Final Environmental Assessment

Nolana Loop
Pharr District

From FM 1426 (Raul Longoria Road)
To FM 88 (Texas Avenue)
CSJ: 0921-02-169, 0921-02-361
Hidalgo County, Texas
April 2020

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT.

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Abbreviations and Acronyms

-A-

AADT	Annual Average Daily Traffic
ACHP	Advisory Council on Historic Preservation
ACM	Asbestos-Containing Material
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AJD	Approved Jurisdictional Determination
AOI	Area of Influence
APE	Area of Potential Effect

-B-

BG	Block Group
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practices

-C-

CAAA	Clean Air Act Amendments
CBRA	Coastal Barrier Resources Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGP	Construction General Permit
CHC	County Historical Commission
CMP	Congestion Management Process
CSJ	Control Section Job
CT	Census Tract
CWA	Clean Water Act

-D-

dBA	A-Weighted Decibels
dbh	Diameter Breast Height
DHHS	Department of Health and Human Services
DID	Donna Irrigation District
DOT	Department of Transportation

-E-

EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
EPIC	Environmental Permits, Issues, & Commitments
ETC	Estimate Time of Completion
ETJ	Extra Territorial Jurisdiction

-F-

FHWA	Federal Highway Administration
FM	Farm to Market
FPPA	Farmland Protection Policy Act
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
FY	Fiscal Year

-G-

GIS	Geographic Information System

-H-

H&CCDD	Hidalgo & Cameron County Drainage District
H&CCID	Hidalgo & Cameron County Irrigation District
HCDD	Hidalgo County Drainage District
HCID	Hidalgo County Irrigation District
HCMPO	Hidalgo County Metropolitan Planning Organization
HEI	Health Effects Institute

-I-

I	Interstate
IBWC	International Boundary and Water Commission
IPaC	Information for Planning and Consultation
ISA	Initial Site Assessment

-J-

-K-

-L-

LEP	Limited English Proficiency
LBP	Lead Based Paint
LOS	Level of Service
LPST	Leaking Petroleum Storage Tanks
LWCF	Land & Water Conservation Fund

-M-

MAPO	Meeting with Affected Property Owners
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MPH	Miles Per Hour
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
MSA	Magnuson-Stevens Fishery Conservation Management Act
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan

-N-

NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOA	Notice of Availability
NOI	Notice of Intent
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory

-O-

OTHM	Official Texas Historical Markers

-P-

PA	Programmatic Agreement
PA-TU	Programmatic Agreement for Cultural Resources
PCN	Pre-Construction Notice
PMSA	Primary Metropolitan Statistical Area
PS&E	Plans, Specifications, & Estimates
PWC	Parks & Wildlife Code

-Q-

-R-

ROW	Right-Of-Way
RPIC	Responsible Person In Charge
RTHL	Recorded Texas Historic Landmarks

-S-

SH	State Highway
SHPO	State Historic Preservation Officer
SW3P	Storm Water Pollution Prevention Plan

-T-

TAC	Texas Administrative Code
TARL	Texas Archeological Research Laboratory
TAQA	Traffic Air Quality Analysis
TCEQ	Texas Commission on Environmental Quality
TDC	Texas Demographic Center
THC	Texas Historical Commission
TIP	Transportation Improvement Plan
TPDES	Texas Pollutant Discharge Elimination System
TPP	Transportation Planning and Programming
TPWD	Texas Parks & Wildlife Department
TxDOT	Texas Department of Transportation

-U-

US	United States
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USDOT	United States Department of Transportation
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey

-V-

VMT	Vehicle Miles Traveled
VPD	Vehicles Per Day

-W-

-X-

-Y-

-Z-

I. Introduction

A. Purpose of this Document

Hidalgo County in cooperation with the Texas Department of Transportation (TxDOT), proposes to widen, reconstruct, and extend Nolana Loop located in the City of San Juan and in rural Hidalgo County, Texas. Federal regulations require that federally funded transportation projects have logical termini (23 Code of Federal Regulations (CFR) 771.111(f)(1)). Simply stated, this means that a project must have rational beginning and end points. Those end points may not be created simply to avoid proper analysis of environmental impacts. The logical termini and construction limits are from Farm to Market (FM) 1426 (Raul Longoria Road) to FM 88 (Texas Avenue); a total length of 9.8 miles (**Figure 1**). These limits were chosen based on the major crossroads in the project area. **Figure 2** shows the proposed project on the U.S. Geological Survey (USGS) topographic map.

This Environmental Assessment (EA) has been developed to study the potential social, economic, and environmental impacts resulting from constructing the proposed project. The EA is organized to provide concise information with accompanying technical reports that support the finding within the document. The EA has been prepared in accordance with the procedural provision of the National Environmental Policy Act (NEPA); the Council on Environmental Quality (CEQ) regulations in *Implementing Procedural Provision of NEPA* (40 CFR Parts 1500-1508) and *Environmental Impact and Related Procedures* (23 CFR Part 771); and Texas Administrative Code (TAC) Title 43, Part 1, Chapter 2, *Environmental Review of Transportation Projects*.

B. Public Review of the Environmental Assessment

The EA was made available for public review on November 20, 2019. A Notice of Availability (NOA) of the EA was published on www.txdot.gov and in the local newspapers. Hidalgo County and TxDOT thoroughly considered all comments submitted during the comment period. Based on the analysis conducted in this EA and comments received during the comment period, TxDOT determined the potential environmental effects do not warrant the preparation of an Environmental Impact Statement. A Finding of No Significant Impact (FONSI) will be prepared, signed, and made available to the public.

II. Project Description

The project would widen, reconstruct, and extend the existing roadway from FM 1426 (Raul Longoria Road) to FM 88 (Texas Avenue); a distance of 9.8 miles.

A. Existing Facility

The existing 22-foot-wide rural roadway from FM 1426 (Raul Longoria Road) to Victoria Road consists of two 11-foot-wide travel lanes. A varying 30-foot-wide minimum to 120-foot-wide maximum existing Right of Way (ROW) is available along existing roadway sections. Drainage for the roadway is handled through roadside ditches. See **Figure 3** for the existing typical section. The existing speed limit is 30 miles per hour (MPH). There is no existing roadway from Victoria Road east to FM 88, a distance of approximately 2.5

miles. See **Appendix A** for photos of the existing facility. Existing ROW would be used where possible.

Table 1 reflects the Average Daily Traffic (ADT) for the operational years 2018 and 2038 as provided by TxDOT's Transportation Planning and Programming (TPP) Division.

Table 1: Average Daily Traffic

Roadway	From	To	2018	2038
Nolana Loop	FM 1426 (Raul Longoria Road)	FM 88 (Texas Avenue)	7,900	11,100

TPP, 2016

B. Proposed Facility

The scope of the project is to widen, reconstruct, and extend the existing roadway from FM 1426 (Raul Longoria Road) to FM 88. The project would use approximately 63 acres of existing ROW where possible along Earling Road and Mile 11 ½ Road. Approximately 2.5 miles of the project, from Victoria Road east to FM 88, would be on new location.

Nolana Loop would be constructed as an 84-foot-wide urban roadway consisting of four 12-foot-wide travel lanes, one 16-foot-wide continuous left turn lane, two 10-foot-wide shoulders, and six-foot-wide sidewalks on both sides of the roadway within a 120-foot-wide ROW. Drainage would be handled by a storm drain system. See **Figure 4** for the proposed typical section. As part of the project, the intersection of Cesar Chavez Road would be reconstructed for approximately 1,286 feet to the north and south to include a proposed left turn lane. The project would use 7.3 miles of existing ROW along Earling Road and Mile 11 ½ Road, within the city limits of San Juan and rural Hidalgo County.

Nine existing outfalls located within the project limits would be cleaned of debris, as needed, to improve drainage in the area and collect stormwater runoff (drainage ditches in **Figure 11)**. All outfall cleaning would occur within existing ROW. An existing outfall (approximately 976 feet in length) located between Old La Blanca Road and FM 493 would be relocated approximately 40-feet north of its current location (**Figure 5**) within existing drainage ROW.

Two permanent irrigation easements would be required as a result of the project. An existing, underground irrigation line runs parallel to Nolana Loop. Easement One is located on the north side of Nolana Loop from Jesenia Street east for approximately 0.4 miles (See **Figure 6**). To relocate the existing line, 30 feet would be required for Easement One. This easement would require approximately 1.4 acres of land. An existing, underground irrigation line runs parallel to Tower Road and to the east along Nolana Loop. Three areas (approximately 329, 105, and 1,434 linear feet, respectively) by 30 feet would be required to relocate Easement Two. This easement is located at the east side of the intersection of Tower Road on the north and south sides of the road and on the north side of Nolana Loop (See **Figure 7**). Easement Two would require approximately 1.3 acres of land.

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 771.11(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 project would provide a continuous route on a discontinuous roadway, improving mobility and reducing congestion on adjacent roadways. The work satisfies the project's need and would improve mobility in the project area independent of any other future roadway improvements. Since this project stands alone, it cannot and does not irretrievably commit federal funds for other future transportation projects. This means that the proposed project does not require federal funds for future transportation projects. The proposed improvements to Nolana Loop will provide benefit to the corridor and region independently without the need for any other projects to be constructed for the proposed improvements.

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 construction of the proposed project does not rule out future options for the development of other reasonably foreseeable transportation improvements. Because the project stands alone (independent utility) and will not force a future expenditure of funds, no future roadway alternatives would be dictated or restricted by the proposed project.

The project would require 82.6 acres of new ROW and is anticipated to require seven residential relocations, one business relocation, and 2.7 acres for two permanent irrigation easements.

The project is consistent with the Hidalgo County Metropolitan Planning Organization's (HCMPO) 2015-2040 Metropolitan Transportation Plan (MTP) and the 2019-2022 Transportation Improvement Plan (TIP). The entire project is listed in FY 2019 for preliminary engineering. The project is eligible for Federal and State transportation funds. The project is a local government sponsored roadway and is anticipated to receive 80 percent federal and 20 percent local funding for construction. The estimated total project cost is $16.6 million. The appropriate pages of the plan and programing documents are available in **Appendix B.**

III. Purpose and Need

A. Need

The project is needed because there is a lack of east-west connectivity between FM 1426 and FM 88. Nolana Loop is unable to accommodate future traffic demands and is needed to complete the local, non-through traffic transportation network.

B. Supporting Facts and/or Data

Population increases and ongoing development have resulted in increased traffic in the study area. The current condition of the roadway does not allow for efficient operation, nor

does it carry the maximum amount of traffic possible. The proposed action must ensure an acceptable Level of Service (LOS) under anticipated traffic conditions. An acceptable LOS means that the proposed facility must operate at a LOS rating of C or higher under future traffic conditions. See **Table 2** for the LOS descriptions.

Table 2: LOS Descriptions

LOS Category	*Description of Operating Conditions*
LOS A	Free flow. LOS A represents high speed, smooth flow with little or no interference between vehicles.
LOS B	Lower speeds than LOS A, although flow is still good and little congestion exist. In urban areas, average over-all speeds drop due to intersection delay and vehicular conflicts.
LOS C	Lower speeds than LOS B, although flow is still good and little congestion exists. Operation is still stable with acceptable delays, but becoming more critical.
LOS D	Level D shows still lower speeds than previous levels. There is some congestion, and conditions become slightly unstable with respect to travel time and delay. The traffic flow is beginning to tax the capabilities of the street section. In urban and suburban areas, delays at intersections may be extensive with some cars waiting two or more cycles.
LOS E	The traffic flow is unstable, and the volumes are at capacity. Any momentary stoppage may create an immediate and significant amount of congestion. Traffic is backed up continuously at intersection approaches.
LOS F	Level of service F is demonstrated by conditions of heavy congestion and stop-and-go traffic. All intersections are handling traffic in excess of capacity. Vehicular back-ups extend back from signalized intersections, through unsignalized intersections.

Highway Capacity Manual, 2000

Based on the ADT of 7,900 vehicles per day for the year 2018, the existing two lane rural roadway received a LOS rating of D. Widening and reconstructing Nolana Loop to a four lane roadway would improve the LOS rating to a B based on the 2038 traffic projections. It can be determined that with increases in projected traffic and the congestion along Nolana Loop, the existing roadway would continue to deteriorate, thereby reducing its overall effectiveness.

Nolana Loop is not a continuous roadway east of Goolie Road and from Victoria Road east to FM 88. Access to subdivisions and business in the area is indirect due to the separated nature of the existing roadway. Nolana Loop is a major commuting roadway within the cities of San Juan and McAllen. The existing roadway west of FM 1426 is a four lane, urban roadway. The existing rural roadway is not continuous, lacks turning lanes, and sidewalks.

State Highway (SH) 107 and Interstate 2 (I-2) are the only roadways within a seven mile radius that provide continuous east-west connectivity from I-69 to FM 88. As a result, the area has poor circulation and traffic movement.

C. Purpose

The purpose of the project is to improve mobility on Nolana Loop between FM 1426 and FM 88 to accommodate current and future traffic volumes.

IV. Alternatives

The development of alternatives began with the primary objective of improving the existing Nolana Loop by providing a continuous corridor, additional travel lanes, a turn lane, and sidewalks within a 120-foot-wide ROW. The information used to develop and evaluate the different alternatives was obtained from aerial photography, elevation models, USGS topographic maps, field visits, internal design team meetings, discussions with the county, cities, and elected officials, stakeholder meetings, public meetings, and Meetings with Affected Property Owners (MAPO). Constraints driving the development of the alternatives were the impacts to vegetation and displacements. Economic considerations included: potential costs and benefits of implementing the alternative, length of roadway, and the feasibility of successfully mitigating the effects of the alternative. Other sources consulted included: the National Wetlands Inventory (NWI) and United States Fish and Wildlife Service (USFWS) maps, literary review at the Texas Historical Commission (THC), Texas Archeological Research Laboratory (TARL), and the Texas Historical Site Atlas.

A. Build Alternative

Upon receipt of new funding, the project was reviewed and updated under the latest design criteria, past public comments, and appraisal and property boundary description data. The Final Build Alternative would maximize use of the existing ROW, acquire new ROW in a best fit situation, and would meet the purpose and need of the project.

The proposed typical section was revised and updated to the latest TxDOT design standards. Based on comments received at the 2006 public meetings, the proposed median was removed. Interim construction phasing was eliminated in favor of providing a continuous, consistent roadway. Due to development, a minor modification was made to the alignment at the connection point at FM 88. The proposed typical section includes four 12-foot-wide travel lanes, a 16-foot-wide continuous turn lane, two 10-foot-wide shoulders, and a six-foot-wide sidewalk on both sides of the roadway within a 120-foot-wide ROW.

As a result of these changes, the proposed ROW required was reduced to 82.6 acres (277 parcels). This alternative is anticipated to require seven residential relocations, one business relocation, and two irrigation easements. **Figure 8** depicts the Build Alternative.

B. No-Build Alternative

The No-Build Alternative involves taking no major action to improve or change the existing Nolana Loop. The No-Build Alternative was considered and is used for comparison purposes. Under this alternative, there would be no mobility improvements and traffic would continue to use existing routes to access residences, schools, and businesses in the area. There would be no impacts on adjacent commercial or residential properties or agricultural lands since this alternative would not improve mobility on the existing roadway,

relieve congestion on surrounding street network, or require the acquisition of any new ROW.

C. Preliminary Alternatives Considered but Eliminated from Further Considerations
The 2006 build alternative proposed to provide an interim four lane divided section from FM 1426 to 0.1 mile east of Cesar Chavez Road. A two-lane, rural roadway was proposed from 0.1 mile east of Cesar Chavez Road to FM 88. The proposed interim typical section included two 12-foot-wide travel lanes, two 10-foot-wide shoulders, and a five-foot-wide sidewalk on one side of the roadway within a 120-foot-wide ROW.

Upon receipt of additional funding, the ultimate section would be constructed. The ultimate typical section included two 13-foot-wide travel lanes, two 12-foot-wide travel lanes, an eight-foot-wide bike lane on both sides of the roadway, five-foot-wide sidewalks on both sides of the roadway, and a 34-foot-wide grass median within a 120-foot-wide ROW.

The 2006 build alternative required 108.8 acres of new ROW from 294 parcels and required 14 residential relocations and no business relocations. The project was put on hold due to funding constraints. This alternative was eliminated from further consideration due to design and land use changes within the project area.

V. Affected Environment & Environmental Consequences

The technical reports prepared in support of this EA are listed in **Table 3**. The reports are incorporated by reference in this environmental document and are currently available for review at the TxDOT Pharr District or Hidalgo County Precinct #2 office.

Table 3: Environmental Technical Reports

Technical Report	Date of Report
Biological Tier I Site Assessment Form	June 2017
Biological Evaluation Form	June 2017
Water Resources Technical Report	March 2017
Air Quality Technical Report	March 2017
Traffic Noise Analysis	April 2018
Community Impacts Analysis	February 2018
Historical Research Design	October 2016
Historical Research Survey	April 2009
Historical Resources Survey	June 2017
Archeological Survey	September 2007
Archeological Background Study	September 2018
Hazardous Materials Initial Site Assessment	March 2017
Indirect and Cumulative Impacts	June 2018
Environmental Technical Memo	July 2018
Documentation of Public Meeting	March 2017
Documentation of Public Hearing	December 2019
Chapter 26 Evaluation	December 2019

Based on the above technical reports, scope, and thorough analysis, it was determined that the project would have no impact on the following resource categories: Wetlands, Navigable

Waters, Wild & Scenic Rivers, Edwards Aquifer, International Boundary & Water Commission (IBWC), and Coastal Coordination. Resources with the potential to be affected by the project are discussed in the following sections.

A. Right-Of-Way/Displacements

A.1 Existing Right-of-Way

The project would use approximately 63 acres of existing ROW where possible along Earling Road and Mile 11 ½ Road, within the city limits of San Juan and rural Hidalgo County. A 30-foot-wide minimum to 120-foot-wide maximum existing ROW is available along existing roadway sections.

A total of 68.0 acres of existing ROW would be used for the project. The existing ROW is comprised of urban vegetation and agriculture; in which urban land makes up the majority of the existing ROW (62.0 acres or 91.2 percent). The remaining 6.0 acres (8.8 percent) is agricultural land. See **Table 4** for a breakdown of existing ROW components.

Table 4: Existing ROW Components

Component	Acres	Percent
Urban	62.0	91.2
Agricultural	6.0	8.8
Scrub Shrub	0.0	0.0
Total	**68.0**	**100**

A.2 Proposed Right-of-Way

The project would require the conversion of approximately 82.6 acres of land to transportation use. The proposed project would require seven residential relocations and one business relocation. The proposed ROW consists of approximately 34.9 acres (42.3 percent) of urban vegetation, 47.0 acres (56.9 percent) of agriculture, and 0.7 acre (0.8 percent) of scrub shrub vegetation. See **Table 5** for a breakdown of proposed ROW components.

Table 5: Proposed ROW Components

Component	Acres	Percent
Urban	34.9	42.3
Agriculture	47.0	56.9
Scrub Shrub	0.7	0.8
Total	**82.6**	**100**

Two permanent irrigation easements would be required as a result of the project, as discussed in **Section II.B Proposed Facility** (page 3). Easement 1 would require approximately 1.4 acres of mainly farmland and urban land. Easement 2 would require approximately 1.3 acres of mainly farmland and urban land. See **Appendix C** for the schematic.

The acquisition of proposed ROW and any relocations will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended. Relocation resources are available to all residential and business persons being relocated without discrimination.

A.3 Displacements

It is anticipated that a total of seven residential relocations and one business relocation would be required as a result of the project. See **Figure 9** for the relocations map. The acquisition of proposed ROW and any relocations will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended. Relocation resources are available to all residential and business persons being relocated without discrimination. Relocations would be accomplished either by providing compensation for moving residences or businesses back from the proposed ROW on the currently occupied properties (where possible), or by providing assistance to locate and acquire available housing elsewhere. Replacement structures would be located in the same type of neighborhood and be equally accessible to public services and places of employment. In addition, consideration would be taken during the relocation process for extended families living together or in close proximity to one another. No adverse impacts are anticipated due to the displacements resulting from the proposed project.

B. Land Use

The project is located partially within the city limits of San Juan, the Extra Territorial Jurisdiction (ETJ) of Alamo, Donna, and Weslaco. Land use in the area is mainly agricultural with a mixture of residential and commercial land. See **Figure 10** for the land use map. Major north-south roadways (FM 1426, Cesar Chavez Road, FM 907, Tower Road, FM 1423, FM 493, Mile 6 West and FM 88) and much of the area west of FM 1423 exhibit existing residential and commercial development. Coordination with the Natural Resource Conservation Service (NRCS) determined that the project location is considered “land committed to urban development” due to its location within an area of land with a density of 30 structures per 40-acre area (**Appendix D**). Induced growth impacts are addressed on page 22 of this document and in the *Indirect and Cumulative Impacts Analysis Technical Report*.

C. Farmlands

The project would convert a total of 47.0 acres of farmland subject to the Farmland Protection Policy Act (FPPA), to a nonagricultural, transportation use; however, the combined scores of the relative value of the farmland and the site assessment completed by TxDOT do not warrant further consideration for protection and no additional sites need to be evaluated. Coordination with the NRCS was initiated on March 22, 2017 (**Appendix D**). NRCS concluded that the project location is “land committed to urban development” due to its location within an area of land with a density of 30 structures per 40-acre area.

D. Utilities/Emergency Services

Underground or overhead utilities would require adjustment or relocation. The location of utilities would be determined at the detailed design phase and coordination with utility owners would take place at that time. All utility adjustments would be in accordance with TxDOT, City, and County design policy guidelines. The adjustment and relocation of any utilities would be handled so that no substantial interruptions would take place while these adjustments are being made. Emergency services within the project area include fire, ambulance, and police (city and county). With improved mobility and less congestion in the project area, emergency response times are anticipated to be improved.

The no-build alternative would not require any utility adjustments and there would be no access changes that could affect emergency services; however, increasing congestion could increase emergency response times.

E. Bicycle & Pedestrian Facilities

With stronger emphasis for multimodal transportation facilities, the City of San Juan, Hidalgo County, and TxDOT are committed to proactively plan, design, and construct facilities to safely accommodate bicyclists and pedestrians. TxDOT would take into consideration existing and anticipated bicycle and pedestrian facility systems and needs as stated in the March 23, 2011 TxDOT Memorandum and the March 11, 2010 U.S. Department of Transportation (USDOT) Policy Statement on Bicycle and Pedestrian Accommodations, Regulations and Recommendations.

A six-foot-wide sidewalk would be included on both sides of the roadway throughout the length of the project. The project would include two 10-foot-wide shoulders for bicycles throughout the project limits.

F. Community Impacts

The *Community Impacts Analysis Technical Report* was completed and identified the demographics of the project area, as well as the potential effects of the proposed project on economic conditions, community resources, and environmental justice populations, as summarized below.

The proposed project is located within five Census Tracts (CT) and six Block Groups (BG): CT 18.06, BG 1, CT 219.01, BGs 3 and 4, CT 221.04, BG 1, CT 222.01, BG 1, CT 224.02, BG 2. Of the six BGs located within the project limits, all contained minority populations that exceeded 50 percent of the BG population. At the block level, all blocks consisted of minority populations that approached or exceeded 50 percent along the project area. There are no concentrations of children or elderly in the area; therefore, no impacts to these vulnerable populations are anticipated.

With respect to income characteristics, none of the CTs and two of the BGs (BG 4 of CT 219.01 and BG1 of CT221.01) were below the Department of Health and Human Services (DHHS) 2017 Poverty Guideline of $24,600.

F.1 Environmental Justice

Based on the analysis, the project area contains minority and low-income populations. A review of the census data at the CT, BG, and block level revealed that the project is in an area that consists predominantly of a Hispanic population. The community in the area is considered to be an environmental justice population based on race. The median income in two BGs (BG 4 of CT 219.01 and BG1 of CT221.01) in the project area falls below the poverty guidelines; therefore, the area contains low-income populations.

It is anticipated that a total of seven residential relocations and one business relocation would be required (**Figure 9**). The residential relocations are not part of a subdivision or neighborhood, and are stand-alone residences surrounded by farmland. The ROW acquisition process would be conducted according to Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Relocations would be accomplished either by providing compensation for moving residences or businesses back from the proposed ROW on the currently occupied properties (where possible), or by providing assistance to locate and acquire available housing elsewhere. Replacement structures would be located in the same type of neighborhood and be equally accessible to public services and places of employment. In addition, consideration would be taken during the relocation process for extended families living together or in close proximity to one another.

Positive impacts to the community as a result of the project include: improved access to residences, businesses, and public facilities through the addition of a turning lane, and reduced congestion along the roadway as a result of the additional travel lanes. These improvements are considered beneficial to the entire population, including environmental justice populations, in the study area. An alternatives analysis and public involvement, including individual MAPOs and public meetings, occurred to discuss the proposed project and receive feedback from the community.

No disproportionately high or adverse effects to minority or low income populations in the area are anticipated as per Executive Order (EO) 12898.

F.2 Limited English Proficiency

EO 13166 on Limited English Proficiency (LEP) ensures agencies provide federally conducted programs and activities which are meaningfully accessible to LEP individuals. Data for “Ability to Speak English” for the population five years and over indicates 9.2 to 35.5 percent of the population within the BGs in the study area speaks English “Not Well” or “Not at All.” Visual surveys indicated the presence of some signage in both English and Spanish. Furthermore, TxDOT ensures that opportunities for community input in the NEPA process would be provided.

A total of three public meetings were held on August 23 & 24, 2006, and on January 10, 2017. A public hearing was held on November 20, 2019. The meetings and hearing were advertised in English and Spanish in local newspapers and bilingual notices were sent to

property owners. Translation services were available at the public meetings/hearing and the services were used. LEP accommodations will continue to be provided throughout the environmental and public involvement processes.

F.3 Community Cohesion

No isolation or division of neighborhoods, individual residences, businesses or other substantial alterations would occur due to the project. The project would improve travel times with additional travel lanes and community access via the addition of sidewalks and shoulders. The project would be an expansion and extension of an existing roadway. The portion of new location roadway mainly traverses farmland; therefore, no change in travel patterns would occur as a result of the project.

F.4 Public Facilities and Services

The project area consists of residences, commercial businesses, and agricultural land. Facilities in the study area include one school, one church, and Hidalgo County Precinct #2 Multi-Purpose Center.

F.5 Access

Access to driveways, businesses, schools and other facilities would remain intact. No medians would be included and access to cross streets would not be altered. TxDOT procedures require that access to properties be maintained through at least one access point to the nearest roadway. During the ROW acquisition process, the acquiring agency would follow the guidelines of the TxDOT ROW acquisition process to determine if additional measures are required to provide additional access points, livestock access, or other specific concerns.

G. Visual/Aesthetics Impacts

Aesthetics is defined as “dealing with the visual integration of highways and other transportation modes into the fabric of a landscape in a way that blends with or complements that setting” (*TxDOT Landscape & Aesthetics Design Manual*, 2015). The existing visual landscape of the project area includes agricultural land, residences and commercial properties. The project would widen, reconstruct and extend the existing roadway; no changes in viewshed would occur as a result of the project. The project would not result in a noticeable change in the physical characteristics of the existing environment. A mix of introduced grasses and forbs would be used to reseed the ROW outside of paved areas according to TxDOT standards and disturbed areas would be restored and reseeded where appropriate. As with all construction projects, the aesthetics of the project area would be temporarily reduced during the construction phase of the project; however, the aesthetic and visual qualities of this area would be restored or improved post-construction.

H. Cultural Resources

Cultural resources are structures, buildings, archeological sites, districts (a collection of related structures, buildings, and/or archeological sites), cemeteries, and objects. Both federal and state laws require consideration of cultural resources during project planning.

At a federal level, NEPA and the National Historic Preservation Act (NHPA) of 1966, among others, apply to transportation projects such as this one. In addition, state laws such as the Antiquities Code of Texas apply to these projects. Compliance with these laws often requires consultation with the THC/Texas State Historic Preservation Officer (SHPO) and/or federally-recognized tribes to determine the project's effects on cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

H.1 Archeology

A field investigation was conducted in 2004 under Texas Antiquities Code permit number 3525 throughout the project limits. No artifacts, archeological deposits, or settings with reasonable potential to contain intact archeological deposits, or new archeological sites were identified during the survey. The investigation determined that the potential for buried archeological materials at this location is low due to extensive disturbance within the project limits. Based on the results of the survey, no additional archeological investigations within the proposed Area of Potential Effects (APE) are warranted.

TxDOT archeologists completed their review of this project in 2007 and determined that the project would have no effect on archeological sites or cemeteries that would require further consideration under cultural resources laws. As per the terms of the Programmatic Agreement (PA) with federally recognized Native American tribes with a demonstrated historic interest in the area, Section 106 consultation was initiated on September 26, 2007. Due to the amount of time since initial coordination, re-coordination was completed in September and October 2018.

An archeological background study was completed in September 2018 to review a minor alignment change from the 2007 clearance at the eastern terminus of the project. The project was reviewed and determined that the project would have no effect on archeological sites or cemeteries.

No public controversy exists regarding the project's potential impacts on archeological sites or cemeteries. In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area would cease, and TxDOT archeological staff would be contacted to initiate post-review discovery procedures under the provisions of the First Amended Programmatic Agreement, regarding the Implementation of Transportation Undertakings (PA-TU) and Memorandum of Understanding (MOU).

H.2 Historic Properties

Historical surveys were originally completed in 2007 and 2009. An updated survey was completed in 2017.

It has been determined through consultation with the SHPO that the APE for the project is 150 feet beyond the existing and proposed ROW boundaries along the existing Nolana Loop and 300 feet beyond the proposed ROW in areas of new roadway construction.

A review of the National Register of Historic Places (NRHP), the list of State Archeological Landmarks (SAL), and the list of Recorded Texas Historic Landmarks (RTHL) indicated that three historically significant resources have been previously documented within the APE: the Louisiana-Rio Grande Canal Company Irrigation System, the Hidalgo County Irrigation District (HCID) #2, and the Hidalgo and Cameron Counties Irrigation District (H&CCID) # 9.

The Louisiana-Rio Grande Canal Company Irrigation System is an NRHP-listed District; within the district is the NRHP-listed HCID #2. Direct effects on the HCID#2 include the removal of standpipes and irrigation lines and the introduction of new standpipes, pipelines, and a siphon at the Alamo Main. The relocation of individual components and introduction of new elements would not hinder or impact the form and function of the irrigation resource. THC concurred on a No Adverse Effect determination on November 1, 2010. Coordination with the Hidalgo County Historical Commission (CHC) was completed on May 11, 2017; no comments were received (**Appendix D**).

An intensive survey was performed in 2009 on H&CCID #9 and it was found to be ineligible by THC in 2010. Pursuant to Stipulation VI, "Undertakings with Potential to Cause Effects" of the PA-TU between the FHWA, the Texas SHPO, the Advisory Council on Historic Preservation, and TxDOT and the MOU, TxDOT historians determined that impacts to the HCID#2 would be a *de minimis*.

I. Department of Transportation (DOT) Act, Section 4(f), Land and Water Conservation Fund (LWCF) Act Section 6(f), and Parks and Wildlife Code (PWC) Chapter 26

The project is adjacent to the Hidalgo County Precinct #2 Multi-Purpose Center. No ROW would be required from the center; therefore, the property is not subject to Section 4(f) or Chapter 26.

The project would affect the NRHP-listed HCID#2; a historic resource. Impacts to HCID#2 would include: removing and replacing standpipes, removing irrigation lines, introducing new pipelines, and a new siphon at the Alamo Drain; therefore, the property is subject to Section 4(f) and Chapter 26.

I.1. DOT Act Section 4(f)

Section 4(f) of the 1966 U.S. DOT Act is codified in 23 USC 138 and 49 USC 303. The act requires special consideration to preserve the natural beauty of the countryside and public park and recreation lands, wildlife, and waterfowl refuges, and historic sites. Since the project would impact a historic resource, HCID#2, Section 4(f) would apply. The county concurred that the proposed project would not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection. A Section 4(f) *de minimis* determination was approved by TxDOT in July 2017 (**Appendix E**).

I.2 LWCF Section 6(f)

Construction of the proposed project would not affect publicly owned parkland, recreational areas, or wildlife or waterfowl management areas. No land acquired through the LWCF would be impacted; therefore, Section 6(f) does not apply.

I.3 PWC Chapter 26

The project would "use" a historic resource (HCID #2); therefore, PWC Chapter 26 applies. A public hearing was held on November 20, 2019 in accordance with Chapter 26 criteria (3 PWC 26.001-26.004) to receive public input. No comments were received regarding the irrigation district. The relocation of individual components and introduction of new elements would not hinder or impact the form and function of the irrigation resource. It was determined that there is no feasible and prudent alternative to the use or take of the Chapter 26 property, and that the project includes all reasonable planning to minimize harm to the Chapter 26 property. A *Chapter 26 Compliance Checklist* is on file.

J. Water Resources

A *Water Resources Technical Report* was prepared and analyzed potential impacts to waters of the United States (U.S.), wetlands, water quality, and floodplains. The technical report was approved with the stipulation that the EA would reflect the latest information/ language upon receipt of the U.S. Army Corps of Engineers (USACE) determination.

J.1 Clean Water Act (CWA) Section 404

The project crosses a total of nine drainage ditches and five irrigation canals See **Figure 11** for aquatic resources map. The five irrigation canals are man-made, elevated and concrete lined. These canals are owned and maintained by HCID#2, Donna Irrigation District (DID) or H&CCID#9. They do not maintain a feature flow route. They are not relocated tributaries or excavated in tributaries, nor do they drain wetlands; therefore, the irrigation canals do not meet the definition of a water of the U.S. as per 40 CFR 230.3 (2iii A-C).

The nine drainage ditches are owned and routinely maintained by the Hidalgo County Drainage District (HCDD) #1 and Hidalgo & Cameron County Drainage District (H&CCDD) #1. Coordination with the USACE was initiated on February 24, 2017 to obtain an Approved Jurisdictional Determination (AJD). The AJD (**Appendix D**) received on March 26, 2018 determined that no waters of the U.S. are present within the project area; therefore, no Section 404 permits are required and compliance with Section 14 of the Rivers and Harbors Act (commonly referred to as Section 408) is not required. This section from the technical report was updated due to receipt of the USACE AJD.

J.2 CWA Section 401

The project would not require a federal license or permit for discharges under Section 404 of the CWA, Section 10 of the Rivers and Harbors Act, or under the General Bridge Act/Section 9 of the Rivers and Harbors Act; therefore, Section 401 of the CWA does not apply.

J.3 EO 11990: Wetlands

EO 11990 prohibits new construction in wetlands unless there is no practicable alternative to such construction, and the project includes all practicable measures to minimize harm to wetlands. A wetland delineation was completed July 28, 2017 and determined that no wetlands are present in the project area.

J.4 Rivers and Harbors Act

This project does not involve work in or over a navigable water of the U.S., nor would it require a USACE permit; therefore, Sections 9 and 10 of the Rivers and Harbors Act does not apply.

J.5 CWA Section 303(d)

The Texas Commission on Environmental Quality (TCEQ) MOU coordination triggers were analyzed for this project and it was determined coordination with TCEQ is not required since the project is not located within five linear miles of an impaired assessment unit and not within the corresponding watershed. The 2014 TCEQ 303(d) list was used in the assessment. TxDOT would use several pollution prevention procedures, including TxDOT's Water Quality Best Management Practices (BMP) to ensure minimal impacts to water resources.

J.6 CWA Section 402

The project would comply with the TCEQ Texas Pollutant Discharge Elimination System (TPDES).

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

The PS&E Preparation Manual requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the "Required Specification Checklists," require Special Provision 506-003 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SW3P, and to complete the appropriate authorization documents. This section was updated from the technical report based on new required language provided by TxDOT.

J.7 Floodplains

Approximately 8.3 acres of the project ROW is located within a 100 year floodplain (**Figure 12**). This project is subject to and will comply with the federal EO 11988 on Floodplain Management. The department implements this EO on a programmatic basis through its Hydraulic Design Manual. Design of this project will be conducted in accordance with the department's Hydraulic Design Manual. Adherence to the TxDOT Hydraulic Design Manual ensures that this project will not result in a "significant encroachment" as defined by the Federal Highway Administration's (FHWA) rules implementing EO 11988 at 23 CFR 650.105(q). The floodplain administrator was notified of the project on September 30, 2016. No comments were received. This section was updated from the technical report based on new required language provided by TxDOT.

J.8 Wild and Scenic Rivers

This project is not located within the designated segment of the Rio Grande that would harm the river's free flowing condition, water quality or outstanding resource values; therefore, the Wild and Scenic Rivers Act does not apply.

J.9 Coastal Barrier Resources Act (CBRA)

The project is not located within a designated CBRA map unit; therefore, coordination with the National Marine Fisheries Service (NMFS) is not required.

J.10 Coastal Zone Management

This project is not located within a coastal county; therefore, the coastal management program does not apply.

J.11 Edwards Aquifer

This project is not located within the recharge, transition, or contributing zones of the Edwards Aquifer; therefore, the corresponding regulations do not apply.

J.12 IBWC

This project is not located within the floodplain of the Rio Grande or the Arroyo Colorado; therefore, coordination with IBWC would not be required.

J.13 Drinking Water Systems

Three water wells are located along the project (**Figure 13**). Two are domestic-use wells and one is a monitor well for a landfill. The wells within the construction area would be plugged and storm water management plans (i.e. SW3Ps) and BMPs would be implemented to prevent stormwater runoff from entering groundwater aquifers at wellheads. In accordance with TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (Item 103, Disposal of Wells), any drinking water well would need to be properly removed and disposed of during construction of the project. This section was updated from the technical report based on new required language provided by TxDOT.

K. Biological Resources

A *Biological Evaluation Form* and *Tier I Site Assessment Form* were prepared, which analyzed potential impacts to vegetation, threatened and endangered species, migratory birds, fish and wildlife. A summary of the findings is below.

K.1 Texas Parks and Wildlife (TPWD) Coordination

Under the TxDOT-TPWD MOU and the BMP PA, TPWD coordination was required since vegetation threshold requirements for agricultural vegetation, as listed in the TPWD Threshold Table Programmatic Agreement, were exceeded and BMPs were not available for all species. Coordination with TPWD was completed August 23, 2017 and no comments were received (**Appendix D**).

K.2 Impacts to Vegetation

As discussed in **Section V, A.2** of this EA (page 7), the proposed ROW consists primarily of agricultural vegetation (47.0 acres), with some urban (34.9 acres) and scrub shrub (0.7 acres). Vegetative diversity in the project area is low due to the presence of residential areas and agricultural land. TPWD vegetation BMPs would be used to the greatest extent possible to minimize impacts to vegetation; therefore, no adverse impacts are anticipated.

K.3 EO 13112 on Invasive Species

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

K.4 Executive Memorandum on Environmentally & Economically Beneficial Landscaping

This project is subject to and would 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.

Landscaping is not part of the project; if re-vegetation is needed, disturbed areas would be re-vegetated according to TxDOT's standard practices, which to the extent practicable, complies with the Executive Memorandum on Environmentally and Economically Beneficial Landscaping. Direction to contractors is provided on the standard Environmental Permits, Issues, and Commitments (EPIC) sheet.

K.5 Impacts to Wildlife

The project would use existing ROW where available; land in these areas is mainly urbanized. The new location sections are located within land that is continually disturbed by agricultural activities. Three land tracts (two east of FM 907 and one east of Tower Road) of scrub shrub vegetation were identified within the project limits. These tracts are small, isolated, and located between active agricultural fields. Wildlife typical to the project area and observed in the field is limited to those species suited to live near urban, disturbed areas. Species observed during field surveys was mainly avian and included:

grackles (*Quiscalus quiscula*), Eurasian collared doves (*Streptopelia decaocto*), and house sparrows (*Passer domesticus*).

TPWD BMPs would be implemented to minimize potential impacts to species. No adverse impacts to wildlife are anticipated.

K.6 Migratory Bird Protections

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

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

A site survey did not identify active nests within the project action area. While no impact to migratory birds is expected, TxDOT will take appropriate actions to prevent the take of migratory birds, their active nests, eggs, or young should they be discovered on the project site. Direction to contractors is provided in the standard EPIC sheet. TPWD Bird BMPs and bird exclusion devices would be incorporated to minimize potential impacts to avian species.

K.7 Fish and Wildlife Coordination Act (FWCA)

The FWCA of 1958 requires that federal agencies obtain comments from USFWS and TPWD. This coordination is required whenever a project involves impounding, diverting, or deepening a stream channel or other body of water. The project would have no impact to Waters of the U.S. or wetlands and no Section 404 permit is required; therefore, no review by the USFWS is required.

K.8 Bald and Golden Eagle Protection Act of 2007 (BGEPA)

The project is not within range, nor does it include suitable habitat for Bald or Golden Eagles; therefore, the BGEPA of 2007 does not apply.

K.9 Magnuson-Stevens Fishery Conservation Management Act (MSA)

The project is not located within a coastal county, nor are tidally influenced waters present in the project area. The MSA does not apply and coordination with the National Marine Fisheries Service (NMFS) is not required.

K.10 Marine Mammal Protection Act (MMPA)

Marine Mammals are protected under the MMPA. The Texas coast provides suitable habitat and is within range of several marine mammals including the West Indian Manatee (*Trichechus manatus*) and bottlenose dolphin (*Tursiops truncates*). The project area does not contain suitable habitat for marine mammals; therefore, the MMPA act does not apply. Coordination with the NMFS is not required.

K.11 Threatened, Endangered and Candidate Species

K.11.1 Federally-Listed Species

The USFWS Information, Planning, and Consultation (IPaC) identified 10 federally-listed threatened, endangered, or candidate species that may occur within the project area; however, no suitable or critical habitat was observed in the project area for any federally listed species. No effect on federally-listed species is anticipated. Measures to avoid harm to any threatened and endangered species would be taken should they be observed during construction of the project. Coordination with the USFWS would not be required. The USFWS IPaC website was originally accessed on January 23, 2017 as part of the Biological Evaluation and was updated on April 6, 2020; no changes to the IPaC list were identified.

K.11.2 State-Listed Species

Approximately 18 state-listed species may be impacted by the project: Texas Botteri's Sparrow, (*Aimophila botterii texana*), Western Burrowing Owl (*Athene cunicularia hypugaea*), Plains Spotted Skunk (*Spilogale putorius interrupta*), Southern Yellow Bat (*Lasiurus ega*), Black-Striped Snake (*Coniophanes imperailis*), Reticulate Collared Lizard (*Crotaphtus retiuclatus*), Spot-Tailed Earless Lizard (*Holbrookia lacerata*), Texas Horned Lizard (*Phrynosoma cornutum*), Texas Indigo Snake (*Drymarchon melanurus erebennus*), Black Spotted Newt (*Notophthalmus meridionalis*), Mexican Tree Frog (*Smilisca baudinii*), Sheep Frog (*Hypopachus variolosus*), South Texas Siren (large form) (*Siren sp. 1*), White-Lipped Frog (*Leptodactylus fragilis*),Mexican Mud-Plantain (*Heteranthera mexicana*), Los Olmos Tiger Beetle (*Cicindela nevadica olmosa*), Neojuvenile Tiger Beetle (*Cicindela obsolete neojuvenilis*), Subtropical Blue-Black Tiger Beetle (*Cicindela nigrocoerulea subtropica*).

TxDOT-TPWD BMPs would be used to minimize and avoid impacts to state-listed species. BMPs would include: Bird BMPs, Bat BMPs, Terrestrial Reptile BMPs, Amphibian BMPs, Plains Spotted Skunk BMPs, Texas Horned Lizard BMPs, Sheep Frog BMPs, South Texas Siren BMPs, and Water Quality BMPs. Contractors will be advised of potential occurrence of species in the project area, and to avoid harming the species if encountered. For more information on these species and their habitat, see the *Biological Evaluation Form and Tier I Form* available at the TxDOT Pharr District Office or Hidalgo County Precinct #2 Office.

L. Air Quality

L.1 Conformity

This project is located in Hidalgo County which is in an area in attainment or unclassifiable for all National Ambient Air Quality Standards (NAAQS); therefore, the transportation conformity rules do not apply. See the *Air Quality Technical Report* for more details.

The No-Build Alternative would provide no improvements to the existing roadway; therefore, there is a potential for traffic volumes and congestion to increase over time. Vehicle and fuel regulations, coupled with fleet turnover, are expected to cause region-wide air quality improvements.

L.2 Carbon Monoxide Traffic Air Quality Analysis (TAQA)

Traffic data for the design year 2038 is 11,100 vpd. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that a carbon monoxide standard would ever be exceeded as a result of any project with an average annual daily traffic (AADT) below 140,000 vpd. The AADT projections for the project do not exceed 140,000 vpd; therefore, a TAQA is not required.

L.3 Congestion Management Process

This project is located in an area that is in attainment or unclassifiable for all NAAQS; therefore, a Congestion Management Process (CMP) analysis is not required.

L.4 Mobile Source Air Toxics (MSAT)

A qualitative MSAT analysis was provided for this project in the *Air Quality Technical Report*. Under each alternative there may be localized areas where vehicle miles traveled (VMT) would increase, and other areas where VMT would decrease; therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emission would likely be most pronounced along the new roadway sections that would be built between Goolie Road and Mile 11½ Road and Victoria Road and FM 88. However, even if these increases do occur, they too will be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations. In sum, under all Build Alternatives in the design year it is expected there would be reduced MSAT emissions in the immediate area of the project, relative to the No Build Alternative, due to the reduced VMT associated with more direct routing, and due to EPA's MSAT reduction programs.

M. Hazardous Materials

A Hazardous Materials Initial Site Assessment (ISA) for the project has been completed and filed with TxDOT. The site assessment was conducted for the project to identify sites within the project area that may have experienced soil and/or groundwater contamination by hazardous materials. The assessment consisted of a regulatory/governmental agency database records review and an onsite investigation. The proposed project includes the demolition of seven residences, one business, and an existing bridge structure. The buildings may contain asbestos containing materials (ACM). Asbestos inspections, specifications, notification, license, accreditation, abatement and disposal, as applicable, would comply with federal and state regulations. Asbestos issues would be addressed during the ROW acquisition process, prior to construction. Demolition and reconstruction of the existing bridge, located 0.25 miles west of Cesar Chavez Road, would include asbestos and/or lead-based paint testing prior to demolition.

An active sanitary landfill, Rio Grande Valley Landfill, is located 1,584 feet east of FM 493 and 52.8 feet north of the proposed roadway. ROW would be required from the property where the landfill is located; however, the ROW being acquired is outside the perimeter fence and would not impact the active landfill.

It was determined that no adverse impacts related to hazardous materials are anticipated as a result of the project.

Hazardous materials that require special handling would be managed, including onsite treatment, removal, or combination thereof, on an as needed basis only by appropriately licensed and certified abatement contractors having documentation of successfully completing prior similar abatement work and receiving regulatory acceptance. No dewatering is anticipated; however, additional investigation may be undertaken if dewatering is required during construction.

In addition, updated ISAs will be obtained during final design if additional ROW is required or any additional excavation is anticipated on or adjacent to any properties identified with potential hazardous material contamination. Any unanticipated hazardous materials encountered during construction will be handled according to applicable federal and state regulations per TxDOT Standard Specifications.

N. Traffic Noise

A *Noise Analysis Technical Report* was prepared in accordance with TxDOT's (FHWA approved) *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011). Existing and predicted traffic noise levels were modeled at receiver locations that represent land use activity area adjacent to the project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement. A total of 63 representative receivers (**Figure 14**) were analyzed; predicted noise levels ranged from 51 dBA (A-weighted decibels) to 69 dBA. Based on the analysis of the 63 representative receivers, 21 of those receivers approached, equaled or exceeded the FHWA Noise Abatement Criteria or substantially exceeded (10 dBA or more) the existing noise level; therefore, the project would cause traffic noise impacts.

Noise barriers were analyzed for each of the impacted receiver locations. A barrier 12 feet in height and 1,303 feet in length at Hopi Estates was determined reasonable and feasible (**Figure 14, Sheet 15**). The barrier would reduce noise levels by at least 7 dBA at one receiver and by at least 5 dBA for greater than 50 percent of the adjacent receivers. Of the total 16 residences, 15 would be benefited. The total cost of the barrier is $281,448, or $18,763 per benefitted receiver. The barrier would not exceed $25,000 per benefited received; therefore, the barrier is feasible and reasonable. A noise workshop will be held to present the noise wall and obtain comments from the public. Any subsequent design changes may require a reevaluation of this preliminary noise barrier proposal. The final decision to construct the proposed noise barrier would not be made until completion of the project design, utility evaluation, and polling of adjacent property owners.

To avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs should ensure, the maximum extent possible, no new activities are planned or constructed along or within the predicted (2038) noise impact contours, 55 feet from the ROW for residential properties and five feet for other developed properties. Local officials will be notified within

30 days of environmental clearance that a noise analysis was completed, an increase in noise would occur as a result of the project, and a copy of the traffic noise analysis will be made available. On the date of approval of this document (Date of Public Knowledge), TxDOT is no longer responsible for providing noise abatement for new development adjacent to the project.

VI. Indirect and Cumulative Impacts

During the environmental scoping process, it was determined, utilizing the Scope Development Tool and Induced Growth Indirect Impacts Decision Tree, that an indirect impact analysis is necessary for the Nolana Loop project. The *TxDOT Guidance on Indirect Impacts Analysis* (July 2016) was used in the assessment. An Indirect and Cumulative Impacts Technical Report was completed in April 2018.

A. Indirect Impacts

Indirect effects are "caused by the action and are later in time and farther removed in distance, but are still reasonably foreseeable; indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate and related effects on air and water and other natural systems, including ecosystems" (40 CFR 1508.8). Probability also helps distinguish indirect effects from direct effects; direct effects are often inevitable, while indirect effects are merely probable.

A.1 Induced Growth Impacts Analysis Summary

Historical aerials indicate that growth within the project area has been increasing since the 1960's, with farmland being converted to residential and commercial use. Trends in the area have shown the general directionality of growth spreading north from I-2. Increasing populations contribute to the growth of the area. According to the United States Census Bureau (USCB), the population of Hidalgo County has increased approximately 73 percent from 2000 to 2010. Populations in all six of the cities within the project area have increased between 2000 and 2010: San Juan has increased 28 percent, Edinburg has increased 58 percent, Alamo has increased 22 percent, Donna has increased three percent, Weslaco has increased 25 percent, and Elsa has increased 0.5 percent. Population projections from the Texas Demographic Center (TDC) anticipate a 77 percent increase in population in Hidalgo County and the McAllen-Edinburg-Mission Statistical Area between 2010 and 2020. Current growth trends are likely to continue regardless of the implementation of the project. Coordination with NRCS determined that the project location is considered "land committed to urban development" due to its location within an area of land with a density of 30 structures per 40-acre area

Roadways in the project area listed in the MTP for improvement include: SH 107 (from US 281 to FM 493), FM 1426 (from I-2 to Nolana Loop), Cesar Chavez Road (from Ridge Road to Nolana Loop), FM 907 (Alamo Road) (from I-2 [US 83] to SH 107), Mile 6 West Road (from Mile 9 North to SH 107), East Eldora Road (from FM 907 to I Road), Sioux Road (from Cesar Chavez Road to I Road), FM 493 North (from Mile 10 to SH 107), and

Mile 10 North (from Mile 6 West to FM 1015). SH 68 (from I-2 to I-69C) is a new, north-south roadway planned to be constructed; however, an alignment location has not yet been finalized. The City of Edinburg Parks and Recreation Plan cites two areas within the project area as proximities for future community parks:

- Trenton and FM 907, and
- Schunior and FM 907

In a telephone interview with the Hidalgo County's Planning Division (March 7, 2018), any proposed development along the Nolana Loop project must accommodate for the proposed roadway. The only current planned development within the AOI is a new residential subdivision, Las Toronjas, located at FM 493 and Mile 13 ½ Road. Development is occurring within the AOI and evidence suggests that development would continue with or without the project.

Construction of the project would increase mobility and connectivity in the project area, which may serve to facilitate potential development. Existing city planning and zoning regulations would regulate potential growth within the city limits and their corresponding Extra Territorial Jurisdiction (ETJ) zones. It is logically assumed if potential development would occur, it would originate in the immediate area of the project, then spread in all directions, with the likelihood of the development being reduced father from the project. The existing city limits and ETJ zones would control the spread of development. Areas outside the city limits and corresponding ETJ zones, have developable areas available; however, development in these areas as a result of the project is unlikely since they are isolated and constrained by the existing ETJ zones. Induced growth as a result of the project is not anticipated.

The project would not directly result in induced growth. Construction of continuous east-west corridor would increase mobility and circulation in the project area, which would only serve to complement and facilitate potential development within the city limits and ETJ zones. Because of the location, projected growth, traffic data, and nature of the project, induced growth was not considered potentially substantial and does not require further analysis.

A.2 Encroachment Alteration Impacts Analysis Process

A.2.1 Ecological

The ROW required for the project would include: 47.0 acres of agricultural land, 0.7 acres of scrub shrub, and 34.9 acres of urban vegetation. Available habitat for 18 state threatened or endangered species is available along the existing roadways and within the agricultural sections of new location. The project would bisect some areas of farmland, which is considered potential habitat for certain state listed species. Potential habitat fragmentation and degradation may occur. Given the large amounts of farmland in the surrounding area and the level of disturbance currently occurring through active farming,

the ecosystem is anticipated to be both resistant and resilient to encroachment alteration impacts.

Approximately 8.3 acres of floodplains would be impacted as a result of the project. The hydraulic design for the project would be in accordance with the FHWA and TxDOT design standards. The facility would permit the conveyance of the 100-year flood, inundation of the roadway being acceptable without causing significant damage to the facility, stream, or other property. The project would not increase the base flood elevation to a level that would violate applicable ordinance or regulations. Coordination with the floodplain administrator has occurred.

A wetland delineation determined that no wetlands are present within the project area. A total of nine drainage ditches and five irrigation canals would be crossed by the project. The irrigation canals are man-made, elevated, concrete lined structures that as per 40 CFR 230.3 (2ii A-C) do not meet the definition of Water of the U.S. An AJD received from the USACE indicated none of the drainage ditches are jurisdictional. Drainage culverts would be installed at each crossing to ensure uninterrupted use and flow.

Existing ROW would be used where possible. Several years of alternatives analysis and public involvement were conducted to achieve a preferred alternative that minimized, to the greatest extent possible, impacts to the natural environment. Development of the area would continue, regardless of the project; however, the project may accelerate the timing of potential development.

A.2.2 Socioeconomic

The project would provide continuity and improve mobility by providing a continuous east-west corridor. The proposed improvements are anticipated to improve access to work, schools, and public services within the Area of Impact (AOI). The project may encourage changes in travel patterns due to the elimination of the need to use various alternate routes to access Mile 11½ Road and FM 88. Local traffic may choose to use Nolana Loop as opposed to SH 107 or I-2 to travel within the local area.

No impacts to neighborhood cohesion or stability would occur as discussed in the *Community Impacts Technical Report*. In the vicinity of neighborhoods, the project would widen and reconstruct the existing roadway on existing location. The area of new location roadway would occur within agricultural land, where no neighborhoods are located; therefore, no bisections of existing neighborhoods would occur. No restrictions in access or driveways would occur and no medians are proposed as part of the project. Sidewalks and shoulders would be incorporated to improve multi-modal transportation. During the public meeting, attendees indicated a desire to use the proposed roadway as a bicycle route.

It is anticipated seven residential relocations and one business relocation would be required. The residential relocations are spread throughout the 9.8 mile project and are not concentrated within one neighborhood or area. The business relocation is a "drive-thru" convenience store that does not serve a specific population. Comparable services and replacement housing are available in the project area. All relocations will be done in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970. Relocations will be accomplished either by providing compensation for moving residences or businesses back from the proposed ROW on the currently occupied properties (where possible), or by providing assistance to locate and acquire available housing elsewhere. Replacement structures would be located in the same type of neighborhood and be equally accessible to public services and places of employment. In addition, consideration would be taken during the relocation process, for extended families living together or in close proximity to one another.

The project is located in an area that contains environmental justice populations (low-income and minority). As discussed in the *Community Impacts Technical Report*, improvements are considered beneficial to the entire population, including environmental justice populations. Alternatives analysis and public involvement have occurred to discuss the proposed project and receive feedback from the community. Based on the analysis, no disproportionately high or adverse effects to minority or low-income populations in the area are anticipated.

Substantial socioeconomic impacts are not anticipated as a result of the proposed project; therefore, further analysis is not required.

B. Cumulative Impacts

The regulations implementing NEPA define cumulative impacts as the impact on the environment that result from "the incremental impact" of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time 40 CFR §1508.8. Cumulative impacts include both direct and indirect impacts.

Based on the TxDOT *Cumulative Impacts Analysis Guidelines (July 2016)*, "a table indicating resources not carried through to the cumulative effects analysis is recommended." **Table 6** addresses each of the potentially impacted resources and justification for the inclusion/exclusion in the analysis of cumulative impacts.

Table 6: Determination of Resources Included in the Cumulative Impacts Analysis

Resource	Current Trend/ Health of Current Resource	Direct Impacts	Indirect Impacts	Included in Cumulative Impact Analysis	Reason Eliminated from Cumulative Impact Analysis
Air Quality	Hidalgo County is in attainment of all NAAQs	Direct impacts to air quality are not anticipated.	Based on the results of steps 1 through 4 of the indirect cumulative air quality analysis, it was determined that the project would not be anticipated to cause indirect impacts to air quality in the AOI.	No	Impacts were analyzed in the *Air Quality Technical Report* and determined not to be adverse; resource not at risk.
Community Resources	Stable	Blocks containing low income & minority populations are located within the proposed ROW. Seven residential relocations and one business relocation would be required	Mobility and connectivity for communities would be enhanced by the Build Alternative.	No	Although considered notable and "at-risk," impacts to environmental justice populations would not be adverse as per the *Community Impacts Analysis Technical Report*. Relocations are individual residences and businesses that are not part of a neighborhood. Relocation assistance would be provided and impacts are not anticipated to be adverse.
Cultural Resources	Stable	Removal of standpipes and irrigation lines and the introduction of new standpipes, pipelines, and a siphon at the Alamo Main within the NRHP-listed HCID #2. No archaeological sites within the project area.	No adverse indirect impacts anticipated.	No	No adverse impacts anticipated as per the *Historic Resources Survey Report* and *Archaeological Project Coordination Request*. Project would not hinder or impact the form and function of the irrigation resource.
Threatened &	Declining due to development and increasing	State threatened and/or endangered species may be	Habitat used by state threatened and/or endangered species may	No	Impacts were analyzed in the *Biological Technical Report* and determined not to be adverse. BMPs

Resource	Current Trend/ Health of Current Resource	Direct Impacts	Indirect Impacts	Included in Cumulative Impact Analysis	Reason Eliminated from Cumulative Impact Analysis
Endangered Species	human populations	impacted (0.7 acres of scrub shrub & 47.0 acres of agriculture). No impacts to federally-listed species.	be disturbed. No impacts to federally-listed species		will be implemented in accordance with the TPWD MOU.
Vegetation	Declining due to development and increasing populations	82.6 acres of proposed ROW would be converted to transportation use.	Potential habitat may be converted to more urban-type use. Habitat used by state threatened and/or endangered species may be disturbed.	No	Impacts were analyzed in the *Biological Technical Report* and determined to not be adverse. BMPs would be implemented in accordance with the TPWD MOU.
Water Resources (including wetlands & waters of the U.S.)	Stable	The project would cross nine drainage ditches and five irrigation canals. No wetlands or waters of the U.S. are present.	Water flow in ditches may temporarily be disturbed	No	Impacts were analyzed in the *Water Resources Technical Report* and determined to not be adverse. TxDOT-TPWD Water Quality BMPs would be used to minimize impacts to water resources.
Floodplains	Declining due to development and increasing populations	Approximately 8.3 acres of the project ROW is located within a 100-year floodplain.	The project would not increase the base flood elevation to a level that would violate applicable ordinances or regulations.	No	Impacts were analyzed in the *Water Resources Technical Report* and determined not to be adverse. Coordination with Floodplain Administrator has occurred.
Farmland	Declining due to development and increasing populations	Approximately 47.0 acres of farmland would be converted to transportation use.	Surrounding farmland has potential to be developed to residential or commercial use.	No	As per coordination with the NRCS, the land has been determined to be committed to urban development" due to its location within an area of land with a density of 30 structures per 40-acre area.

As described in **Table 6,** and in the indirect effects section, and previous approved technical reports; no substantial impacts are anticipated from the project or other agencies/developers at this time. As a result, a cumulative impacts analysis was not performed.

C. Construction Phase Impacts

C.1 Noise Impacts-Construction

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving and the movement patterns are unpredictable. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. 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 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.

C.2 Air Quality Impacts-Construction

During the construction phase of this project, temporary increases in air pollutant emissions may occur from construction activities. The primary construction-related emissions are particulate matter (fugitive dust) from site preparation. These emissions are temporary in nature (only occurring during actual construction); it is not possible to reasonably estimate impacts from these emissions due to limitations of the existing models. However, the potential impacts of particulate matter emissions would be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate.

The construction activity phase of this project may generate a temporary increase in MSAT emission from construction activities, equipment and related vehicles. The primary MSAT construction-related emissions are particulate matter from site preparation and diesel particulate matter from diesel powered construction equipment and vehicles. However, considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be used, it is not anticipated that emissions from construction of this project would have any significant impact on air quality in the area.

VII. Agency Coordination

Agency and local coordination has occurred throughout the environmental process. All coordination has been summarized in **Table 7** and the letters are included in **Appendix D**.

Table 7: Coordination

Agency	Date	Reason for Coordination	Response Received	Comments
THC	November 1, 2010	Section 4(f) De Minimis	Yes	Concurrence of no effect on historical properties.
CHC	May 11, 2017	Request for historical information in the project area and concurrence with project.	No	No comments received.
NRCS	March 22, 2017	Farmland in the project area	Yes	The project is "land committed to urban development" and exempt
USACE	March 29, 2018	Project crosses several irrigation/drainage ditches	Yes	Approved AJD received. No waters of the U.S. present in the project area.
TPWD	August 23, 2017	Coordination Trigger Met: Potential impacts to state-listed species & vegetation threshold	Yes	Acceptance of BMPs to be implemented; coordination complete.
Floodplain Administrator	September 30, 2016	Approximately 8.3 acres of the project is within the 100- year floodplain	No	No comments received.
Tribal Coordination	September 26, 2007	Section 106 consultation & re-coordination	Yes	Concurrence received.
	September 26, 2018			
	October 25, 2018			
HCID #2	October 21, 2019	Chapter 26 coordination	No	No comments received.

VIII. Public Involvement

Three public meetings were held on August 23, 2006 at Rudy Silva Elementary School, August 24, 2006 at Hidalgo County Community Resource Center and on January 10, 2017 at Donna North High School.

At the 2006 meetings, there was a minimum of 30 people in attendance. A total of 10 people were against the proposed median. A total of 21 comments were received regarding high

speed traffic, noise, higher taxes, and access issues. A total of 18 positive comments were received. As a result of the 2006 meetings, the median was removed from the proposed project.

Advertisements for the 2017 public meeting were published in the *Monitor* in English and in Spanish in *El Periodico* on December 21, 2016. Advertisements were also published on the *Monitor* online. Bilingual notices were mailed to city, county, state elected officials, adjacent business owners, and property owners, along with a location map of the project. Translation services were provided at the meetings. A total of 132 persons were in attendance. A total of 21 comments were received; of which, eight were in support of the project, and the remaining 13 comments were general questions about the project, flooding concerns, and ROW acquisition. A response to comments matrix was provided to the commenters. The *Public Meeting Documentation Packet* is on file with the TxDOT Pharr District and Hidalgo County Precinct #2.

The project includes sections of new location roadway and would affect a Chapter 26 property; therefore, a public hearing was held on November 20, 2019. Advertisements were published in the *Monitor* in English and in Spanish in *El Extra*. Advertisements were also published on the *Monitor* online and TxDOT's website. Bilingual notices were mailed to city, county, state elected officials, adjacent business owners, and property owners. Translation services were provided and used at the hearing. A total of 69 persons were in attendance and two comments were received. One comment asked about limits beyond FM 88 and the other comment requested a call back. A response to comments matrix was provided online. The *Public Hearing Documentation Packet* is on file with the TxDOT Pharr District and Hidalgo County Precinct #2.

A noise barrier is proposed; therefore, a noise workshop will be conducted in accordance with state and federal regulations.

IX. Post-Environmental Clearance Activities and Contractor Communications

A. Post-Environmental Clearance Activities

After issuance of a FONSI, there are unresolved environmental activities that will need to be performed and finalized. These activities are detailed below.

1. The Build Alternative would include five or more acres of earth disturbance. TxDOT would comply with TCEQ's TPDES CGP. An SW3P would be prepared and implemented and a construction site notice would be posted at the construction site.
2. Coordination with the MS4 will be required prior to construction.
3. Relocation of utilities would be determined at the detailed design phase and coordination with utility owners would take place at that time. All utility adjustments would be in accordance with TxDOT, City, and County design policy guidelines and will be handled so that no substantial interruptions would take place while these adjustments are being made.
4. Construction of the project may require temporary lane closures; however, these are expected to be of short duration with no major traffic flow disruptions on the existing

roadways. TxDOT will work with community members to notify them of closures and limited access.

5. ROW acquisition and relocation would be conducted in accordance with the Federal Uniform Relocation and Real Property Acquisition Policy Act of 1970.
6. The project includes the potential demolition of seven residential properties and one business. The structures may contain asbestos containing materials. Asbestos inspections, specifications, notification, license, accreditation, abatement and disposal, as applicable, should comply with the federal and state regulations. Asbestos issues should be addressed during the ROW acquisition process prior to construction.
7. A Traffic noise workshop will occur after the public hearing.
8. Migratory Bird Nest Survey will be conducted prior to construction.
9. Mussel surveys would not be required as habitat is not available.
10. No wetlands or waters of the U.S. are present; therefore, no USACE permits are required.

No additional environmental permitting, surveying, mitigation or unresolved issues would be required after environmental clearance.

B. Contractor Communications

An Environmental Permits, Issues, and Commitments (EPIC) sheet summarizing project-specific avoidance measures or special instructions will be provided to the design or construction contractor. The following contractor communications would be required:

1. If unanticipated archeological deposits are encountered during construction, work in the immediate area will cease and TxDOT archeological staff will be contacted to initiate post-review discovery procedures.
2. TCEQ BMPs must be in place prior to the start of construction.
3. In the event that migratory birds are encountered on-site during project construction, every effort would be made to avoid protected birds, active nests, eggs, and/or young. Contractors would not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit. Bird Exclusion devices may need to be implemented and potentially planned for this project during construction.
4. The project contains potential habitat for the Texas Horned Lizard. Terrestrial Reptile BMPs will be implemented and contractors would be advised of the potential occurrence in the project area, and to avoid harming the species if encountered. This should include avoiding harvester ant mounds in the selection of PSLs, where feasible.
5. The project contains potential habitat for the Texas Botteri's Sparrow and Western Burrowing Owl; therefore Bird BMPs will be implemented.
6. The project contains potential habitat for the Mexican Treefrog, Sheep Frog, White-Lipped Frog, Black Spotted Newt, and Texas Siren; therefore, amphibian BMPs will be implemented.

7. The project contains potential habitat for the plains spotted skunk. Contractors will be advised of the potential occurrence within the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
8. The project contains potential habitat for the Southern Yellow Bat; therefore, bat BMPs will be implemented.
9. The project contains potential habitat for the Black-Striped Snake, Texas indigo Snake, Reticulate Collared Lizard, and Spot-Tailed Earless Lizard; therefore, reptile BMPs will be implemented.
10. The potential impacts of particulate matter emissions will be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. TxDOT encourages construction contractors to use TERP and other local and federal incentive programs to the fullest extent possible to minimize diesel emissions.
11. Every reasonable effort will be made to minimize construction noise through abatement measures such as work hour controls and proper maintenance of equipment mufflers.
12. In accordance with the EO 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, permanent soil erosion control features would be constructed as soon as feasible during the early stages of construction through proper sodding and/or seeding techniques. Disturbed areas would be restored and stabilized as soon as the construction schedule permits. Therefore, seeding and replanting with TxDOT Pharr District native permanent rural seed mix would be performed.
13. Any unanticipated hazardous material and/or petroleum contamination encountered during construction of the project would be handled according to applicable federal and state regulations per TxDOT Standard Specification.

X. Conclusion

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

References

1. Ama Terra Environmental, Inc.
   2017a. Historical Studies Research Design
   2017b. Historic Resources Survey
   2018a. Archeological Background Study

2. SWCA Environmental Consultants.
   2007/2009. Historic Resource Reconnaissance Survey
   2014a. Antiquities Permit Application Form (3525)
   2014b. Archeological Survey

3. Texas Department of Transportation & Hidalgo County.
   2017a. Documentation of Public Meeting
   2017b. Biological Evaluation Form
   2017c. Biological Tier I Site Assessment Form
   2017d. Air Quality Technical Report
   2017e. Hazardous Materials Initial Site Assessment
   2017f. Water Resources Technical Report
   2017g. Community Impacts Analysis Technical Report
   2018a. Traffic Noise Analysis Technical Report
   2018b. Indirect and Cumulative Impacts Analysis report
   2018c. Technical Memo
   2019a. Documentation of Public Hearing
   2019b. Chapter 26 Compliance Checklist

Figures

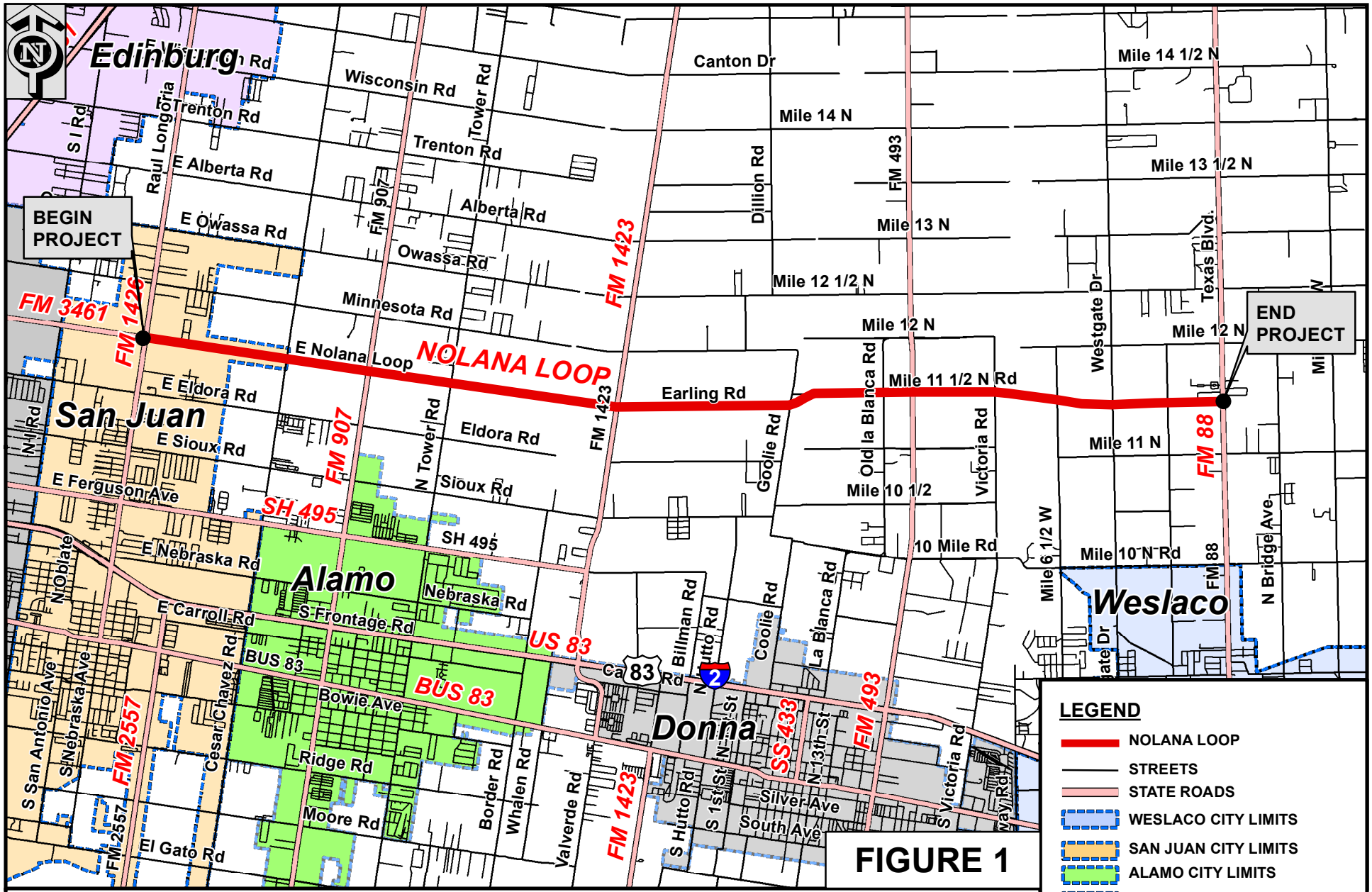

FIGURE 1

NOLANA LOOP LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 1 NOLANA LOCATION MAP.mxd

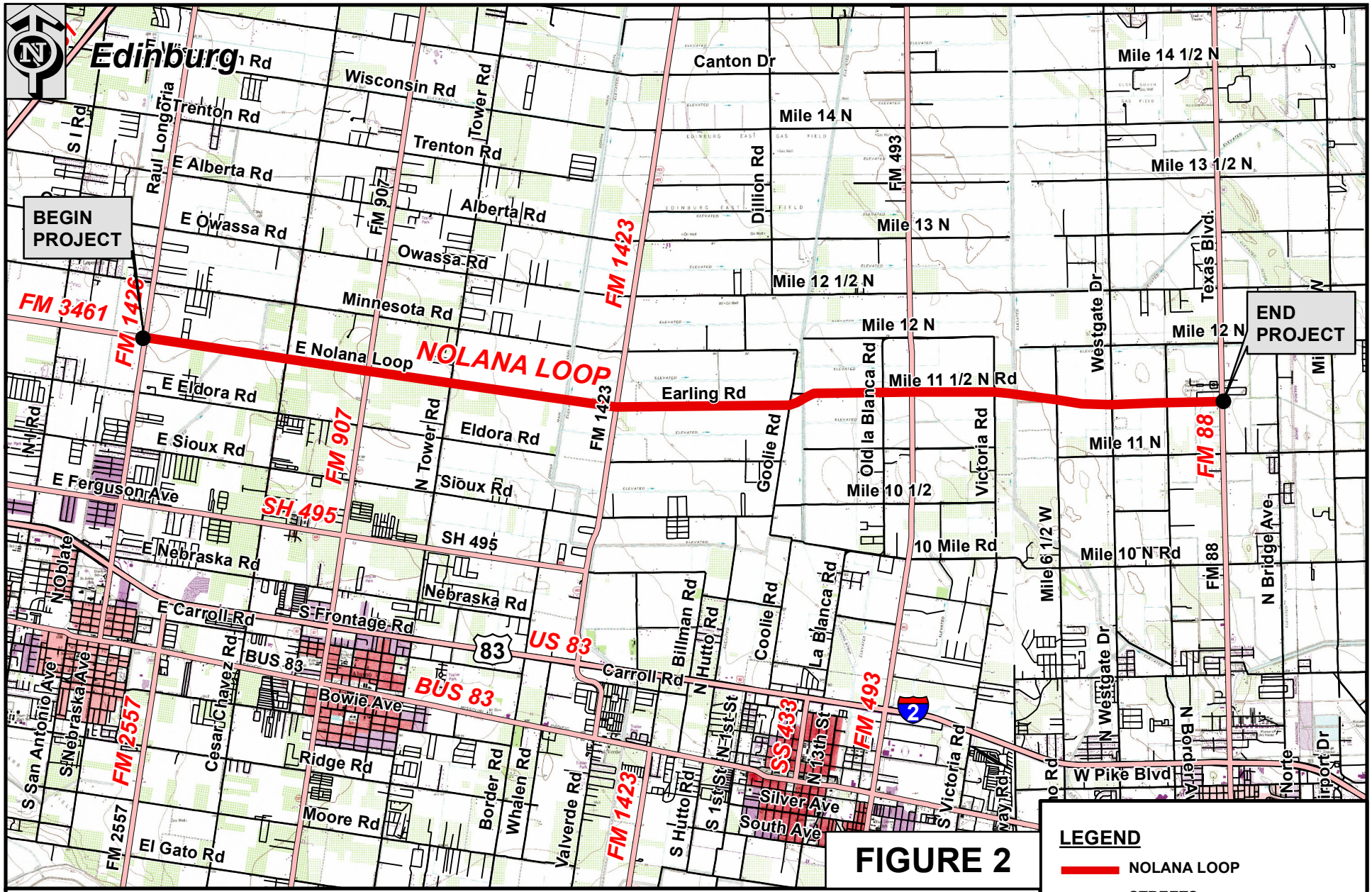

FIGURE 2

NOLANA LOOP USGS TOPO MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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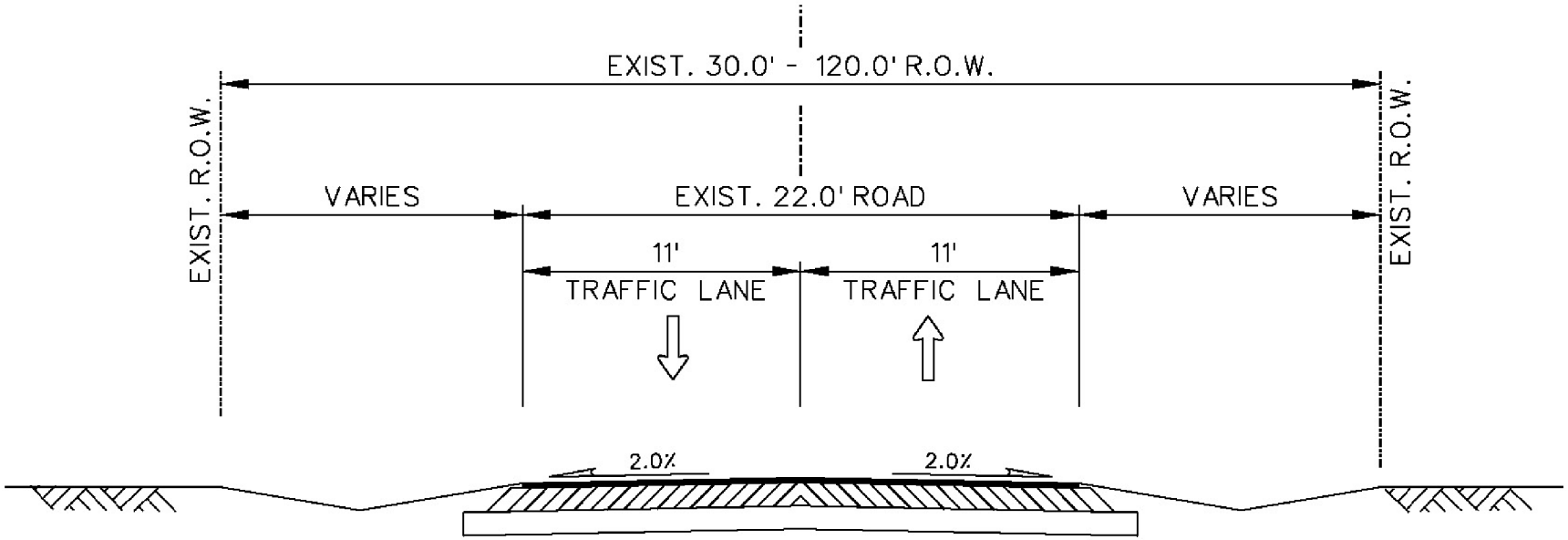

EARLING & MILE 11 1/2 EXISTING TYPICAL SECTION

FIGURE 3

NOLANA LOOP EXISTING TYPICAL SECTION

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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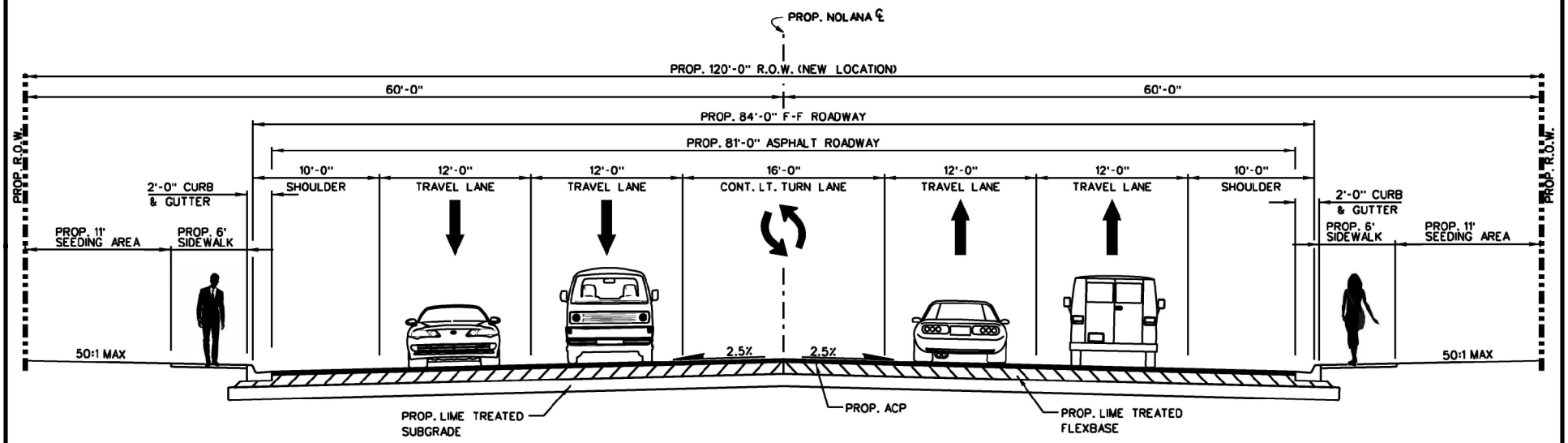

NOLANA PROPOSED TYPICAL SECTION

FIGURE 4

NOLANA LOOP PROPOSED TYPICAL SECTION

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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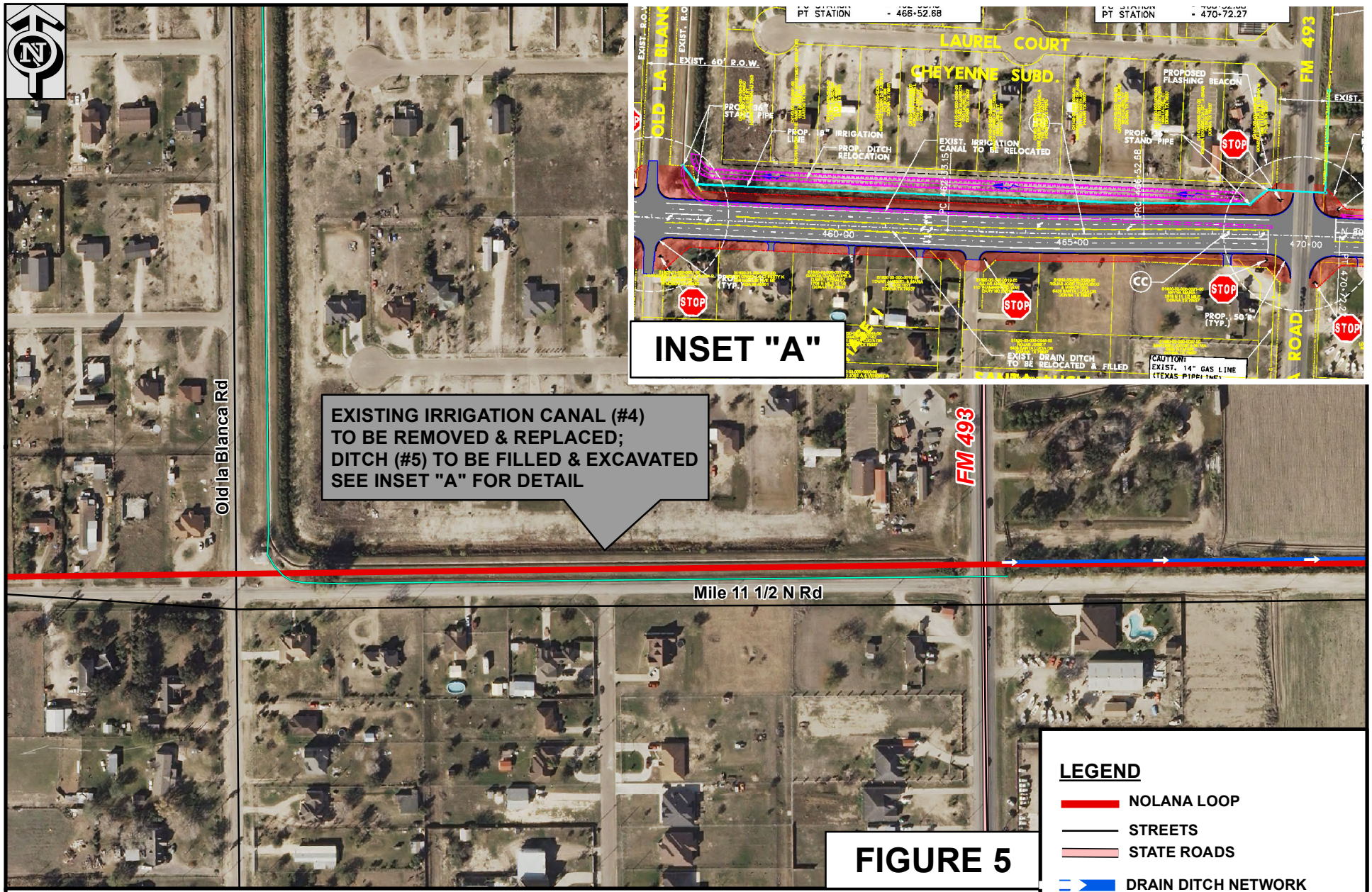

FIGURE 5

NOLANA LOOP PARALLEL IRRIGATION CANAL #4 & DRAINAGE DITCH #5 MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

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Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 5 NOLANA DD RELOCATION MAP REV.mxd

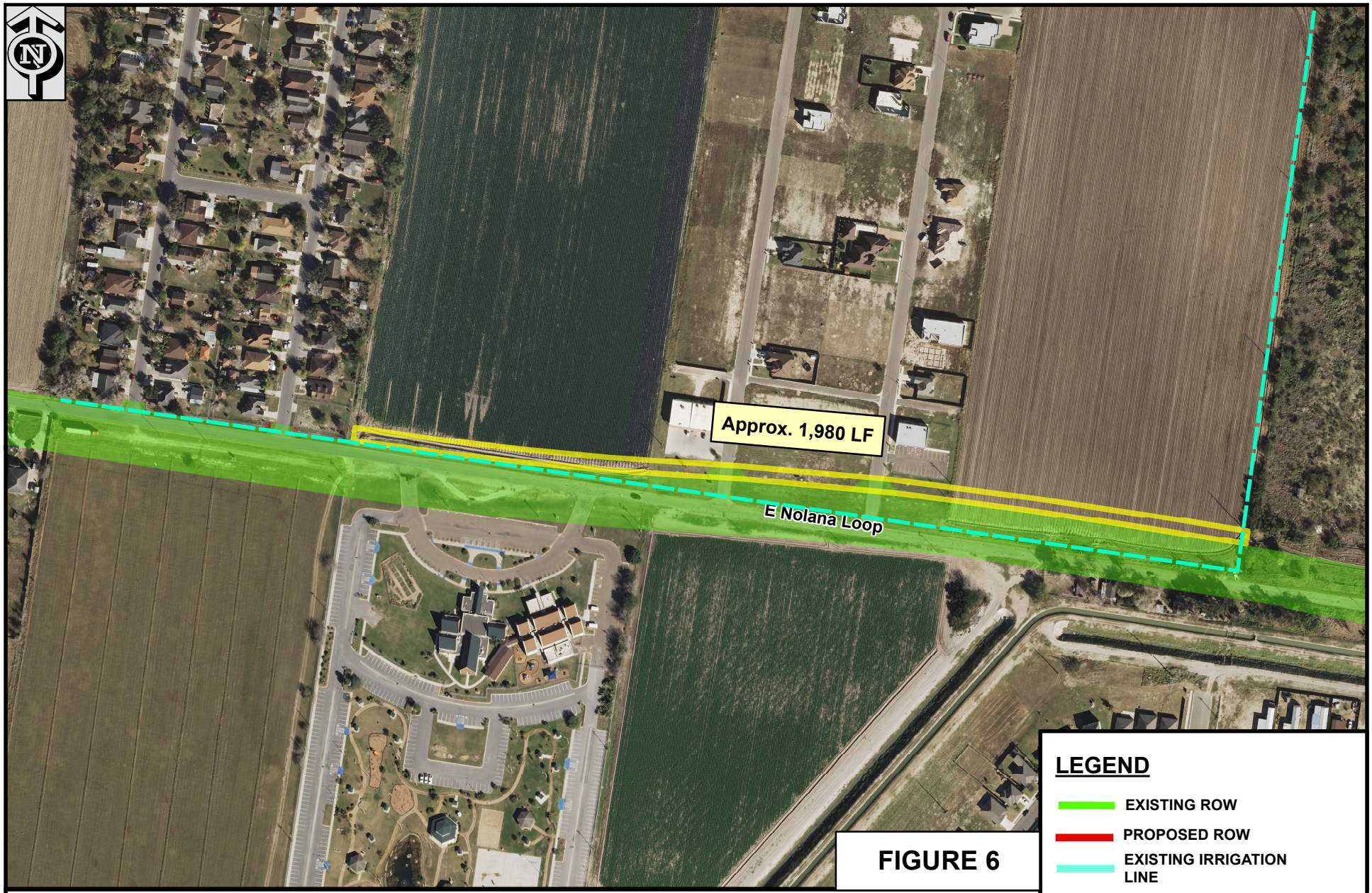

FIGURE 6

LEGEND

- EXISTING ROW
- PROPOSED ROW
- EXISTING IRRIGATION LINE
- PROPOSED IRRIGATION EASEMENT

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP EASEMENT #1
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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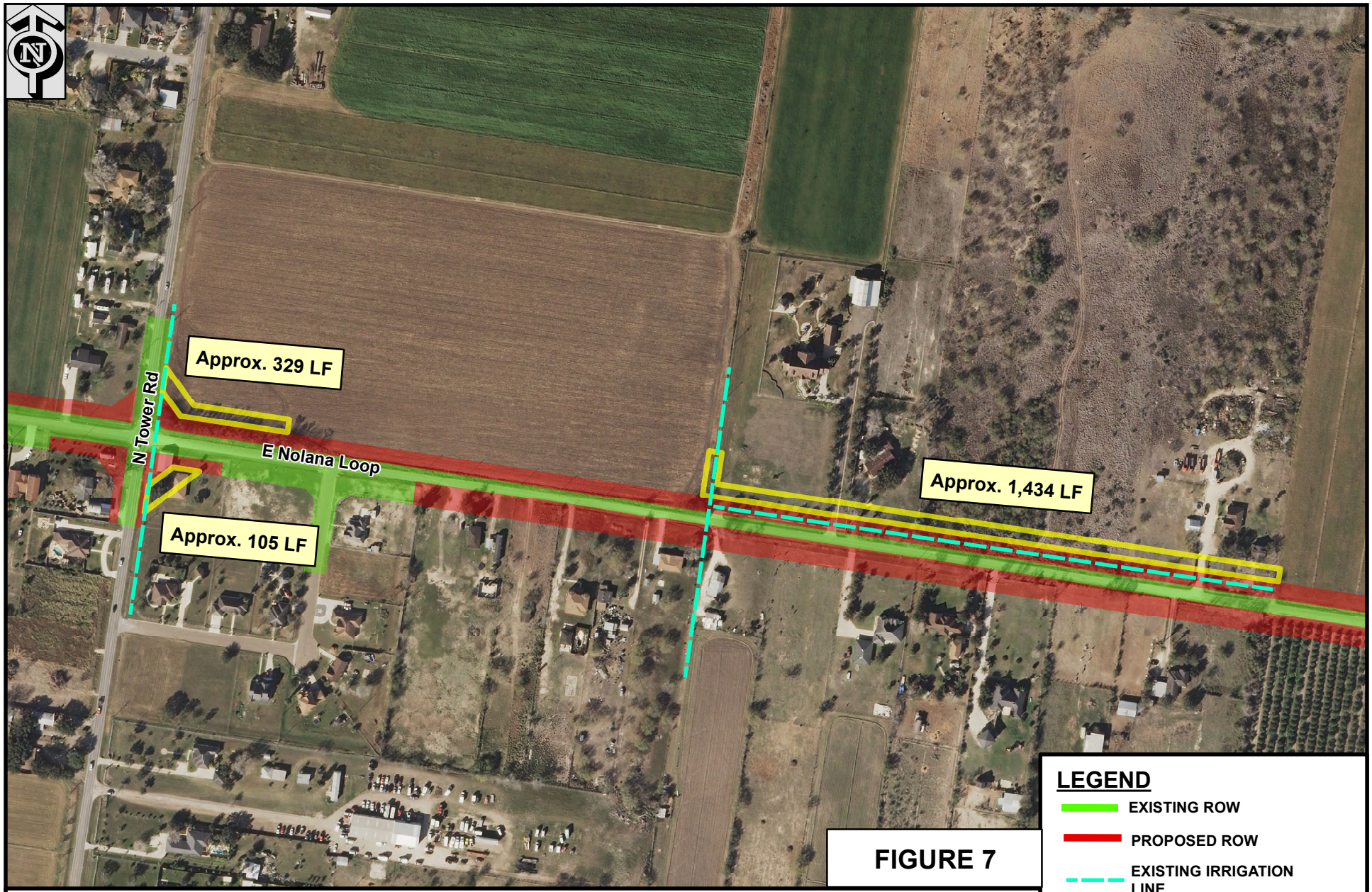

FIGURE 7

LEGEND

- EXISTING ROW
- PROPOSED ROW
- EXISTING IRRIGATION LINE
- PROPOSED IRRIGATION EASEMENT

325 162.5 0 325
Feet
1 inch = 317 feet

NOLANA LOOP EASEMENT #2
CSJ-0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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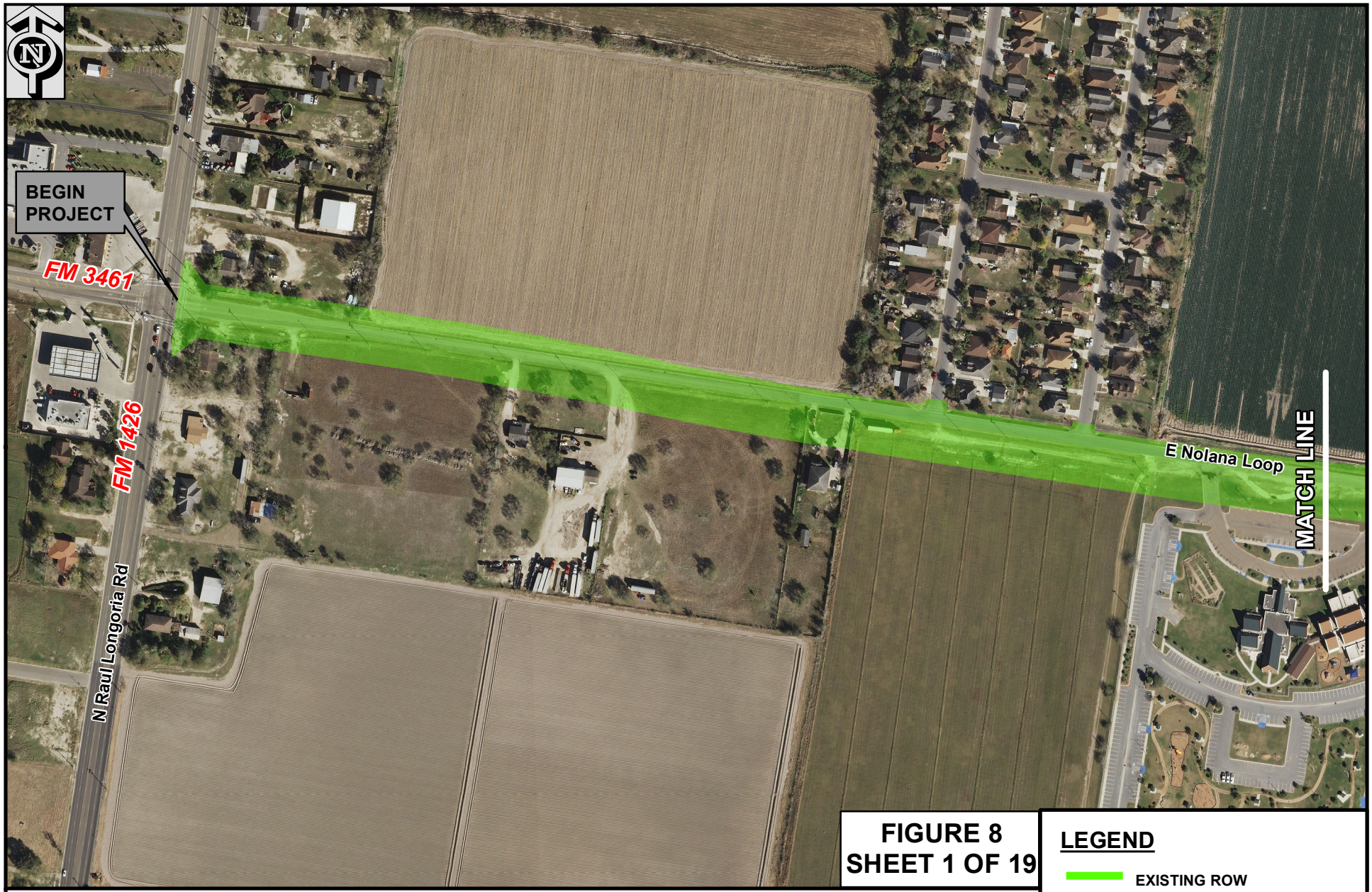

FIGURE 8
SHEET 1 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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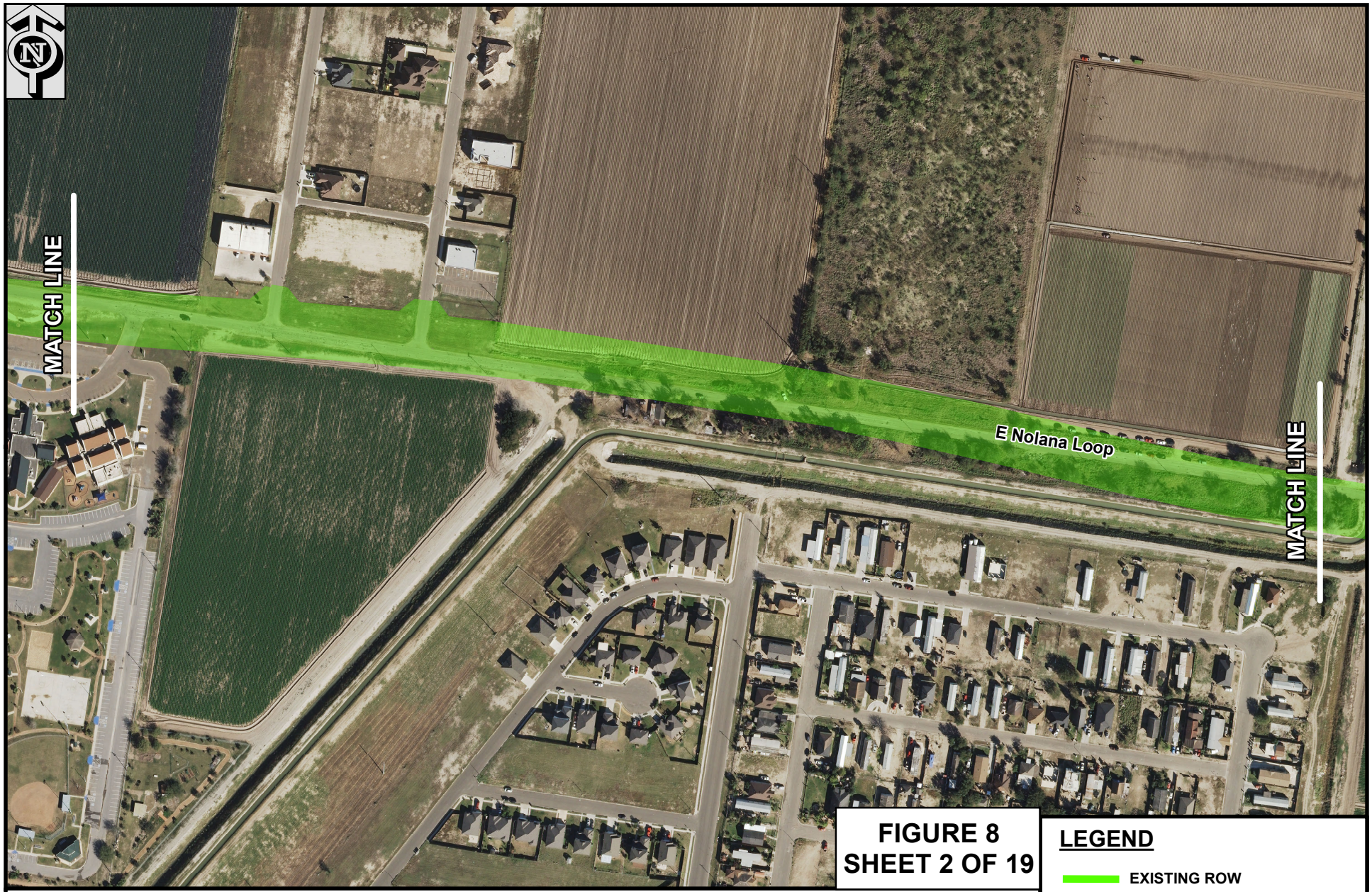

FIGURE 8
SHEET 2 OF 19

LEGEND

EXISTING ROW

PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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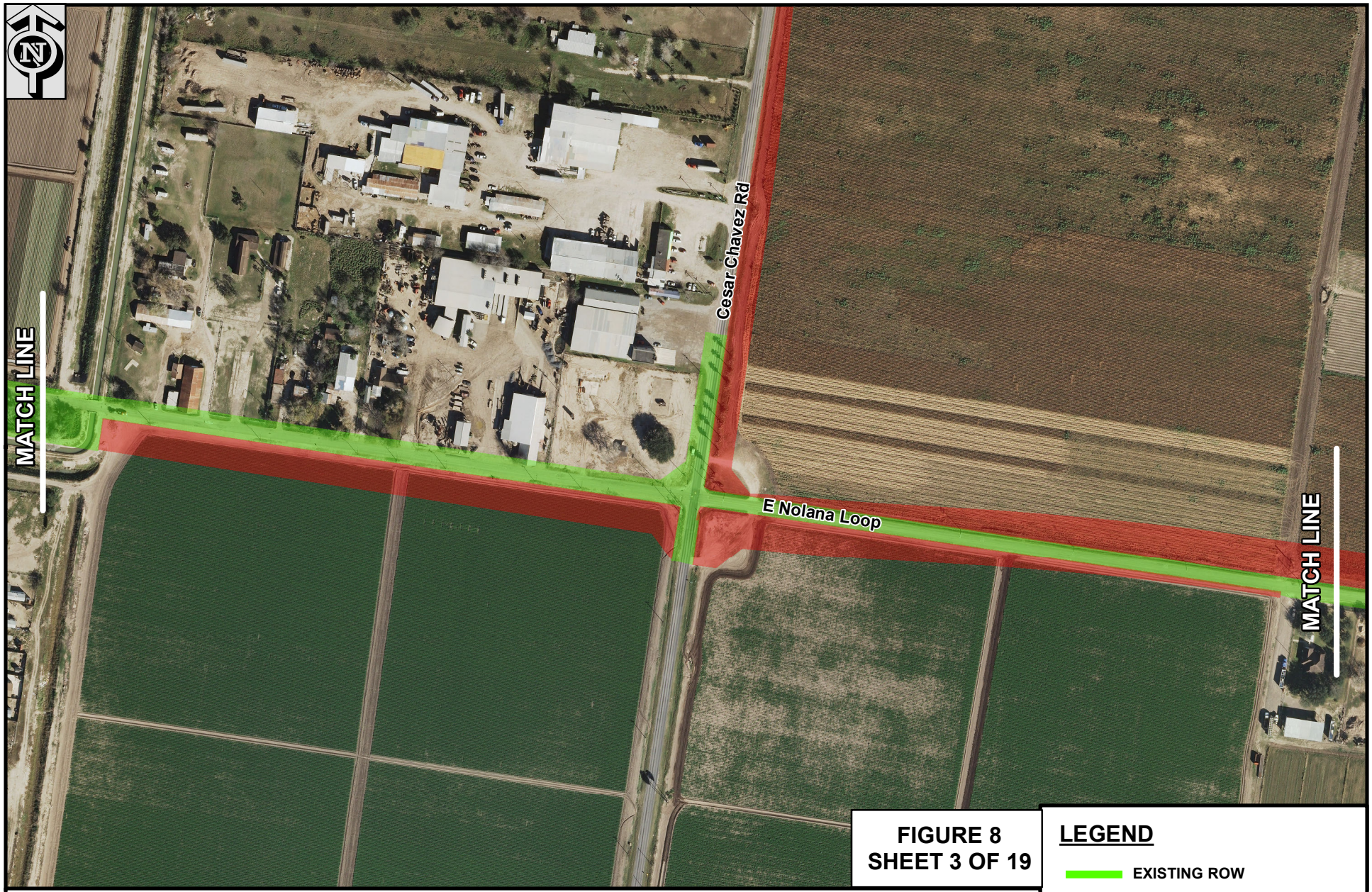

FIGURE 8
SHEET 3 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

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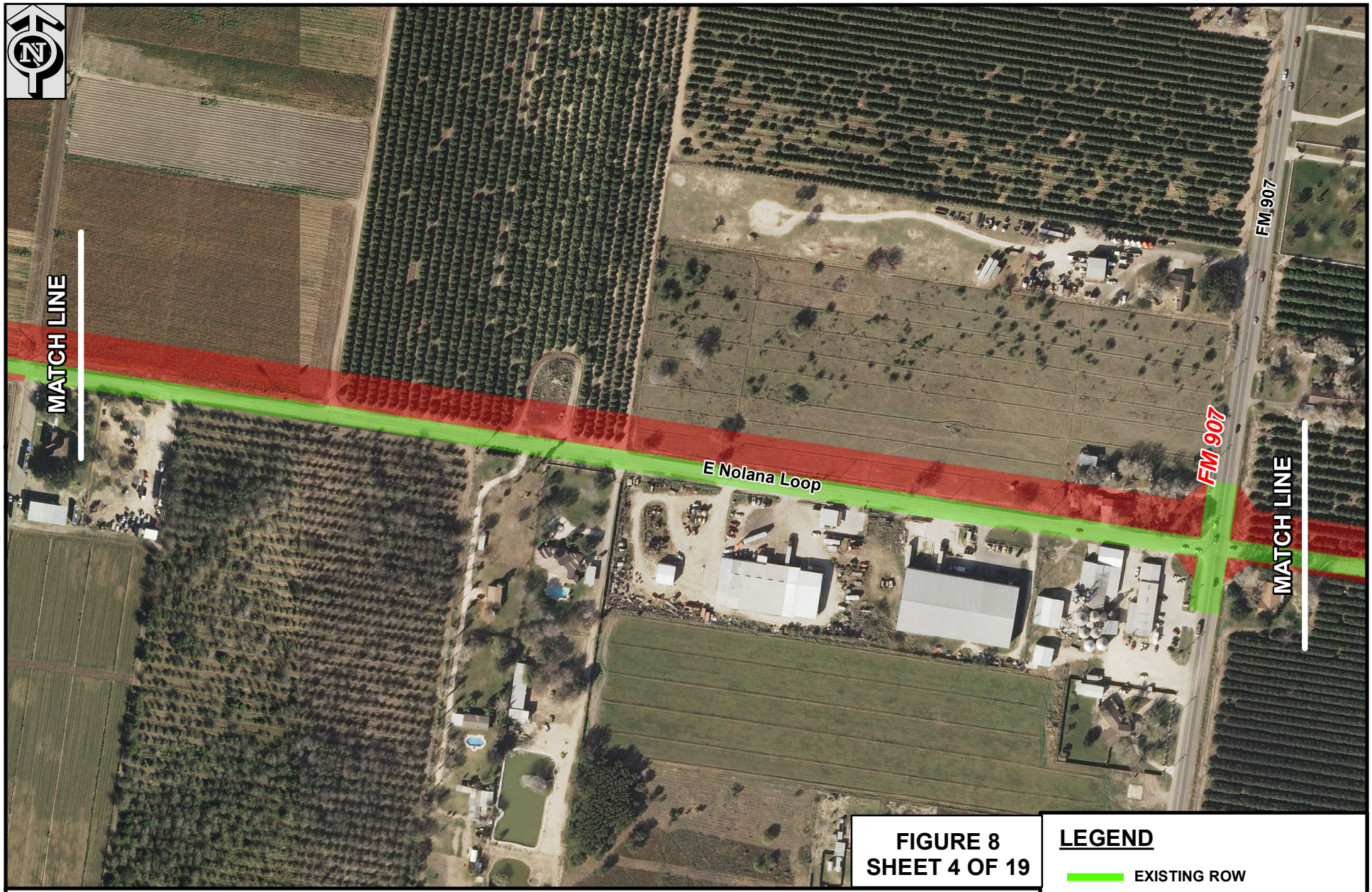

FIGURE 8
SHEET 4 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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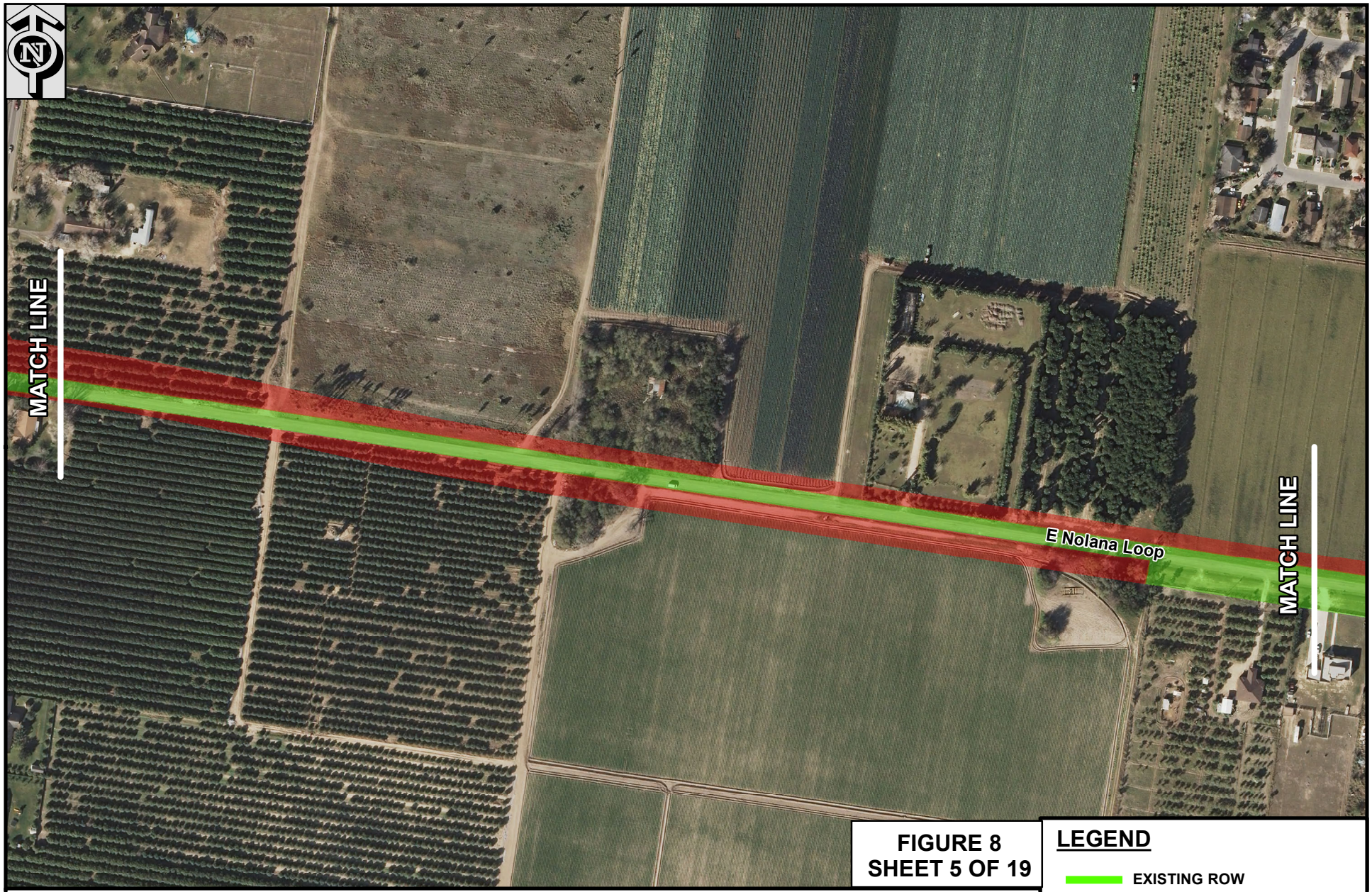

FIGURE 8
SHEET 5 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ-0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 5.mxd

FIGURE 8
SHEET 6 OF 19

LEGEND

EXISTING ROW

PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ-0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 6.mxd

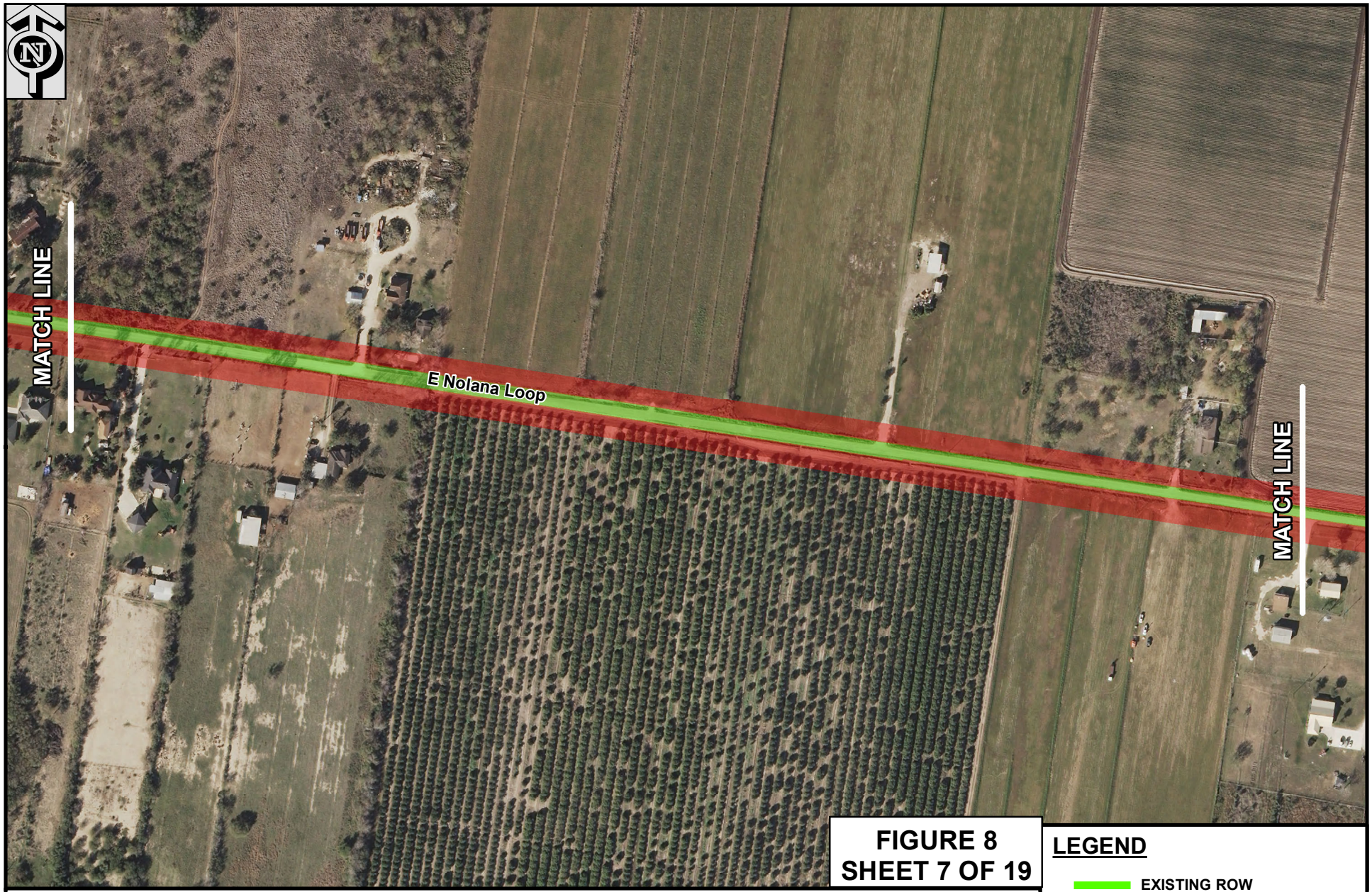

FIGURE 8
SHEET 7 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ-0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 7.mxd

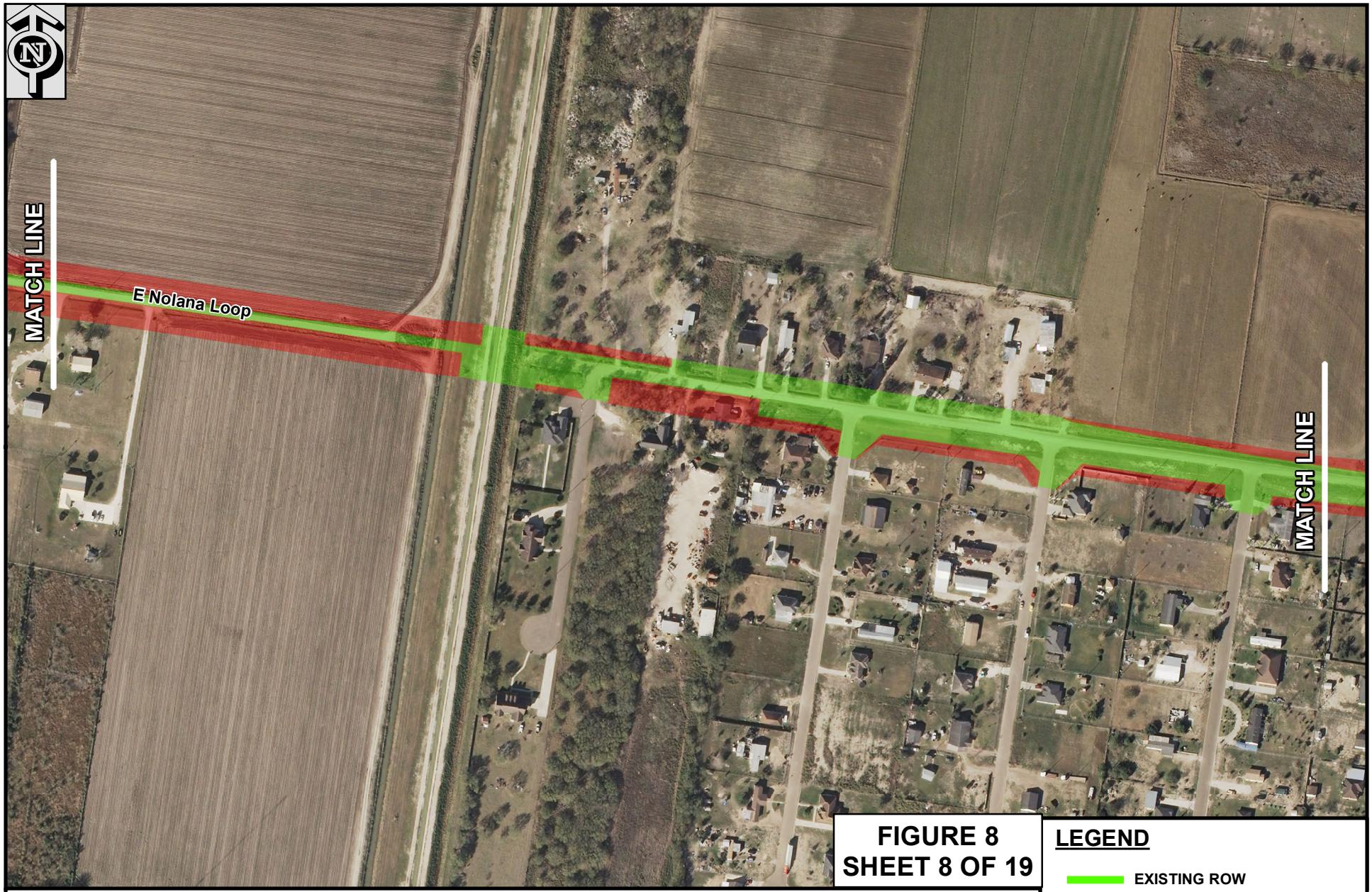

FIGURE 8
SHEET 8 OF 19

LEGEND

EXISTING ROW

PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 8.mxd

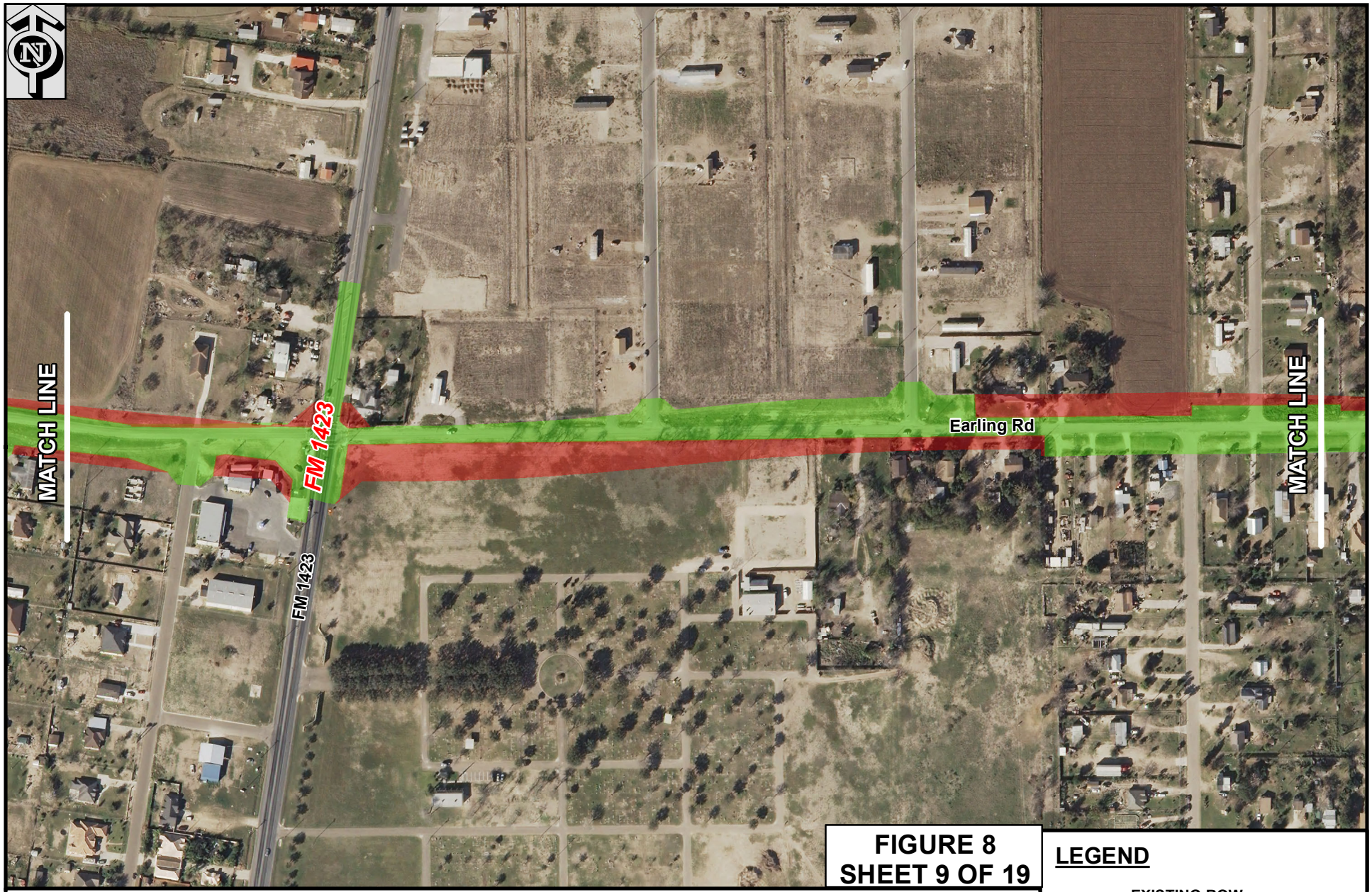

FIGURE 8
SHEET 9 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 9.mxd

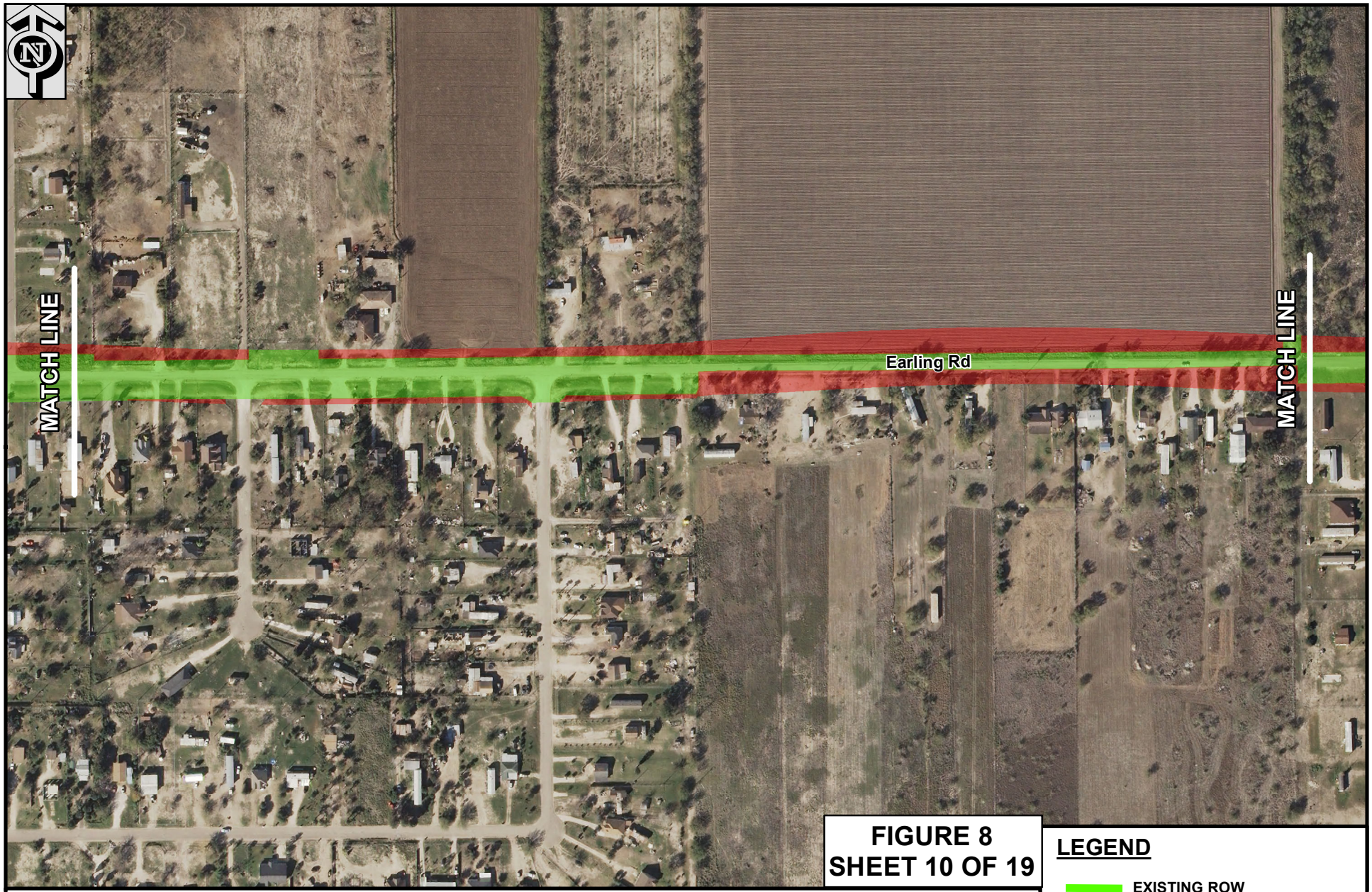

FIGURE 8
SHEET 10 OF 19

LEGEND

EXISTING ROW

PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 10.mxd

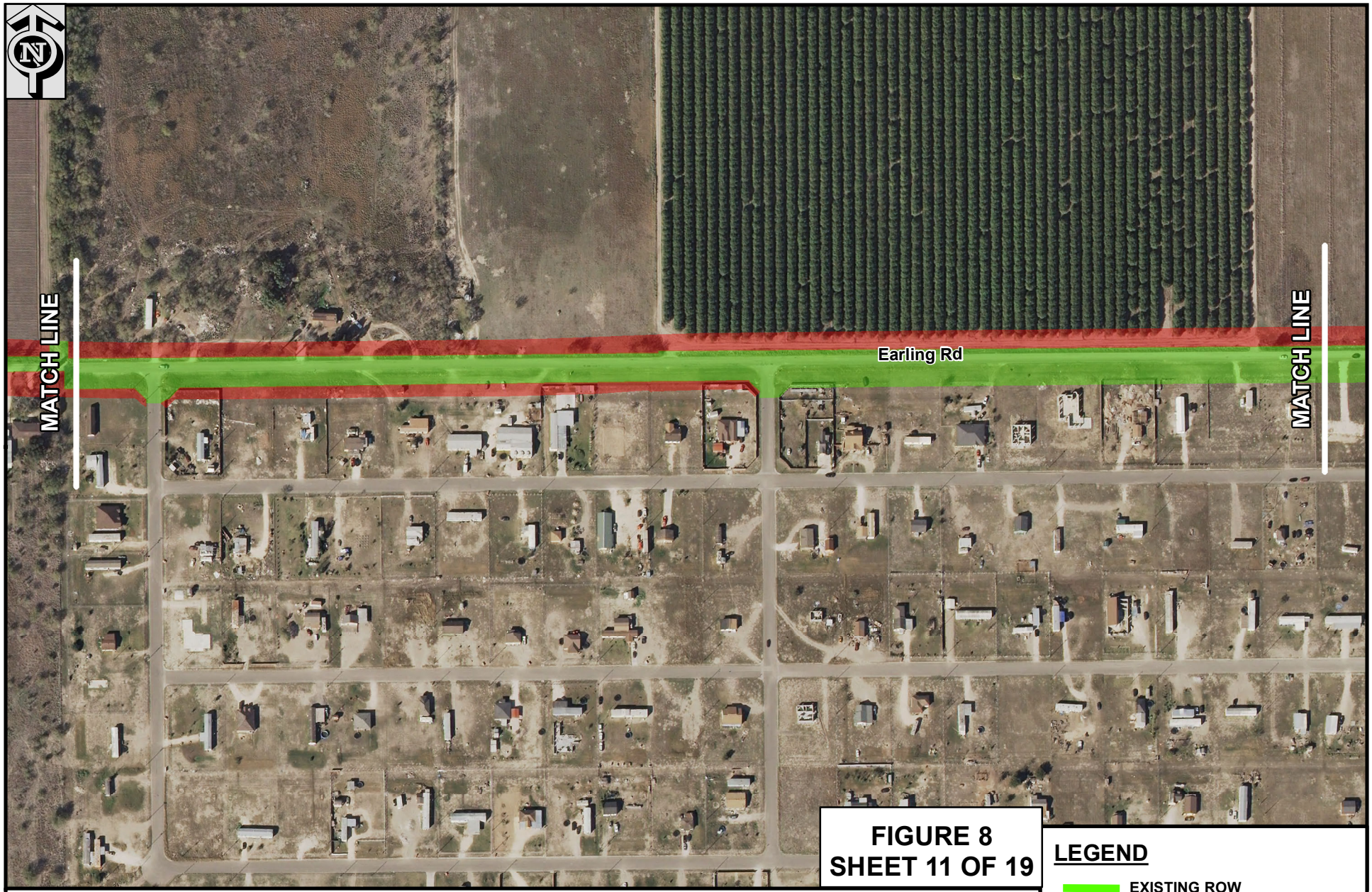

FIGURE 8
SHEET 11 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 11.mxd

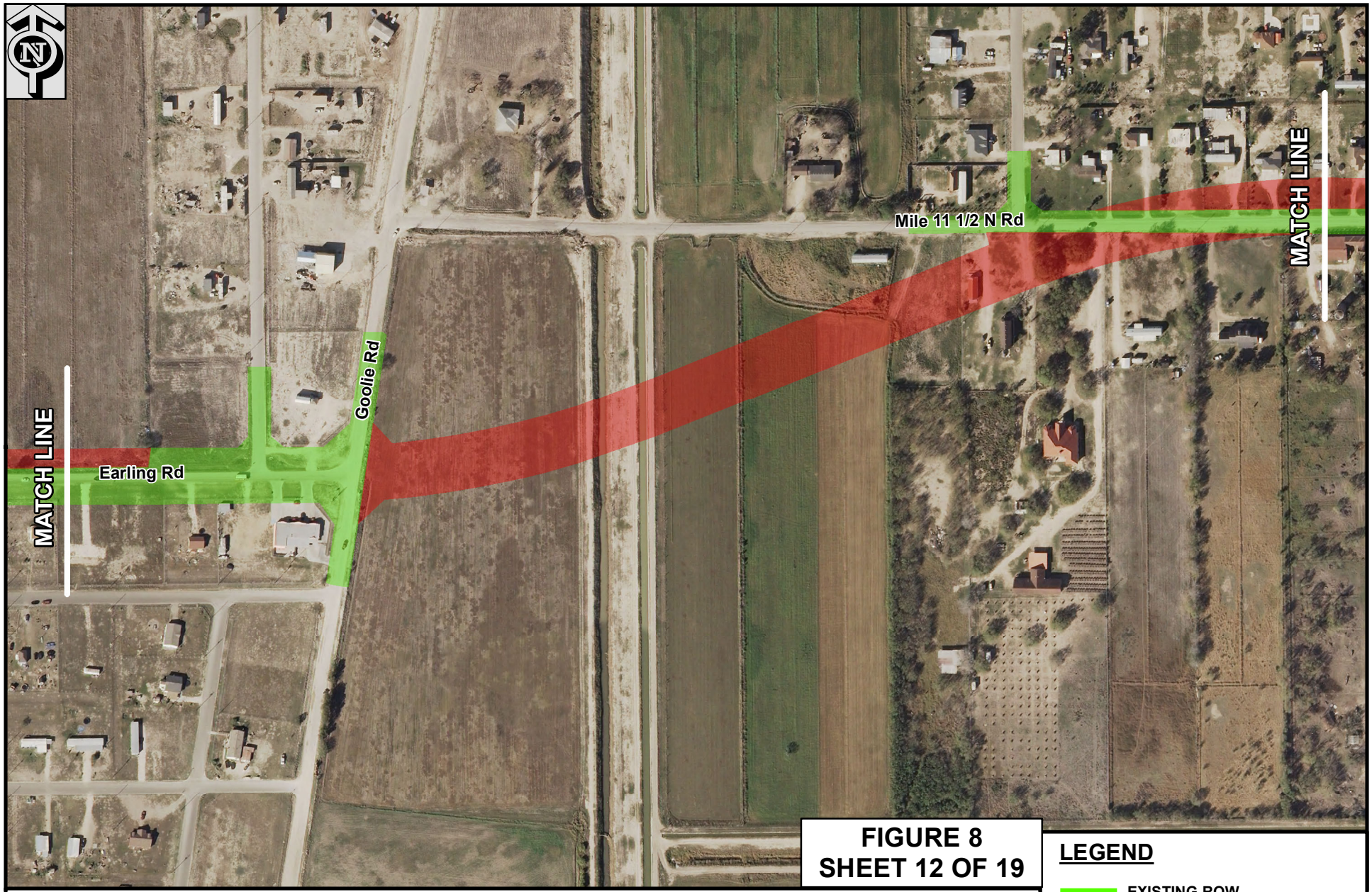

FIGURE 8
SHEET 12 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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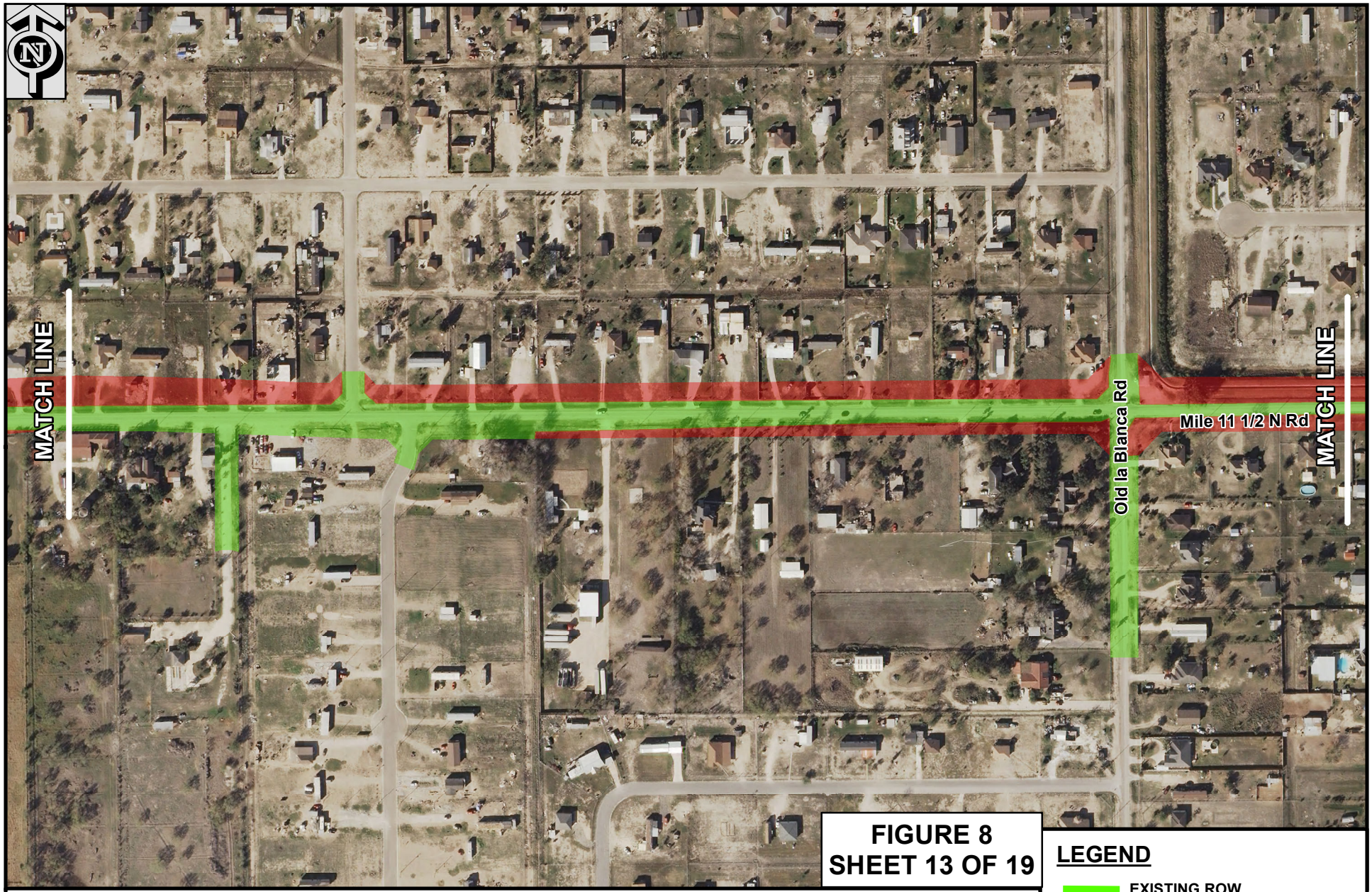

FIGURE 8
SHEET 13 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 13.mxd

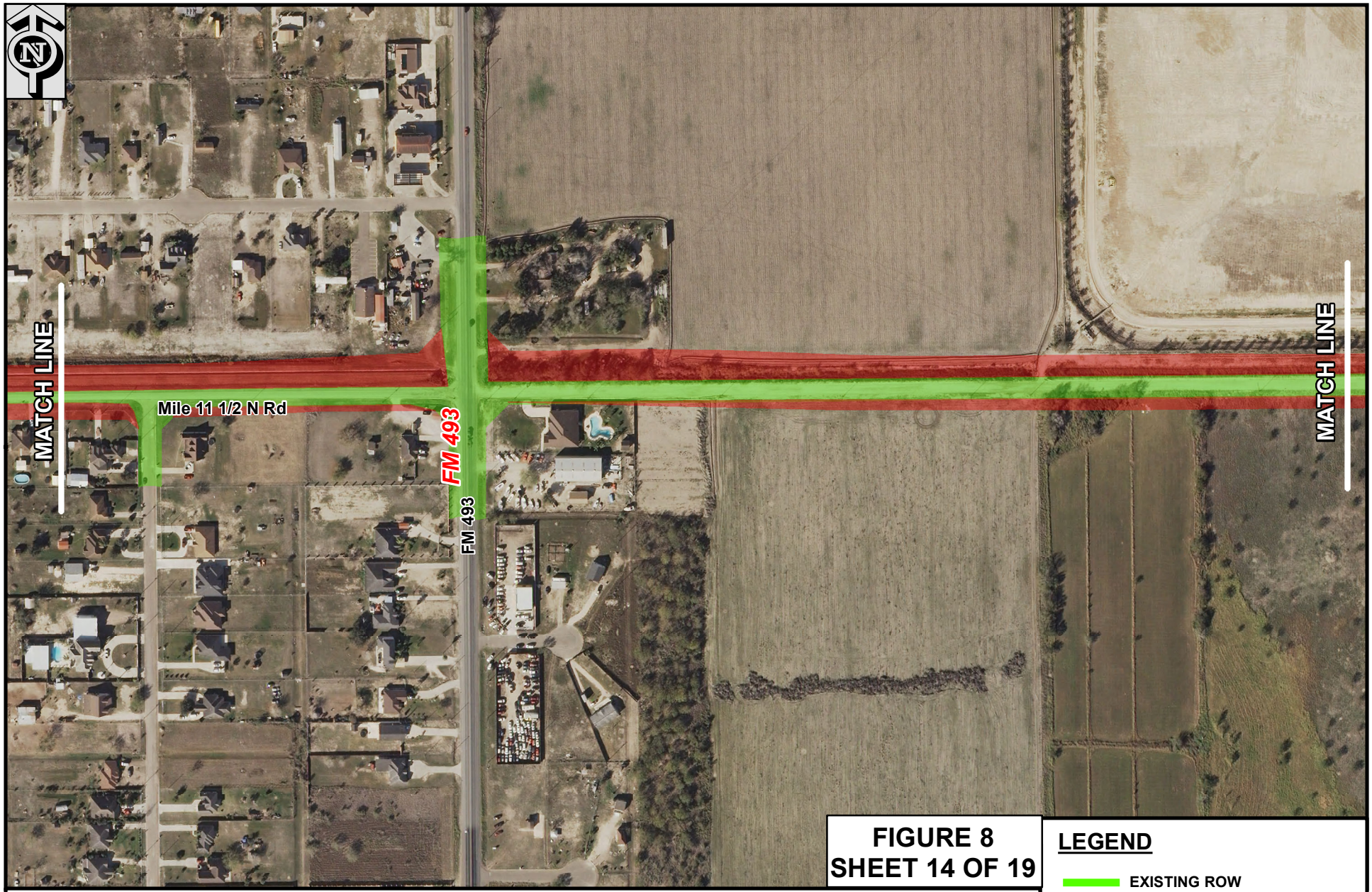

FIGURE 8
SHEET 14 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 14.mxd

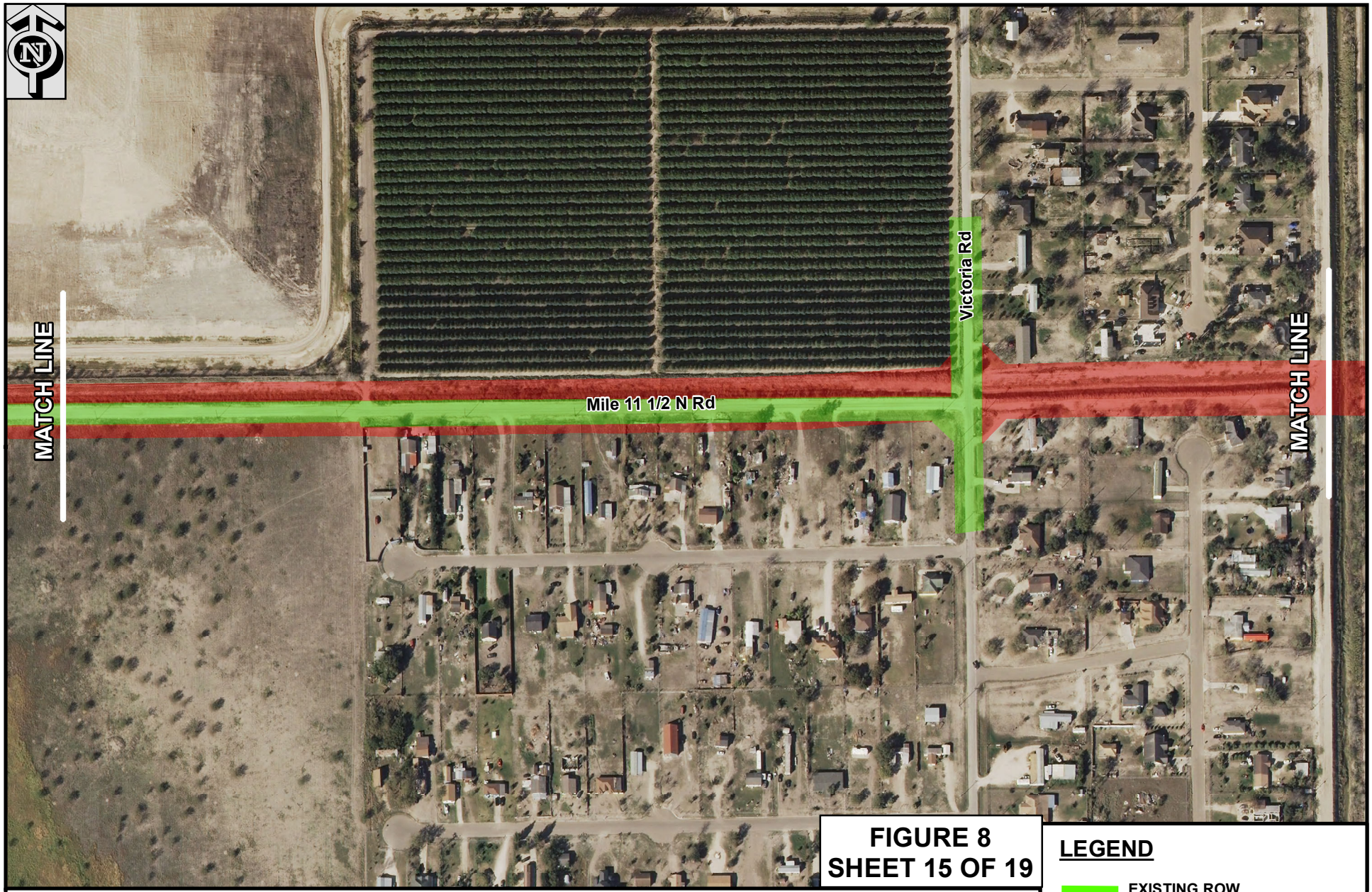

FIGURE 8
SHEET 15 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 15.mxd

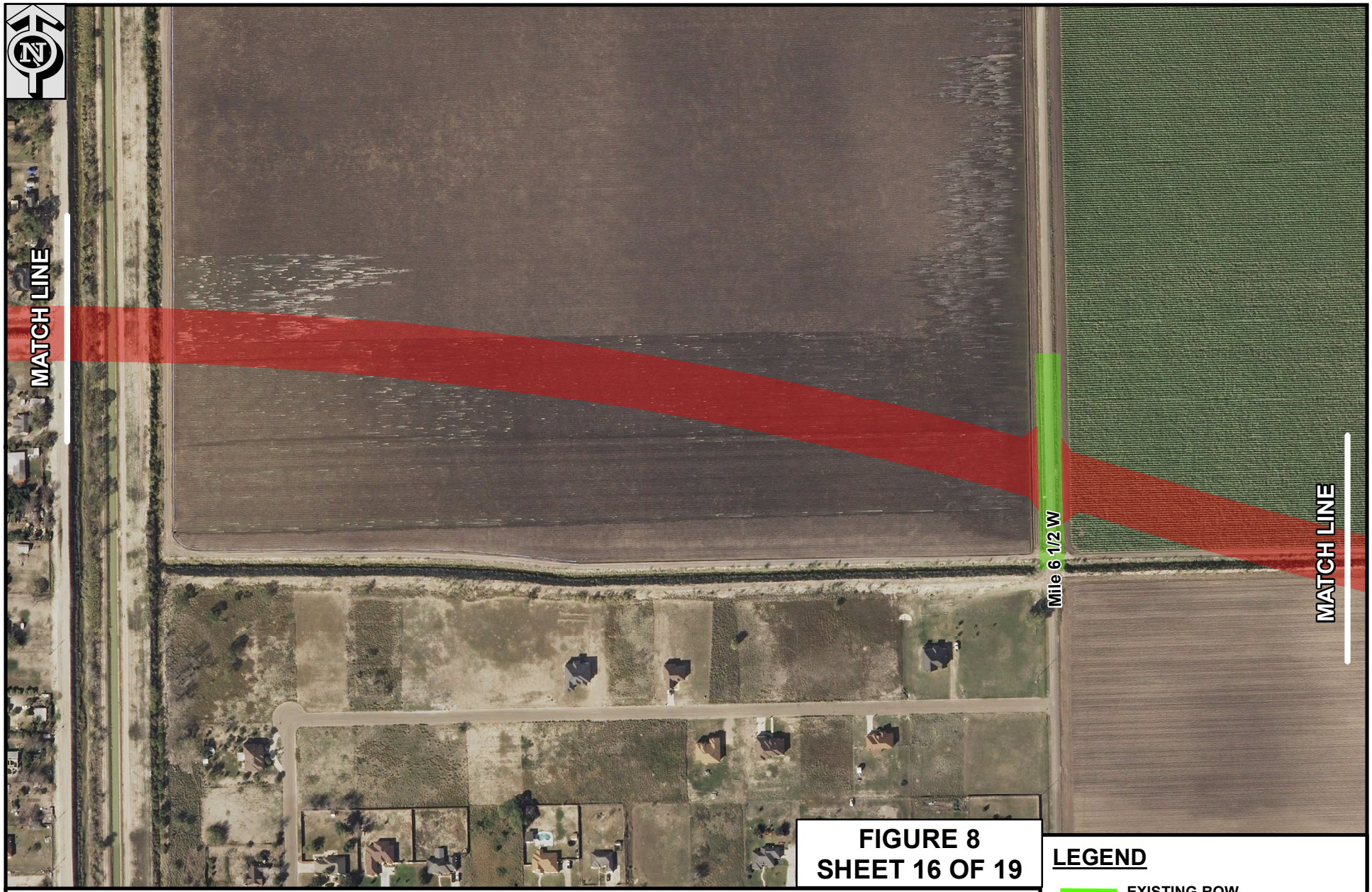

FIGURE 8
SHEET 16 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 16.mxd

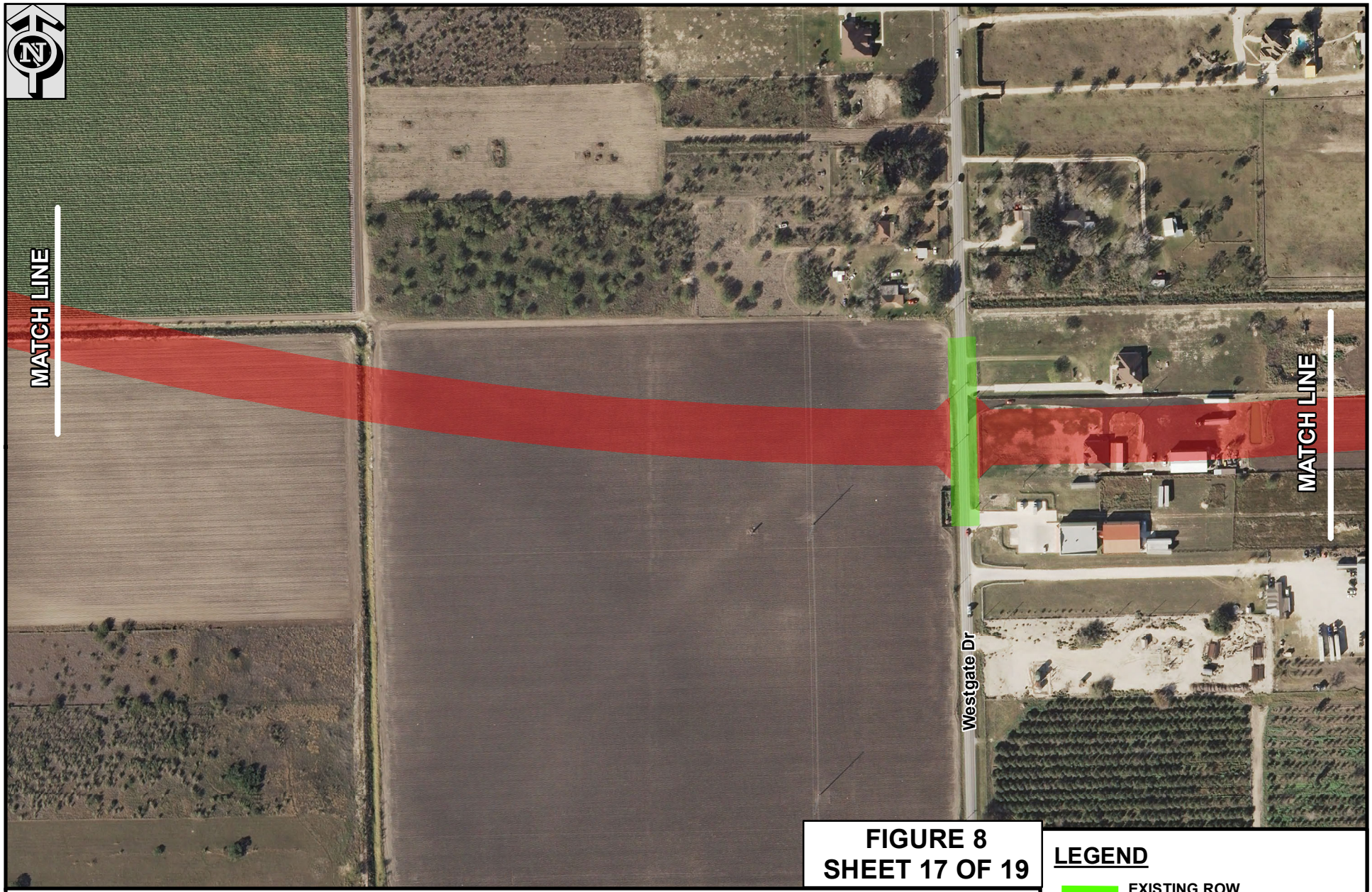

FIGURE 8
SHEET 17 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 17.mxd

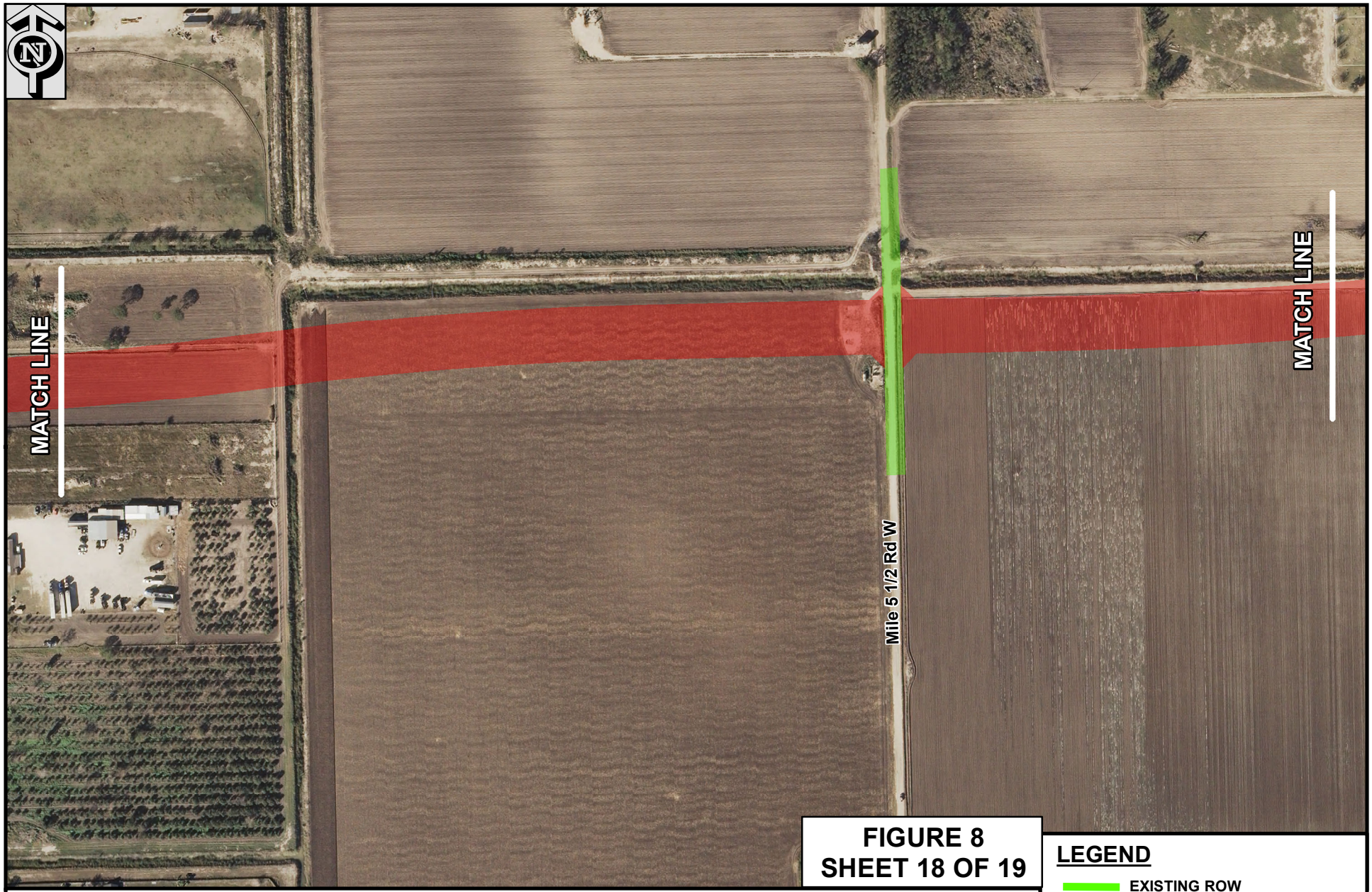

FIGURE 8
SHEET 18 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 8 BUILD ALT MAP 18.mxd

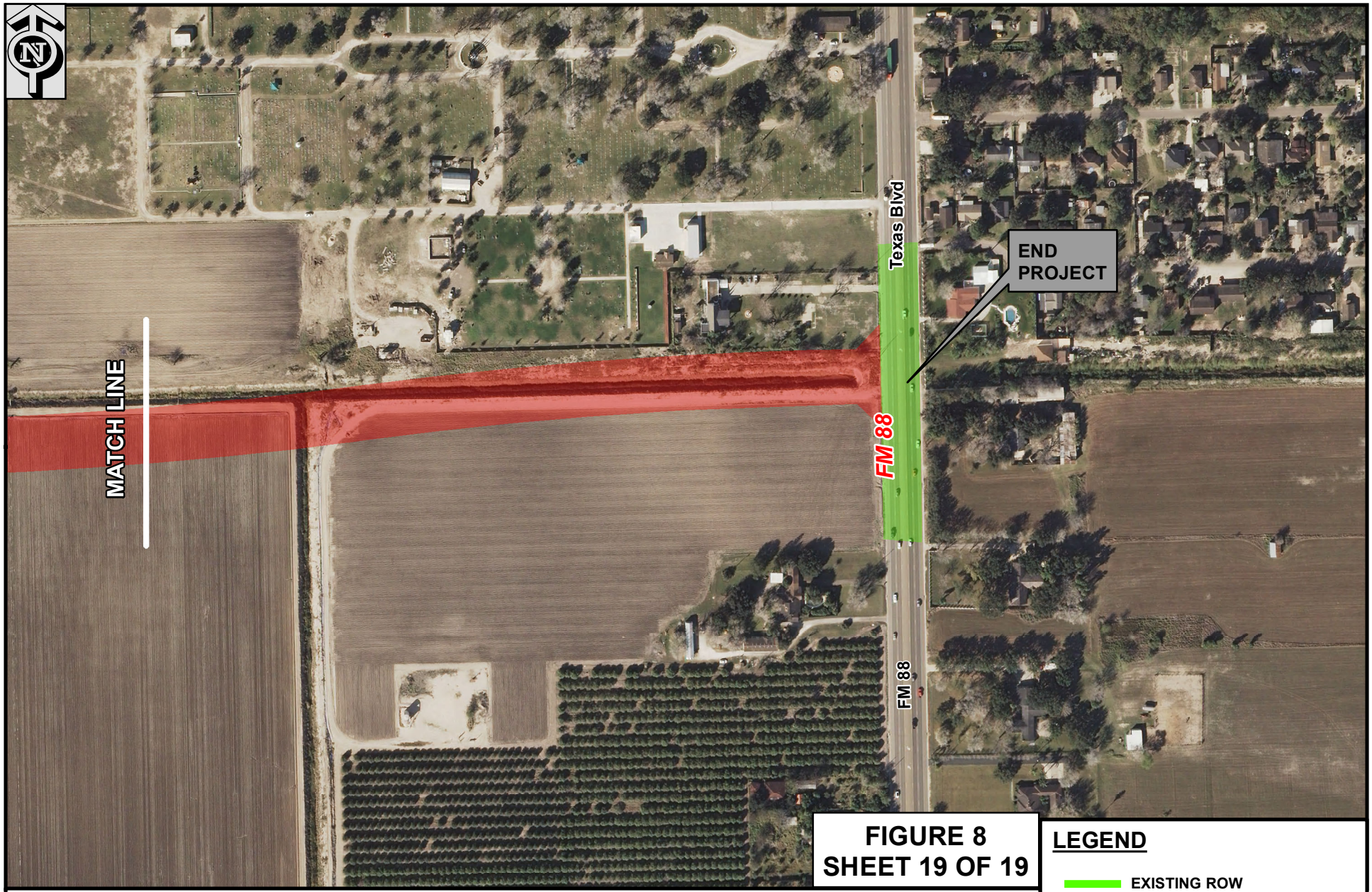

FIGURE 8
SHEET 19 OF 19

LEGEND

- EXISTING ROW
- PROPOSED ROW

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP BUILD ALTERNATIVE
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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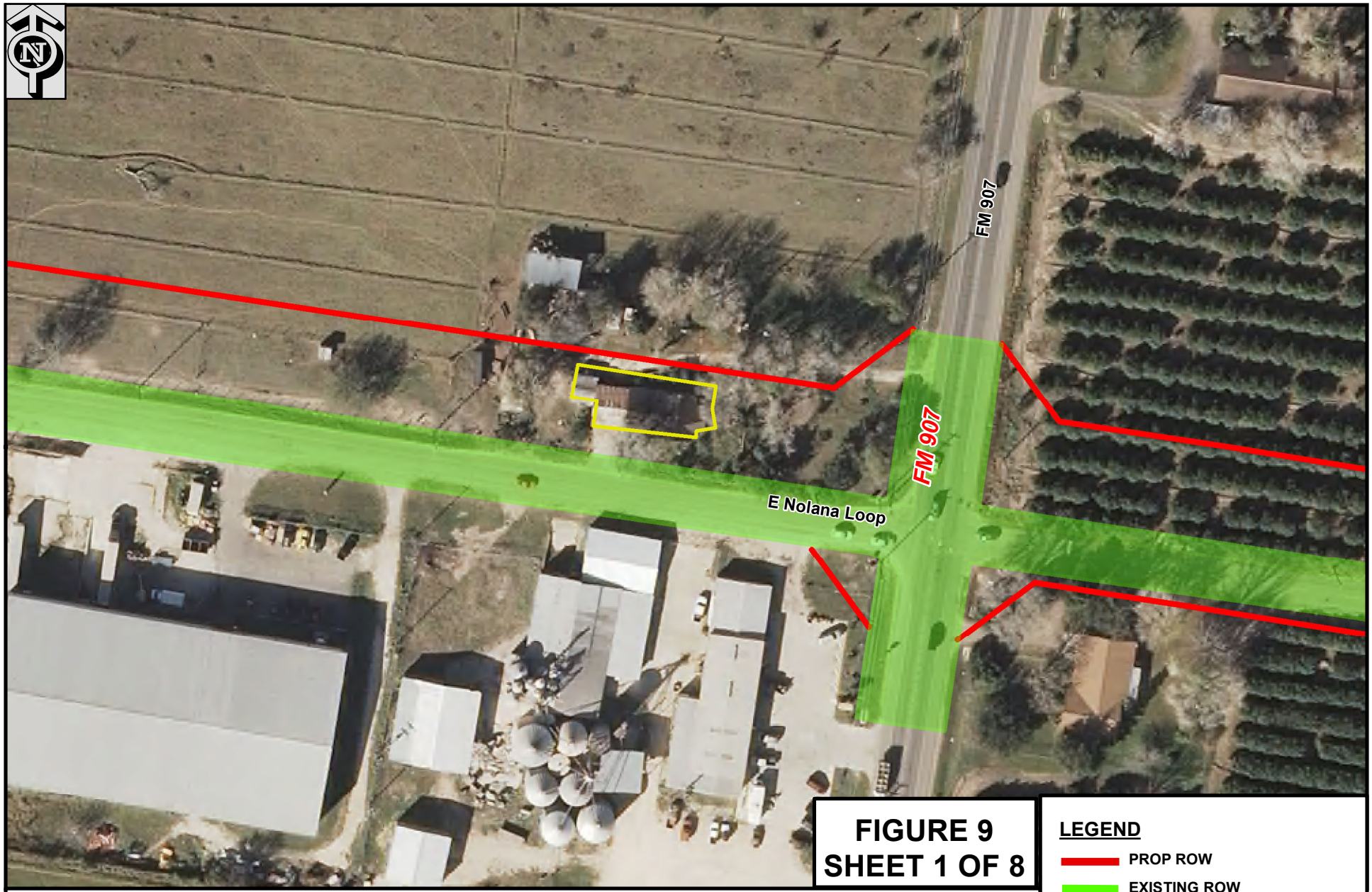

FIGURE 9
SHEET 1 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #1 (RESIDENCE)

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

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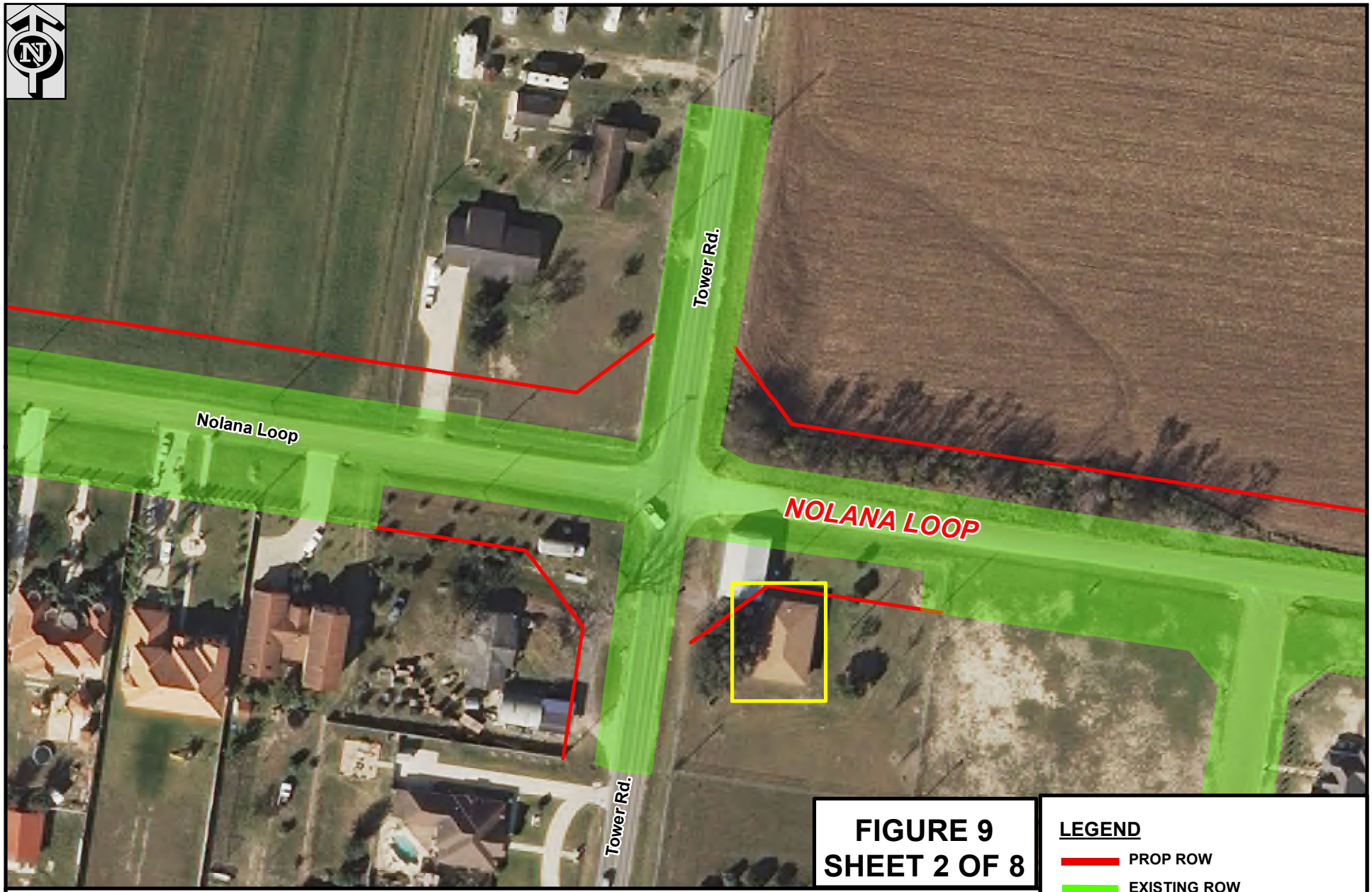

FIGURE 9
SHEET 2 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #2 (RESIDENCE)

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\RELOCATION MAP FIG 9-2.mxd

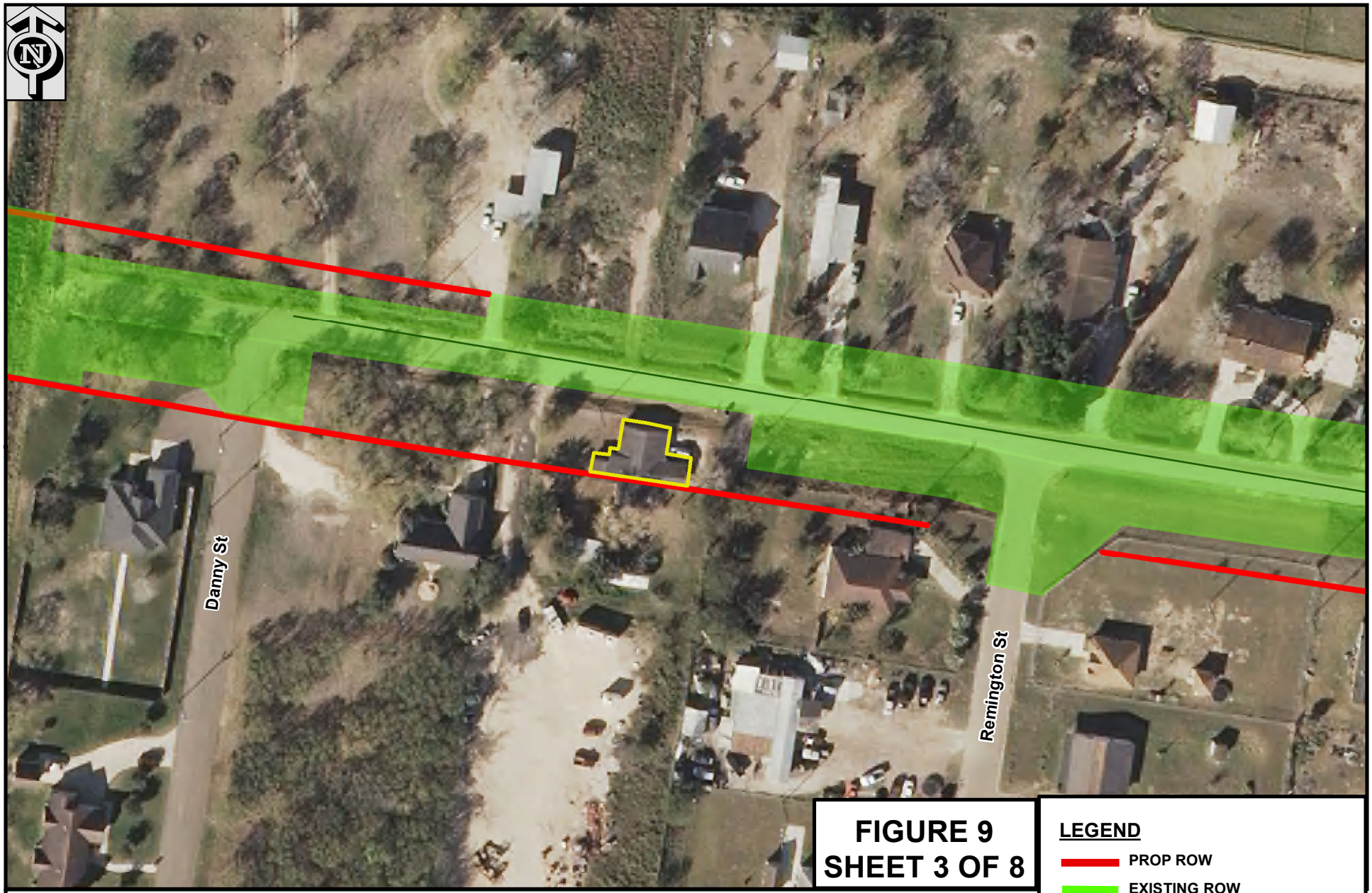

FIGURE 9
SHEET 3 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #3 (RESIDENCE)
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\RELOCATION MAP FIG 9-3.mxd

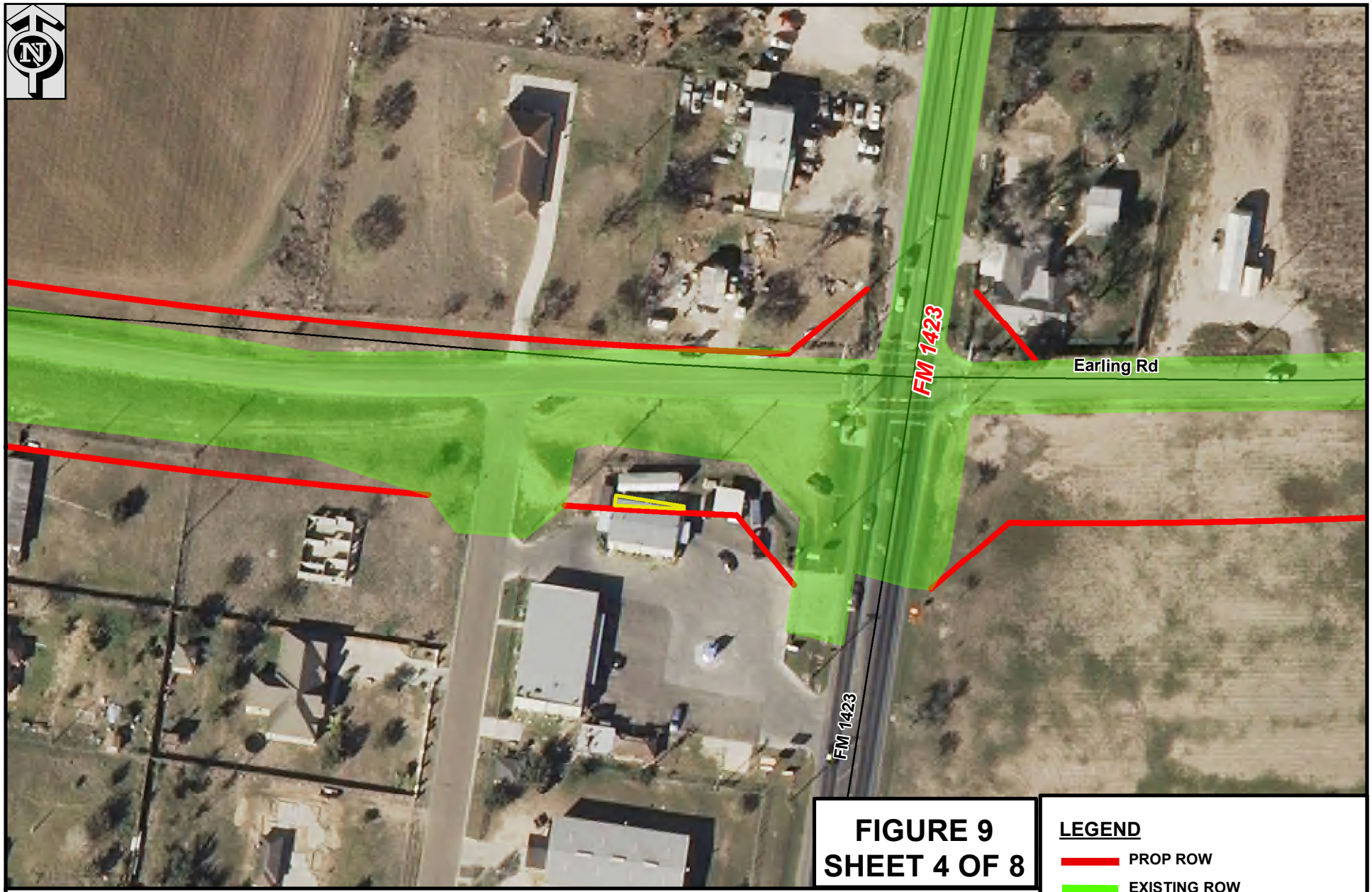

FIGURE 9
SHEET 4 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #4 (BUSINESS)
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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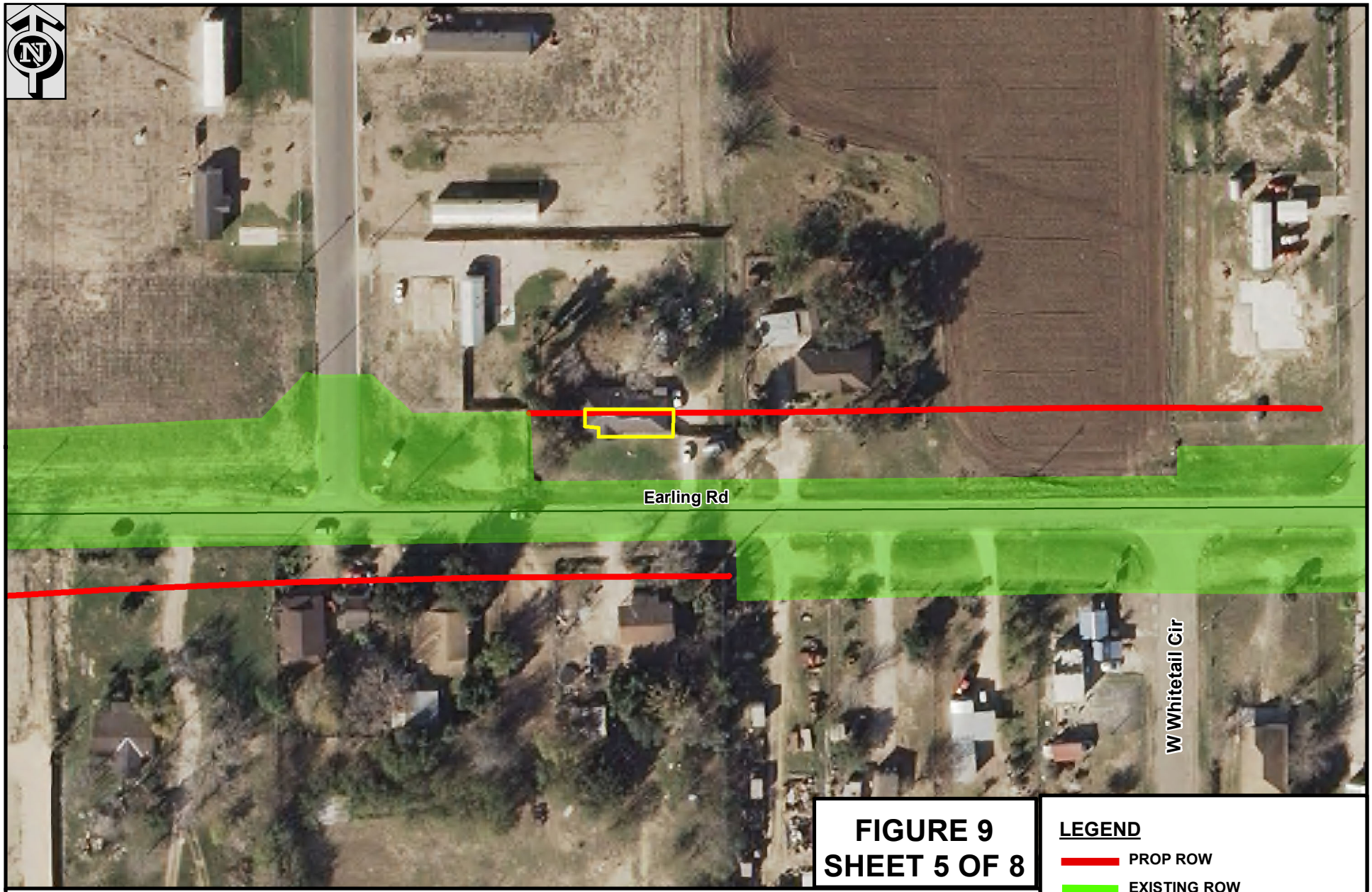

FIGURE 9
SHEET 5 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #5 (RESIDENCE)
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\RELOCATION MAP FIG 9-5.mxd

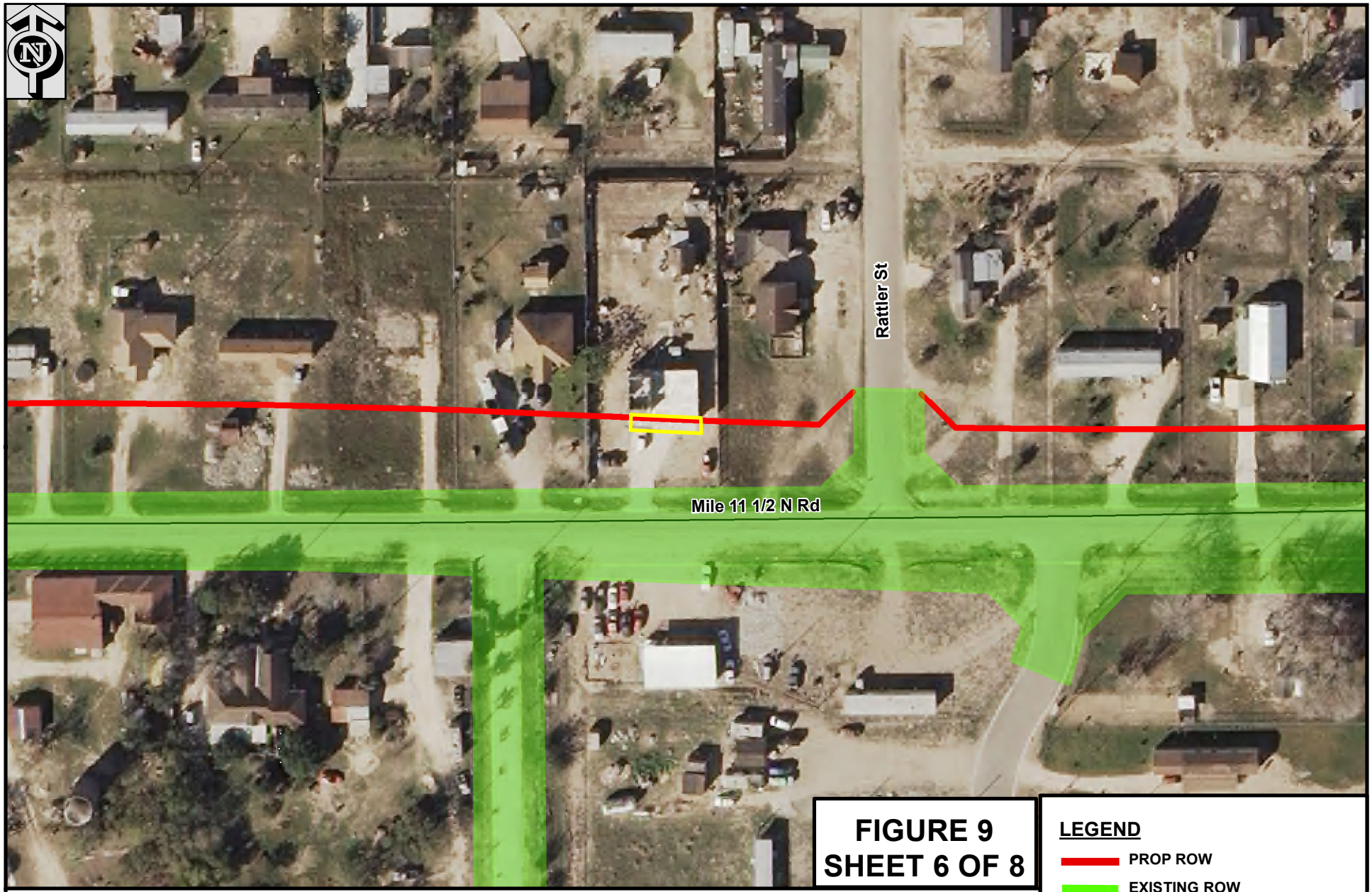

FIGURE 9
SHEET 6 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #6 (RESIDENCE)
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\RELOCATION MAP FIG 9-6.mxd

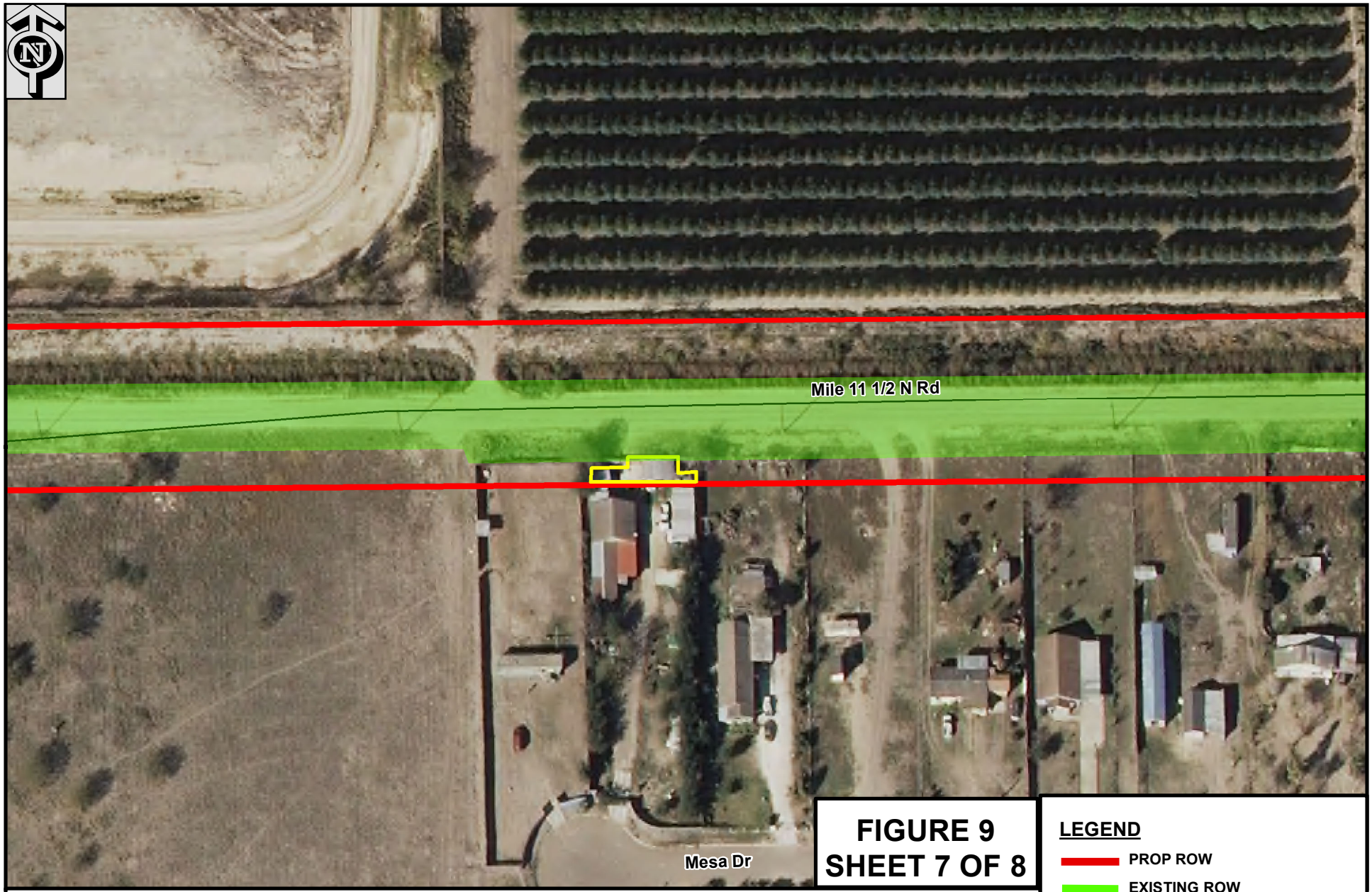

FIGURE 9
SHEET 7 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #7 (RESIDENTIAL)
CSJ-0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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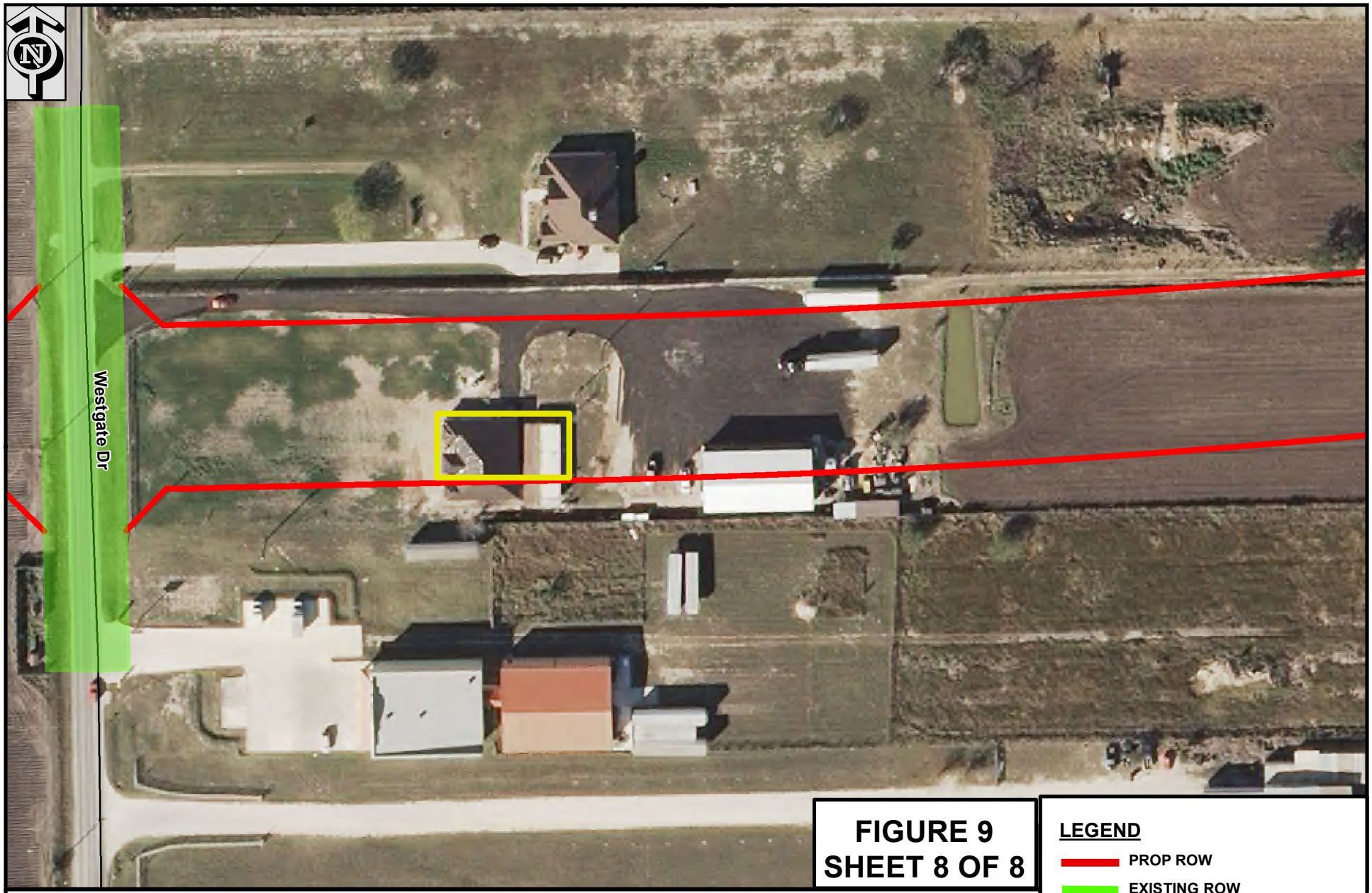

FIGURE 9
SHEET 8 OF 8

LEGEND

- PROP ROW
- EXISTING ROW
- IMPACTS/RELOCATIONS

100 50 0 100
Feet
1 inch = 100 feet

NOLANA LOOP RELOCATION #8 (RESIDENTIAL)
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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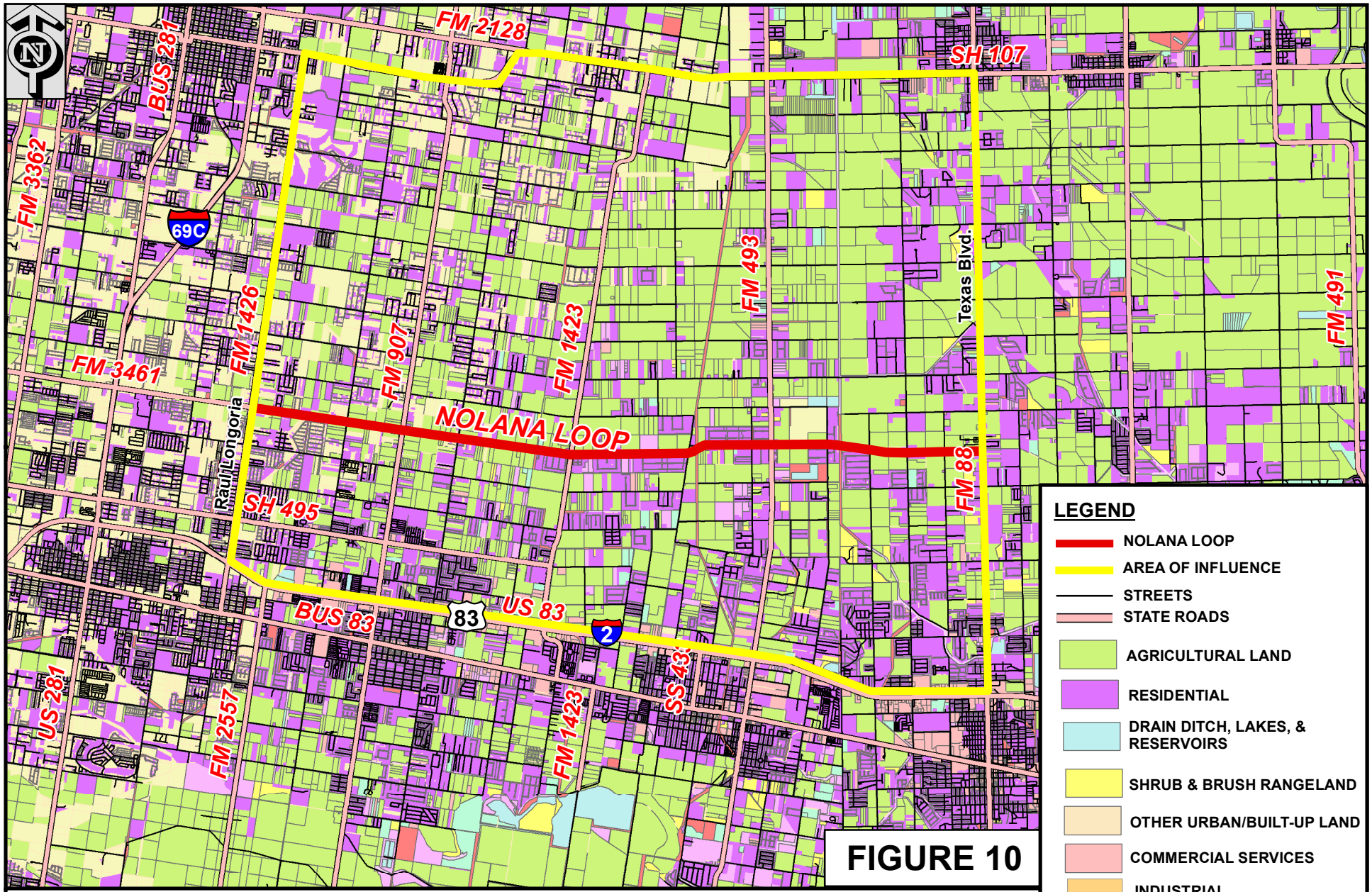

FIGURE 10

NOLANA LOOP LAND USE MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 10 LAND USE MAP.mxd

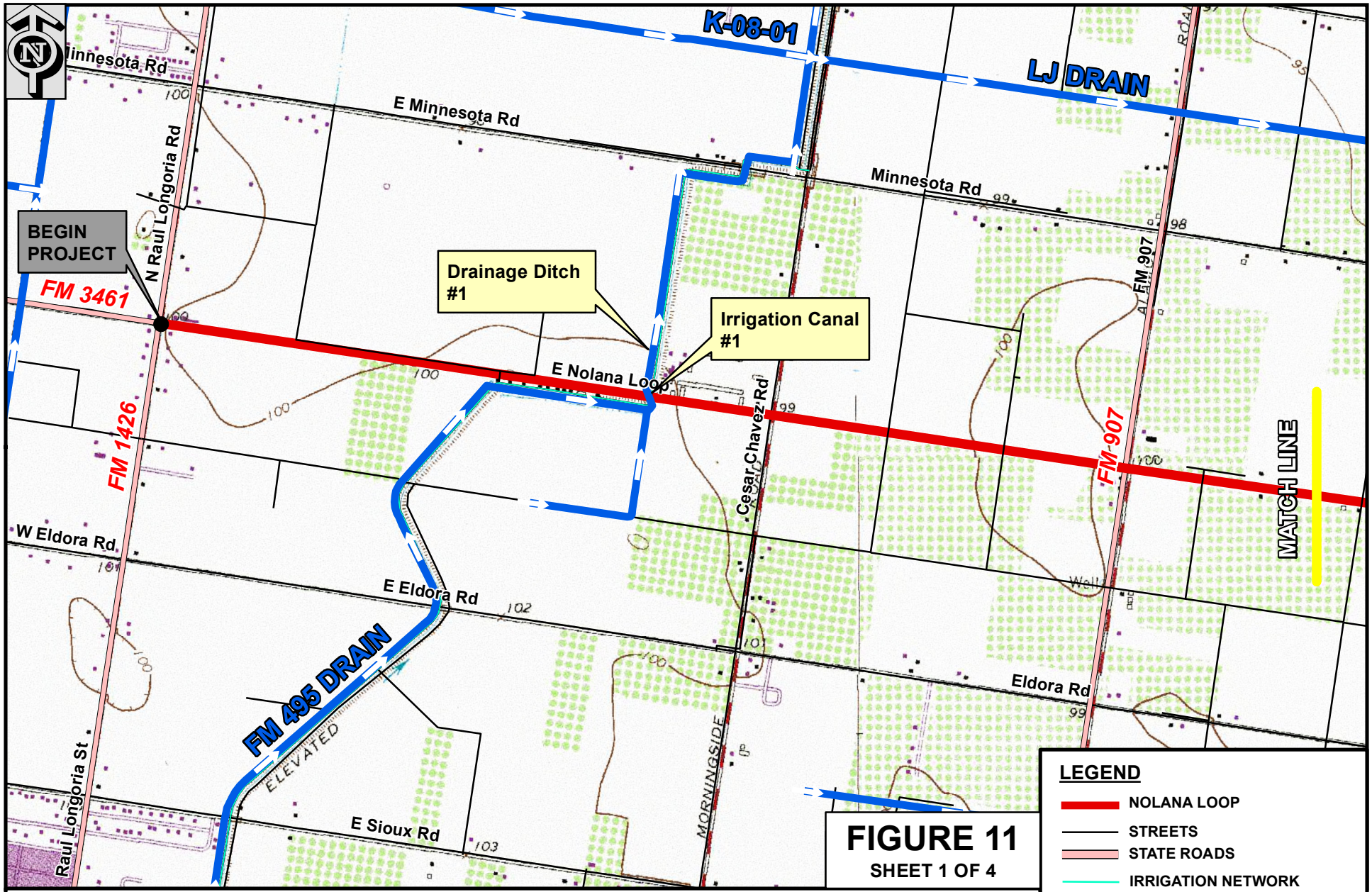

FIGURE 11
SHEET 1 OF 4

LEGEND

- NOLANA LOOP
- STREETS
- STATE ROADS
- IRRIGATION NETWORK
- DRAIN DITCH NETWORK

1,500 750 0 1,500
Feet
1 inch = 1,500 feet

NOLANA LOOP AQUATIC RESOURCES MAP
CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 11 NOLANA AQUATIC RESOURCES MAP 1.mxd

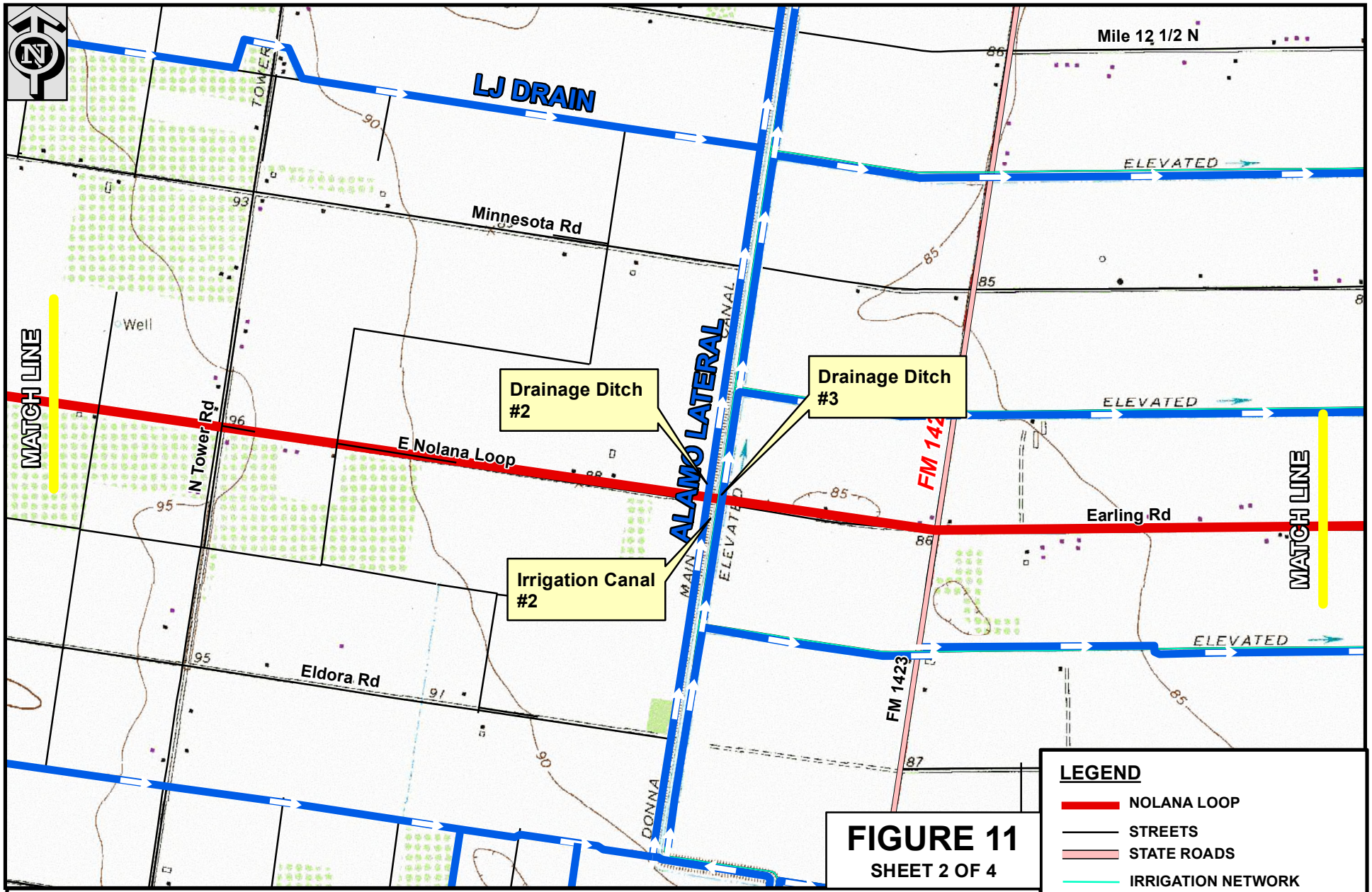

FIGURE 11

SHEET 2 OF 4

LEGEND

- NOLANA LOOP
- STREETS
- STATE ROADS
- IRRIGATION NETWORK
- DRAIN DITCH NETWORK

1,500 750 0 1,500
Feet
1 inch = 1,500 feet

NOLANA LOOP AQUATIC RESOURCES MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 11 NOLANA AQUATIC RESOURCES MAP 2.mxd

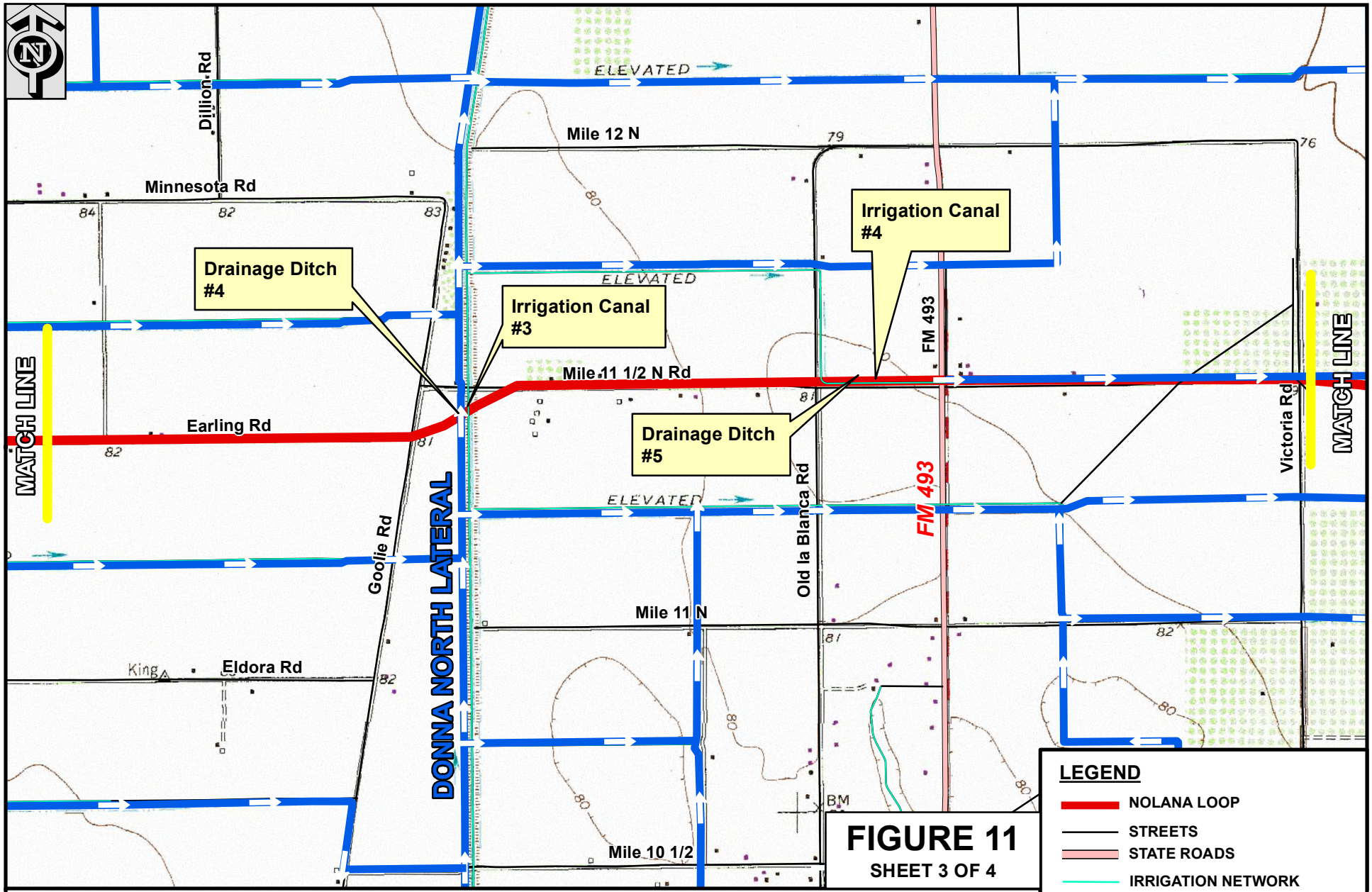

FIGURE 11

SHEET 3 OF 4

LEGEND

- NOLANA LOOP
- STREETS
- STATE ROADS
- IRRIGATION NETWORK
- DRAIN DITCH NETWORK

1,500 750 0 1,500
Feet
1 inch = 1,500 feet

NOLANA LOOP AQUATIC RESOURCES MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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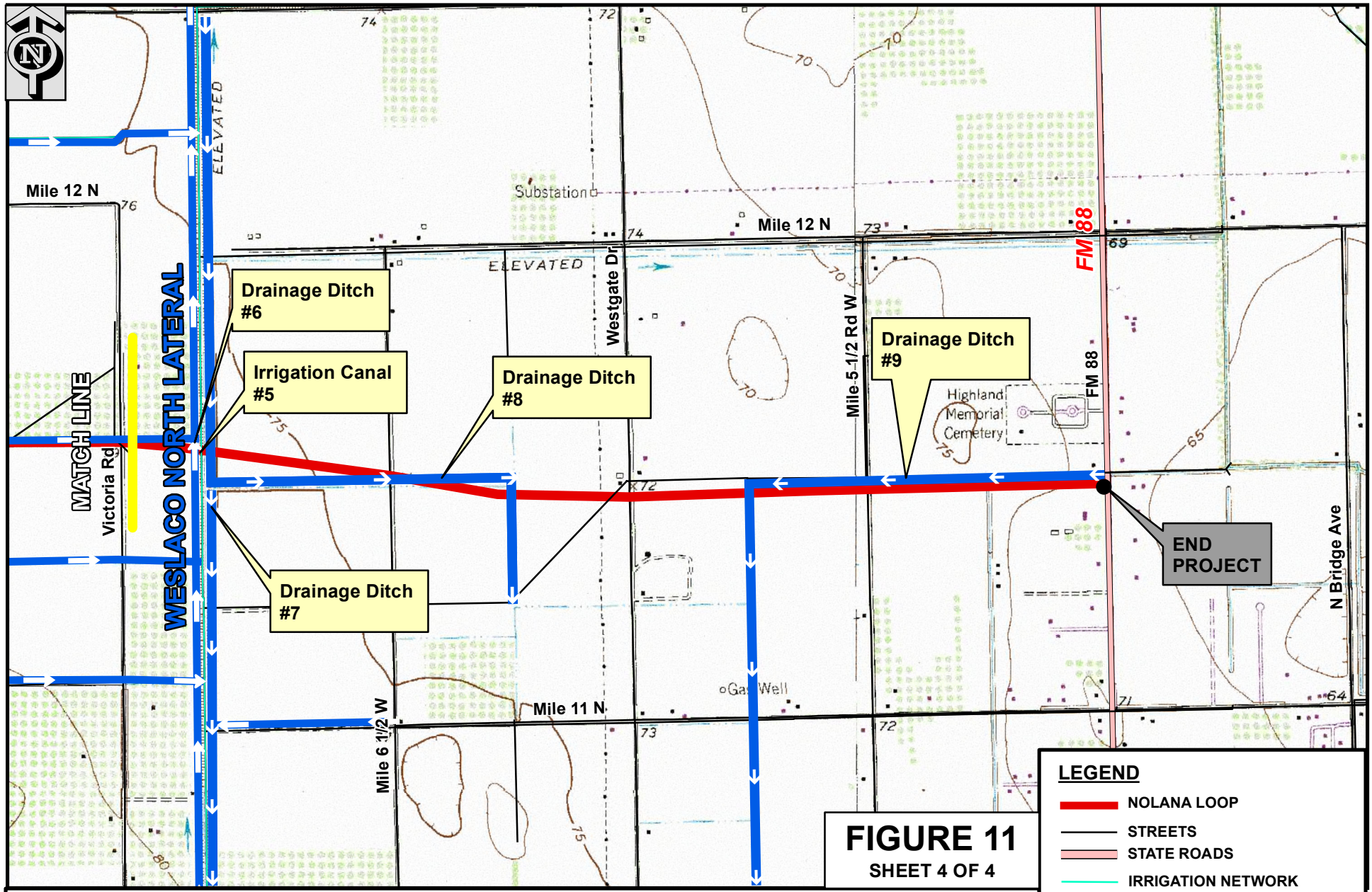

FIGURE 11

SHEET 4 OF 4

NOLANA LOOP AQUATIC RESOURCES MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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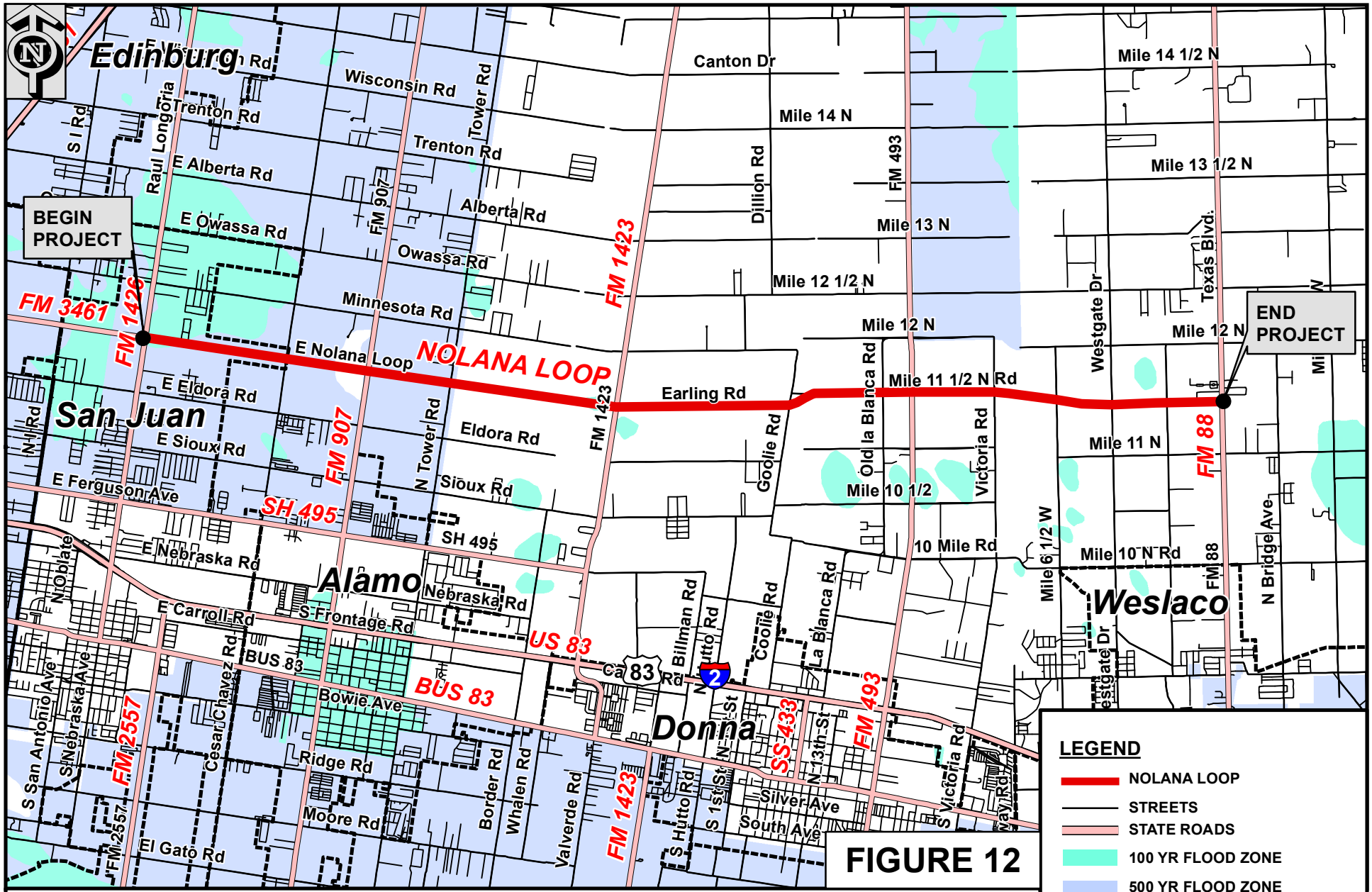

FIGURE 12

NOLANA LOOP LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 13 NOLANA LOCATION FLOODPLAIN MAP.mxd

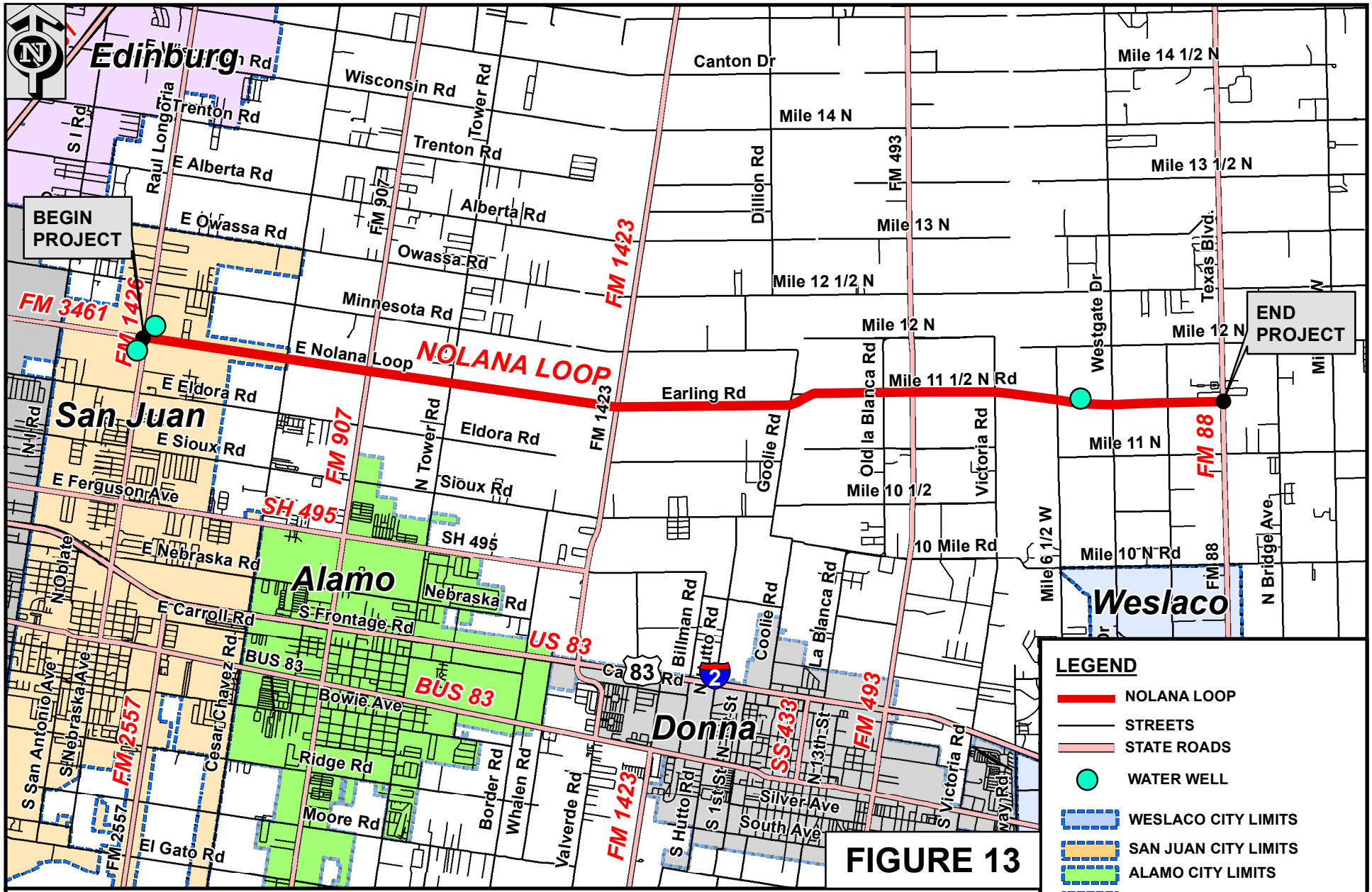

FIGURE 13

LEGEND

- NOLANA LOOP
- STREETS
- STATE ROADS
- WATER WELL
- WESLACO CITY LIMITS
- SAN JUAN CITY LIMITS
- ALAMO CITY LIMITS
- EDINBURG CITY LIMITS
- DONNA CITY LIMITS

6,500 3,250 0 6,500
Feet
1 inch = 6,500 feet

NOLANA LOOP WATER WELL MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

FIGURE 14
SHEET 1 OF 19

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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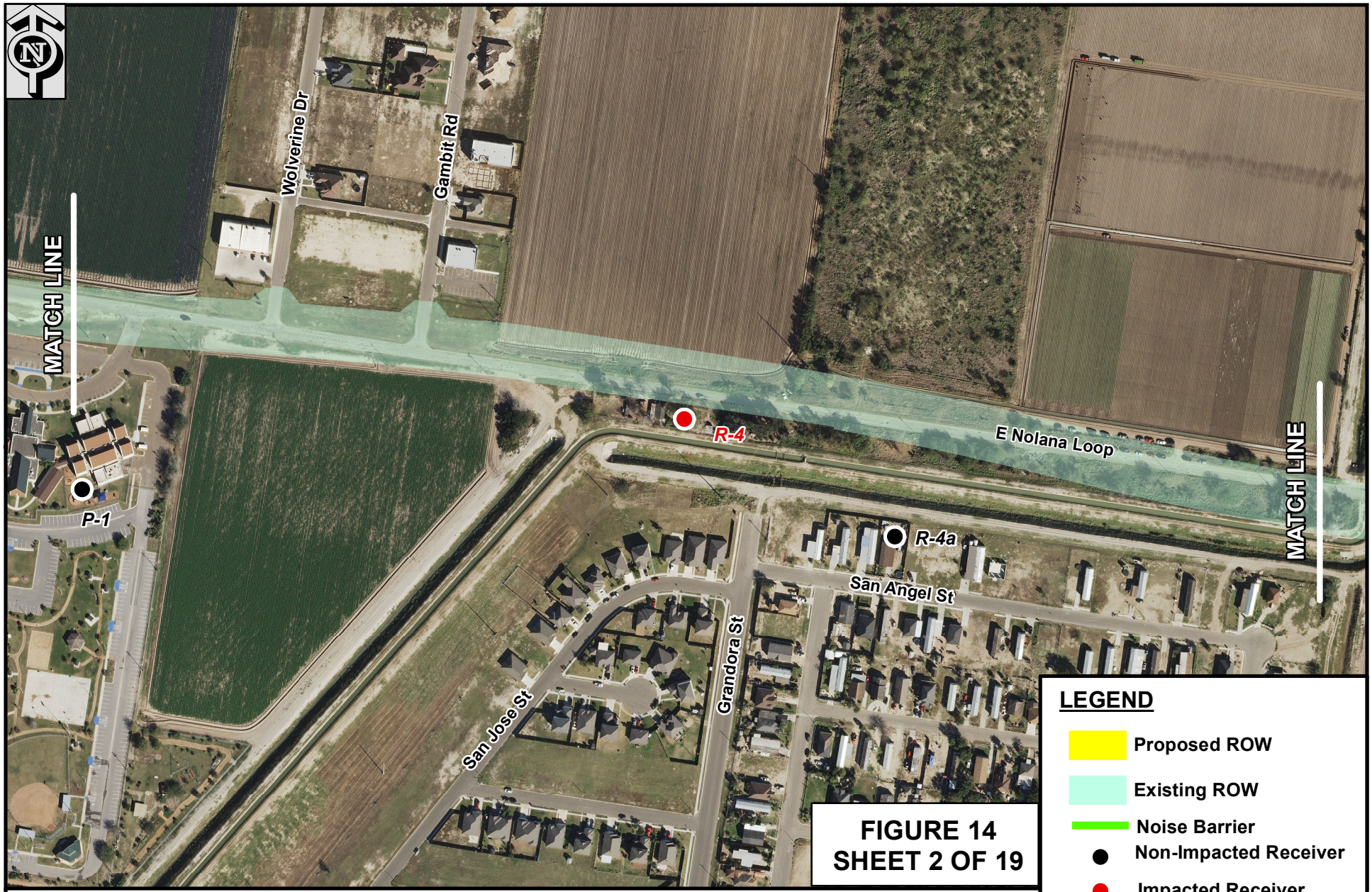

FIGURE 14
SHEET 2 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 14-2 NOISE RECEIVER MAP.mxd

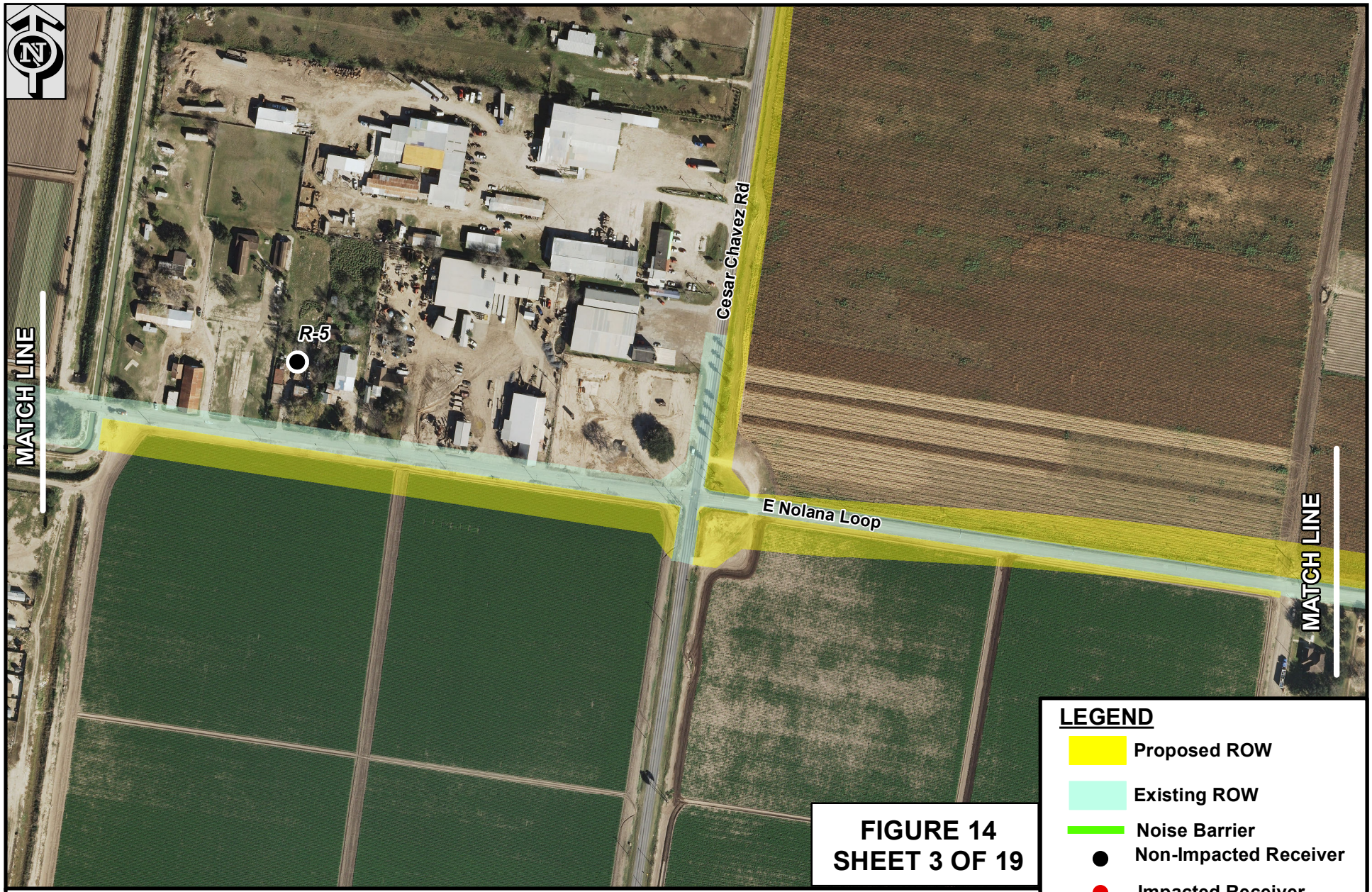

FIGURE 14
SHEET 3 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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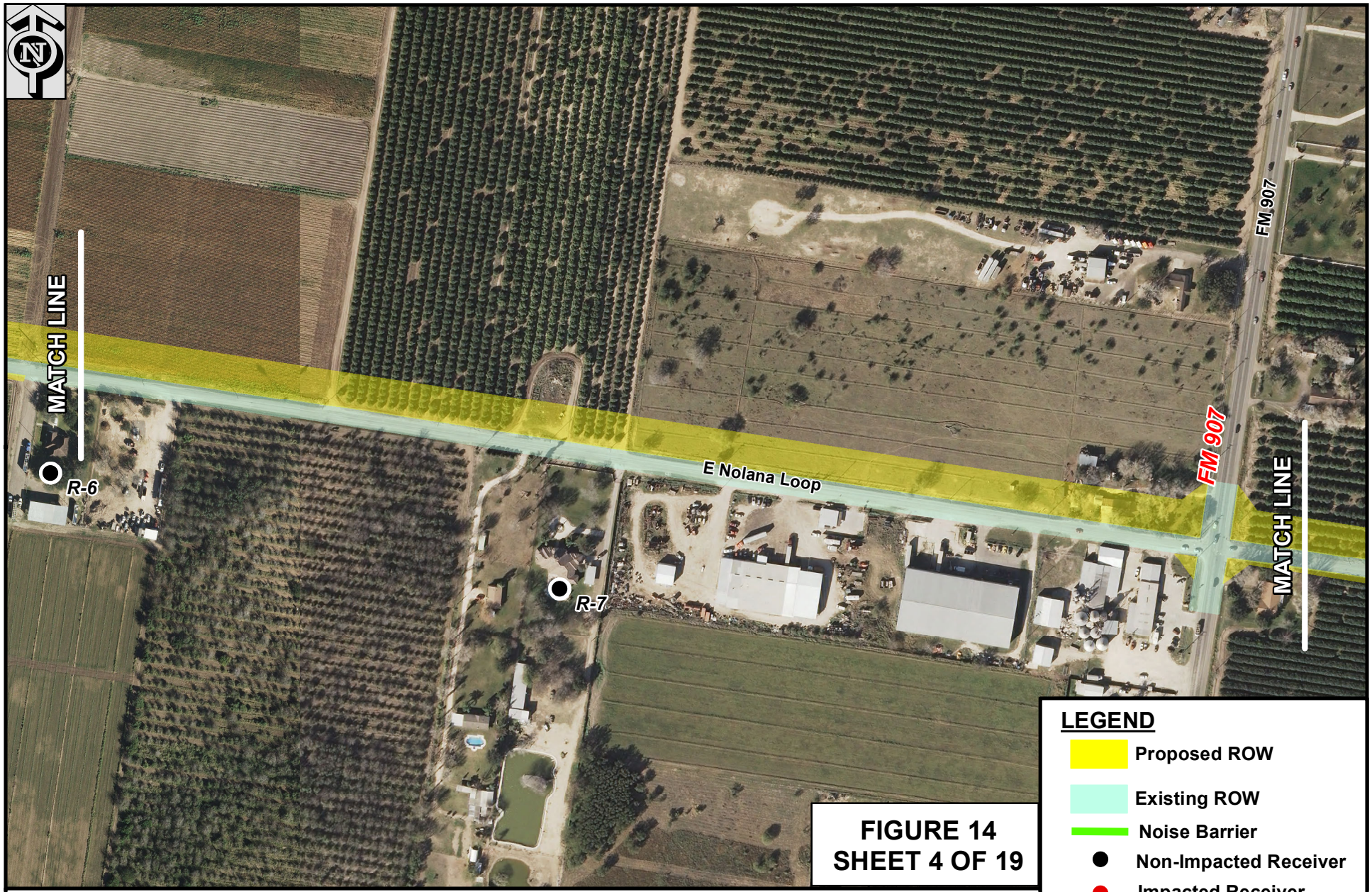

FIGURE 14
SHEET 4 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 14-4 NOISE RECEIVER MAP.mxd

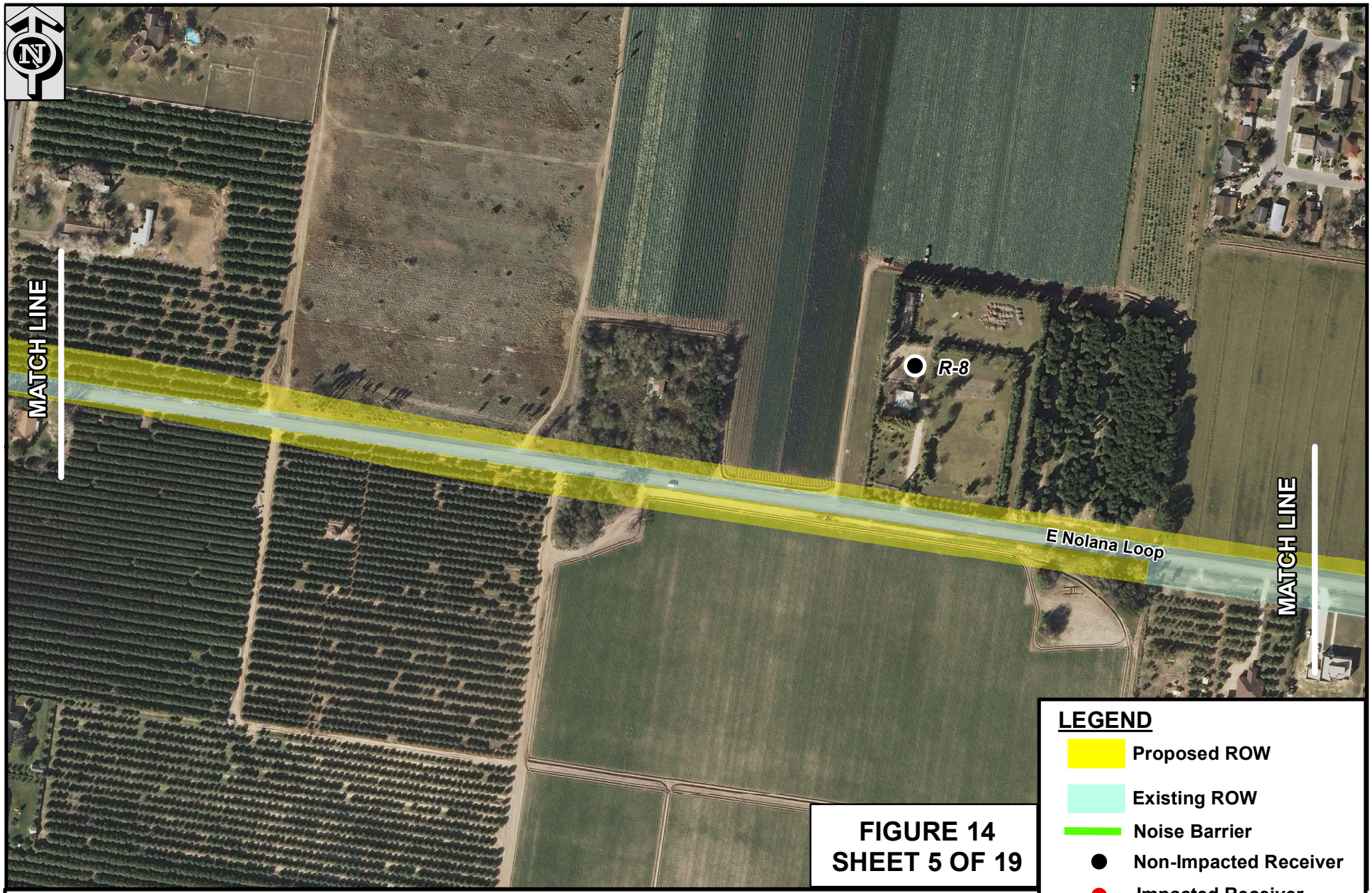

FIGURE 14
SHEET 5 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 14-5 NOISE RECEIVER MAP.mxd

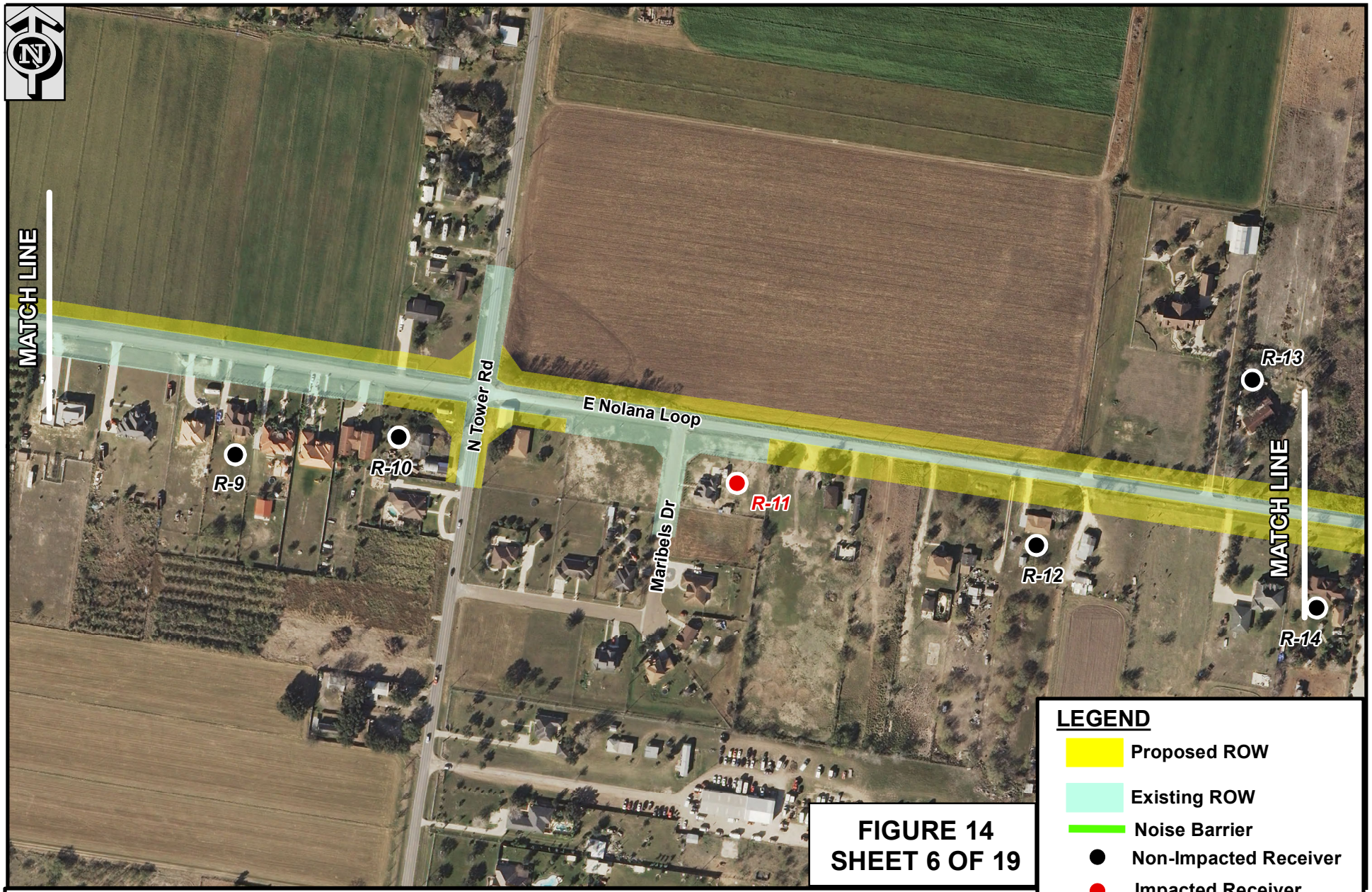

FIGURE 14
SHEET 6 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

300 150 0 300
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

Document Path: G:\GIS I\PROJECTS\HIDALGO\NOLANA LOOP\2018\EA Figures\FIG 14-6 NOISE RECEIVER MAP.mxd

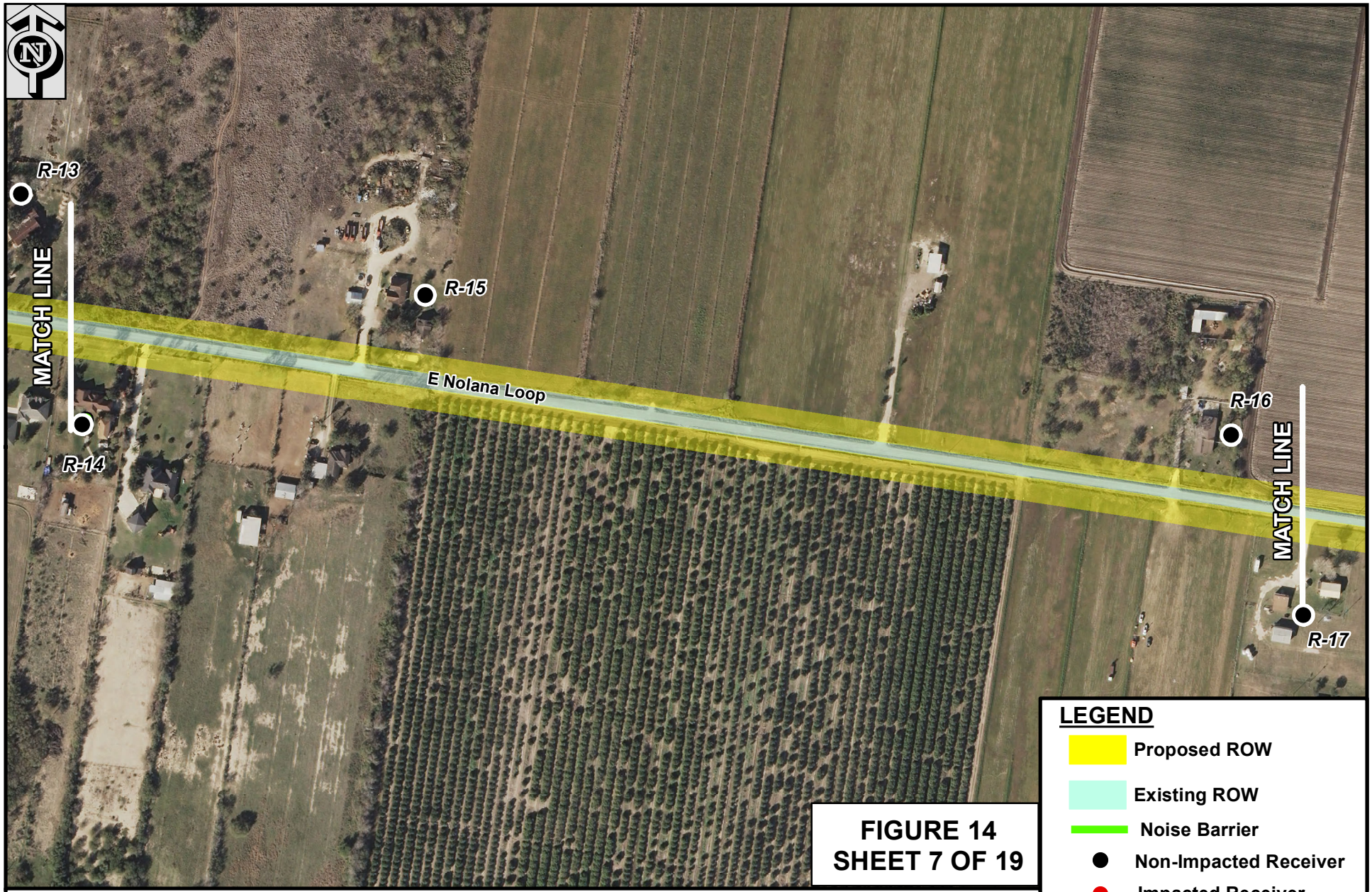

FIGURE 14
SHEET 7 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

300 150 0 300
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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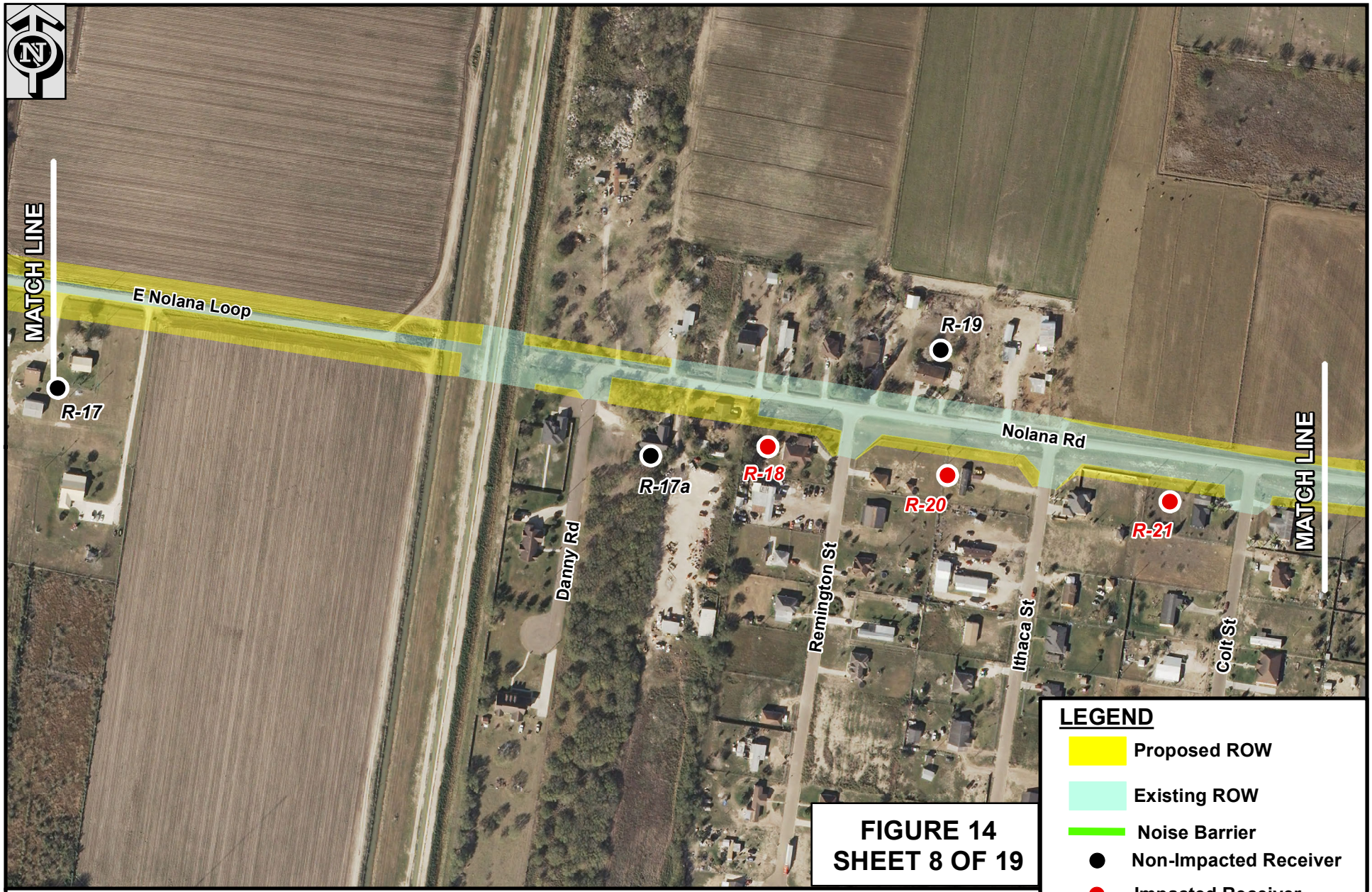

FIGURE 14
SHEET 8 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

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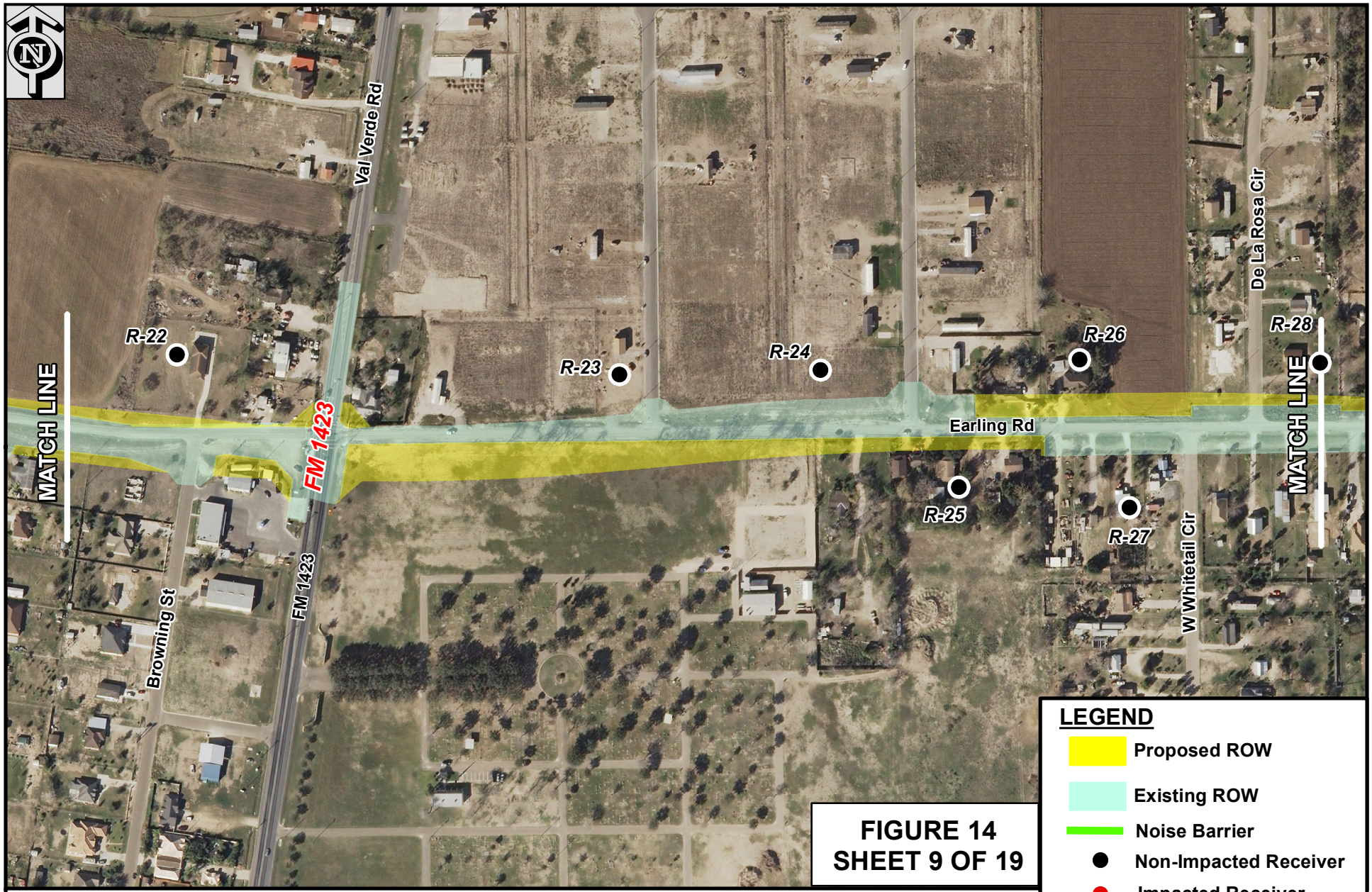

FIGURE 14
SHEET 9 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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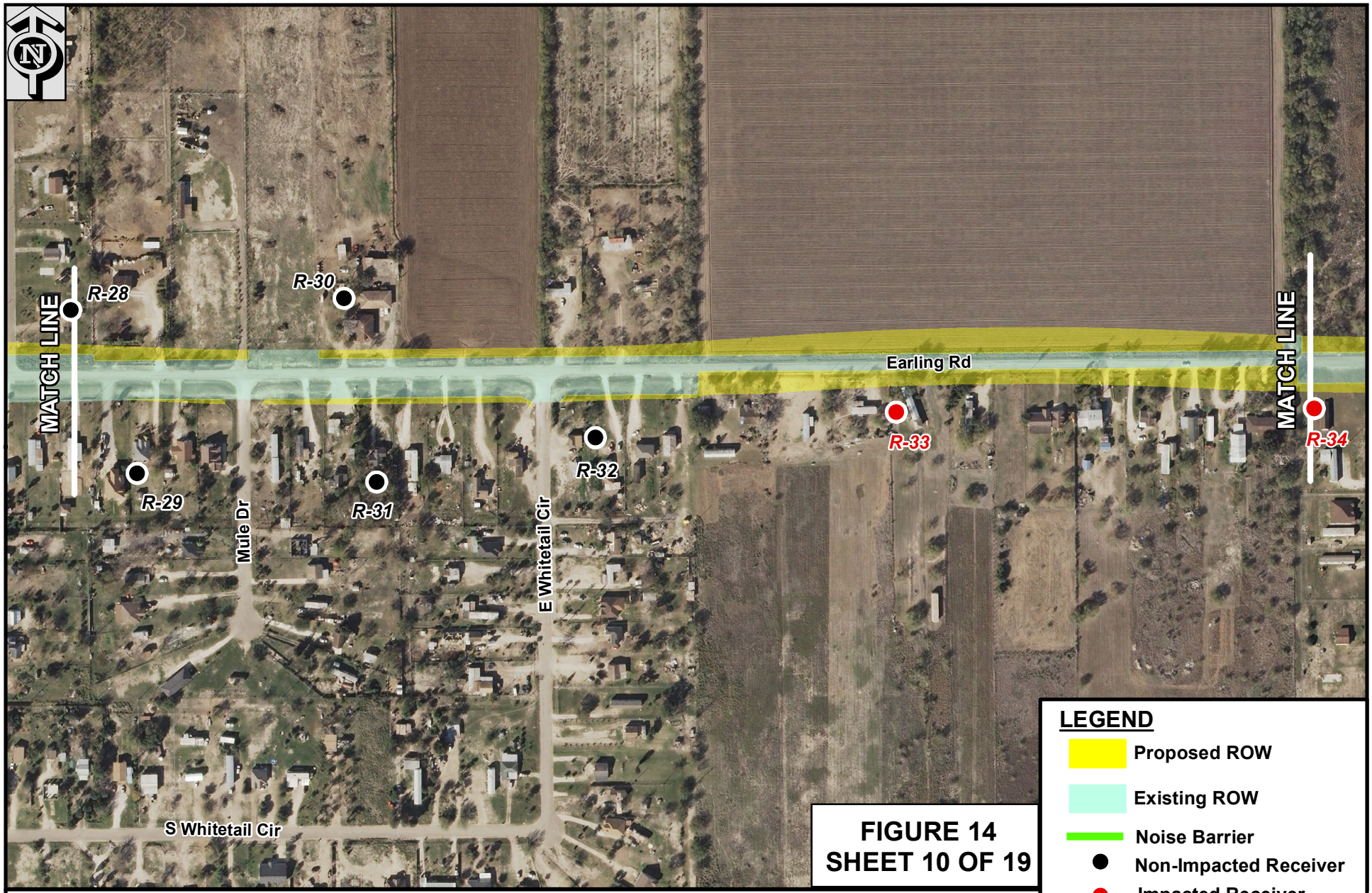

FIGURE 14
SHEET 10 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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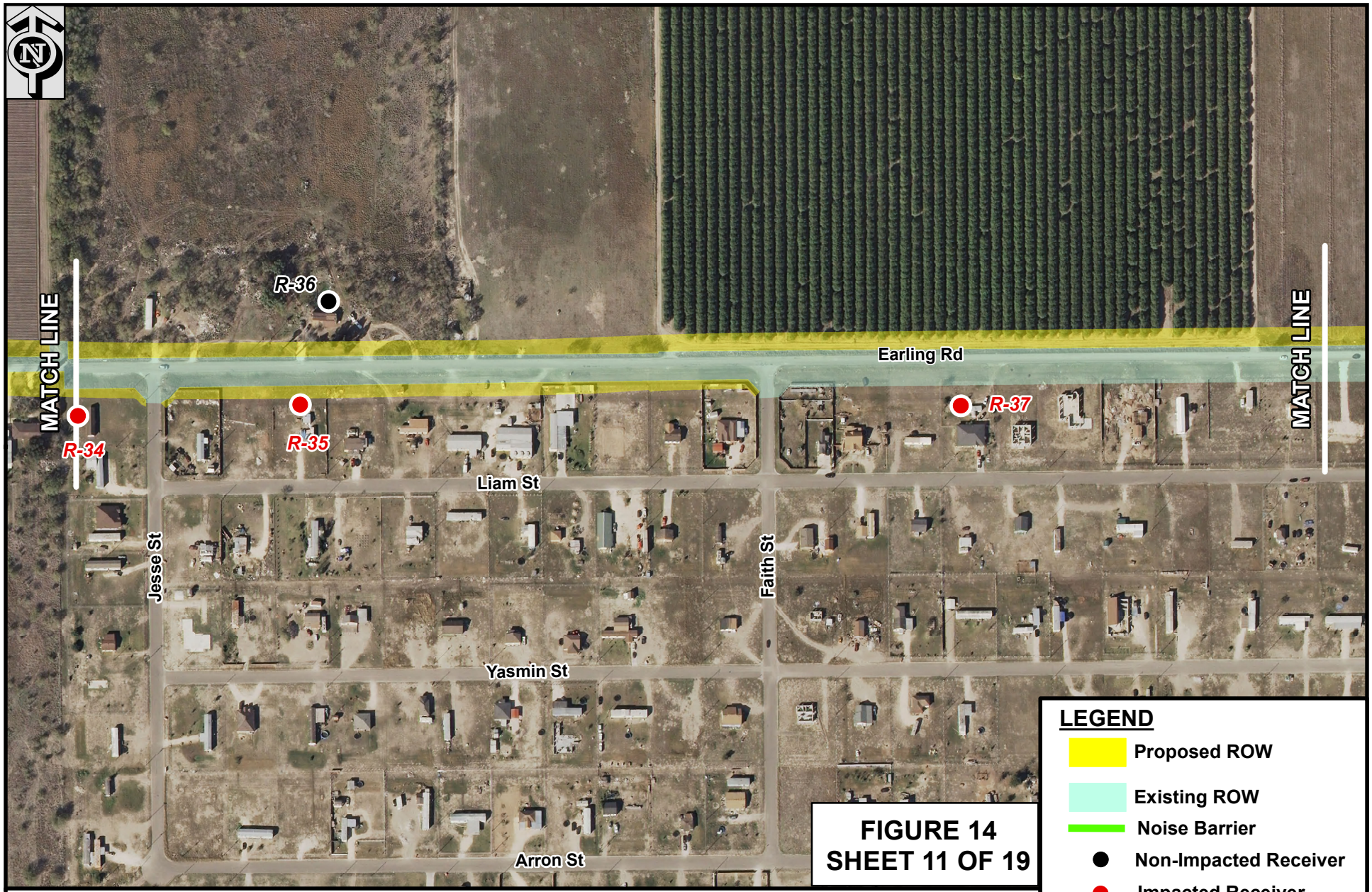

FIGURE 14
SHEET 11 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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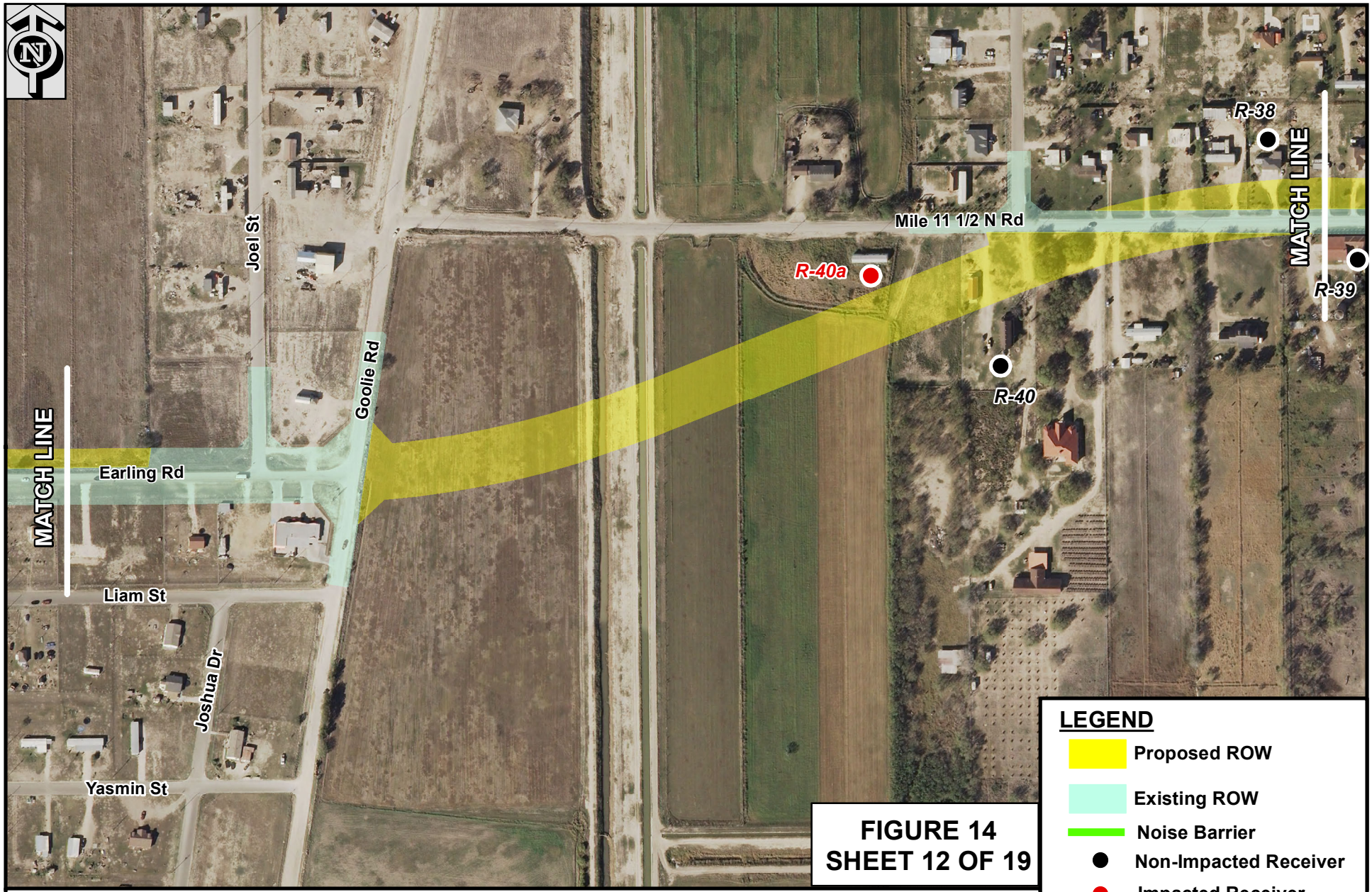

FIGURE 14
SHEET 12 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

300 150 0 300
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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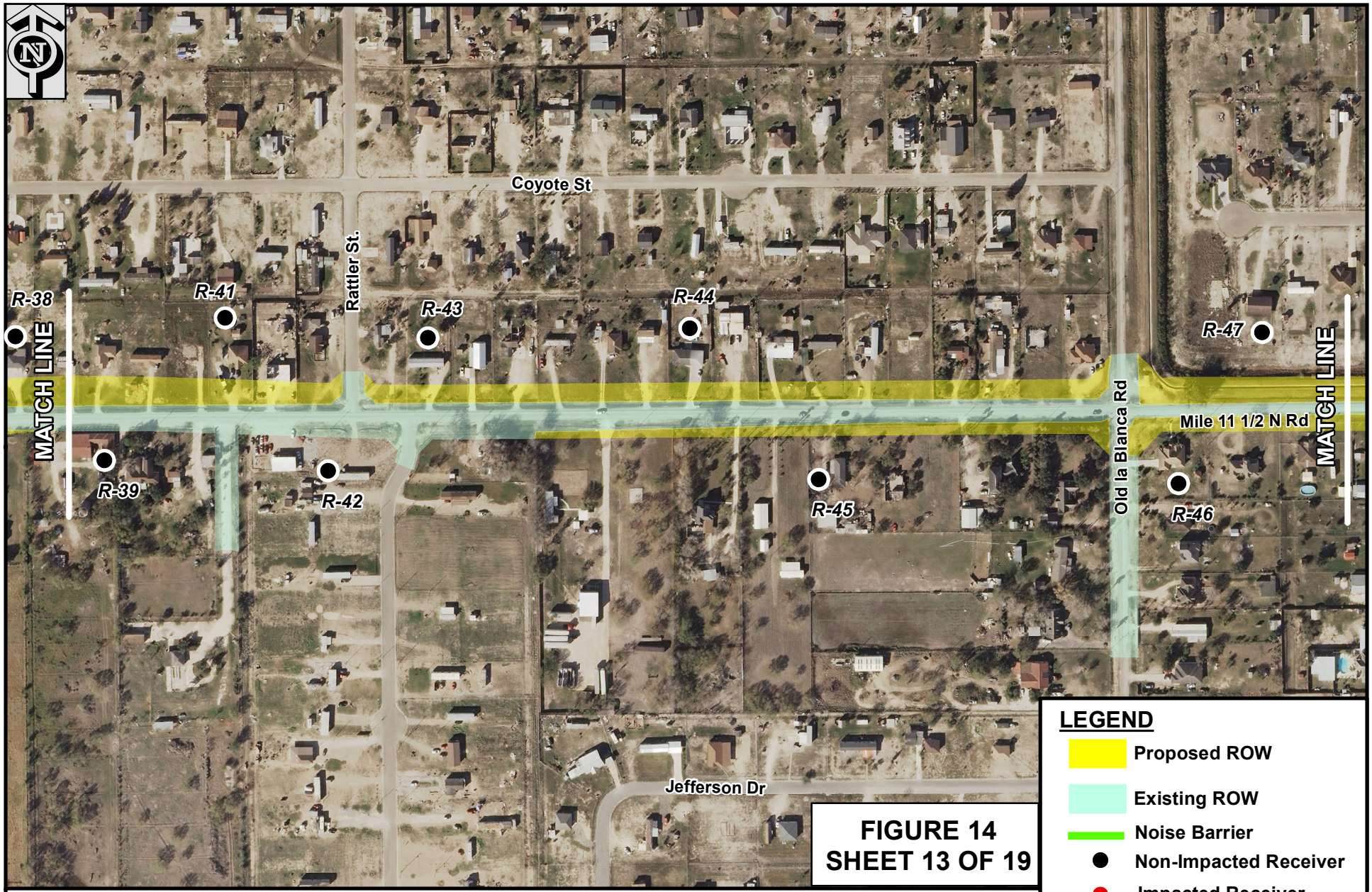

FIGURE 14
SHEET 13 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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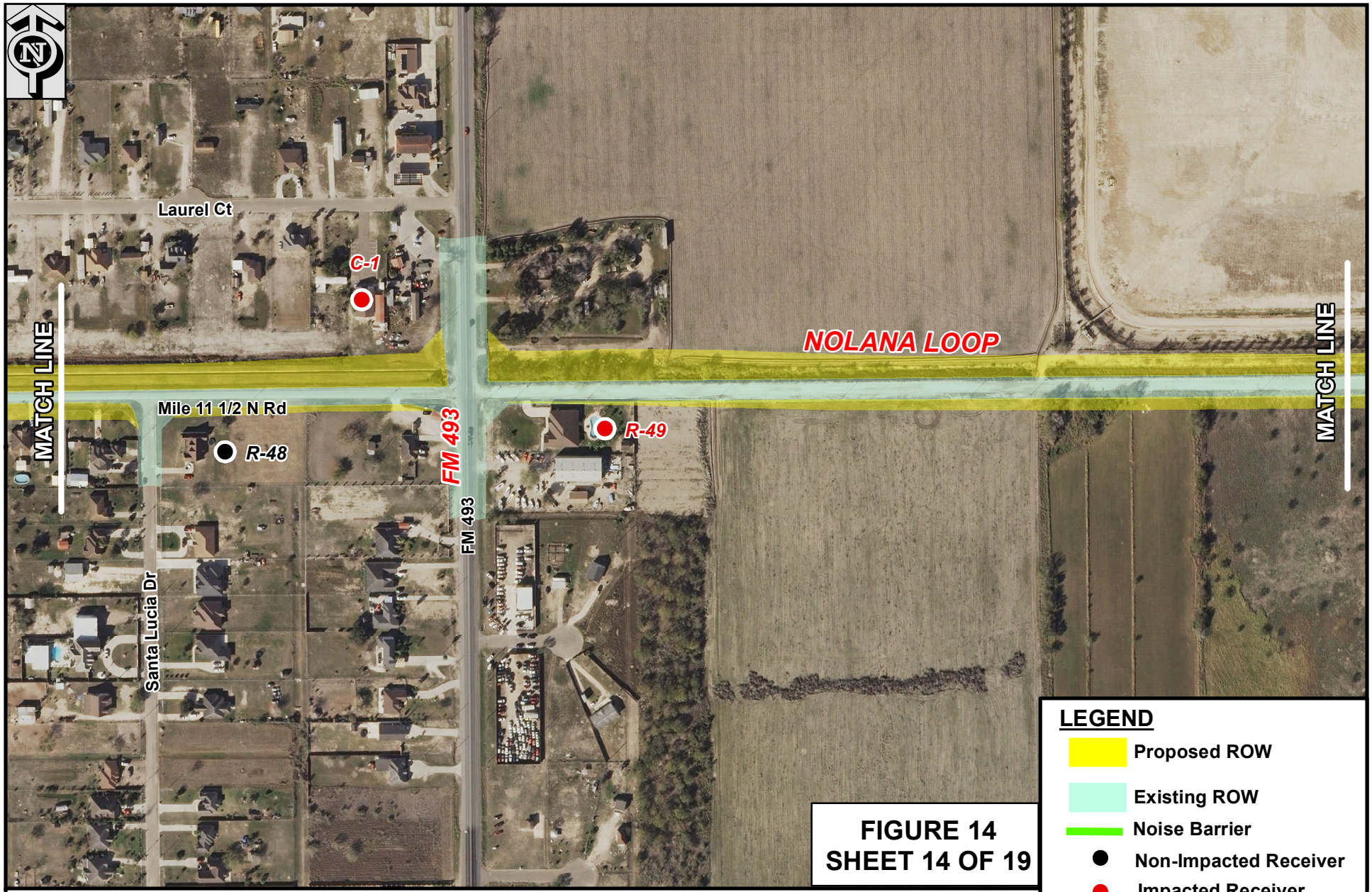

FIGURE 14
SHEET 14 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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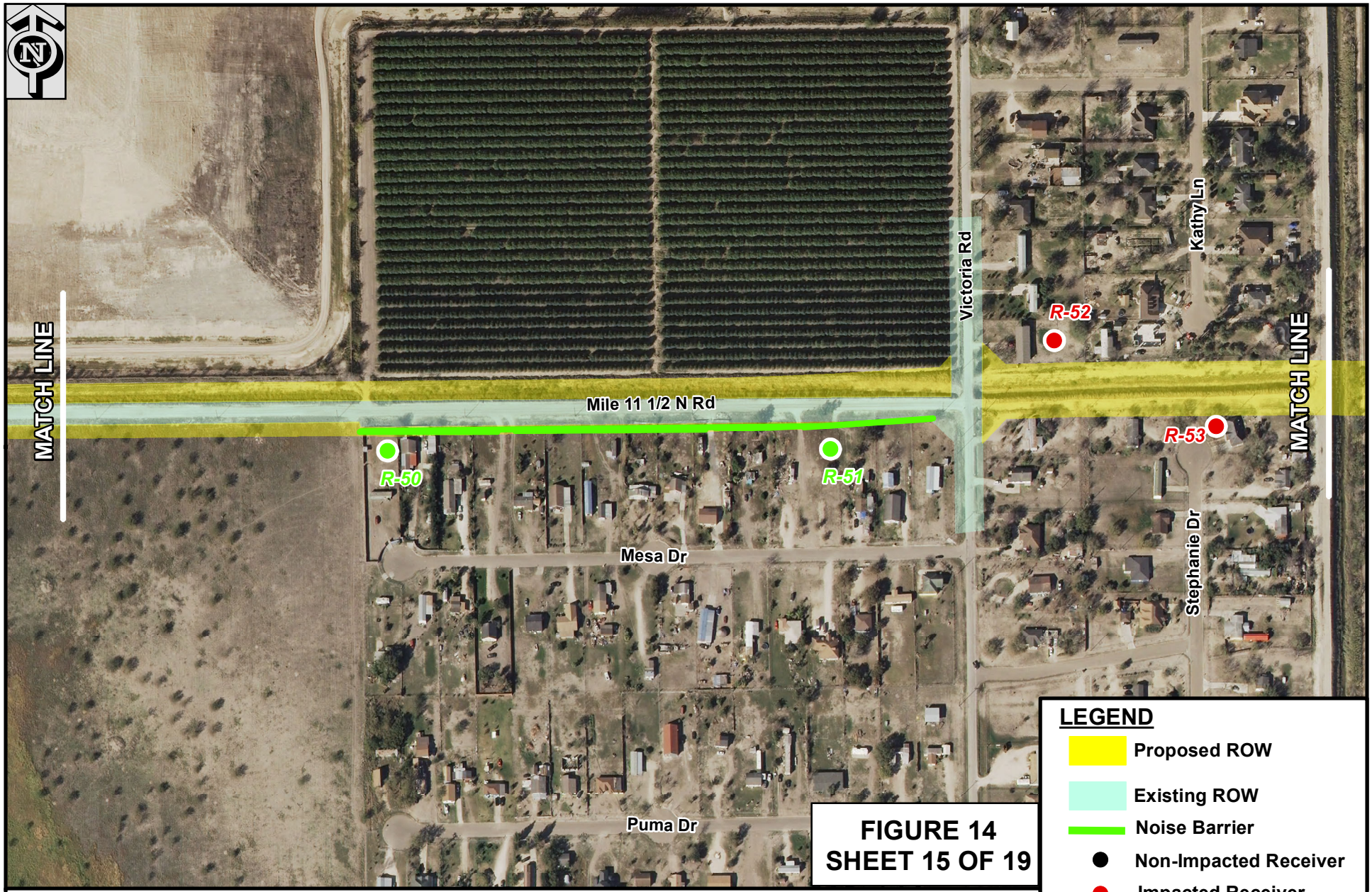

FIGURE 14
SHEET 15 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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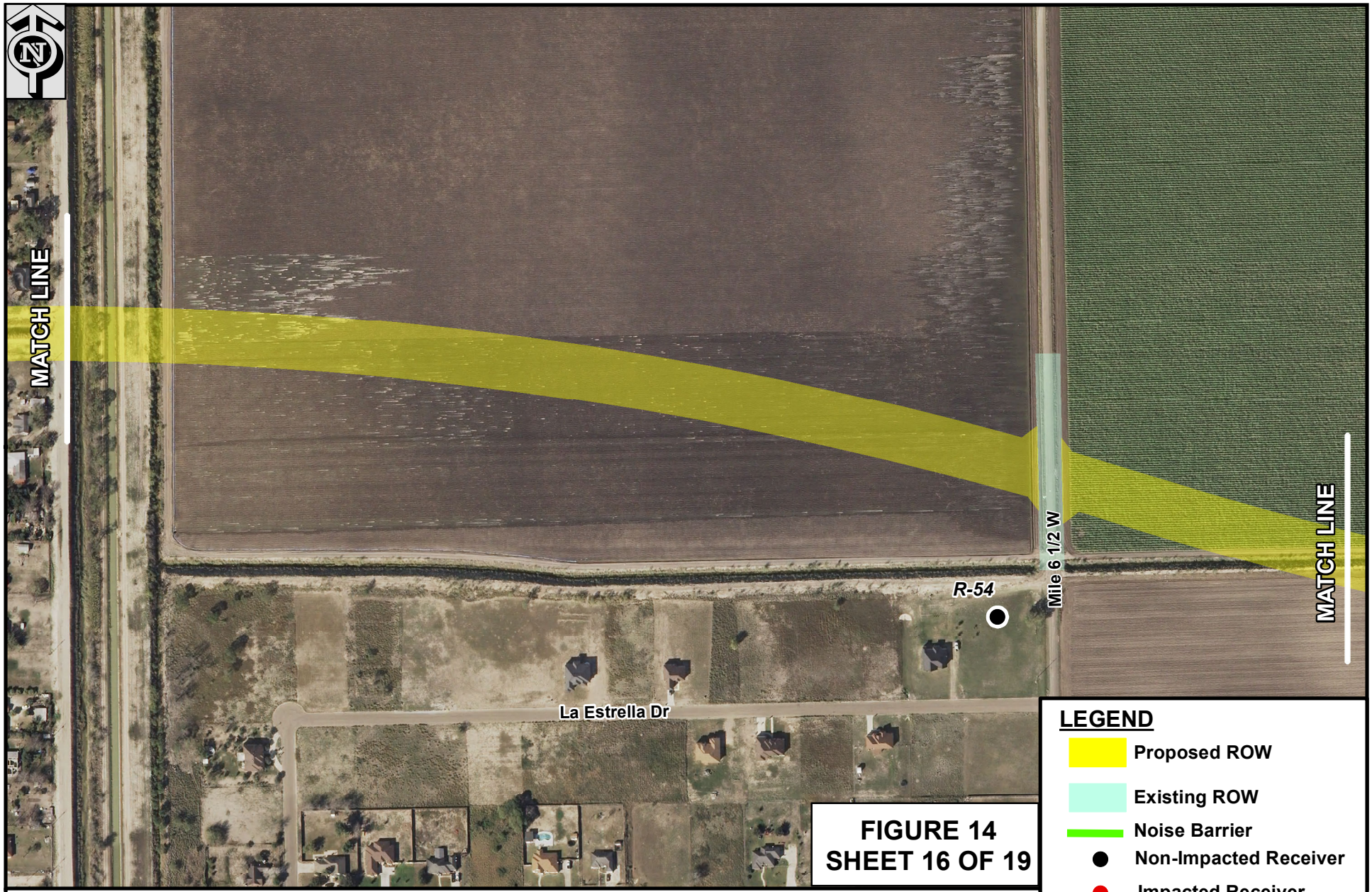

FIGURE 14
SHEET 16 OF 19

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

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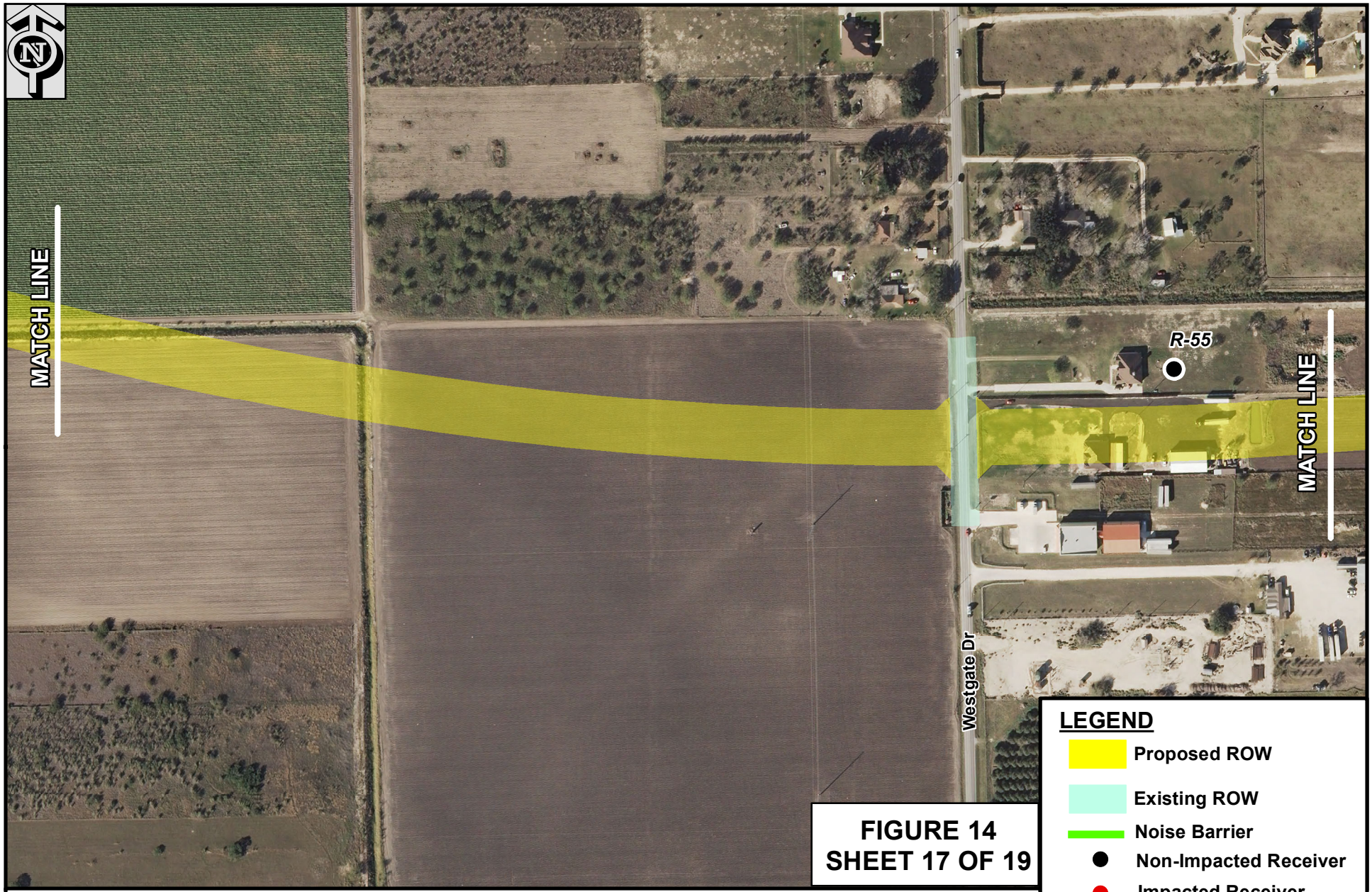

FIGURE 14
SHEET 17 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

Texas Department of Transportation

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FIGURE 14
SHEET 18 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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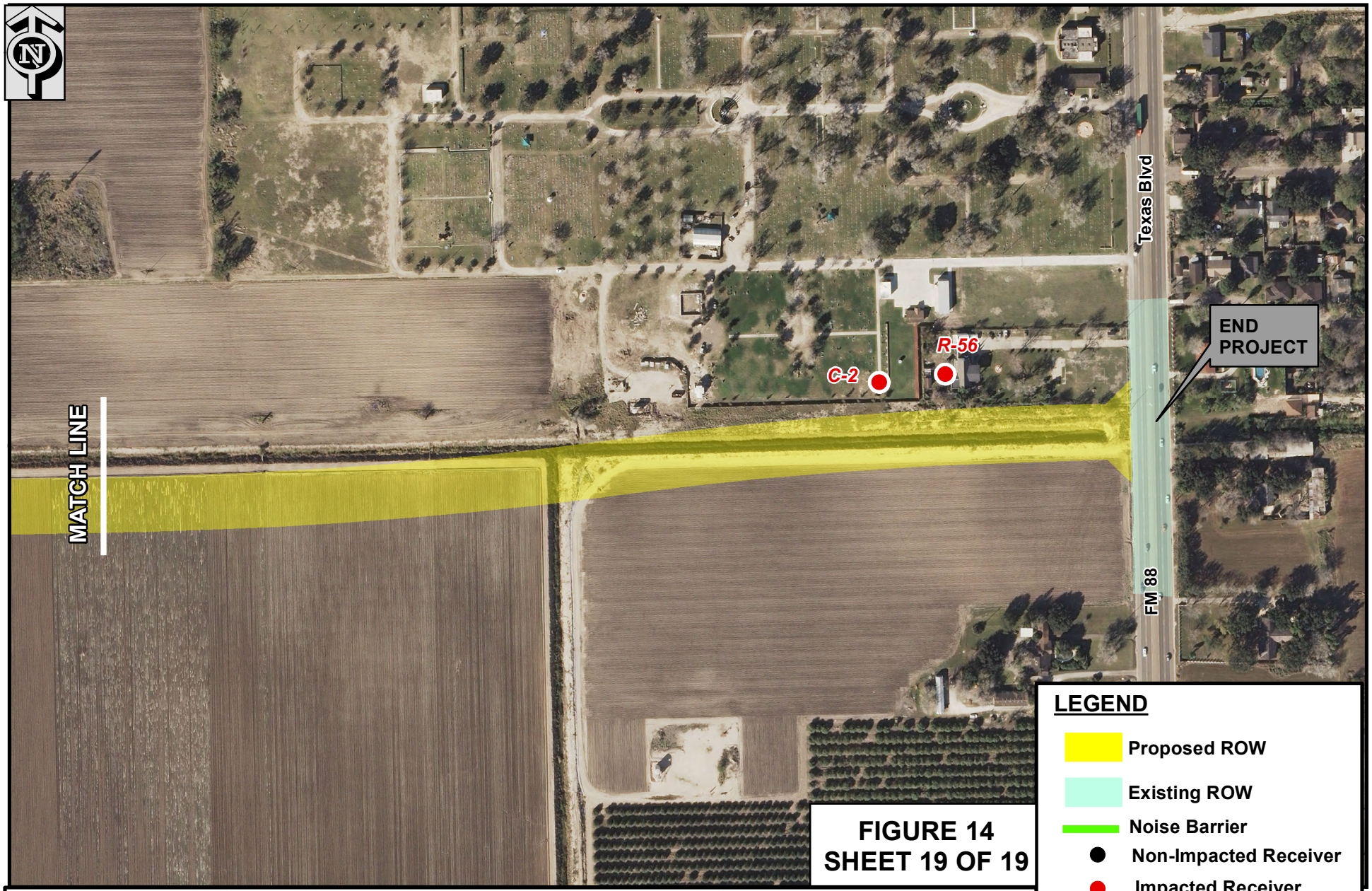

FIGURE 14
SHEET 19 OF 19

LEGEND

- Proposed ROW
- Existing ROW
- Noise Barrier
- Non-Impacted Receiver
- Impacted Receiver
- Benefitted Receiver

310 155 0 310
Feet
1 inch = 300 feet

NOLANA LOOP NOISE RECEIVER LOCATION MAP

CSJ: 0921-02-169

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

THE COUNTY OF HIDALGO TEXAS

Texas Department of Transportation

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Appendix A

Viewing west at the intersection of FM 1426 and Nolana Loop.

Viewing east on Nolana Loop at the Pct. #2 Multi-Purpose Center & Park.

Viewing east from just east of Gambit Rd.

Viewing northwest on Nolana Loop from 0.5 mile west of Cesar Chavez Rd.

Viewing west on Nolana Loop approximately 0.2 mile west of Cesar Chavez Rd.

Viewing east of Nolana Loop-Cesar Chavez Rd. intersection.

Viewing east on Nolana Loop, approximately 0.4 mile west of FM 907.

Viewing east at Nolana Loop-FM 907 intersection.

Viewing west on Nolana Loop, approximately 0.3 mile east of FM 907.

Viewing west on Nolana Loop, just east of the Tower Rd. intersection.

Viewing west on the Nolana Loop dead end, approximately one mile east of Tower Road.

Viewing south at drainage ditch, approximately one mile east of Tower Road.

Viewing east from approximately one mile east of Tower Road.

Viewing west on Nolana Loop dead end, west of Danny St.

Viewing east on Nolana Loop at Danny St.

Viewing east at FM 1423 intersection.

Viewing east at Whitetail Cir. Intersection.

Viewing west on Nolana Loop and Goolie Rd. intersection.

Viewing east at Nolana Loop-Goolie Rd. intersection.

Viewing northeast at irrigation canal and Mile 11 ½ North Rd.

Viewing west on Mile 11 ½ North Rd. near FM 493 intersection.

Viewing east on Mile 11 ½ North Rd. east of FM 493 intersection.

Viewing east on Mile 11 ½ North Rd. near Victoria Road intersection.

Viewing east of Mile 11 ½ North Rd. & Victoria Rd. intersection.

Viewing south along drainage canal, approximately 0.2 mile east of Victoria Rd.

Viewing west from Mile 6 West.

Viewing new location, west of Mile 5 ½ Rd.

Viewing new location west of FM 88.

Appendix B

HIDALGO COUNTY METROPOLITAN PLANNING ORGANIZATION METROPOLITAN TRANSPORTATION PLAN PROJECT DATA

Line Numbers	System Sort	FM	From	To	MTP#	CSJ #	Project Length (mi)	Proposed Project Data: Type of Improvement	Proposed Project Data: Jurisdiction	Total Project Cost: Current Construction Cost Estimate	Letting Year Construction dollars	ROW cost (12% 2011 const cost)	Preliminary Engineering (4.9% 2011 const cost)	CE Cost (<$2 M 7.5%, $2-$10 M 5%, >$10 M 4.5%, of 2011 const cost)	Contingencies (<$2M 7%, $2-$25 M 6.5%, $25-$50 M 6%, >$50M 7% of 2010 const cost)	Total Project Cost	Year of Expenditure Dollars (YOE)	Funding Categories: Cat 1 Funding	Cat 2 Funding	Cat 4 - Statewide Connectivity	Cat 7 Funding (CE & Contingencies)	Cat 9 Funding	Cat 11 Funding	Cat 12 Funding	CBI - Eligible	Earmark Funding	Other Funds (Local, Bond, etc)	TRENDS - Innovative Financing	TOTAL
REHABILITATION & MAINTENANCE																													
	LS	LUMP SUM						Maintenance / Rehabilitation	Various								$ 295,161,902												$ 295.16
BRIDGE																													
	LS	Lump Sum						Bridge Replacement	Various								$ 4,296,855												$ 4.30
SAFETY																													
	LS	Lump Sum						Safety Improvements	Various								$ 45,937,229												$ 45.94
DISTRICT DISCRETIONARY																													
	LS	Lump Sum						District Discretionary	Various								$ 22,797,701												$ 22.80
MOBILITY																													
		FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015		
40	On	FM 676 (Mile 5 N) - **PE**	SH 364 (La Homa Rd)	SH 107 (Conway)	HC-117b	1064-01-032	2.39	Widen to 4 Lane Divided	Alton / County 3	$ 15,000,000	$ 15,000,000	$ 1,200,000	$ 423,987	$ 450,000	$ 650,000	$ 18,343,987	$ 423,987									$ 0.42		$ 0.42
70	On	FM 1925 - **PE**	FM 907 (Alamo Rd)	FM 493 (La Blanca)	HC-12	1803-02-035	4.1	Widen to 4 Lane Divided	County 4	$ 14,226,519	$ 14,226,519	$ 1,900,000	$ 697,099	$ 640,193	$ 924,724	$ 19,270,580	$ 697,099									$ 0.70		$ 0.70
224	On	FM 494 - **PE**	FM 676 (Mile 5)	SH 107	HC-292a	0864-01-068	2	Widen to 4 lane	County 3	$ 8,657,966	$ 8,657,966	$ 2,957,145	$ 392,000	$ -	$ -	$ 12,543,905	$ 392,000									$ 0.39		$ 0.39
224	On	FM 494 - **PE**	FM 1924 (Mile 3)	FM 676 (Mile 5)	HC-292b	0864-01-069	2	Widen to 4 lane	County 3	$ 7,397,344	$ 9,000,000	$ 500,000	$ 392,000	$ 450,000	$ 585,000	$ 11,485,000	$ 392,000									$ 0.39		$ 0.39
229	On	SH 68 - **PE**	US 83	FM 1925	HC-295a	3629-01-001	10	Construct new 4 lane divided rural highway facility	TxDOT	$ 55,000,000	$ 55,000,000	$ 23,500,000	$ 6,500,000	$ 2,475,000	$ 3,850,000	$ 94,735,000	$ 6,500,000							$ 6.50				$ 6.50
203b	On	SH 365 (Phase II) **PE**	FM 396 (Anzalduas Highway)	FM 1016 (Conway Rd)	RMA-1b	3627-01-002		Toll improvement being a 4 lane controlled access facility	HCRMA	$ 37,620,524	$ 51,486,285	$ 5,406,143	$ 3,215,286	$ 1,380,765	$ -	$ 62,259,241	$ 3,215,286									$ 3.22		$ 3.22
203b	On	SH 365 (Phase II) **ROW**	FM 396 (Anzalduas Highway)	FM 1016 (Conway Rd)	RMA-1b	3627-01-002		Toll improvement being a 4 lane controlled access facility	HCRMA	$ 37,620,524	$ 51,486,285	$ 5,406,143	$ 3,215,286	$ 1,380,765	$ -	$ 62,259,241	$ 5,406,143									$ 5.41		$ 5.41
																	$ 17,026,515				$ -								
		FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017	FY 2017		
74a	Off	Mile 6 W Rd - **ROW**	Mile 9 N	Mile 11 N	HC-148ba	0921-02-168	2	Widen to 4 Lane	Weslaco / County 1	$ 11,403,687	$ 11,403,687	$ 1,800,000	$ 1,614,606	$ 1,200,000	$ -	$ 16,726,293	$ 1,900,000								$ 1.90				$ 1.90
180	Off	Bicentennial Blvd - **PE & ROW**	SH 107	Trenton Rd	HC-91	0921-02-352	2.3	Construct New 4 Lane Urban Roadway	McAllen	$ 14,679,967	$ 14,679,967	$ 200,000	$ 1,444,700	$ 660,599	$ 1,415,033	$ 18,767,298	$ 1,644,700									$ 1.64		$ 1.64
																	$ 3,544,700				$ -								
		FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018		
288	Off	Anzalduas Int'l Port of Entry (NB)	Anzalduas Int'l Port of Entry		HC-351	0921-02-369		Construction of two additional northbound passenger lanes	Analduas Int'l Bridge Board	$ 2,700,000	$ 2,700,000	$ -	$ 162,500	$ 79,193	$ -	$ 3,020,886	$ 2,700,000								$ 2.70				$ 2.70
47	On	FM 2220 (Ware Rd)	Mile 5 N (Auburn Ave)	FM 1924 (Mile 3 N)	HC-19b	2094-01-038	2	Widen to 6 Lane Divided	McAllen	$ 9,750,000	$ 14,033,363	$ 1,145,000	$ 477,750	$ 487,500	$ 633,750	$ 17,401,386	$ 14,033,363		$ 6.05		$ 3.05			$ 0.41	$ 3.53		$ 1.00		$ 14.03
245	Off	International Bridge Trade Corridor (IBTC) - **PE**	Interchange to SH 365 to I-2	Valley View Interchange to FM 493	RMA-3	0921-02-142		4 lane divided - at grade - non toll facility	HCRMA	$ 80,812,000	$ 80,812,000	$ 35,688,406	$ 5,435,921	$ -	$ -	$ 121,936,327	$ 5,435,921									$ 5.44		$ 5.44
238	Off	Thomas Road - **PE & ROW**	FM 2061	FM 2557 (Stewart Road)	HC-304	0921-02-302	3.6	Construct 4 lane urban roadway	County 3	$ 11,600,000	$ 11,600,000	$ 1,392,000	$ 568,400	$ 522,000	$ 754,000	$ 15,555,600	$ 1,960,400								$ 0.86	$ 1.10		$ 1.96
220	Off	N Alamo Road Extension - **ROW**	FM 1925	0.54mi N FM 1925	HC-289	0921-02-311	0.5	New location 2-lane rural roadway	County 4	$ 703,040	$ 703,040	$ 200,000	$ 34,449	$ 52,728	$ 49,213	$ 1,083,018	$ 200,000				$ 0.20								$ 0.20
																	$ 24,329,684				$ 3,657,302								
		FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019	FY 2019		
272	Off	Owassa Rd - **ROW**	I Rd	Cesar Chavez Rd	HC-335r	0921-02-374	2	Construct a 4 lane urban roadway	County 2 - 4	$ -	$ -	$ 800,000	$ -	$ -	$ -	$ 800,000	$ 800,000				$ 0.80								$ 0.80
237	On	CS - Nolana - **PE**	FM 907	FM 88	HC-152	0921-02-169	10	Widen & Reconstruct to 4 lane divided urban	County 1-2 / San Juan	$ 16,000,000	$ 16,000,000	$ 2,573,503	$ 230,275	$ 720,000	$ 1,040,000	$ 21,555,778	$ 230,275									$ 0.23		$ 0.23
158	On	CS - Veterans Blvd (Future SH 495) - **ROW**	IH-2/US 83	SH 364 (La Homa Rd)	HC-50r	0865-01-108	2.3	4 Lanes divided urban	Palmview / County 3	$ 11,360,000	$ 11,360,000	$ 2,699,360	$ 843,140	$ 511,200	$ 738,400	$ 16,856,420	$ 2,699,360				$ 2.70								$ 2.70
235	On	FM 676 (Mile 5 N) - **ROW**	SH 107 (Conway)	Taylor Rd	HC-117r	1064-01-027	3	ROW Acquisition services	Alton / County 3	$ 7,656,456	$ 10,075,374	$ 918,775	$ 493,693	$ 453,392	$ 654,899	$ 13,220,806	$ 500,738								$ 0.50				$ 0.50
214	Off	Liberty Blvd (Phase I) - **ROW**	US 83	Mile 3 Rd	HC-284ar	0921-02-194	2.4	Widen to 4 lanes with dedicated left turn lane	Penitas	$ 8,400,000	$ 9,448,858	$ 1,185,242	$ 219,782	$ 1,086,619	$ -	$ 12,526,330	$ 1,185,242				$ 0.40				$ 0.70	$ 0.08		$ 1.19
173	Off	Taylor Rd - **ROW**	Bus 83	I-2 (US 83)	HC-256r	0921-02-327	1	Widen 4 lanes with left turn lane	Mission / McAllen	$ 4,500,000	$ 4,500,000	$ 1,192,488	$ 371,667	$ 500,000	$ 365,050	$ 7,277,407	$ 1,192,488				$ 1.19								$ 1.19
123	Off	CS - Taylor Rd - **ROW**	0.36mi S Mile 2	Business 83	HC-257r	0921-02-328	2	4 lanes divided urban	Mission / McAllen	$ 6,006,390	$ 6,006,390	$ 2,011,852	$ 743,333	$ 887,802	$ 376,725	$ 10,385,439	$ 2,011,852				$ 2.01								$ 2.01
266	Off	Regional Hike Bike Trail Project (P2) - **TAP**	S San Antonio Ave (San Juan)	S 2nd St (McAllen)	HC-329	0921-02-346	7.74	Proposed location of Hike & Bike Trail Connectivity	County 2 / San Juan / Pharr / McAllen	$ 5,600,000	$ 5,600,000	$ -	$ -	$ 840,000	$ -	$ 6,440,000	$ 6,440,000				$ 0.80	$ 4.52				$ 1.12		$ 6.44
247	On	FM 1926 (23rd st)	FM 1926 (23rd st) & Hackberry Ave		HC-310	1804-01-068	1	Addition of North and South bound center turn lanes	McAllen	$ 86,265	$ 86,265	$ 16,000	$ 3,969	$ 4,050	$ -	$ 115,306	$ 86,265				$ 0.09								$ 0.09
248	On	FM 1926 (23rd st)	SH 1926 (23rd st) & Kendlewood Ave		HC-311	1804-01-069	1	Addition of North and South bound center turn lanes	McAllen	$ 94,785	$ 94,785	$ 16,000	$ 4,361	$ 4,450	$ -	$ 125,114	$ 94,785				$ 0.09								$ 0.09
249	On	SH 336	Intersection Business US 83	135ft S Intersection US Business 83	HC-312	0621-01-106	0.025	Addition of north bound right turn lane	McAllen	$ 77,958	$ 77,958	$ 31,000	$ 3,587	$ 3,660	$ -	$ 120,743	$ 77,958				$ 0.08								$ 0.08
250	On	FM 1926 (23rd st)	FM 1926 (23rd st) & Ebony Ave		HC-313	1804-01-071	2	Addition of east, north and south bound center turn lanes	McAllen	$ 141,219	$ 141,219	$ 21,000	$ 6,497	$ 6,630	$ -	$ 183,567	$ 141,219				$ 0.14								$ 0.14
251	On	FM 1926 (23rd st)	FM 1926 (23rd st) & Jackson Ave		HC-314	1804-01-072	1	Addition of North and South bound center turn lanes	McAllen	$ 116,618	$ 116,618	$ 31,000	$ 5,366	$ 5,475	$ -	$ 165,248	$ 116,618				$ 0.12								$ 0.12
180	Off	Bicentennial Blvd (Hoehn Rd)	SH 107	Trenton Rd	HC-91	0921-02-352	2.3	Construct New 4 Lane Urban Roadway	McAllen	$ 14,679,967	$ 14,679,967	$ 200,000	$ 1,444,700	$ 660,599	$ 1,415,033	$ 18,767,298	$ 14,679,967				$ 8.75				$ 0.75	$ 5.18		$ 14.68

HIDALGO COUNTY METROPOLITAN PLANNING ORGANIZATION METROPOLITAN TRANSPORTATION PLAN PROJECT DATA

								Proposed Project Data		Total Project Cost								Funding Categories										
Line Numbers	System Sort	FM	From	To	MTP#	CSJ #	Project Length (mi)	Type of Improvement	Jurisdiction	Current Construction Cost Estimate	Letting Year Construction dollars	ROW cost (12% 2011 const cost)	Preliminary Engineering (4.9% 2011 const cost)	CE Cost (<$2 M 7.5%, $2-$10 M 5%, >$10 M 4.5%, of 2011 const cost)	Contingencies (<$2M 7%, $2-$25 M 6.5%, $25-$50 M 6%, >$50M 7% of 2010 const cost)	Total Project Cost	Year of Expenditure Dollars (YOE)	Cat 1 Funding	Cat 2 Funding	Cat 4 - Statewide Connectivity	Cat 7 Funding (CE & Contingencies)	Cat 9 Funding	Cat 11 Funding	Cat 12 Funding	CBI - Eligible	Earmark Funding	Other Funds (Local, Bond, etc)	TRENDS - Innovative Financing	TOTAL
300	Off	Signal improvements	Within Hidalgo County		HC-363	0921-02-155		Traffic signal hardware improvements	Various	$ 1,000,000	$ 1,000,000	$ -	$ 49,000	$ 75,000	$ 70,000	$ 1,256,000	$ 1,000,000				$ 1.00								$ 1.00
220	Off	N Alamo Road Extension	FM 1925	0.54mi N FM 1925	HC-289	0921-02-311	0.5	New location 2-lane rural roadway	County 4	$ 703,040	$ 703,040	$ 200,000	$ 34,449	$ 52,728	$ 49,213	$ 1,083,018	$ 804,981				$ 0.80								$ 0.80
223	Off	Dicker Road - **PE**	Spur 115 (23rd St)	FM 2061 (Jackson Rd)	HC-291	0921-02-312	2.56	Widen to 4 lane with continuous left turn	County 2 / McAllen	$ 15,498,000	$ 15,498,000	$ 1,400,000	$ 1,667,175	$ 1,460,500	$ -	$ 20,813,075	$ 1,667,175										$ 1.67		$ 1.67
223	Off	Dicker Road	Spur 115 (23rd St)	FM 2061 (Jackson Rd)	HC-291	0921-02-312	2.56	Widen to 4 lane with continuous left turn	County 2 / McAllen	$ 15,498,000	$ 15,498,000	$ 1,400,000	$ 1,667,175	$ 1,460,500	$ -	$ 20,813,075	$ 18,358,500				$ 18.36								$ 18.36
214	Off	Liberty Blvd (Phase II) - **PE**	Mile 3 Rd	FM 2221	HC-284b	0921-02-322	3.8	Construct 2 lanes with shoulders	County 3	$ 6,795,621	$ 8,598,629	$ 2,030,000	$ 347,988	$ 1,576,755	$ -	$ 13,337,955	$ 347,988										$ 0.35		$ 0.35
215	Off	Liberty Blvd (Phase II) - **ROW**	Mile 3 Rd	FM 2221	HC-284br	0921-02-322	3.8	Construct 2 lanes with shoulders	County 3	$ 6,795,621	$ 8,598,629	$ 2,030,000	$ 347,988	$ 1,576,755	$ -	$ 13,337,955	$ 2,030,000				$ 2.03								$ 2.03
259	Off	Eldora Rd - **PE**	FM 3362 (Jackson Rd)	Veterans Blvd (I Rd)	HC-322	0921-02-403	2.3	Divided Urban Section	Pharr / County 2	$ 9,645,111	$ 12,204,142	$ 1,200,000	$ 893,159	$ 1,518,417	$ -	$ 16,672,565	$ 893,159										$ 0.89		$ 0.89
259	Off	Eldora Rd - **ROW**	FM 3362 (Jackson Rd)	Veterans Blvd (I Rd)	HC-322r	0921-02-403	2.3	Divided Urban Section	Pharr/San Juan/County 2	$ 9,645,111	$ 12,204,142	$ 1,200,000	$ 893,159	$ 1,518,417	$ -	$ 16,672,565	$ 1,200,000				$ 1.20								$ 1.20
203a	Off	365 Tollway	US 281 Military Highway	FM 396 (Anzalduas Highway)	RMA-1aa	0921-02-368	12.5	A toll improvement being a 4 lane controlled access facility	HCRMA	$ 174,178,506	$ 174,178,506	$ 36,242,588	$ 16,757,371	$ 8,925,296	$ -	$ 245,073,954	$ 192,073,995							$ 126.44			$ 65.63		$ 192.07
294	Off	Pharr Comprehensive Pedestrian Safety Wellness Plan - **TAP**	City limits	City limits	HC-357	0921-02-389	12	Planning study for new construction pedestrian safety improvements	Pharr	$ -	$ -	$ -	$ 254,000	$ -	$ -	$ 254,000	$ 254,000					$ 0.13					$ 0.12		$ 0.25
46	On	SH 107	US 281	FM 493 (La Blanca)	HC-227	0342-01-074		Construct 6 lane divided rural	Edinburg / County 4	$ 15,216,588	$ 15,216,588	$ -	$ 168,000	$ 200,000	$ 260,000	$ 16,092,588	$ 15,216,588		$ 15.22										$ 15.22
293	Off	Vision Zero Planning Study- **TAP**	City limits	City limits	HC-356	0921-02-390		Vision Zero Planning Study	McAllen	$ -	$ -	$ -	$ 150,000	$ -	$ -	$ 150,000	$ 150,000					$ 0.12					$ 0.03		$ 0.15
291	Off	Pharr Int'l Bridge Northbound lanes	@ Pharr Int'l Bridge		HC-354	0921-02-385		Construction additional northbound lane and related canopies and booths into the Pharr POE inspection area	Pharr	$ 2,564,250	$ 2,564,250	$ -	$ 165,000	$ 128,212	$ 256,425	$ 3,272,871	$ 2,692,462								$ 2.63		$ 0.07		$ 2.69
292	Off	Pharr Int'l Bridge 2nd BSIF Exit	@ Pharr Int'l Bridge		HC-355	0921-02-383		Construction of additional exit lane and related canopies and booths out of Pharr POE BSIF	Pharr	$ 2,500,370	$ 2,500,370	$ -	$ 255,000	$ 215,000	$ 164,000	$ 3,289,393	$ 2,715,370								$ 2.50		$ 0.22		$ 2.72
204	Off	Donna Int'l Bridge Commercial Approach - **ROW**	Donna BSIF	Future IBTC / FM 493 intersection	HC-275r	0921-02-382	3.02	Construct 4 lane controlled access tolled facility	Donna	$ 51,821,636	$ 51,821,636	$ 3,300,000	$ -	$ -	$ -	$ 55,121,636	$ 3,300,000										$ 3.30		$ 3.30
82	Off	Mile 1 East - **PE**	Bus 83	Mile 8 North	HC-269	0921-02-254	1	Reconstruct & widen to urban 2 lanes & shoulders	Mercedes	$ 6,880,000	$ 9,053,611	$ 502,000	$ 778,050	$ 756,800	$ 588,485	$ 12,240,270	$ 778,050									$ 0.78			$ 0.78
229	On	SH 68 - **ROW**	US 83	FM 1925	HC-295b	3629-01-001	10	Construct new 4 lane divided rural highway facility	TxDOT	$ 55,000,000	$ 55,000,000	$ 92,629,626	$ 6,500,000	$ 2,475,000	$ 3,850,000	$ 163,864,626	$ 92,629,626										92.63		$ 92.63
216	Off	Mile 3 N (Phase I) - **PE**	Tom Gill Road	FM 492 (Goodwin Road)	HC-286a	0921-02-321	3.8	Widen to 4 Lane Divided - Curb & Gutter Section	County 3	$ 12,300,302	$ 14,389,614	$ 1,186,754	$ 526,451	$ 1,637,306	$ -	$ 18,353,281	$ 526,451										$ 0.53		$ 0.53
216	Off	Mile 3 N (Phase II) - **PE**	Tom Gill Road	FM 2221	HC-286b	0921-02-332	2.5	New location 2 lane rural roadway	County 3	$ 4,726,081	$ 5,750,000	$ 750,000	$ 346,349	$ 690,000	$ -	$ 7,892,849	$ 346,349										$ 0.35		$ 0.35
281	Off	CS - Cesar Chavez - **PE**	Bus 83	Ridge	HC-344	0921-02-399	1	Widen to 4 Lanes	San Juan / Alamo / County 1-2	$ 5,955,000	$ 6,193,200	$ 1,000,000	$ 249,994	$ 655,000	$ -	$ 8,482,172	$ 249,994										$ 0.25		$ 0.25
263	Off	CS - Cesar Chavez Rd - **PE**	Business 83	Nolana Loop	HC-326	0921-02-405	2.8	Widen to 4 Lanes	San Juan / Alamo / County 1-2	$ 14,847,575	$ 18,064,345	$ 4,570,000	$ 1,151,217	$ 2,567,723	$ -	$ 28,358,177	$ 1,151,217										$ 1.15		$ 1.15
13	On	FM 676 - **PE**	Taylor Rd	FM 2220	HC-144	1064-01-905	1	Widen to 4 Lane Divided	McAllen / County 3	$ 4,326,923	$ 4,500,000	$ 1,000,000	$ 671,870	$ 500,000	$ -	$ 6,950,870	$ 671,870										$ 0.67		$ 0.67
70ab	On	Sharp Road Realignment - **PE**	FM 1925	0.46mi North	HC-12ab	0921-02-338	0.46	Road Realignment 2 lane rural roadway	County / 4	$ 830,953	$ 1,137,217	$ 650,000	$ 119,473	$ 125,750	$ -	$ 2,102,947	$ 119,473										$ 0.12		$ 0.12
57	Off	Mile 10 North - **PE**	Westgate (Mile 6 W)	FM 1015	HC-264	0921-02-360	3	Widen to 4 lanes - Urban	Weslaco / County 1	$ 11,214,867	$ 12,130,000	$ 2,200,000	$ 992,840	$ 1,579,775	$ -	$ 18,243,943	$ 992,840										$ 0.99		$ 0.99
278	Off	CS - Inspiration Rd/ Military Pkwy Loop - **PE**	IH-2	FM 1016	HC-341	0921-02-395	2.8	Widen to 4 Lane Divided	Mission / County 3	$ 16,477,935	$ 20,047,928	$ 3,000,000	$ 1,276,483	$ 2,205,272	$ -	$ 27,624,057	$ 1,276,483										$ 1.28		$ 1.28
49a	Off	CS - Nolana Loop (S1) - **ROW**	FM 1426 (Raul Longoria)	FM 907	HC-152ar	0921-02-361	2.25	Widen to 4 Lane Divided	County 2 / McAllen	$ 10,792,787	$ 12,140,418	$ 2,000,000	$ 230,275	$ 1,200,000	$ 789,127	$ 17,112,526	$ 2,000,000									$ 2.00			$ 2.00
227	On	US 83 La Joya Relief Route	FM 2221 (Jara Chinas)	0.28mi W Showers Rd	HC-293	0039-02-063		Construct controlled access facility	TxDOT	$ 126,000,000	$ 126,000,000	$ 175,000	$ 6,174,000	$ 5,670,000	$ 8,820,000	$ 154,651,000	$ 126,000,000		$ 62.76					$ 63.24					$ 126.00
303	On	IH-2 / IH-69C Interchange	IH-2	1.82mi N IH-2	HC-366	0255-08-107	1.82	Construct Interchange	Pharr	$ 64,366,907	$ 64,366,907	$ -	$ 3,153,978	$ 2,896,511	$ -	$ 74,408,144	$ 64,366,907			$ 54.57	$ 9.80								$ 64.37
299	On	IH-2 / IH-69C Interchange	FM 2557 (Stewart Rd)	2nd Street	HC-362	0039-17-175	10	Interchange improvements	Pharr	$ 208,348,966	$ 208,348,966	$ 1,100,000	$ 10,209,099	$ 9,375,703	$ -	$ 241,951,404	$ 208,348,966		$ 10.12	$ 116.23				$ 82.00					$ 208.35
295	Off	PSJA Tri-City Pedestrian Safety Improvements- **TAP**	City of Pharr	City of Alamo	HC-358	0921-02-391	9.5	New construction pedestrian safety improvements	Alamo / San Juan / Pharr	$ 2,286,000	$ 2,286,000	$ -	$ -	$ -	$ -	$ 2,286,000	$ 2,286,000					$ 1.58					$ 0.71		$ 2.29
304	Off	Elsa Community Trail Park - **TAP**	W Hidalgo St	Mile 4 Rd @ EEISD High School	HC-367	0921-02-935	1.5	Construction of multiuse trails	Elsa	$ 1,235,300	$ 1,235,300	$ -	$ -		$ -	$ 1,235,300	$ 1,235,300					$ 0.29					$ 0.95		$ 1.24
305	Off	RGV Bcycle BikeShare - **TAP**	Within Hidalgo County	Within Hidalgo County	HC-368	0921-02-936		RGV B-Cycle for regional health and wellness thru bikeshare program	Valley Metro	$ 544,000	$ 544,000	$ -	$ -	$ -	$ -	$ 544,000	$ 544,000					$ 0.41					$ 0.14		$ 0.54
306	Off	Hidalgo County Active Mobility Plan - **TAP**	Within Hidalgo County	Within Hidalgo County	HC-369	0921-02-938		Mobility Plan to identify gaps in current bicycle/pedestrian plans	Valley Metro	$ 330,000	$ 330,000	$ -	$ -	$ -	$ -	$ 330,000	$ 330,000					$ 0.26					$ 0.07		$ 0.33
309	Off	Pharr Bridge Dock Expansion Phase I	@ Pharr Int'l Bridge		HC-372	0921-02-424		Dock Expansion Phase I	Pharr	$ 5,500,000	$ 5,500,000	$ -	$ 330,000	$ 275,000	$ 275,000	$ 6,490,000	$ 6,490,000						$ 3.00				$ 3.49		$ 6.49
310	Off	Pharr Bridge Dock Expansion Phase II	@ Pharr Int'l Bridge		HC-373	0921-02-425		Dock Expansion Phase II	Pharr	$ 11,500,000	$ 11,500,000	$ -	$ 690,000	$ 575,000	$ 575,000	$ 13,610,000	$ 13,610,000						$ 5.00				$ 8.61		$ 13.61
311	Off	Pharr Bridge Commercial Staging	@ Pharr Int'l Bridge		HC-374	0921-02-423		Pharr Commercial Vehicle Staging Area	Pharr	$ 7,500,000	$ 7,500,000	$ -	$ 450,000	$ 375,000	$ 375,000	$ 8,850,000	$ 8,850,000						$ 4.00				$ 4.85		$ 8.85
76	On	FM 1015 - **PE**	Mile 12 N Rd	SH 107	HC-2	1228-03-041	4.5	Widen to 4 Lane Divided 1228-03-900	Edcouch / County 1	$ 7,645,369	$ 8,600,000	$ 1,032,000	$ 1,798,750	$ 430,000	$ 559,000	$ 12,952,950	$ 1,798,750										$ 1.80		$ 1.80
																	$ 807,563,261				**$ 50,359,526**								
		FY 2020	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**	**FY 2020**		

HIDALGO COUNTY METROPOLITAN PLANNING ORGANIZATION METROPOLITAN TRANSPORTATION PLAN PROJECT DATA

								Proposed Project Data		Total Project Cost									Funding Categories										
Line Numbers	System Sort	FM	From	To	MTP#	CSJ #	Project Length (mi)	Type of Improvement	Jurisdiction	Current Construction Cost Estimate	Letting Year Construction dollars	ROW cost (12% 2011 const cost)	Preliminary Engineering (4.9% 2011 const cost)	CE Cost (<$2 M 7.5%, $2-$10 M 5%, >$10 M 4.5%, of 2011 const cost)	Contingencies (<$2M 7%, $2-$25 M 6.5%, $25-$50 M 6%, >$50M 7% of 2010 const cost)	Total Project Cost	Year of Expenditure Dollars (YOE)	Cat 1 Funding	Cat 2 Funding	Cat 4 - Statewide Connectivity	Cat 7 Funding (CE & Contingencies)	Cat 9 Funding	Cat 11 Funding	Cat 12 Funding	CBI - Eligible	Earmark Funding	Other Funds (Local, Bond, etc)	TRENDS - Innovative Financing	TOTAL
13	On	FM 676	Taylor Rd	FM 2220	HC-144	1064-01-905	1	Widen to 4 Lane Divided	McAllen / County 3	$ 4,326,923	$ 4,500,000	$ 1,000,000	$ 671,870	$ 500,000	$ -	$ 6,950,870	$ 6,000,000				$ 6.00								$ 6.00
273	Off	CS - Hi Line East	Cage	Veterans	HC-336	0921-02-375	1	Widen to 2 lane with continuous left turn lane	Pharr	$ 4,173,551	$ 4,173,551	$ 350,000	$ 204,504	$ 208,678	$ 271,281	$ 5,466,774	$ 4,523,551				$ 4.52								$ 4.52
276	Off	CS - Hi Line West	Cage	Jackson Rd	HC-339	0921-02-376	1	Widen to 2 lane with continuous left turn lane	Pharr	$ 5,200,000	$ 5,200,000	$ 660,000	$ 254,800	$ 260,000	$ 338,000	$ 7,035,200	$ 5,860,000				$ 5.86								$ 5.86
70ab	On	Sharp Road Realignment	FM 1925	0.46mi North	HC-12ab	0921-02-338	0.46	Road Realignment 2 lane rural roadway	County / 4	$ 830,953	$ 1,093,477	$ 650,000	$ 119,473	$ 125,750	$ -	$ 2,056,496	$ 1,869,227				$ 1.87								$ 1.87
282	On	FM 1426 (Raul Longoria)	I-2 / US 83	Nolana	HC-345		2	Proposed 6 Lanes raised median	San Juan / County 2	$ 15,384,615	$ 16,000,000	$ -	$ 784,000	$ 720,000	$ 1,040,000	$ 19,536,000	$ 16,000,000		$ 16.00										$ 16.00
																					$ 18,252,778								
		FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024	FY 2024			
127	Off	Owassa Rd	US 281	I road	HC-156a	0921-02-358	1	Widen to 4 Lane	Pharr / San Juan / County 2 - 4	$ 4,160,503	$ 4,500,000	$ 1,000,000	$ 220,500	$ 225,000	$ 292,500	$ 6,517,000	$ 5,500,000				$ 5.50								$ 5.50
57	Off	Mile 10 North	Westgate (Mile 6 W)	FM 1015	HC-264	0921-02-360	3	Widen to 4 lanes - Urban	Weslaco / County 1	$ 11,214,867	$ 12,130,000	$ 2,200,000	$ 992,840	$ 1,579,775	$ -	$ 18,243,943	$ 12,130,000				$ 9.46					$ 2.67			$ 12.13
																					$ 14,960,773								
		FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025	FY 2025			
217	Off	Mile 3 N (Phase II)	Tom Gill Road	FM 2221	HC-286b	0921-02-332	2.5	New Location 2 Lane Rural Roadway	County 3	$ 4,726,081	$ 5,750,000	$ 750,000	$ 346,349	$ 690,000	$ -	$ 7,892,849	$ 7,190,000				$ 7.19								$ 7.19
82	Off	Mile 1 East	Bus 83	Mile 8 North	HC-269	0921-02-254	1	Reconstruct & widen to urban 2 lanes & shoulders	Mercedes	$ 6,880,000	$ 9,053,611	$ 502,000	$ 778,050	$ 756,800	$ 588,485	$ 12,240,270	$ 10,900,896				$ 6.80					$ 4.10			$ 10.90
49a	Off	Nolana Loop (S1)	FM 1426 (Raul Longoria)	FM 907	HC-152a	0921-02-361	2.25	Widen to 4 Lane Divided	County 2 / McAllen	$ 10,792,787	$ 12,140,418	$ 2,000,000	$ 230,275	$ 1,200,000	$ 789,127	$ 17,112,526	$ 13,340,418				$ 13.34								$ 13.34
35a	On	FM 493 (La Blanca)	Mile 10 N Rd	Mile 14 N Rd	HC-34a		4	Widen to 4 Lane Divided	County 1-4	$ 7,405,340	$ 8,330,000	$ 999,600	$ 408,170	$ 416,500	$ 541,450	$ 11,212,180	$ 8,330,000		$ 8.33										$ 8.33
39	On	SH 107 (Conway)	Mile 2 N	FM 676 (Mile 5 N)	HC-224		3	Widen to 6 lane divided	Mission/Palmhurst /Alton/County 3	$ 16,001,934	$ 18,000,000	$ -	$ 882,000	$ 810,000	$ 1,170,000	$ 21,978,000	$ 18,000,000		$ 18.00										$ 18.00
76	On	FM 1015	Mile 12 N Rd	SH 107	HC-2	1228-03-041	4.5	Widen to 4 Lane Divided 1228-03-900	Edcouch / County 1	$ 7,645,369	$ 8,600,000	$ 1,032,000	$ 1,798,750	$ 430,000	$ 559,000	$ 12,952,950	$ 8,600,000		$ 8.60										$ 8.60
																					$ 27,335,192								
		FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026	FY 2026			
77	Off	Freddy Gonzalez - **ROW**	SH 336 (10th St)	FM 2061 (McColl Rd)	HC-120		1.13	Widen to 5 Lane with traffic street improvements	Edinburg	$ 4,600,000	$ 5,820,467	$ 560,000	$ 285,203	$ 550,000	$ 378,330	$ 7,954,870	$ 560,000				$ 0.56								$ 0.56
290	Off	Mon Mack Road - **ROW**	Sprague	SH 107	HC-353		0.5	4 Lane urban section	Edinburg	$ 2,900,000	$ 3,669,425	$ 565,000	$ 142,100	$ 340,000	$ -	$ 4,896,325	$ 565,000				$ 0.57								$ 0.57
102	Off	Trenton Rd - **ROW**	US 281	FM 1426 (Raul Longoria)	HC-177a		1.3	Construct 4 Lane	Edinburg / County 4	$ 6,300,000	$ 7,971,510	$ 715,000	$ 390,604	$ 700,000	$ -	$ 10,271,347	$ 715,000				$ 0.72								$ 0.72
190	Off	I Rd	Rancho Blanco	Military Hwy	HC-127		4.5	Construct 2 Lane w/ Shoulders	Pharr/San Juan/County 2	$ 10,000,000	$ 11,698,586	$ -	$ 573,231	$ 526,436	$ 760,408	$ 14,283,973	$ 11,698,586				$ 11.70								$ 11.70
285	On	FM 1925	FM 681	Wallace Rd	HC-348		4.75	Proposed 4 lanes curb and gutter	County 3	$ 20,515,301	$ 24,000,000	$ -	$ 1,176,000	$ 1,080,000	$ 1,560,000	$ 29,304,001	$ 24,000,000		$ 24.00										$ 24.00
286	On	SH 107	FM 681	FM 2220	HC-349		5.75		County 3	$ 12,822,063	$ 15,000,000	$ -	$ 735,000	$ 675,000	$ 975,000	$ 18,315,000	$ 15,000,000		$ 15.00										$ 15.00
																					$ 13,538,586								
		FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027	FY 2027			
281	Off	Cesar Chavez	Bus 83	Ridge	HC-344	0921-02-399	1		San Juan / Alamo / County 1-2	$ 5,955,000	$ 6,193,200	$ 1,000,000	$ 249,994	$ 655,000	$ -	$ 8,482,172	$ 6,848,200				$ 6.85								$ 6.85
263	Off	Cesar Chavez Rd	Business 83	Nolana Loop	HC-326	0921-02-405	2.8	Divided Urban Section	San Juan / Alamo / County 1-2	$ 14,847,575	$ 18,064,345	$ 4,570,000	$ 1,151,217	$ 2,567,723	$ -	$ 28,358,177	$ 25,202,068				$ 25.20								$ 25.20
278	Off	Inspiration Rd/ Military Pkwy Loop	IH-2	FM 1016	HC-341	0921-02-395		Widen to 4 Lane Divided	Mission / McAllen / Hidalgo	$ 16,477,935	$ 20,047,928	$ 3,000,000	$ 1,276,483	$ 2,205,272	$ -	$ 27,624,057	$ 22,253,200				$ 22.25								$ 22.25
																					$ 54,303,468								
		FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028	FY 2028			
215	Off	Liberty Blvd (Phase II)	Mile 3 Rd	FM 2221	HC-284b	0921-02-322	3.8	Construct 2 lanes with shoulders	County 3	$ 6,795,621	$ 8,598,629	$ 2,030,000	$ 347,998	$ 1,576,755	$ -	$ 13,337,965	$ 10,175,384				$ 10.18								$ 10.18
259	Off	Eldora Rd	FM 3362 (Jackson Rd)	Veterans Blvd (I Rd)	HC-322	0921-02-403	2.3	Divided Urban Section	Pharr/San Juan/County 2	$ 9,645,111	$ 12,204,142	$ 1,200,000	$ 893,159	$ 1,518,417	$ -	$ 16,672,565	$ 13,722,559				$ 13.72								$ 13.72
																					$ 23,897,943								
		FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030	FY 2029 - FY 2030			
23	Off	Nolana Loop	FM 2220 (Ware Rd)	FM 1926 (23rd st)	HC-155a		1	Widen to 6 Lane	McAllen	$ 2,445,000	$ 3,346,151	$ 1,099,198	$ 163,961	$ 167,308	$ 217,500	$ 5,201,580	$ 3,730,959				$ 3.73								$ 3.73
116	Off	E Yuma Ave	Jackson Rd	McColl Rd	HC-248		0.6	Widen to 4 Lane Urban with siphon	McAllen	$ 1,341,000	$ 1,835,251	$ 267,944	$ 89,927	$ 137,644	$ 128,468	$ 2,573,019	$ 2,101,363				$ 2.10								$ 2.10
77	Off	Freddy Gonzalez	SH 336 (10th St)	FM 2061 (McColl Rd)	HC-120		1.13	Widen to 5 Lane with traffic street improvements	Edinburg	$ 4,600,000	$ 5,820,467	$ 560,000	$ 285,203	$ 550,000	$ 378,330	$ 7,954,870	$ 6,370,467				$ 6.37								$ 6.37
290	Off	Mon Mack Road	Sprague	SH 107	HC-353		0.5	4 Lane urban section	Edinburg	$ 2,900,000	$ 3,669,425	$ 565,000	$ 142,100	$ 340,000	$ -	$ 4,896,325	$ 4,009,425				$ 4.01								$ 4.01
102	Off	Trenton Rd	US 281	FM 1426 (Raul Longoria)	HC-177a		1.3	Construct 4 Lane	Edinburg / County 4	$ 6,300,000	$ 7,971,510	$ 715,000	$ 390,604	$ 700,000	$ -	$ 10,271,347	$ 8,671,510				$ 8.67								$ 8.67
86	Off	Sprague Ave	Sugar Rd	SH 336 (N 10th St)	HC-170		2.13	Widen to 4 Lane	Edinburg	$ 4,460,000	$ 5,643,323	$ 951,200	$ 276,523	$ 282,166	$ 366,816	$ 7,869,914	$ 5,643,323				$ 5.64								$ 5.64
49	Off	Nolana Loop (S 2-4) - **ROW**	FM 907	FM 88	HC-152r	0921-02-169	7.65	Widen to 4 Lane Divided	County 1-2	$ 9,752,330	$ 13,346,737	$ 3,500,000	$ 690,825	$ 667,337	$ 867,538	$ 19,899,935	$ 3,500,000				$ 3.50								$ 3.50
41	Off	Bridge Ave	10th St	Pike Blvd	HC-93		1.3	Widen to 4 Lane	Weslaco	$ 2,905,500	$ 3,976,377	$ 580,545	$ 194,842	$ 198,819	$ 258,465	$ 5,455,584	$ 4,433,661				$ 4.43								$ 4.43
49b	Off	Nolana Loop (S2)	FM 907	FM 1423	HC-152b	0921-02-169	2.3	Widen to 4 Lane Divided	County 1-2	$ 2,903,952	$ 3,974,259	$ 348,474	$ 230,275	$ 198,713	$ 258,327	$ 5,256,452	$ 3,974,259											$ 3.97	$ 3.97

HIDALGO COUNTY METROPOLITAN PLANNING ORGANIZATION METROPOLITAN TRANSPORTATION PLAN PROJECT DATA

								Proposed Project Data		Total Project Cost								Funding Categories											
Line Numbers	System Sort	FM	From	To	MTP#	CSJ #	Project Length (mi)	Type of Improvement	Jurisdiction	Current Construction Cost Estimate	Letting Year Construction dollars	ROW cost (12% 2011 const cost)	Preliminary Engineering (4.9% 2011 const cost)	CE Cost (<$2 M 7.5%, $2-$10 M 5%, >$10 M 4.5%, of 2011 const cost)	Contingencies (<$2M 7%, $2-$25 M 6.5%, $25-$50 M 7%, >$50M 7% of 2010 const cost)	Total Project Cost	Year of Expenditure Dollars (YOE)	Cat 1 Funding	Cat 2 Funding	Cat 4 - Statewide Connectivity	Cat 7 Funding (CE & Contingencies)	Cat 9 Funding	Cat 11 Funding	Cat 12 Funding	CBI - Eligible	Earmark Funding	Other Funds (Local, Bond, etc)	TRENDS - Innovative Financing	TOTAL
49c	Off	Nolana Loop (S3)	FM 1423	FM 493	HC-152c	0921-02-169	2.8	Widen to 4 Lane Divided	County 1	$ 3,816,526	$ 5,223,179	$ 457,983	$ 230,275	$ 261,159	$ 339,507	$ 6,835,940	$ 5,223,179											$ 5.22	$ 5.22
49d	Off	Nolana Loop (S4)	FM 493	FM 88	HC-152d	0921-02-169	2.55	Widen to 4 Lane Divided	County 1	$ 3,031,852	$ 4,149,299	$ 363,822	$ 230,275	$ 207,465	$ 269,704	$ 5,477,822	$ 4,149,299											$ 4.15	$ 4.15
22b	On	SH 336 (10th st)	Trenton Rd	SH 107	HC-249b		2.8	Widen to 6 Lanes	Edinburg / McAllen	$ 7,290,000	$ 9,976,868	$ 874,800	$ 488,867	$ 498,843	$ 648,496	$ 13,106,441	$ 9,976,868											$ 9.98	$ 9.98
32	Off	Mile 4 1/2 W Rd	US 83	Mile 9 N Rd	HC-244		0.8	Widen to 4 Lane Divided	Weslaco	$ 1,788,000	$ 2,447,001	$ 214,560	$ 119,903	$ 122,350	$ 159,055	$ 3,214,584	$ 2,447,001											$ 2.45	$ 2.45
28	Off	Trenton Rd	FM 1926 (23rd st)	SH 336 (10th St)	HC-253		1	Widen 6 lanes divided with landscaped median	McAllen	$ 2,445,000	$ 3,346,151	$ 401,538	$ 163,961	$ 167,308	$ 217,500	$ 4,503,920	$ 3,346,151											$ 3.35	$ 3.35
19	On	FM 3461 (Nolana)	FM 2061 (McColl Rd)	US 281	HC-113	1802-02-008	1.746	Widen to 6 Lanes	McAllen / Pharr	$ 7,250,000	$ 9,922,126	$ 870,000	$ 486,184	$ 496,106	$ 644,938	$ 13,034,526	$ 9,922,126											$ 9.92	$ 9.92
63	On	US 83	0.5 Mi E of Bus 83	FM 1427 (Abram)	HC-178b		1.6	Widen to 6 lanes	TXDOT	$ 3,912,000	$ 5,353,842	$ 469,440	$ 262,338	$ 267,692	$ 348,000	$ 7,033,250	$ 5,353,842											$ 5.35	$ 5.35
85	Off	Hutto Rd	US 83	Bus 83	HC-125		0.7	Widen to 4 Lane	Donna	$ 1,564,500	$ 2,141,126	$ 187,740	$ 104,915	$ 107,056	$ 139,173	$ 2,812,761	$ 2,141,126											$ 2.14	$ 2.14
24	On	FM 495	2nd St (McAllen)	US 281	HC-62a		3.9	Widen to 6 lane divided	McAllen / Pharr	$ 9,535,500	$ 13,049,990	$ 1,144,260	$ 639,450	$ 587,250	$ 848,249	$ 17,078,298	$ 13,049,990											$ 13.05	$ 13.05
35b	On	FM 493 (La Blanca)	Mile 14 N Rd	SH 107	HC-34b		2.3	Widen to 4 Lane Divided	County 1-4	$ 6,670,000	$ 9,128,356	$ 800,400	$ 447,289	$ 456,418	$ 593,343	$ 11,991,764	$ 9,128,356											$ 9.13	$ 9.13
29	Off	6th St (Weslaco)	Westgate Drive	Bus 83	HC-83		2.3	Widen to 4 Lane	Weslaco	$ 5,140,500	$ 7,035,129	$ 616,860	$ 344,721	$ 351,756	$ 457,283	$ 9,241,928	$ 7,035,129											$ 7.04	$ 7.04
264	On	SH 68 - Phase II	FM 1925	IH 69C / US 281	HC-327	3629-01-002	12.38	Divided Rural Highway	TxDOT	$ 68,560,000	$ 93,829,094	$ 37,401,813	$ 3,359,440	$ 3,428,000	$ 4,456,400	$ 148,292,151	$ 135,687,307									$ 135.69			$ 135.69
265	On	SH 68 - Phase III	IH 2 / US 83	IH 69C / US 281	HC-328	3629-01-003	20	Main Lanes with Overpasses	TxDOT	$ 383,730,000	$ 525,161,002	$ -	$ 18,802,770	$ 19,186,500	$ 24,942,450	$ 620,652,704	$ 550,103,452									$ 550.10			$ 550.10
203b	On	SH 365 (Phase II)	FM 396 (Anzalduas Highway)	FM 1016 (Conway Rd)	RMA-1b	3627-01-002		Toll improvement being a 4 lane controlled access facility	HCRMA	$ 37,620,524	$ 51,486,285	$ 5,406,143	$ 3,215,286	$ 1,380,765	$ -	$ 62,259,241	$ 53,637,812									$ 53.64			$ 53.64
226	On	SH 365 (Ultimate Construction) PE	US 281 Military Highway	FM 1016 (Conway Rd)	RMA-1c			Expansion from a 4-lane to 6-lane controlled access toll facility (constructing an additional 2-lanes)	HCRMA	$ 75,371,557	$ 103,151,180	$ -	$ 3,841,693	$ 4,899,151	$ -	$ 113,022,597	$ 3,841,693									$ 3.84			$ 3.84
313	Off	Pharr Bridge Agricultural Lab	@ Pharr Int'l Bridge		HC-376	0921-02-943		Agricultural Lab and Training Center	Pharr	$ 8,000,000	$ 10,948,552	$ -	$ 480,000	$ 440,000	$ 400,000	$ 12,428,552	$ 12,428,552									$ 12.43			$ 12.43
																					$ 38,460,707							$ 75,747,327	
		FY 2031 - FY 2035	FY 2031 - FY 2035	FY 2031 - FY 2035				FY 2031 - FY 2035	FY 2031 - FY 2035	FY 2031 - FY 2035	FY 2031 - FY 2035		FY 2031 - FY 2035		FY 2031 - FY 2035		FY 2031 - FY 2035			FY 2031 - FY 2035		FY 2031 - FY 2035							
68	Off	Airport Drive (Weslaco)	Bus 83	US 83	HC-85		0.9	Widen to 4 Lane	Weslaco	$ 2,011,500	$ 3,349,295	$ 241,380	$ 164,115	$ 167,465	$ 217,704	$ 4,347,616	$ 3,349,295											$ 3.35	$ 3.35
74b	Off	Mile 6 W Rd	Mile 11 N	SH 107	HC-148bb	0921-02-286	5.5	Widen to 4 Lane	County 1	$ 20,240,241	$ 33,701,489	$ 4,396,313	$ 992,000	$ 911,000	$ 1,316,000	$ 42,571,802	$ 34,612,489				$ 34.61								$ 34.61
92	Off	Sugar Rd	SH 107	Schunior Ave	HC-171		0.5	Widen to 4 Lane	Edinburg	$ 1,117,500	$ 1,860,720	$ 223,286	$ 91,175	$ 139,554	$ 130,250	$ 2,560,350	$ 1,860,720											$ 1.86	$ 1.86
88	On	FM 2062 (Bentsen Palm)	US 83 S	Bus 83	HC-18		0.85	Widen to 4 Lane Divided	Mission	$ 1,899,750	$ 3,163,223	$ 227,970	$ 154,998	$ 158,161	$ 205,610	$ 4,106,082	$ 3,163,223											$ 3.16	$ 3.16
45	On	SP 115 (S 23rd St)	US 83	FM 1016 (Military Hwy)	HC-51a	1804-01-057	2.9	Widen to 6 Lane Divided Urb	McAllen/Hidalgo/ County 2	$ 13,461,538	$ 22,414,450	$ 1,615,385	$ 1,098,308	$ 1,008,650	$ 1,456,939	$ 28,983,428	$ 22,414,450											$ 22.41	$ 22.41
70b	On	FM 1925	3rd Street	FM 493 (La Blanca)	HC-12b	1803-02-901	2.1	Widen to 4 Lane Divided	County 4	$ 6,395,566	$ 10,649,088	$ -	$ 521,805	$ 479,209	$ 692,191	$ 13,002,536	$ 10,649,088											$ 10.65	$ 10.65
253	Off	Oakland Ave	K-Center	Jackson Rd	HC-316		0.2	Add 4 lanes	McAllen	$ 271,519	$ 452,099	$ 262,794	$ 22,153	$ 33,907	$ 31,647	$ 830,630	$ 452,099											$ 0.45	$ 0.45
87	Off	Border Ave	S 18th St (Mile 6 N)	Bus 83	HC-92		1.4	Widen to 4 Lane	Weslaco	$ 3,129,000	$ 5,210,015	$ 697,100	$ 255,291	$ 260,501	$ 338,651	$ 7,084,578	$ 5,809,167											$ 5.81	$ 5.81
31	Off	Sioux Rd	I Rd	FM 1426 (Raul Longoria)	HC-167		0.8	Widen to 4 Lane	San Juan	$ 1,788,000	$ 2,977,151	$ 214,560	$ 145,880	$ 148,858	$ 193,515	$ 3,864,548	$ 2,977,151											$ 2.98	$ 2.98
162	Off	Paso del Norte	Bus 83	2nd St	HC-242		0.3	Widen to 4 Lane Divided	Weslaco	$ 670,500	$ 1,116,432	$ 80,460	$ 54,705	$ 83,732	$ 78,150	$ 1,482,698	$ 1,116,432											$ 1.12	$ 1.12
255	Off	Kennedy	Ware Road (FM 2220)	Bentsen Rd	HC-318		0.5	2 lane divided with bike lanes	McAllen	$ 2,139,377	$ 3,562,220	$ 1,404,000	$ 174,549	$ 178,111	$ 231,544	$ 5,771,282	$ 3,562,220											$ 3.56	$ 3.56
75	Off	Schunior Ave	Sugar Rd	4th St	HC-166		0.52	Widen to 4 Lane	Edinburg	$ 1,162,200	$ 1,935,148	$ 190,866	$ 94,822	$ 145,136	$ 135,460	$ 2,621,412	$ 1,935,148											$ 1.94	$ 1.94
90	Off	Jackson Ave	S Bicentennial Ave	S 2nd St	HC-130		0.85	Widen to 4 Lane	McAllen	$ 1,899,750	$ 3,163,223	$ 227,970	$ 154,998	$ 158,161	$ 205,610	$ 4,106,082	$ 3,163,223											$ 3.16	$ 3.16
104	On	FM 676 (Mile 5 N)	FM 492 (Doffing)	SH 364 (La Homa Rd)	HC-117a		1.5	Widen to 4 Lane Rev TIP 05'06 Revised Estimate	County 3	$ 3,352,500	$ 5,582,159	$ 669,859	$ 273,526	$ 279,108	$ 362,840	$ 7,513,586	$ 5,582,159											$ 5.58	$ 5.58
258	Off	Westgate	Business 83	Mile 5 N	HC-321		2.5	Widen to 4 lane divided	Weslaco	$ 12,507,079	$ 20,825,206	$ 1,500,849	$ 1,020,435	$ 937,134	$ 1,353,638	$ 26,928,425	$ 20,825,206											$ 20.83	$ 20.83
101	Off	Mile 6 N (18th St)	FM 88	Mile 2 W	HC-146		3.2	Widen to 4 Lane	Weslaco/Mercedes /County 1	$ 7,152,000	$ 11,908,606	$ 858,240	$ 583,522	$ 535,887	$ 774,059	$ 15,398,648	$ 11,908,606											$ 11.91	$ 11.91
226	On	SH 365 (Ultimate Construction)	US 281 Military Highway	FM 1016 (Conway Rd)	RMA-1c			Expansion from a 4-lane to 6-lane controlled access toll facility (constructing an additional 2-lanes)	HCRMA	$ 75,371,557	$ 75,371,557	$ -	$ 3,841,693	$ 4,899,151	$ -	$ 85,242,974	$ 81,401,281									$ 81.40			$ 81.40
314	Off	Las Milpas Rd West	Jackson Rd	Cage Rd	HC-377	0921-02-940	1.25	Widen to 4 lane curb and gutter rd	Pharr	$ 3,600,000	$ 5,123,923	$ 292,000	$ 216,000	$ 180,000	$ 180,000	$ 6,063,923	$ 5,595,923				$ 5.60								$ 5.60
315	Off	Las Milpas Rd East	Cage Rd	I Rd	HC-378	0921-02-941	1.25	Widen to 4 lane curb and gutter rd	Pharr	$ 3,600,000	$ 5,123,923	$ 292,000	$ 216,000	$ 180,000	$ 180,000	$ 6,063,923	$ 5,595,923				$ 5.60								$ 5.60
316	Off	Moore Rd West	Jackson Rd	Cage Rd	HC-379	0921-02-926	1.25	Widen to 5 lane curb and gutter road with left turn lane	Pharr	$ 5,250,000	$ 7,472,387	$ 605,000	$ 315,000	$ 250,000	$ 262,500	$ 9,009,887	$ 8,327,387				$ 8.33								$ 8.33
317	Off	Moore Rd East	Cage Rd	I Rd	HC-380	0921-02-927	1.25	Widen to 5 lane curb and gutter road with left turn lane	Pharr	$ 5,250,000	$ 7,472,387	$ 605,000	$ 315,000	$ 250,000	$ 262,500	$ 9,009,887	$ 8,327,387				$ 8.33								$ 8.33
																					$ 62,459,108							$ 98,768,188	
		FY 2036 - FY 2040	FY 2036 - FY 2040	FY 2036 - FY 2040				FY 2036 - FY 2040	FY 2036 - FY 2040	FY 2036 - FY 2040	FY 2036 - FY 2040		FY 2036 - FY 2040		FY 2036 - FY 2040		FY 2036 - FY 2040			FY 2036 - FY 2040		FY 2036 - FY 2040							
240	Off	Sioux Rd	Cesar Chavez Rd	I Road (Veterans Blvd)	HC-306		2.1	Divided Urban Section	San Juan	$ 12,600,000	$ 25,525,288	$ 3,000,000	$ 1,250,739	$ 1,148,638	$ 2,297,276	$ 34,804,509	$ 25,525,288											$ 25.53	$ 25.53

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM
Hidalgo County MPO FY 2019-2022 TIP
Pharr District Projects
FY 2019

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
PHARR	HIDALGO	0921-02-374	OWASSA	R	COUNTY	COUNTY	$800,000

LIMITS FROM: I RD
LIMITS TO: CESAR CHAVEZ RD
PROJECT DESCRIPTION: CONSTRUCT A 4 LANE URBAN ROADWAY
REMARKS
P7:

REVISION DATE: 7_2018
MPO PROJ NUMBER: HC-335r
FUNDING CAT(S): 7

PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PRELIM ENG:		$0	COST OF
ROW PURCHASE:		$800,000	APPROVED
CONST COST:		$0	PHASES:
CONST ENG:		$0	$800,000
CONTING:		$0	
IND COSTS:		$0	
BND FINANCING:		$0	
TOTAL PROJECT COST:		$800,000	

AUTHORIZED FUNDING BY CATEGORY/SHARE

	FEDERAL	STATE	LOCAL	LC	TOTAL
CAT 7	$640,000		$160,000		$800,000
TOTALS	$640,000	$0	$160,000	$0	$800,000

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
PHARR	HIDALGO	0921-02-169	CS	E	COUNTY	COUNTY	$230,275

LIMITS FROM: ON NOLANA FROM FM 907
LIMITS TO: FM 88
PROJECT DESCRIPTION: WIDEN & RECONSTRUCT TO 4 LANE DIVIDED URBAN
REMARKS E = PRELIMINARY ENGINEERING
P7:

REVISION DATE: 11_2018
MPO PROJ NUMBER: HC-152
FUNDING CAT(S): 3 - LOCAL

PROJECT HISTORY:
PE = 100% LG

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	1.44%	$230,275	COST OF
ROW PURCHASE:		$2,573,503	APPROVED
CONST COST:		$16,000,000	PHASES:
CONST ENG:	4.50%	$720,000	$230,275
CONTING:	6.50%	$1,040,000	
IND COSTS:	6.20%	$992,000	
BND FINANCING:		$0	
TOTAL PROJECT COST:		$21,555,778	

AUTHORIZED FUNDING BY CATEGORY/SHARE

	FEDERAL	STATE	LOCAL	LC	TOTAL
CAT 3 - LOCAL				$230,275	$230,275
TOTALS	$0	$0	$0	$230,275	$230,275

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
PHARR	HIDALGO	0865-01-108	CS	R	PALMVIEW	TXDOT	$2,699,360

LIMITS FROM: ON VETERANS SH 495 FROM IH-2/US 83
LIMITS TO: SH 364 (LA HOMA RD)
PROJECT DESCRIPTION: 4 LANES DIVIDED URBAN
REMARKS
P7:

REVISION DATE: 11_2018
MPO PROJ NUMBER: HC-50r
FUNDING CAT(S): 7

PROJECT HISTORY:
CE = 100% TXDOT

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	7.42%	$843,140	COST OF
ROW PURCHASE:		$2,699,360	APPROVED
CONST COST:		$11,360,000	PHASES:
CONST ENG:	4.50%	$511,200	$2,699,360
CONTING:	6.50%	$738,400	
IND COSTS:	6.20%	$704,320	
BND FINANCING:		$0	
TOTAL PROJECT COST:		$16,856,420	

AUTHORIZED FUNDING BY CATEGORY/SHARE

	FEDERAL	STATE	LOCAL	LC	TOTAL
CAT 7	$2,159,488		$539,872		$2,699,360
TOTALS	$2,159,488	$0	$539,872	$0	$2,699,360

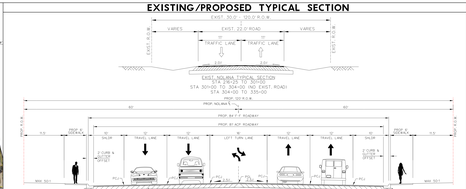
PHASE: C = CONSTRUCTION, E = ENGINEERING, R = ROW, T = TRANSFER
* FUNDING NOT FIXED

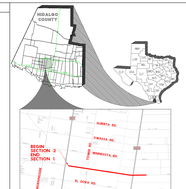
Appendix C

NOLANA LOOP
FROM FM 907 TO FM 88
ROLL 1 OF 4
BEGIN PROJECT
BEGIN SECTION 1
CSJ: 0921-02-341
STA: 100+25.00
MATCH EXIST.PAVEMENT
FM 1426
(RAUL CONGORIA RD.)
CESAR CHAVEZ ROAD
FM 907 (ALAMO ROAD)
MATCH LINE STA 212+25.00
END PROJECT
END SECTION 1
CSJ:0921-02-341
STA: 212+25.00
BEGIN SECTION 2
CSJ:0921-02-169
END PROJECT
END SECTION 2
CSJ:0921-02-169
BEGIN INCIDENTAL CONST.
STA: 212+25.00
CSJ: 0921-02-341
MATCH EXIST.PAVEMENT
END INCIDENTAL
STA: 289+00.00
CSJ: 0921-02-341
MATCH EXIST. PAVEMENT
CESAR CHAVEZ ROAD INSET
EXIST. CL PROFILE
PROF. CL & PGL PROFILE
EXIST. CL PROFILE
PROF. CL & PGL PROFILE
EXIST. CL PROFILE
PROF. CL & PGL PROFILE
EXIST. CL PROFILE
EXISTING/PROPOSED TYPICAL SECTION
EXIST. 22.0' ROAD
TRAFFIC LANE
TRAFFIC LANE
PROP. NOLANA TYPICAL SECTION
STA 100+70 TO STA 289+25
PROP. 30.0' R.O.W.
PROP. NOLANA R.O.W.
PROP. 84.0' ROADWAY
PROP. 81.0' ROADWAY
PROP. 6' SHLDR
PROP. 12' LEFT TURN LANE
PROP. 12' TRAVEL LANE
PROP. 12' TRAVEL LANE
PROP. 12' TRAVEL LANE
PROP. 12' TRAVEL LANE
PROP. 6' SHLDR
PROP. 4' SHLDR
PROP. 4' SHLDR
MIN. 50'
PROP. LINE TREATED FLAMBEE
PROP. NOLANA TYPICAL SECTION
STA 174+00 TO STA 202+00
STA 204+25
PROP. LINE TREATED SUBGRADE
PROP. NOLANA TYPICAL SECTION
STA 202+00 TO STA 204+00
PLAN LEGEND
UTILITIES LEGEND
HIDALGO COUNTY
BEGIN SECTION 1
END SECTION 1
BEGIN SECTION 2
END SECTION 2
END SECTION 3
OWASSA RD.
MINNESOTA RD.
ROMA
ROMA
NOLANA LOOP
NET LENGTH OF
NOLANA LOOP (SECTION 1) : 2.23 MILES
NOLANA LOOP (SECTION 2) : 7.41 MILES
LIMITS
NOLANA LOOP (SECTION 1) : FROM FM 1426 (RAUL CONGORIA RD.) TO FM 907 (ALAMO RD.)
NOLANA LOOP (SECTION 2) : FROM 1L MI EAST OF FM 907 TO FM 88
FUNCTIONAL CLASSIFICATION : "URBAN STREET - COLLECTOR"
ADT (2018) : 7,900
(2038) : 11,000
e MAX : 6%
DESIGN CRITERIA : TXDOT ROADWAY DESIGN MANUAL
AASHTO GREEN BOOK
DESIGN SPEED : 50 MPH
L&G Engineering
Texas Registered Firm F-14439
Texas Registered Firm F-10124
Texas Registered Firm F-10124
NOLANA LOOP
SCHEMATIC LAYOUT
ROLL 1 OF 4
SCALE: HORIZ. 1"=20' VERT. 1"=2'
DATE: 10/2018
DESIGNED: JCM
DRAWN: JCM
CHECKED: JCM
SHEET 1 OF 1

NOLANA LOOP FROM FM 907 TO FM 1423 (VAL VERDE RD)
ROLL 2 OF 4

EXISTING/PROPOSED TYPICAL SECTION





DESIGN DATA

NET LENGTH OF NOLANA LOOP (SECTION 1):	3.05 MILES
NOLANA LOOP (SECTION 2):	7.20 MILES
LIMITS	
NOLANA LOOP (SECTION 1):	FROM FM 1436 (RAIL LONGHORN) TO FM 907 (ROLL 1 OF 4 CSJ 0912-02-341)
NOLANA LOOP (SECTION 2):	FROM 1/ MI. EAST OF FM 907 TO FM 88
FUNCTIONAL CLASSIFICATION	"URBAN STREET - COLLECTOR"
ADT (2018):	7,900
(2038):	11,200
+ MAX	6%
DESIGN CRITERIA	TXDOT ROADWAY DESIGN MANUAL (ROLL 1 SECTION 1)
DESIGN SPEED:	50 MPH

PLAN LEGEND

UTILITIES LEGEND

L&G Engineering
Texas Registered Firm F-10193
Engineers / Land Surveyors
Phone (830) 896-7000
Fax (830) 896-7001
Texas Department of Transportation

NOLANA LOOP
SCHEMATIC LAYOUT
ROLL 2 OF 4

DATE:			
DRAWN BY:			
CHECKED BY:			
SCALE:			

FROM NOLANA LOOP
FM 1423 TO FM 493
ROLL 3 OF 4

MATCH LINE STA. 375+00

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NOLANA LOOP
FROM FM 493 TO FM 88
ROLL 5 OF 4

MATCH LINE STA. 493+00

MATCHLINE STA. 535+00.00

CURVE DATA 30
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CURVE DATA 33
CURVE DATA 34
CURVE DATA 35
CURVE DATA 36
CURVE DATA 37
CURVE DATA 38

END PROJECT
STA.=535+00.00=BEGIN
END SECTION 3
STA.=535+00.00

VICTORIA ROAD ℄

MILE 4½ WEST ℄

MILE 4 WEST ℄

MILE 3½ WEST ℄

PROP. FGL PROFILE

EXIST. CL PROFILE

END PROJECT
STA.=535+00.00=BEGIN
END SECTION 3
STA.=535+00.00
EL= 67.33'

EXISTING/PROPOSED TYPICAL SECTION

EXIST. NOLANA TYPICAL SECTION
STA.=493+00 TO STA.=535+00
STA.=535+00 TO STA.=535+00

PROP. NOLANA TYPICAL SECTION
STA.=493+00 TO STA.=535+00
STA.=535+00 TO STA.=535+00

PROP. NOLANA TYPICAL SECTION
STA.=493+00 TO STA.=535+00
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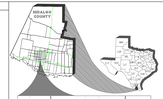


NET LENGTH OF NOLANA LOOP (SECTION 1)	2.20 MILES 7.41 MILES
NOLANA LOOP (SECTION 2)	
NOLANA LOOP (SECTION 3)	FROM FM 1426 (BASS LONGORIA) TO 1.5 MI. EAST OF FM 907 (ALAMO RD.)
NOLANA LOOP (SECTION 3)	FROM 1.5 MI. EAST OF FM 907 TO FM 88
FUNCTIONAL CLASSIFICATION	"URBAN STREET - COLLECTOR"
ADT (2030) (2038)	7,800 11,000
v MAX	4% 4%
DESIGN CRITERIA	TXDOT ROADWAY DESIGN MANUAL CHAPTER 3 SECTION 3
DESIGN SPEED	55 MPH

PLAN LEGEND

- EXISTING RIGHT OF WAY
- EXISTING RIGHT OF WAY (ROW)
- EXISTING CENTERLINE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF SHOULDER
- EXISTING GUARDRAIL
- EXISTING GUARDRAIL END TREATMENT
- EXISTING DRAINAGE DITCH
- EXISTING DRAINAGE CULVERT
- EXISTING DRAINAGE STRUCTURE
- EXISTING DRAINAGE DITCH
- EXISTING DRAINAGE DITCH CULVERT
- EXISTING DRAINAGE CULVERT
- EXISTING DRAINAGE STRUCTURE
- EXISTING SIGN
- EXISTING SIGN W/ BASE
- EXISTING TRAFFIC SIGNAL POLE
- EXISTING TRAFFIC SIGNAL BOX
- EXISTING CURB
- DRAINAGE FLOW

UTILITIES LEGEND

- EXISTING GAS LINE
- EXISTING POWER LINE
- EXISTING TELEPHONE LINE
- EXISTING TELEPHONE POLE
- EXISTING WATER LINE
- EXISTING WELL

Texas Department of Transportation

L-K-J Engineering
Texas Registered Firm F-2578
Texas Registered Firm F-10124
Texas Registered Firm F-10124

NOLANA LOOP
FROM FM 493 TO FM 88
ROLL 4 OF 4

DATE			
DESIGNED			
DRAWN			
CHECKED			
SUPERVISED			

Appendix D

TPWD

Corina Argullin

From: Edward Paradise Jr [Edward.Paradise@txdot.gov]
Sent: Wednesday, August 23, 2017 4:46 PM
To: Corina Argullin
Cc: Velma Garcia; Cynthia R. Gonzales; Mike Miranda; Robin Gelston
Subject: FW: Request for early coordination: Nolana Loop: (0921-02-169)

Corina,
The TPWD coordination for the Nolana Loop project is complete.
Thanks
-Edd

From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Wednesday, August 23, 2017 4:39 PM
To: Edward Paradise Jr
Cc: Robin Gelston
Subject: RE: Request for early coordination: Nolana Loop: (0921-02-169)

Edd,

I do not have any comments on this project.
Thank you for submitting the following project for early coordination: Nolana Loop from FM 1326 to FM 88 (CSJ 0921-02-169). TPWD appreciates TxDOT's commitment to implement the practices listed in the Biological Evaluation Form submitted on July 28, 2017. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect plants, fish, and wildlife.
According to §2.204(g) of the 2013 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link: http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Thank you,

Sue Reilly
Transportation Assessment Liaison
TPWD Wildlife Division
512-389-8021

From: Edward Paradise Jr [mailto:Edward.Paradise@txdot.gov]
Sent: Friday, July 28, 2017 11:23 AM
To: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>
Subject: FW: Request for early coordination: Nolana Loop: (0921-02-169)

Hi Sue,

I have just placed a copy of the Biological Packet for the Nolana Loop project (0921-02-169) in Cameron County that has been seamed into a single document and includes the BEF, Tier I Site Assessment and other related attachments in Dropbox for your retrieval, as the file was too large to send via email. Let me know if you have any questions.

Thanks,
-Edd Paradise

From: WHAB_TxDOT [mailto:WHAB_TxDOT@tpwd.texas.gov]
Sent: Friday, July 28, 2017 11:01 AM
To: Edward Paradise Jr; Robin Gelston
Cc: Sue Reilly
Subject: RE: Request for early coordination: Nolana Loop: (0921-02-169)

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID # 38242. The Habitat Assessment Biologist who will complete your project review is copied on this email.

Thank you,

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

From: Edward Paradise Jr [mailto:Edward.Paradise@txdot.gov]
Sent: Friday, July 28, 2017 9:41 AM
To: WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>
Subject: Request for early coordination: Nolana Loop: (0921-02-169)

I am submitting a copy of the Biological Evaluation Form and Tier I Site Assessment, to request early coordination with TPWD for the Nolana Loop project (0921-02-169) in Hidalgo County. Once a biologist has been assigned I can send the Biological Packet attachments that have been seamed into a single document via Dropbox, as the files are too large to send by email. Early coordination with TPWD was previously initiated but eventually was closed out because the project stalled until a new consultant was brought on board. Please let me know if you have any questions.

Thanks,
-Edd Paradise

USACE

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
5151 FLYNN PARKWAY, SUITE 306
CORPUS CHRISTI, TEXAS 78411

March 26, 2018

REPLY TO ATTENTION OF:

Corpus Christi Regulatory Field Office

SUBJECT: File No. SWG-2017-00140; Approved Jurisdictional Determinations

L&G Engineering
ATTN: Ms. Velma Garcia
2100 W. Expressway 83
Mercedes, Texas 78570-9764

Dear Ms. Garcia:

This is in regard to your request, dated August 24, 2017, for an approved jurisdictional determination (AJD) on seven sites within the Nolana Loop Project Area located northeast of the City of Pharr in Hidalgo County, Texas.

Upon reviewing these seven review areas, as described in the submitted document, the Corps has concluded there are no waters of the United States within these specific project sites. Therefore, these review areas are not subject to our jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 or Section 404 of the Clean Water Act; and as such, a Department of the Army (DA) permit is not required. The seven enclosed AJD forms with corresponding maps are valid for 5 years from the date of this letter unless new information warrants a revision of the determination prior to the expiration date.

Corps determinations are conducted to identify the limits of the Corps Clean Water Act jurisdiction for particular sites. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331.5. Also enclosed are a combined Notification of Administrative Appeal Options and Process (NAP) and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA to the Southwestern Division Office at the following address:

Mr. Elliott Carman
Regulatory Appeals Officer
Southwest Division USACE (CESWD-PD-O)
1100 Commerce Street, Suite 831
Dallas, Texas 75242-1317
Telephone: 469-487-7061; FAX: 469-487-7199

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete; that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within **60 days** (May 25, 2018) of the date of the NAP. It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

Please reference file number **SWG-2017-00140** in future correspondence pertaining to this subject. If you have any questions, please contact Ms. Kristie Brink at the letterhead address or by telephone at 361-814-5847, ext. 1005. To assist us in improving our service to you, please complete the survey found at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Matthew Kimmel
Supervisor
Corpus Christi Regulatory Field Office

Enclosures

THC

November 1, 2010

Carolyn Nelson
Architectural Historian
Cultural Resources Management Section
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701

Re: Section 106 Review of Nolana Loop from FM 1426 to FM 88, Hidalgo County (FHWA)
TxDOT CSJ# 0921-02-169

Dear Mrs. Nelson:

Thank you for submitting the information regarding the above-mentioned project. This letter serves as a comment from the State Historic Preservation Officer (SHPO), the Executive Director of the Texas Historical Commission (THC).

Texas Historical Commission staff has completed a review of the documentation provided. Based on the information we received, we concur with the determination that, with the exception of the resources associated with the National Register-listed Louisiana-Rio Grande Canal Irrigation System, none of the identified resources in the Area of Potential Effect are eligible for listing in the National Register of Historic Places.

This concurrence includes the Mercedes Irrigation District; however, we have additional comments related to this irrigation system and the evaluation within your intensive survey report. First, we disagree with the statement in your letter that indicates the Mercedes Irrigation District is not significant within the historic context. The intensive survey report indicates that it is significant, but that it does not have sufficient integrity to convey that significance. We agree that the loss and replacement of major elements of the irrigation system, such as the pumphouses, render the system as a whole to be ineligible.

THC identified concerns and questions about the methodology of your historic irrigation context in two formal letters during review of the draft and six intensive surveys that applied the methodology, and THC never concurred with the final version. Specifically, THC expressed concern regarding the assertion that an irrigation system could only be considered as a single structure and individual components, including pumphouses, canals, and other major features, could not be separated out from the rest of the system. As a result, either a system is considered eligible as a whole entity or not at all. Our continued concern is that there may be cases where individual components of an irrigation system could, by themselves, be eligible for listing in the National Register of Historic Places. Based on our review of the report, we have identified an element of the Mercedes Irrigation District that may fit this category: the Anacuitas Flume. Our review of the material you submitted indicates that the flume is outside of the APE and the project will not affect it. However, we wish to indicate to you at this time that we do not feel that the information provided is sufficient to support a determination that the flume is not eligible for

listing in the National Register of Historic Places. Extant historic flumes, from our review of the historic context for irrigation in South Texas, are rare. They are engineered structures, similar to bridges on roadways or aqueducts in irrigation systems in other parts of the world, and like these other resource types, can be considered as independent engineered structures that can be evaluated individually for listing in the National Register of Historic Places. The report does not indicate the date of the structure, nor supply any information regarding its engineering. While the report does indicate alterations to the flume in the 1960s, it is not clear how extensive the alterations were. Loss of integrity of setting and feeling from the construction of US 83 may not be sufficient to render the structure, particularly if it is significant for its engineering, ineligible for listing in the National Register of Historic Places. It is possible, therefore, that this flume is eligible under Criterion C for engineering and/or Criterion A. Again, please refer to THC's former letters in which we indicated the possibility that individual major components of an irrigation system, if sufficiently rare and/or significant, could break the rules of the methodology. We concur with the finding of the intensive study that identified the Mercedes Irrigation District office in Mercedes as eligible for listing in the National Register of Historic Places under Criterion A for agriculture and Criterion C for architecture, both at the local level of significance.

Finally, we have considered your determination that the project will have no adverse effect to the listed irrigation system, despite the relocation of one field drain, fourteen standpipes, and the replacement of several pipelines, as well as replacing an existing bridge over a canal with a 180' long siphon. Based on agreement from earlier letters regarding TxDOT projects in South Texas, we concur that standpipes cannot be considered character-defining features of an irrigation system because they indicate underground pipelines, which in the methodology and context study, "The Creation of a Magic Valley," as well as the July 26, 2004 coordination letter between our agencies, evinces a loss of integrity. Therefore, effects to these features cannot be considered adverse effects to this National Register-listed system. As the above-mentioned letter states that projects such as road widening or bridge widening do not typically pose effects for character-defining features or the overall system's historic integrity, we find that this project will have no adverse effect to the National Register listed Louisiana Rio Grande Canal Company Irrigation System. We understand from your letter that TxDOT intends to pursue a *de minimis* ruling from the Federal Highway Administration based on this determination of no adverse effect.

Thank you for your participation in this federal review process. If you have any questions concerning this review or if we can be of further assistance, please contact Adrienne Campbell at 512/936-7403.

Sincerely,

Mark Wolfe

Mark Wolfe
State Historic Preservation Officer

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

October 11, 2010

SECTION 106: Determination of Eligibility and Effects
SECTION 4(f): Notification of intent to pursue 4(f) determination

Hidalgo County (Pharr District)
CSJ# 0921-02-169

RE: Nolana Loop from FM 1426 to FM 88

Ms. Adrienne Campbell
History Programs
Texas Historical Commission
Austin, Texas 78711

Dear Ms. Campbell:

The referenced undertaking would be carried out with federal funding. In accordance with the first amended Programmatic Agreement (PA) between the Texas Department of Transportation (TxDOT), the Federal Highway Administration (FHWA), the Advisory Council for Historic Preservation (ACHP), and the Texas Historical Commission (THC), this letter continues Section 106 consultation (36 CFR 800.4) on the effect the proposed undertaking would pose for historic properties located within the project's area of potential effects (APE.)

INTRODUCTION

The Proposed undertaking consists of the widening of and improving 9.9 miles of Nolana Loop from FM 1426 (Raul Longoria Rd) to FM 88 (Ruben Hinojosa Hwy), which currently consists of two lanes with no shoulders. The current right-of-way (ROW) is 40 ft wide. The proposed undertaking plans to expand the roadway to four lanes with a raised center median and curb and gutter installations along the entire 9.9 mile length. The easternmost two miles would be on new alignment.

New ROW totaling 111.5 acres would be acquired on one or both sides to increase the ROW width to 120 ft. Since 2001, Hidalgo County has acquired land from 16 individual parcel ranging from 0.039 to 0.955 acres for a total of 5.756 acres. Individual parcel maps and pictures are attached.

Per the terms of our PA, the APE for the project was determined to be 150 ft beyond the proposed new ROW where roadway currently exists and 300 ft of the new ROW for new alignment. The methodology used to identify recorded and potentially eligible properties located in the APE included a records search of public records and a field survey. Background research was conducted to identify properties listed on the National Register of Historic Places (NRHP) and State Archeological Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL). The record search revealed one recorded NRHP, the Louisiana Rio Grande Canal Company system. There were no SAL or RTHL properties or Official Texas Historical Markers (OTHM) located within the project APE.

EVALUATION OF HISTORIC AGE RESOURCES

An April 2009 reconnaissance survey identified 27 historic age properties built before 1965 within the APE. The 27 properties included 17 residential properties, 7 agricultural properties. two industrial and one infrastructure property. One recorded agricultural NRHP listed property, the Louisiana Rio Grande Canal Company system is included in the survey (Resource #2). TxDOT historians determined the twenty-six remaining historic age properties **not eligible** to the NRHP under Criteria A, B and/or C as they do not possess associations with significant historical figures or events, they represent common vernacular types that do not clearly reflect the distinctive characteristic of type, period, method of construction, work of a master, and they do not exhibit high artistic value. Many of these properties also evidence unsympathetic alterations that compromise their integrity of design, workmanship and materials. These findings are discussed in further detail in the attached *Historic Resources Reconnaissance Survey of 9.9 Miles of Road Improvements to Nolana Loop Hidalgo County, TX*

Through consensus with THC, irrigation systems in South Texas are considered eligible pending a more in depth investigation of individual irrigation districts. Components of two unlisted irrigation district systems Hidalgo County Irrigation District #1 (Donna) and Hidalgo and Cameron County Irrigation District #9 (Mercedes Irrigation District) consisting of canals and pipeline were found within the APE and warrant further discussion. Hidalgo County Irrigation District #1 (Donna) was determined **not eligible** as a system under CSJ#0342-01-074.

Mercedes Irrigation District was further evaluated by TxDOT historians in the attached intensive level report *Hidalgo and Cameron Counties Irrigation District No. 9: Intensive Survey Results and Final Recommendations for NRHP Eligibility of the Irrigation System, July 2010* and is determined **not eligible** under Criteria A, B and C. Using the historic context and methodology furnished in TxDOT's accepted *Field Guide to Irrigation in the Lower Rio Grande Valley*[1] the Mercedes Irrigation District is not significant within the historic context or has known associations to persons of transcendent importance. In addition, as noted in the report, no historic age pumping plants remain and more than 50% of the essential physical features of the system have been compromised. Overall, the Mercedes Irrigation District suffers from severe integrity issues to location, design, setting, materials, workmanship, feeling and association and the system no longer has the ability to convey its historic significance.

DETERMINATION OF EFFECTS TO LISTED HISTORIC RESOURCES

In accordance with CFR 800.5, TxDOT Historians applied the *Criteria of Adverse Effect* and determined that the proposed project poses **no adverse effect** to the listed historic properties in the APE. The following discussion details these findings.

The proposed undertaking would affect one bridge crossing and underground pipes and their associated standpipes of the listed NRHP Louisiana-Rio Grande Canal Company Irrigation system (Resource 2); a list detailing the construction impacts for the Louisiana-Rio Grande Canal Company and Mercedes Irrigation District is attached.

[1] Found at http://www.txdot.gov/txdot_library/consultants_contractors/publications/environmental_resources.htm#ems

One 20 ft wide non-historic bridge (Resource 2h) over an existing open irrigation canal would be removed and replaced with a 60 in pipe siphon. The function of the irrigation will not be impaired and water flow will not cease. Through consultation with THC staff for CSJ#1429-01-025 on November 24, 2008, concurrence was received that the relocation of standpipes and/or underground piping for the listed NRHP Louisiana-Rio Grande Canal Company Irrigation system are considered **no adverse effect**. The standpipes are noncontributing features of the system. Underground pipes are not visible, making their integrity questionable according to the standards set forth by the National Park Service and therefore they do not have the ability to convey their significance and they are being moved not removed. Therefore, movement of standpipes and underground pipes poses no adverse effect to the NRHP listed property. Therefore, changes to the underground pipes in the listed system would not be adversely affected by replacement as they do not impair the function of the system as a whole.

Overall, the movement of standpipes and their associated underground pipes will not adversely affect the function or the integrity of the system as a whole. The historic property would still convey its historic significance after the project is complete.

As agreed to in the July 26, 2004 letter of consensus regarding **eligible** south Texas irrigation systems, determinations of effect for transportation projects involving these resources should be based on the impact to the system as a whole. This system is **listed** as a structure and was evaluated in the same manner.

Therefore, it has been determined that the proposed action would have no adverse effect to any of the essential physical features or characteristics that qualify this historic property for inclusion in the NRHP. Nor would the proposed action significantly diminish the listed system's location, design, setting, materials, workmanship, feeling or association. For these reasons, the proposed right-of-way acquisition complies with *de minimis* guidelines because the movement of pipes and standpipes would not affect or diminish the qualities and characteristics that contribute to the significance of the listed property.

TxDOT also asserts that the proposed undertaking would have no reasonably foreseeable adverse effects that may occur later in time, be farther removed in distance, or be cumulative. Any growth pressures that may or may not exist near the property are already in place and the widening of the road would not increase the likelihood that this property's integrity will be diminished as the property has always been adjacent to the roadway. Furthermore, the widening of the existing roadway would not adversely impact the property's ability to convey its historical significance. The expanded roadway therefore would not pose indirect or cumulative adverse effects to the listed property.

For these reasons and as defined in Part 774 of the Section 4(f) Final Rule and Section 6009(a) of SAFETEA-LU, TxDOT Historians intend to recommend to FHWA that the proposed right-of-way acquisition is de minimis due to the fact that the road widening would not affect or diminish the qualities and characteristics that contribute to the historic significance of the property. Furthermore, the widening and extension of Nolana poses no foreseeable indirect or cumulative adverse effects to the NRHP-eligible property because only 0.003% of the property is being taken and would not impair the function of the historic irrigation system.

Nolana Loop from FM 1426 to FM 88
CSJ# 0921-02-169

October 11, 2010

Pursuant to Stipulation VI "Undertakings with Potential to Cause Effects" of the PA-TU, TxDOT Historians determined that the proposed project would have no adverse effect to the historic property and complies with FHWA's de minimis 4(f) guidelines. As a result, TxDOT intends to pursue a de minimis 4(f) determination with FHWA for this project.

We request your concurrence with this determination per the terms of our programmatic agreement. Please return a signed copy of this correspondence for our files within 20 days. We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2555.

Sincerely,

Carolyn A. Nelson

Carolyn A. Nelson, MS
Architectural Historian
Environmental Affairs Division

Attachments: Exhibit 1 – Project maps; Typicals; List of Impacts to Resources 2 & 22; Exhibit M-Schematics of Resources 2 (Louisiana Rio Grande Canal Company/San Juan ID) and 22 (Hidalgo& Cameron Counties ID#9/Mercedes); Parcel maps for each Early Acquisition by Hidalgo County. (1) Disc with Reconnaissance Survey for entire project area and Intensive Survey for Mercedes Irrigation District.

CONCUR: NO ADVERSE EFFECT FOR HISTORIC PROPERTIES
DETERMINATION OF DE MINIMIS IMPACT UNDER SECTION 4(f) GUIDELINES

NAME: _____ DATE: _____
for F. Lawerence Oaks, State Historic Preservation Officer

Texas Department of Transportation

600 W Interstate 2 Expressway, Pharr, TEXAS 78577-6535 | 956.702.6100 | WWW.TXDOT.GOV

May 11, 2017

Ms. Adela Ortega, Chair
Hidalgo County Historical Commission
1310 N. Francisco Avenue
Mission, TX 78572
aortega@missiontexas.us

Re: Nolana Loop:
From FM 1426 (Raul Longoria Road) to FM 88 (Texas Avenue)
Hidalgo County, Pharr District
CSJ: 0921-02-169 & 0921-02-361

Ms. Ortega,

The Texas Department of Transportation (TxDOT) has authorized a project that will widen, improve and construct a new section of Nolana Loop from FM 1426 (Raul Longoria Road) to FM 88 (Texas Avenue). The scope of the proposed project would widen and reconstruct the existing rural roadway from FM 1426 (Raul Longoria Road) to 0.25 miles east of Victoria Road to a four lane urban roadway, and construct a new four lane urban roadway from 0.25 miles east of Victoria Road to FM 88 (Texas Avenue). The proposed 84-foot-wide urban roadway would consist of four 12-foot-wide travel lanes, a 16-foot-wide continuous left turn lane, two 10-foot-wide shoulders, and six-foot-wide sidewalks on both sides of the roadway throughout the project limits within a 120-foot-wide right-of-way (ROW). Drainage would be handled via storm drain system.

We are writing you to inquire if the Hidalgo County Historical Commission is aware of any historic sites, cemeteries, or historically significant bridges in the project area referenced above and to obtain your concurrence on the proposed project. We are aware of the National Register of Historic Places District for the Louisiana-Rio Grande Irrigation District (Hidalgo County Irrigation District #2) in the western section of the project area.

Please sign below with either your approval or denial within 14 days, or we will assume that you have no comments on this project. Thank you for your assistance in this project. If you should need further information concerning this project, please contact me at (956) 702-6243. Thank you for your assistance in this project.

Sincerely,

Edward J. Paradise

Edward Paradise
Pharr District Environmental Project Manager
Texas Department of Transportation
600 W. Interstate 2, Pharr, TX 78557
(956) 702-6243

Approved: _____

Denied: _____

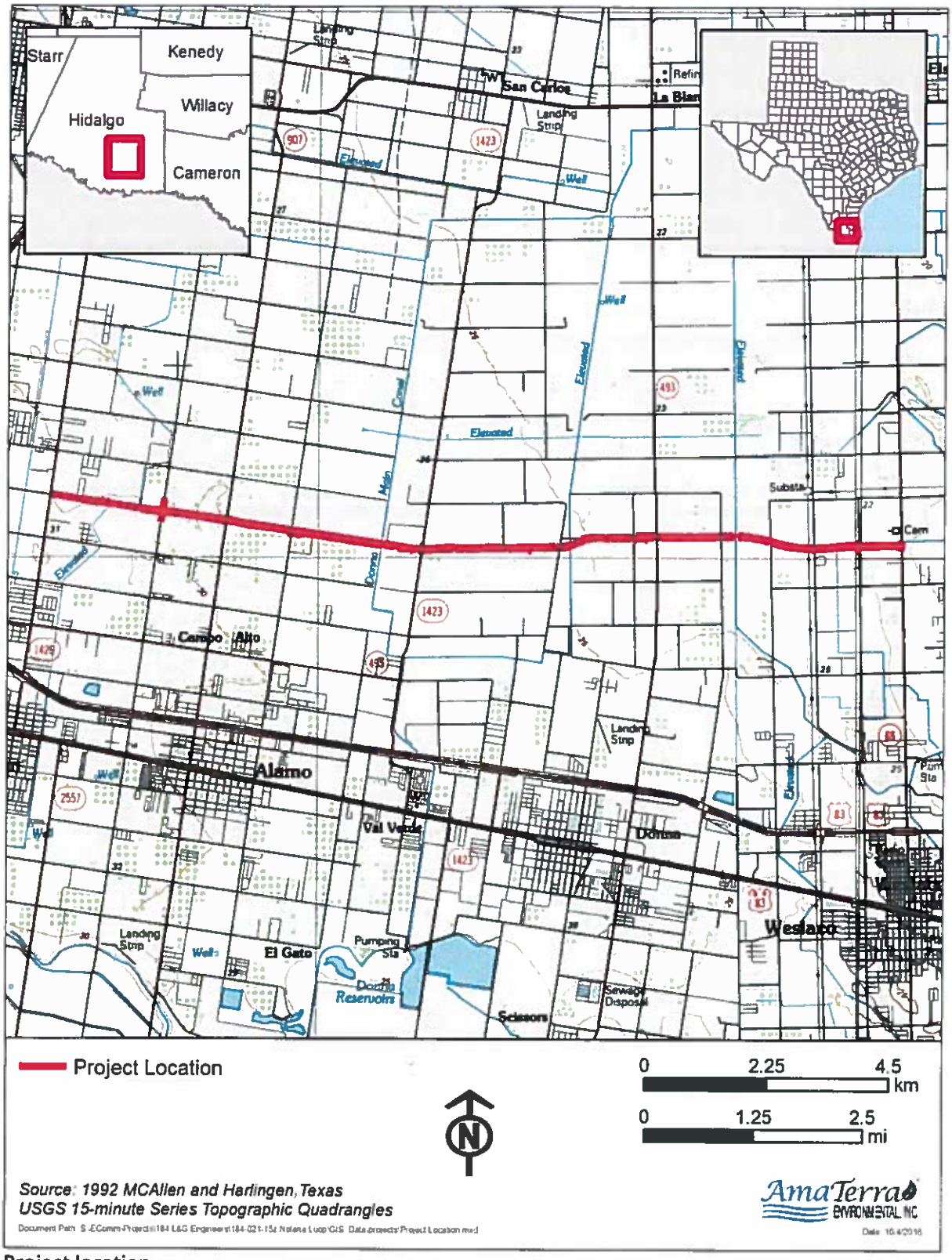
Comments: _____

_____

_____

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.

Nolana Loop: From FM 1426 (Raul Longoria Road) to FM 88 (Texas Avenue)
Hidalgo County, Pharr District
CSJ: 0921-02-169 & 0921-02-361



Project location.

Floodplain Administrator

L&G Engineering
Transportation Consultants

September 30, 2016

Mr. Raul Sesin, P.E., CFM
Hidalgo County Drainage District #1
902 N. Dolittle Rd.
Edinburg, TX 78542

RE: Nolana Loop
From: FM 1426 (Raul Longoria) To: FM 88 (Texas Avenue)
Cities of San Juan and Weslaco, Hidalgo County

Dear Mr. Sesin:

Hidalgo County Precinct #2, in coordination with the Texas Department of Transportation (TxDOT) and Hidalgo County Precinct #1, is proposing to widen, reconstruct, and extend Nolana Loop from FM 1426 (Raul Longoria) in San Juan to FM 88 (Texas Avenue) in Weslaco; a length of approximately 9.8 miles. A location map is attached for your convenience.

The proposed project would provide a continuous, urban 84-foot-wide roadway consisting of four 12-foot-wide travel lanes, one 16-foot-wide continuous left turn lane, two ten-foot-wide shoulders, and six-foot-wide sidewalks on both sides of the roadway within a proposed 120-foot-wide Right-Of-Way (ROW). Drainage would be provided by a storm drain system (see attached typical section).

Hidalgo County, the City of San Juan, and the City of Weslaco are mapped and in the regular phase of the National Flood Insurance Program (NFIP) as administered by the Federal Emergency Management Agency (FEMA). According to the Flood Insurance Rate Map (FIRM), the proposed project is located within the 100 year and 500 year flood zones. The project area is subject to inundation by the 1% annual chance flood event. The attached floodplain map depicts the 100 and 500 year FEMA flood zones within the project limits.

This project would be designed not to increase the base flood elevation to a level that would violate applicable ordinances or regulations. A storm drain system would be constructed on this project, and the hydraulics would be in accordance with current TxDOT and FHWA design policies and standards.

2100 W. Expressway 83 • Mercedes, TX 78570 • Office (956) 565-9813 • Fax (956) 565-9018
900 S. Stewart Rd., Ste. 9 • Mission, TX 78572 • Office (956) 585-1909 • Fax (956) 585-1927

As part of the environmental process, coordination with the floodplain administrator is required; therefore, please sign below with either your approval or denial within 14 days, or we will assume that you have no comments on this project. Thank you for your assistance in this project. If you should need further information concerning this project, please contact me at (956) 585-1909.

Sincerely,

Robert Macheska, P.E., CFM
Project Manager

Attachments

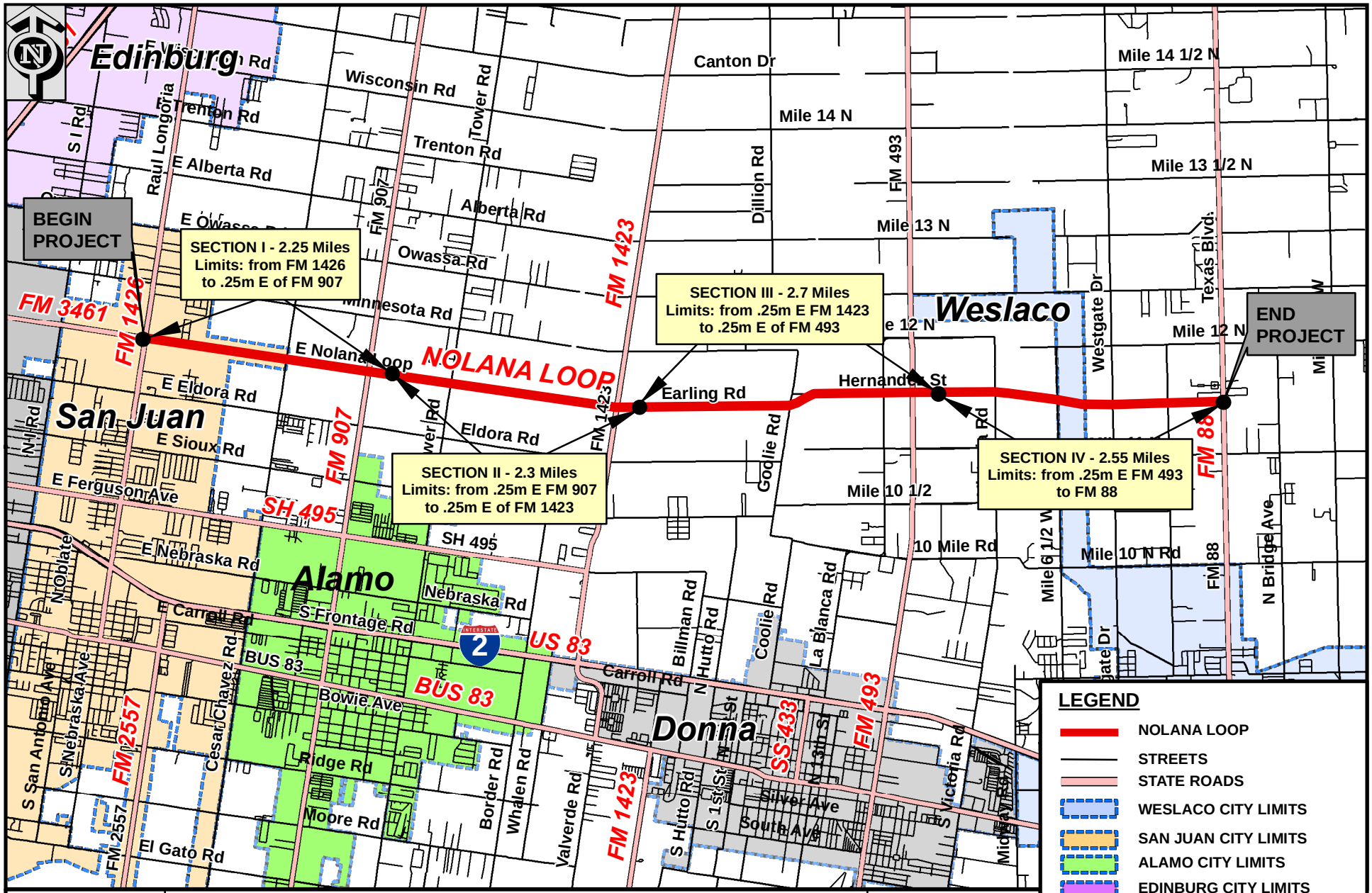
cc. Honorable Eduardo "Eddie" Cantu, Hidalgo County Pct. #2
Mr. Benjamin Arjona, City of San Juan
Mr. Mike Perez, City of Weslaco

Approved:_____

Denied:_____

Comments:_____

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.



NOLANA LOOP LOCATION MAP

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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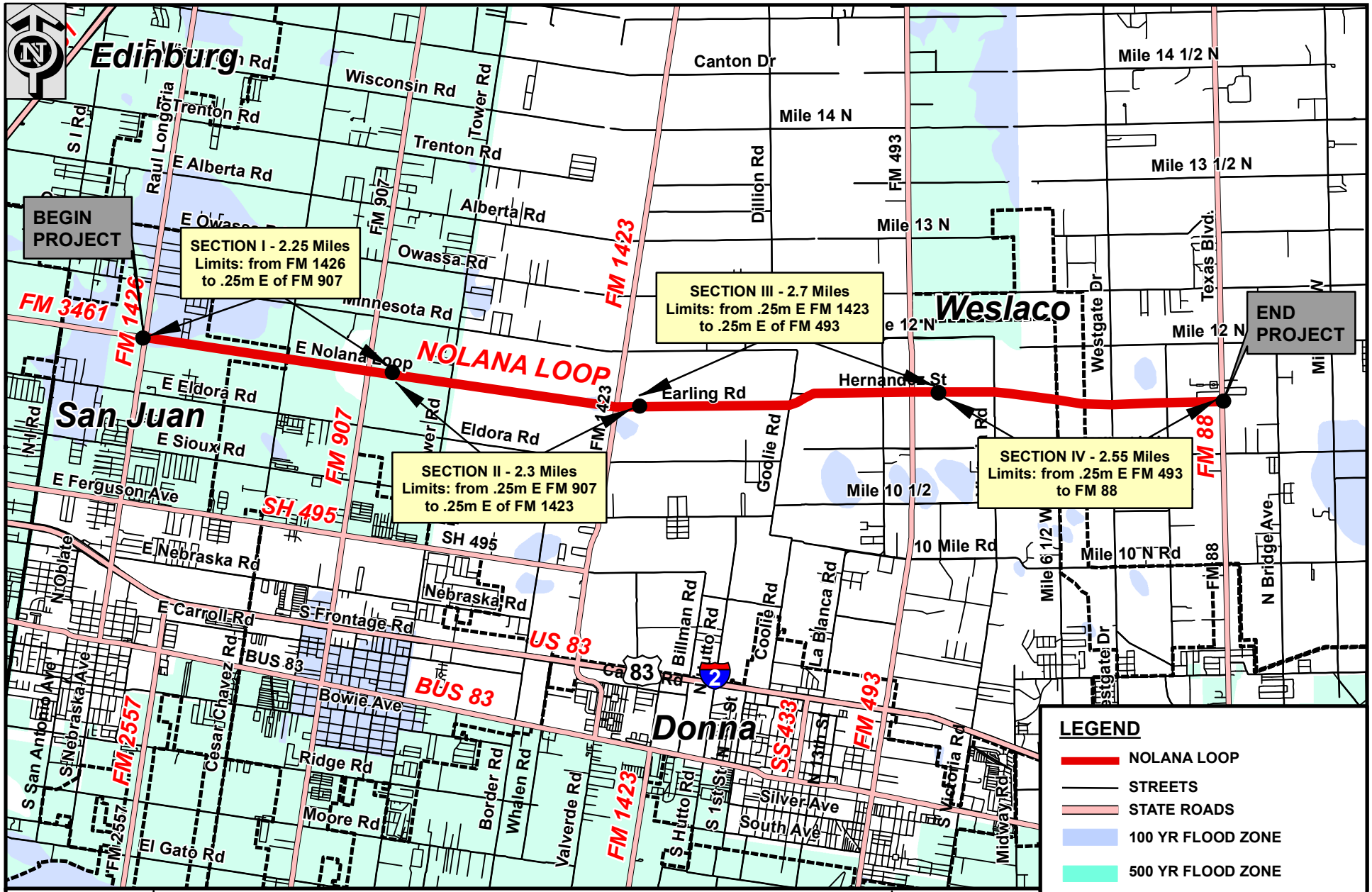

NOLANA LOOP FLOOD ZONE MAP

FROM FM 1426 (RAUL LONGORIA) TO FM 88 (TEXAS BLVD)
APPROX. TOTAL PROJECT LENGTH 9.8 MILES

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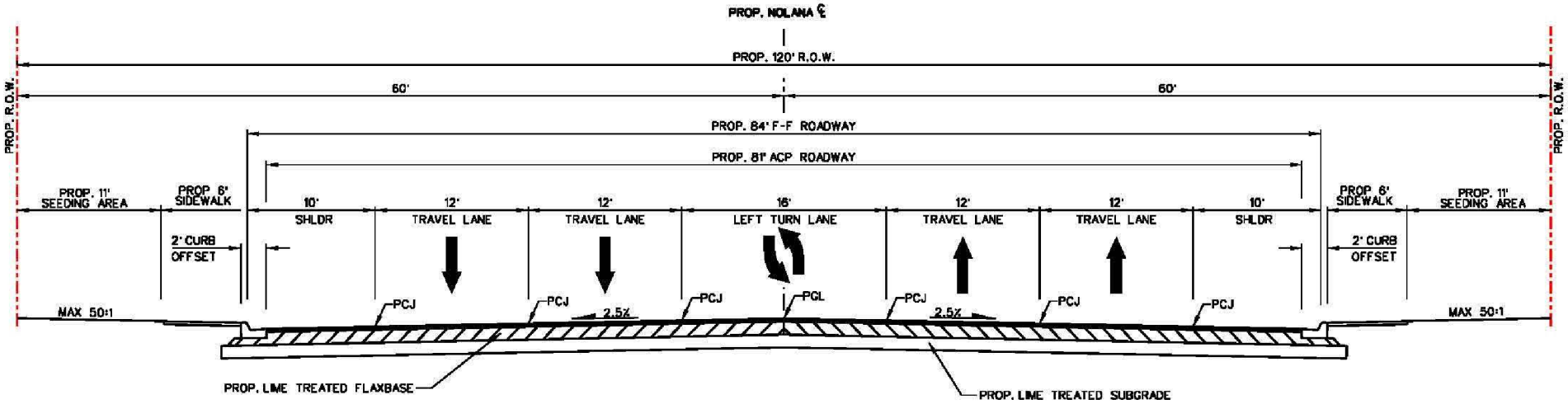

NOLANA LOOP PROPOSED TYPICAL SECTION

FROM FM 1426 (RAUL LONGORIA RD) TO FM 88 (TEXAS BLVD)

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NRCS

USDA

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

March 22, 2017

L&G Engineering
2100 W. Expressway 83
Mercedes, Texas 78570

Attention: Corina A. Argullin, Environmental Specialist

Subject: Nolana Loop Project
NEPA/FPPA Evaluation
Hidalgo County, Texas

We have reviewed the information provided in your correspondence dated March 13, 2017 concerning the proposed roadway construction located in Hidalgo 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 site may involve areas of Prime Farmland; however, we now consider the location to be "land committed to urban development" due to its location within an area of land with a density of 30 structures per 40-acre area. Due to these reasons, this project is exempt from provisions of FPPA. We strongly encourage the use of acceptable 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.

Sincerely,

CARLOS VILLARREAL

Digitally signed by CARLOS VILLARREAL
Date: 2017.03.22 14:50:14 -05'00'

Carlos J. Villarreal
NRCS Soil Scientist

Attachment: None

An Equal Opportunity Provider and Employer

Tribal Coordination

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

September 26, 2007

Ms. Ruth Toahty,
NAGPRA Coordinator
Comanche Nation of Oklahoma
P.O. Box 908
Lawton, OK 73502

RE: CSJ: 0921-02-169; Farm-to-Market Road (FM) 3461 (Nolana Loop Road) from FM 1426 (Raul Longoria Road) to FM 88 (Ruben Hinojosa Highway), Widen and Reconstruct Roadway to Four Lanes; Hidalgo County, Pharr District

Dear Ms. Toahty:

The above referenced transportation project is being considered for construction by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Environmental studies are in the process of being conducted for this project. The purpose of this letter is to contact you in order to initiate Section 106 consultation with your community pursuant to stipulations of the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU). The project is located in an area that is of interest to your tribe.

The proposed project would reconstruct and widen Farm-to-Market Road (FM) 3461 (Nolana Loop Road) from FM 1426 (Raul Longoria Road) to FM 88 (Ruben Hinojosa Highway) to create a continuous east-west travel corridor from McAllen to Weslaco in southern Hidalgo County. The 9.9 mile-long (15.9-kilometer-long) project would include the improvement of existing narrow and deficient roadway, and the construction of new roadway. The proposed project location is depicted on the attached maps of Hidalgo County. A state map depicting the location of Hidalgo County is also attached.

The proposed project would include the acquisition of additional right of way to expand the existing, 40- to 120-foot-wide right of way (ROW) to a 120-foot-wide section throughout the

project length. Road construction would include the expansion of existing road segments and the construction of new roadway. Existing segments of 20-foot-wide rural roadway would be widened to ultimately accommodate an 88-foot-wide divided highway, with eastbound and westbound lanes separated by a 34-foot-wide raised median. Each side of the highway would consist of a 27-foot-wide face-to-face urban section composed of two 12.5- to 13-foot-wide travel lanes and 1.5-foot-wide outside gutters. Crossovers would be provided at maximum intervals of 0.25 mile (1,320 feet) to accommodate existing road intersections and to allow for U-turns. Proposed highway sections would include transition segments up to 0.25 mile (1,320 feet) in length at major intersections. Sidewalks and signalized pedestrian crossings shall be included at appropriate locations. Three bridges would be constructed across at existing elevated irrigation/drainage facilities. A new storm sewer system would be installed to drain water into existing drainage ditches that intersect with the proposed project area.

Two sections of interim roadway would be constructed in a manner that would allow for the construction of the ultimate section without requiring a complete reconstruction. Expansion of interim sections to meet the final design specifications would be triggered by an appropriate increase in traffic volume on the interim facility. The segment of FM 3461 from FM 1426 to 0.1 mile east of Cesar Chavez Road (a distance of 1.35 miles) would consist of a 64-foot-wide, face-to-face urban section composed of four 12- foot-wide travel lanes, a 14-foot-wide center turn-lane, and one-foot-wide outside gutters. The portion of FM 3461 from 0.1 mile east of Cesar Chavez Road to FM 88 (a distance of 8.55 miles) would consist of a 44-foot-wide rural section consisting of two 12-foot-wide travel lanes and 10-foot-shoulders. Graded roadside ditches would be excavated and existing drainage structures would be extended or replaced to accommodate the interim road width.

The horizontal extent of the area of potential effects (APE) for this 9.9-mile-long (15.9-kilometer-long) project comprises roughly 90 acres of existing ROW, and would require approximately 112 acres of additional ROW within the project limits. The preferred alignment would require variable amounts of additional ROW from both sides of the existing ROW where expansion would be needed. The location of proposed additional ROW would be to the left and right of the existing alignment centerline as necessary to minimize encroachments on and disruptions to adjacent properties. Project plans have not specified impact depths in detail. Road construction impacts should not extend more than 3.5 feet (1.1 meters) below existing road surfaces, and not more than four feet (1.22 meters) below the surface in parts of the APE where new road construction would be required. The modification or replacement of existing culverts should not extend more than 8.0 feet (2.4 meters) below the existing road surface. The reader shall assume that drainage ditch excavation could extend to a depth of 6.0 feet (1.8 meters) below the surface of existing and proposed roads. Disturbances associated with the installation of storm sewers could extend to a depth of 15 feet (4.6 meters) below the surface. Impacts associated with new bridge construction would require cutting channel banks to a depth of at least 15 feet (4.6 meters) below the level of ditch and canal berm tops for a distance of at least 25 feet (7.6 meters) from the ditch sides.

A check of the Texas Archeological Sites Atlas (Atlas) (on September 20, 2007) indicated that the western portion of the APE is located within the Hidalgo County Irrigation District No. 2, which was listed in the National Register of Historic Places (NRHP) in 1995. The Atlas depicted two previous archeological surveys along FM 1426 ROW. These linear surveys passed the west terminus of the current project area. These investigations were conducted by TxDOT in 1995 and 1996 (Price, G.R.D. 1996: *Archeological Resources Assessment Survey Report, FM 1426, from 0.2 miles north of FM 3461, south to US 83*, Texas Department of Highways and Public Transportation, Austin). Another linear survey that does not appear on the Atlas maps is the 1990 TxDOT investigation of FM 3461 ROW from US 281 to FM 1426 (Weir, F.A. 1990: *FM 3461: from US 281 to FM 1426, Hidalgo County*, Letter Report, Texas Department of Highways and Public Transportation, Austin). No archeological sites were identified in any of these surveys, and no previously recorded archeological sites were mapped within one kilometer (0.621 mile) of the proposed APE.

The APE is located on sediments derived from the Pleistocene-age Beaumont Formation and on stabilized sand dune deposits of Holocene age (The University of Texas at Austin, Bureau of Economic Geology, Geologic Atlas of Texas, McAllen-Brownsville Sheet 1976). These geologic deposits are almost evenly divided within the APE, with slightly more of the proposed area being located over the Beaumont Formation. Areas where sediments are derived from the Beaumont formation are characterized by geologically stable settings where relatively little deposition has occurred since the Pleistocene. Archaeological materials located in such stable depositional regimes are typically found at or close to the modern ground surface, making them more susceptible to recent disturbance. Stabilized dune areas are characterized by variable rates of deposition and include active blowout areas with depressed relief that can become freshwater marsh in the wet season. Cultural materials located in these environments can be buried and exposed multiple times through the power of the wind. Aeolian processes serve to destroy discrete archeological deposits and mix artifacts from different time periods. Any archeological materials that might have been located in the proposed APE likely would have been disturbed or destroyed by previous land clearing, agricultural activity, canal and drainage ditch excavation and berm construction, highway construction, utilities placement, and commercial and residential property development.

The majority of the currently proposed APE was surveyed by SWCA, Inc. in 2004 under TAC permit no. 3525 (see attached report). This investigation covered about 7.8 miles (12.6 kilometers) of the currently proposed 9.9-mile-long (15.9-kilometer-long) APE, which includes 144 acres of the approximately 202-acre APE (a little more than 70 percent). No sites were identified in the surveyed area. This investigation indicated that segments of existing and proposed APE were extensively disturbed by a range of activities associated with cultivation, road construction, property development, utilities installation, and use of one area as a landfill. Any archeological deposits that might have been located within and adjacent to the investigated area likely will have been extensively disturbed or destroyed by previous activities.

Approximately 2.1 miles at the east end of the APE was not surveyed due to lack of existing roadways and private property restrictions. Previous designs for a separated highway in the last

two miles of the APE (with a north and south fork) have been abandoned in favor of a single alignment. The currently proposed alternative would follow the south fork of the previous design alternative.

New roads have been constructed in the location of the unsurveyed APE segment since the field investigation. Google Earth Pro (accessed on September 21, 2007) currently depicts 1.5 miles (2.4 kilometers) of paved road and about 0.3 mile (0.5 kilometer) of dirt road in this location. Much of the surrounding area has been converted (or is in the process of being converted) into residential developments. A 0.3-mile-long (0.5-kilometer-long) segment of the uninvestigated section of the alignment does not include existing roads, but this area has been disturbed by previous agricultural activity, canal and ditch excavation, and recent property development. If any archeological deposits are located within the 2.1-mile-long (3.4-kilometer-long) segment of APE that was not covered by the previous archeological survey (this would include approximately 30.5 acres under proposed design plans), these materials likely will have been extensively disturbed, if not destroyed, by road construction and other recent activities.

The current records review and the archeological field investigation indicate that the majority of the existing ROW has been extensively disturbed by road construction, adjacent drainage ditch excavation, and utilities installation. The APE has been further impacted by previous or ongoing agricultural activities. Segments of the proposed APE have been extensively disturbed by the excavation of elevated canal and ditch channels, and the construction of associated berms. No artifacts, archeological deposits, or settings with reasonable potential to contain intact archeological deposits were identified within surveyed segments of the proposed APE. For these reasons, TxDOT finds that the undertaking would not affect archeological historic properties (36 CFR 800.16.(l)(1)) within investigated portions of the proposed APE, and no additional investigations are recommended in these areas. The survey report suggests that unsurveyed segments of the proposed APE should be investigated for archeological resources. However, given the characteristics of the underlying geology in this segment of the APE, indications of extensive recent disturbance in this area, and the findings of the previous investigation, TxDOT recommends that archeological investigation of the 2.1-mile-long (3.4-kilometer-long) segment of unsurveyed APE is unwarranted.

According to our Programmatic Agreement under Section 106 of the National Historic Preservation Act, we are writing to request your comments on historic properties of cultural or religious significance to your tribe that may be affected by the proposed undertaking. Any comments you may have on the TxDOT recommendation should also be provided. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object with the recommendation of "no historic properties affected," please sign below to indicate your concurrence. In the event that further investigations by our office disclose the presence of archeological deposits, we will contact your tribe to continue consultation.

Thank you for your attention to this matter. If you have questions, please contact me at 512/416-2631 (email: spletka@dot.state.tx.us).

Sincerely,

Scott Pletka, Ph.D., RPA, Supervisor
Archeological Studies Branch
Environmental Affairs Division

Concurrence by: _____ Date: _____

Attachments

cc w/attachments: Barbara Maley, Environmental Coordinator FHWA; Juan Alcazar, TxDOT Pharr District Environmental Coordinator; Edd Paradise, ENV-PM TxDOT; Scott Pletka, ENV-ARCH TxDOT; ENV-ARCH Project File

cc w/o attachments: ETS Scan

The attached letter was sent to the following tribes on September 26, 2007:

Ms. Ruth Toahty,
NAGPRA Coordinator
Comanche Nation of Oklahoma
P.O. Box 908
Lawton, OK 73502

Mr. Billy Evans Horse, Chairperson
Kiowa Indian Tribe of Oklahoma
P.O. Box 369
Carnegie, OK 73015

Mr. Mark Chino, President
c/o Holly Houghten
Mescalero Apache Tribe
P.O. Box 227
Mescalero, NM 88340

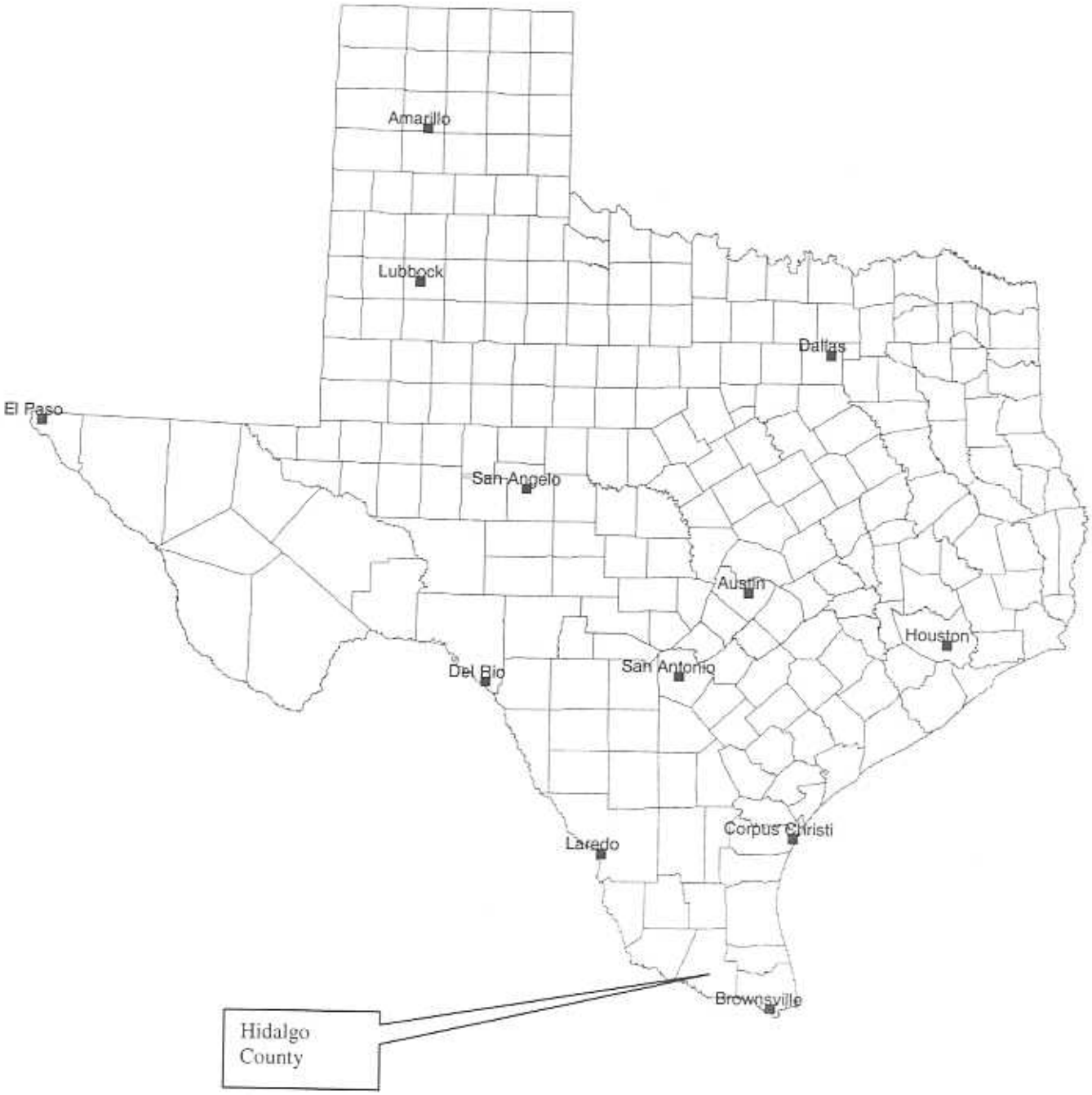
Mr. Anthony Street, President
Tonkawa Tribe of Indians of Oklahoma
1 Rush Buffalo Rd
Tonkawa, OK 74653

County Location Map

County: Hidalgo

Project CSJ: 0921-02-169

Project Name: Farm-to-Market Road (FM) 3461 (Nolana Loop Road) from FM 1426 (Raul Longoria Road) to FM 88 (Ruben Hinojosa Highway), Pharr District



Appendix E

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

Main CSJ: 0921-02-169
District(s): Pharr
County(ies): Hidalgo
Property ID: HCID #2 (Irrigation System)
Property Name: HCID #2

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

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

What Type of Property is Being Evaluated?

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

Section 4(f) Defining Criteria for Historic Properties

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

Establishing Section 4(f) Use of the Property

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

Establishing Section 4(f) *De Minimis* Eligibility

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

Documentation

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

1. Brief project description
2. Explanation of how the property will be used.
3. A detailed map of the Section 4(f) property including:
   a. Current and proposed ROW
   b. Property boundaries
   c. Existing and planned facilities
4. Concurrence letter with the Official with Jurisdiction

TxDOT Approval Signatures

ENV Technical Expert Reviewer Certification

I reviewed this checklist and all attached documentation and confirm that the above property and proposed project meet the requirements of 23 CFR 774 for a Section 4(f) *De Minimis* finding.

ENV Personnel Name _____ Date 7-7-17

TxDOT-ENV Section 4(f) *De Minimis* Final Approval

Based upon the above considerations, this Section 4(f) *De Minimis* satisfies the requirements of 23 CFR 774.

TxDOT-ENV, PD Director or designee _____ Date 7/10/17

Project description- Nolana Loop, Hidalgo Co

The existing 22-foot-wide rural roadway consists of two 11-foot-wide travel lanes, within a varying 30 to 120-foot-wide ROW. Drainage for the roadway is handled by roadside ditches. There is no existing roadway from Victoria Road east to FM 88; a distance of approximately 2.5 miles.

The proposed project would construct an 84-foot-wide urban facility consisting of four 12-foot wide travel lanes, one 16-foot-wide continuous left turn lane, two 10-foot wide shoulders and six foot-wide sidewalks on both sides of the roadway within a 120-foot-wide ROW. Storm drains would provide for water runoff.

NRHP eligible property

The NRHP-listed Louisiana-Rio Grande Canal Company Irrigation System Historic District is located in the APE. This district is currently known as Hidalgo County Irrigation District #2 (HCID #2). It is identified as resource #2 in the attached plan sets and letters.

***De Minimis* Impact Finding**

The proposed undertaking would relocate one field drain (non-contributing), fourteen standpipes (non-contributing), and replace pipelines (non-contributing), as well as replacing an existing bridge (non-contributing) over a canal (contributing) with a 180' long siphon. The function of the irrigation system will not be impaired, nor would it cease to exist. Therefore, these actions would cause no adverse effect to the NRHP-listed resources. The historic property would still convey its historic significance after the project is complete. These criteria comport with the "no adverse effect" determination process outlined in the July 15, 2004 consensus agreement with SHPO.

Furthermore, it was determined that the proposed action would not significantly diminish the system's location, design, setting, materials, workmanship, feeling or association. For these reasons, the proposed project complies with de minimis guidelines because the project activities would not affect or diminish the qualities and characteristics that contribute to the significance of the historic property.

TxDOT determined that the proposed project meets the requirements for a Section 4(f) *de minimis* impact finding under 23 CFR 774. TxDOT is basing its determination on the fact that the use for the HCID #2 amounts to less than 1% of the property's overall acreage and the project will have **no adverse effect** on the NRHP-eligible property. The Texas SHPO concurred with this determination and TxDOT notified SHPO of their OWJ role accordingly (see attached correspondence). This de minimis finding does not require the traditional second step of including all possible planning to minimize harm because avoidance, minimization, mitigation, or enhancement measures are included as part of this determination.

Texas Department of Transportation

MEMO

June 29, 2017

TO: Administrative File
From: Renee Benn

District: Pharr
County: Hidalgo
CSJ#: 0921-02-169
Highway: Nolana Loop
Let Date: 2030

Project Limits: FM 1426 (Raul Longoria Rd) to FM 88 (Texas Ave) (9.8 miles)
Project Description: Stipulation IX, Appendix 6. Widen from current zero-two lane to five lanes with sidewalks. 82.6 acres of new ROW. No historic, non-archeological properties present.

SUBJECT: Internal review under the Section 106 Programmatic Agreement (Section 106 PA) among the Texas Department of Transportation, Texas State Historic Preservation Officer, Advisory Council on Historic Preservation, and Federal Highway Administration; and the Memorandum of Understanding (MOU) between the Texas Historical Commission and the Texas Department of Transportation

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.

**Please note this is a recoordination of a project originally cleared in 2010 with the same limits, but with less required new ROW in 2017. TxDOT brought up the HRSR cut off date to 1985 due to the change in let date, requiring survey of properties dating to 1985. See below and HRSR for further details.

Existing Conditions:
The existing 22-foot-wide rural roadway consists of two 11-foot-wide travel lanes, within a varying 30 to 120-foot-wide ROW. Drainage for the roadway is handled by roadside ditches. There is no existing roadway from Victoria Road east to FM 88; a distance of approximately 2.5 miles.

Proposed Project:
The proposed project would construct an 84 - foot - wide urban facility consisting of four 12 - foot wide travel lanes, one 16 - foot - wide continuous left turn lane, two 10 - foot wide shoulders and six foot - wide sidewalks on both sides of the roadway within a 120 - foot - wide ROW. Storm drains would provide for water runoff.

Determination of Eligibility:

TxDOT historians reviewed the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files and found one historically significant resources previously documented within the area of potential effects (APE). The APE contains the NRHP-listed Hidalgo County Irrigation District #2 (HCID #2) and effects were previously coordinated with TxDOT and SHPO with a finding of no adverse effect. See attached letters. Therefore this memo does not redetermine effects to the HCID #2, as they have not changed in scope. The TxDOT Section 106 Programmatic Agreement defines the APE for this project as 150' from the ROW where the alignment follows an existing city street and 300' from the ROW on the new location section.

In 2009, TxDOT historians completed a reconnaissance-level historic resources survey for the proposed project. TxDOT found 27 historic-age properties (built before 1965), all of which (except HCID #2) TxDOT and the SHPO determined not NRHP-eligible (see attached letter).

Due to the passage of time and change in let schedule since 2009, TxDOT completed a reconnaissance-level survey to inventory and evaluate historic resources built between 1965 and 1985 (to account for the new 2030 letting date). The 2017 historic resources survey identified 31 historic-age properties.

The 31 properties constructed between 1965-1985 consist of residential, funerary, agricultural and commercial types. TxDOT historians determined that the properties are common designs that lack architectural merit, are not works of a master, and have no known historic associations with important events or persons, and are therefore **not eligible** for NRHP listing under Criterion A, B, or C.

Therefore, pursuant to Stipulation IX, Appendix 6 "Undertakings with the Potential to Cause Effects per 36 CFR 800.16(i)" of the Section 106 PA and the MOU, TxDOT historians determined that there are no newly discovered (since 2009) historic, non-archeological properties in the APE. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects. Individual project coordination with SHPO is not required.

Lead Reviewer RMDobrasko for TxDOT 6/29/2017
Rebekah Dobrasko Date

Approved by for TxDOT 7.05.17
Bruce Jensen Date

November 1, 2010

Carolyn Nelson
Architectural Historian
Cultural Resources Management Section
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701

Re: Section 106 Review of Nolana Loop from FM 1426 to FM 88, Hidalgo County (FHWA)
TxDOT CSJ# 0921-02-169

Dear Mrs. Nelson:

Thank you for submitting the information regarding the above-mentioned project. This letter serves as a comment from the State Historic Preservation Officer (SHPO), the Executive Director of the Texas Historical Commission (THC).

Texas Historical Commission staff has completed a review of the documentation provided. Based on the information we received, we concur with the determination that, with the exception of the resources associated with the National Register-listed Louisiana-Rio Grande Canal Irrigation System, none of the identified resources in the Area of Potential Effect are eligible for listing in the National Register of Historic Places.

This concurrence includes the Mercedes Irrigation District; however, we have additional comments related to this irrigation system and the evaluation within your intensive survey report. First, we disagree with the statement in your letter that indicates the Mercedes Irrigation District is not significant within the historic context. The intensive survey report indicates that it is significant, but that it does not have sufficient integrity to convey that significance. We agree that the loss and replacement of major elements of the irrigation system, such as the pumphouses, render the system as a whole to be ineligible.

THC identified concerns and questions about the methodology of your historic irrigation context in two formal letters during review of the draft and six intensive surveys that applied the methodology, and THC never concurred with the final version. Specifically, THC expressed concern regarding the assertion that an irrigation system could only be considered as a single structure and individual components, including pumphouses, canals, and other major features, could not be separated out from the rest of the system. As a result, either a system is considered eligible as a whole entity or not at all. Our continued concern is that there may be cases where individual components of an irrigation system could, by themselves, be eligible for listing in the National Register of Historic Places. Based on our review of the report, we have identified an element of the Mercedes Irrigation District that may fit this category: the Anacuitas Flume. Our review of the material you submitted indicates that the flume is outside of the APE and the project will not affect it. However, we wish to indicate to you at this time that we do not feel that the information provided is sufficient to support a determination that the flume is not eligible for

listing in the National Register of Historic Places. Extant historic flumes, from our review of the historic context for irrigation in South Texas, are rare. They are engineered structures, similar to bridges on roadways or aqueducts in irrigation systems in other parts of the world, and like these other resource types, can be considered as independent engineered structures that can be evaluated individually for listing in the National Register of Historic Places. The report does not indicate the date of the structure, nor supply any information regarding its engineering. While the report does indicate alterations to the flume in the 1960s, it is not clear how extensive the alterations were. Loss of integrity of setting and feeling from the construction of US 83 may not be sufficient to render the structure, particularly if it is significant for its engineering, ineligible for listing in the National Register of Historic Places. It is possible, therefore, that this flume is eligible under Criterion C for engineering and/or Criterion A. Again, please refer to THC's former letters in which we indicated the possibility that individual major components of an irrigation system, if sufficiently rare and/or significant, could break the rules of the methodology. We concur with the finding of the intensive study that identified the Mercedes Irrigation District office in Mercedes as eligible for listing in the National Register of Historic Places under Criterion A for agriculture and Criterion C for architecture, both at the local level of significance.

Finally, we have considered your determination that the project will have no adverse effect to the listed irrigation system, despite the relocation of one field drain, fourteen standpipes, and the replacement of several pipelines, as well as replacing an existing bridge over a canal with a 180' long siphon. Based on agreement from earlier letters regarding TxDOT projects in South Texas, we concur that standpipes cannot be considered character-defining features of an irrigation system because they indicate underground pipelines, which in the methodology and context study, "The Creation of a Magic Valley," as well as the July 26, 2004 coordination letter between our agencies, evinces a loss of integrity. Therefore, effects to these features cannot be considered adverse effects to this National Register-listed system. As the above-mentioned letter states that projects such as road widening or bridge widening do not typically pose effects for character-defining features or the overall system's historic integrity, we find that this project will have no adverse effect to the National Register listed Louisiana Rio Grande Canal Company Irrigation System. We understand from your letter that TxDOT intends to pursue a *de minimis* ruling from the Federal Highway Administration based on this determination of no adverse effect.

Thank you for your participation in this federal review process. If you have any questions concerning this review or if we can be of further assistance, please contact Adrienne Campbell at 512/936-7403.

Sincerely,

Mark Wolfe

Mark Wolfe
State Historic Preservation Officer

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

October 11, 2010

SECTION 106: Determination of Eligibility and Effects
SECTION 4(f): Notification of intent to pursue 4(f) determination

Hidalgo County (Pharr District)
CSJ# 0921-02-169

RE: Nolana Loop from FM 1426 to FM 88

Ms. Adrienne Campbell
History Programs
Texas Historical Commission
Austin, Texas 78711

Dear Ms. Campbell:

The referenced undertaking would be carried out with federal funding. In accordance with the first amended Programmatic Agreement (PA) between the Texas Department of Transportation (TxDOT), the Federal Highway Administration (FHWA), the Advisory Council for Historic Preservation (ACHP), and the Texas Historical Commission (THC), this letter continues Section 106 consultation (36 CFR 800.4) on the effect the proposed undertaking would pose for historic properties located within the project's area of potential effects (APE.)

INTRODUCTION

The Proposed undertaking consists of the widening of and improving 9.9 miles of Nolana Loop from FM 1426 (Raul Longoria Rd) to FM 88 (Ruben Hinojosa Hwy), which currently consists of two lanes with no shoulders. The current right-of-way (ROW) is 40 ft wide. The proposed undertaking plans to expand the roadway to four lanes with a raised center median and curb and gutter installations along the entire 9.9 mile length. The easternmost two miles would be on new alignment.

New ROW totaling 111.5 acres would be acquired on one or both sides to increase the ROW width to 120 ft. Since 2001, Hidalgo County has acquired land from 16 individual parcel ranging from 0.039 to 0.955 acres for a total of 5.756 acres. Individual parcel maps and pictures are attached.

Per the terms of our PA, the APE for the project was determined to be 150 ft beyond the proposed new ROW where roadway currently exists and 300 ft of the new ROW for new alignment. The methodology used to identify recorded and potentially eligible properties located in the APE included a records search of public records and a field survey. Background research was conducted to identify properties listed on the National Register of Historic Places (NRHP) and State Archeological Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL). The record search revealed one recorded NRHP, the Louisiana Rio Grande Canal Company system. There were no SAL or RTHL properties or Official Texas Historical Markers (OTHM) located within the project APE.

EVALUATION OF HISTORIC AGE RESOURCES

An April 2009 reconnaissance survey identified 27 historic age properties built before 1965 within the APE. The 27 properties included 17 residential properties, 7 agricultural properties. two industrial and one infrastructure property. One recorded agricultural NRHP listed property, the Louisiana Rio Grande Canal Company system is included in the survey (Resource #2). TxDOT historians determined the twenty-six remaining historic age properties **not eligible** to the NRHP under Criteria A, B and/or C as they do not possess associations with significant historical figures or events, they represent common vernacular types that do not clearly reflect the distinctive characteristic of type, period, method of construction, work of a master, and they do not exhibit high artistic value. Many of these properties also evidence unsympathetic alterations that compromise their integrity of design, workmanship and materials. These findings are discussed in further detail in the attached *Historic Resources Reconnaissance Survey of 9.9 Miles of Road Improvements to Nolana Loop Hidalgo County, TX*

Through consensus with THC, irrigation systems in South Texas are considered eligible pending a more in depth investigation of individual irrigation districts. Components of two unlisted irrigation district systems Hidalgo County Irrigation District #1 (Donna) and Hidalgo and Cameron County Irrigation District #9 (Mercedes Irrigation District) consisting of canals and pipeline were found within the APE and warrant further discussion. Hidalgo County Irrigation District #1 (Donna) was determined **not eligible** as a system under CSJ#0342-01-074.

Mercedes Irrigation District was further evaluated by TxDOT historians in the attached intensive level report *Hidalgo and Cameron Counties Irrigation District No. 9: Intensive Survey Results and Final Recommendations for NRHP Eligibility of the Irrigation System, July 2010* and is determined **not eligible** under Criteria A, B and C. Using the historic context and methodology furnished in TxDOT's accepted *Field Guide to Irrigation in the Lower Rio Grande Valley*[1] the Mercedes Irrigation District is not significant within the historic context or has known associations to persons of transcendent importance. In addition, as noted in the report, no historic age pumping plants remain and more than 50% of the essential physical features of the system have been compromised. Overall, the Mercedes Irrigation District suffers from severe integrity issues to location, design, setting, materials, workmanship, feeling and association and the system no longer has the ability to convey its historic significance.

DETERMINATION OF EFFECTS TO LISTED HISTORIC RESOURCES

In accordance with CFR 800.5, TxDOT Historians applied the *Criteria of Adverse Effect* and determined that the proposed project poses **no adverse effect** to the listed historic properties in the APE. The following discussion details these findings.

The proposed undertaking would affect one bridge crossing and underground pipes and their associated standpipes of the listed NRHP Louisiana-Rio Grande Canal Company Irrigation system (Resource 2); a list detailing the construction impacts for the Louisiana-Rio Grande Canal Company and Mercedes Irrigation District is attached.

[1] Found at http://www.txdot.gov/txdot_library/consultants_contractors/publications/environmental_resources.html#ems

One 20 ft wide non-historic bridge (Resource 2h) over an existing open irrigation canal would be removed and replaced with a 60 in pipe siphon. The function of the irrigation will not be impaired and water flow will not cease. Through consultation with THC staff for CSJ#1429-01-025 on November 24, 2008, concurrence was received that the relocation of standpipes and/or underground piping for the listed NRHP Louisiana-Rio Grande Canal Company Irrigation system are considered **no adverse effect**. The standpipes are noncontributing features of the system. Underground pipes are not visible, making their integrity questionable according to the standards set forth by the National Park Service and therefore they do not have the ability to convey their significance and they are being moved not removed. Therefore, movement of standpipes and underground pipes poses no adverse effect to the NRHP listed property. Therefore, changes to the underground pipes in the listed system would not be adversely affected by replacement as they do not impair the function of the system as a whole.

Overall, the movement of standpipes and their associated underground pipes will not adversely affect the function or the integrity of the system as a whole. The historic property would still convey its historic significance after the project is complete.

As agreed to in the July 26, 2004 letter of consensus regarding **eligible** south Texas irrigation systems, determinations of effect for transportation projects involving these resources should be based on the impact to the system as a whole. This system is **listed** as a structure and was evaluated in the same manner.

Therefore, it has been determined that the proposed action would have no adverse effect to any of the essential physical features or characteristics that qualify this historic property for inclusion in the NRHP. Nor would the proposed action significantly diminish the listed system's location, design, setting, materials, workmanship, feeling or association. For these reasons, the proposed right-of-way acquisition complies with *de minimis* guidelines because the movement of pipes and standpipes would not affect or diminish the qualities and characteristics that contribute to the significance of the listed property.

TxDOT also asserts that the proposed undertaking would have no reasonably foreseeable adverse effects that may occur later in time, be farther removed in distance, or be cumulative. Any growth pressures that may or may not exist near the property are already in place and the widening of the road would not increase the likelihood that this property's integrity will be diminished as the property has always been adjacent to the roadway. Furthermore, the widening of the existing roadway would not adversely impact the property's ability to convey its historical significance. The expanded roadway therefore would not pose indirect or cumulative adverse effects to the listed property.

For these reasons and as defined in Part 774 of the Section 4(f) Final Rule and Section 6009(a) of SAFETEA-LU, TxDOT Historians intend to recommend to FHWA that the proposed right-of-way acquisition is de minimis due to the fact that the road widening would not affect or diminish the qualities and characteristics that contribute to the historic significance of the property. Furthermore, the widening and extension of Nolana poses no foreseeable indirect or cumulative adverse effects to the NRHP-eligible property because only 0.003% of the property is being taken and would not impair the function of the historic irrigation system.

Nolana Loop from FM 1426 to FM 88
CSJ# 0921-02-169

October 11, 2010

Pursuant to Stipulation VI "Undertakings with Potential to Cause Effects" of the PA-TU, TxDOT Historians determined that the proposed project would have no adverse effect to the historic property and complies with FHWA's de minimis 4(f) guidelines. As a result, TxDOT intends to pursue a de minimis 4(f) determination with FHWA for this project.

We request your concurrence with this determination per the terms of our programmatic agreement. Please return a signed copy of this correspondence for our files within 20 days. We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2555.

Sincerely,

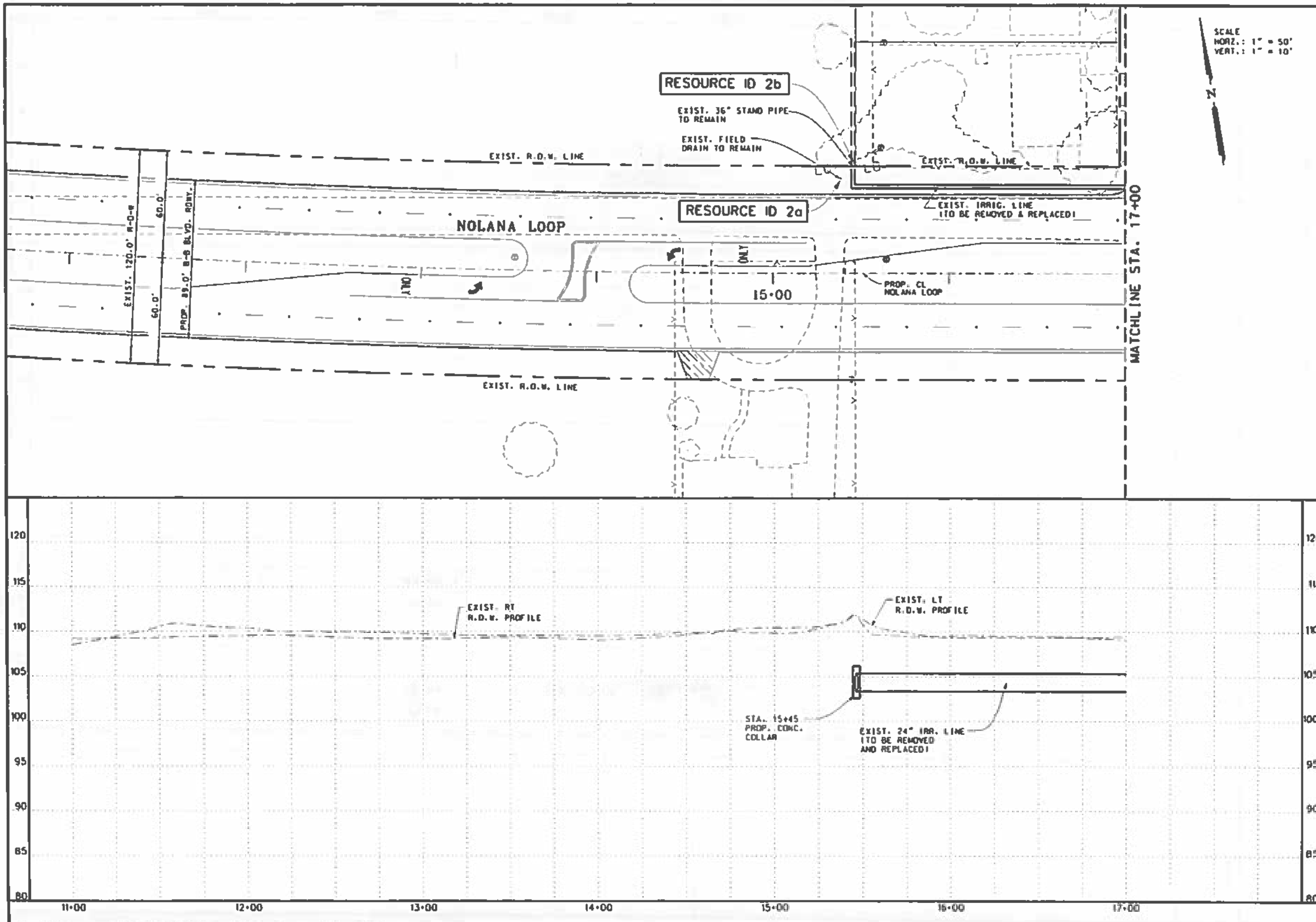
Carolyn A. Nelson

Carolyn A. Nelson, MS
Architectural Historian
Environmental Affairs Division

Attachments: Exhibit 1 – Project maps; Typicals; List of Impacts to Resources 2 & 22; Exhibit M-Schematics of Resources 2 (Louisiana Rio Grande Canal Company/San Juan ID) and 22 (Hidalgo& Cameron Counties ID#9/Mercedes); Parcel maps for each Early Acquisition by Hidalgo County. (1) Disc with Reconnaissance Survey for entire project area and Intensive Survey for Mercedes Irrigation District.

CONCUR: NO ADVERSE EFFECT FOR HISTORIC PROPERTIES
DETERMINATION OF DE MINIMIS IMPACT UNDER SECTION 4(f) GUIDELINES

NAME: _____ DATE: _____
for F. Lawerence Oaks, State Historic Preservation Officer



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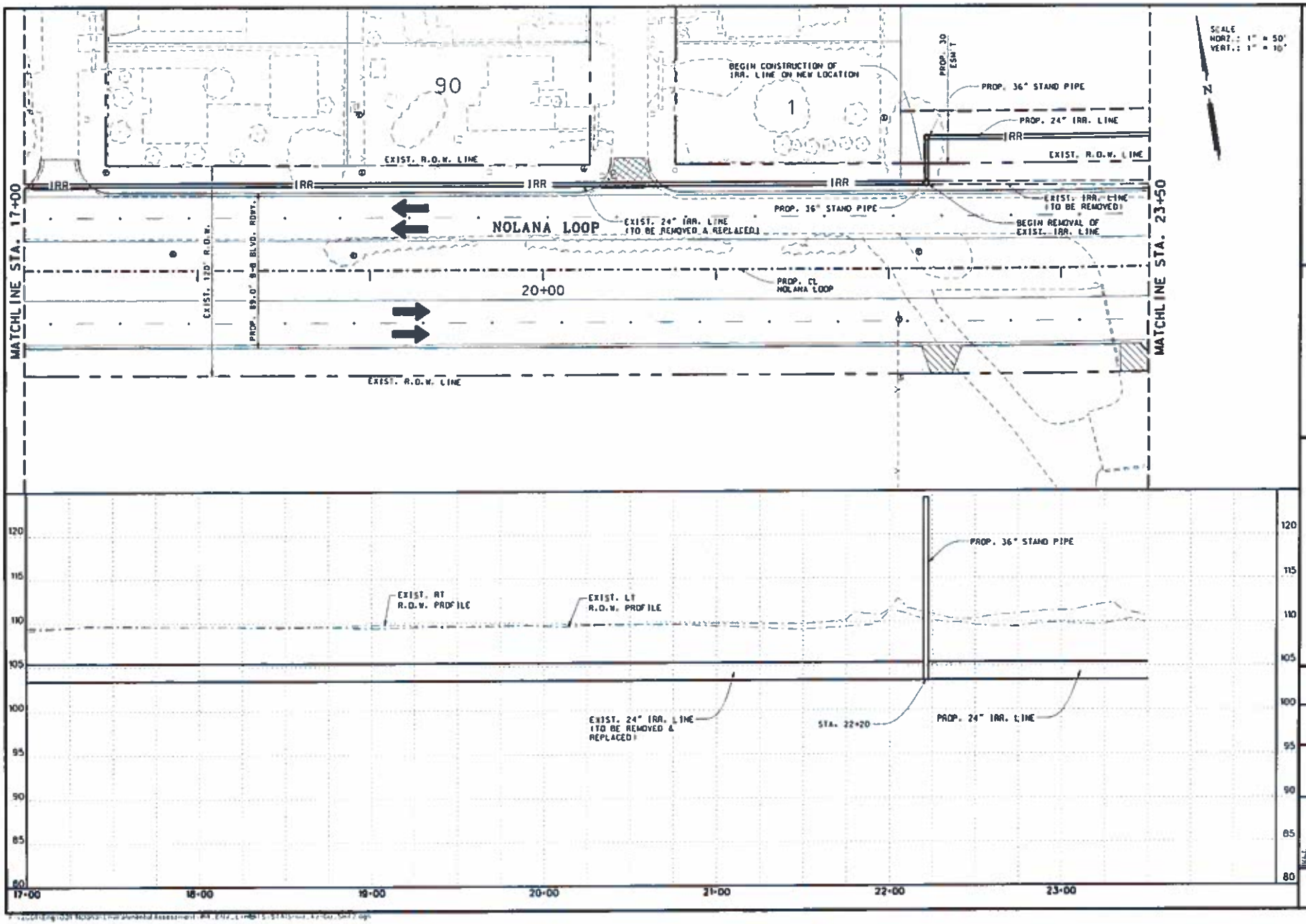
DATED: ______________

EXHIBIT M
NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

SHEET 1



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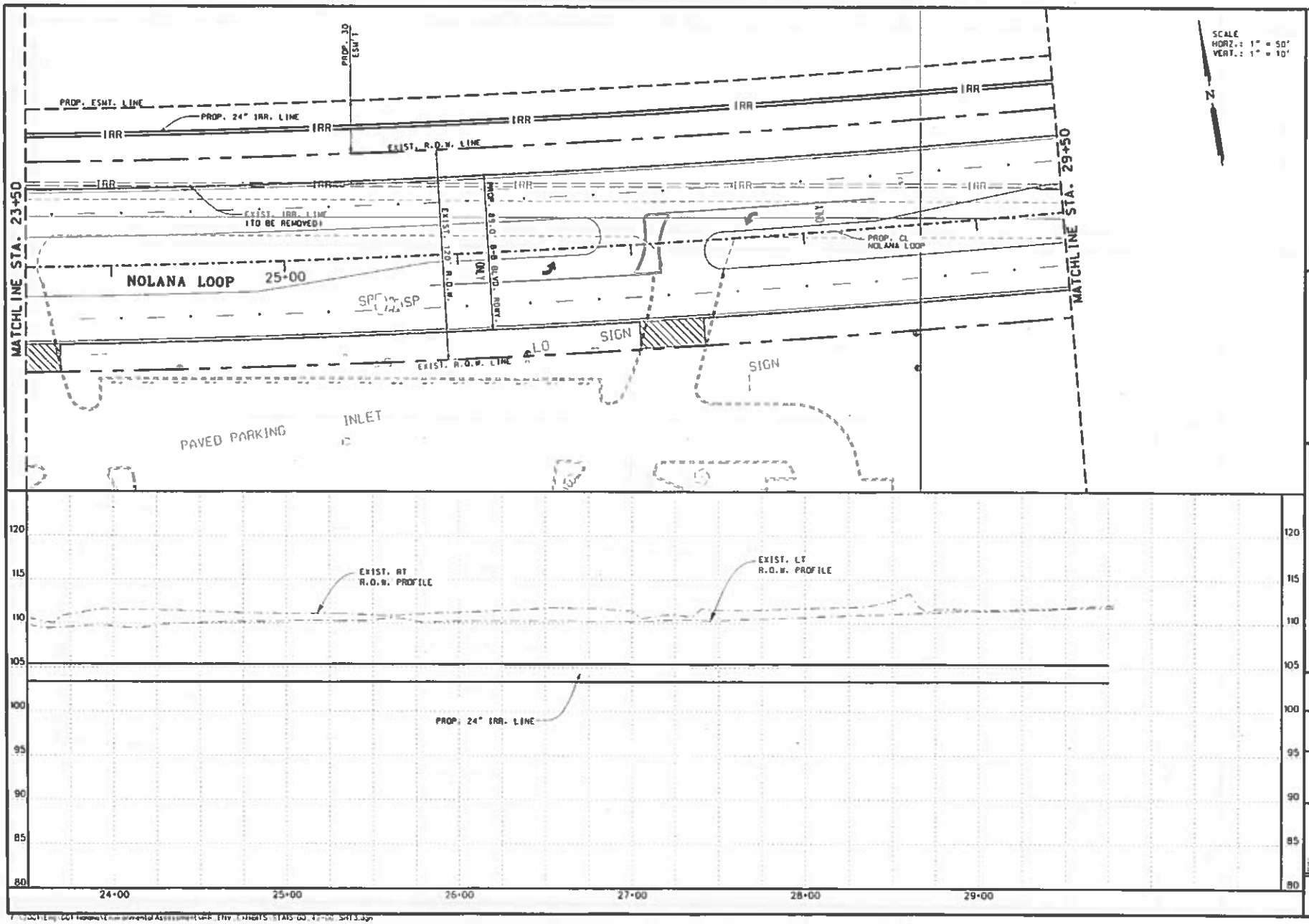
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 – IRRIGATION STRUCTURE DETAILS

SHEET 2



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NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 – IRRIGATION STRUCTURE DETAILS

REVISION	DATE	BY

SHEET 3

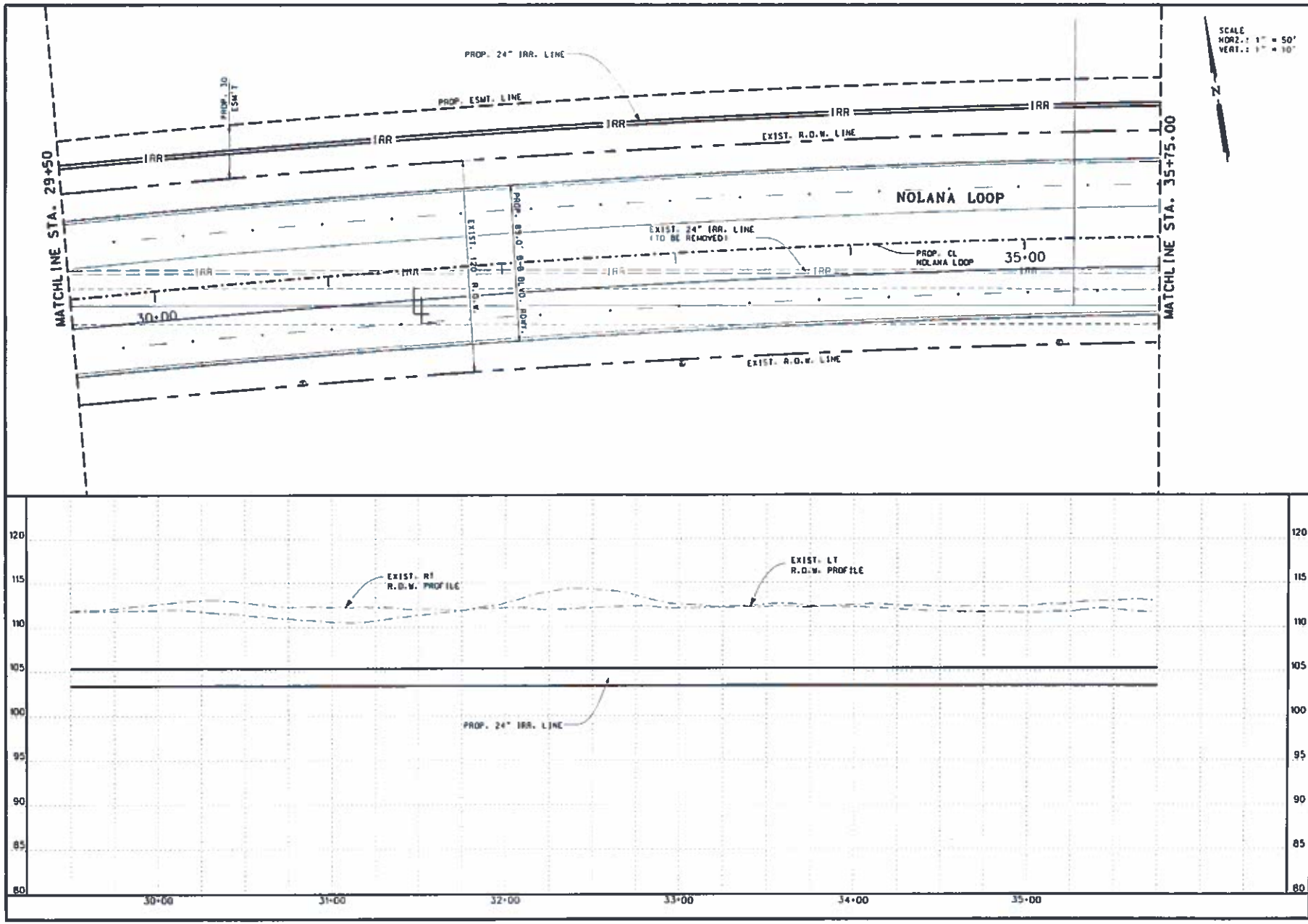

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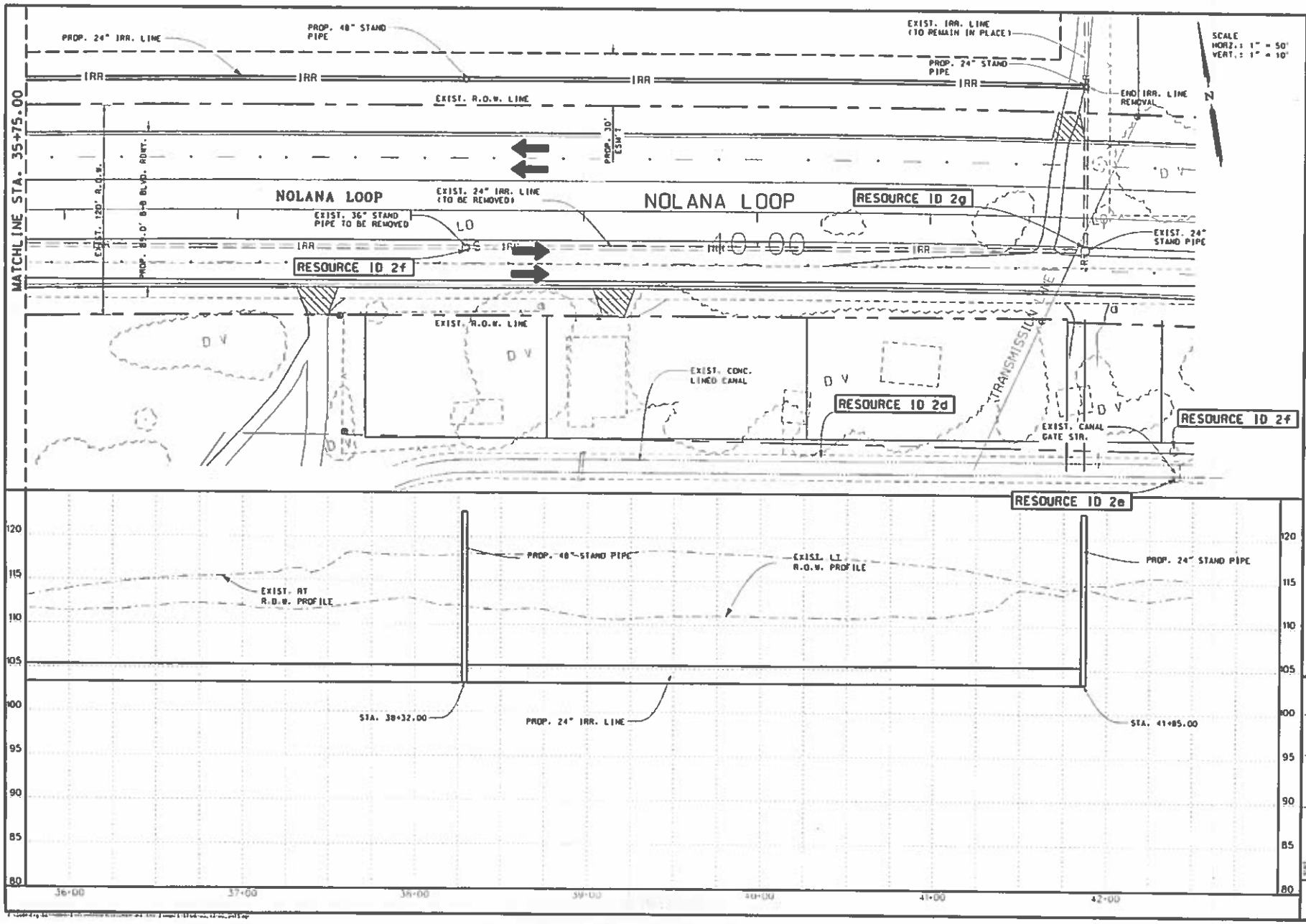
EXHIBIT M
NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

					BY
					DATE
					REVISION

SCALE:
N.T.S.
F.M. NO.
DATE:
JOB NO.
DRAWN BY:
CHECKED BY:

SHEET 4



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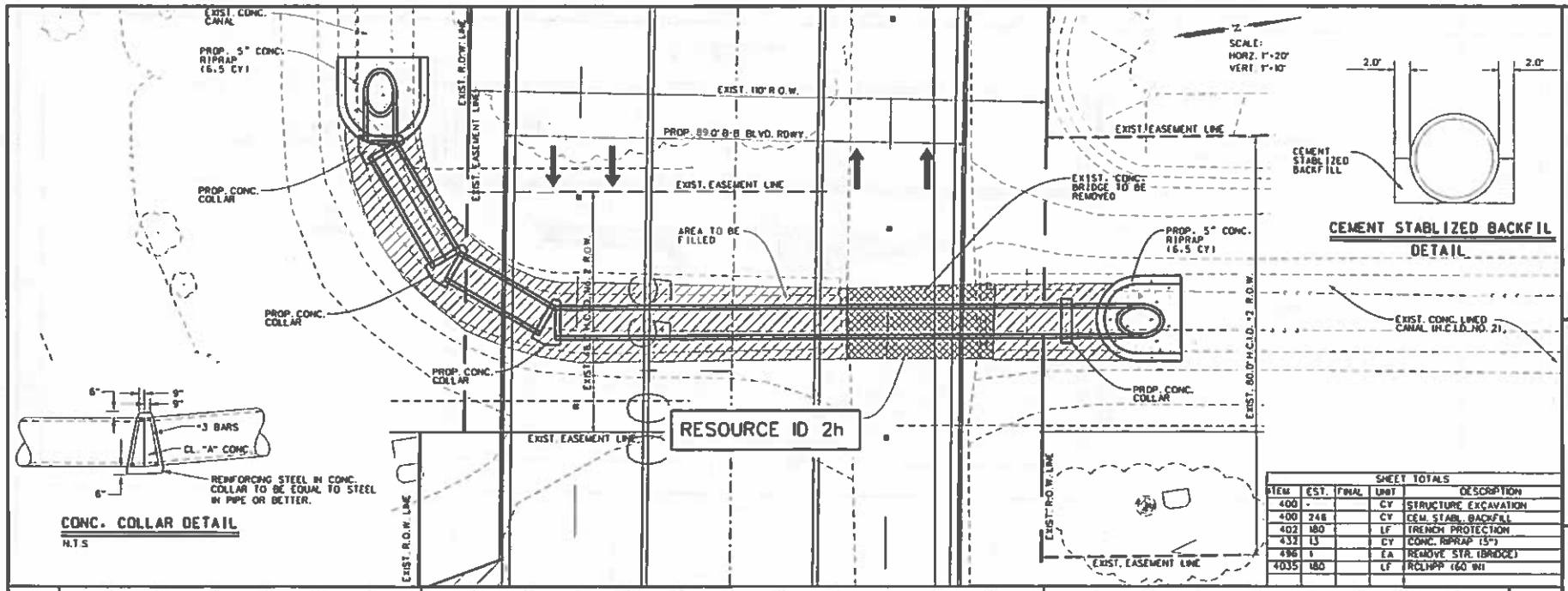
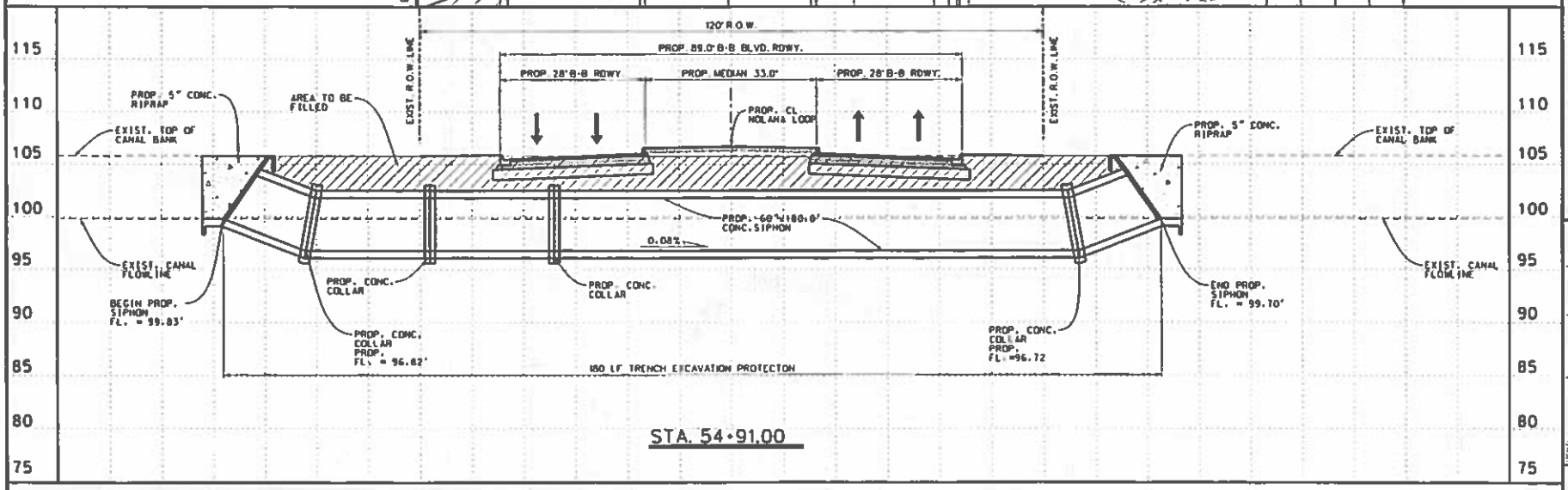
DATED: ----------

EXHIBIT M
NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

SHEET 5



SHEET TOTALS				
ITEM	EST.	FINAL	UNIT	DESCRIPTION
400	-		CY	STRUCTURE EXCAVATION
400	248		CY	CEM. STABL. BACKFILL
402	180		LF	TRENCH PROTECTION
432	13		CY	CONC. RIPRAP (5")
496	1		EA	REMOVE STR. (BRIDGE)
4035	180		LF	RCLHPP (60" W)



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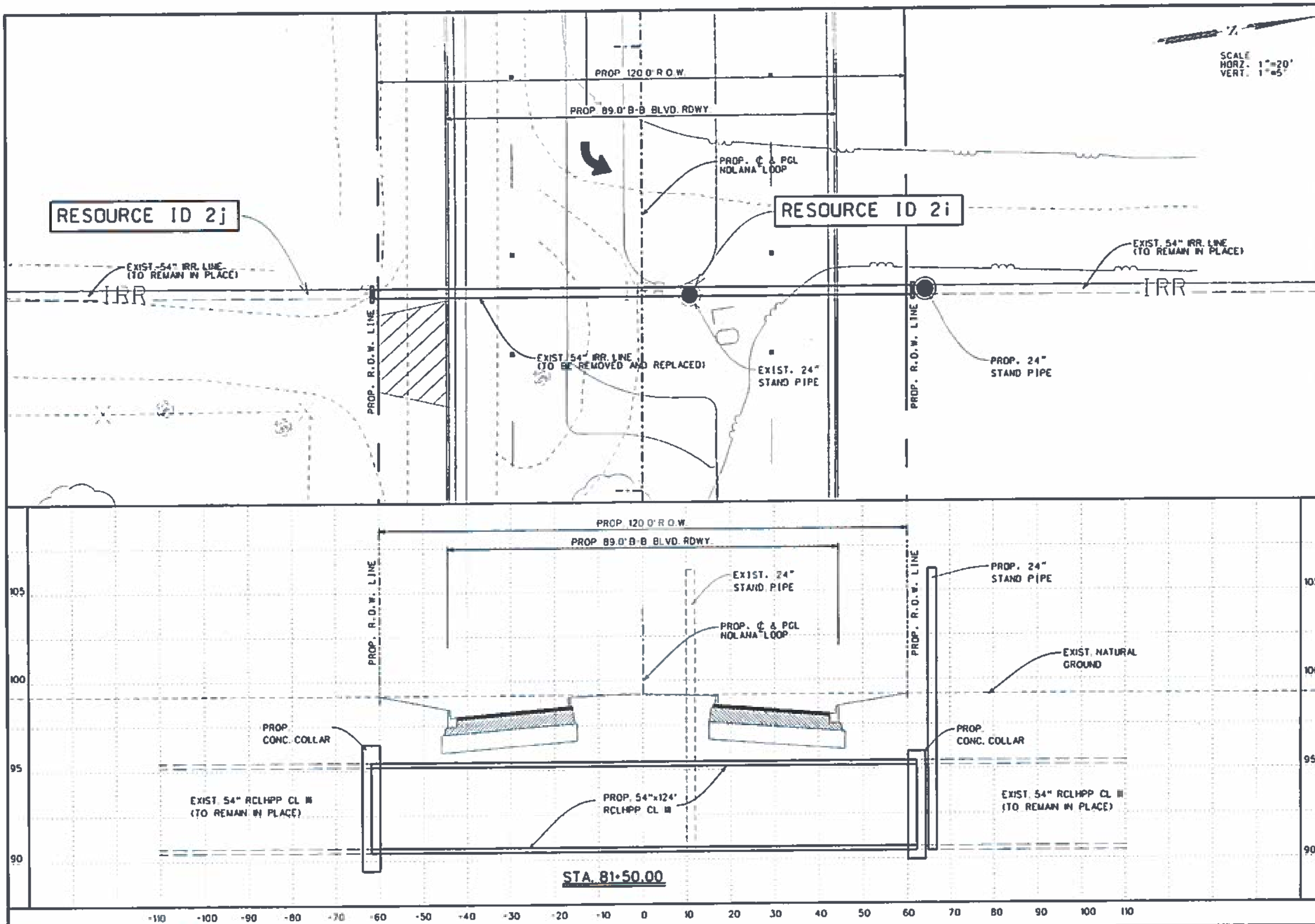
SERIAL NUMBER 65949
DATED: ----------

NOLANA LOOP
60" SIPHON LAYOUT
STA. 54+91.00

SCALE:
DATE:
F.B. No.
SURVEY BY:
DRAWN BY:
REVIEWED BY:
CHK. DES. BY:

NO.	REVISION	DATE	BY

SHEET 6



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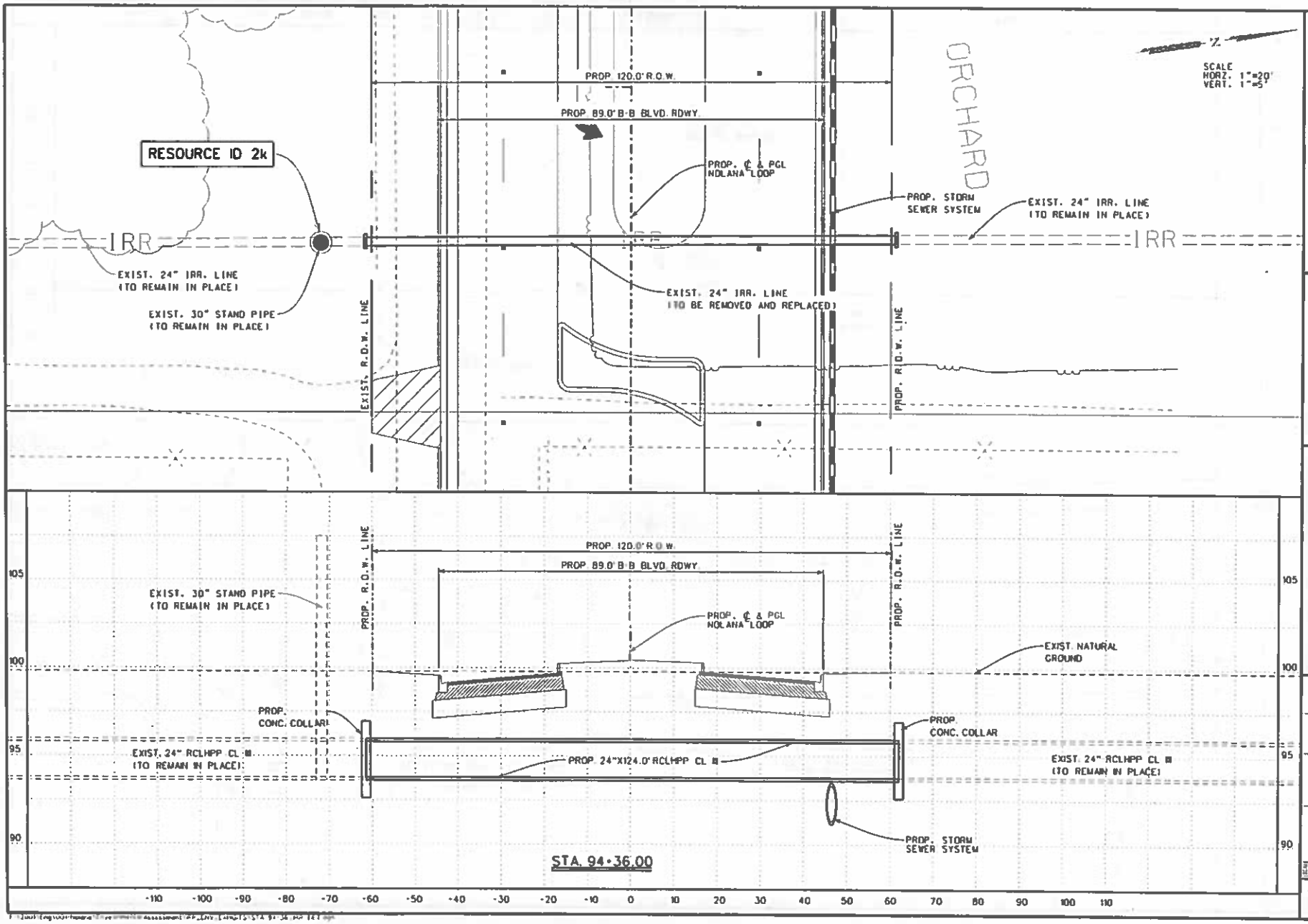
NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

SHEET 7



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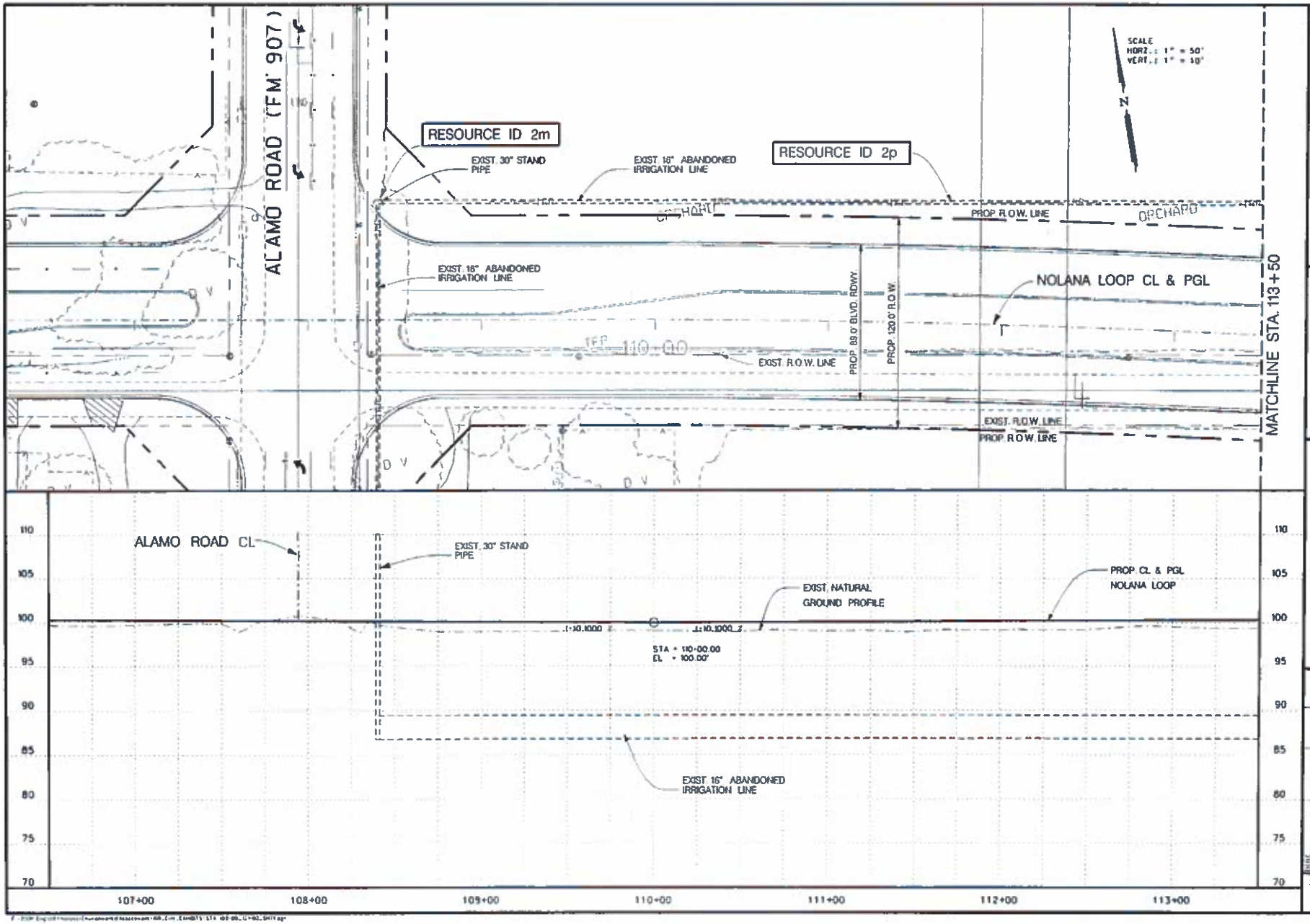
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

ISSUE	DATE	REVISION	BY

SHEET 8



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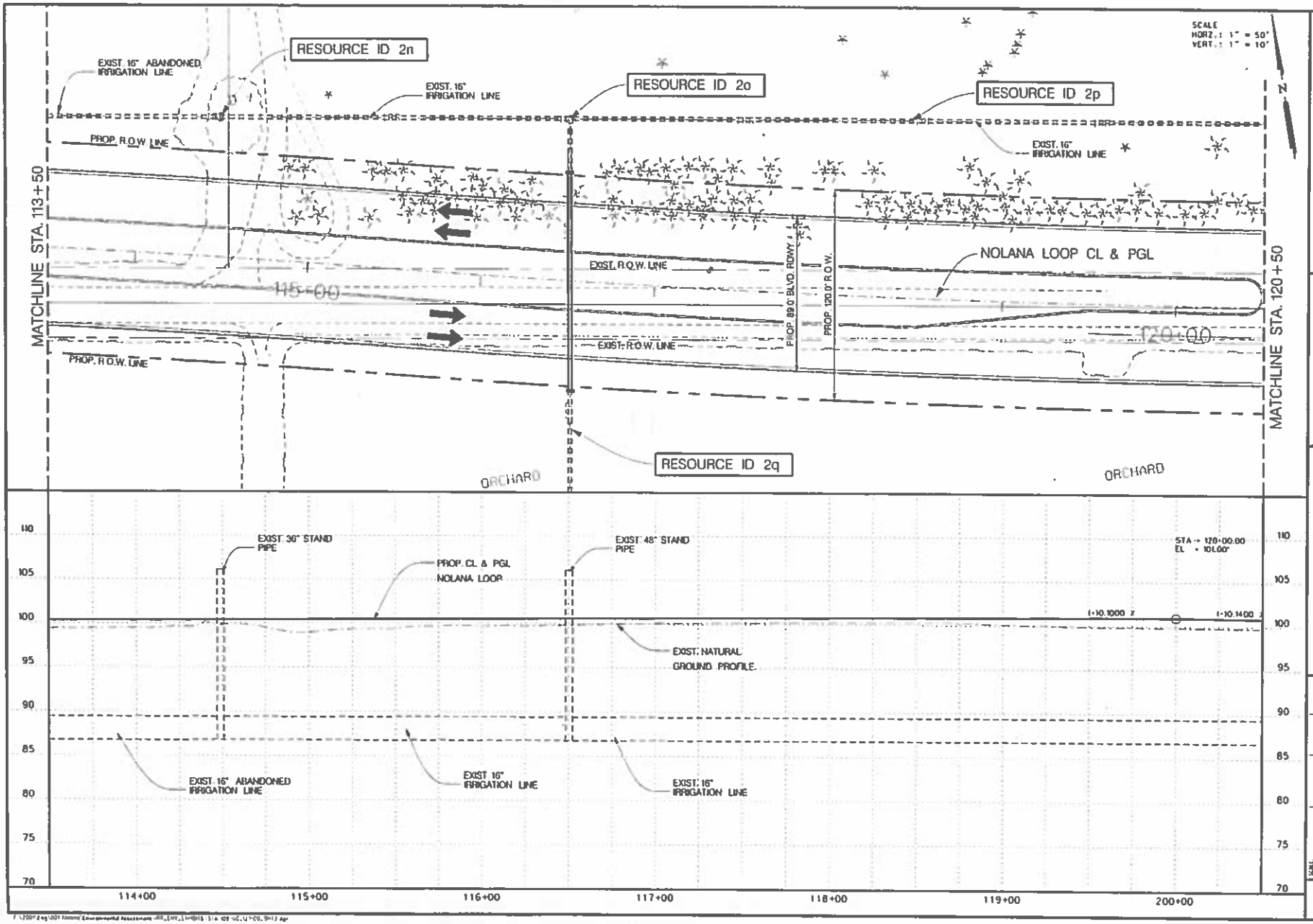
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

DATE	BY	REVISION	DATE	BY

SHEET 9



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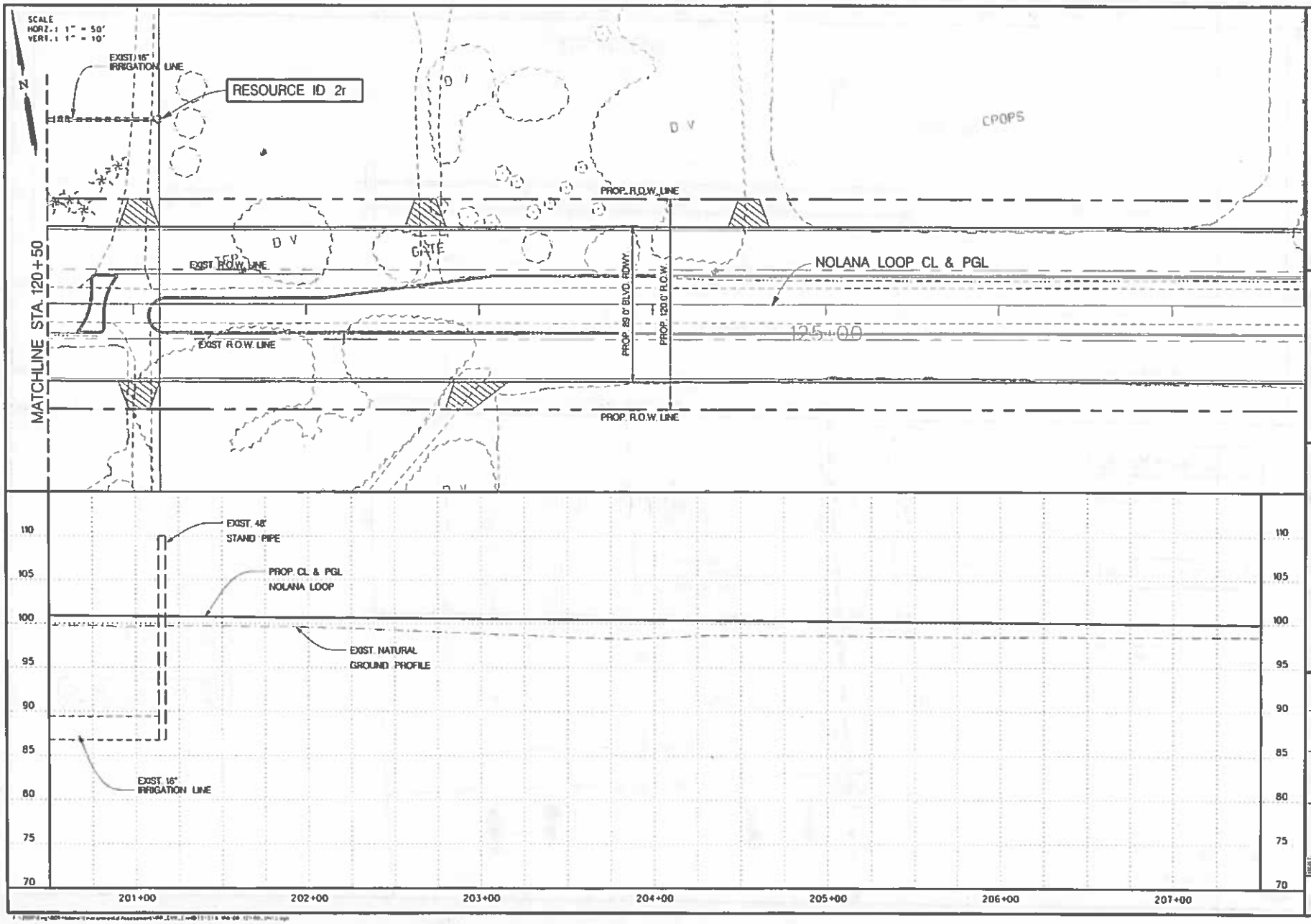
NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 – IRRIGATION STRUCTURE DETAILS

REVISION	DATE	BY

SCALE:
DATE:
FB No:
DRAWN BY:
DESIGNED BY:
REVIEWED BY:
INITIALED BY:

SHEET 10



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DATED: _____

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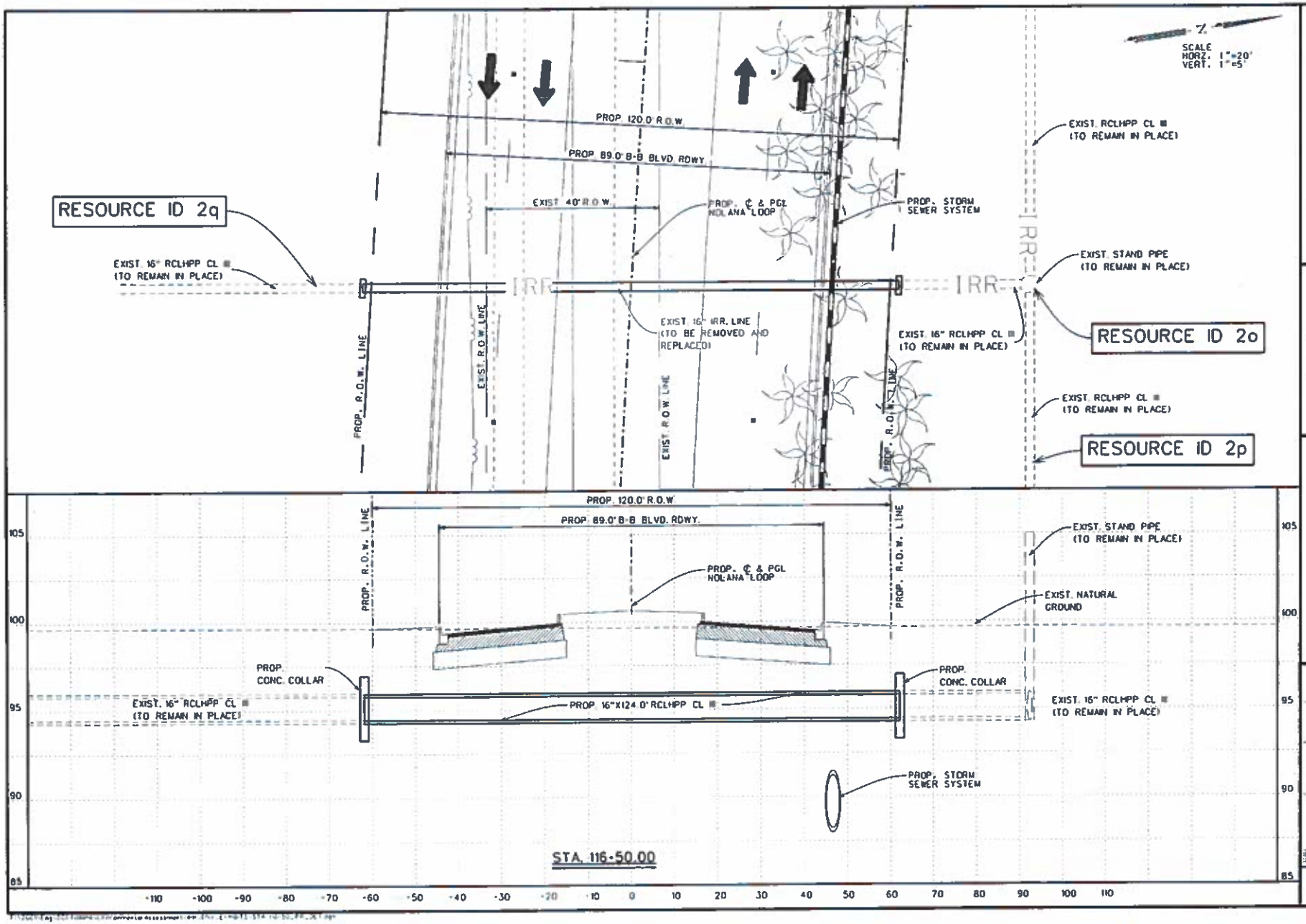
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

REVISION	DATE	BY

SHEET 11



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SERIAL NUMBER 65948
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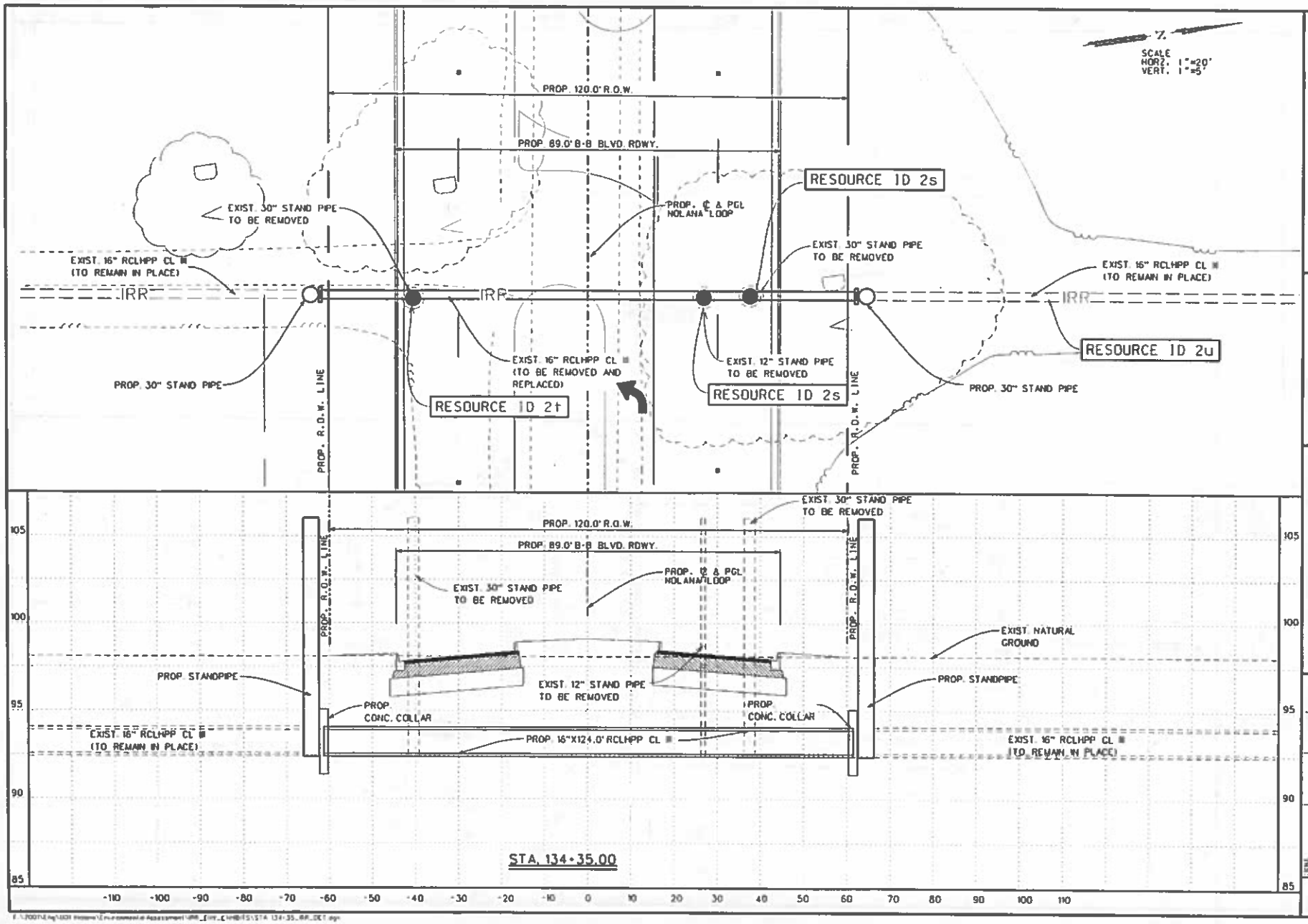
HIDALGO COUNTY IRRIGATION DISTRICT
NO 2 – IRRIGATION STRUCTURE DETAILS

REVISION	DATE	BY

SHEET 12



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HIDALGO COUNTY IRRIGATION DISTRICT
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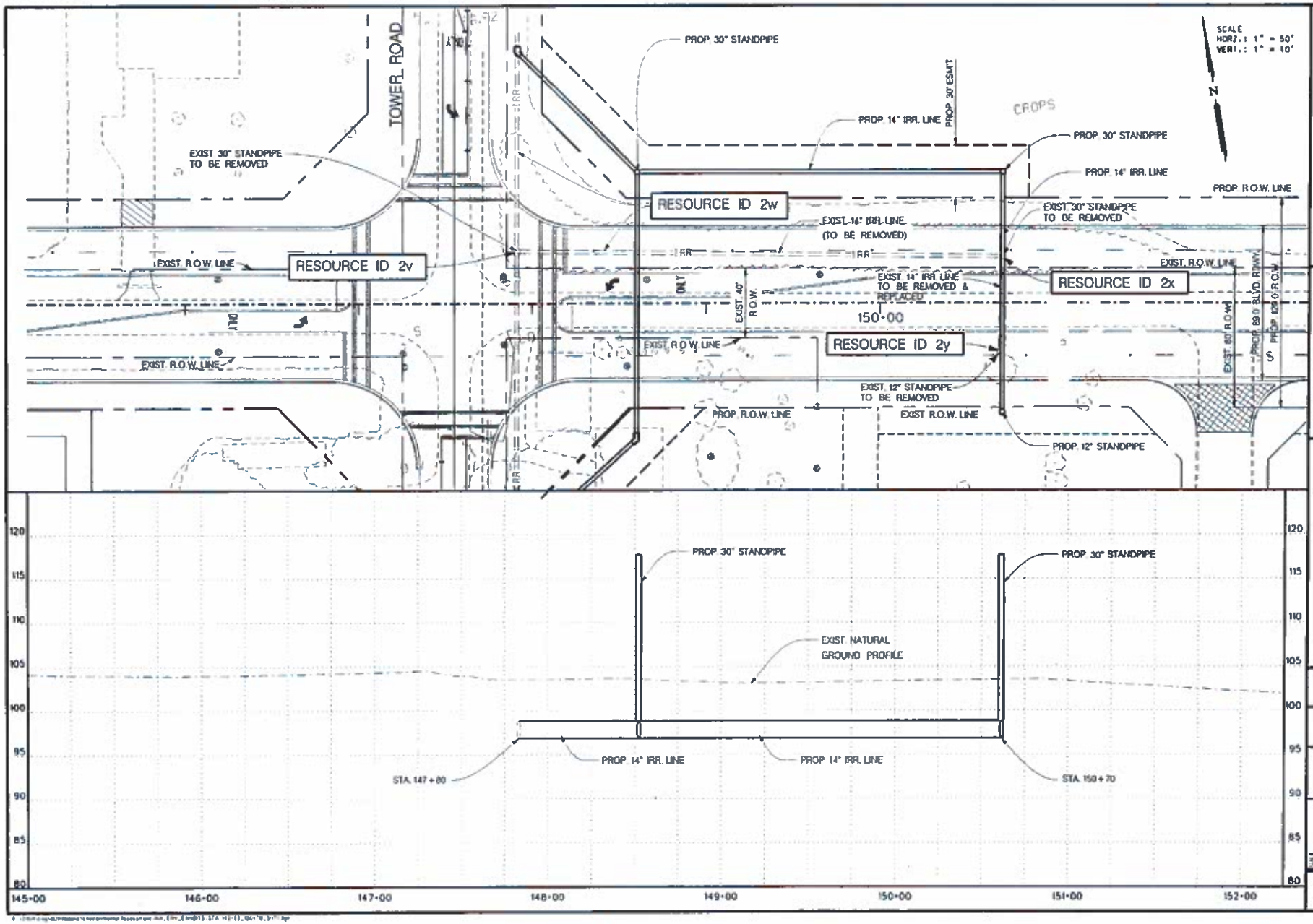
SHEET 13



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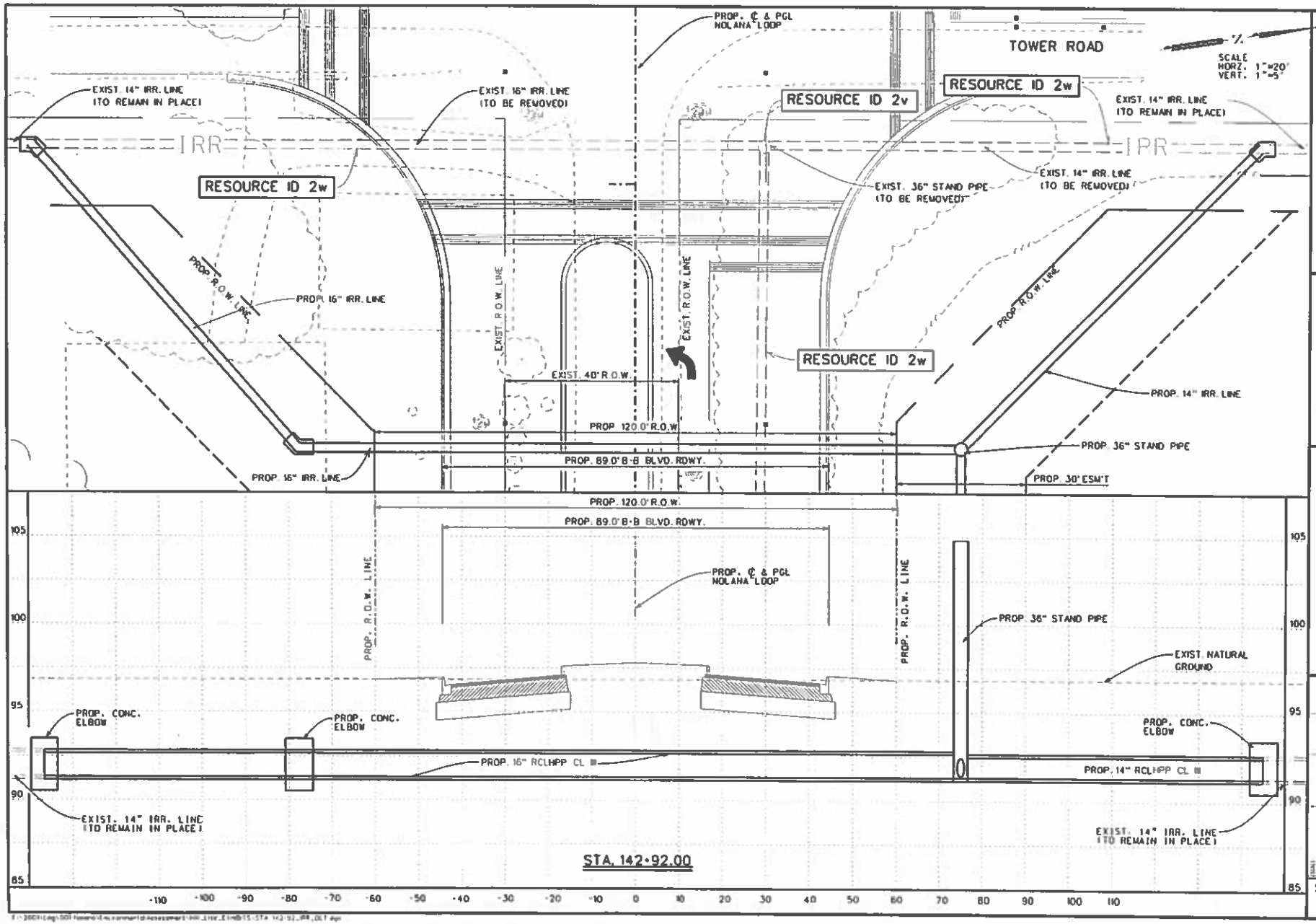
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

DATE	REVISION	BY

SHEET 14



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DATED:

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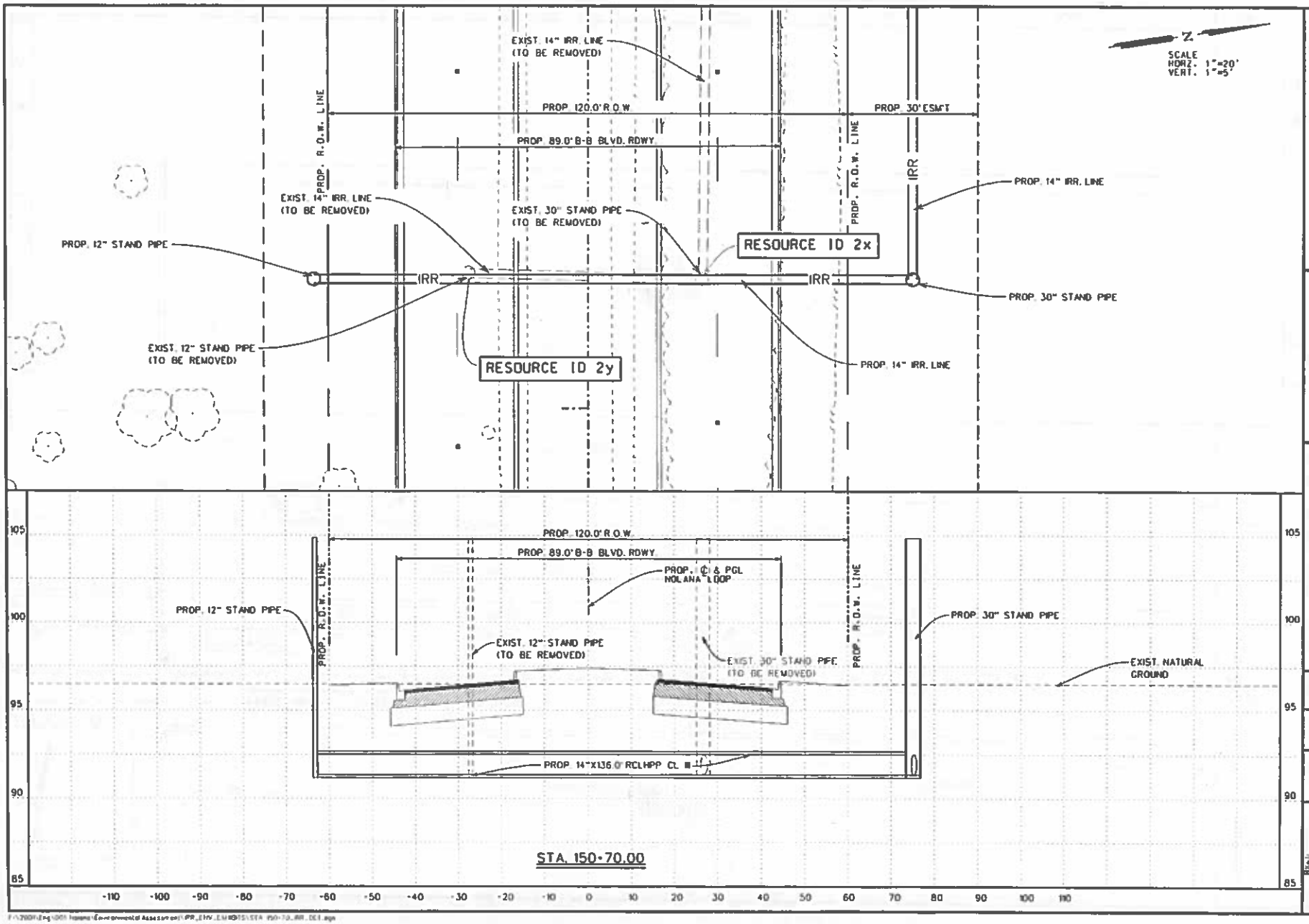
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 – IRRIGATION STRUCTURE DETAILS

SHEET 15



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RAUL GUTIERREZ, P.E.
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DATED: ----------

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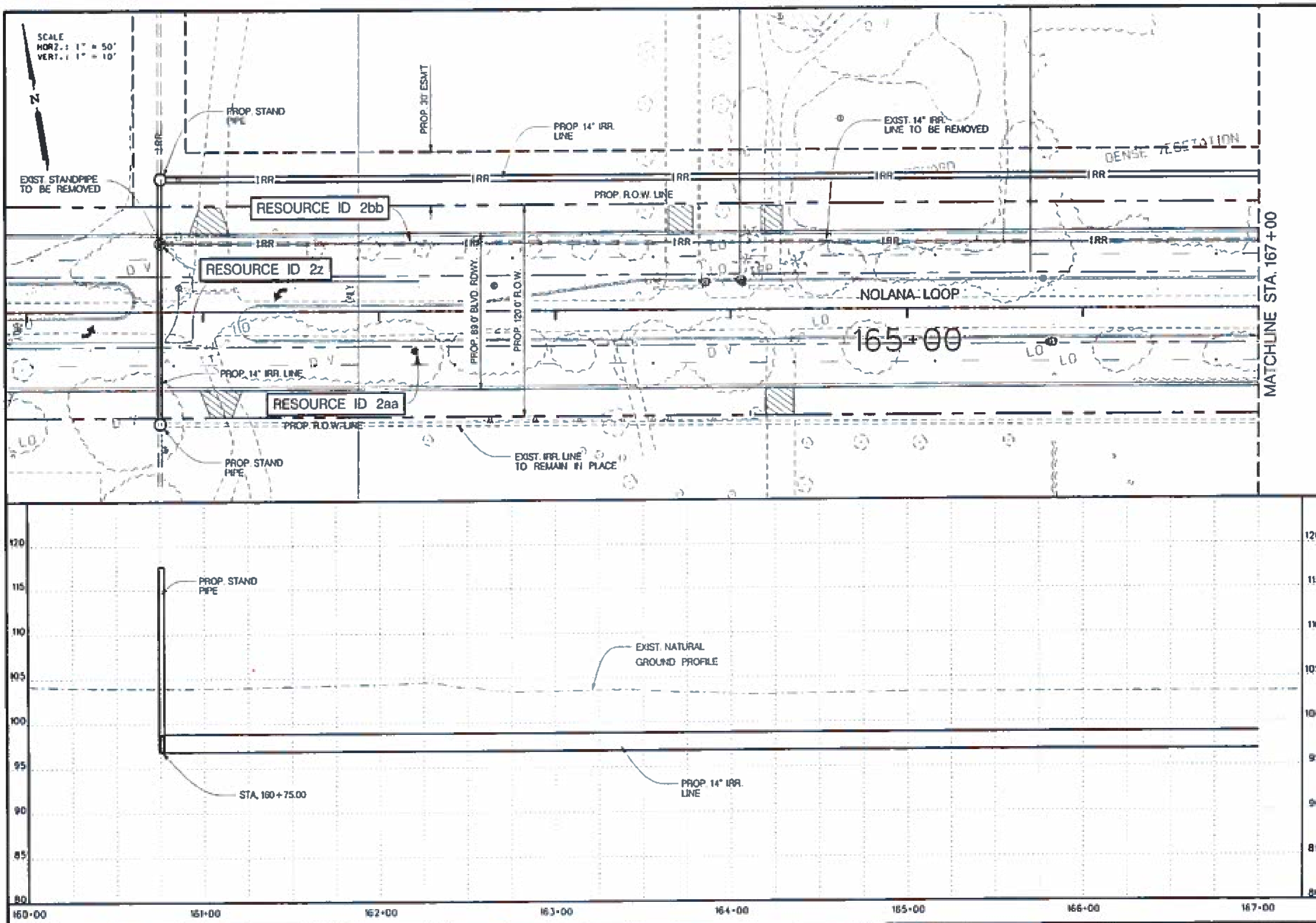
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

REVISION	DATE	BY

SHEET 16



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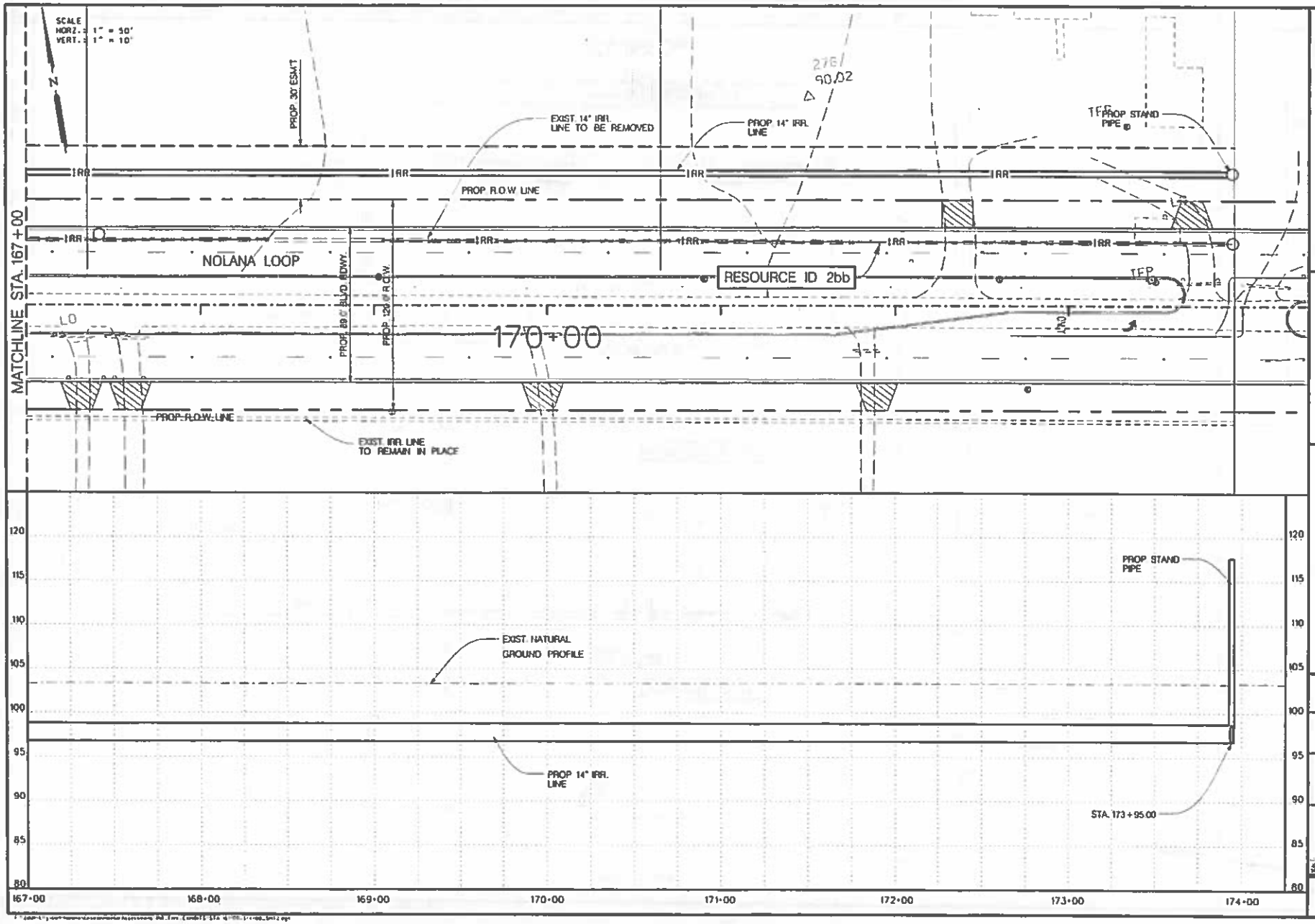
NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 – IRRIGATION STRUCTURE DETAILS

SHEET 17


SCALE
HORZ. = 1" = 50'
VERT. = 1" = 10'
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PROP 30' ESM'T
EXIST. 14" IRR. LINE TO BE REMOVED
PROP 14" IRR. LINE
PROP STAND PIPE
PROP R.O.W LINE
NOLANA LOOP
RESOURCE ID 2bb
MATCHLINE STA. 167+00
PROP. 80' BLVD. ROWY.
PROP. 120' R.O.W.
170+00
PROP R.O.W. LINE
EXIST. IRR. LINE TO REMAIN IN PLACE
EXIST. NATURAL GROUND PROFILE
PROP STAND PIPE
PROP 14" IRR. LINE
STA. 173+95.00
167+00
168+00
169+00
170+00
171+00
172+00
173+00
174+00
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SERIAL NUMBER 65948
DATED: ----------
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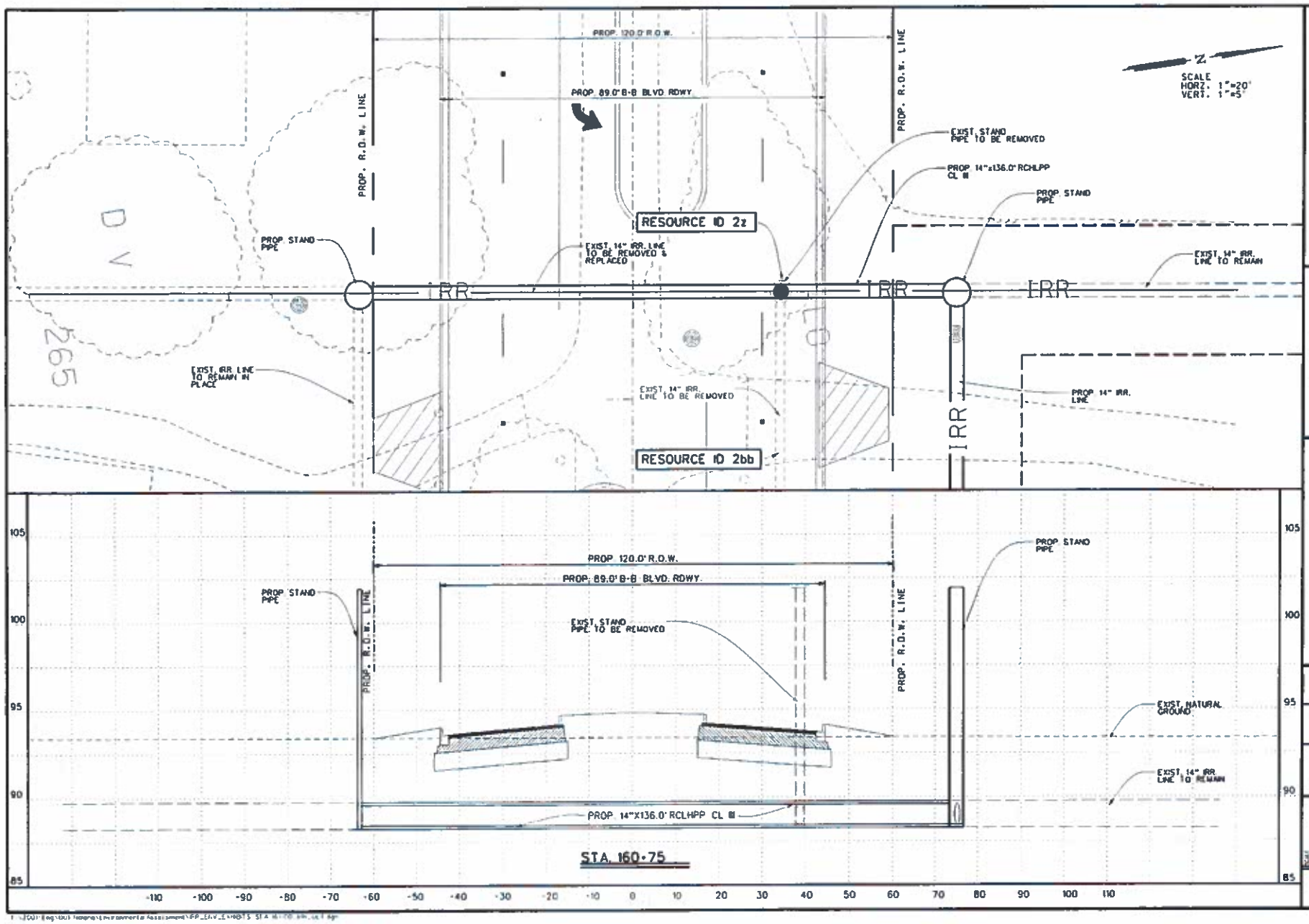
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS
SHEET 18



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NOLANA LOOP
HIDALGO COUNTY IRRIGATION DISTRICT
NO. 2 - IRRIGATION STRUCTURE DETAILS

DATE	REVISION	BY

SHEET 19

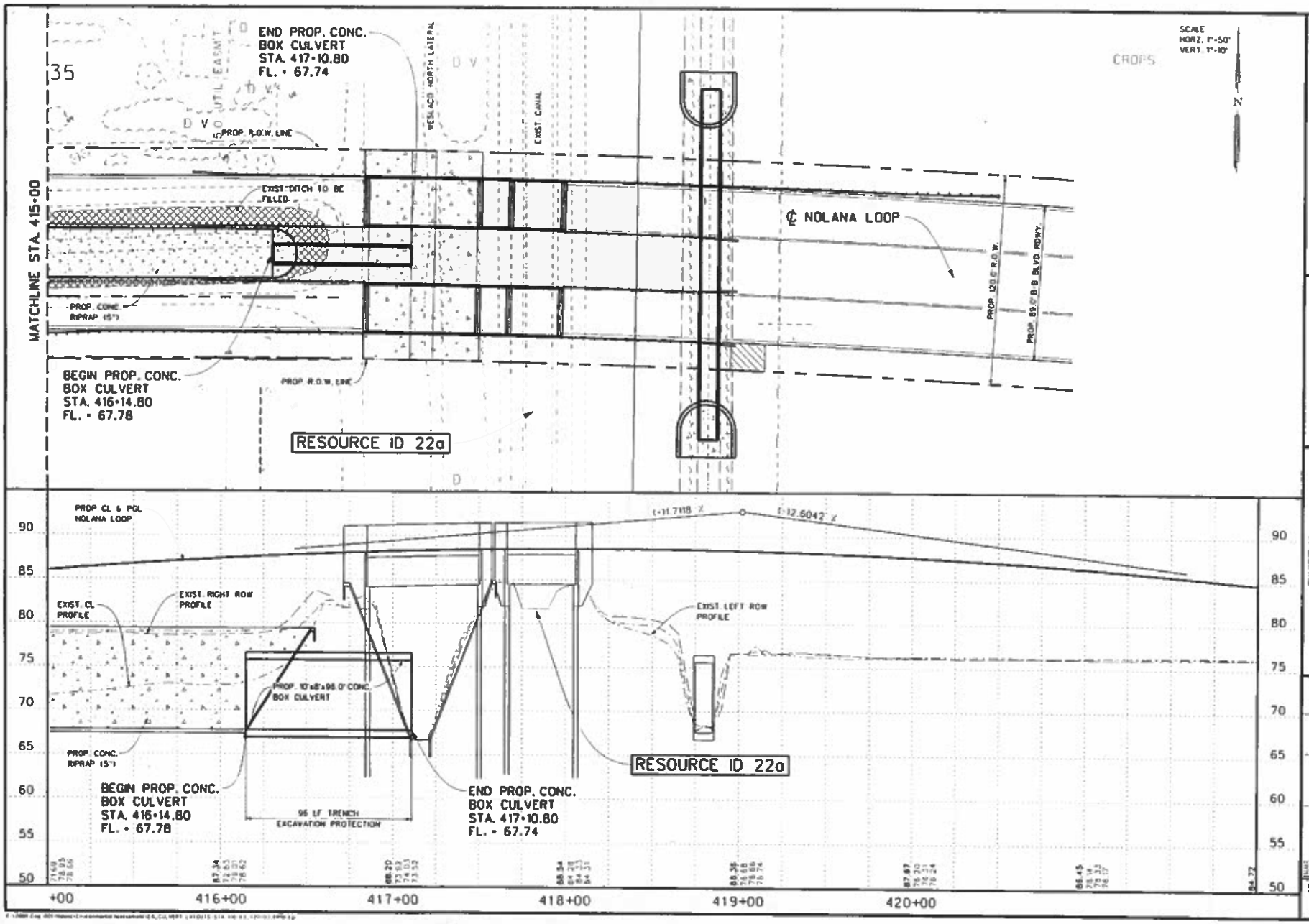

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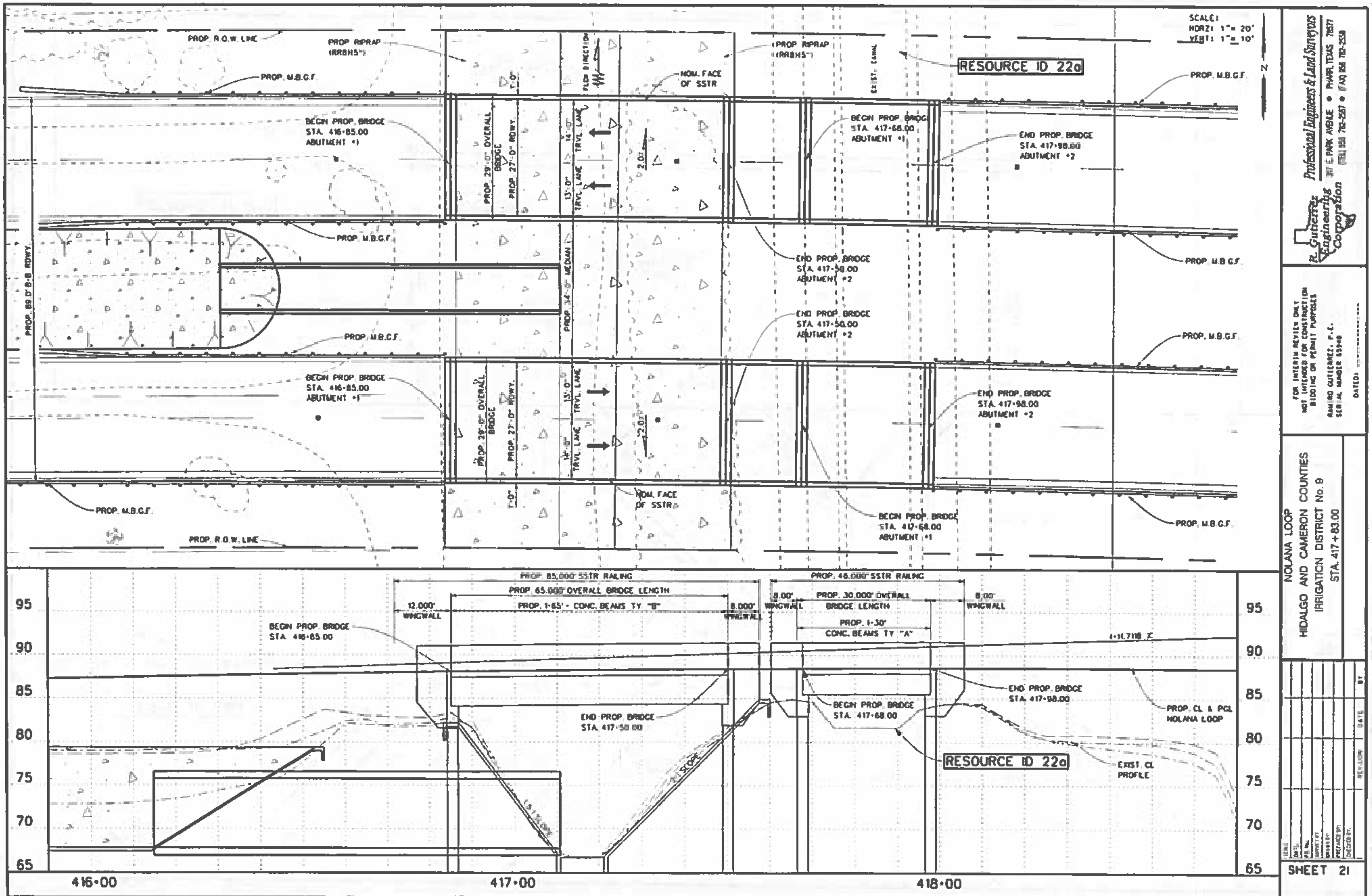
EXHIBIT M
NOLANA LOOP
HIDALGO AND CAMERON COUNTIES
IRRIGATION DISTRICT No. 9
SHT 10 OF 10

REVISION	DATE	BY

SHEET 20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HORZ: 1"= 20'
VERT: 1"= 10'
RESOURCE ID 22a
PROP. R.O.W. LINE
PROP. RIPRAP (RRBHS")
PROP. M.B.G.F.
NOM. FACE OF SSTR
EXIST. CANAL
FLOW DIRECTION
BEGIN PROP. BRIDGE STA. 416+85.00 ABUTMENT #1
BEGIN PROP. BRIDGE STA. 417+68.00 ABUTMENT #1
END PROP. BRIDGE STA. 417+98.00 ABUTMENT #2
END PROP. BRIDGE STA. 417+50.00 ABUTMENT #2
PROP. 29'-0" OVERALL BRIDGE
PROP. 27'-0" RDWY.
TRVL. LANE
PROP. 34'-0" MEDIAN
PROP. 89.0' B-B RDWY.
PROP. 85.000' SSTR RAILING
PROP. 65.000' OVERALL BRIDGE LENGTH
PROP. 1-65' - CONC. BEAMS TY "B"
12.000' WINGWALL
8.000' WINGWALL
PROP. 48.000' SSTR RAILING
PROP. 30.000' OVERALL BRIDGE LENGTH
PROP. 1-30' CONC. BEAMS TY "A"
8.00' WINGWALL
BEGIN PROP. BRIDGE STA. 416+85.00
END PROP. BRIDGE STA. 417+50.00
BEGIN PROP. BRIDGE STA. 417+68.00
END PROP. BRIDGE STA. 417+98.00
PROP. CL & PGL NOLANA LOOP
EXIST. CL PROFILE
1.5:1 SLOPE
416+00
417+00
418+00
95
90
85
80
75
70
65
R. Gutierrez Engineering Corporation
Professional Engineers & Land Surveyors
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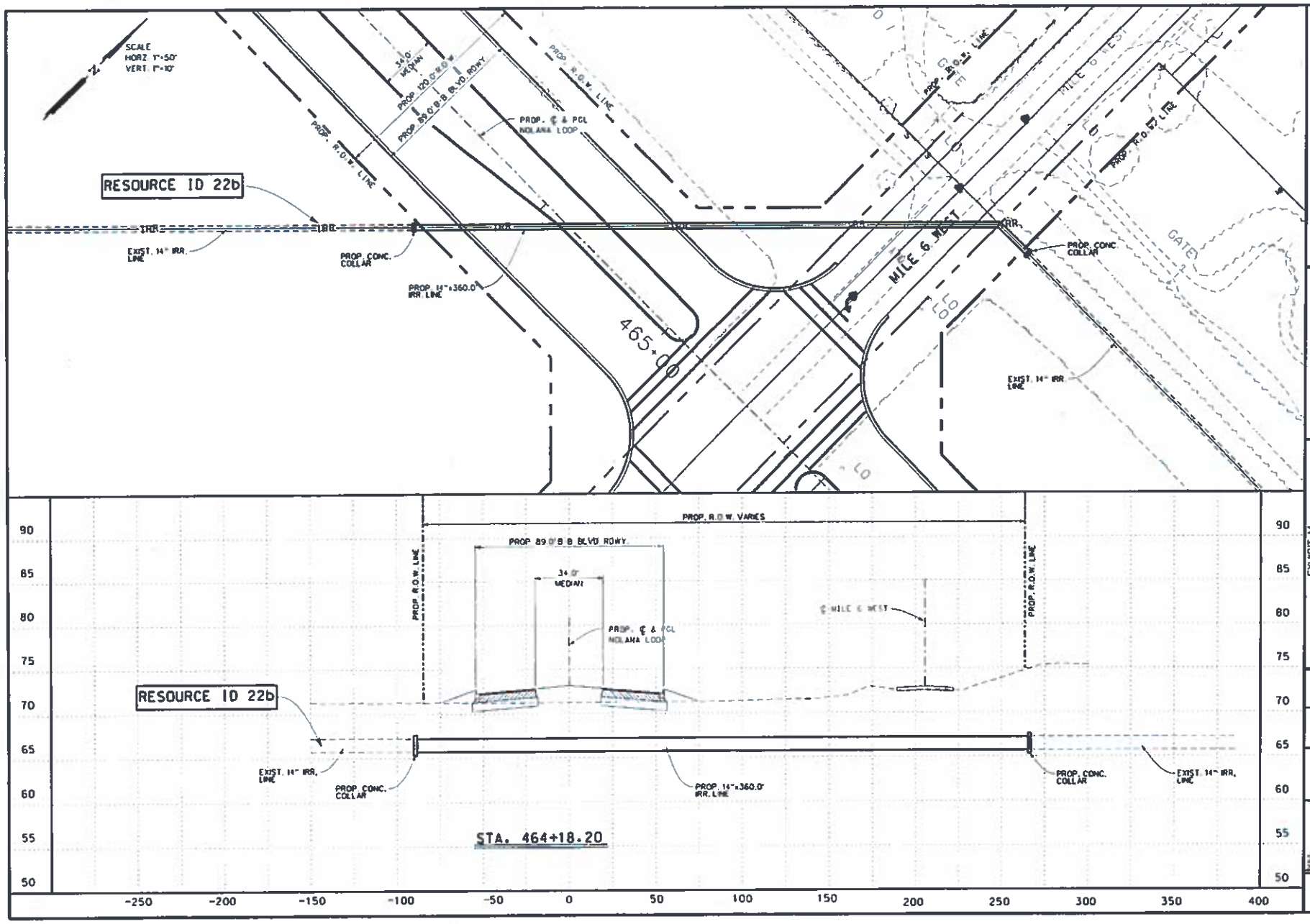
SERIAL NUMBER 65946
DATED:
NOLANA LOOP
HIDALGO AND CAMERON COUNTIES
IRRIGATION DISTRICT No. 9
STA. 417+83.00
SHEET 21



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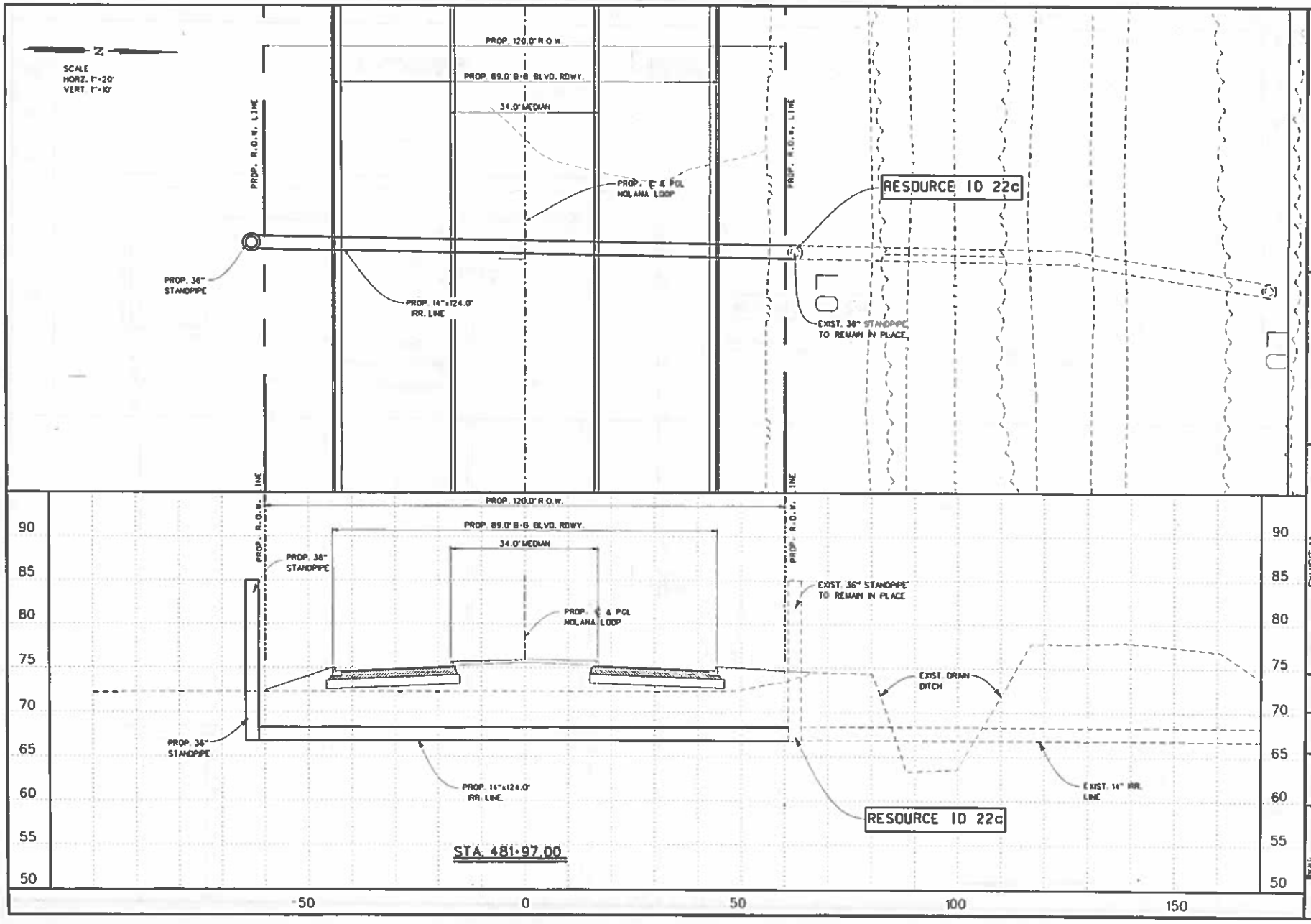
SERIAL NUMBER 65948
DATED:

EXHIBIT M
NOLANA LOOP-HIDALGO AND CAMERON COUNTIES IRRIGATION DISTRICT No. 9
IRRIGATION STRUCTURES DETAILS

REVISION	DATE	BY

SHEET 22



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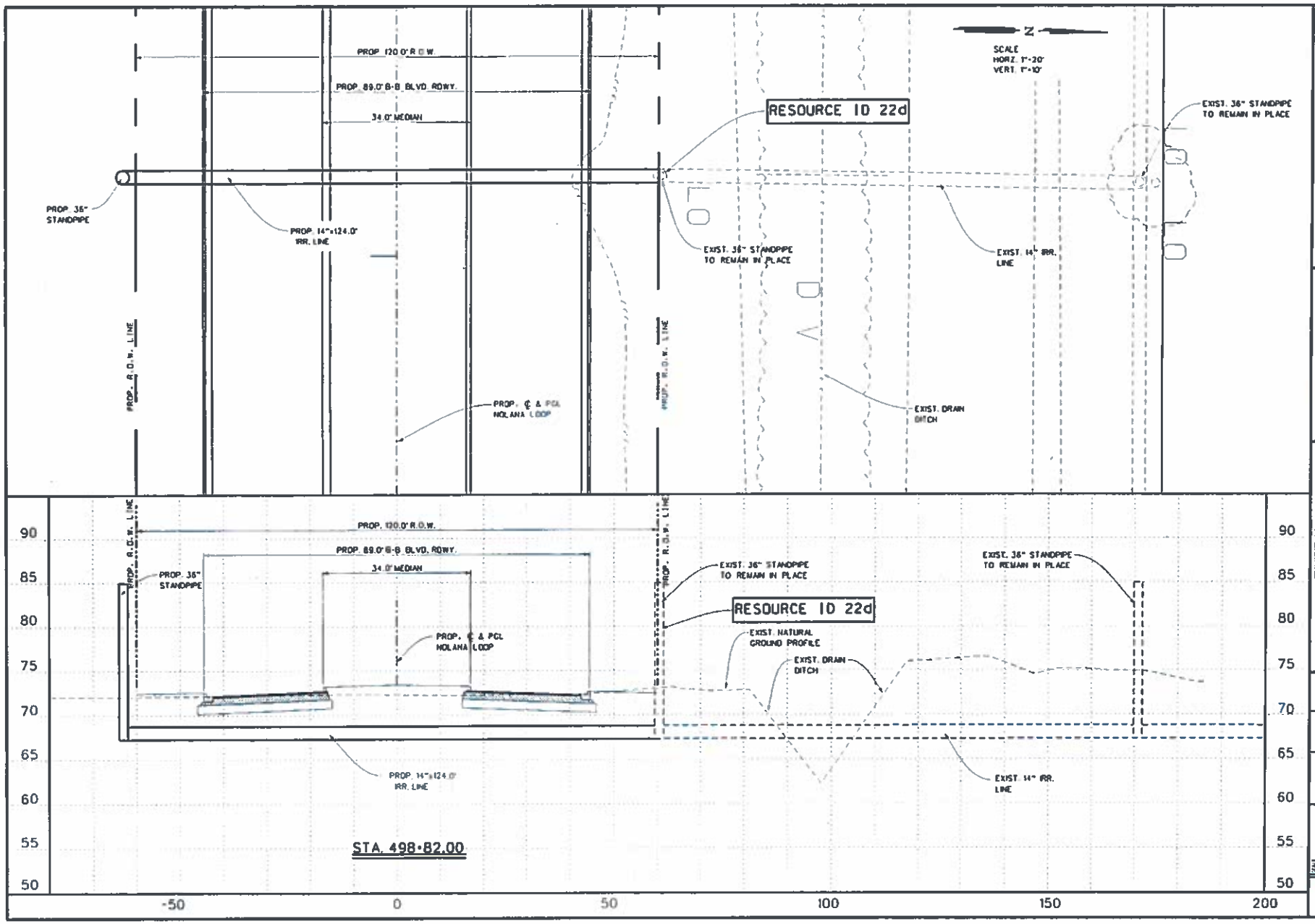
DATED: .....

EXHIBIT M
NOLANA LOOP-HIDALGO AND CAMERON COUNTIES IRRIGATION DISTRICT No. 9
IRRIGATION STRUCTURES DETAILS

SHEET 23



R. Gutierrez Engineering Corporation
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317 E. PARK AVENUE • PHARR, TEXAS 78577
(TEL) 956 782-2557 • (FAX) 956 782-2558

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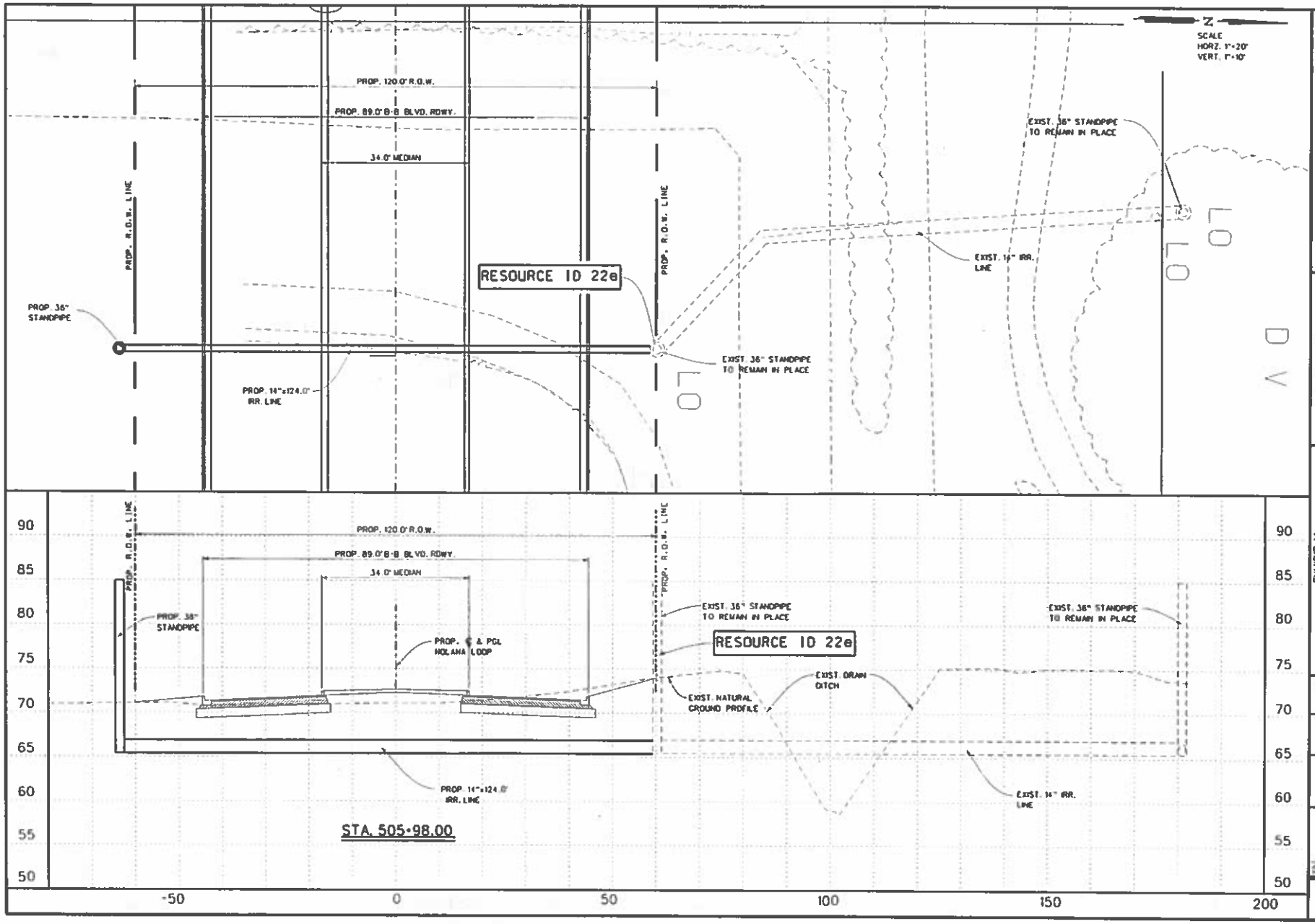
DATED: ----------

EXHIBIT M
NOLANA LOOP-HIDALGO AND CAMERON COUNTIES IRRIGATION DISTRICT No. 9
IRRIGATION STRUCTURES DETAILS

REVISION	DATE

SHEET 24



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IRRIGATION STRUCTURES DETAILS

REVISION	DATE	BY

SHEET 25