
MAINLANES | URBAN FREEWAY | 70 MPH
FRONTAGE RD | URBAN COLLECTOR | 45 MPH
RAMPS | URBAN FREEWAY | 50 MPH
SIDE STREETS | URBAN COLLECTOR | 45 MPH
FM 2444 | URBAN COLLECTOR | 15 MPH
2019 ADT 19,310
2045 ADT 45,450
ADT = AVERAGE DAILY TRAFFIC
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SHEET 2 OF 4
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CORPUS CHRISTI DISTRICT

SCHEMATIC LAYOUT
NUECES COUNTY
CSJs 0326-01-056
SH 286
LIMITS FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
DATE
DISTRICT APPROVAL DATE

NUECES COUNTY
PROJECT LIMITS: FM 43
TO SOUTH OF FM 2444
APPROXIMATE LENGTH OF
PROJECT = 16,210 FT = 3.1 MI
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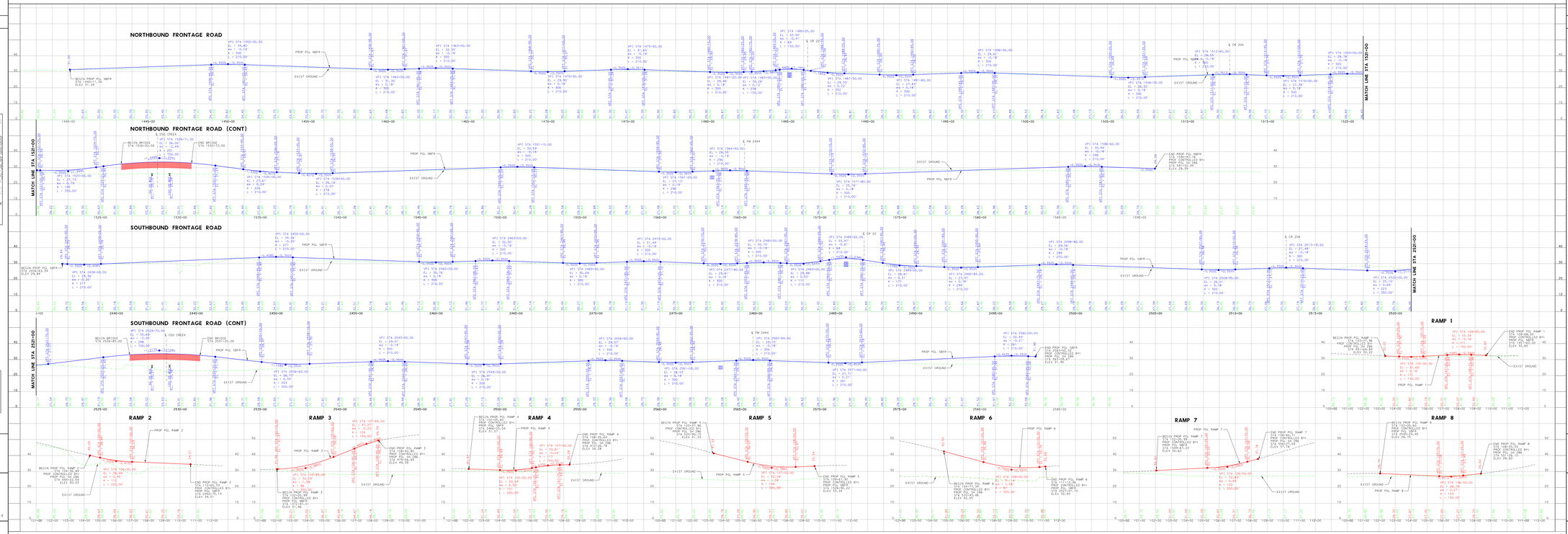

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FRONTAGE RD	URBAN COLLECTOR	45 MPH
RAMPS	URBAN FREEWAY	50 MPH
SIDE STREETS	URBAN COLLECTOR	45 MPH
RAMP 1	URBAN COLLECTOR	15 MPH

2025 ADT 7,510
2045 ADT 40,480
ADT = AVERAGE DAILY TRAFFIC

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Date: 3/11/2019

SHEET 3 OF 4

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8117 PRESTON ROAD, SUITE 300
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CORPUS CHRISTI DISTRICT
SCHEMATIC LAYOUT
NUECES COUNTY
CSJs 0326-01-056
SH 286
LIMITS FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
DATE
DISTRICT APPROVAL DATE
NUECES COUNTY
PROJECT LIMITS: FM 43
TO SOUTH OF FM 2444
APPROXIMATE LENGTH OF
PROJECT = 16,210 FT = 3.1 MI
CONTROL: 0326-01-056

ROADWAY | FUNCTIONAL CLASSIFICATION | DESIGN SPEED
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P.E. Serial No. 99487
Date: 3/11/2019
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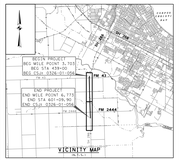
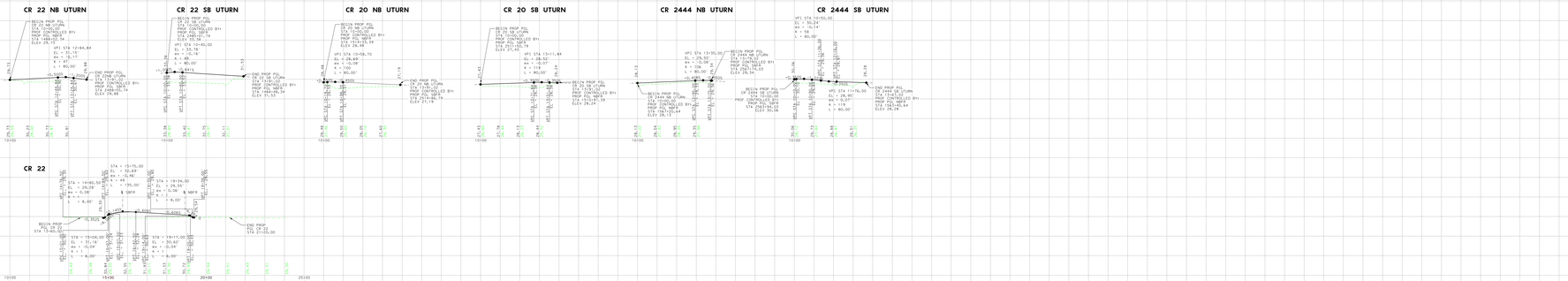
CORPUS CHRISTI DISTRICT

SCHEMATIC LAYOUT
NUECES COUNTY
CSJs: 0326-01-054
SH 286
LIMITS: FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
DESIGN
SCALE
DATE
DESIGN APPROVAL DATE

NUECES COUNTY

PROJECT LIMITS: FM 43 TO SOUTH OF FM 2444
APPROXIMATE LENGTH OF PROJECT = 16,210 FT = 3.1 MI
CONTROL: 0326-01-056





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Date: 3/11/2019

SHEET 4 OF 4

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2101 CITYWEST BLVD.
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CORPUS CHRISTI DISTRICT
SCHEMATIC LAYOUT
NUECES COUNTY
CSJs: 0326-01-056
SH 286
LIMITS: FROM FM 43 TO SOUTH OF FM 2444
CORPUS CHRISTI DISTRICT
DESIGN
SCALE
DATE
DESIGN APPROVAL DATE
NUECES COUNTY
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CONTROL: 0326-01-056

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
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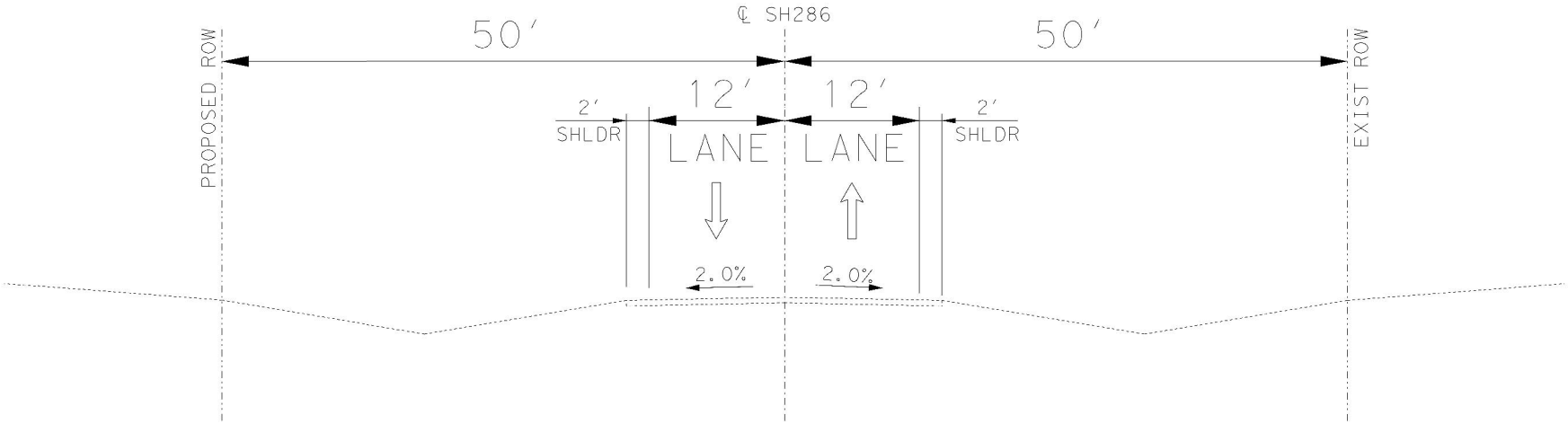
Appendix D – Typical Sections

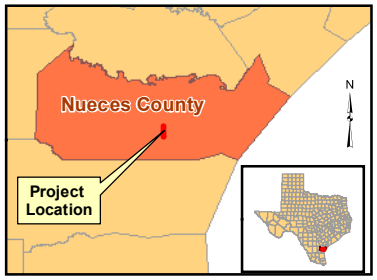
Existing Typical Section – Sheet 1

Proposed Typical Sections – Sheets 2A through 2C



EXISTING TYPICAL SECTION

NTS



Legend

- - - - - Existing Pavement

Existing Lane

SH 286
FM 43 to South of FM 2444

Appendix D - Sheet 1
Existing Typical Section

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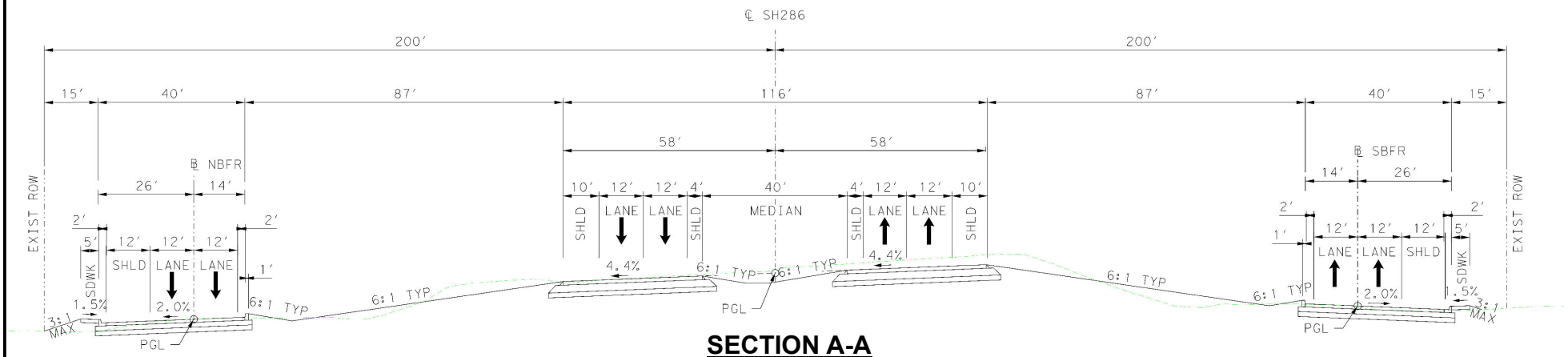
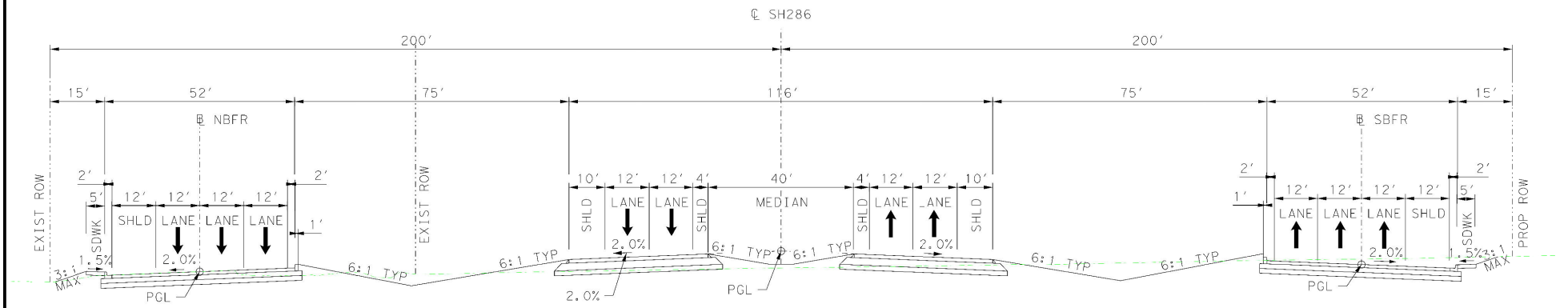


SECTION A-A
NTS



SECTION B-B
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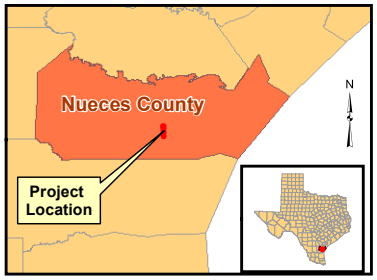

Legend

- Proposed Pavement
- Existing Pavement
- Proposed Lane

SH 286
FM 43 to South of FM 2444

Appendix D - Sheet 2A
Proposed Typical Sections

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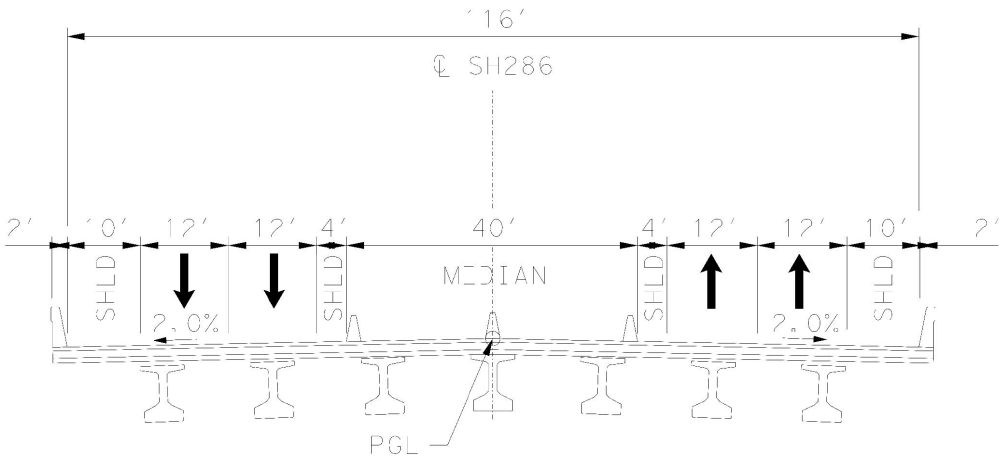

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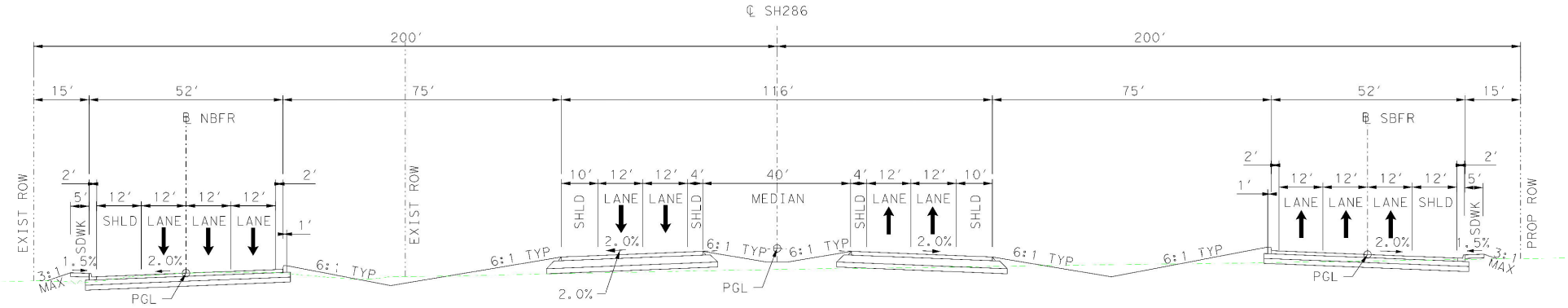

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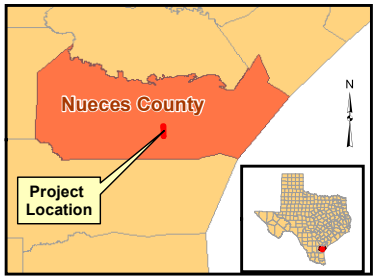

Legend

- Proposed Pavement
- Existing Pavement
- Proposed Lane

SH 286
FM 43 to South of FM 2444

Appendix D - Sheet 2B
Proposed Typical Sections

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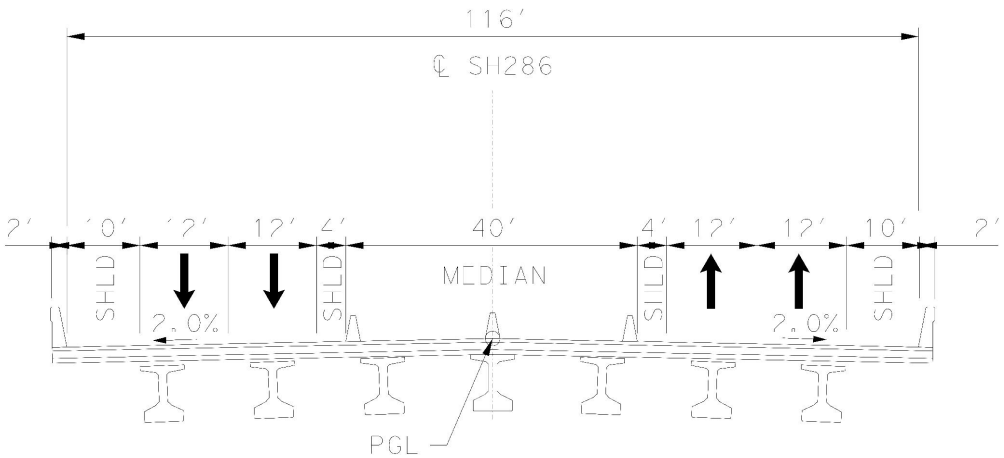
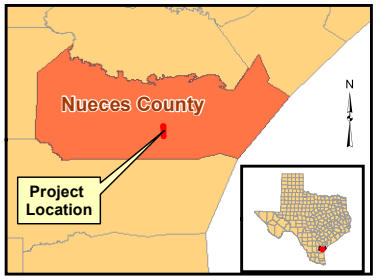


SECTION E-E
NTS



Legend

Proposed Pavement
Existing Pavement
Proposed Lane

SH 286
FM 43 to South of FM 2444

Appendix D - Sheet 2C
Proposed Typical Sections

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Appendix E – Plan and Program Excerpts

2015-2040 Corpus Christi Metropolitan Transportation Plan (MTP): Federally Funded Highway Projects

Proposed Fiscal Year 2019-2022 Transportation Improvement Program (TIP)

FEDERALLY FUNDED HIGHWAY PROJECTS
2015 - 2040 Metropolitan Transportation Plan (MTP)
FEBRUARY 2018 Amendment

2040 MTP Programmed Funding

FY 2017 - 2020 TIP Projects	FY 2021-2026 10-Yr Projects	FY 2027-2040 Long Range Plan	CSJ#	MPO ID#	Project Name	Description	From	To	Project Sponsor	Project Type: On / Off system	Funding Source	Anticipated Cat 2-Metro Corridor Expenditure	Anticipated Cat 4(3C)-Connectivity(Congestion) Expenditure	Anticipated Cat7-STP MM Expenditure	Anticipated Cat 9-Transportation Alternatives Expenditure	Other State & Local Funds	Federal Funds	State Funds	Local Funds	YOE Cost (M)	Total Project Cost (TPC)(M)
2017			0916-35-200	B-218-C9-16	Schanen Ditch Hike & Bike Trail	Construct Hike and Bike Trail	Along Schanen Ditch Saratoga Blvd	Killarmet	Corpus Christi	Off	Cat 9				$0.63		$0.50		$0.13	$0.63	$0.75
2017			0916-35-201	B-219-C9-16	Dr Hector P Garcia Park Hike & Bike Trail	Construct Hike and Bike Trail	At Garcia Park on Greenwood Dr		Corpus Christi	Off	Cat 9				$0.33		$0.26		$0.07	$0.33	$0.39
2017			0916-35-205	F-214-C7-15	Strategic Integration (TDM) Feasibility Study	Strategic Integration (Travel Demand Model) incorporating land use & public transit mode split	Various Locations in Corpus Christi		Corpus Christi	Off	Cat 7			$0.46			$0.37		$0.09	$0.46	$0.54
2017			0916-28-066	B-215-C9-16	Akins Dr Pedestrian & Bike Facility	Construct Hike & Bike Trail	On Akins Dr from Lang Rd.	Wildcat	Portland	Off	Cat 9				$0.43		$0.34		$0.09	$0.43	$0.51
2017			0617-01-170	S087C0294A	SH 358 (SPID) Ramp Reversal	Ramp reversal Phase II-A - south side only	Nile	Ayers	TxDOT-CRP	On	Cat 2	$42.70					$34.16	$8.54		$42.70	$50.54
2018			0916-00-068	S154C0112	Pedestrian & Bike	Pedestrian and bike facility improvements	At Various Locations on Brewster St.		Corpus Christi	On	Cat 7			$1.20			$0.96		$0.24	$1.20	$1.42
2018			0916-35-206	B-222-C9-17	Region-wide Bike Blvd Wayfinding Initiative	Designation of bicycle boulevards with pavement markings and signage	Various Locations in Corpus Christi & Portland		Corpus Christi	Off	Cat 9				$0.52		$0.42		$0.10	$0.52	$0.62
2018			0916-28-069	B-223-C9-17	Portland Bicycle Lanes	Construct one way cycle track and buffered bicycle lanes	At Various Locations in Portland		Portland	Off	Cat 9				$0.35		$0.28		$0.07	$0.35	$0.41
2018			0916-00-067	S154OM0112	Roadway Operation & Maintenance	Upgrade/install traffic signals and add right turn lane at Islander Way	On Spur 3 (Ennis Joslin) from SH 358	Sand Dollar Blvd.	TxDOT-CRP	On	Cat 7			$1.03			$0.82		$0.21	$1.03	$1.22
2018			0916-35-207	B-225-C9-18	Safe Shelter and Crossing Program	Hawk signal at Ocean Dr and Del Mar	On Ocean Dr	At Del Mar Blvd	Corpus Christi	Off	Cat 9				$0.16		$0.13		$0.03	$0.16	$0.19
2018			0916-28-070	B-226-C9-18	Memorial Pkwy Hike & Bike: Phase II	Construct Hike & Bike Trail	On Memorial Pkwy from FM 2986 (Wildcat Dr)	Billy G. Webb Dr	Portland	Off	Cat 9				$0.34		$0.27		$0.07	$0.34	$0.40
2018			0101-04-097	S-224-P1-17	US 181 Operational Improvements	Construct auxilary lanes and ramp reversals to existing 4-lane freeway	Sunset Rd	FM 3239 (Buddy Ganem Dr)	TxDOT-CRP	On	Other (Prop 1)					$10.90	$0.50	$10.40		$10.90	$12.90
2018			0102-01-088	S088C0899	SH 44	Upgrade from 4-ln divided hwy to 4-ln freeway w/frontage rds by constructing 4 mainlanes, interchanges, and frontage roads	West of FM 3386	East of FM 1694	TxDOT-CRP	On	Cat 2 / Cat 4(3c) / Other (Cat 12)	$6.50	$6.00			$6.00	$14.80	$3.70		$18.50	$21.89
2018			3026-01-026	234-17	FM 2986 (Wildcat Dr)	Upgrade from 2-ln rdwy to 5-ln urban rdwy by constructing addtnl 2 lanes and CLTL	US 181	FM 3239 (Buddy Ganem Dr)	TxDOT-CRP	On	Cat 2 / Other (Cat 1)	$10.00				$3.50	$9.60	$2.40	$1.50	$13.50	$15.98
2018			0101-04-112	237-17	US 181	Construct Grade Separation over Sunset Rd by building 4-ln divided mainlanes at existing at-grade intersection	On US 181 at SH 35 intersection		TxDOT-CRP	On	Cat 4(3c) / Other (Cat 12 & Cat 1)		$21.50			$15.00	$29.20	$7.30		$36.50	$43.20
2019			0101-06-111	278-17	US 181 Harbor Bridge Voluntary Relocation Program - MPO First Installment	US 181 Harbor Bridge Voluntary Relocation Mitigation Program Acquisition and Relocation Assistance	Beach Avenue	Crostown Expwy	MPO	Off	Cat 7 / Other (3L & ROW)			$15.00		$20.01	$12.00	$3.01	$20.00	$35.01	$35.01
2019			0916-35-218	286-18	Dr Hector P Garcia Park Hike & Bike Trail: Phase II	Construct & design Hike & Bike Trail	At Garcia Park on Trojan Dr	Horne Road	Corpus Christi	Off	Cat 9				$0.59		$0.59		$0.48	$0.59	$0.70
2020			0916-35-219	287-18	Schanen Ditch Hike & Bike Trail: Phase IV	Construct & design Hike & Bike Trail	Along Schanen Ditch Killarmet Dr	Holly Road	Corpus Christi	Off	Cat 9				$0.33		$0.33		$0.55	$0.33	$0.39
2020			0101-04-114	S-227-C7-20	US 181 Ramp Reversals	Reverse entrance and exit ramps in Northbound direction	FM 3239 (Buddy Ganem Dr)	FM 2986 (Wildcat Dr)	TxDOT-CRP	On	Cat 2	$4.00					$3.20	$0.80		$4.00	$4.73
2020			0916-35-196	M-211-C7-16	Harbor Bridge Park Improvements	Park mitigation for Harbor Bridge	At various city parks including	Ben Garza, TC Ayers, & new location	Corpus Christi	Off	Cat 7 / Other (Cat 3L)			$1.30		$3.50	$1.04		$3.76	$4.80	$5.68
2020			0916-35-195	P-212-C7-16	Harbor Bridge Hike & Bike - Connectivity	Construct pedestrian and bike facilities	On various city st. from Coles HS	Williams Memorial Park	Corpus Christi	Off	Cat 7			$1.20			$0.96		$0.24	$1.20	$1.42
2020			1209-01-030	233-17	FM 893 (Moore Ave)	Upgrade from 2-ln rdwy to 5-ln urban rdwy by constructing addtnl 2 lanes and CLTL	CR 3685 (Stark Rd)	0.2 mi. W of CR 79 (Gum Hollow)	TxDOT-CRP	On	Cat 2 / Other (Cat 1)	$5.00				$2.00	$5.60	$1.40		$7.00	$8.28
2020			0074-06-241	235-17	I 37	Widen freeway by constructing additional 2 travel lanes NB & 1 additional travel lane SB	Redbird Ln (Overpass)	Nueces River	TxDOT-CRP	On	Cat2 / Cat4(3c) / Other (Cat12)	$10.00	$10.00			$15.00	$28.00	$7.00		$35.00	$41.42
											FY 2017 - 2020 TIP Projects	$78.20	$37.50	$20.19	$3.68	$75.91	$144.34	$44.55	$27.62	$215.48	$248.60
	2021		0101-06-111	285-17	US 181 Harbor Bridge Voluntary Relocation Program - MPO Next Installment	US 181 Harbor Bridge Voluntary Relocation Mitigation Program Acquisition and Relocation Assistance	Beach Avenue	Crostown Expwy	MPO	Off	Cat 7			$10.00			$8.00	$2.00		$10.00	$10.00
	2021		0617-01-177	269-17	SH 358 (SPID) Ramp Reversal	Ramp reversal Phase II-B	Nile	Staples	TxDOT-CRP	On	Cat 2	$35.00					$28.00	$7.00		$35.00	$41.42
	2021		0326-01-056	S089C2000	SH 286 (Crosstown)	Extend 4-lane divided freeway by constructing mainlanes, overpasses, and frontage roads	FM 43 (Weber Rd)	S of FM 2444	TxDOT-CRP	On	Cat 2	$16.00					$12.80	$3.20		$16.00	$18.94
	2021			236-17	PR 22	Feasibility study: intersection upgrade/flyover	At SH 361/PR 22 intersection	Zahn	TxDOT-CRP	On	Cat 2	$1.50					$1.20	$0.30		$1.50	$1.78
	2023			S105C0204	Regional Parkway	NEPA Process for new location 4-ln roadway (SEGMENT A)	On new location from PR 22	Rodd Field Rd	Corpus Christi	Off	Cat 7			$1.60			$1.28		$0.32	$1.60	$1.89
	2023			248-17	Regional Parkway	NEPA Process for new location 4-ln roadway (SEGMENT B)	On new location from Rodd Field	SH 286	Corpus Christi	Off	Cat 7			$1.60			$1.28		$0.32	$1.60	$1.89
	2023		0916-35-210	272-17	Holly Rd	Construct Phase I to include CLTL, shoulders, cycle track; no added capacity	On Holly Rd from SH 286	Greenwood Dr.	Corpus Christi	Off	Cat 7 / Other (Cat 3L)			$5.10		$1.60	$4.08		$2.62	$6.70	$7.93
	2024			276-17	US 181	Widen freeway by constructing 1 additional travel lane in each direction	N of FM 3296 (Buddy Ganem Dr)	FM 2986 (Wildcat Dr)	TxDOT-CRP	On	Cat 2		$10.00				$8.00	$2.00		$10.00	$11.84
	2024			238-17	Intelligent Transportation Systems	Integrated Corridor Management - ITS improvements	Various Locations possible including	IH 37, SH 358, US 181, SH 286, PR 22, SH 361	Corpus Christi	On	Cat 2	$10.00					$8.00	$2.00		$10.00	$11.84
	2024			230-17	SS 544	Operational improvements without adding capacity	SH 286	Coopers Alley	Corpus Christi	Off	Cat 7			$5.50			$4.40		$1.10	$5.50	$6.51
	2025		0617-02-073	232-17	PR 22	Corridor upgrade for pedestrian and access management improvements without adding capacity	Aquarius	Whitecap	TxDOT-CRP	On	Cat 2	$16.00					$12.80	$3.20		$16.00	$18.94
	2025		0916-35-903	263-17	Yorktown Blvd	Elevate & widen bridge to add 2 additional travel lanes	On Yorktown from Mud Bridge - west end	Mud Bridge - east end	Corpus Christi	Off	Cat 7			$6.00			$4.80		$1.20	$6.00	$7.10
	2025		0916-35-904	264-17	Yorktown Blvd	Construct 2 additional travel lanes with turn lanes	On Yorktown from Rodd Field Rd	Mud Bridge - west end	Corpus Christi	Off	Cat 7			$10.00			$8.00		$2.00	$10.00	$11.84
	2026		0180-10-902	270-17	SH 361	Upgrade/add direct connectors	At SH 35 interchange	.6 MI SE on SH 361	TxDOT-CRP	On	Cat 2	$60.00					$48.00	$12.00		$60.00	$71.01
	2026			262-17	Yorktown Blvd	Construct 2 additional travel lanes with turn lanes	On Yorktown from Mud Bridge - east end	Flour Bluff Dr	Corpus Christi	Off	Cat 7			$8.00			$6.40		$1.60	$8.00	$9.47
	2026		0916-35-170	S049C0497	Holly Rd Travel Lanes	Construct Phase II by adding 2 additional travel lanes	On Holly Rd from SH 286	Greenwood Dr.	Corpus Christi	Off	Cat 7			$4.00			$3.20		$0.80	$4.00	$4.73
											FY 2021-2026 10-Yr Projects	$138.50	$10.00	$51.80	$0.00	$1.60	$160.24	$31.70	$9.96	$201.90	$237.11
											FY 2017-2026 10-Yr Projects Totals	$216.70	$47.50	$71.99	$3.68	$77.51	$304.58	$76.25	$37.58	$417.38	$485.71
				S039C0106	Flour Bluff Dr	Upgrade to 5-lane urban roadway by constructing addtnl 2-lanes and CLTL	On Flour Bluff Dr frm S of Don Patricio	Yorktown Blvd	Corpus Christi	Off	Anticipated Cat 7			$14.30			$11.44		$2.86	$14.30	$16.92
				251-17	Regional Parkway	NEPA Process for new location 4-ln roadway (SEGMENT C)	On new location from SH 286	CR 57	Corpus Christi	Off	Anticipated Cat 7			$1.60			$1.28		$0.32	$1.60	$1.89
				243-17	Regional Parkway	NEPA Process for new location 4-ln roadway (SEGMENT D)	On new location from CR 57	US 77	Corpus Christi	Off	Anticipated Cat 7			$1.60			$1.28		$0.32	$1.60	$1.89
				253-17	Regional Parkway	NEPA Process for new location 4-ln roadway (SEGMENT E)	On new location from US 77	SH 44	Corpus Christi	Off	Anticipated Cat 7			$1.60			$1.28		$0.32	$1.60	$1.89
				250-17	Regional Parkway	NEPA Process for new location 4-ln roadway (SEGMENT F)	On new location from SH 44	FM 624	Corpus Christi	Off	Anticipated Cat 7			$1.60			$1.28		$0.32	$1.60	$1.89
				245-17	Regional Parkway	NEPA Process for new location 4-ln roadway (SEGMENT G)	On new location from FM 624	IH 37	Corpus Christi	Off	Anticipated Cat 7			$1.60			$1.28		$0.32	$1.60	$1.89
				249-17	Regional Parkway	Construct new location 4-ln roadway (SEGMENT B)	On new location from Rodd Field	SH 286	Corpus Christi	Off	Anticipated Cat 7			$36.00			$28.80		$7.20	$36.00	$42.61
				256-17	Rodd Field extension	Construct 4-lane roadway with raised medians on new location	On Rodd Field from Yorktown	Future Regional Parkway (South of Oso Creek)	Corpus Christi	Off	Anticipated Cat 7			$20.00			$16.00		$4.00	$20.00	$23.67
				S006C0297	Akins Dr	Construct 2 additional travel lanes	On Akins Dr from Lang Rd	Wildcat	Portland	Off	Anticipated Cat 7			$6.00			$4.80		$1.20	$6.00	$7.10
				279-17	CR 72	Construct 2 additional travel lanes (CTWLTL)	On CR 72 from FM 2986 (Wildcat Dr)	CR 2032	Portland	Off	Anticipated Cat 7			$5.00			$4.00		$1.00	$5.00	$5.92
				266-17	Kay Bailey Hutchison Rd Extension	Construct 2-lane roadway on new location	On new location from US 181	FM 2986 (Wildcat Dr)	Port of Corpus	Off	Anticipated Cat 7			$5.00			$4.00		$1.00	$5.00	$5.92
				280-17	Holly Rd	Upgrade 5-lane urban roadway by constructing addtnl 2 lanes and CLTL	On Holly Rd from Rodd Field Rd	Paul Jones Ave.	Corpus Christi	Off	Anticipated Cat 7			$8.00			$6.40		$1.60	$8.00	$9.47
				257-17	N Staples Extension	Extend N Staples St by constructing 2-lane roadway with bicycle and pedestrian facilities on new location	On new location from W Broadway	N. Tancahua St.	Corpus Christi	Off	Anticipated Cat 7			$8.00			$6.40		$1.60	$8.00	$9.47
				258-17	SH 358	Upgrade ITS infrastructure	SH 286	IH 37	Corpus Christi	On	Anticipated Cat 2	$10.00					$8.00	$2.00		$10.00	$11.84
			0617-01-178	S091C0104	SH 358 (SPID) Ramp Reversal	Ramp Reversal Phase II-C (Braided ramps)	Airline	Everhart	TxDOT-CRP	On	Anticipated Cat 2	$35.00					$28.00	$7.00		$35.00	$41.42
			1069-01-028	S090C0399	SH 357 (Saratoga Blvd)	Construct 2 additional lanes with CLTL	FM 665 (Old Brownsville Rd)	Calle Cuernavaca	TxDOT-CRP	On	Anticipated Cat 2	$12.00					$9.60	$2.40		$12.00	$14.20
				S132C0299A	FM 43	Upgrade to 5-lane roadway by constructing addtnl 2 lanes and CLTL	SH 286	FM 665 (Old Brownsville Rd)	TxDOT-CRP	On	Anticipated Cat 2	$30.00					$24.00	$6.00		$30.00	$35.51
				273-17	FM 624	Install raised medians	River Hills Dr	East Riverview	TxDOT-CRP	On	Anticipated Cat 2	$3.80					$3.04	$0.76		$3.80	$4.50
				274-17	FM 665 (Old Brownsville Rd)	Upgrade to 5-lane roadway by constructing addtnl 2 lanes and CLTL	SH 358	SH 357	TxDOT-CRP	On	Anticipated Cat 2	$15.00					$12.00	$3.00		$15.00	$17.75
				275-17	PR 22	Intersection upgrade/ flyover	At SH 361/PR 22 intersection	Zahn	TxDOT-CRP	On	Anticipated Cat 2	$45.00					$36.00	$9.00		$45.00	$53.26
				271-17	SH 286 (Crosstown)	Construct 1 additional northbound travel lane	SH 358 (SPID)	SS 544	TxDOT-CRP	On	Anticipated Cat 2	$50.00					$40.00	$10.00		$50.00	$59.18
				277-17	IH 37	Construct ramp improvements	FM 1694	IH 69 Interchange	TxDOT-CRP	On	Anticipated Cat 4(3C)		$50.00				$40.00	$10.00		$50.00	$59.18
				281-17	SH 286 Extension	Upgrade to 4-lane divided freeway by constructing mainlanes and interchanges	FM 43 (Weber Rd)	FM 2444	TxDOT-CRP	On	Anticipated Cat 2	$30.00					$24.00	$6.00		$30.00	$35.51
											FY 2027-2040 Long Range Plan	$230.80	$50.00	$110.30	$0.00	$0.00	$312.88	$56.16	$22.06	$391.10	$462.87
											2040 MTP Reasonably Anticipated Funding	$467.20	$163.90	$183.33	$13.23	$57.10					
											2040 MTP Programmed Funding	$447.50	$97.50	$182.29	$3.68	$77.51	$617.46	$132.41	$59.64	$808.48	$948.58

Category 2: Metropolitan (TMA) & Urbanized (Non-TMA) Corridor Funding; distributed thru TxDOT Unified Transportation Program (UTP)
Category 4(3C): Statewide Connectivity (Congestion) Corridor Projects - project specific allocation
Category 7: Metropolitan Mobility & Rehabilitation - distributed thru TxDOT Unified Transportation Program (UTP)
Category 9: Transportation Alternatives Program (TAP) - distributed thru TxDOT Unified Transportation Program (UTP)
Other State & Local Funds: project specific; includes Category 1-Preventive Maintenance & Rehabilitation, Category 3-Local Funds, Category 12-Strategic Priority, State Proposition 1 Bond, etc.

GREY SHADE indicates Grouped Transportation Improvement Program (TIP) Projects
YELLOW SHADE indicates Anticipated Funding by category; informational - not used to calculate YOE cost
BLUE SHADE indicates Anticipated Funding by source - used in calculation of YOE Cost
ORANGE SHADE indicates two (2) TA Set-aside projects were added

PROPOSED FY 2019-2022
TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

MARCH 4, 2018 – PUBLIC NOTICE NO. 3

CORPUS CHRISTI METRPOLITAN PLANNING ORGANIZATION
602 N. Staples Street, Suite 300 Corpus Christi, TX 78401 Phone: 361.884.0687

I. INTRODUCTION

Urbanized areas with populations of more than 50,000 are required by federal legislation to have a designated entity to help coordinate regional transportation projects; the Corpus Christi Metropolitan Planning Organization (MPO), which encompasses portions of Nueces and San Patricio counties, is that entity for the greater Corpus Christi area.

The Transportation Improvement Program (TIP) is prepared in compliance with the Statewide Planning Metropolitan Planning Rules jointly issued by the Federal Highway Administration (FHWA) (23 CFR Part 450) and the Federal Transit Administration (FTA) (49 CFR Part 613). This document is a four-year, fiscally constrained short-range transportation capital improvement plan. The TIP planning process complies with a comprehensive, cooperative, and continuing (3-C) transportation planning framework for making transportation investment decisions. Ultimately, the MPO Transportation Policy Committee (TPC) and Governor will approve the plan for federal fiscal years 2019 to 2022 (October 2018 through September 2022).

The projects listed in the TIP are programmed in the most imminent portion of the Metropolitan Transportation Plan (MTP). The TIP is updated every two years cooperatively with local and state transportation entities within the MPO boundaries. To be eligible for any level of federal funding, a project must be in the MTP and the TIP. Once programmed into the TIP, these projects automatically become part of the Texas State Transportation Improvement Program (STIP).

II. BACKGROUND

Since the 1962 Federal-aid Highway Act, federal authorizing legislation for expenditure of surface transportation funds has required metropolitan area transportation plans and programs to be developed through a 3-C planning process. After five short-term extensions, the passage of the five-year **Fixing America's Surface Transportation Act (FAST Act)** in 2015 was the first Federal law in over ten years to provide long-term funding certainty for surface transportation (for fiscal years 2016 through 2020). The FAST Act continues the Metropolitan Planning Program and authorizes $305 billion for the Department's highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology and statistics programs.

Locally, formal transportation planning activities in the Corpus Christi metropolitan area began in the early 1960s. In 1962, the Texas Highway Department - Planning Survey Division, and the U.S. Department of Commerce - Bureau of Public Roads, in cooperation with the City of Corpus Christi (City) initiated the Corpus Christi Transportation Plan 1963-1964.

The cooperative efforts of the state and the City resulted in a long-term strategy for managing traffic associated with future urban development. The plan included a complete network of streets and highways, which—when completed—was expected to provide efficient movement of traffic. The City reaffirmed this plan in 1974, 1976, 1979, and 1983-84 and revised it in 1987. In 1994, the MPO incorporated the Corpus Christi Transportation Plan in its long-range MTP. Projects on the MTP that have been prioritized and programmed for near-term funding are included in the TIP.

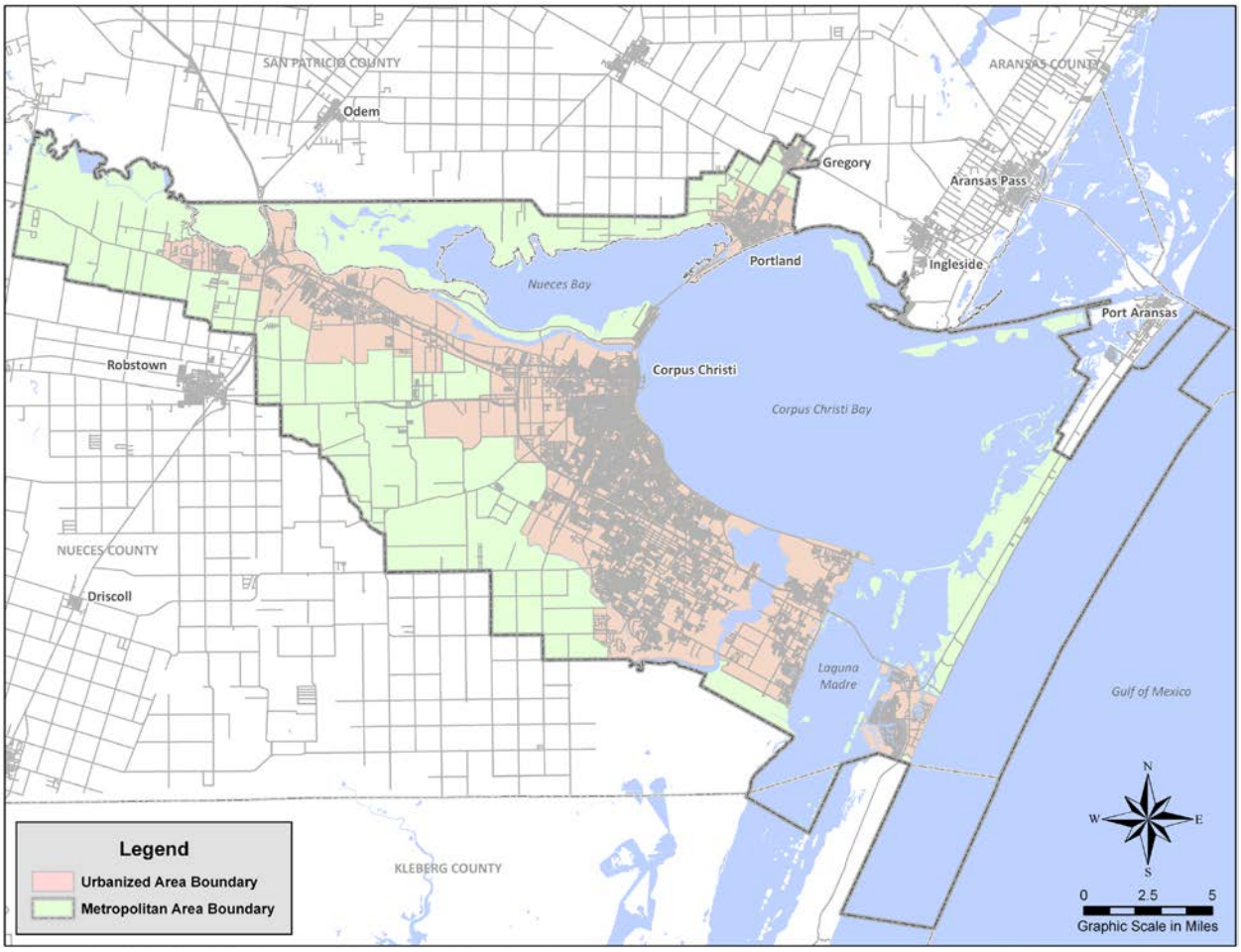
Definition of Area:

In 1973, the State Governor designated the City as the MPO to perform transportation planning for the metropolitan area. The MPO designation changed in June 2000, and the Transportation Policy Committee has been the designated MPO since that time. The Corpus Christi Transportation Plan's original signatories (City of Corpus Christi, City of Portland, Nueces County, San Patricio County, and the Texas Department of Transportation – Corpus Christi District) became the MPO's initial member agencies. To foster a multi-modal transportation planning process, the MPO also includes the Corpus

Christi Regional Transportation Authority (RTA) and Port Corpus Christi.

Census 2000 expanded the Urbanized Area Boundary (UAB) and the Metropolitan Area Boundary (MAB) to include the City of Gregory. The San Patricio County delegates to the Transportation Policy Committee (TPC) and the Technical Advisory Committee (TAC) represent Gregory. The 2010 census yielded subtle changes within the existing boundary representation of our UAB and MAB. The map below shows the physical boundary of the MPO area.

MAP 1: Corpus Christi Metropolitan Boundary



III. ESSENTIAL ELEMENTS (*Federal Planning Factors identified in bold)

A. Engaging Public Participation and Supporting Environmental Justice

The MPO Public Participation Plan (PPP) is compliant with Limited English Proficiency (LEP) requirements. This plan update, approved by the MPO TPC in April, 2018, demonstrates the MPO's ongoing coordination with Port Corpus Christi as well as private providers of transportation in the interest of **enhanced integration and connectivity**, as required by the FAST Act. The plan meets the standard for public participation in a transportation planning process per the principles of Environmental Justice and Title VI of the Civil Rights (Title VI) Act of 1964. The transportation planning process requires early and proactive public involvement by citizens and decision makers to allow them the opportunity and time to offer input and make informed decisions. The MPO continuously reviews the PPP in an effort to improve the effectiveness of public involvement and outreach.

As defined by Executive Order 13166, LEP persons are those who do not speak English as their primary

language and have limited ability to read, speak, write, or understand English. The MPO's LEP Plan helps identify reasonable steps for providing language assistance to persons with limited English proficiency who wish to access information provided. The plan outlines how to identify a person who may need language assistance and specifies the ways in which assistance may be provided. Public meetings for MPO's short- and long-range plans are conducted in accordance to Title VI to foster participation by low income and minority populations. Locations selected for public meetings are Americans with Disability **(**ADA) Act of 1990 accessible and have close proximity to public transportation.

Environmental Justice (EJ) Orders strengthen support of Title VI regulations by providing that each federal agency must identify and address, as appropriate, disproportionately high adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. TxDOT and MPOs are responsible for developing procedures to collect statistical data (race, color, religion, sex, and national origin) of participants in, and beneficiaries of state highway programs (i.e. relocatees, affected citizens, and affected communities). Recipients of federally assisted programs shall keep documentation for federal review, demonstrating the extent to which members of target populations are beneficiaries of such programs.

Further, as a recipient of federal financial assistance under Title VI and related statutes, the MPO ensures that no person shall, on the grounds of race, religion, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any agency programs or activities. These prohibitions extend from the MPO, as a direct recipient of federal financial assistance, to its sub-recipients (e.g., contractors, consultants, local governments, colleges, universities, etc.). All programs funded in whole or in part from federal financial assistance are subject to Title VI requirements. The Civil Rights Restoration Act of 1987 extended this to all programs within an agency that receives federal assistance regardless of the funding source for individual programs. The MPO is committed to meeting the transportation needs of all and ensuring that no one population group endures a disproportional share of the burdens in meeting those needs.

MPO staff collects and analyzes demographic data in a geospatial format for Title VI Civil Rights evaluation. The MPO's Title VI procedures establish a protocol under which persons who are not employees of the MPO can make complaints, alleging discrimination in the MPO's provisions, services, or activities. Any person who believes the MPO, or any entity who receives federal financial assistance from or through the MPO (i.e., sub-recipients, sub-contractors, or sub-grantees), has subjected them or any specific class of individuals to unlawful discrimination may file a complaint of discrimination (see http://www.corpuschristi-mpo.org/02_about_titlevi.html for Procedures & Forms).

Regional transit partners have procedures to uphold the requirements of the ADA. The RTA operates complementary paratransit service in compliance with ADA and FTA regulations. All RTA fixed route and paratransit revenue vehicles and facilities are accessible by persons with disabilities. The RTA's paratransit service is provided for all areas within 3/4 mile of the fixed route service for those who cannot access the fixed route system due to physical barriers or a disability. The RTA Committee on Accessible Transportation (RCAT) provides guidance and insight to RTA Board of Directors on the development and operation of public transportation services that promote the inclusion and integration of persons with disabilities. RTA and the City of Corpus Christi work collaboratively to implement ADA compliant projects, which may include constructing curb cuts, sidewalks, and striping in order to provide accessible ramps for improved pedestrian access to and from bus stops. All other highway, bike, and pedestrian projects considered for federal funding include appropriate provisions for meeting the needs of individuals with disabilities.

B. Embracing Performance-based Project Prioritization

The MPO is compliant with the following FAST Act mandates for performance-based planning:

This process incorporates best available data and ensures a performance-based approach to planning and investment decisions. It provides a systematic methodology for evaluating and ranking individual projects in the development of a financially reasonable long-range transportation plan and a fiscally constrained 10-year Plan and TIP.

C. Resiliency and Reliability of the Transportation System

System reliability is one of four Goal Areas in the MPO's performance-based planning framework. As defined in the MPO's CMP narrative, this framework identifies 14 discrete performance metrics in two topic area—Infrastructure Condition and Efficiency/Economic Competitiveness—to help prioritize capital investments and to help evaluate the efficacy of the transportation system overall.

Situated in the low lying Coastal Bend region of Texas, **resiliency** to extreme weather events and sea level rise is a fundamental consideration for the jurisdictions within the MPO. In an effort to stay at the forefront of resiliency planning and policy issues at the state level, MPO staff serve on both the Texas Coastal Resiliency Master Plan Technical Advisory Committee for the Texas General Land Office (TGLO) as well as on the TGLO Commissioner's Coastal Resiliency Advisory Group. MPO staff has also led collaborative proposals in response to multiple FHWA solicitations related to resilience and adaptation.

The MPO recognizes that the reliability of the mobility network overall—and, in particular, its efficacy under condition of evacuation due to extreme weather or other disaster—is in large part a function of redundancy of key corridors. As such, the MPO has prioritized the planning process for the Regional Parkway Mobility Corridor, which will be a new facility comprising seven segments of independent utility connecting Park Road 22 on Padre Island with I-37 northwest of Edroy. The need for such a facility has been discussed by regional stakeholders for decades, but the MPO initiated planning in earnest with a Corridor Feasibility Study (2013) and a Planning and Environmental Linkages Study for Segments A and B (2016).

Planning for the Regional Parkway is motivated by recognition among decision makers in the MPO of the need for a facility to augment the limited east-west capacity of SH 358, including a second connection to Padre Island, to facilitate regional evacuation. Further, decision makers and the planning team recognize that unless this connection ties directly to I-37, the capacity of SH 358 will remain the limiting factor under evacuation conditions. Funding projections for the National Environmental Policy Act (NEPA) process for some of the segments of the Regional Parkway are included in the MPO's 10-Year Plan.

In the wake of Hurricane Harvey, MPO staff undertook a holistic assessment of the regional transportation network in order to identify points of vulnerability during extreme weather. In addition to the projects to continue planning for the Regional Parkway, the MPO has programmed funds for at least nine other projects in its 10-Year Plan that will directly enhance evacuative capacity, including five projects on US 181 and I-37 that fall within the FY 2019-2022 TIP.

D. Environmental Protection

Stewardship is one of four Goal Areas in the MPO's performance-based planning framework.

Maintaining Air Quality Conformity

The Clean Air Act (CAA) and associated amendments require areas to maintain compliance with the National Ambient Air Quality Standards (NAAQS) for listed priority pollutants. The goal of conformity is to ensure that FHWA and FTA funding and approvals are given to highway and transit activities that are consistent with air quality goals and that such activities will not cause or contribute to any new violations of the NAAQS or increase the frequency or severity of NAAQS violations. The pollutant of primary concern for the Corpus Christi Urban Air Shed (CCUAS) (Nueces and San Patricio Counties) is ozone.

Locally, conformity is achieved through collaborative efforts in air quality mitigation and transportation planning. The regional Pollution Prevention Partnership is instrumental in providing public education and outreach services to industry, small businesses, and the public in the area of emissions reduction opportunities and techniques. The Corpus Christi Air Quality Group (of which the MPO is an active member and financial contributor), local jurisdictions, private industrial interests, and the Texas Commission on Environmental Quality (TCEQ) work collaboratively with the U.S. Environmental Protection Agency (EPA) to plan and implement appropriate voluntary actions to improve air quality. A cooperative plan, initially formalized in 1996, is revised periodically to reflect the evolution of the program; MPO staff contribute content to plan updates and associated annual implementation reports. By way of a resolution on February 1, 2018, the MPO TPC took action to request that the Texas Legislature reinstate funding for air quality programs in near non-attainment communities—including Corpus Christi—that was lost by way of a line item veto by Governor Abbott during the 85th Legislative Session.

The MPO's ongoing efforts to support implementation of its Strategic Plan for Active Mobility (2016), which has been heralded as a national best practice, are part of a broader effort to increase the regional viability of non-vehicular modes. In addition to myriad public health and community benefits, this strategy also reduces mobile sources of the air pollutants that are the precursors of ozone, thereby helping to reduce congestion and maintain the region's air quality attainment status. Maintenance of the region's attainment status is a central tenant of the MPO's commitment to **environmental protection** and is also fundamental to **economic vitality** of the region.

Metropolitan areas that meet NAAQS standards are in attainment and are not required to establish control measures to improve air quality. At the time of adoption for the FY 2019-2022 TIP, the MPO was in attainment for all air pollutants regulated by the EPA. Because the Corpus Christi study area has maintained attainment status—despite the tightening of federal standards and significant ozone contributions from outside the CCUAS—the MPO is not obligated to provide air quality analysis for the area or additional information that identifies non-federally funded projects of regional significance.

Addressing Stormwater Quality

The natural waterways of the Coastal Bend figure prominently in the lifestyle that residents cherish and visitors seek. The Corpus Christi MPO includes several sensitive natural waterways that are receiving waters for stormwater runoff, including multiple that are listed as impaired on the Texas Integrated Report for Surface Water Quality and for which Total Maximum Daily Loads (TMDLs) for priority pollutants exist or are being established. The Stewardship Goal Area in the MPO's performance-based planning framework includes performance metrics to evaluate the relative impact of a proposed project to the local watershed by prioritizing projects that include best management practices that address stormwater quality. As with efforts to preserve air quality and the region's ozone attainment status, investments in water quality protection are critical to the region's **economic vitality**.

E. Economic Development

Regional economic vitality depends on an efficient, reliable, safe, and secure regional transportation network; the MPO's ongoing effort to achieve regional objectives through its performance-based planning framework are part of a broader effort to promote economic development.

Travel and Tourism

The greater Corpus Christi area boasts beautiful beaches and myriad natural waterways, which offer a tremendous range of attractions for nature-based tourism. The member entities in the MPO recognize the importance of the regional mobility network in supporting tourism as a cornerstone of the regional economy.

The MPO's work in planning for active mobility is motivated, in part, by an interest in expanding bike and pedestrian mobility options to compliment the outdoor recreation opportunities that attract tourists to the region. The MPO routinely coordinates with staff from the Corpus Christi Convention and Visitors Bureau and Corpus Christi United Chamber of Commerce, both of which have documented unmet demand for bicycle-based tourism in our region. To that end, the MPO is coordinating with these entities to establish a Bike-friendly business accreditation as well as to produce pocket guides to the burgeoning regional Bike Mobility Network, the build out of which is tracked in real time through the MPO's dedicated website for its Strategic Plan for Active Mobility (www.CoastalBendInMotion.org).

Visitation data confirms that the Coastal Bend is a primary driving destination for visitors from around the state. Several ongoing and upcoming MPO projects on key corridors on the state highway system (e.g. SH 358, I-37, US 181) will facilitate access to the region from other parts of the state and will facilitate mobility within the MPO once visitors arrive. The MPO recently funded an Access Management Study of PR 22 on Padre Island and is funding (as part of the FY 2019-2022 TIP) a feasibility study of the PR 22/SH 361 intersection at the nexus between Padre and Mustang Islands, which is currently prone to intense congestion during peak tourism. This work will help identify the appropriate treatment to enhance mobility and safety for visitors and residents alike en route to Port Aransas and other destinations on Mustang Island. Likewise, this feasibility study will inform character and design of the upgrade of SH 361 along Mustang Island, which is a critical connection to key tourist destinations and is a critical evacuation route for island visitors and residents under extreme weather conditions.

IV. CONDUCTING FINANCIAL ANALYSIS

Projects included within the TIP have a source of funding identified and committed to the project. TxDOT's 12 funding categories are listed in the following table. Typically, MPO projects reflect use of Category 2, 7, 9, Prop 1, and/or Prop 7 (highlighted).

FUNDING CATEGORY		PROJECT SELECTION CRITERIA
1	Preventive Maintenance and Rehabilitation	Projects selected by districts. Commission allocates funds through a formula allocation program.
2	Metropolitan and Urban Area Corridor Projects	Projects selected by MPOs in consultation with TxDOT. Commission allocates funds through a formula allocation program.
3	Non-Traditionally Funded Transportation Projects	Determined by legislation, Commission approved Minute Order, and local government commitments.
4	Statewide Connectivity Corridor Projects	Project selections based on engineering analysis of projects on three corridor types: • Mobility: based on congestion • Connectivity: 2-lane roadways requiring upgrade to 4-lane divided • Strategic Corridors: corridor additions to the state highway network i.e., the Ports-to-Plain Corridor.
5	Congestion Mitigation and Air Quality Improvement	Projects selected by MPOs in consultation with TxDOT. Commission allocates funds distributed by population weighted by air quality severity to non-attainment areas. Non-attainment areas designated by the Environmental Protection Agency (EPA).
6	Structures Replacement & Rehabilitation Bridge Program; Railroad Grade Separation Program	Projects selected by the Bridge Division (BRG) based on a listing of eligible bridges prioritized first by Deficiency Categorization (Structurally Deficient followed by Functionally Obsolete) & then by Sufficiency Ratings. Commission allocates funds through Statewide Allocation Program. In 2015, program increased to address maintenance and preservation related work.

FUNDING CATEGORY		PROJECT SELECTION CRITERIA
7	Metropolitan Mobility/ Rehabilitation	Projects selected by MPOs operating in transportation management areas (TMA), in consultation with TxDOT. Commission allocates funds through Federal program distributed to MPOs with an urbanized area population of 200,000 or greater (TMAs).
8	Safety Federal Highway Safety Improvement Program (HSIP), Federal Railway-Highway Crossing Program, Safety Bond Program	Projects selected by federally mandated safety indices & prioritized listing. Commission allocates funds through Statewide Allocation Program. In 2015, category includes System Widening Program.
9	Transportation Alternatives Set-aside	MPO issues a call for projects; local entities nominate projects. Program encompasses smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, and community improvements.
10	Coordinated Border Infrastructure Program (CBI) & Congressional High Priority Projects	CBI projects selected by districts with FHWA review & approval. Discretionary funds are project specific based on legislation.
10	Supplemental Transportation Projects: State Park Roads, Railroad Grade Crossing Re-planking, Railroad Signal Maintenance, Landscape Incentive Awards, Green Ribbon Landscape Improvement, Curb Ramp Program	CBI projects selected by districts with FHWA review & approval. Discretionary funds are project specific based on legislation.
11	District Discretionary	Projects selected by Districts. Commission allocates funds through a formula allocation program. Minimum $2.5 million allocation to each district per legislative mandate.
12	Strategic Priority	Commission selects projects.
PROPOSITION 1		Effective FY 2014, a portion of oil and gas tax revenues are deposited in the State Highway Fund; allocations available beginning FY 2015.
PROPOSITION 7		Effective FY 2017, formula funds will be diverted from state general sales, use tax, vehicle sales, and rental tax to fund state highway fund. MPO allocations anticipated in FY 2018.

The following highway project table for TIP fiscal years 2019 to 2022 illustrates cost information and fiscal reasonable projections by year, project type, and funding category. Other relevant information related to TIP projects include:

- TIP year in which the project is programmed
- Project CSJ#
- Project MPO#
- Project Name
- Project limits

Appendix F – Resource-specific Maps

Exhibit 1 – Potential Displacements

Exhibit 2 – Land Use

Exhibit 3 – Farmlands

Exhibit 4 – Community Facilities

Exhibit 5 – Census Tract, Block Groups, and Blocks Within or Near the Project Corridor

Exhibit 6 – Archeology

Exhibit 7 – Identified Waters and Floodplains

Exhibit 8 – Essential Fish Habitat

Exhibit 9 – Hazardous Materials

Exhibit 10 – Traffic Noise

Exhibit 11 – Area of Influence

User Name: limd Date: 12/4/2018
Document Path: P:_TRANS\TxDOT\60538368-SH286-ENV-SCH\900-CAD GIS\C_GIS\Exhibits\Appendix_F\Exhibit1_Displacements.mxd

Cabaniss Naval Auxiliary Landing Field (NALF)

Corpus Christi

Oso Creek

CR 33

Begin Project

286 TEXAS

FM 43 (Weber Rd.)

Oso Creek

CR 43

CR 22

S. Prairie Road

CR 20A

Rabbit Run

Unnamed Tributary of Oso Creek

CR 49

CR 47

FM 2444 (S. Staples St.)

CR 43

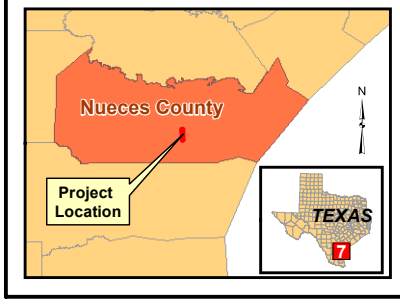
End Project

CR 18

286 TEXAS

N

0 1,000 2,000 Feet



Legend

Existing Right-of-Way
Proposed Right-of-Way
City of Corpus Christi
Rivers/Streams

Displacements
Residence
Residence + Other Structure(s)
Other Structures

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 1
Displacements

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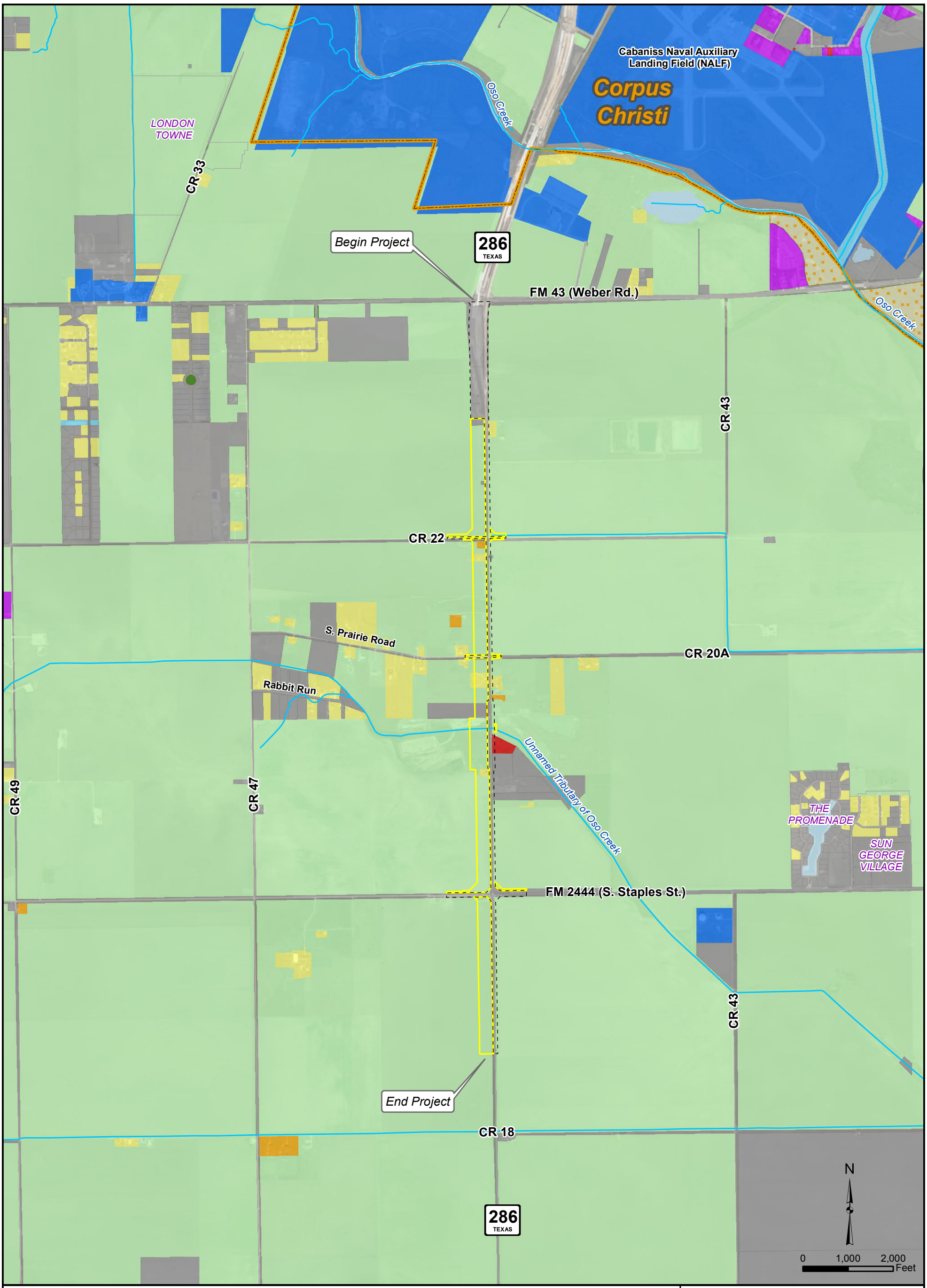

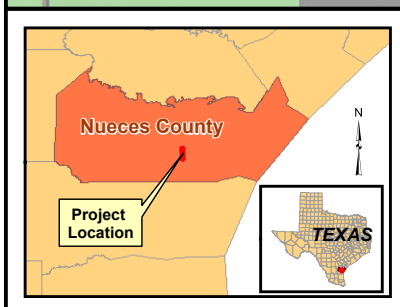

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- City of Corpus Christi
- Rivers/Streams

Current Land Use

- Water
- Agriculture/Rural Enterprise
- Conservation/Preservation
- Drainage Corridor
- Vacant
- Estate Residential
- Low-Density Residential
- Park
- Public/Semi-Public
- Commercial
- Light Industrial

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 2
Land Use

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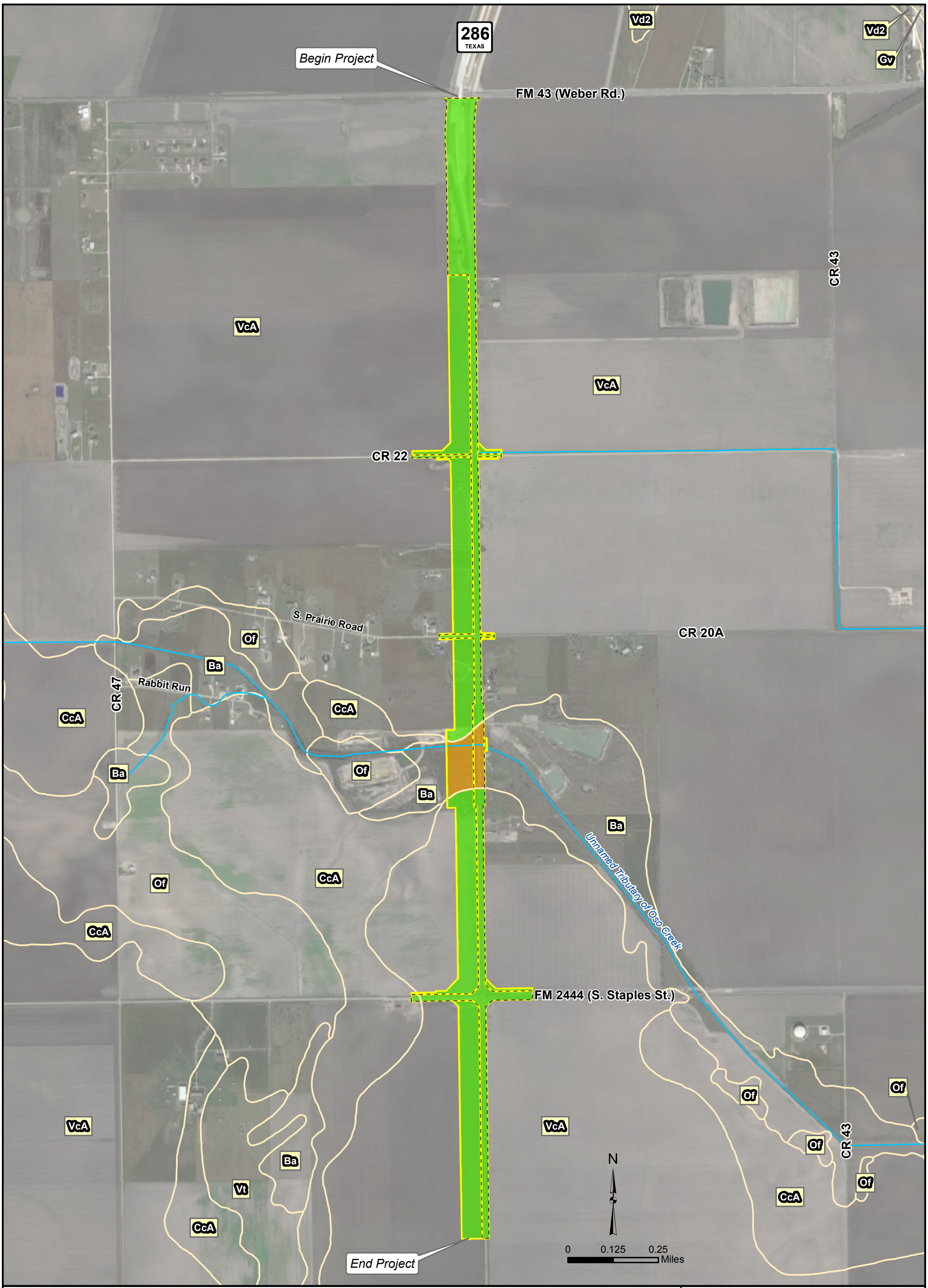

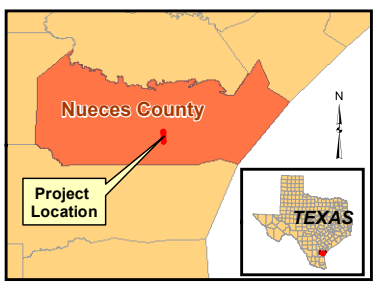

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- Rivers/Streams
- Soil Mapping Boundary

Farmland

- Farmland of Statewide Importance (Ba)
- Prime Farmland Soil (CcA and VcA)

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 3
Farmlands

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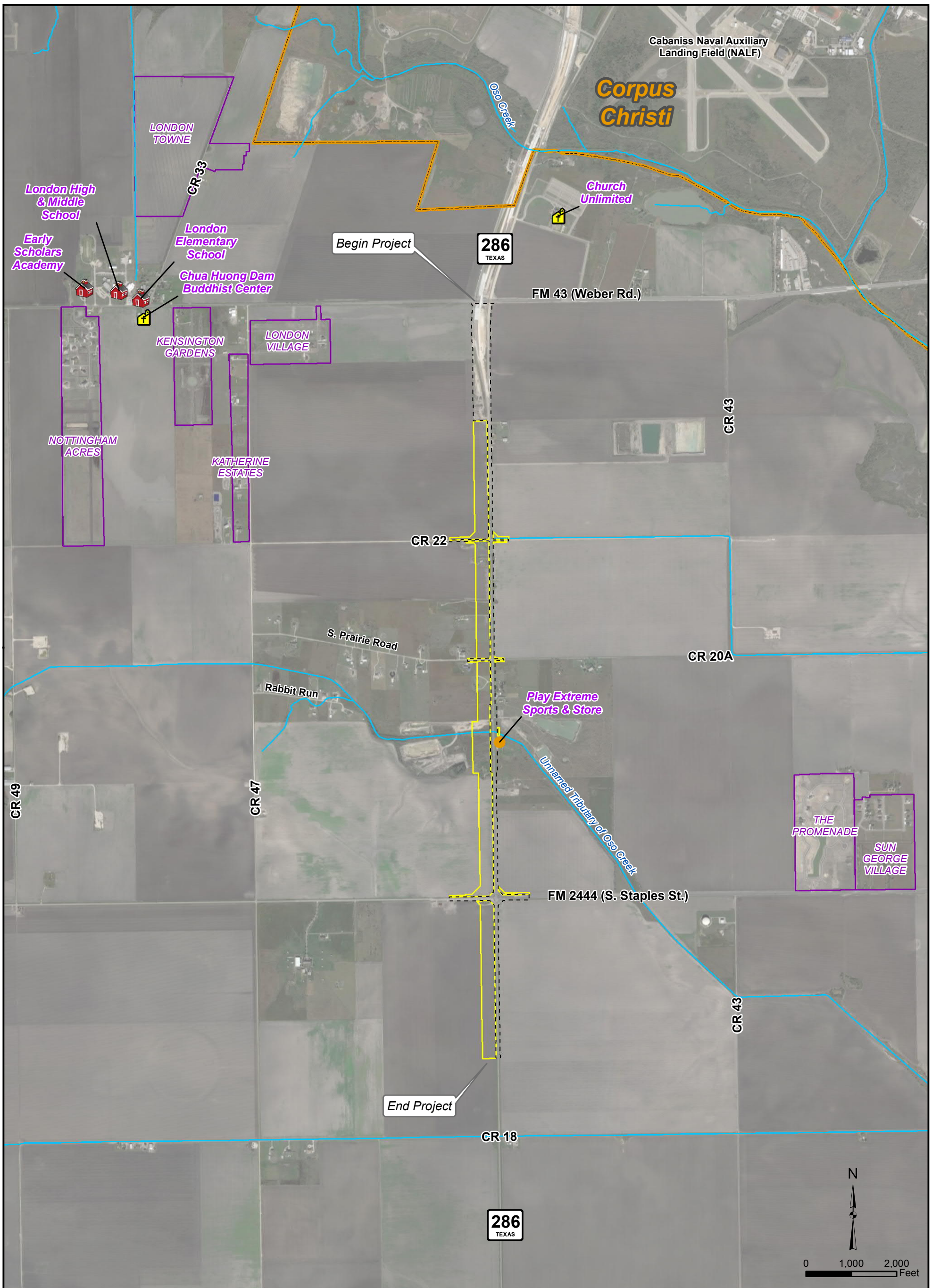
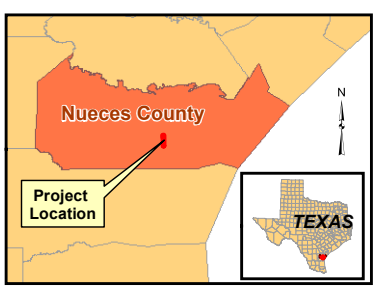
Document Path: P:_TRANS\TxDOT\60538368-SH286-ENV-SCH\900-CAD GIS\C_GIS\Exhibits\Appendix_F\Exhibit4_CommunityFacilities.mxd





Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- City of Corpus Christi
- Rivers/Streams
- Existing and Planned Subdivisions

Community Facilities

- Recreational
- Religious Facilities
- School

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 4
Community Facilities

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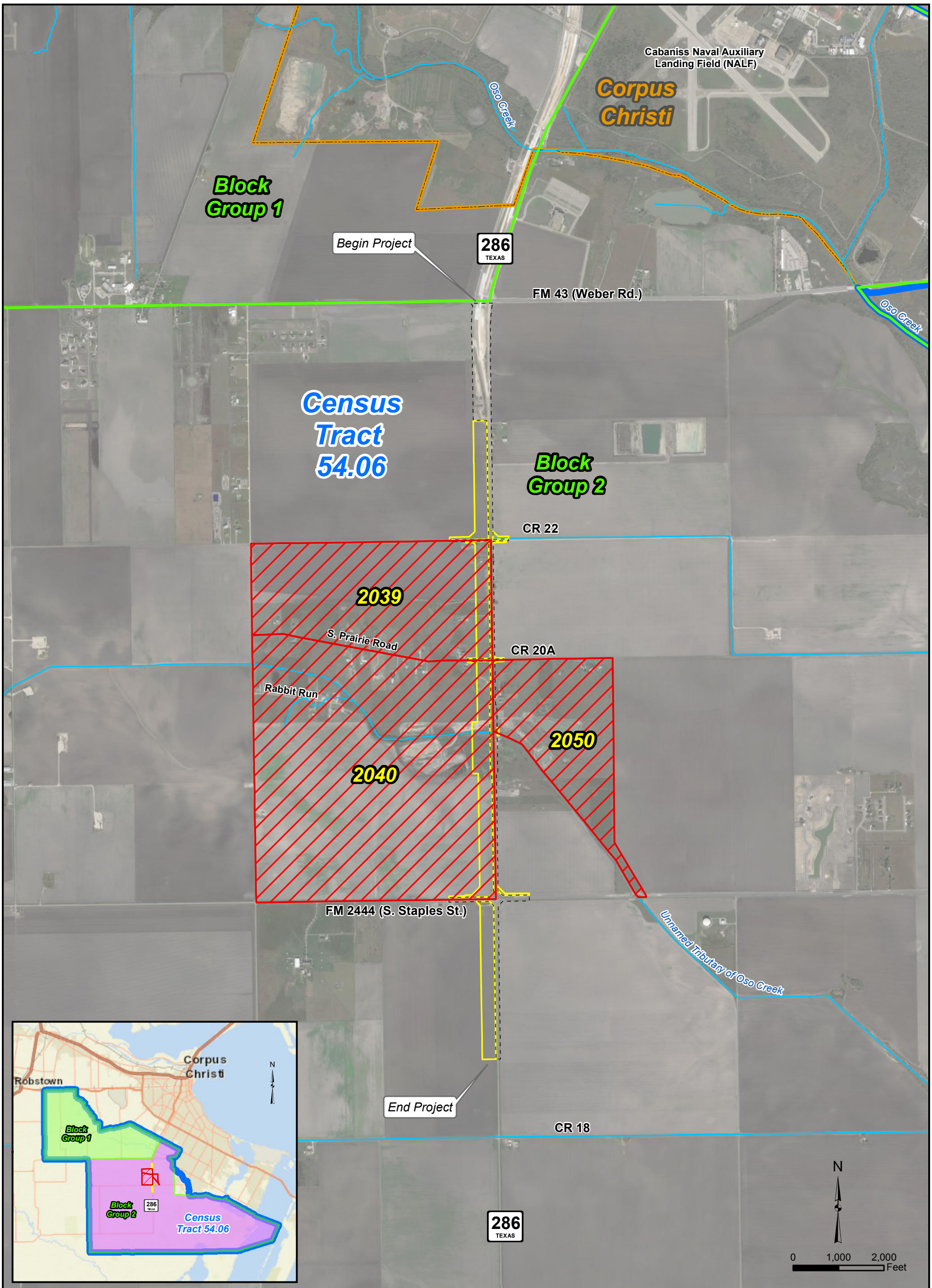

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 5
Census Tract, Block Groups, and Blocks Within or Near the Project Corridor

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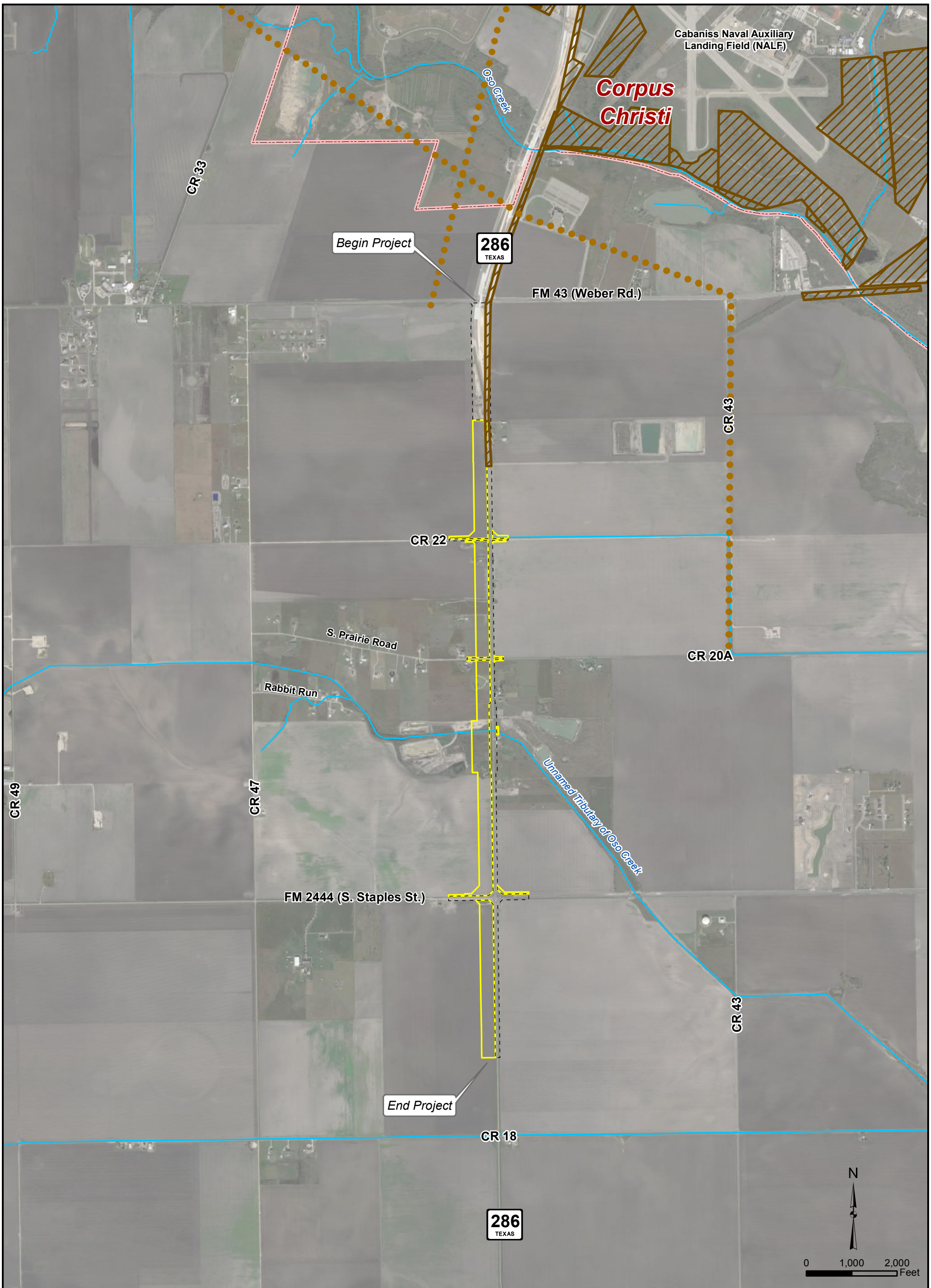

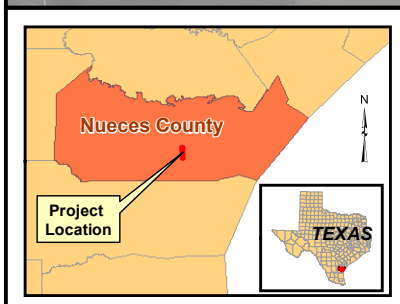

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- City of Corpus Christi
- Rivers/Streams
- Archeological Projects Line
- Archeological Projects Area

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 6
Archeology

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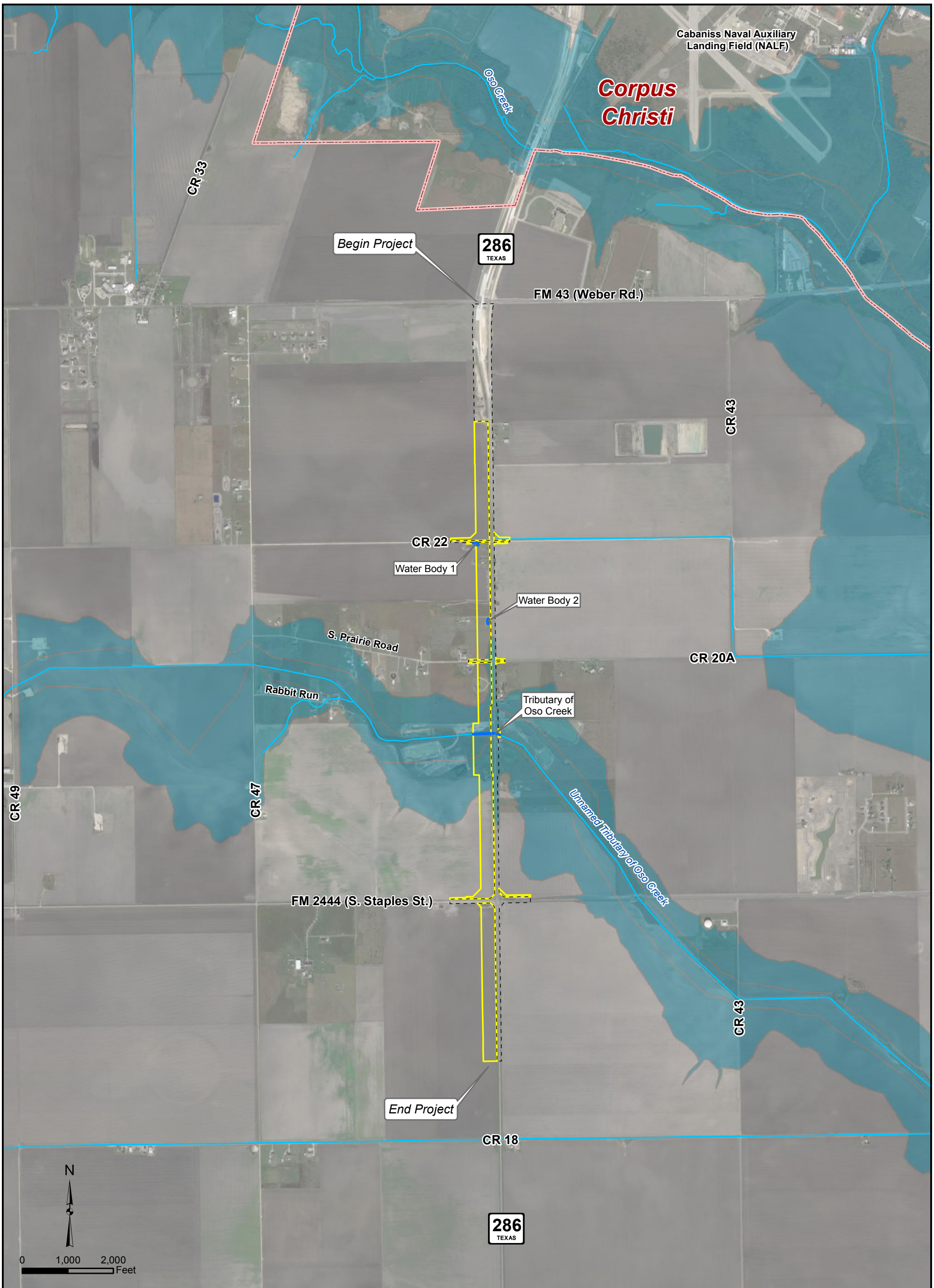

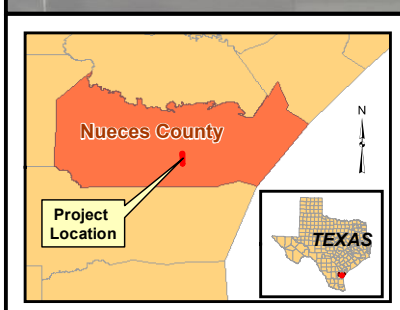

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- City of Corpus Christi
- Rivers/Streams
- Identified Water Resources
- 100-Year Floodplain

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 7
Identified Waters and Floodplains

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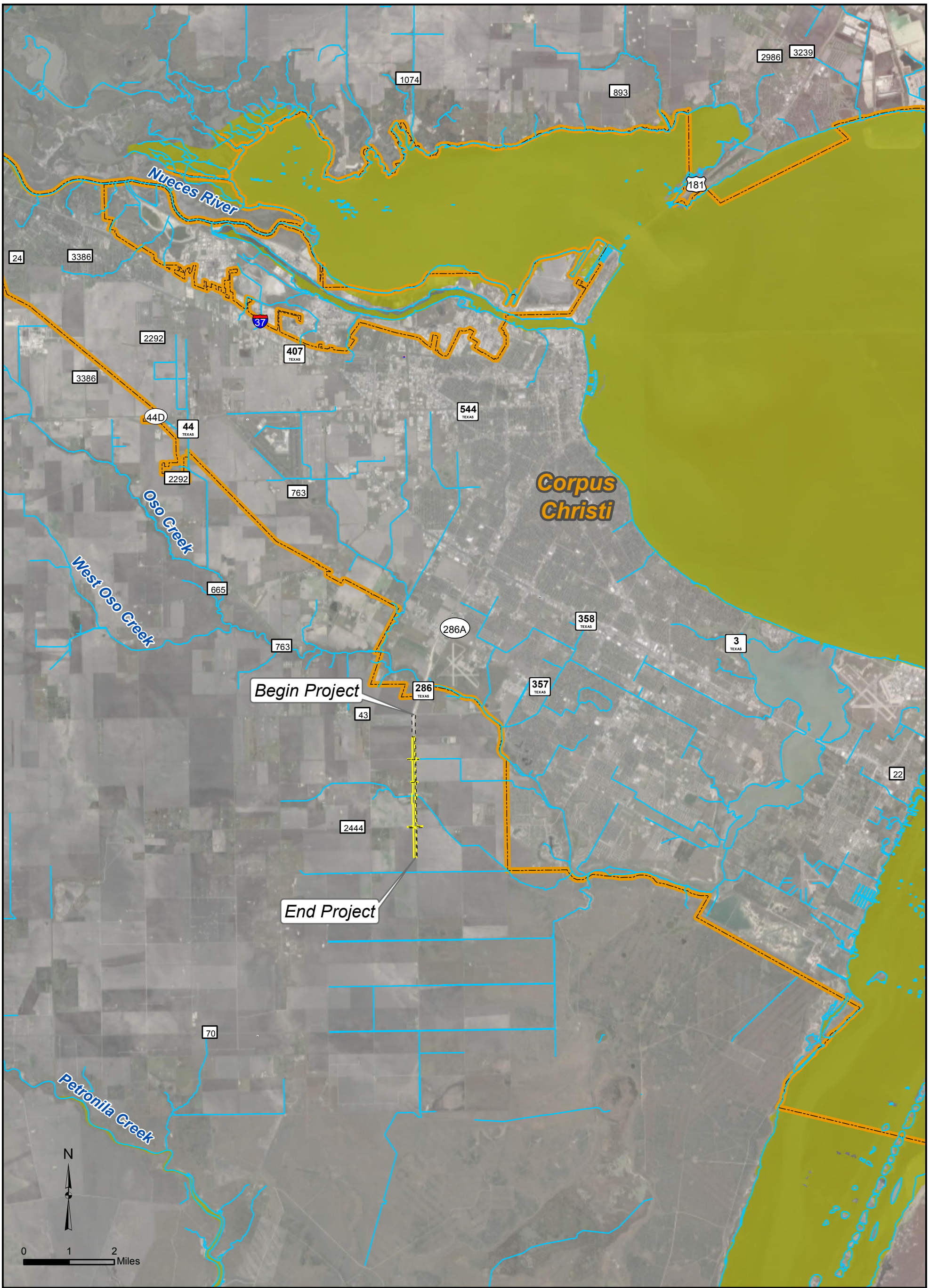

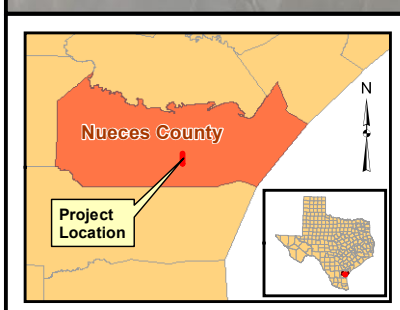

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- Corpus Christi City Limits
- Essential Fish Habitat (EFH)

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 8
Essential Fish Habitat

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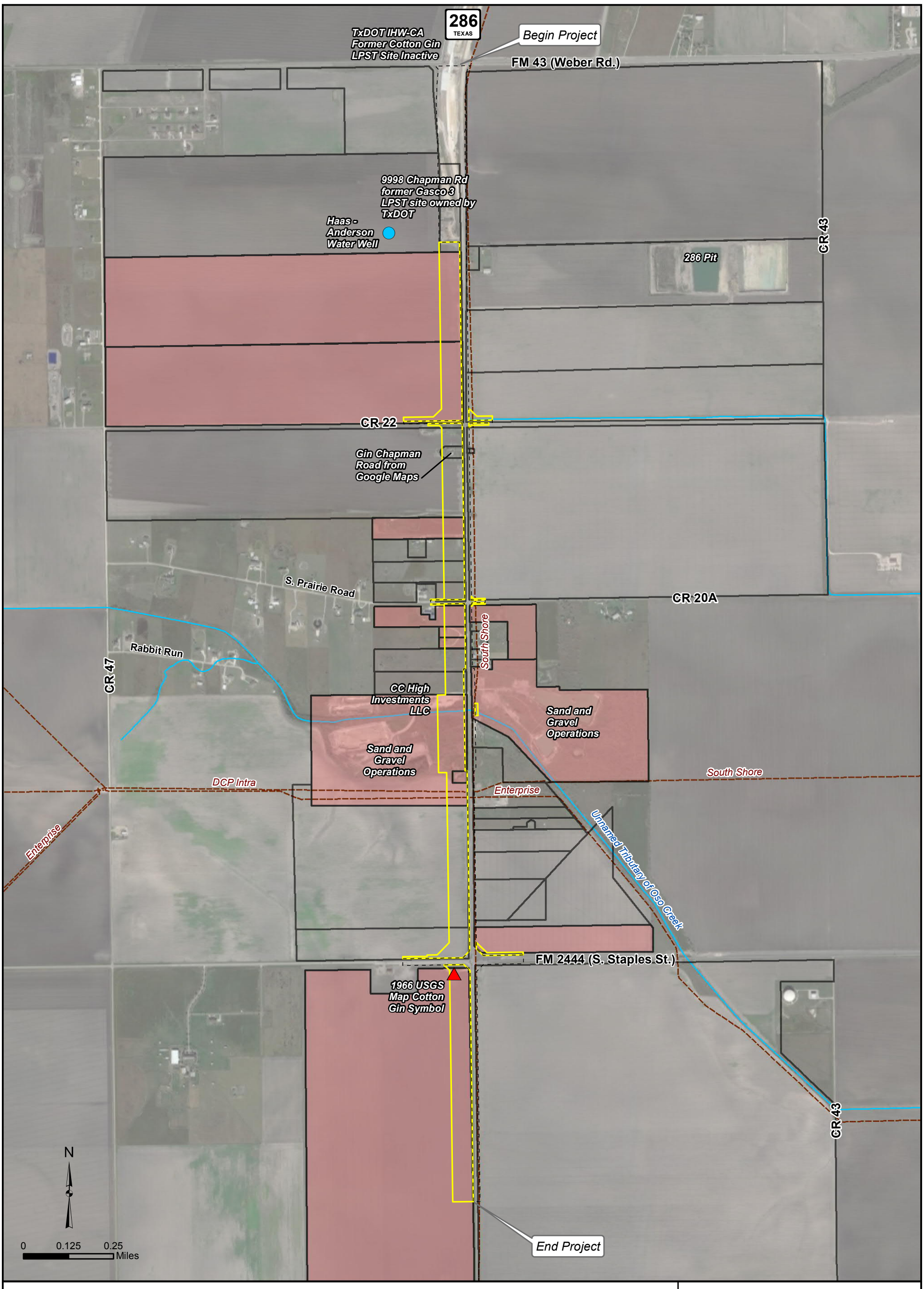

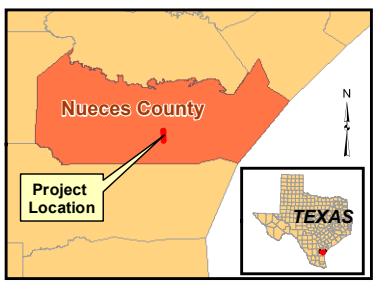

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- Parcel Boundaries
- Rivers/Streams
- Possible Project Impacts
- Hazardous Materials Site
- Water Well
- Natural Gas Pipelines

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 9
Hazardous Materials

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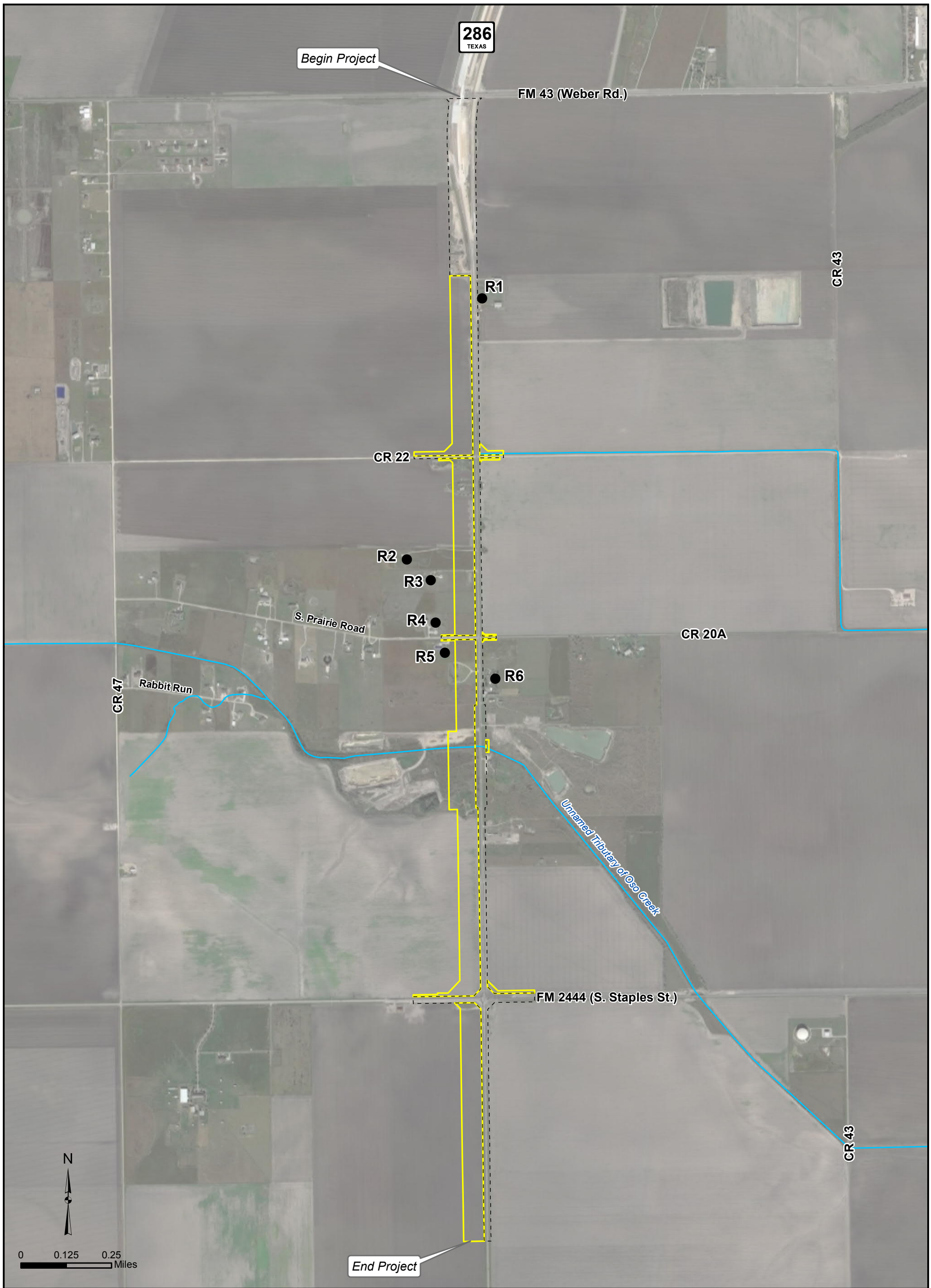

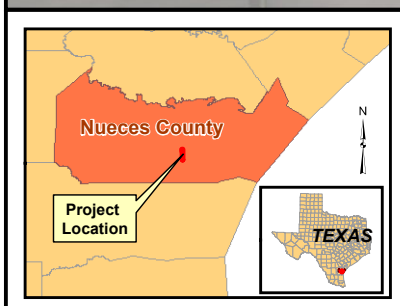

Legend

Existing Right-of-Way
Proposed Right-of-Way
Rivers/Streams

Noise Receivers
Non-Impacted Receiver

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 10
Traffic Noise

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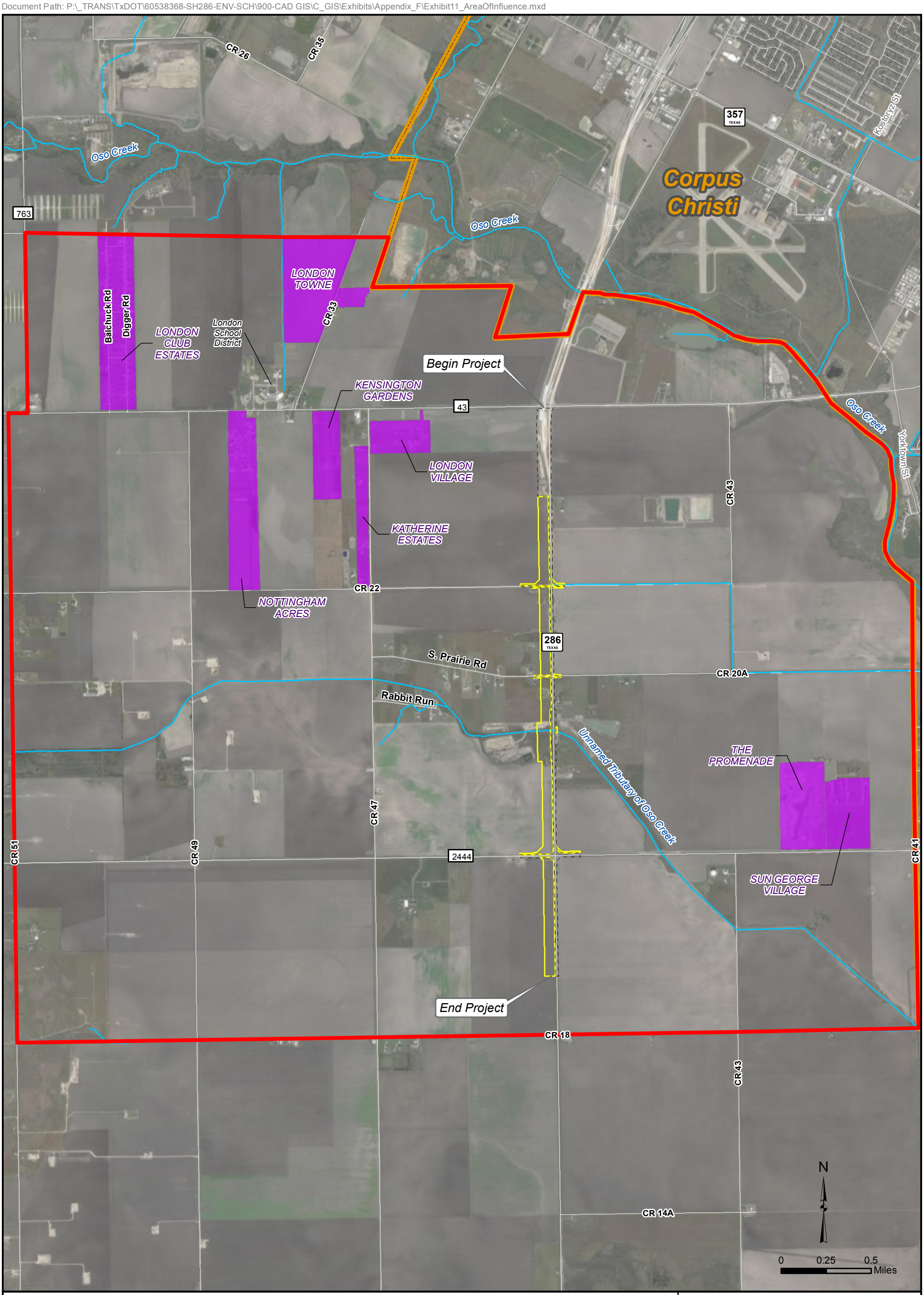

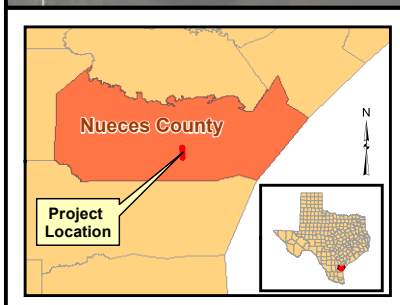

Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- Corpus Christi City Limits
- Area of Influence Boundary
- Existing and Planned Subdivisions

SH 286
FM 43 to South of FM 2444

Appendix F - Exhibit 11
Area of Influence

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Appendix G – Resource Agency Coordination

USDA Farmland Protection Policy Act (FPPA) Coordination and Farmland Conversion Impact Rating Form

TPWD Section 6(f) Resources in Nueces County

TPWD TXNDD Coordination

TPWD Marl Sand and Gravel Permits and FOIA Coordination

United States Department of Agriculture

Natural Resources
Conservation Service

State Office

101 S. Main Street
Temple, TX 76501
Voice 254.742.9800
Fax 254.742.9819

August 27, 2018

Texas Department of Transportation
Kimberly.A.McGlaun@txdot.gov

Attention: Kimberly McGlaun, Environmental Coordinator, *via email*

Subject: LNU-Farmland Protection
Proposed SH 286 Corridor Project
NEPA/FPPA Evaluation
Nueces County, Texas

We have reviewed the information provided in your correspondence dated August 16, 2018 concerning the proposed roadway improvements project located in Nueces County, Texas. This review is part of the National Environmental Policy Act (NEPA) evaluation for the Federal Highway Administration (FHWA). We have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

The proposed corridor contains areas of Prime Farmland and Statewide Important Farmlands and we have completed the Farmland Conversion Impact Rating for Corridor Type Projects form (NRCS-CPA-106) for the site. The combined rating of the site is **124**. The FPPA law states that sites with a rating less than 160 will need no further consideration for protection and no additional evaluation is necessary. We encourage the use of accepted erosion control methods during the construction of this project.

If you have further questions, please contact me at 254.742.9836 or by email at Carlos.Villarreal@tx.usda.gov (Preferred).

Sincerely,

Carlos J. Villarreal
NRCS Soil Scientist

Attachment: **Farmland Conversion Impact Rating for Corridor Type Projects form (NRCS-CPA-106)**

An Equal Opportunity Provider and Employer

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 8/16/18	4. Sheet 1 of 1
1. Name of Project **Proposed HWY 286 Project**	5. Federal Agency Involved **FHWA**	
2. Type of Project **Roadway Improvements**	6. County and State **Nueces County, Texas**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 8/16/18	2. Person Completing Form Carlos J. Villarreal
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated 432 / Average Farm Size 695
5. Major Crop(s) Corn, Cotton, Small Grains	6. Farmable Land in Government Jurisdiction Acres: 523933 % 95	7. Amount of Farmland As Defined in FPPA Acres: 241041 % 44
8. Name Of Land Evaluation System Used National Commodity Crop Productivity Inde	9. Name of Local Site Assessment System None	10. Date Land Evaluation Returned by NRCS 8/27/18

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	97			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	97			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	93			
B. Total Acres Statewide And Local Important Farmland	5			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.0002			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	58			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	59			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points	Corridor A	Corridor B	Corridor C	Corridor D
1. Area in Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	10			
3. Percent Of Corridor Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	20			
5. Size of Present Farm Unit Compared To Average	10	0			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availablility Of Farm Support Services	5	0			
8. On-Farm Investments	20	0			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	65	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	59	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	65	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	124	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☑

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

From:	Reguera, Cristie
To:	Spivey, Lauren C.
Subject:	FW: SH 286 proposed project in Nueces County- Section 6(f) Land and Water Conservation Fund Act properties
Date:	Thursday, November 29, 2018 4:23:47 PM
Attachments:	Nueces CO.png

Cristie Reguera
Environmental Planner IV, AECOM
D +1-281-675-1850
cristie.reguera@aecom.com

From: Dan Reece [mailto:Dan.Reece@tpwd.texas.gov]
Sent: Monday, October 29, 2018 1:32 PM
To: Reguera, Cristie
Subject: RE: SH 286 proposed project in Nueces County- Section 6(f) Land and Water Conservation Fund Act properties

Hi Cristie, thanks for checking in with us. This ROW expansion will not impact any fund-assisted sites from TPWD Recreation Grants. See attached . . . the closest grant supported parks are several miles to the East.

We may have spoken about this earlier, but we are working towards some type of publicly-accessible interactive map which will eventually make this process easier. For now, though, feel free to contact me anytime something pops up.

Sincerely,
Dan

Dan Reece, RLA
Local Park Grants Coordinator
TX Landscape Architect #1986
(512) 389-4656 – office
(512) 945-3767 – mobile/text

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From: Reguera, Cristie [mailto:Cristie.Reguera@aecom.com]
Sent: Monday, October 29, 2018 12:29 PM
To: Dan Reece <Dan.Reece@tpwd.texas.gov>
Subject: SH 286 proposed project in Nueces County- Section 6(f) Land and Water Conservation Fund Act properties

Hi Dan,
The Texas Department of Transportation (TxDOT) Corpus Christi District is planning to improve State

Highway (SH) 286 from Farm-to-Market Road (FM) 43 (Weber Road) to south of FM 2444 (S. Staples Street) in Nueces County, Texas, a length of approximately 3.2 miles. We are am preparing an environmental assessment and need to verify if there any PWC Chapter 26 properties or Section 6(f) Land and Water Conservation Fund Act properties in our project area. Attached is a PDF of the proposed project right-of-way. I can also send you shapefiles if you need them.

Proposed improvements would include grade separations at CR 20A, CR 22, and FM 2444. Approximately 300 feet of new ROW would be acquired to the west of the existing SH 286 ROW to construct the proposed improvements for a total ROW width of 400 feet. The existing bridge class culverts crossing a tributary to Oso Creek would be replaced with bridges that would span the tributary (separate bridges for northbound and southbound main lanes and frontage roads). In addition to the proposed roadway improvements, additional ROW would be acquired to accommodate drainage improvements and storm water detention requirements.

I appreciate your assistance. Please feel free to call or email me if you need more information.

Thank you,
Cristie

Cristie Reguera
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From:	Knowles, Logan
To:	Spivey, Lauren C.
Subject:	FW: TXNDD Data Request - AECOM
Date:	Thursday, November 29, 2018 11:05:47 AM
Attachments:	knowles_20181002.zip

Texas Parks and Wildlife Department TXNDD Agency coordination.

From: Texas Natural Diversity Database [mailto:TexasNatural.DiversityDatabase@tpwd.texas.gov]
Sent: Sunday, October 07, 2018 6:51 PM
To: Knowles, Logan
Subject: RE: TXNDD Data Request - AECOM

Ms. Knowles,

The Texas Natural Diversity Database (TXNDD) staff provides the following information in response to your request for data. Please read this entire message for important information regarding your request, additional data sources, and project review.

Data
The TXNDD includes federal and state listed and tracked Threatened, Endangered, and Rare species. Please note that **areas where Element Occurrence (EO) data are absent should not be interpreted as an absence of Threatened, Endangered, and Rare species.** *Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Data from the TXNDD do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within your project area. These data cannot substitute for an on-site evaluation by qualified biologists.*

Attached documents
The attached .zip file contains several documents that will guide you in appropriate use, restrictions, and interpretation of TXNDD data as well as a reporting form for submitting data to the TXNDD. The .zip file also includes additional supplemental documents. Below is a list of the files in the attached folder:

- **Shapefile** (*eo_[last name of requestor]_yyyymmdd.zip*) of the Threatened, Endangered and Rare species Element Occurrences made from information the TXNDD presently has available for the requested quad(s) (or within the requested county, by requested species when applicable).

- **EO Report** (*eoreport_[last name of requestor]_yyyymmdd.pdf*) of the EOs in the shapefile mentioned above. The **EO Report** includes more detailed information about each EO than what is contained in the attribute table of the shapefile. Link the information in the shapefile to the information in the **EO Report** by *EO ID*. Note that if the number of records in your request area is large, this report may not be included; however, if, in this circumstance, you would like more detailed information about a particular EO, species, or smaller geographic area, you may request those data.

- **EO List** (*eolist_[last name of requestor]_yyyymmdd.pdf*) for those requests made by USGS 7.5 minute quadrangles. The **EO List** is a list of species for which we have records in the database in the USGS 7.5 minute quadrangles *surrounding* your request area The **EO List** is to inform you of federal and state listed and tracked Threatened, Endangered, and Rare species in the area. Note that the EO list is not included in county requests.

- **County List FAQ** (*County_lists_FAQ_20150415.pdf*) produced by the Wildlife Habitat Assessment Program.

- **TXNDD Information** document (*txndd_information.docx*) that includes a background of the TXNDD, a description of past and current spatial methodology employed, and an explanation of interpretation of the data. Global and subnational (state) conservation ranks are also explained in this document as are the shapefile attributes and EO report sections.

- **TXNDD Reporting Form** (txndd_reporting_form.doc) for reporting observations of tracked elements to the Texas Natural Diversity Database. To submit data, fill out this form and send it to TexasNatural.DiversityDatabase@tpwd.texas.gov. Note that you can also submit data in the form of an Excel spreadsheet or written report.

Project Review, Rare Species County Lists, Project Planning, and BMPs
This email cannot substitute for an environmental review of your project by TPWD. For information on project review and to access the county lists of protected species and species of greatest conservation need with potential to occur in the county, please visit the Wildlife Habitat Assessment (WHAB) website at http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/. The WHAB website includes several resources to consider while planning your project to minimize impacts to fish and wildlife resources, including information /guidelines on Wind Energy projects, Transmission Line projects, Communication Towers, and Karst Zones (Travis, Williamson, and Bexar Counties).

Ecologically Significant Stream Segments
If your information request area contains known ecologically significant stream segments, the data can be obtained at
http://tpwd.texas.gov/landwater/water/conservation/water_resources/water_quantity/sigsegs/index.phtml

Critical Habitat
If your information request area contains federally designated critical habitat, the data can be obtained at http://ecos.fws.gov/crithab/.

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

Sincerely,

Bob Gottfried
Texas Natural Diversity Database Administrator
Texas Parks and Wildlife - Wildlife Division
4200 Smith School Rd
Austin, TX 78744
512-389-8744
TXNDD Information

From: Knowles, Logan <Logan.Knowles@aecom.com>
Sent: Tuesday, October 2, 2018 12:16 PM
To: Texas Natural Diversity Database <TexasNatural.DiversityDatabase@tpwd.texas.gov>
Subject: TXNDD Data Request - AECOM

Our area of interest in along SH 286 in Nueces County, Texas south of Corpus Christi. We are interested in all species. The project type is a roadway expansion.

Attached is a zip folder of the proposed and existing Right-of-way for the project.

Logan Knowles, AECOM
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From: Open Records
To: Krenz, Kelly; Open Records
Subject: RE: Marl Sand and Gravel Permits and FOIA Request
Date: Wednesday, July 25, 2018 3:34:21 PM
Attachments: image001.png

Good afternoon:

TPWD Staff has provided the following response:

There have been no sand and gravel permits issued for the properties or operations described in the information request.

Additional information addressing Kelly Krenz's last paragraph:
While Oso Creek appears to meet the State criteria of a navigable stream, the tributary referred to does not appear to meet the criteria. Therefore, it does not appear that TPWD sand and gravel permits are required for the operations. Also, other than a constructed crossing, the operations do not appear to be in the tributary and likely would not need permits if the tributary was navigable, except for the crossing.

There is not a list of issued sand and gravel permits available online.

Kind Regards,
Sara

Sara Hammond
Attorney
Texas Parks & Wildlife Department
(512) 389-4727
(512) 389-4482 (fax)

From: Krenz, Kelly <Kelly.Krenz@aecom.com>
Sent: Wednesday, July 25, 2018 2:22 PM
To: Open Records <Open.Records@tpwd.texas.gov>
Subject: Marl Sand and Gravel Permits and FOIA Request

Good afternoon,
I am trying to figure out the marl, sand and gravel mining permits that may have been issued in Nueces County, Texas for two apparent sand and gravel operations that are along Oso Creek Tributary 5. The operations in question are along SH 286 (Chapman Ranch Road aka CR 43) between County Road (CR) 20A and FM 2444 (S. Staples Street). The properties are evidently owned by Carrie & Robert Gonzalez (Nueces County property records 425000080300) on the east side of SH 286 and CC High Points Investments LLC., or John Tamez (as of 3/28/16) on the west side of SH 286 near Oso Creek tributary. At the end of this email are Google map hyperlinks to show the areas in question.

The address for the sand and gravel mining operation on the east side of SH 286 is Robert and Carrie Gonzalez and their address is given as 5722 Woolridge Rd Corpus Christi, TX 78414. The property in question is at 2114 Chapman Ranch Road, TX and the legal description is Laureless Farm Tracts 70.5 acres out of SW/4 Section 8.

The address for the sand and gravel operations on the west side of SH 286, may be variable but is about at 2063 SH 286 (Chapman Ranch Road) and is currently owned by either CC High Point Investments LLC or John Tamez. The property details for these parcels of land are shown below. Both properties had been owned by CC High Point Investments LLC, but on 3/28/16, about 26 acres (or 42.3 acres, the records are inconsistent), part of the property was transferred by warranty deed 2017019047 to John Tamez. The address for both John Tamez and CC High Point Investments LLC is the same and is given as 832 Kinney Street, Corpus Christi, TX.

I've also included hyperlinks to Google maps that show the operations in question. I don't know exactly what you need in order to look up whether or not these operations have a TPWD marl, sand and gravel permit for mining in a navigable water of Texas. According to our information, this portion of Oso Creek is determined to be navigable. If this type of data is available online, I'd appreciate learning about the location of the list of your permits issued for mining operations because I couldn't find it readily.

Thank you for any assistance you can provide.

Property Information from Nueces County Tax Appraisal Records

CC HIGH POINT INVESTMENTS LLC Owner ID 692029
Property Identification Number:531504
Geo Identification Number:4250-0028-0110
Legal Description: LAURELES FARM TRACTS 43.3305 ACS OUT NE/4 SEC 28 & S/2 OF S/2 SEC 9

Mailing Address: 832 Kinney St
Corpus Christi, TX 78401-3006

Owner Name: CC HIGH POINT INVESTMENTS LLC
Doing Business As: Null
Property Identification Number:257003
Geo Identification Number:4250-0028-0100
Legal Description: LAURELES FARM TRACTS 1 AC OUT NE/4 SEC 28
State Code: E1
Address: 2063 HWY 286, (CHAPMAN RANCH ROAD)
Taxing Jurisdictions: CAD, GNU, RFM, SA, HOSP
Appraised Value: $40,000.00
Neighborhood: LONDON RURAL LQ
Abstract Code: S4250
MAP ID R-310

Owner Name: JOHN TAMEZ
Doing Business As: Null
Property Identification Number:546213
Geo Identification Number:4250-0028-0111 and 4250-0028-0112
Legal Description: LAURELES FARM TRACTS 42.3305 ACS OUT SE/4 SEC 28 & S/2 OF S/2 SEC 9
State Code: D1
Address: Null
Taxing Jurisdictions: CAD, GNU, RFM, SA, HOSP
Appraised Value: $9,995.00
Neighborhood: LAURELES FARM TRACTS
Abstract Code: S4250
Owner ID 327342
823 KINNEY
CORPUS CHRISTI, TX 78401

https://www.google.com/maps/@27.6593312,-97.4514753,506a,35y,308.36h,44.8t/data=!3m1!1e3?hl=en (birds eye view of mining operations on the western side of SH 286)

https://www.google.com/maps/@27.6618733,-97.447685,1812m/data=!3m1!1e3?hl=en (birds eye view of sand and gravel mining on the west and east sides of SH 286)

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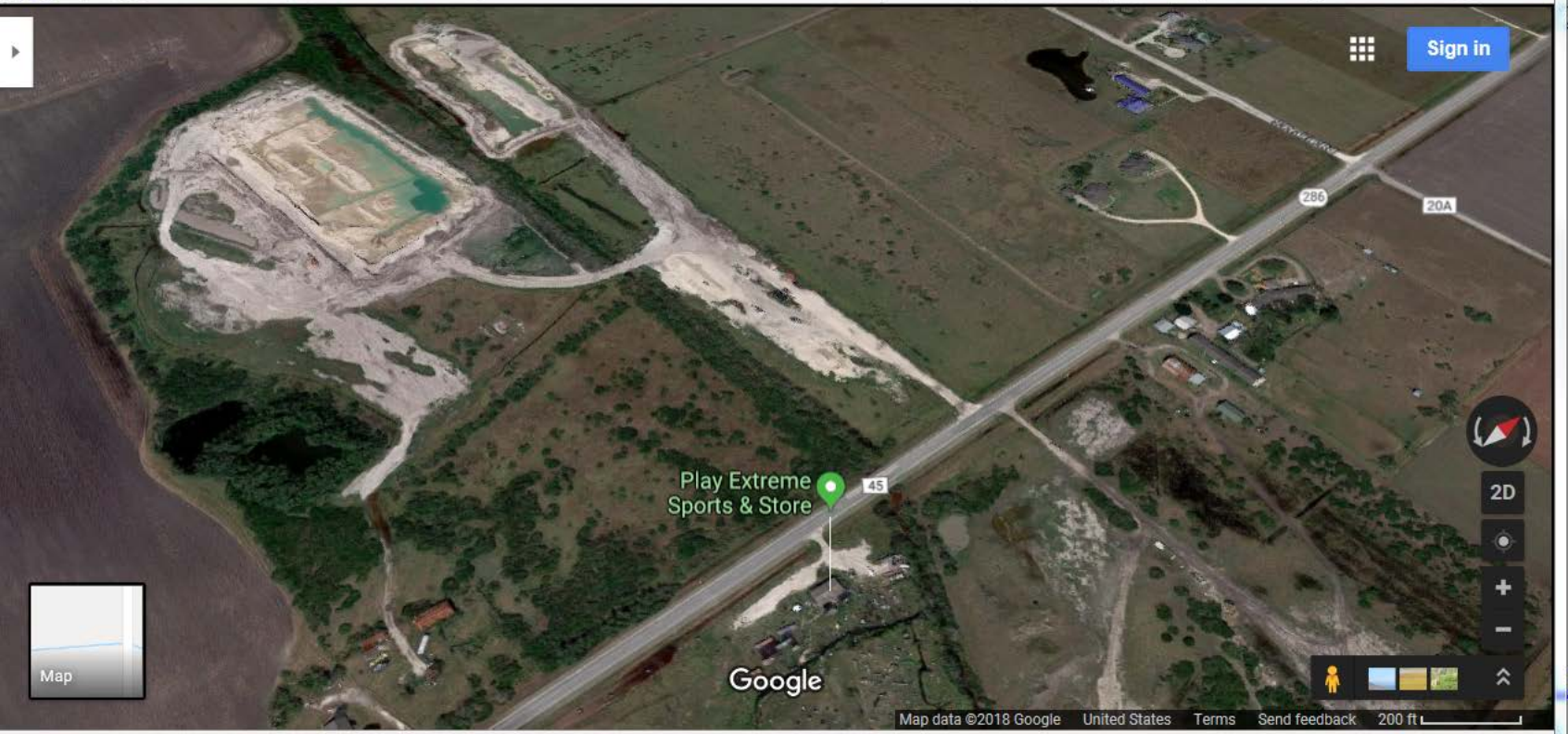

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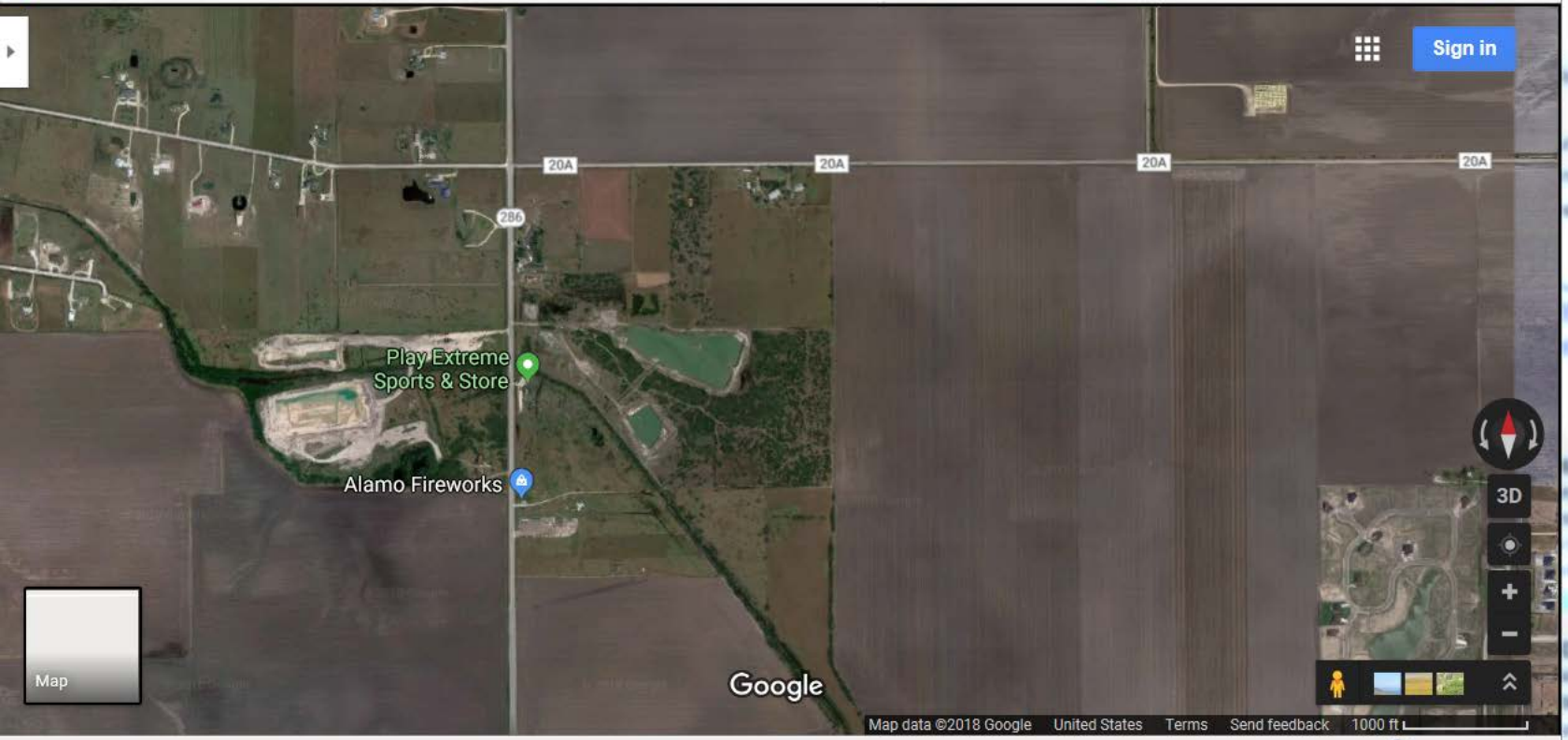

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