Draft Environmental Assessment

FM 548, Dallas District

Project Limits: From North of US 80 to State Highway 205
CSJ Number(s): 2588-01-017 and 2588-02-008
Kaufman and Rockwall Counties, Texas
April 2019

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

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List of Acronyms

ACHP	Advisory Council for Historic Preservation
ACT	Antiquities Code of Texas
ACS	American Community Survey
ADA	American with Disabilities Act
ADT	Average Daily Traffic
AOI	Area of Interest
APE	Area of Potential Effects
BMP	Best Management Practice
CALF	Closed and Abandoned Landfill Inventory
CRTB	Cross Timbers
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIA	Community Impacts Assessment
CO	Carbon Monoxide
CWA	Clean Water Act
CGP	Construction General Permit
EA	Environmental Assessment
EIS	Environmental Impact Statement
EJ	Environmental Justice
ETJ	Extraterrestrial Jurisdiction
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FM	Farm-to-Market
FPPA	Farmland Policy Protection Act
FONSI	Finding of No Significant Impact
GLO	General Land Office
IBWC	International Boundary & Water Commission
IHWCA	Industrial Hazardous Waste Corrective Action Site
ISA	Initial Site Assessment
LBP	Lead-Based Paint
LF	Linear Feet
LEP	Limited English Proficiency
LWCF	Land and Water Conservation Fund
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standard
NAC	Noise Abatement Criteria
NCTCOG	North Central Texas Council of Governments
NEPA	National Environment Policy Act
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service

List of Acronyms (continued)

NRHP	National Register of Historic Places
NWP	Nationwide Permit
OHWM	Ordinary High Water Mark
PA	Programmatic Agreement
PALM	Potential Archeological Liability Map
PCN	Preconstruction Notification
PM	Particulate Matter
PWC	Parks and Wildlife Code
PS&E	Plans, Specifications, and Estimates
PSL	Project Specific Location
PST	Petroleum Storage Tank
RCB	Reinforced Concrete Box
RCP	Reinforced Concrete Pipe
RCRAGR06	Resource Conservation & Recovery Act Generator
ROE	Right of Entry
ROW	Right-of-Way
RSA	Resource Study Area
RTHL	Recorded Texas Historic Landmark
SAL	State Archeological Landmark
SEMS	Superfund Enterprise Management System
SEMSEARCH	Superfund Enterprise Management System Archival Site Inventory
SGCN	Species of Greatest Conservation Need
SH	State Highway
SHPO	State Historic Preservation Officer
SOC	Species of Concern
STIP	State Transportation Improvement Plan
SW3P	Storm Water Pollution Prevention Plan
TBPR	Texas Blackland Prairies
TFRLCP	Texas Farm & Ranch Land Conservation Program
TCEQ	Texas Commission on Environmental Quality
TERP	Texas Emissions Reduction Plan
THC	Texas Historical Commission
TIP	Transportation Improvement Program
TMDL	Total Maximum Daily Loads
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TSS	Total Suspended Solids
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
US	United States
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
VPD	Vehicles per Day

1.0 Introduction

The Texas Department of Transportation (TxDOT) Dallas District Office proposes the widening of existing Farm-to-Market (FM) 548 with a project length of approximately 7.84 miles in Forney, Kaufman and Rockwall Counties, Texas. The proposed project would reconstruct and widen this section of FM 548 from a two-lane undivided roadway to a four-lane (ultimately six-lane) urban divided roadway. See **Appendix A** for the Project Location Map

This Environmental Assessment (EA) evaluates the social, economic, and environmental impacts of the proposed project and determines whether such impacts warrant preparation of an Environmental Impact Statement (EIS). The planning process for this project follows TxDOT and Federal Highway Administration (FHWA) environmental policies and procedures in compliance with the National Environmental Policy Act (NEPA). The EA will be made available for public review during a public comment period; subsequently, TxDOT will consider any comments submitted. Once the comment period is over, TxDOT will prepare a final EA. If TxDOT determines there are no significant adverse effects, it will prepare and sign a Finding of No Significant Impact (FONSI), which will be made available to the public.

2.0 Project Description

2.1 Existing Facility

The existing FM 548 is an undivided two-lane roadway with 11-foot wide travel lanes and 2-foot wide shoulders. This existing facility is very old and does not meet current design criteria in terms of horizontal geometry and lane widths. The existing right-of-way is typically 100 feet wide. The existing speed limit along FM 548 varies from 40 to 60 miles per hour. In the developed portions of FM 548 up to Reeder Lane, drainage flows south within drainage ditches on both sides of the roadway. North of Reeder Lane, drainage patterns are less defined, following natural drainage features via culverts (generally flowing from west to east). There are some stretches of FM 548 with no apparent existing drainage structures. Refer to **Appendix B** for the project area photographs, **Appendix C** for the Schematics, and **Appendix D** for the existing typical sections.

2.2 Proposed Project

According to the *Mobility 2045* Mobility Transportation Plan (MTP) for Non-Regionally Significant Arterials and the 2017-2022 Statewide Transportation Plan (STIP), the total estimated cost of the proposed project is $122,726,775. Sources for the funding are Federal (80 percent), State (10 percent), and Local (10 percent). Refer to **Appendix E** for the Plan and Program Excerpts.

There are two segments to the proposed project. Segment 1 would involve the expansion from a two-lane roadway to a six-lane divided urban minor arterial from United States (US) 80 to Windmill Farms Boulevard. Segment 2 would involve the expansion from a two-lane rural roadway to a four-lane divided urban arterial (six-lane ultimate) from Windmill Farms Boulevard to State Highway (SH) 205. In addition, the proposed project includes new proposed turn lanes (both left and right, as well as u-turns) at certain areas along the project. Though the proposed project does not technically include shoulders since it's an urban curbed section, the proposed project does include wider outside lanes as well as an offset from the travel lane

The proposed roadway at Segment 1 would include a 16-foot wide median, six total lanes (two 12- foot wide inside lanes and one 14-foot wide outside shared use lane for each direction of traffic) with two-foot wide curb offsets and six-foot wide sidewalks on each side behind the back of curb for the length of the project. The proposed roadway at Segment 2 would include four

total lanes (one 12-foot wide inside lane and one 14-foot wide outside shared use lane for each direction of traffic) with two-foot wide curb offsets and five-foot wide sidewalks on each side behind the back of curb for the length of the project. The proposed 40-foot wide median would accommodate the future two 12-foot wide lanes for the proposed ultimate six-lane divided roadway.

The proposed alignment generally matches the existing alignment. The existing horizontal curve south of University Drive would be realigned. The proposed project includes the replacement of an existing bridge structure over Big Brushy Creek and replacement of five existing bridge class culverts and four non-bridge-class culverts. The proposed typical section includes closed drainage (curb-and-gutter and storm sewer) for FM 548 for the entire limits of the project. Refer to **Appendix C** for the schematic and **Appendix D** for the proposed typical sections.

Federal regulations require that federally funded transportation projects have logical termini. 23CFR 771.111(f)(i). Simply stated, this means that a project must have rational beginning and endpoints. Those endpoints may not be created simply to avoid proper analysis of environmental impacts.

Logical termini for the proposed improvements to FM 548 are from north of US 80 (westbound frontage road) to SH 205. Within the logical termini, FM 548 is of independent utility because the proposed improvements can be accomplished without additional improvements in the proposed project area. The project limits encompass the entire length of the project in which construction would take place and account for transitions into the existing roadway.

The reasons for the logical termini are as follows:

US 80 – this is an access-controlled freeway with entrance and exit ramps to/from FM 548. The existing conditions, constraints, and roadway configuration are distinctly different between the north and south side of US 80. Also, south of US 80 there is an existing at-grade railroad crossing which was intentionally excluded from this project by using US 80 as the southern limit.

SH 205 – FM 548 “tees” into SH 205 where FM 548 ends. FM 548 does continue further east though the configuration is a “dog-leg” for the next segment of FM 548 which is about half a mile further up SH 205 from where FM 548 tees into SH 205.

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. 23CFR 771.111 (f) (2). This means a project must be able to provide benefit by itself, and that the project not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with other projects being built.

In accordance with a Federal policy statement on Bicycle and Pedestrian Accommodations Regulations and Recommendations by the U.S. Department of Transportation signed on March 11, 2010, the inclusion of bicycle and pedestrian facilities would be considered as part of the proposed project. Bicycle traffic would be accommodated with 14-foot wide outside shared-use lanes with two-foot wide outside curb offsets. Sidewalks (width of 5 to 8 feet) compliant with the Americans with Disabilities Act would be included along FM 548 throughout the entire project limits.

Approximately 63.4 acres of proposed right-of-way (ROW) and 8.01 acres of proposed permanent drainage easements would be required for the proposed improvements.

3.0 Purpose and Need

3.1 Need

The proposed project is needed because the existing FM 548 within the project limits (a) fails to meet current design standards because the existing facility does not have turn lanes and lacks shoulders, and (b) is inadequate to meet current and future traffic volumes, resulting in congestion and reduced mobility.

3.2 Supporting Facts and/or Data

Without turn lanes, turning traffic must slow-down in the same lane as thru traffic. Having shoulders would be less of an issue because it would essentially provide another lane at these pinch points.

Traffic demand along FM 548 within the project limits has grown substantially over the years and is expected to grow from 19,600, annual daily traffic (ADT) in 2020 to 29,800 ADT in 2045; an increase of 52 percent. TxDOT's Congestion 2012 Map and Congestion 2032 Map identifies FM 548 from US 80 to approximately Falcon Way as heavily congested during the peak hour. The remaining length of the proposed project (to SH 205) is identified as moderately congested during the peak hour. FM 548 improvements would increase the capacity and driver delay would decrease.

3.3 Purpose

The purpose of the proposed project is to bring the roadway up to current design standards, and to reduce congestion and improve mobility along FM 548 within the project limits.

4.0 Alternatives

This section discusses the following alternatives (1) Build Alternative, (2) No-Build Alternative, and (3) Preliminary Alternatives Considered but Eliminated from Further Consideration.

4.1 Build Alternative

As currently proposed, the Build Alternative (**Section 2.2**) would involve two segments. Segment 1 would expand from a two-lane to a six-lane divided urban roadway. Segment 2 would expand from a two-lane to a four-lane (six-lane ultimate) divided urban roadway. Both would have bicycle and pedestrian facilities. Approximately 63.4 acres of new ROW and 8.01 acres of proposed permanent drainage easements would be required for the Build Alternative. The Build Alternative would meet the proposed project's purpose and need by providing a north-south roadway to meet traffic demand and connect local traffic to other roadways. These proposed improvements would allow the roadway to meet current design standards.

The major design features of the proposed project include:

- The construction of an additional lane in each direction of FM 548 with curb and gutter. The proposed design would include 14-foot wide outside lanes designed as a shared-use lane for vehicles and bicycles. The construction would also include six-foot wide sidewalks throughout the length of the project.
- The Build Alternative meets applicable vertical design criteria. It provides desirable sight distance as well as desirable geometry at the intersection with SH 205.

The proposed project is consistent with local and regional land use and transportation plans and policies in the area. It would improve mobility and provide improved system connectivity in the proposed project area.

4.2 No-Build Alternative

Under the No-Build Alternative, the proposed FM 548 project would not be constructed. The No-Build Alternative would not require the conversion of approximately 63.4 acres of new ROW and 8.01 acres of temporary easements from existing land uses to transportation use (ROW) nor would other project-related impacts occur. The No-Build Alternative would not aid in traffic demand and local traffic management. Consequently, the anticipated mobility benefits of the proposed project would not be realized. For this reason, the No-Build Alternative does not meet the need and purpose for the proposed improvements and is not the recommended alternative. However, the No-Build Alternative was carried forward for further analysis.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

Reconfiguring two curves was considered at two locations. However, these two options impacted more property and included displacements. The preferred alternative avoided these additional impacts.

5.0 Affected Environment and Environmental Consequences

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

- Air Quality Assessment Technical Report
- Archeological Background Study
- Biological Resources Technical Report
- Community Impacts Assessment Technical Report Form
- Hazardous Materials Initial Site Assessment Report
- Project Coordination Request for Historical Studies Project
- Indirect and Cumulative Impacts Analysis
- Traffic Noise Technical Report
- Water Resources Technical Report
- Public Involvement Summary

The technical reports and documents may be inspected and copied upon request at the TxDOT Dallas District Office, 4777 E. Highway 80, Mesquite, Texas 75150.

The following sub-sections identify the environmental consequence of the Build and No-Build Alternative on each resource.

5.1 Right-of-Way/Displacements

Build Alternative: The Build Alternative would require the acquisition of approximately 63.4 acres of new ROW and 8.01 acres of permanent drainage easements (**Appendix C**). The proposed project would not displace any households, businesses, or other activities or developments. However, one vacant non-residential structure would potentially be displaced. The total area of additional ROW and easements needed for the proposed project is 71.41 acres.

The ROW acquisition would be limited to those properties required for roadway construction. Encroachment-alteration effects could include the loss of developable land for light industrial use.

The following are the avoidance, minimization, or compensatory mitigation features or mitigations conducted/analyzed for the Build Alternative:

- Potential displacements were minimized by avoiding impacts to structures where possible and using available vacant or open land where practicable. Constraints were mapped and used in the planning process to avoid important resources such as places of worship, public facilities, and other various resources.
- ROW acquisition would be conducted in accordance with the Federal Uniform Relocation and Real Property Acquisition Policy Act of 1970 (Uniform Act).

No-Build Alternative: Under the No-Build Alternative, no project-related ROW would be acquired.

5.2 Land Use

Developed and undeveloped lands are present within the proposed project area. Developed land includes single-family residences, retail, commercial, public facilities, and places of worship. These properties contain structures consisting of homes, farm buildings, commercial and retail structures, storage buildings/structures, churches, and other structures. Undeveloped lands comprise vacant (not utilized), agriculture (ranch and pasture), woodlands, fence row vegetation, streams, and ponds. **Appendix C** shows the proposed project corridor.

No schools are located adjacent to the proposed project.

There are eight stream crossings within the proposed project limits. These streams consist of six tributaries to Big Brushy Creek, Big Brushy Creek, and one tributary to High Point Creek. There are floodplains and potentially wetlands associated with some of these stream crossings within the proposed project area. Stream crossings and the 100-year floodplain are identified on **Figure 1** in **Appendix F**.

Build Alternative: The land use changes associated with the proposed project do not conflict with the goals of the City of Forney's *Comprehensive Plan,* would not delay or interfere with any other planned improvements, and are consistent with applicable laws; therefore, no mitigation is warranted.

No-Build Alternative: Under the No-Build Alternative, the additional ROW and easements would not be obtained and there would be no land use impacts from the proposed project.

5.3 Farmlands

Observations made during the site reconnaissance on October 4, 2016, November 8, 2017, January 10, 2018, and July 17, 2018, revealed that active agricultural lands exist adjacent to the proposed project.

The Natural Resources Conservation Service (NRCS) Web Soil Survey was used to determine the soil types present within the proposed project area. Soils determined to be within the existing and proposed ROW, and proposed easements are listed in **Table 1** (see **Figure 2** in **Appendix F**).

Table 1: Soil Types within Proposed Project Area

Soil Type	Farmland Classification
Burleson clay, 0 to 1 percent slopes	All areas are prime farmland
Burleson clay, 1 to 3 percent slopes	All areas are prime farmland
Ferris-Heiden complex, 2 to 5 percent slopes	All areas are prime farmland
Heiden clay, 3 to 5 percent slopes	All areas are prime farmland
Houston black clay, 0 to 1 percent slopes	All areas are prime farmland
Houston black clay, 1 to 3 percent slopes	All areas are prime farmland
Trinity clay, occasionally flooded	Not prime farmland
Trinity clay, frequently flooded	Not prime farmland

Source: NRCS Web Soil Survey, https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed 3/15/19.)

Build Alternative: The Farmland Conversion Impact Rating for Corridor Type Projects was completed on February 22, 2018 and scored 83 (27 on Part IV) for Kaufman County and 79 (27 on Part IV) for Rockwall County. The NRCS has identified the proposed corridor as containing areas of Prime Farmland. The total combined rating of the Kaufman and Rockwall County sites was under 160. Therefore, the project area need not be given further consideration for protection, and no additional sites need to be evaluated. Refer to the supporting documentation for the Biological Evaluation Form for a copy of Form NRCS-CPA-106.

Farmland impacts would be limited to areas directly adjacent to the existing FM 548 project corridor and would not result in the division or separation of existing agricultural land. Farmlands would continue to function as they do under existing conditions; therefore, encroachment-alteration effects stemming from farmland impacts are not anticipated as a result of the Build Alternative.

It is not possible to fully mitigate for the loss of agricultural acreage without bringing non-farmed land into production.

No-Build Alternative: Under the Build Alternative, the additional ROW would not be obtained and there would be no FM 548 related farmland impacts.

5.4 Utilities/Emergency Services

Utility adjustment requirements within the proposed project have not been determined. Adjacent existing utilities along the proposed project include television cables, fiber optic cables, electrical cables, telephone cables, water lines, and gas lines. The proposed project area is currently served by the Forney Fire and Police Departments. The closest fire and police stations are located approximately 1.5 miles south of the proposed project. The closest hospital is located approximately 0.5 mile south of the proposed project.

Build Alternative: At this time, the other utility adjustments are also anticipated, but the exact locations of utilities have not yet been determined. Detailed information on the utility lines would be evaluated during the detailed design phase of the project in order to evaluate the need to integrate the proposed improvements and utility systems into the design plans. Coordination with utility owners would take place during the detailed design phase.

Required utility adjustments would occur prior to or during construction of the proposed project. Efforts would be made to minimize construction-related delays and to ensure emergency responders are aware of road conditions and lane closures. Given that both issues are limited to the construction phase and would be confined to the project area, encroachment-alteration effects are not applicable. The adjustments and relocation of any utilities would be managed so that no substantial interruptions would occur.

For emergency services, project-related delays would be anticipated during construction; however, every reasonable effort would be made to minimize delays. Roadway closures are not anticipated at connecting roadways; however, traffic patterns would be temporarily affected with alternating lane closures, temporary reductions in lane widths, and reduction in speed. During construction, temporary lane closures at connecting roadways would be kept to a minimal length and time. Access would be maintained to adjacent properties during construction.

Following completion of the proposed project, emergency services would have a continuous, more efficient facility to use in the performance of their duties resulting in faster response times which is crucial for emergencies that require an immediate response. After construction is complete, emergency response times are expected to be lower than response times currently experienced. Emergency services would have an expanded, more efficient facility to use in the performance of their duties. The proposed project would facilitate reliable emergency response.

No-Build Alternative: Under the No-Build Alternative there would be no project-related impacts to utilities. Emergency service response would continue to be hindered by heavy congestion and unreliable travel times associated with congestion.

5.5 Bicycle and Pedestrian Facilities

Build Alternative: Bicycle and pedestrian facilities would be constructed as part of the proposed project in accordance with:

- TxDOT's policy for bicycle and pedestrian accommodation and
- federal policy statement on Bicycle and Pedestrian Accommodations Regulations and Recommendations by the U.S. Department of Transportation signed on March 11, 2010.

Bicycle traffic would be accommodated with 14-foot wide outside shared-use lanes with two-foot wide outside curb offsets. Six-foot wide American Disability Act (ADA)-compliant sidewalks would be included along the entire project limit (**Appendix C – Schematics** and **Appendix D – Typical Sections**).

There is the potential for the proposed project area to experience changes in the mode(s) of transportation utilized by area residents and changes in traffic volumes. The introduction of new bike/pedestrian facilities in the immediate area may encourage people to pursue alternative modes of transportation. With improved access to bike/pedestrian facilities, people may have more desire to visit or use local services and facilities.

The addition of bicycle and pedestrian facilities is a positive benefit; therefore, mitigation is not warranted.

No-Build Alternative: Under the No-Build Alternative, bicycle and pedestrian facilities would not be constructed.

5.6 Community Impacts

Build Alternative: A detailed discussion of the community impacts can be found in the *Community Impacts Assessment Technical Report Form* for the proposed project.

The Community Impacts Assessment (CIA) study area is comprised of six census block groups, five in Kaufman County and one in Rockwall County, that encompass the proposed project area. The CIA study area is located in the municipalities of Forney, Heath, McClendon-Chisholm, Terrell and Rockwall. The general character of the CIA study area is a mixture of suburban and rural.

The proposed project would increase capacity, improve mobility, alleviate congestion, and improve traffic safety for users along FM 548 and for the surrounding area. Also, the proposed shared-use lanes, sidewalks, and crosswalks could shorten the travel time between trips for pedestrians and cyclists. The proposed roadway would ultimately provide drivers, pedestrians, and cyclists a more efficient and safer route to move within and through the proposed project area. It can be assumed that all neighborhoods and businesses along FM 548 would be affected in some manner by the changes in access and travel patterns resulting from the introduction of a raised median. Median openings would be provided at all existing cross/side streets, but not at all adjacent driveways, and intermittently in the more rural, northern portion of the proposed project. In order to reach an incident/location adjacent to FM 548 on the opposite side of the roadway, one must travel past the incident/location to the next available median opening and conduct a U-turn to reach the final destination. While access may be less direct in some locations for residents, business owners/patrons, and emergency response vehicles, the proposed project would be expected to result in an overall improvement in travel and response times throughout the project area. Overall, negative impacts to access and travel patterns for motorists in the proposed project area resulting from the implementation of the proposed project are not anticipated to be substantial.

Additionally, the proposed improvements would make it easier for people to travel within the CIA study area and to surrounding communities to complete their day to day activities. These effects from the proposed project will lead to improved community cohesion because area residents and workers will be better able to venture out into their community, patronize local businesses, and interact with other community members and business patrons from both near and far. Negative impacts to community cohesion resulting from the implementation of the proposed project are not anticipated.

One business would potentially be displaced as a result of the proposed improvements: R & R Plumbing, Inc. located at 16026 FM 548, Forney, TX 75126. Refer to the *Community Impacts Assessment Technical Report Form* for the location and photograph of the potentially displaced structure. Note that the building is vacant and the property is currently for sale and it is unknown if the company is currently in business at this location; however, plumbing materials were observed on the property. Coordination with the affected property owner will be conducted later on in the environmental process and documented in the project file.

Negative impacts to the community resulting from the potential displacement associated with the proposed project are not anticipated. The City of Forney and other surrounding cities offer an array of commercial facilities comparative to the business being displaced by the proposed project. Patrons of the impacted business will have other options and alternatives to patronize. The City has vacant properties and buildings that are available which gives the displaced business options to relocate or rebuild in the CIA study area.

Encroachment-alteration effects could include improved connectivity due to the introduction of shared-use lanes and sidewalks between rural areas and central Forney and McLendon-Chisholm. These would be beneficial for residents and non-residents that utilize non-motorized transportation. On a negative side, the improved connectivity may leave current residents with the concern that they are losing their rural, "country living" environment.

The proposed improvements to FM 548 do not conflict with the goals of the cities of Forney and McLendon-Chisholm's *Comprehensive Plans*, would not delay or interfere with any other planned improvements, and are consistent with applicable laws. Therefore, no mitigation is warranted.

Everything possible would be done to minimize the inconvenience to motorists in the proposed project area during construction.

No-Build Alternative: Under the No-Build Alternative, there would be no impacts to the community associated with the proposed project.

5.6.1 Environmental Justice

A detailed discussion of the Environmental Justice (EJ) can be found in the *Community Impacts Assessment Technical Report Form* for the proposed project.

The 2010 Census data was utilized to identify minority populations. There are 483 census blocks and six census block groups that comprise the CIA study area. Because the census blocks and census block groups share the same boundary, the total recorded population and percent of each race/ethnicity is the same. The total recorded population of the CIA study area is 14,517 (see Table 2).

Table 2: Race/Ethnicity

Race	Population	Percent
White alone	10,028	69.1
Hispanic or Latino	2,457	16.9
Black or African American alone	1,478	10.2
Asian alone	290	2
Two or More Races	196	1.4
American Indian and Alaska Native alone	58	0.4
Native Hawaiian and Other Pacific Islander alone	4	Less than 0.1
Some Other Race alone	6	Less than 0.1
Total	**14,517**	**100**

Source: Census 2010, P9: Hispanic or Latino, and Not Hispanic or Latino by Race (accessed 9/12/17).

The minority population for the CIA study area totals 4,489 people or 30.9%. Of the six census block groups in the CIA study area, none have a minority population greater than 50%. The percent minority of the six census block groups ranges from 10.2% to 42.9%.

Of the 483 census blocks, 205 have no recorded population. The total population of the remaining 278 census blocks ranges from one person to 542 people per block. For the populated census blocks, the percent minority ranges from 0% to 100%. Of the 278 populated census blocks, 42 have a minority population greater than 50%. Percent minority in the 42 EJ

blocks ranges from 50.8% to 100% and the total population ranges from 1 person to 197 people per block. The total population of the 42 EJ blocks is 1,957 (**Table 3**).

Table 3: Race/Ethnicity of the 42 Environmental Justice Blocks

Race	Percent
White alone	40
Hispanic or Latino	28.7
Black or African American alone	23.4
Asian alone	5.8
Two or More Races	1.7
American Indian and Alaska Native alone	0.4
Native Hawaiian and Other Pacific Islander alone	0
Some Other Race alone	0
Total	**100**

Source: Census 2010, P9: Hispanic or Latino, and Not Hispanic or Latino by Race (accessed 9/12/17).

Refer to the *Community Impacts Assessment Technical Report Form* for the locations of the EJ blocks (minority population greater than 50%) and the census data obtained from the American FactFinder. Minority populations are located throughout the CIA study area and not in any one any general location.

The 2011-2015 American Community Survey (ACS) data was utilized to identify median household income. The smallest geography unit for which median household income data is available is the Census block group. Of the six Census block groups, none have a median household income below the Department of Health and Human Services poverty level of $25,750. All of the block groups had households with income below the poverty level. The median household incomes of the five Census blocks groups range from $43,140 to $131,204.

Build Alternative: The proposed project would be consistent with Executive Order (EO) 12898 and FHWA Order 6640.23.

There are no residential displacements associated with the proposed project.

EJ populations would realize the same benefits as non-EJ populations: increased capacity, improved mobility, alleviated congestion, and improved traffic safety. The reduced congestion and improved mobility would allow for more efficient travel through the surrounding area. No adverse encroachment-alteration effects on EJ populations are anticipated. **Figures 1** and **3** in **Appendix F** illustrate existing land use within the project area and census geographies.

Disproportionately high and adverse impacts on any minority or low-income populations are not anticipated; therefore, mitigation measures for EJ populations were not considered.

No-Build Alternative: Under the No-Build Alternative, there would be no impact, adverse or beneficial, to EJ populations.

5.6.2 Limited English Proficiency

A detailed discussion of the Limited English Proficiency (LEP) can be found in the *Community Impacts Assessment Technical Report Form* for the proposed project.

According to 2011-2015 ACS data, approximately 5.1 percent of the total population (ages five years and older) in the CIA study area do not speak English proficiently, and most of those individuals speak Spanish. In some areas, there are also LEP individuals who speak Asian and Pacific Island languages and other Indo-European languages.

A windshield survey during the field visit November 8, 2017 indicated signage within the CIA study area is presented primarily in English. Signage in Spanish was observed in the CIA study area at the New River Church located at 10658 US 80, Forney, TX 75126 and at Mustang Creek Community Church (Iglesia Vision) located at 13851 FM 548, Forney, TX 75126. The Spanish signage was located throughout the study area and no other signage in non-English languages was observed.

Build Alternative: Reasonable steps have been and would continue to be taken to ensure LEP persons have meaningful access to the programs, services, and information TxDOT provides. Persons who have special communication or accommodation needs, or need an interpreter, have been, and will continue to be encouraged to contact the TxDOT Dallas District Public Information Office for assistance. Therefore, the requirements of EO 13166, pertaining to LEP, appear to be satisfied.

LEP populations would realize the same benefits as non-LEP populations: reduced congestion and improved mobility. The improved mobility and reduced congestion would allow for more efficient travel through the surrounding area. No adverse encroachment-alteration effects LEP populations are anticipated.

The legal notice for the May 9, 2017 public meeting was published in the Spanish language newspaper, *Al Día*, as well as two English language newspapers. All Legal Notices published in English and Spanish language newspapers provided contact information for persons interested in attending the meeting who had special communication/accommodation needs. A project team member fluent in Spanish was available at the public meeting to provide communication assistance to Spanish-speaking attendees. No requests for translation services or materials in Asian and Pacific Island languages or other Indo-European languages was made. However, should these requests be made, TxDOT will make a reasonable effort to provide assistance in the appropriate Asian and Pacific Island language or other Indo-European language. The previously discussed accommodations would be repeated for the public hearing.

No-Build Alternative: Under the No-Build Alternative, there would be no impacts to LEP populations as a result of the implementation of the proposed project.

5.7 Visual/Aesthetics Impacts

Build Alternative: FM 548 is an existing undivided two–lane roadway with one-foot wide shoulders and no bicycle/pedestrian facilities. Vegetation in the ROW consists primarily of maintained grasses with minimal tree cover at some of the stream crossings Aesthetic enhancement of the existing roadway is minimal. The Build Alternative would have minimal effect on the overall aesthetic quality along the project area. Visual impacts resulting from the Build Alternative would include roadway widening. Because this is a change from the existing condition, the viewsheds of existing residences and business facilities would be directly impacted. However, these impacts would not be considered as being detrimental to business operations. Landscaping would not be included as a part of the proposed project.

The proposed project may incorporate safety lighting, which could be considered as a positive effect for visual and aesthetic qualities for the proposed pedestrian and bicycle accommodations. During final design, the design of light fixtures would be completed. Local, state, and federal requirements would be reviewed during design and designation of additional lighting required for this project. The roadway lighting system could consist of low-impact, downward directional lighting to minimize impacts to adjacent properties.

Where reasonable and feasible, mitigation measures that would result in beneficial visual and aesthetic impacts may be programmed for this project. These measures may include aesthetic

enhancements, such as lighting, and/or decorative details. Aesthetics treatments would be developed during final design and incorporated into the project design as appropriate.

No-Build Alternative: The No-Build Alternative would not result in FM 548 project-related visual impacts along the existing corridor as the proposed improvements would not be constructed.

5.8 Cultural Resources

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

5.8.1 Archeology

The purpose of the archeological investigation is to conduct an inventory or determine the presence/absence of archeological resources (36 Code of Federal Regulations [CFR] 800.4) and to evaluate identified resources for their eligibility for inclusion on the National Register of Historic Places (NRHP), per Section 106 (36 CFR 800) of the NHPA of 1966, as amended, or as a designated state archeological landmark (SAL) under the Antiquities Code of Texas (13 Texas Administrative Code 26.12).

Between February 12 and 16, 2018, TxDOT-certified archeologists conducted an intensive archeological survey with shovel testing and backhoe trenching of approximately 7.84 miles of FM 548 between SH 205 and US 80 in Kaufman and Rockwall Counties, Texas. The survey found two archeological sites within the Area of Potential Effect (APE). A draft report of investigations was submitted to TxDOT in March of 2018.

Prior to fieldwork, the THC's Archeological Sites Atlas was consulted to identify previous work, documented, and potential archeological sites within and surrounding the APE. Research focused on the identification of archeological sites, sites listed as SALs, Recorded Texas Historic Landmarks (RTHLs), sites listed on the NRHP, cemeteries, and previously conducted archeological surveys within one kilometer (0.62 mile) of the APE.

The search identified six previously conducted archeological surveys and one documented archeological site within one kilometer. Four of the six archeological surveys cross or parallel the APE. No Cemeteries, SALs, NRHP properties, RTHLs, Historical Markers were recorded within one kilometer of the project area. No archeological sites are located within the APE, but one site, 41KF149, is located 500 meters (800 feet) southeast of the project. This is an early twentieth century house located south of the Dallas to Tawakoni Pipeline. At the time of recording, investigators did not have access to the property; thus, only visual observations from the existing ROW were made. However, recorders recommended NRHP eligibility testing in the event the property would be affected by the proposed pipeline. According to the Atlas, eligibility remains undetermined.

The survey investigations concentrated on properties where structures appeared on historic maps and imagery and areas identified on TxDOT's Dallas Potential Archeological Liability Map (PALM) as having moderate to high potential for prehistoric sites. Survey of the selected high probability areas consisted of pedestrian surface inspection and shovel testing at the THC's

recommended rates, as well as exploratory backhoe trenching at the Big Brushy Creek crossing. Two sites, both historic in age, were discovered within the project APE during the survey.

Site 41KF174 is a 0.41-acre farmstead with a partial concrete slab and shallowly buried debris of historic age located on a short ovular landform along the southeast side of FM 548. Based on the results provided by map research, deed records and archaeological fieldwork, the house was most likely built sometime during the early 1910s, with the earliest positively identified occupants arriving shortly after 1930. The artifacts recovered are broadly diagnostic of the early to middle twentieth-century and likely reflect the occupation of the house towards the middle twentieth century based on the inclusion of the wire nails. Due to the lack of diverse and informative diagnostic artifacts observed at the site, it is unlikely that any additional buried artifacts could contribute to information regarding occupation at the site. Aside from the results obtained from survey, map analysis and deed research, this site has little potential for future research. Therefore, this site is not recommended as eligible for listing on the NRHP or as a SAL.

Site 41KF175 is a 0.4-acre farmstead site located on the southeast side of FM 548 along the bank of an unnamed tributary of Big Brushy Creek containing buried and surficial historic artifacts and one feature (a partially collapsed well). Artifacts, maps, and roof style observed in historic aerial imagery suggest that the site dates to the 1920s. Archival research shows that the farm was absentee-owned and most likely occupied by unidentified tenants. A single positive shovel test was located on the outside edge of the proposed ROW suggesting that additional buried materials may be present outside of the APE, where the house and bulk of the site is depicted on the historic aerial photographs. The portion of the site within the proposed ROW has little potential to provide additional data on the site's occupation. Therefore, within the current APE, this site is recommended as ineligible for listing in the NRHP or as a SAL and does not need to be avoided.

Based on survey findings, it would be very unlikely that the APE/existing FM 548 ROW contains additional unidentified archeological properties (36 CFR 800.16[1]), NRHP properties, or SALs (13 TAC 26.12). Because no eligible archeological sites were discovered within the APE, the proposed construction should not affect any archeological historic properties pursuant to 36 CFR 800.4 (d) (1) or SALs.

The project is compliant with Section 106 of the NHPA of 1966 (and subsequent amendments) and the Antiquities Code of Texas (ACT). Section 106 coordination will be conducted in accordance with the terms and conditions of the First Amended Programmatic Agreement (PA) among the FHWA, the THC, the Advisory Council for Historic Preservation (ACHP), and TxDOT, as well as the Memorandum of Understanding (MOU) between TxDOT and the THC.

A TxDOT archeologist has reviewed the report and concurs with the results. The SHPO concurred with this assessment in a letter signed and dated February 8, 2019 (**Appendix G**). In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease and TxDOT archeological staff will be contacted to initiate post-review discovery procedures under the provisions of the PA and MOU.

Build Alternative: Because of lack of right-of-entry (ROE), the recommended intensive archeological survey augmented with mechanical trenching was not conducted. An archeological survey would be conducted when ROE has been obtained to all ROW parcels.

It is not anticipated that the proposed project would result in direct impacts to known archeological resources. In the unlikely event that cultural resources are discovered during construction of the proposed project, TxDOT would immediately initiate cultural resource discovery procedures. All work in the vicinity of the discovery would cease until a specialist from TxDOT and/or the THC could arrive on site and assess the discovery's significance and the need, if any, for additional investigation.

Consultation with federally-recognized Native American tribes was initiated on July 9, 2018 and concluded on August 2, 2018 (within 30 days from the initiation date). No objections or expressions of concern were received. See **Appendix G** for the tribal coordination documentation.

Potential impacts to archeological resources would be limited to the construction phase of the project and confined to the existing and proposed ROW/easements; thus, encroachment-alteration effects would not occur.

No mitigation would be required. It is not anticipated that the proposed project would result in direct impacts to known archeological resources.

No-Build Alternative: As construction of the proposed project would not occur, there would be no project-related impacts on archaeological resources associated with the No-Build Alternative.

5.8.2 Historic Properties

TxDOT-certified historians surveyed the project APE on January 17 and 18, 2019. It was determined through consultation with the SHPO that the APE for the proposed project is 150 feet beyond the proposed ROW boundaries for existing alignment and within the ROW for areas with no new ROW. The APE includes all parcels of land that are partially or wholly contained within the limits of the APE. The reconnaissance survey of historic-age resources (defined here as all resources built in or before 1978) resulted in the identification of 17 properties with historic-age resources within the project APE. These resources primarily consisted of domestic/residential buildings (10), agricultural buildings and properties (6) and commercial buildings (1). The majority dated to the latter end of the historic period (1965-1978), with only a handful constructed in the 1950s or early 1960s. Applying the Criteria for Evaluation and the aspects of integrity, project historians recommended that none of the surveyed historic-age properties are eligible for NRHP listing. Survey results and eligibility recommendations have been reviewed by TxDOT historians, and findings have been coordinated with the SHPO/THC. No finding of impacts to historic properties has been determined. See the *Project Coordination Request for Historical Studies Project* for FM 548 for detailed information.

No-Build Alternative: No changes to existing conditions would occur in the No-Build Alternative scenario; therefore, no impacts to historic properties would be anticipated with the No Build Alternative.

Build Alternative: On March 18, 2019, TxDOT historians determined that there are no historic, non-archeological properties in the APE. Individual project coordination with SHPO is not required (**Appendix G**).

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

Build Alternative: The proposed project would not use lands protected by Section 4(f). Section 4(f) protects publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State or local significance, and any land from an historic site of national, State, or local significance.

The proposed project would not use any lands protected by Section 6(f) of the Land and Water Conservation Fund (LWCF) Act. There are no Section 6(f) properties present in the proposed project area.

The proposed project would not use any lands protected by Chapter 26 of the Texas Parks and Wildlife Code (PWC). Chapter 26 of the Texas PWC protects any public land designated and used as a park, recreation area, scientific area, wildlife refuge, or historic area from use or take from such land.

There are no Section 4(f), LWCF Act Section 6(f) and PWC Chapter 26 properties present in the project area.

No-Build Alternative: As construction of the proposed FM 548 project would not occur, there would be no project-related impacts on Section 4(f), Section (6)f, and PWC Chapter 26 properties associated with the No-Build Alternative.

5.10 Water Resources

The proposed project is in the Trinity River Basin, as detailed in the *Water Resources Technical Report*. The proposed project crosses eight streams comprising six tributaries to Big Brushy Creek, Big Brushy Creek, and a tributary to High Point Creek. **Table 4** lists the Waters of the U.S. in the proposed project area, amount of impacts to the water bodies that would result from implementation of the proposed project, and the applicable U.S. Army Corps of Engineers (USACE) permit.

Table 4: Impacts to Waters of the U.S.

Crossing No.	Name of Water Body or other location indicator	Approx. OHWM (feet)	Existing Structure	Proposed Work or Structure	Permanent Fill		Temporary Fill		NWP	PCN (Y/N)
					Open Waters (acres and linear feet)	Wetlands or other Special Aquatic Sites (acres)	Open Waters (acres and linear feet)	Wetlands or other Special Aquatic Sites (acres)		
1	Ephemeral Tributary to Big Brushy Creek	6	2 – 3x74' RCP	1 – 6x4x143' RCB	193 LF 0.04 acre	-	74 LF 0.01 acre	-	14	No
2	Intermittent Tributary to Big Brushy Creek	4 - 34	3 – 8x6x39' RCB	1 – 8x6x150' RCB	232 LF 0.12 acre	-	39 LF 0.02 acre	-	14	Yes
3	Intermittent Tributary to Big Brushy Creek	6 - 30	3 – 9x8x39' RCB	1 – 9X8X184' RCB	265 LF 0.11 acre	-	39 LF 0.02 acre	-	14	Yes
4	Intermittent Tributary to Big Brushy Creek	14	2 – 60"x105' RCB	1 – 8x5x208' RCB	159 LF 0.04 acre	-	105 LF 0.02 acre	-	14	No
5	Intermittent Tributary to Big Brushy Creek	5 - 17	2 – 10x10x40' RCB	2 – 12x8x143' RCB	229 LF 0.06 acre	-	40 LF 0.02 acre	-	14	No
6	Intermittent Tributary to Big Brushy Creek	66	4 – 10x10x39' RCB	4 – 10x10x143' RCB	226 LF 0.27 acre	-	39 LF 0.04 acre	-	14	Yes
	Abutting Wetland	-	None		-	0.05 acre	-	-		
7	Big Brushy Creek (Intermittent)	26	Bridge (4 spans), total length	Bridge (3 spans), total length 180'	37 LF 0.25 acre	-	-	-	25	No

Table 4: Impacts to Waters of the U.S.

Crossing No.	Name of Water Body or other location indicator	Approx. OHWM (feet)	Existing Structure	Proposed Work or Structure	Permanent Fill		Temporary Fill		NWP	PCN (Y/N)
					Open Waters (acres and linear feet)	Wetlands or other Special Aquatic Sites (acres)	Open Waters (acres and linear feet)	Wetlands or other Special Aquatic Sites (acres)		
			152’							
8	Intermittent Tributary to High Point Creek	4 - 16	2 – 10x8x55’ RCB	3 – 12x6x230’ RCB	393 LF 0.07 acre	-	55 LF 0.02 acre	-	14	Yes

LF – Linear Feet
OWHM – Ordinary High Water Mark
NWP – Nationwide Permit
PCN – Preconstruction Notification
RCP – Reinforced Concrete Pipe
RCB – Reinforced Concrete Box

Impacts to Waters of the U.S. within the proposed project limits would result from the widening of the roadway, which include culvert installation, culvert replacement, paved roadway construction, and bridge column and riprap installation (see **Table 4** and **Figure 5** in **Appendix F**). See the *Water Resources Technical Report* for detailed information and figures.

5.10.1 Clean Water Act Section 404

Crossings 1 through 6 and Crossing 8 would be impacted by replacement/installation of culverts and roadway pavement expansion. These projects would utilize NWP 14 – *Linear Transportation Projects*. The bridge at Crossing 7 would be replaced by a new bridge structure that would span Big Brushy Creek. However, there would be bent placement within the stream channel. This crossing would utilize NWP 25 – *Structural Discharge*. Stone riprap would also be installed outside the OHWM of Crossing 7. Each of the eight crossings have been identified as single and complete projects. A former TxDOT borrow pit is located between Crossings 5 and 6. The borrow pit does not drain to either stream. It is not considered a potential jurisdictional water of the U.S. A PCN would be required at Crossings 2 and 3 because impacts are greater than 0.10 acre but less than 0.50 acre, at Crossing 6 because of wetland impacts, and at Crossing 8 because impacts are greater than 300 linear feet (Regional Condition 12). Compensatory mitigation would be required for this project.

Appropriate measures would be taken to maintain normal downstream flows and minimize flooding. Temporary fills would consist of clean materials and be placed in a manner that would not be eroded by expected high flows. Temporary fills would be removed in their entirety and the affected area returned to preconstruction elevations, and revegetated as appropriate. If the project involves stream modification, stream channel modifications, including bank stabilization, would be limited to the minimum necessary to construct or protect the structure and the immediate vicinity of the project. The activity would comply with all general and regional conditions applicable to NWPs 14 and 25.

The activities at water crossings 1 through 8 have been identified as single and complete projects as defined in the NWPs because each crossing occurs at a separate and distant location and would therefore be permitted under the same NWPs 14 and 25.

The proposed project would comply with U.S. Environmental Protection Agency's (EPA) Section 404(b)(1) Guidelines 40 CFR Part 230, allowing the discharge of dredged or fill material only if there is no practicable alternative that would have less adverse effects on the aquatic ecosystem. Since the proposed project would consist of extending an existing facility, and there are no other practicable build alternatives, the discharge of dredged or fill material into Waters of the U.S. is permissible.

Build Alternative: **Table 4** lists the Waters of the U.S. in the proposed project area, amount of impacts to the water bodies that would result from implementation of the proposed project, and the applicable USACE permit. The impacts at each crossing would be less than 0.50 acre but greater than 0.10 acre. Four crossings within the proposed project would be authorized by NWP 14.

The potential for project-related encroachment-alteration effects on Waters of the U.S. would be mitigated through permanent (post-construction) Best Management Practices (BMPs) as described below. To minimize the potential for adverse impacts, BMPs would be regularly inspected and proactively maintained.

Compensatory mitigation would be required for this project.

No-Build Alternative: As construction of the proposed FM 548 project would not occur, there would be no FM 548 project-related impacts on Waters of the U.S. associated with the No-Build Alternative.

5.10.2 Clean Water Act Section 401

General Condition 25 of the NWP Program requires applicants using NWPs 14 and 25 to comply with Section 401 of the Clean Water Act (CWA). Compliance with Section 401 requires the use of BMPs to manage water quality on construction sites. General Condition 12 also requires applicants using NWP 14 to use appropriate soil erosion and sedimentation controls.

Build Alternative: The Storm Water Pollution Prevention Plan (SW3P) would include at least one BMP from the 401 Water Quality Certification Conditions for NWPs as published by the Texas Commission on Environmental Quality (TCEQ). These BMPs would address each of the following categories:

- Category I Erosion Control would be addressed by using temporary vegetation, permanent seeding/sodding, and stone outlet structures such as stone riprap.
- Category II Sedimentation Control would be addressed by installing silt fence, rock berms, and mulch filter socks.
- Category III Post-Construction Total Suspended Solids (TSS) control would be addressed by installing vegetative-lined drainage ditches.

Other approved methods would be substituted if necessary, using one of the BMPs from the identical category.

The potential for project-related encroachment-alteration effects on water quality would be mitigated through permanent (post-construction) BMPs as described above. To minimize the potential for adverse impacts, BMPs would be regularly inspected and proactively maintained.

BMPs would be implemented to ensure that water quality impacts would not be significant; therefore, mitigation is not considered.

No-Build Alternative: As construction of the proposed FM 548 project would not occur, there would be no FM 548 project-related impacts on water quality associated with the No-Build Alternative.

5.10.3 Executive Order 11990 Wetlands

Build Alternative: Pursuant to EO 11990 (Protection of Wetlands) and Section 404 of the CWA, field reconnaissance was conducted to identify Waters of the U.S., including wetlands, within the proposed project limits on October 4, 2016, November 8, 2017, January 10, 2018, and July 17, 2018. Results of the reconnaissance did identify wetlands within the project limits abutting Crossing 6, an intermittent tributary to Big Brushy Creek. No other Alternatives were reasonable and feasible to avoid impacting the wetlands.

Typical mitigation for impacts to Waters of the U.S. and wetlands includes the construction of mitigation areas or purchasing credits from a mitigation bank. Mitigation is frequently conducted as one of the requirements for obtaining a Section 404 permit. The USACE decides what the ratio of the mitigation area would be relative to the acreage of impacts to Waters of the U.S. A typical mitigation ratio is three times the amount of acreage impacted, while the minimum mitigation ratio is one time the amount of acreage impacted (i.e. 1:1 ratio).

No-Build Alternative: As construction of the proposed FM 548 project would not occur, there would be no FM 548 project-related impacts on wetlands associated with the No-Build Alternative.

5.10.4 Rivers and Harbors Act

This project does not involve work in or over a navigable Water of the U.S.; therefore, Section 10 of the Rivers and Harbors Act does not apply. Likewise, a navigational clearance under the General Bridge Act of 1946, and Section 9 of the Rivers and Harbors Act (administered by the U.S. Coast Guard [USCG]) is not applicable. Coordination with the USCG (for Section 9 and the General Bridge Act) and the USACE (for Section 10) would not be required.

5.10.5 Clean Water Act Section 303(d)

The project is located within five linear miles upstream of an impaired assessment unit (0819_01). It is within the watershed (Duck Creek-East Fork Trinity River) of the impaired assessment unit, and drains to the impaired assessment unit. The proposed project is located approximately 3.7 linear miles northwest of the impaired assessment unit. The proposed project and the impaired assessment unit are in the northeast quadrant of the watershed. See **Table 5** for a description and location of the impaired water.

Table 5. 2014 Section 303(d) List of Impaired Waters

Assessment Unit ID	Segment ID	Segment Name	Description	Constituent of Concern	Is the project within five linear miles of an impaired assessment unit, and within the watershed of, and draining to that impaired assessment unit?	Will project contribute to Constituent of Concern?
0819_01	0819	East Fork Trinity River	From confluence with the Trinity River in Kaufman County to Rockwall-Forney Dam in Kaufman County	Sulfate and total dissolved solids	Yes	No

Sources: *2014 Texas Integrated Report - Texas 303(d) List* https://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/14txir/2014_303d.pdf *(accessed 3/15/19) and TCEQ Surface Water Quality Viewer* https://tpwd.maps.arcgis.com/apps/Viewer/index.html?appid=2b3604bf9ced441a98c500763b8b1048 *(accessed 3/15/19).*

The assessment unit, 0819_01, does not have an U.S. Environmental Protection Agency-approved Total Maximum Daily Load (TMDL). The project will be implemented, operated, and maintained using BMPs to control the discharge of pollutants from the project site.

BMPs that would be used to control discharge of pollutants form the project site include: temporary vegetation, blankets/matting, permanent seeding/sodding, stone outlet structures, installing silt fence, rock berms, stabilized construction exits, and installing grass swales and vegetative filter strips. Other approved methods would be substituted if necessary, using one of the BMPs from the identical category.

To date, TCEQ has not identified (through either TMDL or the review of projects under the TCEQ MOU) a need to implement control measures beyond those required by the Construction General Permit (CGP) on road construction projects. Therefore, compliance with the projects CGP, along with coordination under the TCEQ MOU for certain transportation projects, collectively meets the need to address impaired waters during the environmental review process.

This project has been coordinated under TxDOT's MOU with the TCEQ. See **Appendix G** for the coordination documentation.

5.10.6 Clean Water Act Section 402

Build Alternative: Since Texas Pollutant Discharge Elimination System (TPDES) CGP authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the projects. The Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual require an 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 [NOI] 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 complete the appropriate authorization documents.

The Build Alternative is located outside the TxDOT's MS4 boundary area. The proposed project is located within the City of Forney and the Dallas ETJ and would comply with the City of Forney's (Phase 4) and Dallas County's applicable MS4 requirements.

No-Build Alternative: This alternative would not alter the amount of runoff generated within the proposed project area.

5.10.7 Floodplains

Kaufman and Rockwall Counties and the City of Forney are participants in the National Flood Insurance Program. The study area is located on Flood Insurance Rate Map (FIRM) Panel Numbers 48257C0040D (revised July 3, 2012), 48257C0050D (revised July 3, 2012), 48257C0075D (revised July 3, 2012), 48257C00155D (revised July 3, 2012), and 48397C0130L (revised September 26, 2008). See **Figure 4** in **Appendix F**.

Build Alternative: The proposed project crosses the 100-year floodplain associated with three tributaries to Big Brushy Creek, Big Brushy Creek, and the tributary to High Point Creek. The

floodplain is classified as Zone A (100-year floodplain for which base flood elevations have not been determined).

This project is subject to and will comply with EO 11988 on Floodplain Management. The department implements the Executive Order on a programmatic basis through the Hydraulic Design Manual. Design of this project will be conducted in accordance with the departments Hydraulic Design Manual. Adherence to the TxDOT Hydraulic Design Manual ensures that this project will not result in a "significant encroachment" as defined by FHWA's rules implementing Executive Order 11988 @ 23 CFR 650.105(q). Since the proposed project's need and purpose is to provide an east-west collector to meet traffic demand and connect local traffic to arterial roadways within the immediate area, there are no other practicable build alternatives. The facility would permit the conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing significant damage to the facility, stream, or other property. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. Coordination with the local floodplain administrator would be required.

Construction would be limited to the proposed project's existing/proposed ROW/easement areas, and would have no effect on floodplain areas outside the construction area.

The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances; therefore, mitigation is not proposed.

No-Build Alternative: This alternative would not alter the existing level of roadway encroachments into floodplains.

5.10.8 Wild and Scenic Rivers

The proposed project would not impact any present, proposed, or potential unit of the National Wild and Scenic Rivers System.

5.10.9 Coastal Barrier Resources

The proposed project is not located within a county subject to the requirements of the Coastal Barrier Resources Act.

5.10.10 Coastal Zone Management

The proposed project is not located within the Texas Coastal Management Area.

5.10.11 Edwards Aquifer

The proposed project is not located within the Edwards Aquifer Contributing or Recharge Zones; therefore, the Edwards Aquifer Rules do not apply.

5.10.12 International Boundary and Water Commission (IBWC)

This proposed project does not cross or encroach upon the floodplains of the IBWC flood control projects or ROW.

5.10.13 Drinking Water Systems

Registered water wells were not identified within the proposed project. There are no source water protection areas located in the proposed project area. Impacts to water wells and source water protection areas as a result of the proposed project are not anticipated.

5.11 Biological Resources

5.11.1 Texas Parks and Wildlife Coordination

A *TxDOT Biological Resources Technical Report*, containing the *Biological Evaluation Form*, *Tier 1 Site Assessment Form*, and supporting documents, was completed for the proposed project. It was determined that coordination with the Texas Parks and Wildlife Department (TPWD) was required per the 2013 TPWD/TxDOT (2017 Revision) MOU because:

1) The proposed project required a NWP with PCN from the USACE.
2) The proposed project may impact at least 0.10 acre of riparian vegetation, and
3) The proposed project disturbs habitat in an area equal to or greater than the area of disturbance indicated in the Threshold Table PA.
4) The proposed project impacts suitable habitat for the SGCN Topeka purple-coneflower (*Echinacea atrorubens*) for which there are no approved species BMPs.
5) The proposed project may impact remnant vegetation according to NDD and TCAP review, similar to 4) above.
6) The proposed project includes more than 200-linear feet of stream channel at single and complete crossings.

Items in numbers 2 and 3 are discussed further in Section 5.11.2.

The Texas Natural Diversity Database (TXNDD) data obtained from TPWD on March 15, 2019 was reviewed along with the USFWS Official Species List, dated March 15, 2019. The search TXNDD radius was 1.5 miles from the proposed project. There were no known element occurrences of state or federally listed species or managed areas within 1.5 miles of the proposed project area.

Suitable habitat was observed within the proposed project area during field investigations conducted on October 4, 2016 and January 10, 2018 for the following state-listed threatened species (as identified on TPWD's Annotated County List of Rare species for Kaufman and Rockwall Counties): timber rattlesnake (*Crotalus horridus*). Impacts to state-listed species and BMPs to be implemented are discussed further in section 5.11.11.

Suitable habitat was also observed within the proposed project for the following SGCN (as identified on TPWD's Annotated County List of Rare Species for Kaufman and Rockwall Counties, accessed on September 27, 2018): southern crawfish frog (*Lithobates areolatus areolatus*), Western Burrowing Owl (*Athene cunicularia hypugaea*), plains spotted skunk (*Spilogale putorius interrupta*), and Texas garter snake (*Thamnophis sirtalis annectens*). The implementation of the following BMPs eliminates the need for coordination for impacts to the above species as described in section 2.206(1) of the 2013 TPWD/TxDOT (2017 Revision) MOU:

- Southern crawfish frog: Minimize impacts to wetland habitats included isolated ephemeral pools, Water Quality BMPs, and amphibian BMPs.
  - *Water Quality BMPs*: In addition to BMPs required for a TCEQ SW3P and/or 401 water quality permit: minimize the use of equipment in streams and riparian areas during construction and when possible, equipment access should be from banks, bridge decks, or barges. When temporary steam crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
  - *Amphibian BMPs:*
    a) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
    b) Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats.

c) Maintain hydrologic regime and connections between wetlands and other aquatic features.
d) Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in constructions areas directly adjacent or that may directly impact, potential habitat for the target species.
e) Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, using erosion control blankets or mats that contain no netting, or only contain loosely woven natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
f) Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features.
g) When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g., downed trees, sand bars, exposed bedrock) and overwinter sites (e.g. brush and debris piles, crayfish burrows) where feasible.
h) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible.
i) If gutters and curbs are part of the roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e. mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features.
j) For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barrier should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction, or whichever is the lesser of the two.
k) For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs.
l) When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic wildlife through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation or a combination of vegetative and structural materials should be used.

- Western Burrowing Owl (Bird BMPs):
  a.) Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal.
  b.) Nests that are active should not be disturbed.
  c.) Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season.
  d.) Avoid the removal of unoccupied, inactive nests, as practicable.
  e.) Prevent the establishment of active nest during the season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
  f.) Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.

- Plains spotted skunk BMPs: Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
- Timber rattlesnake and Texas garter snake (Terrestrial Reptile BMPs):
  a.) Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible.
  b.) If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred.
  c.) Plastic netting should be avoided to the extent practicable.
  d.) For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered.
  e.) Visually inspect excavation areas for trapped wildlife prior to backfilling.
  f.) Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
  g.) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
  h.) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

Early coordination with TPWD was initiated on January 24, 2019 and completed on February 21, 2019. See **Appendix G** for the coordination documentation. Documentation of the *Biological Resources Technical Report* is maintained in the project file at the TxDOT Dallas District Office.

5.11.2 Impacts on Vegetation

Build Alternative: According to the MOU with TPWD, important remnant vegetation includes communities listed as suitable habitat and within the range of SGCN. General habitat types listed for Texas Blackland Prairie (TBPR) Ecoregion SGCN present within the proposed project footprint include Cross Timbers Woodland and Forest; Tallgrass Prairie, Grassland; Disturbed Prairie; Agriculture; Riparian; and Urban (**Figure 5** in **Appendix F**). The TPWD Annotated County Lists of Rare Species listed the Topeka purple-coneflower for Kaufman County. Potential suitable habitat, such as prairies, for the Topeka purple-coneflower is present within the proposed project area within Kaufman County. This species was not observed during the site visits conducted on October 4, 2016, November 8, 2017, January 10, 2018, and July 17, 2018. Species BMPs for the Topeka purple-coneflower have not been established in the MOU BMPs PA between TxDOT and TPWD.

The proposed project would directly impact the following MOU Type habitats: Cross Timbers Woodland and Forest (2.84 acres); Disturbed Prairie (50.53 acres); Agriculture (5.41 acres); Riparian (5.62 acres); Urban (104.29 acres), and Open Water (1.33 acre). The vegetation impacted by the proposed project fits into the TBPR Ecoregion described in the Threshold Programmatic Agreement (PA) Under the 2013 MOU, 2017 Revision (MOU) (Threshold PA). The 2.84 aces of impacts to Cross Timbers Woodland and Forest MOU type exceeds the 1-acre threshold described in the Threshold PA. The 50.53-acre impact to the Disturbed Prairie MOU type exceeds the 3-acre threshold described in the Threshold PA. As stated in the Threshold PA, there is no threshold for project impacts to areas classified as the Urban MOU type or areas classified as the Open Water MOU type. Refer to the Vegetation Map (**Figure 5** in **Appendix F)**.

Potential impacts to vegetation would be confined to the existing and proposed ROW and easements; thus, encroachment-alteration effects would not occur.

Impacts to vegetation would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. The removal of native vegetation, particularly mature native trees and shrubs, would be avoided to the greatest extent practicable. A native and locally adapted seed mix would be used in the re-vegetation of disturbed areas.

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

5.11.3 Executive Order 13112 on Invasive Species

This project is subject to and will comply with EO 13112 on Invasive Species. The department implements the EO on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual. Accordingly, seeding and replanting with TxDOT-approved seed mixes containing native species would be done where possible. Soil disturbance would be minimized in the right of way in order to minimized invasive species establishment.

5.11.4 Executive Memorandum on Environmentally and Economically Beneficial Landscaping

This project is subject to and will comply with the federal Executive Memorandum on Environmentally and Economically Beneficial Landscaping, effective April 26, 1994. The department implements this Executive Memorandum on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual. Seeding and replanting of disturbed areas with TxDOT-approved seed mixes that are in compliance with Executive Memorandum on Beneficial Landscaping would be done where possible.

5.11.5 Impacts to Wildlife

The proposed project is located in Kaufman and Rockwall Counties. Developed and undeveloped lands are present within the proposed project area. Developed land includes single-family residences, retail, commercial, public facilities, and places of worship. Undeveloped lands comprise vacant (not utilized), agriculture (ranch and pasture), woodlands, fence row vegetation, streams, and ponds. Wildlife species expected to inhabit the proposed project area are likely adapted to both a rural environment as well as an urban, developed environment. Mammalian species that likely inhabit the area include the coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), and eastern gray squirrel (*Sciurus carolinensis*). Amphibian and reptilian species would also utilize the different available habitats. The species would include various snakes, turtles, lizards, and frogs native to north-central Texas. Examples would be the Texas rat snake (*Elaphe obsolete lindheimen*), red-eared slider (*Trachemys scripta*), western ribbon snake (*Thamnophis proximus*), and the northern cricket frog (*Acris crepitans*). Various waterfowl species could utilize the aquatic habitat. The agricultural fields and pastures still serve as foraging areas for resident and migratory species.

The presence of the following wildlife species was observed during field reconnaissance: crayfish (species unknown) and nine-banded Armadillo (*Dasypus novemcinctus*).

There is suitable habitat present within the proposed project area for the SGCN species identified in **Section 5.11.1**

Build Alternative: Substantial impacts to wildlife are not anticipated. The proposed project is the widening of an existing roadway and therefore, is not newly bisecting continuous wildlife habitat. It is likely that wildlife currently avoids the proposed project area due to the adjacent

development and high-speed traffic. Terrestrial wildlife that does cross FM 548 would have to travel a greater distance when crossing the widened roadway upon project completion. This would result in their being exposed to predators, people, domestic pets, vehicles, etc. for a greater amount of time. Wildlife that does currently inhabit adjacent urban development and existing roadway structures (culverts, utility poles, etc.) would be temporarily impacted due to potential structural displacements/relocations and roadway structure reconstruction and relocation. It is likely that the impacted wildlife would recolonize the available habitat once construction of the proposed project is complete.

No-Build Alternative: Under the No-Build Alternative, the proposed project would not be constructed; thus, there would be no project-related impacts to wildlife.

5.11.6 Migratory Bird Protections

This project will comply with applicable provisions of the Migratory Bird Treaty Act and Texas 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 and FHWA policy. FHWA is a member of the Council for the Conservation of Migratory Birds that was established by EO 13186 - Responsibilities of Federal Agencies to Protect Migratory Birds. 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.

5.11.7 Fish and Wildlife Coordination Act

All impacts to Waters of the U.S. would be authorized by NWP 14 with a PCN. Therefore, the U.S. Fish and Wildlife Service (USFWS) consider Fish and Wildlife Coordination Act coordination to be complete as part of the NWPs review, which was last authorized and reissued on March 19, 2017.

5.11.8 Bald and Golden Eagle Protection Act of 2007

No eagles were observed during the October 4, 2016, November 8, 2017, January 10, 2018, and July 17, 2018 site visits nor does the project area offer suitable eagle habitat. Therefore, no impact to bald or golden eagles or their habitat is anticipated as a result of the proposed project, as verified by a qualified biologist. The proposed project is not anticipated to impact Bald and Golden Eagles.

5.11.9 Magnuson-Stevens Fishery Conservation Management Act

There are no tidally influenced waters in Dallas County and the proposed project would not affect essential fish habitat; therefore, the project is not subject to the requirements of the Magnuson-Stevens Fishery Conservation Management Act.

5.11.10 Marine Mammal Protection Act

The proposed project would not affect marine mammals; therefore, the project is not subject to the requirements of the Marine Mammal Protection Act.

5.11.11 Threatened, Endangered, and Candidate Species

As detailed in the *Biological Resources Tech Report, Biological Resources Evaluation Form,* and *Tier 1 Site Assessment Form*, desktop analysis and field investigations conducted in October 4, 2016, November 8, 2017, January 10, 2018, and July 17, 2018 indicate that this proposed project would have no effect on any federally listed threatened, endangered, or candidate

species. USFWS designated Critical Habitat is not present within the proposed project action area.

There is potential suitable habitat present within the proposed project area for the following state-listed threatened species: timber rattlesnake. BMPs that would be implemented for these species are as follows:

- Timber rattlesnake (Terrestrial Reptile BMPs): (a) Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable. (b) For open trenches and excavation pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling. (c) Inform contractors that if reptiles are found on project site allow species to safely leave the project area. (d) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible. (e) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

Build Alternative: Potential suitable habitat for the timber rattlesnake is present in the proposed project area; therefore, it is possible that impacts to suitable habitat could result in direct impacts to this state-listed threatened species. It is not anticipated that the proposed project would result in the 'take' of state-listed threatened species.

Endangered Species Act

The 1973 Endangered Species Act (ESA) provides a means for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend, and to provide a program for endangered and threatened species conservation. Section 7 of the ESA requires Federal agencies to ensure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat.

Build Alternative: According to the USFWS Official Species List, dated September 7, 2018, the following federally protected species may occur or could potentially be affected by the proposed project: Least Tern (*Sterna antillarum*), Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), and Whooping Crane (*Grus americana*).

The Official Species List states that Least Tern, Piping Plover, and Red Knot only need consideration for wind energy projects. For the Piping Plover and Red Knot, there is no suitable habitat present within the action area, such as beaches, sand, algal, or tidal flats, or sparsely vegetated shores and islands of shallow lakes, ponds, rivers, and impoundments. Effects to the Least Tern are not anticipated because there is no suitable habitat present within the action area, such as sand and gravel bars within braided streams and rivers. Nor are there perennial waters with small fish and crustaceans for feeding. Therefore, TxDOT has determined that the proposed project would have no effect on Least Tern, Piping Plover, or Red Knot. For the Whooping Crane, the action area includes ponds and agricultural fields. However, it is not suitable migratory or foraging habitat due to the proximity to a high-speed roadway and other developed areas. Therefore, TxDOT has determined that the proposed project would have no effect on Whooping Crane.

USFWS designated Critical Habitat is not present within the proposed project action area.

No-Build Alternative: Under the No-Build Alternative, the proposed project would not be constructed; thus, there would be no effects to federally listed threatened, endangered, or candidate species.

5.12 Air Quality

This project is located within an area that has been designated by the Environmental Protection Agency (EPA) as a serious and moderate nonattainment area for the 1997 and 2008 ozone National Ambient Air Quality Standards (NAAQS), respectively; therefore, transportation conformity rules apply. Effective August 3, 2018, the EPA designated Kaufman and Rockwall Counties as marginal nonattainment for the 2015 ozone NAAQS. In accordance with 40 CFR 93.109(c), transportation conformity to this new standard is required by August 3, 2019 (one year after effective date).

The proposed action is consistent with the NCTCOG's financially constrained MTP Mobility 2045 and the 2019-2022 TIP, as amended, which were initially found to conform to the TCEQ State Implementation Plan by the FHWA and Federal Transit Administration on November 21, 2018, and September 28, 2018, respectively. Copies of the MTP and TIP pages are included in Appendix E. All projects in the NCTCOG's TIP that are proposed for federal or state funds were initiated in a manner consistent with federal guidelines in Section 450, of Title 23 CFR and Section 613.200, Subpart B, of Title 49 CFR.

Build Alternative: An *Air Quality Assessment Technical Report* was completed for the proposed project and is maintained in the project file at the TxDOT Dallas District Office. Because the proposed project would add capacity in a nonattainment area, it was coordinated under TxDOT's MOU with TCEQ (see **Appendix G**).

A Carbon Monoxide (CO) Traffic Air Quality Analysis was not required for the proposed project because the average annual daily traffic does not exceed 140,000 vpd. A qualitative Mobile Source Air Toxics (MSAT) analysis was completed for the proposed project and found that the Build Alternative may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain and, because of this uncertainty, the health effects from these emissions cannot be estimated. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today. A Congestion Management Process was conducted to identify operational improvements and travel demand reduction strategies at the project level. Committed congestion reduction strategies and operational improvements within the study boundary would consist of access management improvements (turn lanes), addition of new lanes, and intersection improvements; sustainable development improvements: bicycle and pedestrian facility improvements; and system management and operations improvements: traffic signal improvements. Lastly, it is not anticipated that emissions from construction of this project would have any significant impact on air quality in the area due to the use of fugitive dust control measures, the encouragement of the use of the Texas Emissions Reduction Plan (TERP), and compliance with applicable regulatory requirements.

Present and future vehicle miles travelled and the associated MSAT emissions and CO emissions resulting from the proposed project are considered a direct effect and were considered in the air quality analyses discussed above. Additional impacts, in the form of encroachment-alteration effects, would not occur.

The use of fugitive dust control measures, the encouragement of the use of TERP, and compliance with applicable regulatory requirements would mitigate impacts to air quality.

No-Build Alternative: Due to federal fuel and vehicle control programs, air quality would be expected to improve regardless of the Build or No-Build Alternative.

5.13 Hazardous Materials

An initial site assessment (ISA) including a visual survey of the project limits and surrounding area, research of existing and previous land use, and limited review of federal and state regulatory databases/lists was performed. The purpose of the ISA is to identify possible hazardous materials within the project limits. A review of a regulatory database list was conducted as part of the ISA. Section 5.1 of the ISA lists the regulatory records that were reviewed. The FM 548 *Hazardous Materials Initial Site Assessment Report* is maintained in the TxDOT Dallas District project files.

Build Alternative: A review of a regulatory database list was conducted as part of the ISA. Section 5.1 of the ISA lists the regulatory records that were reviewed. A brief summary of regulated sites of concern within the proposed project limits is provided in **Table 6**. These sites are discussed following the table and site locations are shown on the Hazardous Materials Site Location Map (see **Figure 6** in **Appendix F**).

Table 6: Summary of Regulated Sites of Concern

Map ID*	Site Information	Database	Location Relative to Project
N/A	Conecsus Fire 301 Industrial Dr. Forney, TX 75126	SEMS EPA ID: TXN000607517 Site Visit Concerns: None.	Situated approx. 3,500 feet northwest of the project property (not considered an environmental concern)
N/A	Doan Agricultural Services, located at Airpark (Airport) six miles northwest of Terrell, TX 75160 Based on the location description, the site was formerly located at the Airpark East Airport location (11230 SH 205, Terrell, TX 75160)	SEMSARCH EPA ID: TXD982299117 Site Visit Concerns: None.	Proposed ROW acquisition from undeveloped portion of airport property (not considered an environmental concern)
1	Walmart Supercenter 5191/ Murphy USA 7216 802 E. US Highway 80 Forney, TX 75126	RCRAGR06 EPA ID: TXR000062976 PST Facility ID: 77331/77376 Site Visit Concerns: None.	Adjacent to existing ROW. No ROW acquisition from the Walmart property. Walmart/Murphy facility is considered a low environmental risk
8	Kroger Fuel Center 579 575 Marketplace Blvd. Forney, TX 75126	PST Facility ID: 85628 Site Visit Concerns: None.	Situated approx. 185 feet west of the project. No ROW would be acquired from this site. Site is considered a low environmental risk

Table 6: Summary of Regulated Sites of Concern

Map ID*	Site Information	Database	Location Relative to Project
12	Old Forney Dump, owned by the City of Forney, is reported as being formerly located one mile east of Forney and 50 yards north of IH (US) 80, in Kaufman County Dump may have been located at the current location of Free Life Church property, 1032 E US Hwy 80, Forney, TX 75126.	CALF ID: 334 Site Visit Concerns: None.	Site is estimated to be approx. 2,250 feet east of the southern project limit (not considered an environmental concern)
14	Smurfit Kappa North America Forney/Corrugated Services 855 E. US Highway 80 Forney, TX 75126	IHWCA ID: 73961 Site Visit Concerns: None.	Situated approx. 2,300 feet southeast of the southern project limit (not considered an environmental concern)
15	Hoffman Drum Forney Forney Industrial Park Bldg. 1C Forney, TX 75126	IHWCA ID: 38689 Site Visit Concerns: None.	Situated approx. 2,200 feet east of the southern project limit (not considered an environmental concern)
16	Forney Transmission 907 E. Broad St. Forney, TX 75126	IHWCA ID: 34927 Site Visit Concerns: None.	Situated approx. 4,500 feet west-southwest of the southern project limit (not considered an environmental concern)

SEMS	Superfund Enterprise Management System
SEMSARCH	Superfund Enterprise Management System Archived Site Inventory
RCRAGR06	Resource Conservation & Recovery Act - Generator
IHWCA	Industrial and Hazardous Waste Corrective Action Sites
PST	Petroleum Storage Tanks
CALF	Closed & Abandoned Landfill Inventory
*	Map ID numbers correspond to those used in the ISA.

Sources: GeoSearch (August 17, 2017) and Site Survey (November 8, 2017).

Within the specified search radius of the regulatory database report, the following sites were identified.

- Two Registered Petroleum Storage Tanks
- Three Industrial Hazardous Waste Corrective Action Sites
- One Superfund Enterprise Management System
- One Superfund Enterprise Management System Archived Site Inventory
- One Resource Conservation & Recovery Act – Generator
- One Closed & Abandoned Landfill Inventory

None of these sites were determined to pose an environmental risk to the project, therefore, no further/additional investigation was warranted.

Utility Adjustments/Relocation

At this time, utility adjustment requirements have not been determined. There is a potential for contamination to be encountered during utility adjustments. Coordination with utility companies

concerning this contamination would be addressed during the ROW stage of project development. It is anticipated that all utility adjustments or relocation would be completed prior to construction.

Storm Water Drainage Structures in Contamination

The proposed project requires the installation of storm sewers. Due to the possible contamination from adjacent properties, special considerations or provisions for entry and monitoring in the project's PS&E would be required.

Possible Asbestos-Containing Materials

The proposed project includes the displacement of building structures and replacement of the bridge at Big Brushy Creek. The building and bridge structures may contain asbestos containing materials. Asbestos inspections, specification, 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 for building structures and prior to construction for the bridge structure.

Lead-Based Paint

The proposed project includes the displacement of building structures and replacement of the bridge at Big Brushy Creek. The building and bridge structures may contain Lead-Based Paint (LBP). Further examination of paint-bearing building and bridge structures for LBP would be performed prior to demolition. Any waste materials and construction debris containing LBP would be disposed of according to current disposal regulations of the TCEQ and EPA.

Active Pipelines

During the preliminary hazardous materials investigation, two pipelines were found to bisect the proposed project. The Railroad Commission of Texas Public GIS Viewer identified a 6.63-inch diameter natural gas pipeline crosses FM 548 near Sta. 84+00 and a 12.75-inch diameter natural gas pipeline crosses FM 548 near Sta. 171+00. Additional investigation may be required to determine if the pipelines would need adjustment due to the proposed project construction.

Potential impacts to hazardous material sites would be limited to the construction phase of the project (when ground disturbing activities would occur) and confined to the existing and proposed ROW/easements; thus, encroachment-alteration effects on hazardous materials would not occur.

Special provisions or contingency language would be included in the project's construction plans to handle hazardous materials and/or petroleum contamination according to applicable federal and state regulations. In addition, the construction contractor would take appropriate measures to prevent, minimize, and control spillage of hazardous materials in the construction staging area(s).

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

5.14 Traffic Noise

Build Alternative: A traffic noise analysis was accomplished in accordance with TxDOT's (FHWA approved) *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011). Refer to the

FM 548 *Traffic Noise Technical Report* for a detailed discussion of the traffic noise analysis. Sound from highway traffic is generated primarily from a vehicle's tires, engine and exhaust. It is commonly measured in decibels and is expressed as "dB." The FHWA has established Noise Abatement Criteria (NAC) for various land use activity areas that are used as one of two means to determine when a traffic noise impact would occur (**Table 7**).

Table 7: Traffic Noise Levels dB(A) Leq

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

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

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

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

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

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

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

following noise abatement measures were considered: traffic management, alteration of horizontal and/or vertical alignments, acquisition of undeveloped property to act as a buffer zone, and the construction of noise barriers.

Before any abatement measure can be proposed for incorporation into the project, it must be both feasible and reasonable. In order to be "feasible," the abatement measure must be able to reduce the noise level at more than 50% of the impacted, first row receivers by at least 5 dB(A). To be "reasonable," the abatement measure must be able to reduce the noise level for at least one impacted, first row receiver by at least 7 dB(A), and it must not exceed the cost effectiveness criterion of $25,000 for each receiver that would benefit by a reduction of at least 5 dB(A).

The proposed project would result in traffic noise impacts to three impacted receivers. A noise barrier would be feasible and reasonable for the following impacted receivers and, therefore, is proposed for incorporation into the project. (see **Appendix C** and **Appendix F**).

R3-R5 - These receivers represent a total of 29 residences (Diamond Creek subdivision). Based on preliminary calculations, a noise barrier 2,370 feet in length (three barriers 829, 1,222, and 319 feet long), 12 feet in height, and located along the ROW would reduce noise levels by at least 5 dB(A) for 28 benefited receivers and 7 dB(A) (design goal) for at least one of the benefitted receivers at a total cost of $511,704 or $18,275 for each benefited receiver (**Table 8**). The two gaps in the barriers would allow access to Highspire Drive and Diamond Creek Drive.

Table 8: Noise Barrier Proposal

Barrier	Representative Receivers	Total # Benefited	Length (feet)	Height (feet)	Total Cost	$/Benefited Receiver
1	R3 through R5	28	2,370[1]	12	$511,704	$18,275

[1] – Noise Barrier 1 includes three barriers (829, 1,222, and 319 feet long). The two gaps in the barriers would allow access to Highspire Drive and Diamond Creek Drive.

However, to avoid additional noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, no new activities are planned or constructed along or within the following predicted (2040) noise impact contours (**Table 9**).

Table 9: Noise Impact Contours in the Project Study Area

Land Use	Impact Contour[1]	Distance from Proposed ROW Line
NAC category B & C	66 dB(A)	80 feet
NAC category E	71 dB(A)	20 feet

[1] – Impact contours are one dB(A) lower than the NAC per category to reflect impacts that would occur as a result of approaching the NAC for the respective contours.

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

For more information about how traffic noise is evaluated for TxDOT projects, refer to ENV's *Environmental Handbook for Traffic Noise* and *Guidelines for Analysis and Abatement of Roadway Traffic Noise*, the latter of which has been approved by FHWA.

The analysis of traffic noise is by its nature an examination of encroachment-alteration indirect impacts. That is, traffic noise models predict the noise levels that would be perceived by people located away from newly-constructed transportation facilities. No attempt has been made to describe noise levels that may exist directly within the transportation facility by motorists, as noise is generally accepted as a necessary element that accompanies the use of roadways.

Because the proposed project would not result in traffic noise impacts, there are no encroachment-alteration effects.

No barriers or other mitigative measures were evaluated because the proposed project would not result in traffic noise impacts.

No-Build Alternative: If the No-Build Alternative was implemented, traffic noise levels would be expected to increase with an associated increase in traffic volumes on adjacent roadways.

5.15 Induced Growth

The Council on Environmental Quality (CEQ) defines indirect effects as those caused by the action and occur later in time or farther removed in distance than direct effects 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 Section 1508.8).

Build Alternative: An analysis of indirect impacts followed the processes outlined in TxDOT's Indirect Impacts Analysis Guidance (July 2016). Refer to the FM 548 *Indirect and Cumulative Impacts Analysis* Technical Report for a detailed discussion of the indirect effects analysis.

Results of the analysis indicate that there is the potential for approximately 1,561 acres of induced growth to occur within the 43,702 acres of Area of Influence (AOI) as a result of the proposed project; all located within the City of McLendon-Chisholm's ETJ. No induced growth was indicated in the cities of Forney, Heath, and Rockwall. The AOI map is provided as **Figure 8** in **Appendix F**.

Approximately 240 acres of Agriculture; 14 acres of Disturbed Prairie; one acre of Post Oak Savanna; 494 acres of Riparian; 811 acres of Tallgrass Prairie, Grassland; and one acre of Urban vegetation would be potentially impacted by induced growth. The induced growth impacts on non-Urban vegetation and wildlife habitat in the AOI total approximately 1,560 acres. These impacts are not considered substantial.

Wildlife that may utilize the previously discussed vegetation for food and habitat include the Plains spotted skunk (*Spilogale putorius interrupta*), a state species of concern (SOC); Western Burrowing Owl (*Athene cunicularia hypugaea*), a state SOC; the Texas garter snake (*Thamnophis sirtalis annectens*), a state SOC; and the timber rattlesnake (*Crotalus horridus*), a state-listed threatened species, among others. SGCN that may inhabit the areas subject to potential induced development include, but are not limited to, the Eastern spotted skunk (*Spilogale putorius*), Mississippi Kite (*Ictinia mississippiensis*), and Shinner's sedge (*Carex shinnersii*), among others. Habitat fragmentation and loss would occur as a result of the induced growth. However, due to much of this land being disturbed regularly, whether by mowing maintenance, agricultural production, livestock grazing, or vehicular disturbance, it is unlikely that high quality wildlife habitat is present within the areas considered subject to induced growth related to the proposed project. Additionally, the proposed project and some associated induced growth are located in a mostly rural setting. Similar and higher quality habitat is present in the surrounding area, such as portions of Big Brushy Creek south of FM 548 as well as portions of Buffalo Creek south of the Rockwall/ Kaufman County line, and largely rural, unincorporated regions located in the eastern part of the AOI.

Approximately 937 acres of prime farmland and farmland of statewide importance would be impacted by induced development. This represents approximately three percent of the 32,131 acres of prime farmland soils and farmland soils of statewide importance in the AOI and is not considered substantial.

Approximately 115 acres of Waters of the U.S. would potentially be impacted by induced growth in the AOI. The potential impacts represent approximately 10 percent of the 660 acres of open water; three percent of the 384 acres of riverine features; and 12 percent of the 320 acres of potential wetlands within the AOI. The impacts to Waters of the U.S. from potential induced development are not considered substantial.

Approximately 736 acres of 100-year flood zones would potentially be impacted by induced growth. The potential impact represents approximately nine percent of the 7,842 acres of 100-year flood zone within the AOI and is not considered substantial.

The potential development on vacant lots would be expected to benefit the surrounding communities. The expected development in the AOI would improve the socioeconomic conditions of the communities through the construction of new homes and businesses. The developments would create new jobs for members of the communities. It is anticipated that EJ and non-EJ populations would benefit from the induced growth impacts equally. Overall, the expected project induced growth would contribute to the overall well-being of the communities because the developments would be compatible with zoning requirements, city planning documents, and project area goals.

The induced growth associated with the proposed project does not conflict with study area goals, would not delay or interfere with the planned improvement of a resource, and is not inconsistent with any applicable laws; therefore, mitigation for the impacts to Waters of the U.S., floodplains, and socio-economic/community resources is not warranted. There are no known mitigative responsibilities for private developers in Texas for impacts to Agriculture; Disturbed Prairie; Post Oak Savanna; Riparian; or Tallgrass Prairie, Grassland vegetation. Private developers would not be subject to the FPPA for impacts to prime farmland soils and farmland soils of statewide importance.

Land development activities would be regulated by the local municipalities. The mitigation of the potential development within the AOI considered for this assessment would be the responsibility of the agencies with the authority to implement such controls. This authority rests with the municipal governments of Forney, Rockwall, Heath and McLendon-Chisholm and, to a lesser extent, Rockwall, and Kaufman Counties.

All developers, public and private, would be subject to the CWA, ESA, and Migratory Bird Treaty Act; however, private developers would not be subject to Section 106 of the NHPA or the FPPA.

The responsibility of transportation providers such as TxDOT, local and regional transit agencies, and the local governments would be to implement a transportation system to complement the land use.

No-Build Alternative: This alternative would not result in induced growth.

5.16 Cumulative Impacts

The CEQ defines cumulative impacts as those which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR §1508.7). As such, it may be difficult to understand the role that a

proposed action may have in contributing to the overall or cumulative impacts to an area or resource.

Build Alternative: An analysis of cumulative impacts followed the processes outlined in TxDOT's Cumulative Impacts Analysis Guidelines (July 2016). Refer to the FM 548 *Indirect and Cumulative Impacts Analysis* Technical Report for a detailed discussion of the cumulative impact analysis.

The Resource Study Area (RSA) totals approximately 58,886 acres. A map of the RSA is provided as **Figure 9** in **Appendix F**.

The cumulative impacts on non-urban vegetation and wildlife habitat resulting from the 132 acres of direct impacts, 1,560 acres from induced growth impacts, and 9,829 acres of impacts from the previously described other past, present, and reasonably foreseeable actions would total approximately 11,521 acres. The cumulative impacts to vegetation and wildlife habitat would affect approximately 22 percent of the approximately 52,650 acres of non-Urban MOU Habitat-type vegetation within the RSA.

While cumulative impacts would affect approximately 11,521 acres of non-Urban MOU Habitat-type vegetation and potential wildlife habitat, it is likely that most of the wildlife that resides in the RSA, which consists of approximately 24 percent urban, are somewhat accustomed to an urban landscape or would migrate to other areas of available non-human-altered habitat. In addition, riparian areas are known to be migration corridors for wildlife. It is expected that these areas would not be adversely affected due to municipal protections to riparian resources within floodplains. That is, restrictions on construction within floodplains and tree preservation regulations make it probable that most of the riparian habitat within the RSA would not be subject to widespread removal. Based on the continued availability of protected habitat areas, the potential cumulative impact occurring over a 45-year period, allowing for resource recovery; and assuming appropriate implementation of regulated avoidance, minimization, and mitigation strategies for vegetation and habitat impacts, the proposed project would not contribute to substantial cumulative impacts to the area's vegetation and habitat.

Incorporating parks, open spaces, and riparian corridors around and within developed areas would provide wildlife habitat and shelter. Planting these areas with native fruit or nut-bearing trees and shrubs, and native grain-bearing grasses would provide food for wildlife and would help to mitigate impacts to habitat used by wildlife. This mitigation could be conducted by whoever is responsible for the impact such as a city or a developer. Private development within the associated municipalities within the RSA (Forney, Heath, Rockwall, and McLendon-Chisholm) would be subject to the laws and ordinances regulating residential, commercial and industrial development set by each municipal government. Mitigation could include mandatory park areas or a limit on lot sizes. State and federal entities protect the quality of water and wildlife habitat in the area and additional development would follow the requirements of state and federal regulations.

The cumulative impact on prime farmland soils subject to the FPPA resulting from the 75 acres of direct impacts, 937 acres from induced growth impacts, and 9,452 acres of impacts from the previously described other past, present, and reasonably foreseeable actions would total 10,464 acres. The cumulative impacts to prime farmland soils subject to the FPPA would affect approximately 24 percent of the approximately 44,165 acres of prime farmland soils subject to FPPA within the RSA.

Private developers would not be subject to the FPPA for impacts to prime farmland soils and farmland soils of statewide importance.

The Texas Farm and Ranch Lands Conservation Program (TFRLCP), created in 2005, is a grant-making program that provides landowners with financial incentives to conserve their land and

productivity through Agricultural Conservation Easements. These easements restrict all future development while allowing the landowner to continue farming or ranching (American Farmland Trust, 2009). The TFRLCP was transferred from the Texas General Land Office (GLO) to TPWD in 2016. Approved grant projects awarded by the Texas GLO range in size from 175 acres to 2,995 acres and by the TPWD range in size from 144 acres to 7,229 acres. This type of program could be effective mitigation within the Farmland (Soils) RSA. The average farm size in Kaufman County is 148 acres; and Rockwall County is 103 acres (USDA, 2012).

Incorporated areas can manage growth issues through local ordinances, such as zoning and subdivision ordinances. Development activities outside of the incorporated areas are under the jurisdiction of Kaufman, and Rockwall Counties, which use subdivision ordinances primarily to regulate lot sizes and density.

No-Build Alternative: The implementation of this alternative would not contribute to cumulative impacts in the 58,886 -acre RSA for vegetation and wildlife habitat and prime farmland soils.

5.17 Construction Phase Impacts

Build Alternative: Depending on required traffic control and phasing, the construction phase of the proposed project, and associated construction impacts, is anticipated to be 36 months. During the construction phase of the proposed project, there is the potential for noise, dust or light pollution; impacts associated with physical construction activity and other traffic disruptions. These potential impacts are discussed as follows:

Construction Noise – There would be loud noise from heavy equipment during construction of the project. Noise associated with the construction is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns and would not be restricted to any specific location.

Construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the businesses and residences along the project are expected to be exposed to construction noise for a long duration; therefore, any 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.

Fugitive Dust and Air Pollutants – During the construction phase of this project, temporary increases in particulate matter (PM) and MSAT emissions may occur from construction activities. The primary construction-related emissions of PM are fugitive dust from site preparation, and the primary construction-related emissions of MSAT are diesel PM from diesel powered construction equipment and vehicles. Refer to Section 5.12 of this EA and the FM 548 *Air Quality Assessment Technical Report* for a detailed discussion of fugitive dust and air pollutants.

Construction-related pollutants that are not contained onsite are expected to dissipate readily in the normal course of atmospheric mixing. Considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized, it is not anticipated that emissions from construction of this project would have any substantial impact on air quality in the proposed project area.

The potential impacts of PM emissions would be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. The TERP provides financial incentives to reduce emissions from vehicles and equipment. TxDOT encourages construction contractors to use this and other local and federal incentive programs to the fullest extent

possible to minimize diesel emissions. Information about the TERP program can be found at: https://www.tceq.texas.gov/airquality/terp.

Light Pollution – Construction normally occurs during daylight hours; however, construction could occur during the night-time hours to minimize impacts to the traveling public during the daylight hours.

Due to the close proximity of residences and businesses to the project, if construction were to occur during the night-time hours, it would be of short duration and would not be conducted late in the evening. Construction during the night-time hours would follow any local policies and ordinances established for construction activities, such as light limitations.

Construction Activity Impacts – Construction activities would be limited to the proposed project footprint. Excessive vibration from construction equipment is not anticipated. If there was excessive vibration from construction equipment, it would be of short duration.

Traffic control plans would be prepared and implemented in coordination with the city and the county. Construction that would require cross street closures would be scheduled so only one crossing in an area is affected at one time. Where detours are required, clear and visible signage for an alternative route would be displayed. In residential areas, major activity would be limited to normal work hours whenever practicable, to avoid noise and related impacts to the local population.

Temporary Lane, Road or Bridge Closures (Including Detours) – Traffic control plans would be prepared and implemented in coordination with the city and the county. Construction that would require cross street closures would be scheduled so only one crossing in an area is affected at one time. Where detours are required, clear and visible signage for an alternative route would be displayed.

Motorists would be inconvenienced during construction of the project due to lane and cross-street closures; however, these closures would be of short duration and alternate routes would be provided.

Residents and businesses in the immediate construction area would be notified in advance of proposed construction activity using a variety of techniques, including signage, electronic media, community newspapers, and other techniques. The proposed project would not restrict access to any existing public or community services, businesses, commercial areas, or employment centers.

No-Build Alternative: This alternative would not result in noise, dust or light pollution; impacts associated with physical construction activity, temporary lane, road closures; and other traffic disruptions associated with construction.

5.18 Airway-Highway Clearance

There are six privately-owned airports found within the vicinity of the proposed project area. Elevations of the airports, runway lengths, and the approximate distances between the airports and proposed project are provided in **Table 10.** No heliports were identified within the proposed project area.

Table 10: Project Area Airports

Site Number	Site Information	Elevation	Runway Length	Airport Location Relative to Project (Approximate)
23873.7*A	Smith Field 96°25'40.946" W, 32°44'15.465" N Forney, TX 75126	505 feet	2,433 feet	6,555 southeast

Table 10: Project Area Airports

Site Number	Site Information	Elevation	Runway Length	Airport Location Relative to Project (Approximate)
23873.71*A	Sunset 96°28'45.953" W, 32°42'25.469" N Forney, TX 75126	444 feet	2,500 feet	16,213 southwest
23595.5*A	Klutts Field 96°22'43.43" W, 32°50'7.02" N Chisholm, TX 75032	495 feet	1,800 feet	9,750 northwest
23710.12*A	Airpark East 96°21'7.3" W, 32°48'46.6" N Dallas, TX 75160	510 feet	2,630 feet	1,800 southeast
24263.7*A	Lagrone Ranch 96°25'0.945" W, 32°49'20.454" N McClendon-Chisholm, TX 75032	567 feet	3,100 feet	14,010 northwest
24664.01*A	Poetry Landing 96°18'29.845" W, 32°51'25.04" N Royse City, TX 75189	555 feet	2,800 feet	19,271 northeast

Source: Federal Aviation Administration, Airport Data & Contact Information Form; Airport Facilities Data and Airport Runways Data; https://www.faa.gov/airports/airport_safety/airportdata_5010/; accessed February 21, 2018.

According to the FHWA, highway projects within 10,000 feet of an airport runway (actual length of 3,200 feet or less), 20,000 feet of an airport runway (actual length greater than 3,200 feet) , or 5,000 feet of a heliport require Federal Aviation Administration (FAA) coordination if construction height would exceed a plane (extending outward from helipad or end of runway) defined by a distance: height ratio of 50:1 for airports (runway no more than 3,200 feet in actual length); 100:1 for airports (runway more than 3,200 feet in actual length); or 25:1 for heliports. Coordination is also required within this buffer for any construction or alteration of more than 200 feet in height above the ground level. Lastly, coordination is required for minimum 15-feet upward adjustment (lane elevation) of a public roadway (not an Interstate Highway that is part of the National System of Military and Interstate Highways). Due to the proximity of the airports listed in **Table 8** to the proposed project, the TxDOT Dallas District will determine if FAA coordination would be required. If it is determined that coordination is required, FAA Form 7460-1 (Notice of Proposed Construction or Alteration) would be completed and submitted by TxDOT to the FAA for their approval prior to construction of proposed improvements.

6.0 Agency Coordination

Coordination with the THC, FAA, TCEQ, TPWD, and federally-recognized tribes has occurred under TxDOT's respective MOUs and PA with these agencies/entities. See **Appendix G** for the written coordination exchanges.

7.0 Public Involvement

A public meeting was held at North Forney High School located at 6170 Falcon Way, Forney, Texas 75126 on May 9, 2017. The meeting was held in an open house format from 6:00 p.m. to 8:00 p.m.

to allow for questions and review of project exhibits. TxDOT and consultant personnel were available to answer questions during the open house. The total registered attendance at the public meeting was 103 persons, which was comprised of six elected official and 78 members of the public. A total of nine project staff members from TxDOT, and 10 project consultants also attended. The meeting was held to share information about the project and seek input from area residents. There were 17 written comments received at the public meeting. Two written comments were received during the 15-day comment period that ended on May 24, 2017. Primary issues raised at the Public Meeting were noise concerns, additional right-turn lanes recommended, and requested to avoid displacing the home of a disabled (from the neck down) neighbor (the home is ADA designed to meet his needs). A noise analysis was conducted, right-turn lanes are being added at various locations, and the preferred alternative avoids the home of the disabled individual.

The public meeting documentation may be inspected and copied upon request at the TxDOT Dallas District Office. A public hearing will be held following approval of the draft EA.

A notice of impending construction would be provided to owners of adjoining property and affected local governments and public officials. The notice may be provided via a sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website when the recipient has previously been informed of the relevant website address. This notice would be provided after the environmental decision (i.e. FONSI), but before earthmoving or other activities requiring the use of heavy equipment begin.

8.0 Post-Environmental Clearance Activities and Contractor Communication

8.1 Post-Environmental Clearance Activities

TxDOT would comply with the requirements of the TCEQ TPDES General Permit No. TxR150000. In order to comply with TPDES General Permit Number TxR150000 for Construction Activities requirements, a NOI would be filed with TCEQ stating that TxDOT would have a SW3P in place during construction of this project. A construction site notice would be posted on the construction site. This SW3P utilizes the temporary control measures as outlined in TxDOT's manual *Standard Specifications for the Construction of Highways, Streets, and Bridges*.

The Build Alternative is located outside the TxDOT's MS4 boundary area. The proposed project is located within the City of Forney and the Dallas ETJ and would comply with the City of Forney's (Phase 4) and Dallas County's applicable MS4 requirements.

The proposed project would be compliant with 23 CFR 650 regarding location and hydraulic design of highway encroachments within the floodplains, and the proposed project would comply with EO 11988, Floodplain Management. Local floodplain administrator coordination would be conducted.

The placement of temporary or permanent dredge or fill material into potentially jurisdictional Waters of the U.S. at Crossings 1 through 8 would be authorized under NWP 14. A PCN would be required for the proposed project at Crossings 2, 3, and 6. The PCN and required fulfillment of required compensatory mitigation will be completed prior to project construction.

8.2 Contractor Communications

1.) Section 401 and 404

Appropriate measures would be taken to maintain normal downstream flows and minimize flooding. Temporary fills would consist of clean materials and be placed in a manner that would not be eroded by expected high flows. Temporary fills would be removed in their entirety and the

affected area returned to preconstruction elevations, and revegetated as appropriate. If the project involves stream modification, stream channel modifications, including bank stabilization, would be limited to the minimum necessary to construct or protect the structure and the immediate vicinity of the project. The activity would comply with all general and regional conditions applicable to NWP 14.

General Condition 25 of the NWP Program requires applicants using NWP 14 to comply with Section 401 of the CWA. Compliance with Section 401 requires the use of BMPs to manage water quality on construction sites. General Condition 12 also requires applicants using NWP 14 to use appropriate soil erosion and sedimentation controls.

The SW3P would include at least one BMP from the 401 Water Quality Certification Conditions for NWPs as published by the TCEQ. These BMPs would address each of the following categories:

- Category I Erosion Control would be addressed by using temporary vegetation, blankets/matting, permanent seeding/sodding, and stone outlet structures.
- Category II Sedimentation Control would be addressed by installing silt fence, rock berms, and stabilized construction exits.
- Category III Post-Construction TSS control would be addressed by installing grass swales and vegetative filter strips.

Other approved methods would be substituted if necessary, using one of the BMPs from the identical category.

2.) Cultural Resources

In the unlikely event that cultural resources are discovered during construction of the proposed project, TxDOT would immediately initiate cultural resource discovery procedures. All work in the vicinity of the discovery would cease until a specialist from TxDOT and/or the THC could arrive on site and assess the discovery's significance and the need, if any, for additional investigation.

3.) Vegetation Resources

Impacts to vegetation would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. The removal of native vegetation, particularly mature native trees and shrubs, would be avoided to the greatest extent practicable. Seeding and replanting with TxDOT-approved seed mixes containing native species would be conducted where possible. Soil disturbance would be minimized in the ROW in order to minimize invasive species establishment.

The following fulfills commitments required by Executive Order 13112 and the Executive Memorandum on Beneficial Landscaping and would be included in section IV of the EPIC sheet: Preserve native vegetation to the extent practical. The contractor must adhere to Construction Specification Requirements Specs 162, 164, 192, 193, 506, 730, 751, and 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

4.) Federal Listed, Proposed Threatened, Endangered Species, Critical Habitat, State Listed Species, Candidate Species and Migratory Birds

In accordance with the TxDOT-TPWD MOU, BMPs would be implemented for the southern crawfish frog, Western Burrowing Owl, plains spotted skunk, Texas garter snake, and timber rattlesnake. Those species BMPs, per the BMP PA, are as follows:

- Southern crawfish frog: Minimize impacts to wetland habitats included isolated ephemeral pools, Water Quality BMPs, and amphibian BMPs.
  - *Water Quality BMPs*: In addition to BMPs required for a TCEQ SW3P and/or 401 water quality permit: minimize the use of equipment in streams and riparian areas during construction and when possible, equipment access should be from banks, bridge decks, or barges. When temporary steam crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
  - *Amphibian BMPs:*
    a) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
    b) Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats.
    c) Maintain hydrologic regime and connections between wetlands and other aquatic features.
    d) Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in constructions areas directly adjacent or that may directly impact, potential habitat for the target species.
    e) Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, using erosion control blankets or mats that contain no netting, or only contain loosely woven natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
    f) Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features.
    g) When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g., downed trees, sand bars, exposed bedrock) and overwinter sites (e.g. brush and debris piles, crayfish burrows) where feasible.
    h) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible.
    i) If gutters and curbs are part of the roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e. mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features.
    j) For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barrier should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction, or whichever is the lesser of the two.
    k) For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs.
    l) When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic wildlife through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation or a combination of vegetative and structural materials should be used.
- Western Burrowing Owl (Bird BMPs):
  a) Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed.

b) Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season.
c) Avoid the removal of unoccupied, inactive nests, as practicable.
d) Prevent the establishment of active nest during the season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
e) Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.

- Plains spotted skunk BMPs: Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
- Texas garter snake and timber rattlesnake (Terrestrial Reptile BMPs):
  a) Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
  b) For open trenches and excavation pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling.
  c) Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
  d) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
  e) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

The Migratory Bird Treaty Act of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a Federal permit issued in accordance within the Act's policies and regulations. The contractor would remove all old migratory bird nests from any structure where work would be done from October 1 to February 15. In addition, the contractor would be prepared to prevent migratory birds from building nest(s) between February 15 and October 1. In the event that migratory birds are encountered on-site during project construction, efforts to avoid adverse impacts on protected birds, active nests, eggs, and/or young would be observed.

5.) Hazardous Materials or Contamination Issues

The proposed project includes the displacement of building structures and replacement of the bridge at Big Brushy Creek. The building and bridge structures may contain asbestos containing materials. Asbestos inspections, specification, 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 for building structures and prior to construction for the bridge structure.

The proposed project includes the displacement of building structures and replacement of the bridge at Big Brushy Creek. The building and bridge structures may contain Lead-Based Paint (LBP). Further examination of paint-bearing building and bridge structures for LBP would be performed prior to demolition. Any waste materials and construction debris containing LBP would be disposed of according to current disposal regulations of the TCEQ and EPA.

Any unanticipated hazardous materials encountered during construction would be handled according to applicable federal, state, and local regulations per TxDOT Standard Specifications. The contractor would take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. All construction materials used for this project would be removed as soon as the work schedules permit.

Should hazardous materials/substances be encountered, the TxDOT Dallas District Hazardous Materials Section would be notified and steps would be taken to protect personnel and the environment. If necessary, the plans, specifications, and estimates would include provisions for the appropriate soil and/or groundwater management plans for activities within these areas. The management plans would be initiated in accordance with all applicable federal, state and local regulations.

9.0 Conclusion

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

10.0 References

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Texas Parks and Wildlife Department

-2018. Annotated County List of Rare Species for Kaufman County and Rockwall County. Found at http://tpwd.texas.gov/gis/rtest/.

U.S. Census Bureau

-2016. Census 2010 Summary File 1. Found at https://factfinder.census.gov/faces/nav/jsf/pages/download_center.xhtml (accessed September 6, 2017).

-2017. 2011-2015 American Community Survey 5-Year Estimates data. Found at https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed September 6, 2017).

-2017. 2010 Census - Urbanized Area Reference Map: Dallas--Fort Worth--Arlington, TX (accessed September 6, 2017).

-2017. TIGERweb. Found at https://tigerweb.geo.census.gov/tigerweb/ (accessed October 26, 2017).

U.S. Department of Agriculture

-Natural Resources Conservation Service Web Soil Survey. Found at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed March 15, 2019).

11. Appendices

Appendix A – Project Location Map

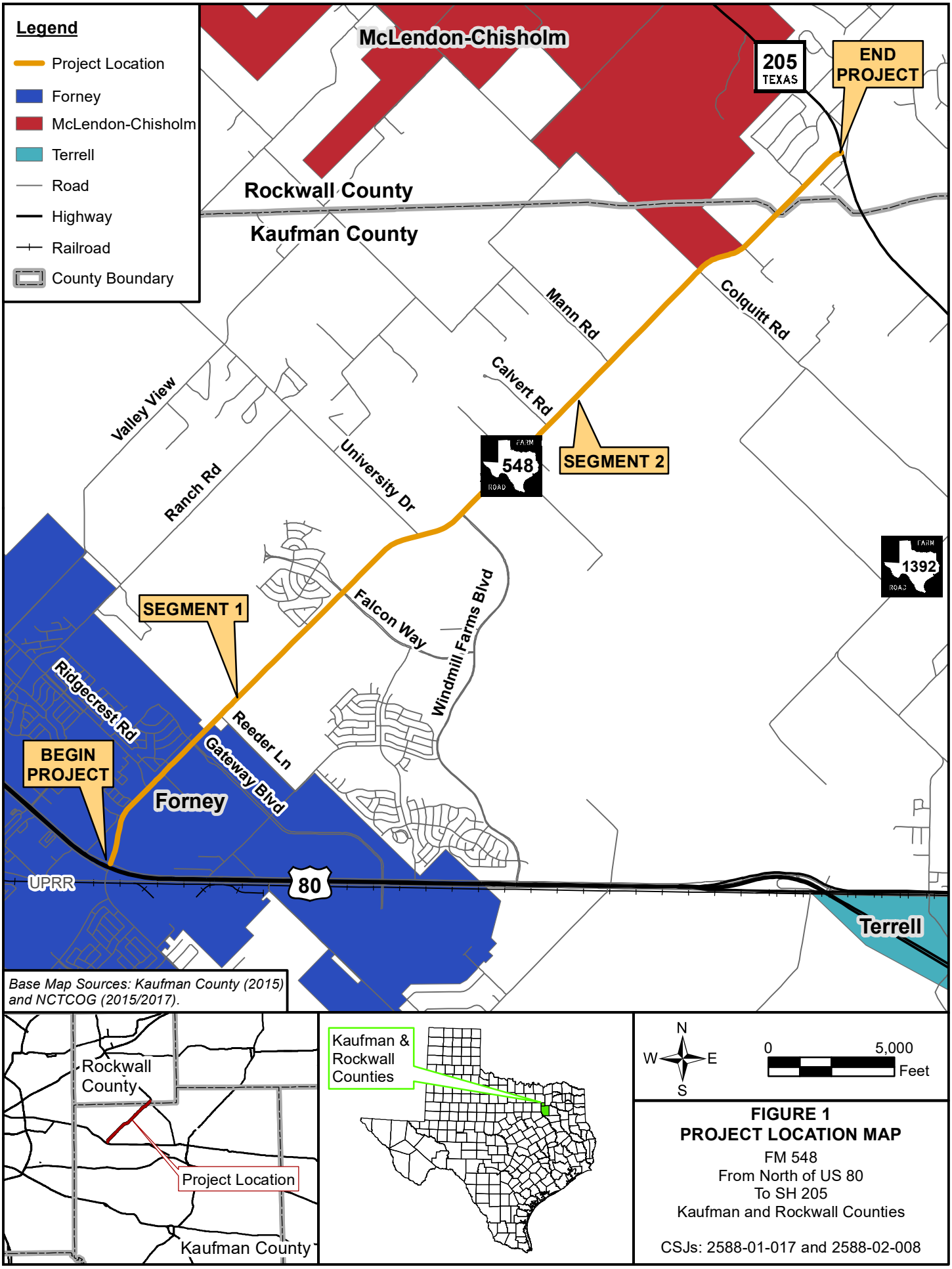


FIGURE 1
PROJECT LOCATION MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

Appendix B – Project Area Photographs

Photo 1: Potential commercial displacement: R & R Plumbing, Inc. located at 16026 FM 548, Forney, TX 75126.

Photo 2: Mustang Creek Community Church (Iglesia Vision) located at 13851 FM 548, Forney, TX 75126. Spanish signage was observed at this place of worship.

Project Area Photographs
FM 548
FROM NORTH OF US 80 TO SH 205
CSJs: 2588-01-017 and 2588-02-008
Sheet 1 of 8

Photo 3: View looking south east at Crossing 1 – an ephemeral tributary to Big Brush Creek. Approximately 0.04 acre (193 LF) of permanent impacts is currently anticipated at this crossing due to culvert replacement.

Photo 4: View looking west at Crossing 2 – an intermittent tributary to Big Brushy Creek from east of FM 548. Approximately 0.12 acre (232 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 5: View looking northwest at Crossing 3 – an intermittent tributary to Big Brushy Creek from east of FM 548. Approximately 0.11 acre (265 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 6: View looking west at Crossing 4 – an intermittent tributary to Big Brushy Creek from southeast of FM 548. Approximately 0.04 acre (159 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 7: View looking south at Crossing 5 – intermittent tributary to Big Brushy Creek from southeast of FM 548. Approximately 0.06 acre (229 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 8: View looking west at Crossing 6 – intermittent tributary to Big Brushy Creek from southeast of FM 548. Approximately 0.27 acre (226 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

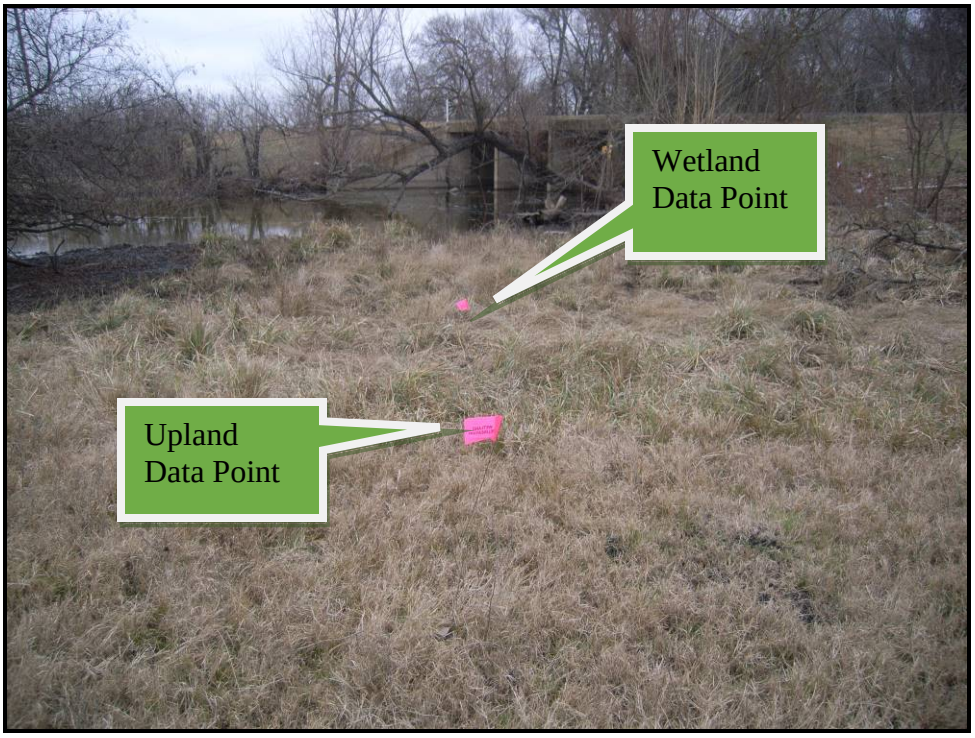


Photo 9: View looking southeast at the wetland area at Crossing 6. Approximately 0.05 acre of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 10: View looking southeast at Crossing 7 – Big Brushy Creek from northwest of FM 548. Approximately 0.25 acre (37 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 11: View looking northwest at Crossing 8 – intermittent tributary to High Point Creek from northwest of FM 548. Approximately 0.07 acre (393 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 12: View looking northwest at Crossing 8 – intermittent tributary to High Point Creek from northwest of FM 548. Approximately 0.07 acre (393 LF) of permanent impacts is currently anticipated at this crossing due to roadway widening.

Photo 13: View looking south from the west side of FM 548 (Appendix F Vegetation Map Sheet 13). The TESCP/EMST Mapper classifies the vegetation and roadway as Urban and Tallgrass Prairie, Grassland. The roadway, maintained ROW, and adjacent areas are better classified as Urban. The vegetation would be impacted by the proposed project.

Photo 14: View looking west at the west side of FM 548 (Appendix F Vegetation Map Sheet 24). The TESCP/EMST Mapper classifies the roadway and maintained ROW, and proposed ROW as Tallgrass Prairie, Grassland; and Agriculture. These areas are better classified as Agriculture and Urban. The vegetation would be impacted by the proposed project.

Photo 15: View looking southeast along the east side of FM 548 at Crossing 9 (Appendix F Vegetation Map Sheet 27). The TESCP/EMST Mapper classifies the vegetation as Disturbed Prairie and Tallgrass Prairie, Grassland. The area would be better classified as Riparian and Open Water. The vegetation could be impacted by the proposed project.

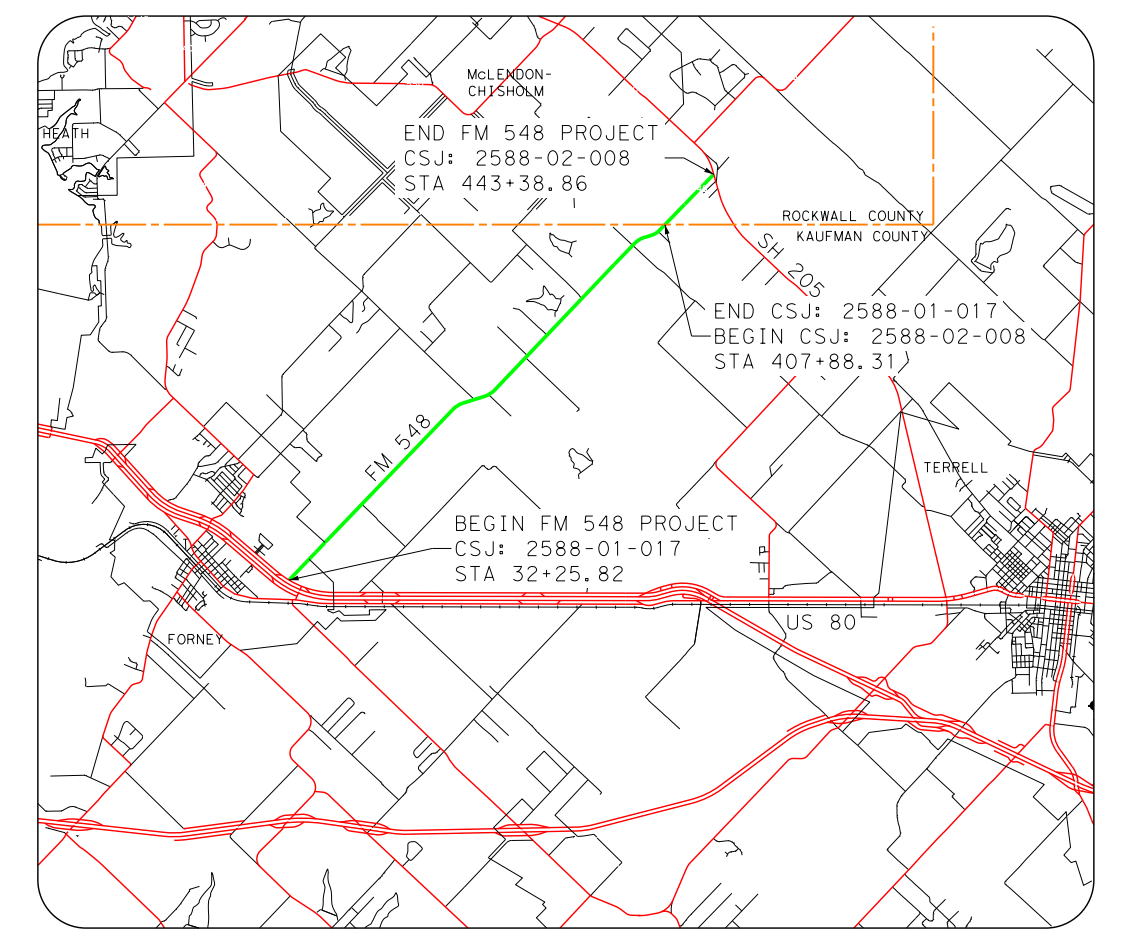
Appendix C – Schematics

TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
MO BUR, P.E., DISTRICT ENGINEER

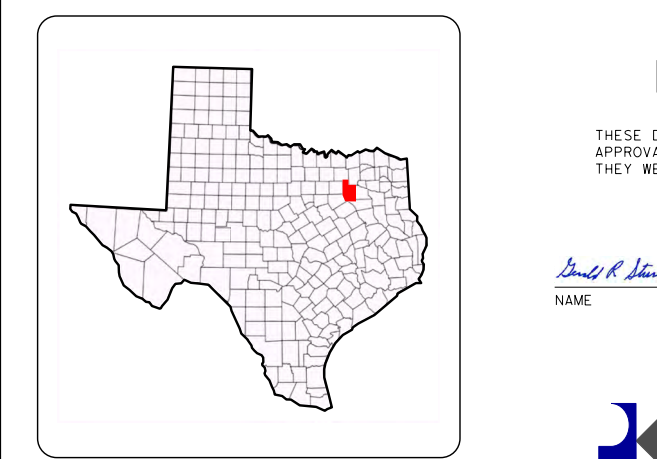
FM 548 DESIGN SCHEMATIC
FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008

DECEMBER 2018
ROLL 1 OF 4

PROJECT LENGTH:		7.84 MILES
AVERAGE DAILY TRAFFIC:		15,239 (2015)
		29,800 (2035)
ROADWAY	DESIGN SPEED	FUNCTIONAL CLASSIFICATION
FM 548	40 MPH	URBAN MINOR ARTERIAL
SH 205	45 MPH	URBAN MINOR ARTERIAL
ALL CROSS STREETS EXCEPT FOR DEVONSHIRE DRIVE	30 MPH	MAJOR COLLECTOR
DEVONSHIRE DRIVE	30 MPH	MINOR COLLECTOR



LOCATION MAP
N.T.S.



TEXAS COUNTY MAP
N.T.S.

PRELIMINARY

THESE DOCUMENTS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

NAME 52202 P.E. NO. 1/2/2019 DATE

Pacheco Koch
7557 RAMBLER ROAD, SUITE 1400, DALLAS, TX 75231
972.235.3031 FIRM REGISTRATION NUMBER F-469

0 10 20 30 40
VERTICAL SCALE:
0 100 200 300 400
HORIZONTAL SCALE:

DATE SUBMITTED:
DATE APPROVED:

LEGEND:

- EXISTING ROW
- EXISTING PROPERTY LIMITS
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED FM 548 BASELINE
- PROPOSED CROSS STREET BASELINE
- PROPOSED ROW
- EXISTING UTILITY EASEMENT
- PROPOSED FACE OF CURB
- 100 YR FLOODPLAIN LIMITS
- DIRECTION OF TRAVEL
- PROPOSED BRIDGE
- PROPOSED BRIDGE BENT
- PROPOSED PAVEMENT
- PROPOSED SIDEWALK
- PAVEMENT / BRIDGE TO BE REMOVED
- EXISTING WATER LINE
- EXISTING DRAINAGE EASEMENT
- PROPOSED DRAINAGE EASEMENT
- CITY LIMITS
- POTENTIAL DISPLACEMENT
- PROPOSED RETAINING WALL
- EXISTING MITIGATION AREA
- FLOW DIRECTION
- PROPOSED NOISE WALL (POTENTIAL LOCATION PENDING APPROVAL)
- PROPOSED 5" CONC RIPRAP
- EXIST SIDEWALK TO REMAIN

GENERAL NOTES:

1. THE SCHEMATIC LAYOUTS ARE BASED ON LIMITED FIELD SURVEY, AERIAL TOPOGRAPHY AND RECORD PLANS. NOT ALL EXISTING FEATURES WERE FIELD SURVEYED. AERIAL TOPOGRAPHY DATA WAS COLLECTED IN APRIL 2016 AND SUPPLEMENTED IN SEPTEMBER 2018.
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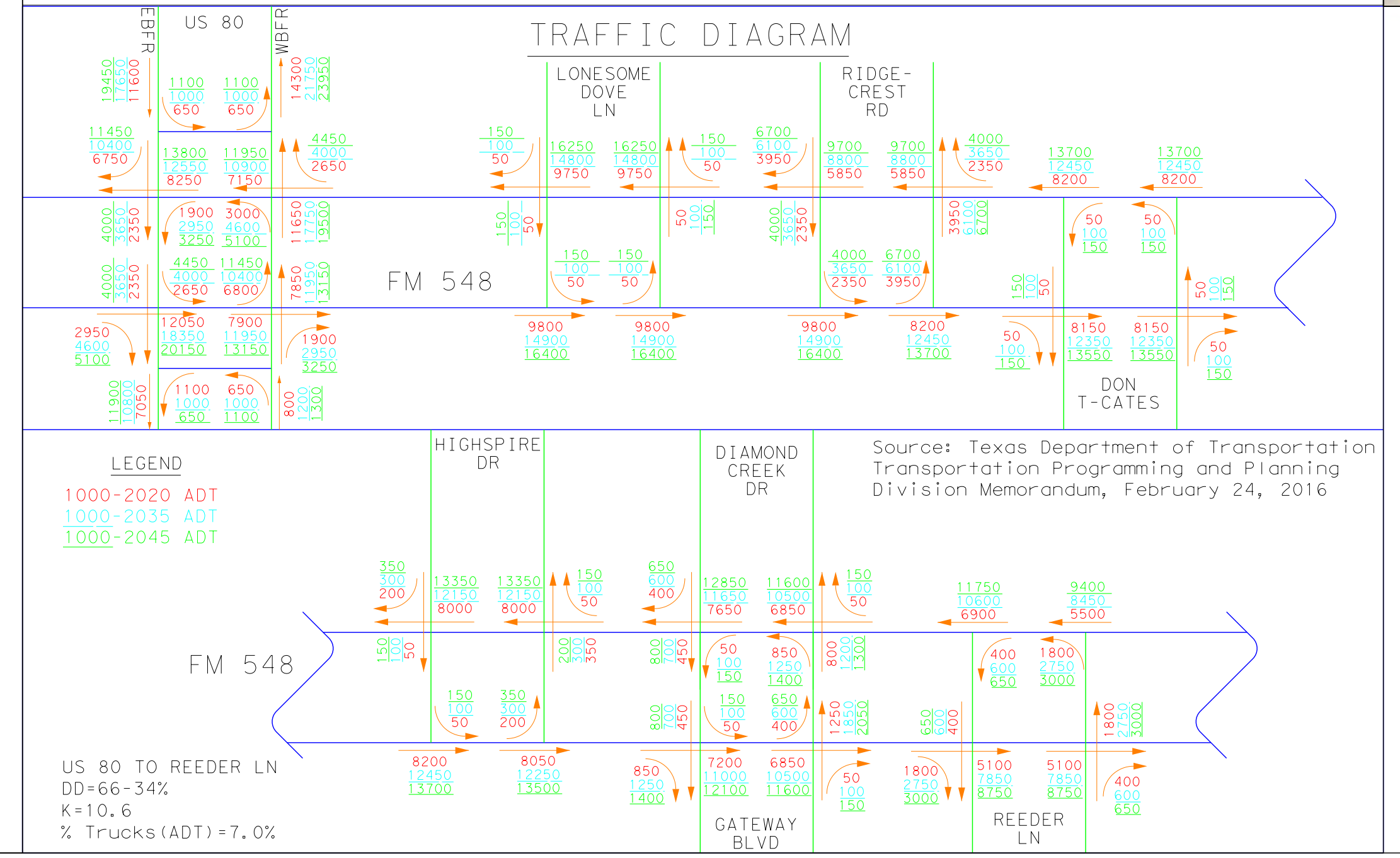
13. EXISTING DRIVEWAYS WILL REMAIN UNLESS IT IS DETERMINED DURING DETAILED DESIGN STAGE AND COORDINATION WITH THE LOCAL GOVERNMENT THAT THE DRIVEWAY IS A SAFETY ISSUE AND/OR IS LOCATED WITHIN ACCESS DENIAL LIMITS SHOWN.
14. BUILDINGS ARE SHOWN AS POTENTIAL DISPLACEMENT IF THE PROPOSED ROW PHYSICALLY INTERSECTS THE EXISTING BUILDING STRUCTURE.

CURVE DATA:

CURVE	P.I. STATION	P.I. STATION-N	P.I. STATION-E	DELTA	RADIUS	DEGREE OF CURVE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
PFM548-01	37+32.34	N 6960736.3767	E 2,599,726.5664	10° 39' 59.81"(LT)	1922.86	2° 58' 46.98"	179.51	357.97	N 15° 46' 16.74" E	328.50	35+52.83	39+10.81	N 21° 06' 16.65" E	N 10° 26' 16.84" E
PFM548-02	52+00.06	N 6,962,180.8265	E 2,599,992.6632	34° 01' 11.78"(RT)	1312.33	4° 21' 57.45"	401.47	779.21	N 27° 26' 52.73" E	767.81	47+98.59	55+77.80	N 10° 26' 16.84" E	N 44° 27' 28.62" E
PFM548-03	71+13.85	N 6,963,563.7605	E 2,601,349.6750	3° 02' 32.52" (LT)	5729.58	1° 00' 00.00"	152.15	304.24	N 42° 56' 12.36" E	394.62	69+61.69	72+65.93	N 44° 27' 28.62" E	N 41° 24' 56.09" E
PFM548-04	74+34.82	N 6,963,804,.5227	E 2,601,562.0517	3° 22' 36.67" (RT)	5729.58	1° 00' 00.00"	168.89	337.69	N 43° 06' 14.43" E	337.64	72+65.93 N	76+03.62	N 41° 24' 56.09" E	N 44° 47' 32.76" E
PFM548-05	102+39.63	N 6,965,795.0620	E 2,603,538.2207	4° 32' 16.36" (RT)	5729.58	1° 00' 00.00"	257.54	514.81	N 47° 03' 40.94" E	514.67	99+82.09	104+96.90	N 44° 47' 32.76" E	N 49° 19' 49.12" E
PFM548-06	111+07.11	N 6,966,360.5693	E 2,604,196.3876	10° 43' 34.34"(LT)	6500.00	0° 52' 53.30"	610.21	1216.85	N 43° 58' 01.95" E	1215.07	104+96.90	117+13.75	N 49° 19' 49.12" E	N 38° 36' 14.77" E
PFM548-07	120+65.11	N 6,967,112.0141	E 2,604,796.3462	6° 11' 17.99" (RT)	6500.00	0° 52' 53.30"	351.36	702.04	N 41° 41' 53.77" E	701.70	117+13.75	124+15.79	N 38° 36' 14.77" E	N 44° 47' 32.76" E

TRAFFIC DIAGRAM



LEGEND
1000-2020 ADT
1000-2035 ADT
1000-2045 ADT

Source: Texas Department of Transportation Transportation Programming and Planning Division Memorandum, February 24, 2016

US 80 TO REEDER LN
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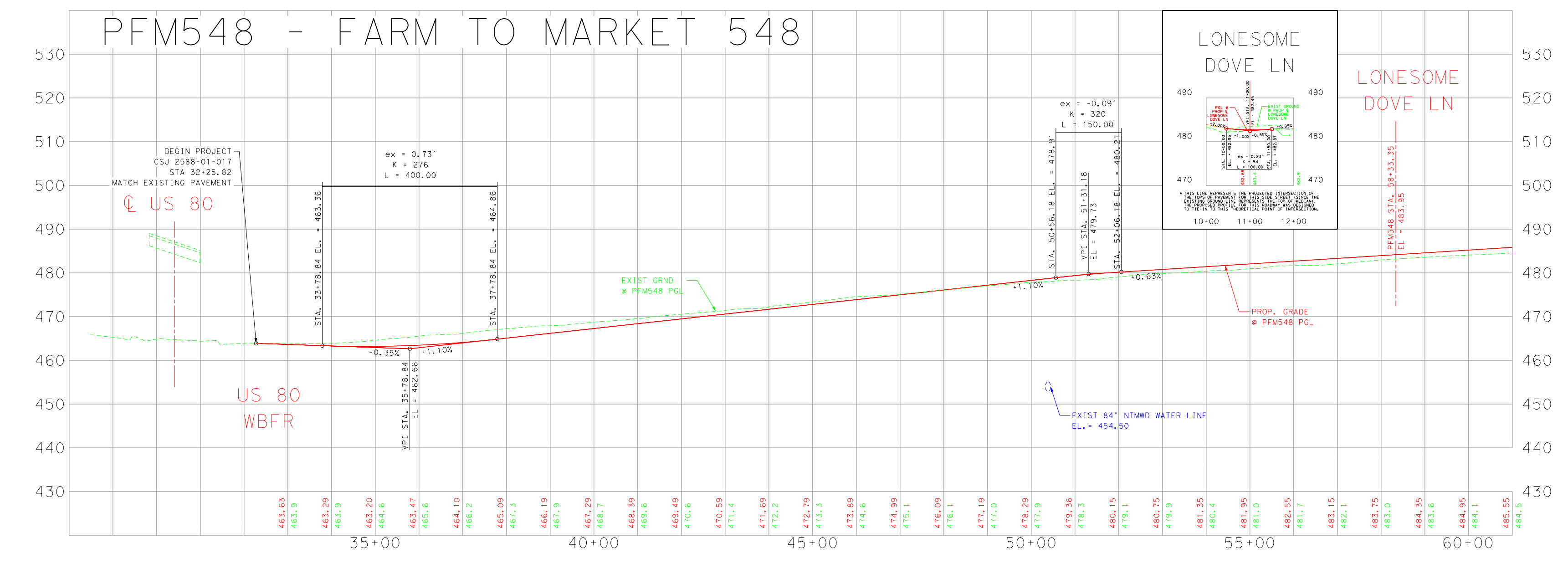
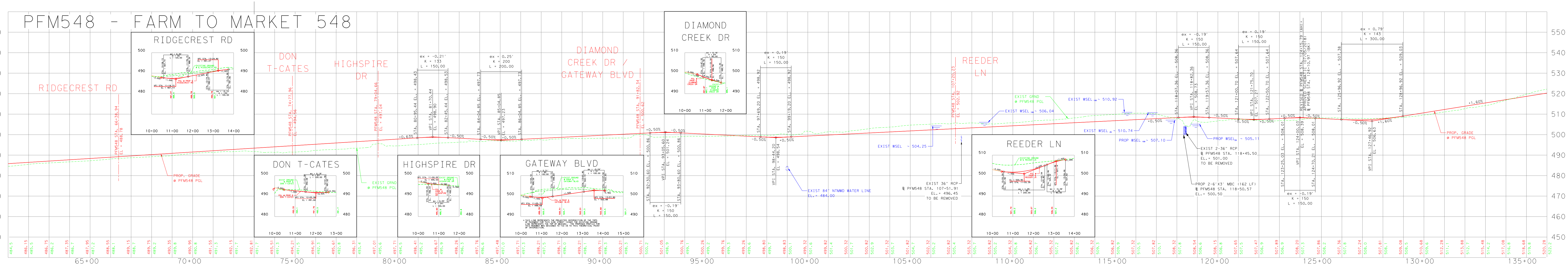
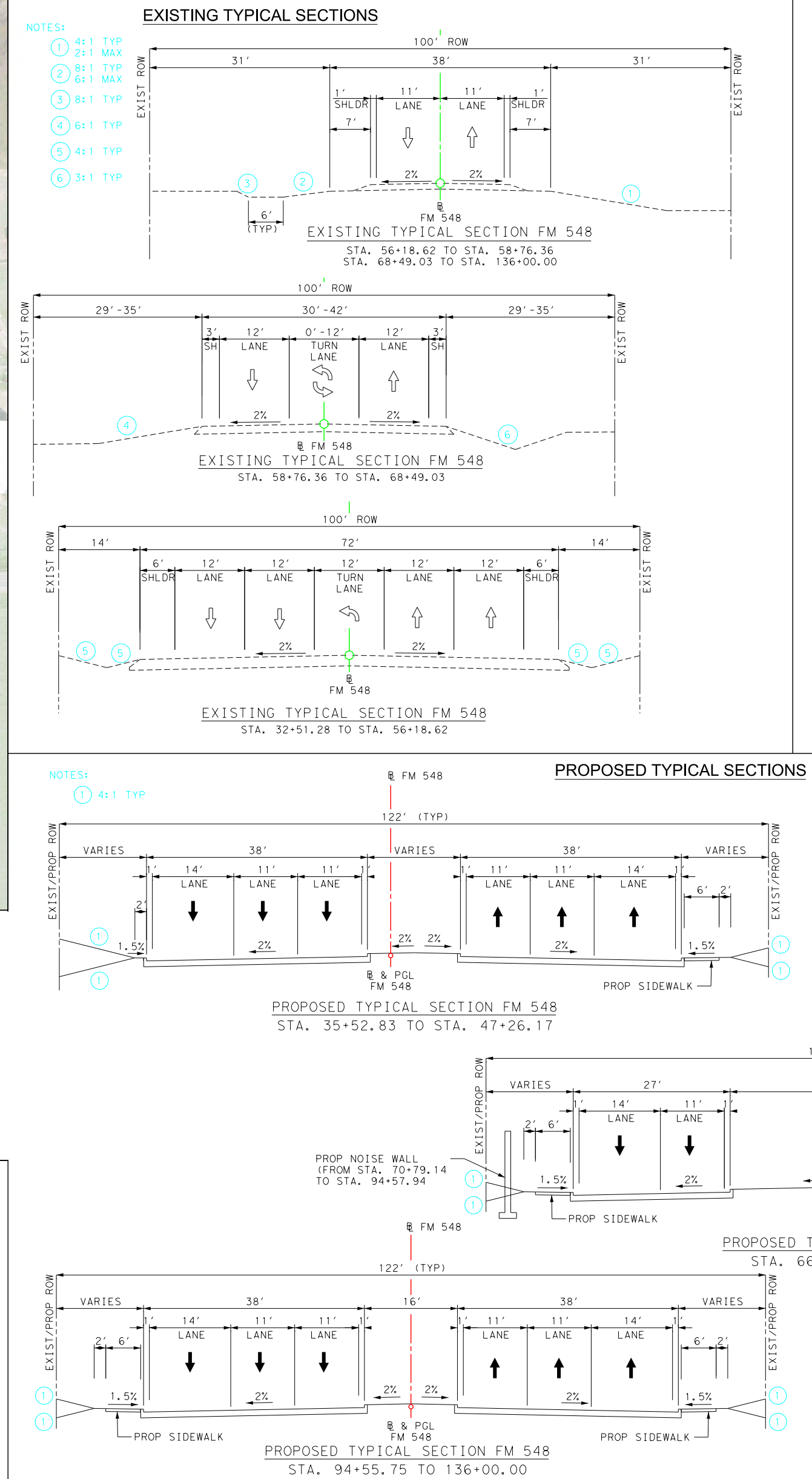
% Trucks(ADT)=7.0%







PARCEL DATA:

Parcel ID	Owner's Name
7769	Crittenden James
7770	Crittenden Stephen Et Al
59854	Fit Family Development LP
61346	Wal-Mart Real Estate Business Trust
61449	Reed George & Victoria M
61450	Chenetta Brooks
61452	Turner Alphonzie & Demeter
61453	Gonzalez Jose L & Resendiz Patricia Rodriguez
61454	Devoe Jame & Mary Apilado
61455	Pickens Josephine
61456	Rutter Charles W & Kendra K
75900	Johns Ronald & Kristin Family Trust
77659	Store Spe Starplex LLC
77666	Hart Systems Inc
178283	Forney LLC
178386	PMC Retail Venture 3 LLC
178387	Parks Forney Shops Corp
178388	2815 Grand Realty Corp
179921	Murphy Oil USA Inc
182219	State of Texas
182413	State of Texas
185245	J Evans Family Partnership Knox LTD
185248	ABCLD Forney Development LLC
190124	Forney 548 Retail LLC
190125	Forney 548 Retail LLC
190126	Forney 548 Retail LLC
190127	Forney 548 Retail LLC
190479	American National Bank

Parcel ID	Owner's Name
7771	Crittenden James Etal
12985	Merritt Rachael Renee Cook
52203	Steve Silver Company
52209	Marquis Ranch Self Storage LP
71797	Gomez Jose M & Erika J
71798	Belinda Banks Price
71799	Zhong Shihua
71800	Frilot Chereese & Antoine
71801	Comar Puneet
71802	Fry Troy & Victoria
71803	Johnson Joyce M
71804	Kadereit William Edward
71806	Phlieger Paul
71807	Hollingsworth Charles G & Alauna K
71808	Delgado Anthony
71809	Gragg Brenda C
71810	Fox Michael
71811	Sanchez Salvador & Irma
71929	Diamond Creek Home Owners Association Inc
71930	Diamond Creek Home Owners Association Inc
77106	Kunde Christopher L
77107	Bell Christopher & Livingston Tabitha
77108	Espinoza Luis & Charity
77109	Shaddock Developers LTD
77122	Home Owners Association
160665	Texas Bank and Trust
189433	Aldi LLC
191442	Meadow Ridge Farm LP

Parcel ID	Owner's Name
9150	Harlan Properties Inc
9178	Elery Phillip & Peggy
9180	Wingfree LP
9234	Grace Assembly of God
12969	Meadow Ridge Farm LP
12973	Merritt Rachael Renee Cook
12978	Free Life Church Inc
12979	Forney Land & Cattle CO LLC
12980	Forney Land & Cattle CO LLC
12981	Forney Land & Cattle CO LLC
12982	Forney Land & Cattle CO LLC
12995	Wingo Rusty
12997	Mehta Vivek & Seema
57145	Harlan Properties Inc
59549	Frisco Stone Creek Village LLC
71788	Shaddock Developers LTD
71790	Shaddock Developers LTD
71791	Davis Angela
71792	Smith Elizabeth J & Sheridan M
71793	Florendo Jerome & Thao
71794	McKnight Carlon J
71795	Abraham Alex & Alex Raji
71796	Myers Chad Dillion & Megan
71926	Shaddock Developers LTD
71931	Diamond Creek Home Owners Association Inc
177698	Beltran Jesus
178280	Highpoint Water Supply Corp.

TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
MO BUR, P.E., DISTRICT ENGINEER
FM 548 DESIGN SCHEMATIC
FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008
DECEMBER 2018
ROLL 1 OF 4
LOCATION MAP
N.T.S.
TEXAS COUNTY MAP
N.T.S.
PRELIMINARY
Pacheco Koch
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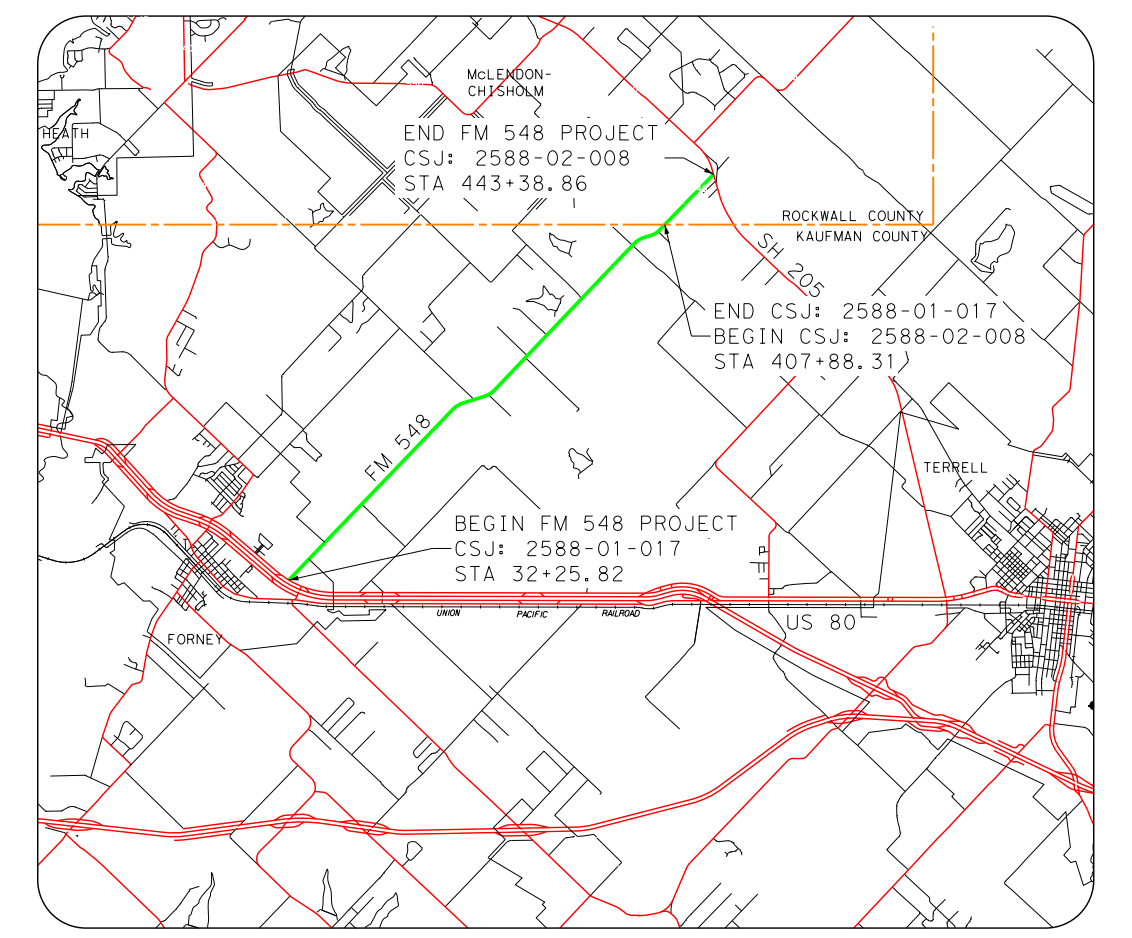
TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
MO BUR, P.E., DISTRICT ENGINEER

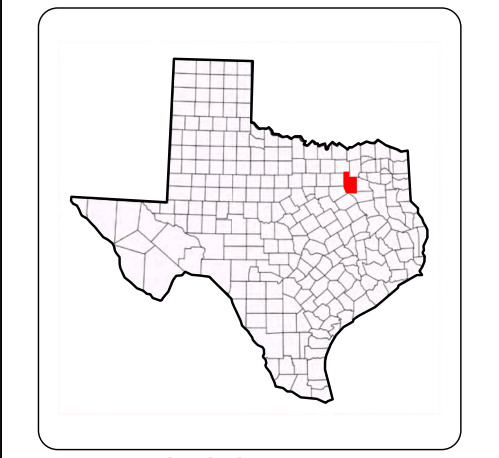
FM 548 DESIGN SCHEMATIC
FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008

DECEMBER 2018
ROLL 2 OF 4

PROJECT LENGTH:		7.84 MILES
AVERAGE DAILY TRAFFIC:		15,239 (2015)
		29,800 (2035)
ROADWAY	DESIGN SPEED	FUNCTIONAL CLASSIFICATION
FM 548	40 MPH	URBAN MINOR ARTERIAL
SH 205	45 MPH	URBAN MINOR ARTERIAL
ALL CROSS STREETS EXCEPT FOR DEVONSHIRE DRIVE	30 MPH	MAJOR COLLECTOR
DEVONSHIRE DRIVE	30 MPH	MINOR COLLECTOR



LOCATION MAP
N.T.S.



TEXAS COUNTY MAP
N.T.S.

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NAME	P.E. NO.	DATE
	52202	1/2/2019

Pacheco Koch
7557 RAMBLER ROAD, SUITE 1400, DALLAS, TX 75231
972.235.3031 FIRM REGISTRATION NUMBER F-469

0 10 20 30 40
VERTICAL SCALE:
0 100 200 300 400
HORIZONTAL SCALE:

DATE SUBMITTED:
DATE APPROVED:

LEGEND:

EXISTING ROW
EXISTING PROPERTY LIMITS
EXISTING CULVERT
PROPOSED CULVERT
PROPOSED FM 548 BASELINE
PROPOSED CROSS STREET BASELINE
PROPOSED ROW
EXISTING UTILITY EASEMENT
PROPOSED FACE OF CURB
100 YR FLOODPLAIN LIMITS
DIRECTION OF TRAVEL
PROPOSED BRIDGE
PROPOSED BRIDGE BENT
PROPOSED PAVEMENT
PROPOSED SIDEWALK
PAVEMENT / BRIDGE TO BE REMOVED
EXISTING WATER LINE
EXISTING DRAINAGE EASEMENT
PROPOSED DRAINAGE EASEMENT
CITY LIMITS
POTENTIAL DISPLACEMENT
PROPOSED RETAINING WALL
EXISTING MITIGATION AREA
FLOW DIRECTION
PROPOSED NOISE WALL (POTENTIAL LOCATION PENDING APPROVAL)
PROPOSED 5" CONC RIPRAP
EXIST SIDEWALK TO REMAIN

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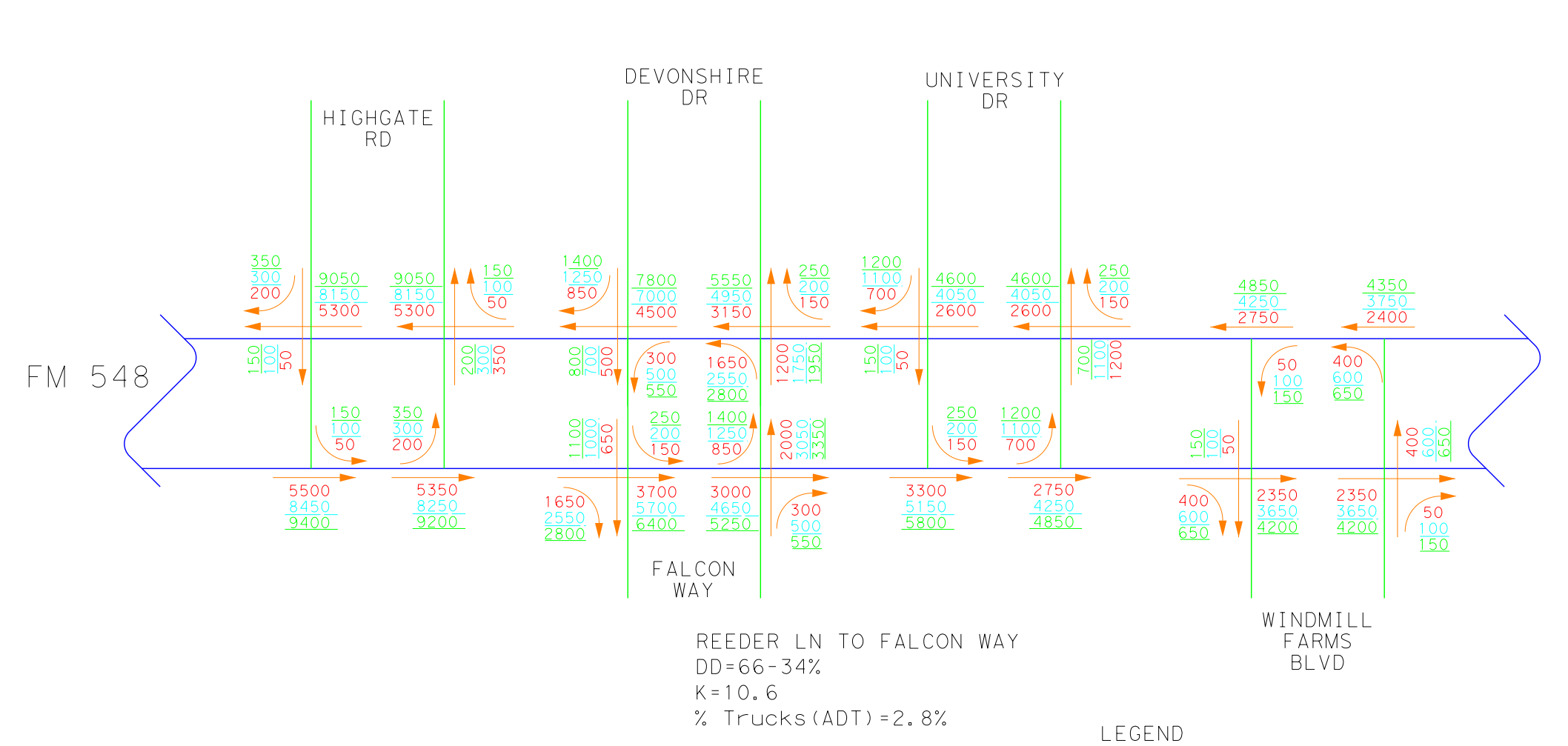
CURVE DATA:

CURVE	P.I. STATION	P.I. STATION-N	P.I. STATION-E	DELTA	RADIUS	DEGREE OF CURVE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
PFM548-10	139+62.97	N 6,968,390.6302	E 2,606,201.0069	07° 25' 17.95" (LT)	5,729.58	1° 00' 00.00"	371.60	742.17	N 48° 30' 11.73" E	741.65	135+91.37	143+33.54	N 52° 12' 50.71" E	N 44° 47' 32.76" E
PFM548-11	199+53.06	N 6,972,642.3139	E 2,610,421.9963	23° 46' 25.21" (LT)	1,909.86	3° 00' 00.00"	402.01	792.46	N 56° 40' 45.37" E	786.78	195+51.05	203+43.50	N 44° 47' 32.76" E	N 44° 21' 04.77" E
PFM548-12	228+06.82	N 6,973,688.3306	E 2,613,089.5750	24° 22' 19.66" (LT)	1,909.86	3° 00' 00.00"	412.44	812.40	N 56° 32' 14.60" E	806.29	223+94.38	232+06.79	N 68° 43' 24.43" E	N 44° 21' 04.77" E

TRAFFIC DIAGRAM

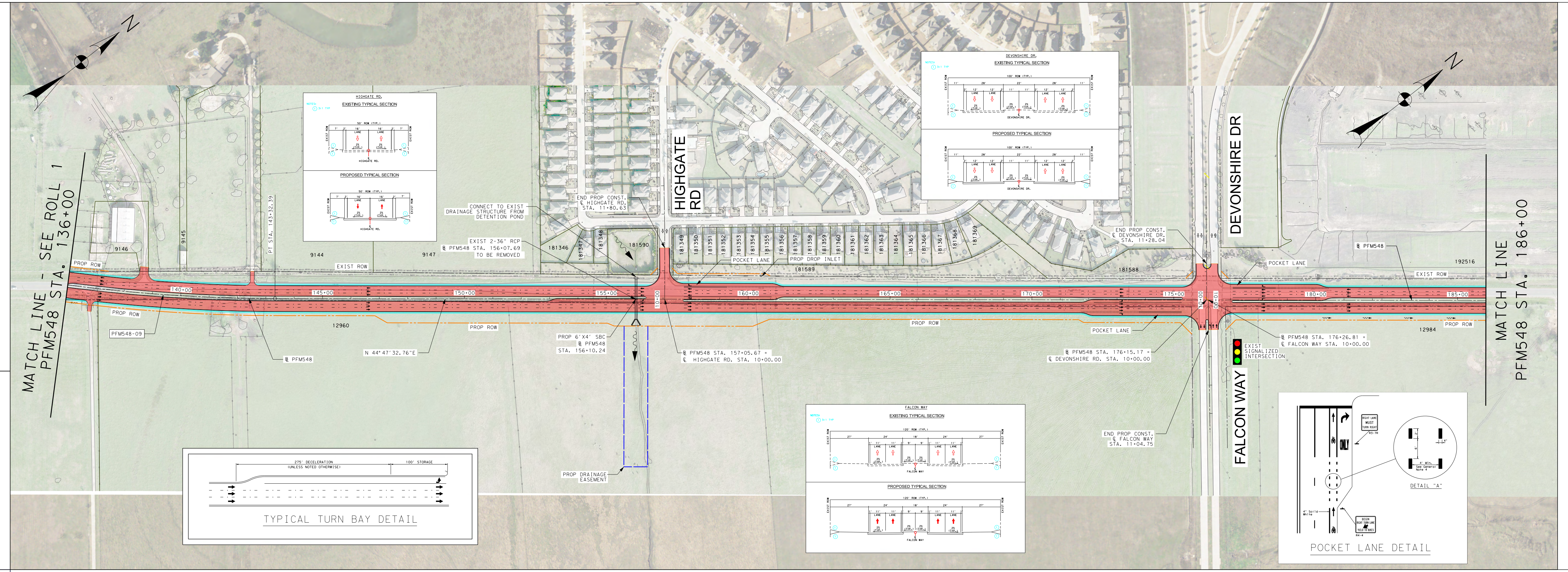


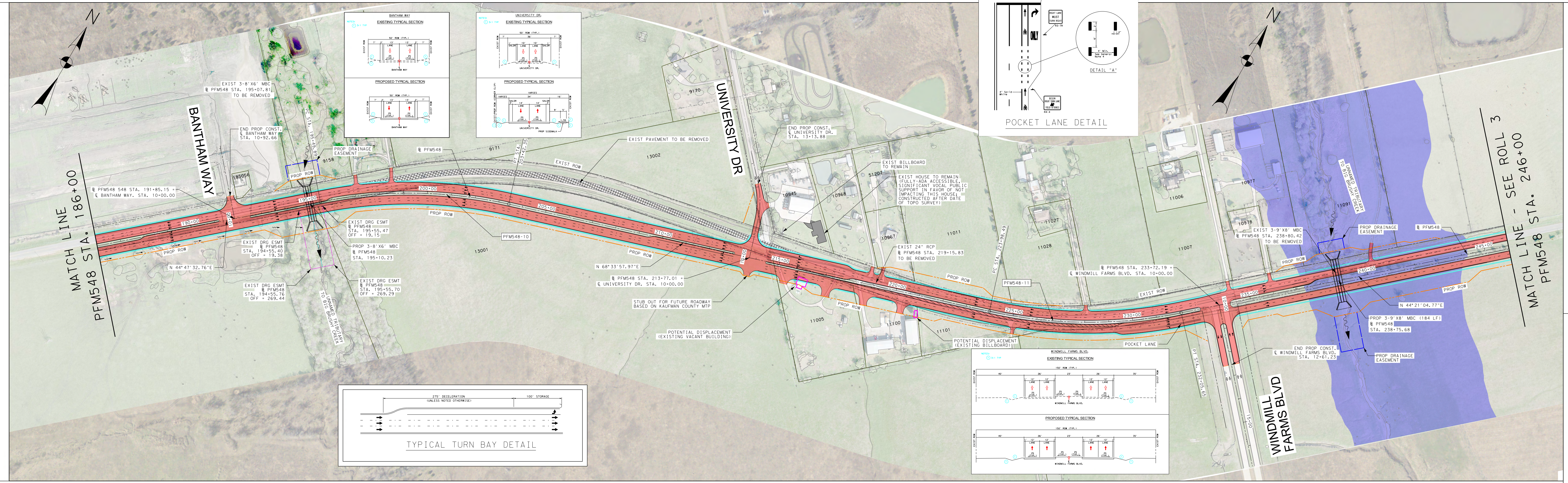
REEDER LN TO FALCON WAY
DD=66-34%
K=10.6
% Trucks(ADT)=2.8%

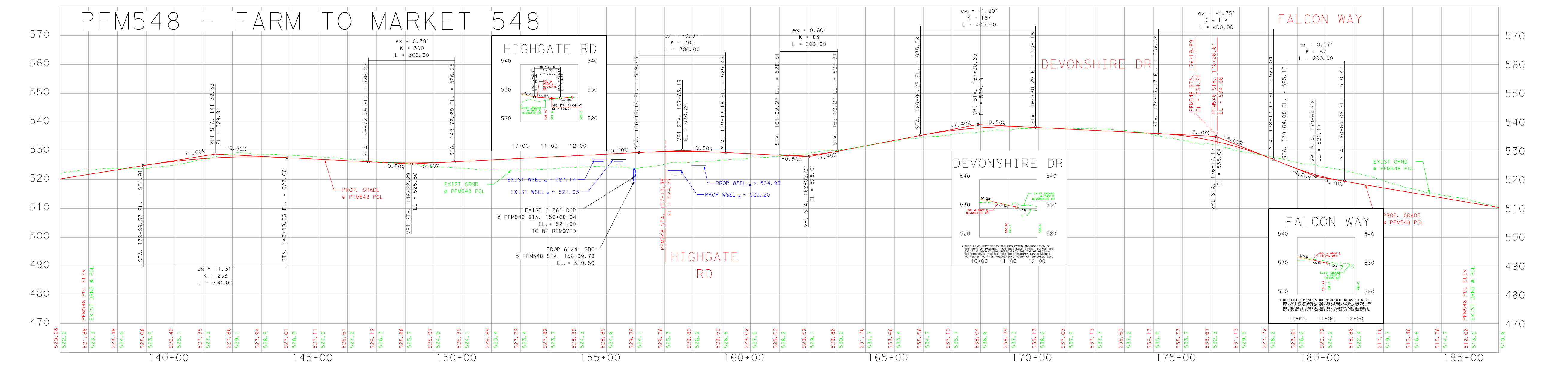
FALCON WAY TO SH 205
DD=66-34%
K=10.6
% Trucks(ADT)=2.9%

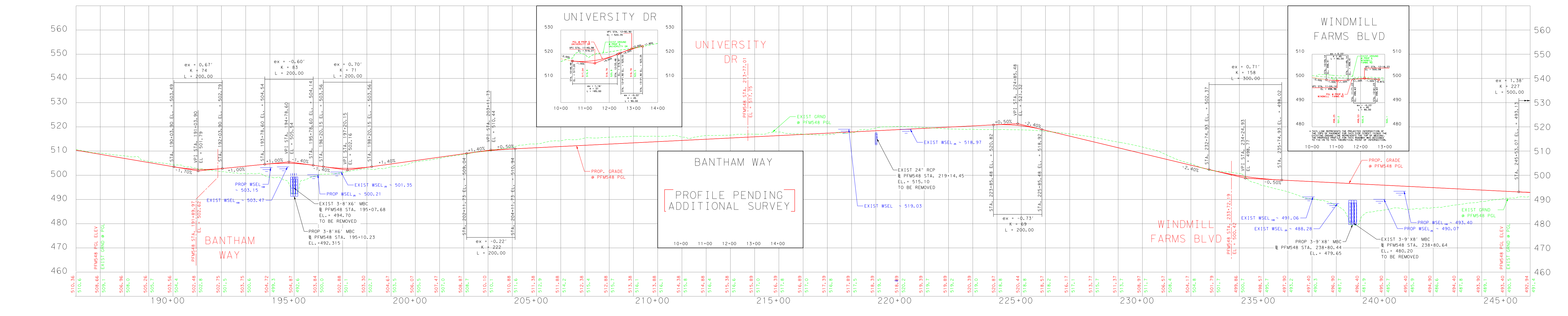
LEGEND
1000-2020 ADT
1000-2035 ADT
1000-2045 ADT

Source: Texas Department of Transportation Transportation Programming and Planning Division Memorandum, February 24, 2016

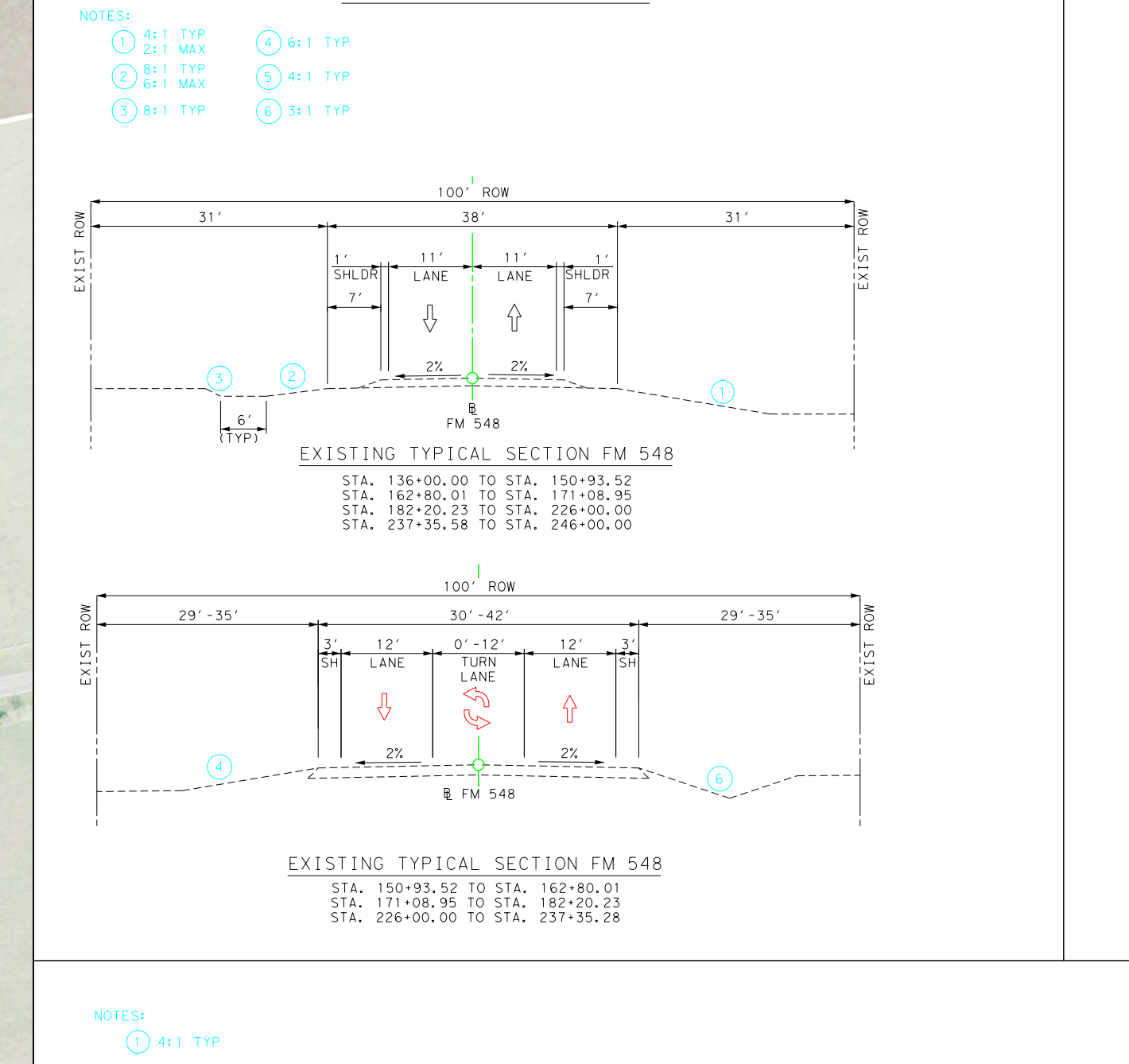




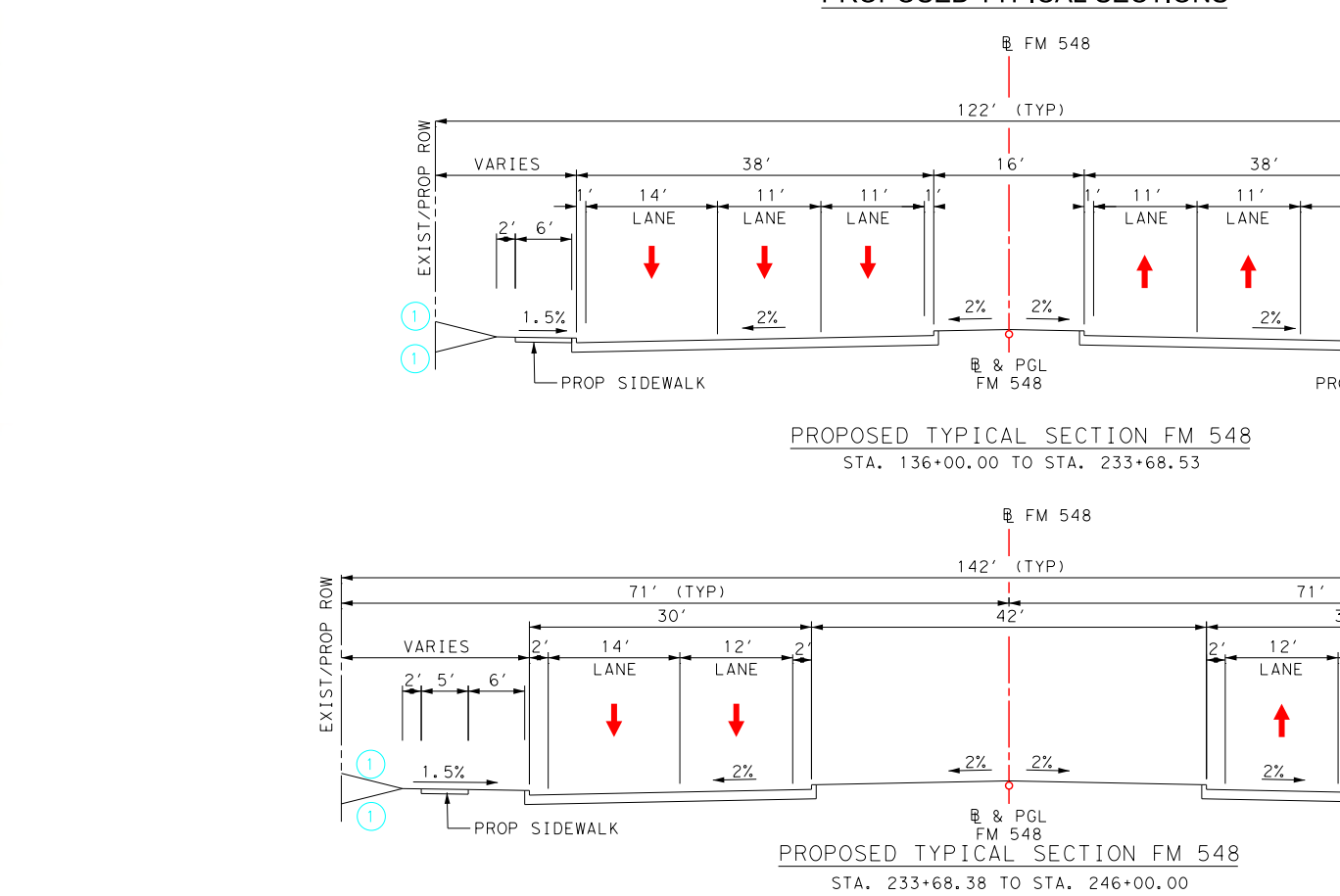




EXISTING TYPICAL SECTIONS



PROPOSED TYPICAL SECTIONS

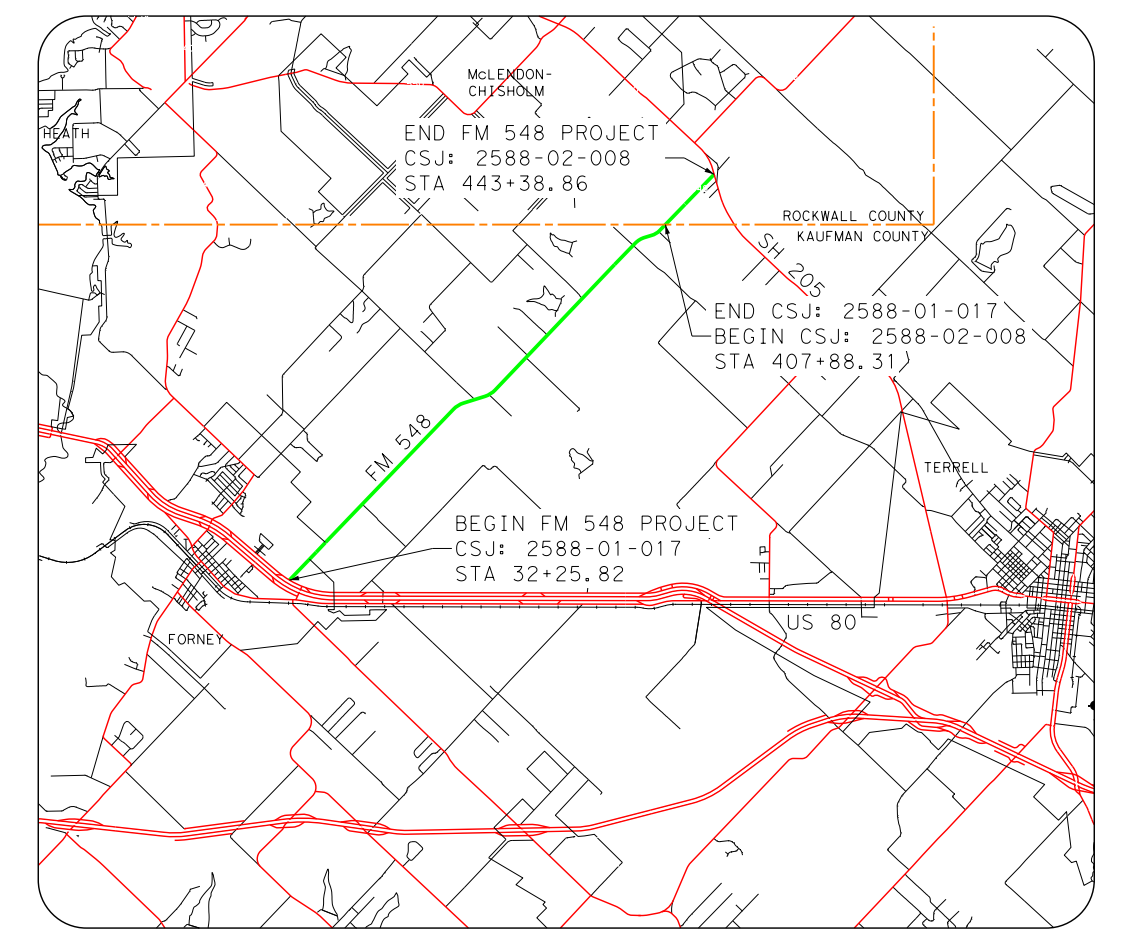


PARCEL DATA:

Parcel ID	Owner's Name
9144	Evans 114 Land Investments Partners LP
9145	Evans 114 Land Investments Partners LP
9146	Evans 114 Land Investments Partners LP
9147	Evans 114 Land Investments Partners LP
12960	Harlan Properties Inc
181347	Ibarra Juan M Jr & Melinda Ann
181348	Malone Carolyn Canady & Bricket D
181349	Laswell Steve A
181350	Jenkins Robert Frank & Lujan Vivian Elena
181351	Kennedy Patrick William
181352	Combs Chad Heath & Jordan Michelle
181353	Cantu Santino & Kate
181354	Loggins Barbara
181355	Snowden Revocable Living Trust
181356	Larry Aaron & Vanieca
181357	Hughes Monta Ray & Norma Sue
181358	Williams Graham & Dixie
181359	Lewis-Thomas Alicaia M
181360	Mitchell Richard J & Hayli A
181361	Duttlinger Joshua D & Markeel J
181362	Williams Michael T & Tammy
181363	Adams Jason S
181364	Carlisle Tiara M
181365	Chumley Chris & Debra
181366	Hailey Kristin
181367	Wright Terence & Laura H
181589	WS DDV Development LLC
181590	WS DDV Development LLC

Parcel ID	Owner's Name
7308	EQK Bridgeview Plaza Inc
9157	Shipman Clay & Marilee
9158	Shipman Clay & Marilee
9171	Horton Emory E & Pauline L Revocable Trust
10945	Anderson Danny R Jr & Ronny J
10967	Brashier David E & Laura
10968	Crow Bill & Christine
10977	Bentley Thomas E & Belinda S
10978	Bentley Thomas E & Belinda S
11005	Hendrickson Rita Sue
11007	Slaughter Michael L
11011	Brewer Jimmy B
11027	McWhorter Sandra L
11028	McWhorter Sandra L
11091	Vasquez Vencente T & Elma V
11100	Anderson Brothers Partnership
11101	Kaufman Land Partners LTD
12984	Forney ISD
13001	EQK Bridgeview Plaza Inc
13002	Horton Emory E & Pauline L Revocable Trust
181368	Ledy Levi & Audrey
181369	Hamilton Chad & Kimberly
181588	WS DDV Development LLC
185056	Kaufman County Municipal Utility District #2
192516	WS DDV Development LLC

LEGEND:
EXISTING ROW
EXISTING PROPERTY LIMITS
EXISTING CULVERT
PROPOSED CULVERT
PROPOSED FM 548 BASELINE
PROPOSED CROSS STREET BASELINE
PROPOSED ROW
EXISTING UTILITY EASEMENT
PROPOSED FACE OF CURB
100 YR FLOODPLAIN LIMITS
DIRECTION OF TRAVEL
PROPOSED BRIDGE
PROPOSED BRIDGE BENT
PROPOSED PAVEMENT
PROPOSED SIDEWALK
PAVEMENT / BRIDGE TO BE REMOVED
EXISTING WATER LINE
EXISTING DRAINAGE EASEMENT
PROPOSED DRAINAGE EASEMENT
CITY LIMITS
POTENTIAL DISPLACEMENT
PROPOSED RETAINING WALL
EXISTING MITIGATION AREA
FLOW DIRECTION
PROPOSED NOISE WALL (POTENTIAL LOCATION PENDING APPROVAL)
PROPOSED 5" CONC RIPRAP
EXIST SIDEWALK TO REMAIN
TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
MO BUR, P.E., DISTRICT ENGINEER
FM 548 DESIGN SCHEMATIC
FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008
DECEMBER 2018
ROLL 2 OF 4



LOCATION MAP
N.T.S.

TEXAS COUNTY MAP
N.T.S.
PRELIMINARY
THESE DOCUMENTS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:
Pacheco Koch
7557 RAMBLER ROAD, SUITE 1400, DALLAS, TX 75231
972.235.3031 FIRM REGISTRATION NUMBER F-469
DATE SUBMITTED:
DATE APPROVED:
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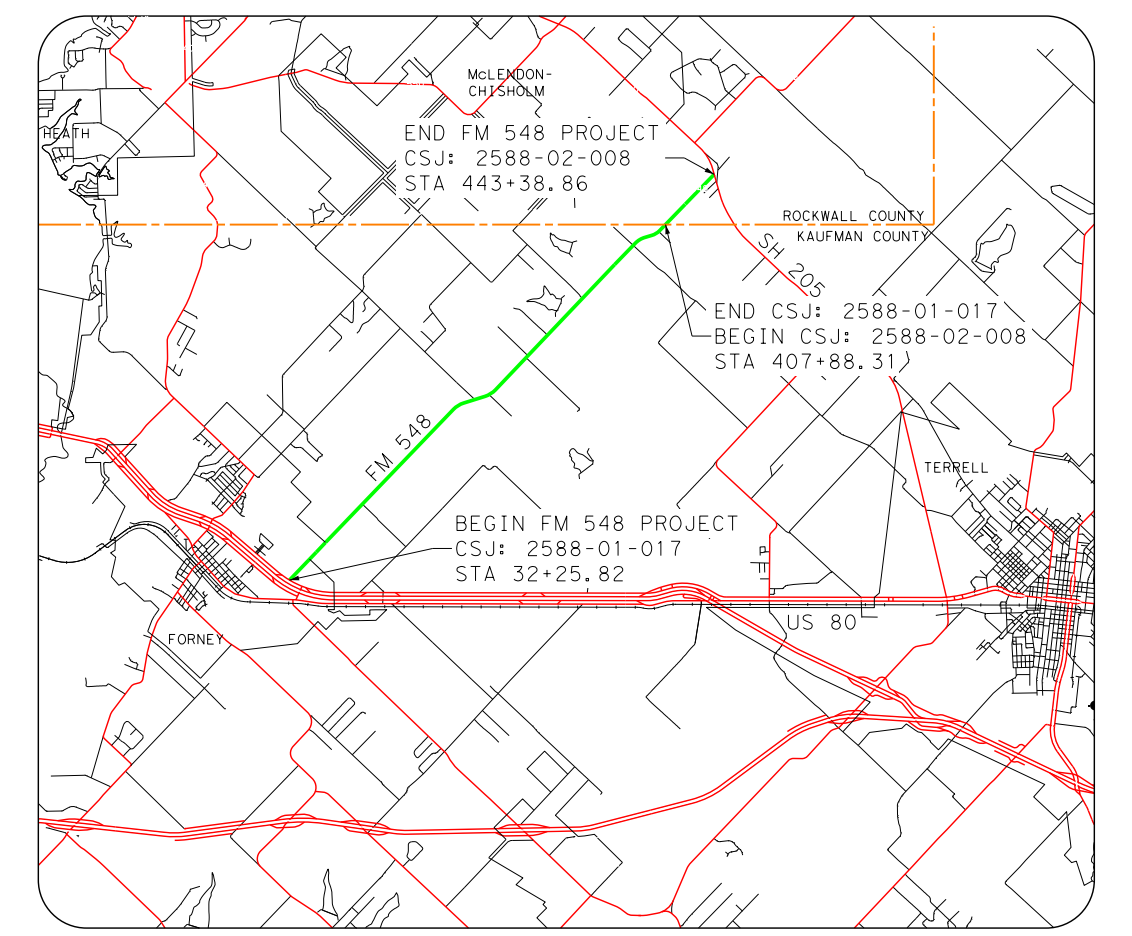
TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
MO BUR, P.E., DISTRICT ENGINEER

FM 548 DESIGN SCHEMATIC
FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008

DECEMBER 2018
ROLL 3 OF 4

PROJECT LENGTH:		7.84 MILES
AVERAGE DAILY TRAFFIC:		15,239 (2015)
		29,800 (2035)
ROADWAY	DESIGN SPEED	FUNCTIONAL CLASSIFICATION
FM 548	40 MPH	URBAN MINOR ARTERIAL
SH 205	45 MPH	URBAN MINOR ARTERIAL
ALL CROSS STREETS EXCEPT FOR DEVONSHIRE DRIVE	30 MPH	MAJOR COLLECTOR
DEVONSHIRE DRIVE	30 MPH	MINOR COLLECTOR



LOCATION MAP
N.T.S.

TEXAS COUNTY MAP
N.T.S.

PRELIMINARY

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NAME 52202 P.E. NO. 1/2/2019 DATE

Pacheco Koch
7557 RAMBLER ROAD, SUITE 1400, DALLAS, TX 75231
972.235.3031 FIRM REGISTRATION NUMBER F-469

0 10 20 30 40
VERTICAL SCALE:
0 100 200 300 400
HORIZONTAL SCALE:

DATE SUBMITTED:
DATE APPROVED:

LEGEND:

EXISTING ROW
EXISTING PROPERTY LIMITS
EXISTING CULVERT
PROPOSED CULVERT
PROPOSED FM 548 BASELINE
PROPOSED CROSS STREET BASELINE
PROPOSED ROW
EXISTING UTILITY EASEMENT
PROPOSED FACE OF CURB
100 YR FLOODPLAIN LIMITS
DIRECTION OF TRAVEL
PROPOSED BRIDGE
PROPOSED BRIDGE BENT
PROPOSED PAVEMENT
PROPOSED SIDEWALK
PAVEMENT / BRIDGE TO BE REMOVED
EXISTING WATER LINE
EXISTING DRAINAGE EASEMENT
PROPOSED DRAINAGE EASEMENT
CITY LIMITS
POTENTIAL DISPLACEMENT
PROPOSED RETAINING WALL
EXISTING MITIGATION AREA
FLOW DIRECTION
PROPOSED NOISE WALL (POTENTIAL LOCATION PENDING APPROVAL)
PROPOSED 5" CONC RIPRAP
EXIST SIDEWALK TO REMAIN

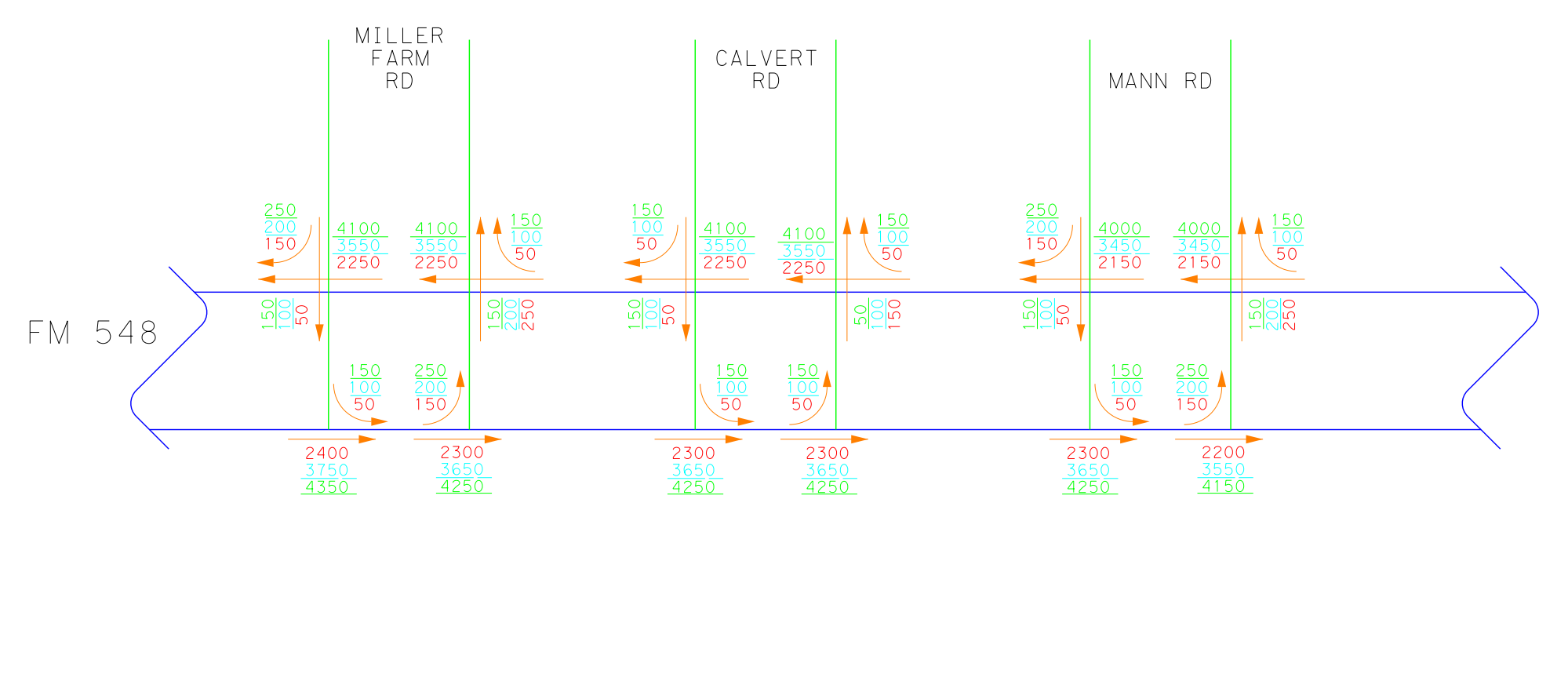
GENERAL NOTES:

1. THE SCHEMATIC LAYOUTS ARE BASED ON LIMITED FIELD SURVEY, AERIAL TOPOGRAPHY AND RECORD PLANS. NOT ALL EXISTING FEATURES WERE FIELD SURVEYED. AERIAL TOPOGRAPHY DATA WAS COLLECTED IN APRIL 2016 AND SUPPLEMENTED IN SEPTEMBER 2018.
2. PARCEL LIMITS AND OWNERSHIP INFORMATION WERE COLLECTED FROM THE KAUFMAN AND ROCKWALL COUNTY APPRAISAL DISTRICTS (MAY 2017).
3. DIMENSIONS ARE TO EDGE OF UNCURBED PAVEMENT OR NOMINAL FACE OF RAIL / CURB / BARRIER (UNLESS NOTED OTHERWISE).
4. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) WILL NOT BE DEVELOPED UNTIL PS&E DESIGN.
5. AVERAGE DAILY TRAFFIC VOLUME PROJECTIONS DEVELOPED BY TXDOT TP&P (FEBRUARY 2016).
6. ALL CURBS ARE TYPE II (UNLESS NOTED OTHERWISE). ADA RAMPS WILL BE DESIGNED DURING PS&E AND ARE NOT SHOWN ON THE SCHEMATIC.
7. DRIVEWAY LOCATIONS ARE PRELIMINARY AND WILL BE FURTHER DEVELOPED DURING PS&E DESIGN. ALL DRIVEWAYS UTILIZE 15' CURB RADIUS (UNLESS NOTED OTHERWISE).
8. MEDIAN OPENINGS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL MEDIAN OPENING LOCATIONS TO BE DETERMINED DURING PS&E AND IN COORDINATION WITH THE LOCAL GOVERNMENTS.
9. MAJOR INTERSECTION CURVE RADII ARE 50', MINOR INTERSECTION CURVE RADII ARE 30', AND DRIVEWAY INTERSECTION CURVE RADII ARE 15' (UNLESS NOTED OTHERWISE).
10. EXISTING PAVEMENT AND BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
11. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAPS DATED AUGUST 2015.
12. EXISTING CULVERT LOCATIONS, SIZE, AND ELEVATIONS OBTAINED FROM RECORD DOCUMENTS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
13. EXISTING DRIVEWAYS WILL REMAIN UNLESS IT IS DETERMINED DURING DETAILED DESIGN STAGE AND COORDINATION WITH THE LOCAL GOVERNMENT THAT THE DRIVEWAY IS A SAFETY ISSUE AND/OR IS LOCATED WITHIN ACCESS DENIAL LIMITS SHOWN.
14. BUILDINGS ARE SHOWN AS POTENTIAL DISPLACEMENT IF THE PROPOSED ROW PHYSICALLY INTERSECTS THE EXISTING BUILDING STRUCTURE.

CURVE DATA:

CURVE	P.I. STATION	P.I. STATION-N	P.I. STATION-E	DELTA	RADIUS	DEGREE OF CURVE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
PFM548-13	280+04.18	N 6,977,413.7105	E 2,616,731.5418	05° 33' 52.33" (LT)	5,729.58	1° 00' 00.00"	278.45	556.45	N 41° 34' 08.61" E	556.23	277+25.74	282+82.19	N 44° 21' 04.77" E	N 38° 47' 12.44" E
PFM548-14	285+60.64	N 6,977,847.7974	E 2,617,080.3919	05° 33' 52.33" (RT)	5,729.58	1° 00' 00.00"	278.45	556.45	N 41° 34' 08.61" E	556.23	282+82.19	288+38.64	N 38° 47' 12.44" E	N 44° 21' 04.77" E
PFM548-15	340+50.95	N 6,981,774.0490	E 2,620,918.7328	04° 40' 02.57" (RT)	5,729.58	1° 00' 00.00"	233.50	466.74	N 46° 41' 06.06" E	466.61	338+17.45	342+84.19	N 44° 21' 04.77" E	N 49° 01' 07.34" E
PFM548-16	345+17.68	N 6,982,080.3111	E 2,621,271.2794	04° 40' 02.57" (LT)	5,729.58	1° 00' 00.00"	233.50	466.74	N 46° 41' 06.06" E	466.61	342+84.19	347+50.92	N 49° 01' 07.34" E	N 44° 21' 04.77" E

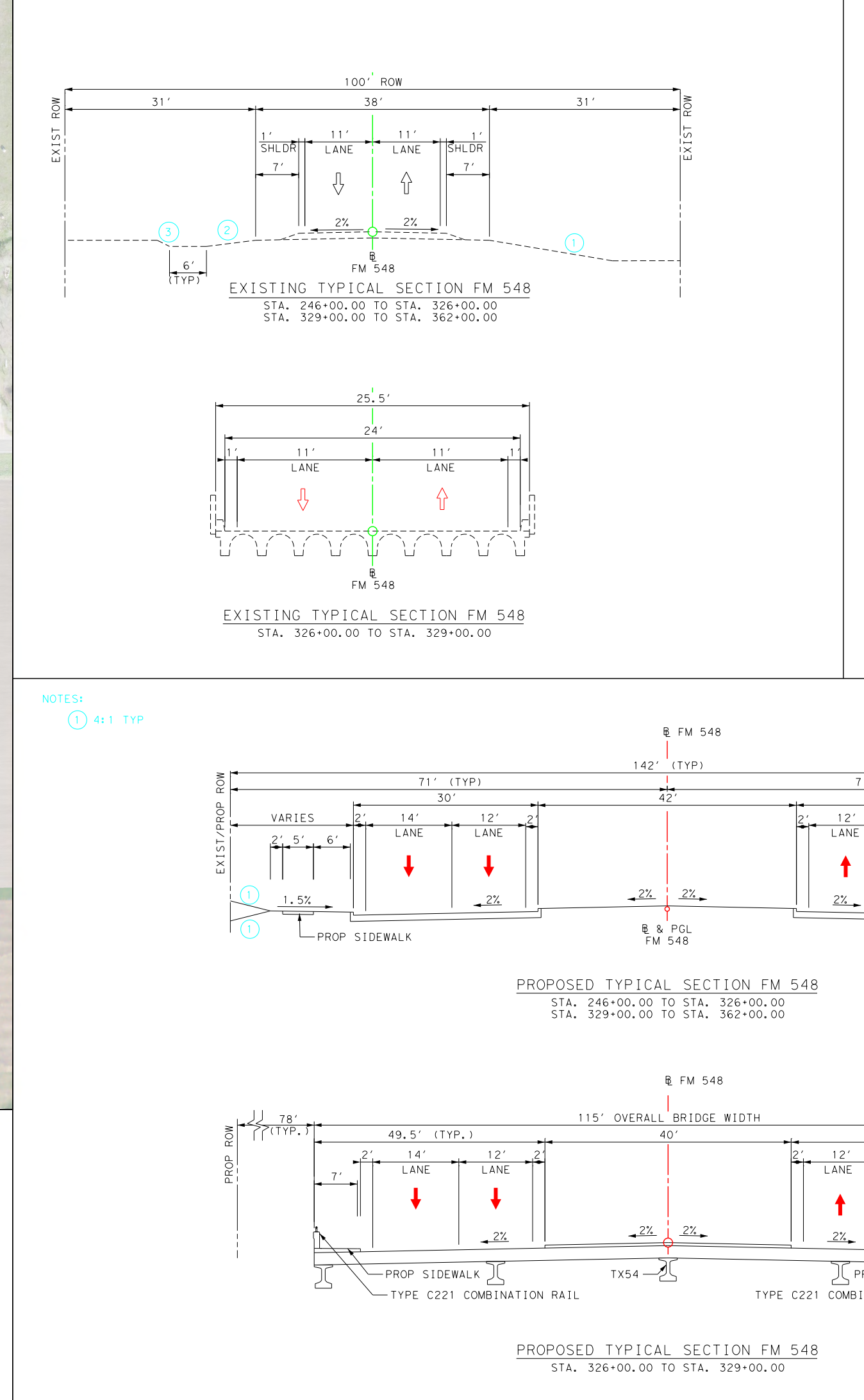
TRAFFIC DIAGRAM



Source: Texas Department of Transportation Transportation Programming and Planning Division Memorandum, February 24, 2016

FALCON WAY TO SH 205
DD=66-34%
K=10.6
% Trucks(ADT)=2.9%

LEGEND
1000-2020 ADT
1000-2035 ADT
1000-2045 ADT



LEGEND:

EXISTING ROW
EXISTING PROPERTY LIMITS
EXISTING CULVERT
PROPOSED CULVERT
PROPOSED FM 548 BASELINE
PROPOSED CROSS STREET BASELINE
PROPOSED ROW
EXISTING UTILITY EASEMENT
PROPOSED FACE OF CURB
100 YR FLOODPLAIN LIMITS
DIRECTION OF TRAVEL
PROPOSED BRIDGE
PROPOSED BRIDGE BENT
PROPOSED PAVEMENT
PROPOSED SIDEWALK
PAVEMENT / BRIDGE TO BE REMOVED
EXISTING WATER LINE
EXISTING DRAINAGE EASEMENT
PROPOSED DRAINAGE EASEMENT
CITY LIMITS
POTENTIAL DISPLACEMENT
PROPOSED RETAINING WALL
EXISTING MITIGATION AREA
FLOW DIRECTION
PROPOSED NOISE WALL (POTENTIAL LOCATION PENDING APPROVAL)
PROPOSED 5" CONC RIPRAP
EXIST SIDEWALK TO REMAIN

PARCEL DATA:

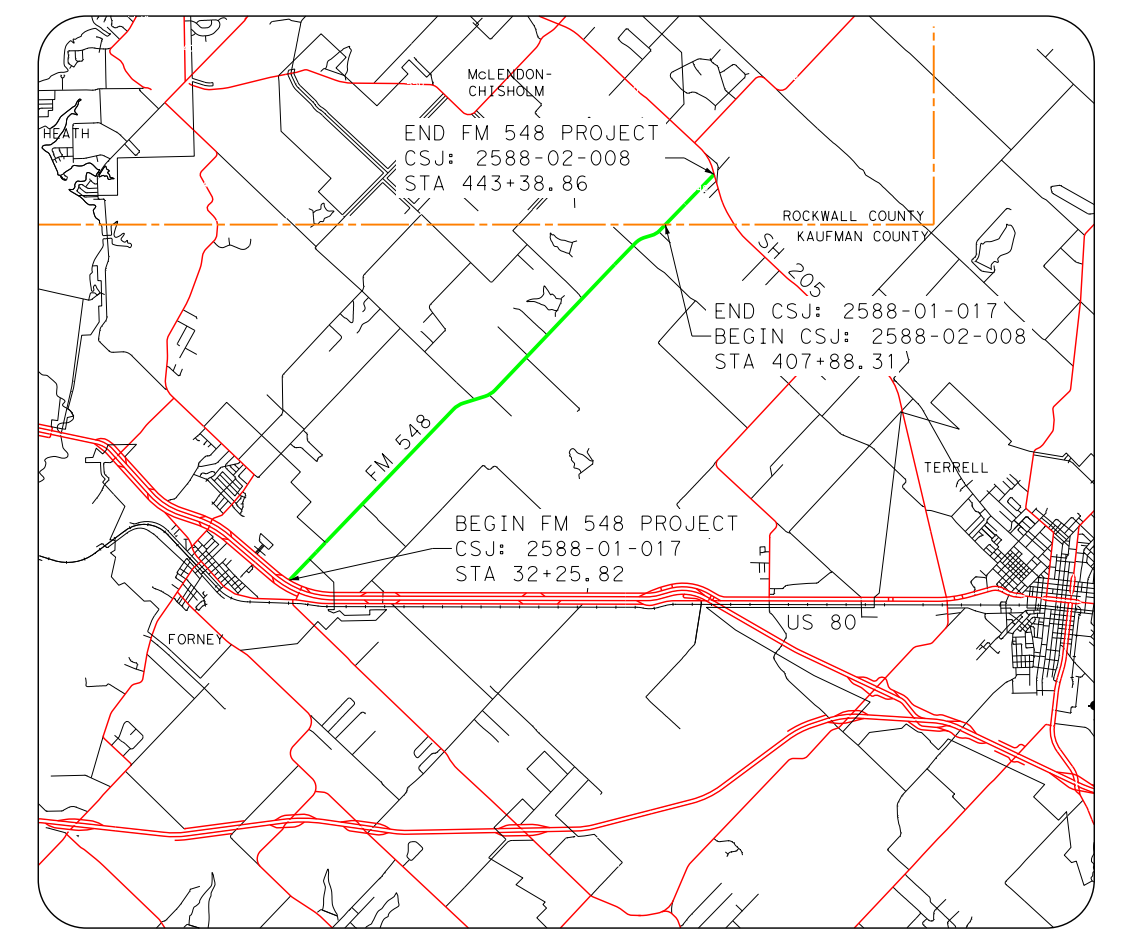
Parcel ID	Owner's Name
7295	Forney Texas Properties LLC
7297	Miller Virgina
7298	Williams Inez C
7299	Gem L Dunn Inc
7303	Epton Jame Leland
7304	Keith Alan C & Susan M
7306	Bearb Dorothy & Nicky
7307	Bearb Nicky J
7308	EQK Bridgeview Plaza Inc
7311	Mann Janice Sue Trustee
7312	Shepherd Jason L & Joanna E
10984	Mann Janice Sue
10995	Mann Janice Sue
11012	Coe William J & Dennis R Coe Trustees
11013	Coe William J & Dennis R Coe Trustees
11032	Mahdavi Mehdi
31632	Briones Armondo
31633	Banks Gloria J & Shedrick R SR
31634	Marquez Carlos & Kari
31661	Reyes Doraelia & Fernando Villazon
31663	Ryals Doyle G & Judy K
31664	Mahdavi Mehdi & Jackie
31665	Rodriguez Jose Luis Morales & Morales Mayra Aguillon
31666	Stickles Joseph L
31667	Holmes Rocky
31680	Monlina Gilbert N & Sharon A
54652	Williams Daniel R & Kimberly K

Parcel ID	Owner's Name
7240	City of Dallas
7262	Mahdavi Mehdi & Jackie
7263	Mahdavi Mehdi & Jackie
7266	Sams Partnership
7301	Mahdavi Mehdi & Jackie
11030	Mann Janice Sue
11108	Chapman Max B & Beverly
11109	Chapman Max B & Beverly
11110	Chapman Max B & Beverly
11111	Mann Janice Sue
56969	Marquez Carlos & Kari

TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
MO BUR, P.E., DISTRICT ENGINEER

FM 548 DESIGN SCHEMATIC
FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008

DECEMBER 2018
ROLL 3 OF 4



LOCATION MAP
N.T.S.

TEXAS COUNTY MAP
N.T.S.

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FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008

DECEMBER 2018
ROLL 4 OF 4

PROJECT LENGTH:		7.84 MILES
AVERAGE DAILY TRAFFIC:		15,239 (2015)
		29,800 (2035)
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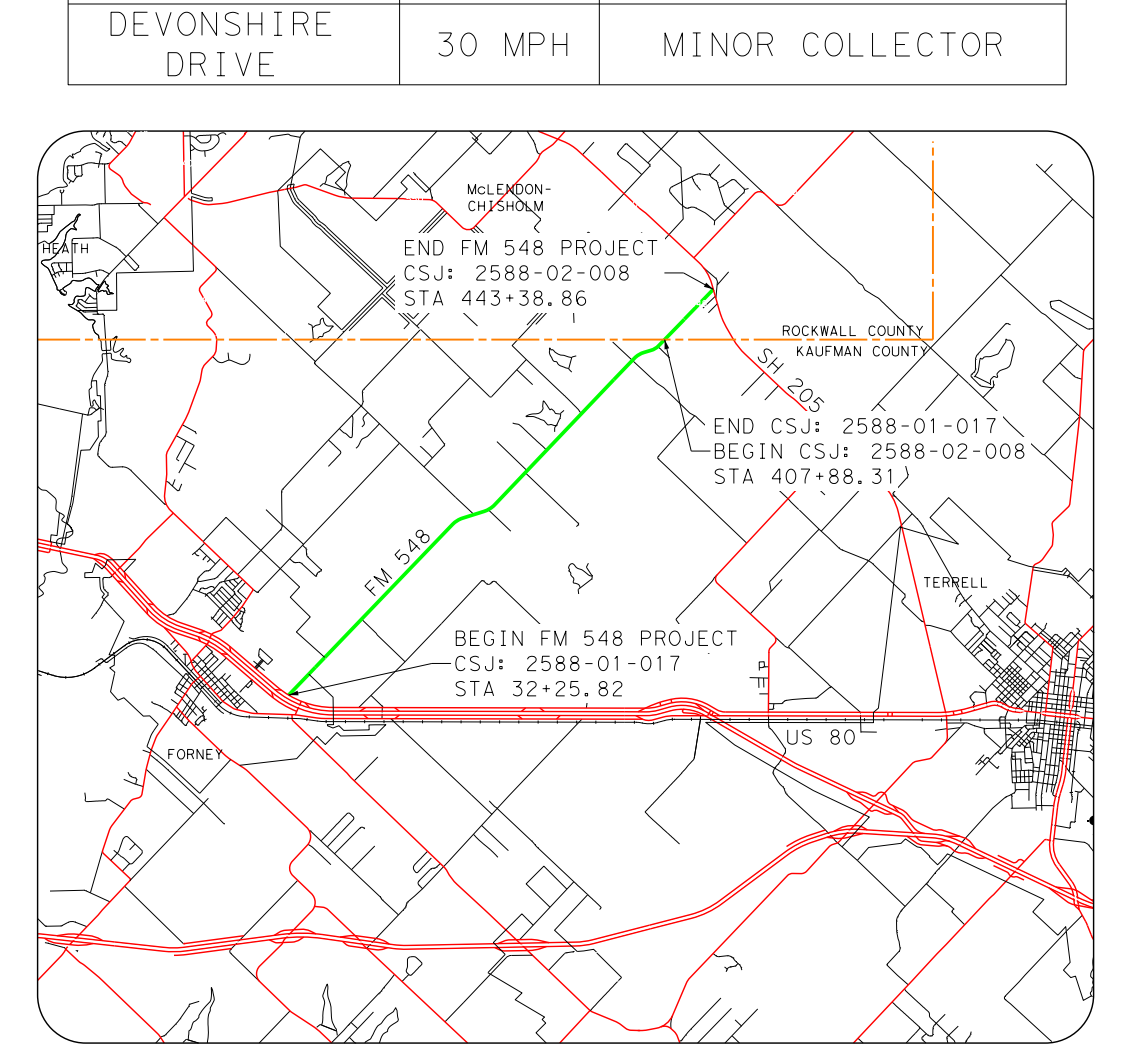
FM 548	40 MPH	URBAN MINOR ARTERIAL
SH 205	45 MPH	URBAN MINOR ARTERIAL
ALL CROSS STREETS EXCEPT FOR DEVONSHIRE DRIVE	30 MPH	MAJOR COLLECTOR
DEVONSHIRE DRIVE	30 MPH	MINOR COLLECTOR



LOCATION MAP
N.T.S.

TEXAS COUNTY MAP
N.T.S.

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NAME 52202 P.E. NO. 1/2/2019 DATE

Pacheco Koch
7557 RAMBLER ROAD, SUITE 1400, DALLAS, TX 75231
972.235.3031 FIRM REGISTRATION NUMBER F-469

0 10 20 30 40
VERTICAL SCALE:
0 100 200 300 400
HORIZONTAL SCALE:

DATE SUBMITTED:
DATE APPROVED:

LEGEND:

- EXISTING ROW
- EXISTING PROPERTY LIMITS
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED FM 548 BASELINE
- PROPOSED CROSS STREET BASELINE
- PROPOSED ROW
- EXISTING UTILITY EASEMENT
- PROPOSED FACE OF CURB
- 100 YR FLOODPLAIN LIMITS
- DIRECTION OF TRAVEL
- PROPOSED BRIDGE
- PROPOSED BRIDGE BENT
- PROPOSED PAVEMENT
- PROPOSED SIDEWALK
- PAVEMENT / BRIDGE TO BE REMOVED
- EXISTING WATER LINE
- EXISTING DRAINAGE EASEMENT
- PROPOSED DRAINAGE EASEMENT
- CITY LIMITS
- POTENTIAL DISPLACEMENT
- PROPOSED RETAINING WALL
- EXISTING MITIGATION AREA
- FLOW DIRECTION
- PROPOSED NOISE WALL (POTENTIAL LOCATION PENDING APPROVAL)
- PROPOSED 5" CONC RIPRAP
- EXIST SIDEWALK TO REMAIN

GENERAL NOTES:

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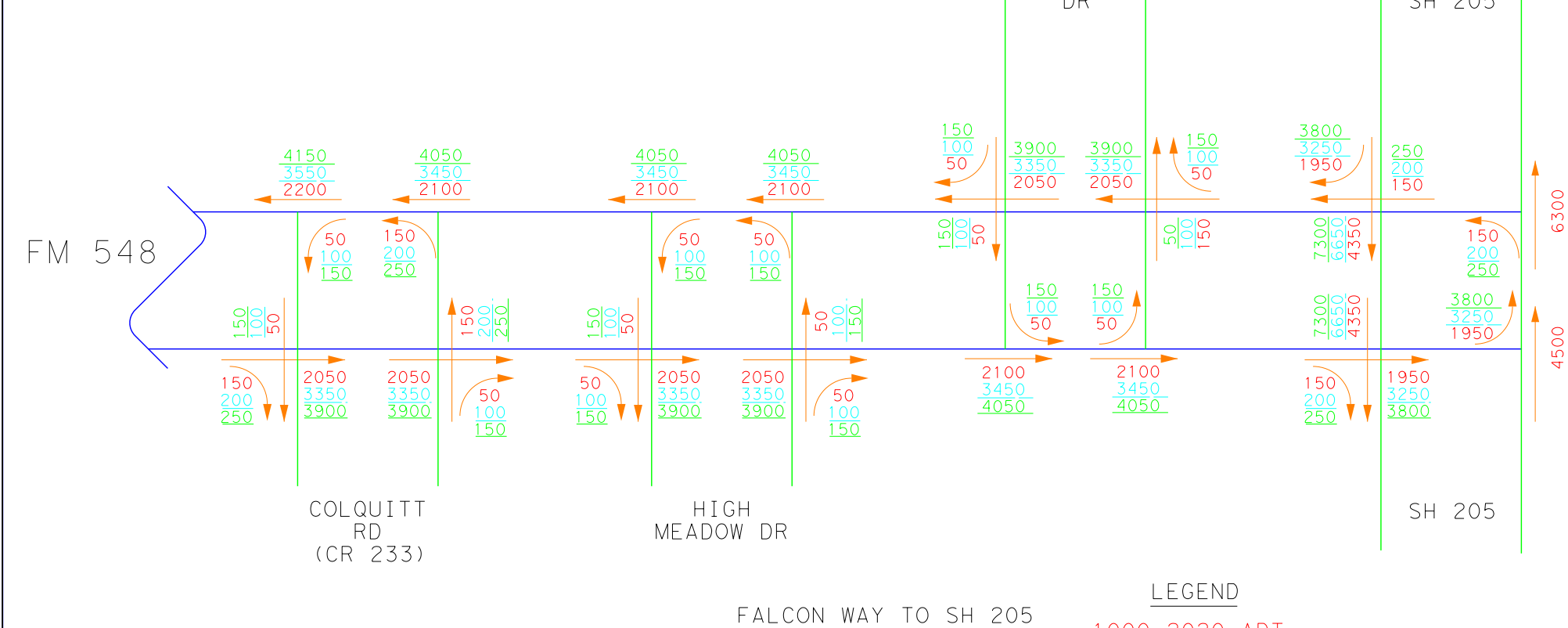
CURVE DATA:

CURVE	P.I. STATION	P.I. STATION-N	P.I. STATION-E	DELTA	RADIUS	DEGREE OF CURVE	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION	BACK TANGENT	AHEAD TANGENT
PFM548-17	376+42.30	N 6,984,314.8074	E 2,623,455.7443	36° 45' 08.03" (RT)	1,432.39	4° 00' 00.00"	475.83	918.81	N 62° 43' 38.79" E	903.13	371+66.47	380+85.28	N 44° 21' 04.77" E	N 81° 06' 12.80" E
PFM548-18	385+59.92	N 6,984,461.7969	E 2,624,394.7806	36° 39' 59.68" (LT)	1,432.39	4° 00' 00.08"	474.64	916.66	N 62°46' 12.96" E	901.10	380+85.28	390+01.94	N 81° 06' 12.80" E	N 44° 26' 13.12" E
PFM548-19	404+13.85	N 6,985,808.8367	E 2,625,715.6037	05° 51' 56.85" (RT)	5,729.58	1° 00' 00.00"	293.55	586.58	N 47°22' 11.55" E	586.32	401+20.31	407+06.89	N 44° 26' 13.12" E	N 50° 18' 09.97" E
PFM548-20	410+00.43	N 6,986,183.8303	E 2,626,167.3301	05° 51' 56.85" (LT)	5,729.58	1° 00' 00.00"	293.55	586.58	N 47°22' 11.55" E	586.32	407+06.89	412+93.46	N 50° 18' 09.97" E	N 44° 26' 13.12" E
PFM548-21	422+21.03	N 6,987,055.7276	E 2,627,022.2580	04° 47' 19.32" (LT)	5,729.58	1° 00' 00.00"	239.57	478.87	N 42° 02' 33.46" E	478.73	419+81.45	424+60.32	N 44° 26' 13.12" E	N 39° 38' 53.80" E
PFM548-22	426+99.90	N 6,987,424.6608	E 2,627,327.9901	04° 47' 19.32" (RT)	5,729.58	1° 00' 00.00"	239.57	478.87	N 42° 02' 33.46" E	478.73	424+60.32	429+39.19	N 39° 38' 53.80" E	N 44° 26' 13.12" E
PFM548-23	439+94.34	N 6,988,349.1174	E 2,628,234.4545	28° 33' 38.08" (RT)	1,145.92	5° 00' 00.00"	291.67	571.21	N 58° 43' 02.16" E	565.32	437+02.67	442+73.88	N 44° 26' 13.12" E	N 72° 59' 51.20" E

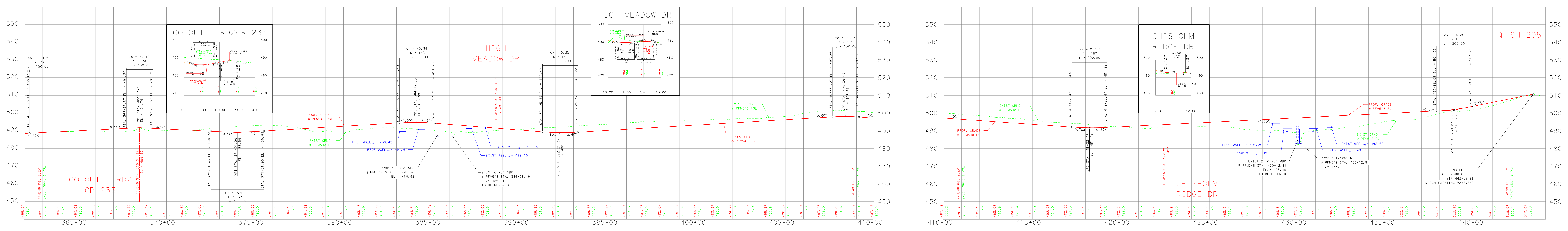
TRAFFIC DIAGRAM

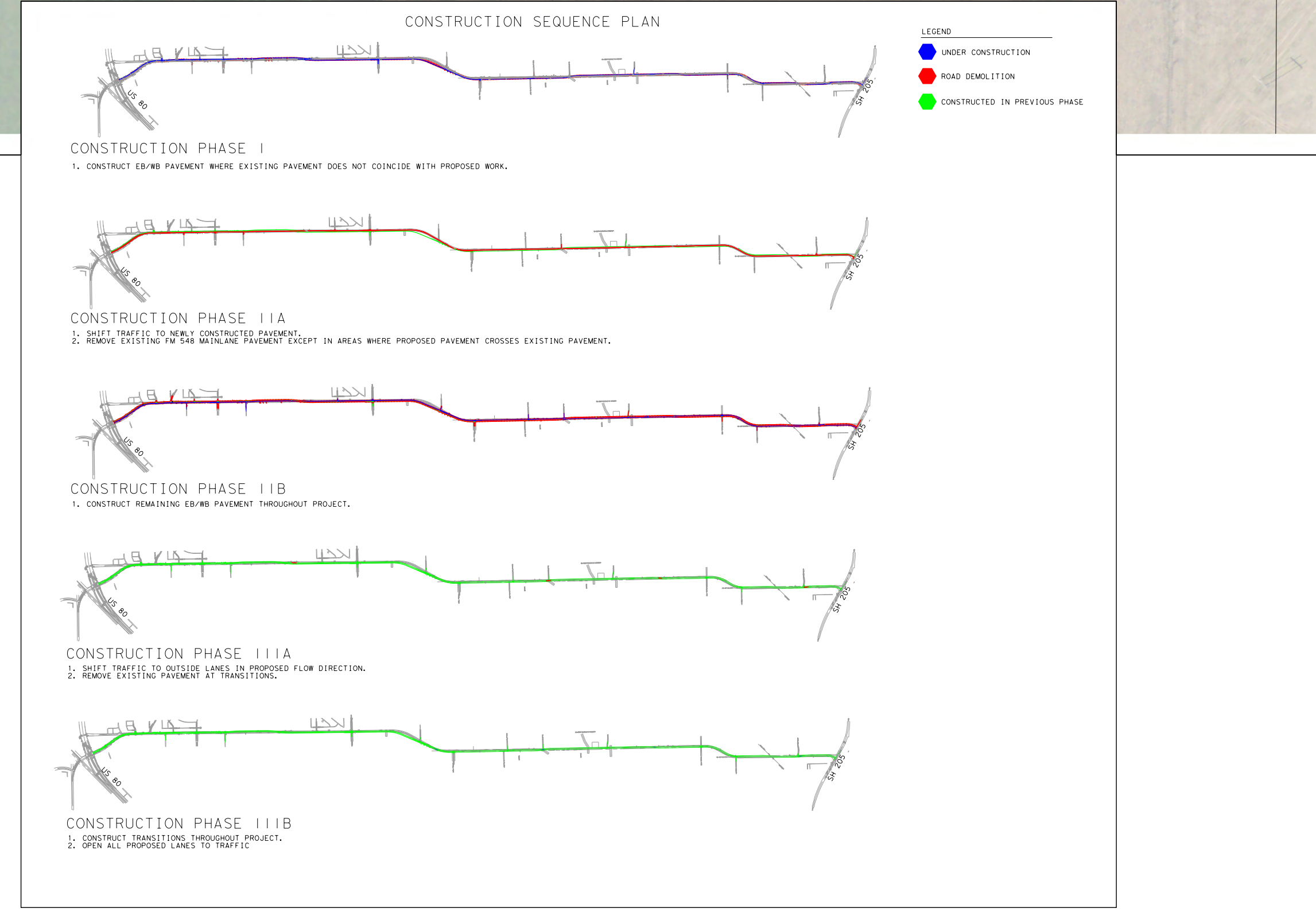


Source: Texas Department of Transportation Transportation Programming and Planning Division Memorandum, February 24, 2016

FALCON WAY TO SH 205
DD=66-34%
K=10.6
% Trucks(ADT)=2.9%

LEGEND
1000-2020 ADT
1000-2035 ADT
1000-2045 ADT





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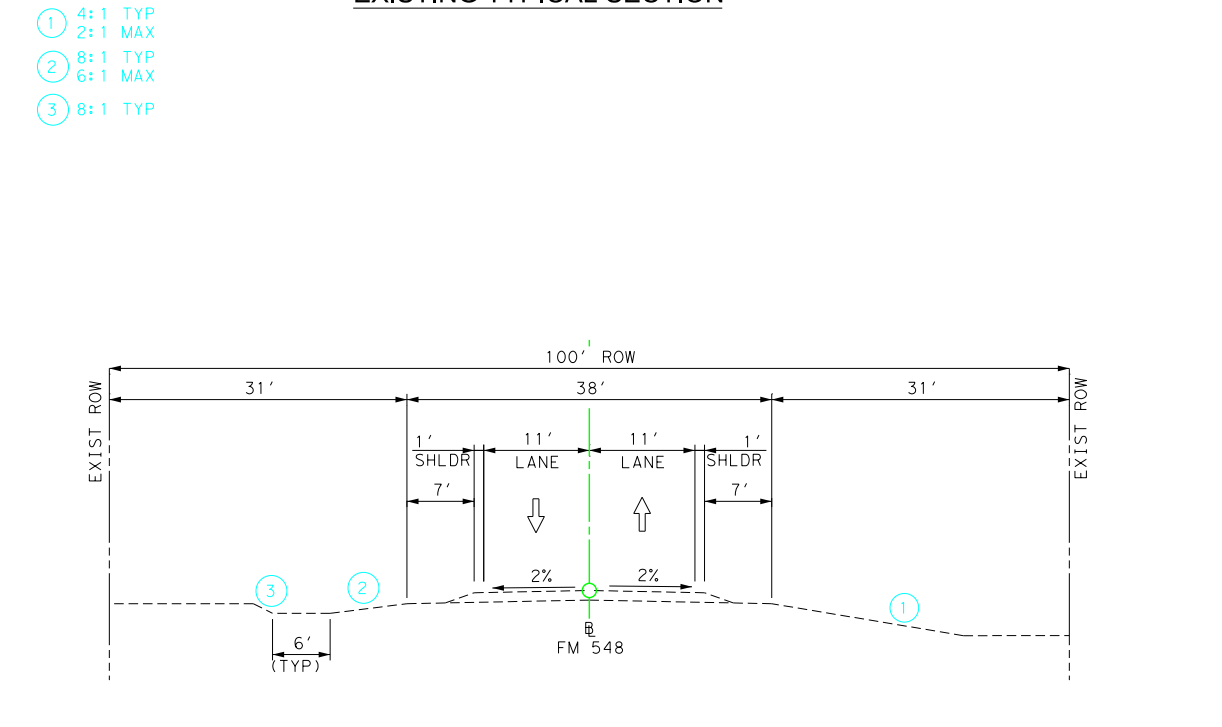
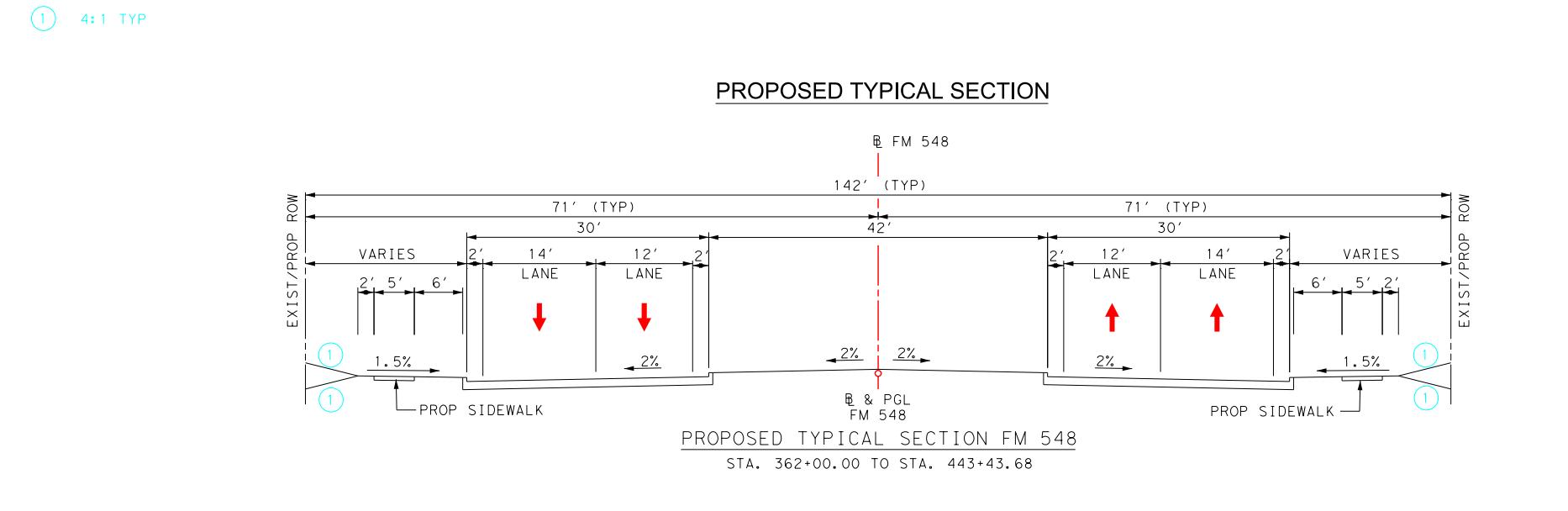


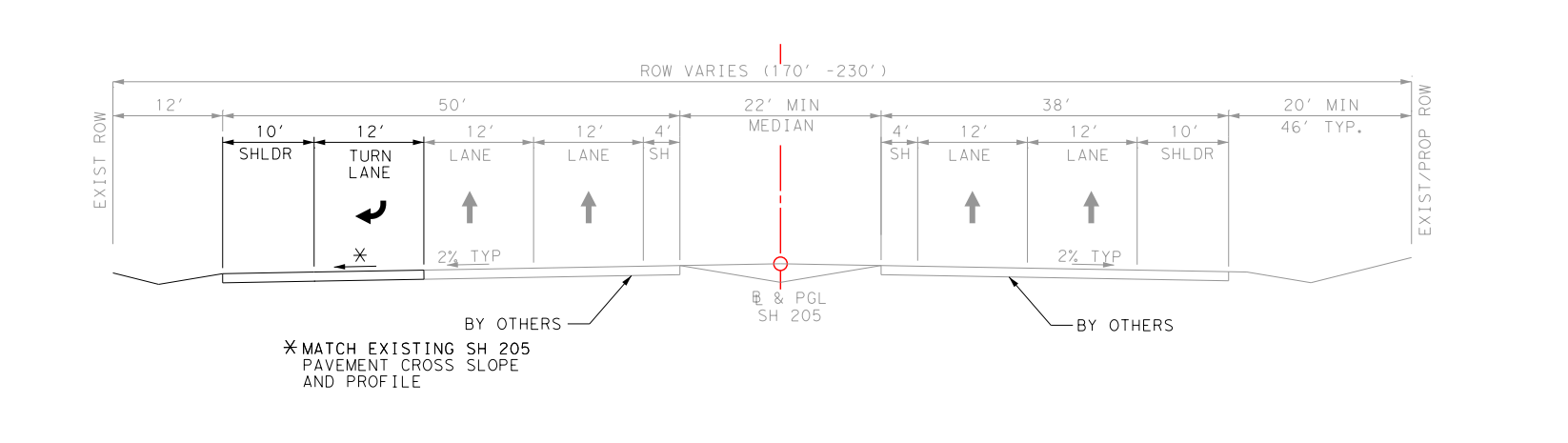
EXISTING TYPICAL SECTION FM 548
STA. 362+00.00 TO STA. 443+35.29

PROPOSED TYPICAL SECTION



PROPOSED TYPICAL SECTION FM 548
STA. 362+00.00 TO STA. 443+43.68

SH 205 TYPICAL SECTION



※MATCH EXISTING SH 205 PAVEMENT CROSS SLOPE AND PROFILE

PARCEL DATA:

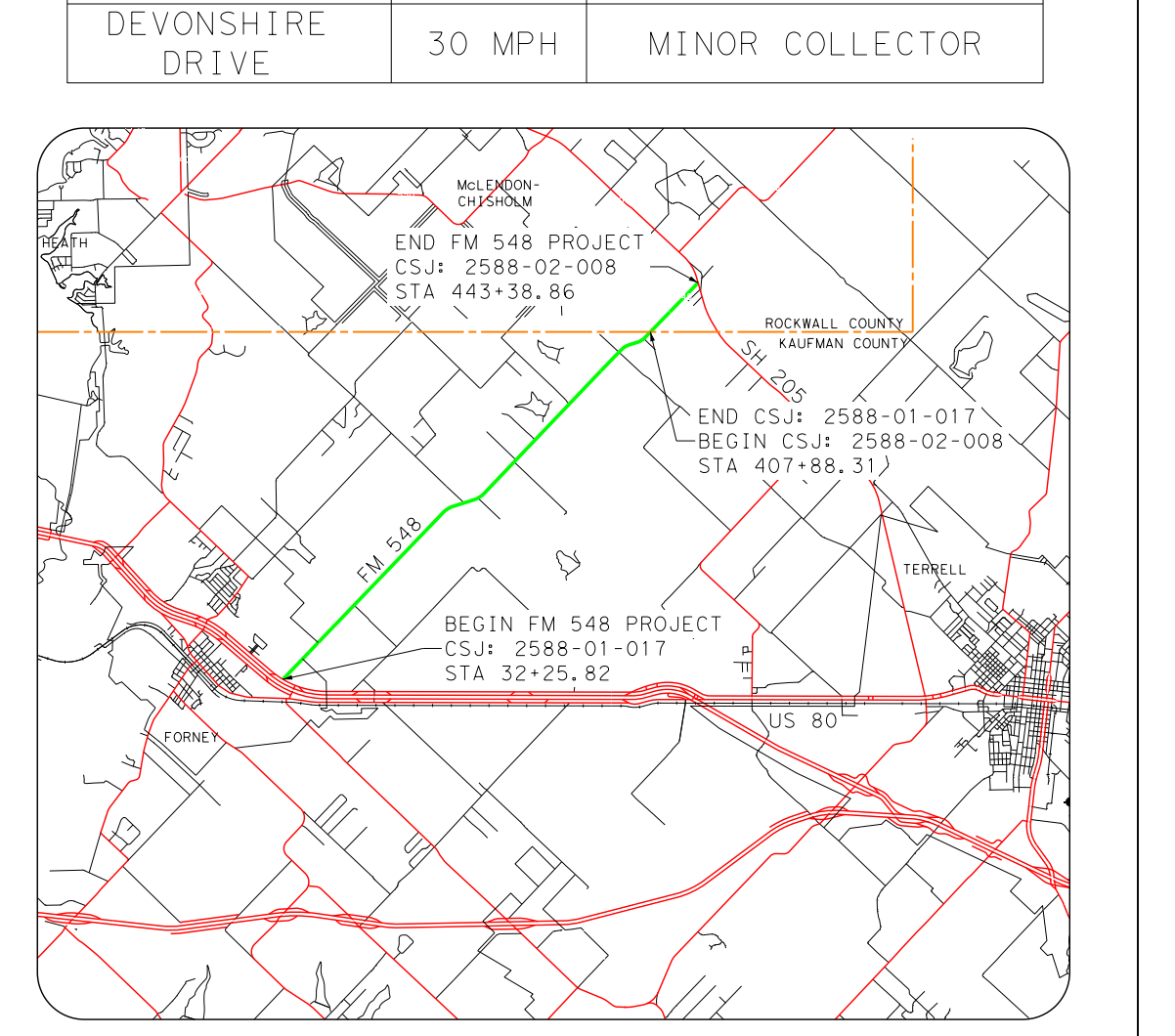
KAUFMAN COUNTY:

Parcel ID	Owner's Name
7264	Sams Partnership
11112	Chapman Max B & Beverly
11113	Chapman Max B & Beverly
13017	Terrell 400 CR250 LLP
16904	McLendon Chisolm Ranch LP
16905	McLendon Chisolm Ranch LP
16908	R Cornelius East LLC
16909	Butler Richard W
16910	Piarcage 205 Investments LLC
26334	Taylor Kenneth W
26336	Eoff Tom Dean
26337	Dyer Peter
53472	Martin George C
59591	Owens George Lee
59862	Gensler David Dwayne
59863	Gensler David Dwayne

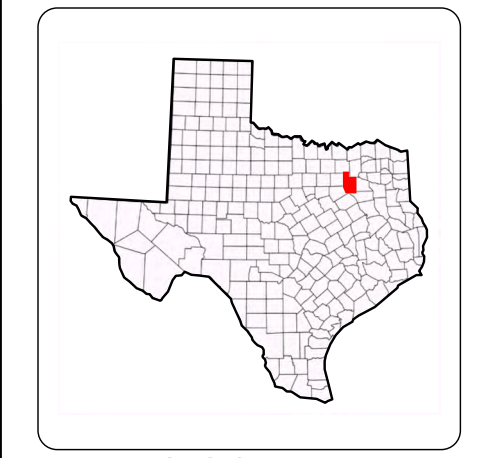
ROCKWALL COUNTY:

Parcel ID	Owner's Name
11431	Piarcage 205 Investments LLC
13164	Terrell 400 CR205 LLP
13952	Tuck Richard D
13953	King Grady W & Patricia J
13954	Washburn Tom & Lori
13955	Spaulding Bernard & Barbara
13956	Howell Larry A
13957	Raines David & Marcia
13958	Parrish James M & Lisa G Estate
13959	Parrish James M & Lisa G Estate
29116	Dowco Investments Inc
59870	Piarcage 205 Investments LLC
63745	Haragan Michael Dewayne & Nancy
63833	Mariotti Julie L & David S
63846	Chisholm Ranch Estates Homeowners Association Inc
63847	Golf Dallas Development LLC

LEGEND:
EXISTING ROW
EXISTING PROPERTY LIMITS
EXISTING CULVERT
PROPOSED CULVERT
PROPOSED FM 548 BASELINE
PROPOSED CROSS STREET BASELINE
PROPOSED ROW
EXISTING UTILITY EASEMENT
PROPOSED FACE OF CURB
100 YR FLOODPLAIN LIMITS
DIRECTION OF TRAVEL
PROPOSED BRIDGE
PROPOSED BRIDGE BENT
PROPOSED PAVEMENT
PROPOSED SIDEWALK
PAVEMENT / BRIDGE TO BE REMOVED
EXISTING WATER LINE
EXISTING DRAINAGE EASEMENT
PROPOSED DRAINAGE EASEMENT
CITY LIMITS
POTENTIAL DISPLACEMENT
PROPOSED RETAINING WALL
EXISTING MITIGATION AREA
FLOW DIRECTION
PROPOSED NOISE WALL (POTENTIAL LOCATION PENDING APPROVAL)
PROPOSED 5" CONC RIPRAP
EXIST SIDEWALK TO REMAIN
TEXAS DEPARTMENT OF TRANSPORTATION®
DALLAS DISTRICT
MO BUR, P.E., DISTRICT ENGINEER
FM 548 DESIGN SCHEMATIC
FROM NORTH OF US 80 TO SH 205
KAUFMAN AND ROCKWALL COUNTIES, TEXAS
CSJ's: 2588-01-017, 2588-02-008
DECEMBER 2018
ROLL 4 OF 4



LOCATION MAP
N.T.S.



TEXAS COUNTY MAP
N.T.S.
PRELIMINARY
THESE DOCUMENTS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:
Pacheco Koch
7557 RAMBLER ROAD, SUITE 1400, DALLAS, TX 75231
972.235.3031 FIRM REGISTRATION NUMBER F-469
DATE SUBMITTED:
DATE APPROVED:
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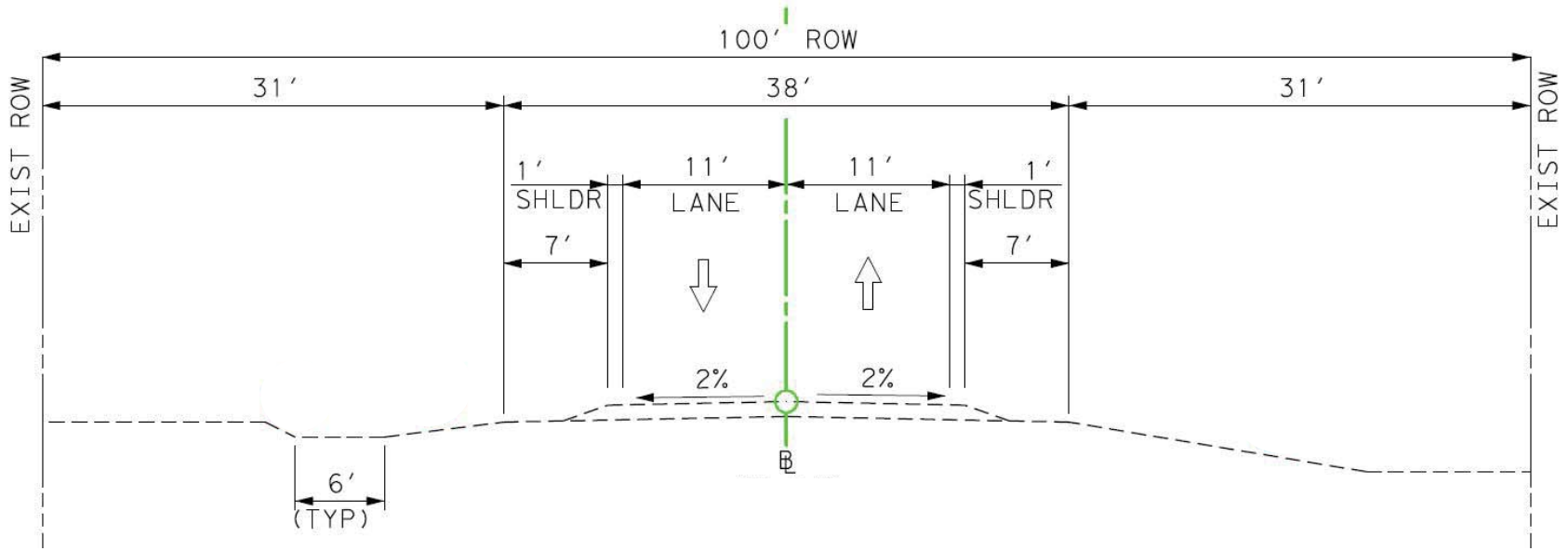
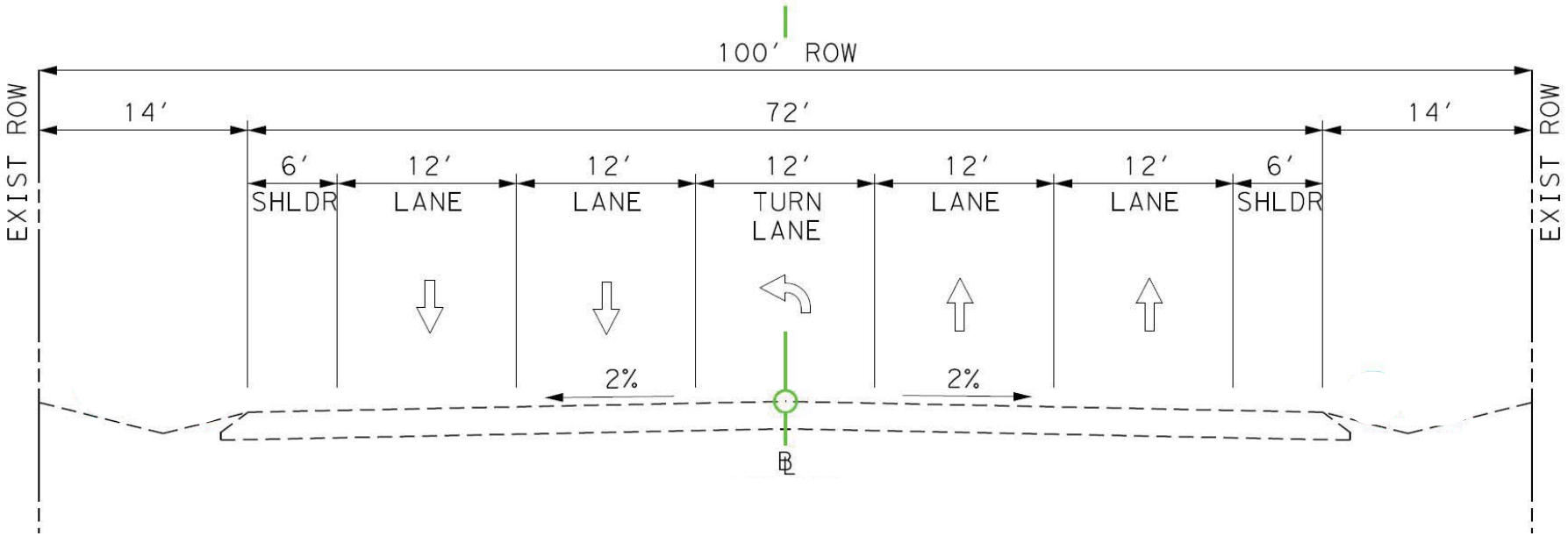
Appendix D – Typical Sections



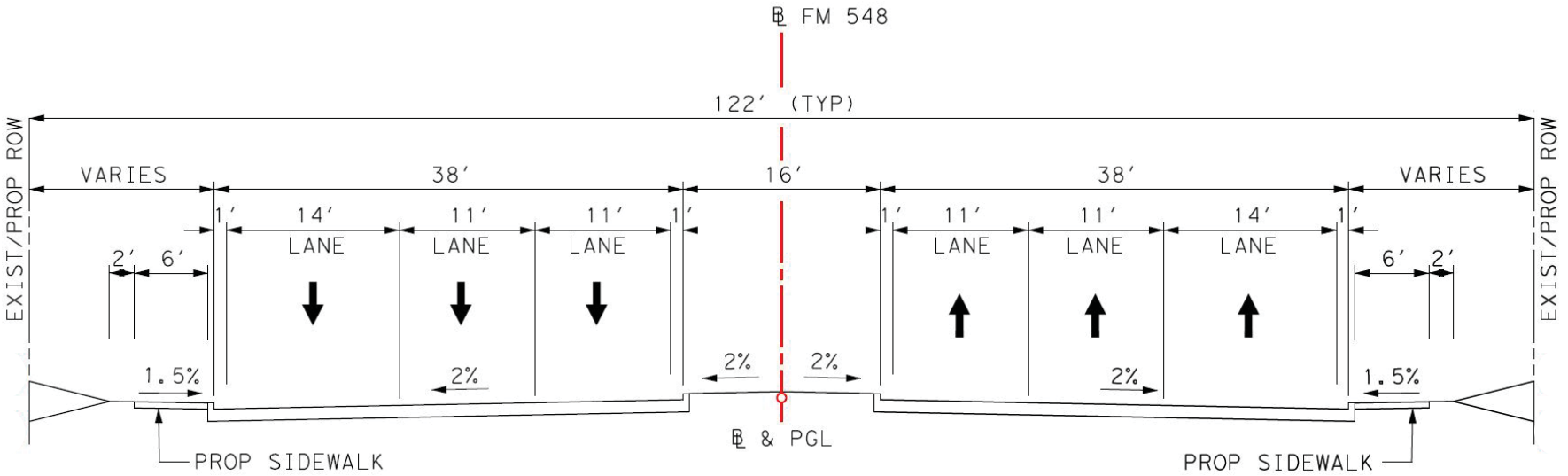
EXISTING TYPICAL SECTION FM 548

	FOR REPORT PURPOSES ONLY Not for construction, bidding, or permit purposes	TYPICAL SECTIONS FM 548 From North of US 80 To SH 205 Kaufman and Rockwall Counties CSJs: 2588-01-017 and 2588-02-008



EXISTING TYPICAL SECTION FM 548

	FOR REPORT PURPOSES ONLY Not for construction, bidding, or permit purposes	TYPICAL SECTIONS FM 548 From North of US 80 To SH 205 Kaufman and Rockwall Counties CSJs: 2588-01-017 and 2588-02-008



PROPOSED TYPICAL SECTION FM 548

	FOR REPORT PURPOSES ONLY Not for construction, bidding, or permit purposes	TYPICAL SECTIONS FM 548 From North of US 80 To SH 205 Kaufman and Rockwall Counties CSJs: 2588-01-017 and 2588-02-008

Appendix E – Plan and Program Excerpts

Non-Regionally Significant Arterials

MTP ID	District	TIP Code	Project Type	CSJ	Facility	From	To	Description	YOE Total Project Cost	FFCS
NRSA1-DAL- 165	TxDOT Dallas	83030	Addition of lanes	0000-18-071	Hickox Road	Toler Road	Merritt Road	Widen from 2 lanes to 4 lanes (Phase 2)	$3,000,000	Minor Arterial
NRSA1-DAL- 166	TxDOT Dallas	83052	Addition of lanes	0000-18-026	Lawson Road	Milam Road	Clay-Mathis Road	Widen from 2 lanes to 4 lanes	$13,335,000	Minor Arterial
NRSA1-DAL- 167	TxDOT Dallas	83112	Addition of lanes	0000-18-027	Lebanon Road	Coit Road	Independence Parkway	Widen from 2 lanes to 4 lanes	$5,800,000	Major Collector
NRSA1-DAL- 168	TxDOT Dallas	83120	Addition of lanes	0000-18-028	Main Street	FM 423	DNT	Widen from 4 lanes to 6 lanes	$1,200,000	Minor Arterial
NRSA1-DAL- 169	TxDOT Dallas	55111	Addition of lanes	2588-01-017	FM 548	North of US 80	S of SH 205 (Rockwall C/L)	Widen and reconstruct 2 lane rural to 4 lane urban divided (6 lane ultimate)	$109,599,843	Major Collector
NRSA1-DAL- 171	TxDOT Dallas	83144	Addition of lanes	0000-18-033	Chaha Road	Rowlett Road	Kirby Road	Widen from 2 lanes to 3 lanes	$5,016,500	Major Collector
NRSA1-DAL- 173	TxDOT Dallas	83215	Addition of lanes	N/A	Ridgeview Drive	Alma	US 75	Widen from 2 lanes to 4 lanes	$18,979,785	Major Collector
NRSA1-DAL- 175	TxDOT Dallas	83284	New roadway	~~0751-02-027~~ 0751-05-001	FM 148	South of FM 3039	US 175	Construct 0 to 2 rural lane undivided	$8,000,000	Minor Arterial
NRSA1-DAL- 177	TxDOT Dallas	83129.1	New roadway	0000-18-030	Denton Creek Blvd	At Graham Branch		Build new location 0 to 4 lane bridge	$8,967,000	Minor Arterial

Non-Regionally Significant Arterials

MTP ID	District	TIP Code	Project Type	CSJ	Facility	From	To	Description	YOE Total Project Cost	FFCS
NRSA1-DAL- 178	TxDOT Dallas	83129.2	Interchange	0000-18-031	Denton Creek Blvd	At IH 35W		Interchange	$5,000,000	Minor Arterial
NRSA1-DAL- 179	TxDOT Dallas	83266	Intersection Improvement	0000-18-040	Skillern Road	Flower Mound Road	River Hill Drive	Reconstruct 2 to 2 lanes	$905,000	Minor Arterial
NRSA1-DAL- 182	TxDOT Dallas	20296	New roadway	0918-46-289	Valley Ridge Blvd	Mill Street	College Street	Construct 0 to 4 lane divided urban arterial	$17,770,000	Major Collector
NRSA1-DAL- 184	TxDOT Dallas	25025	New roadway	0918-47-237	Wheatland Road	Dallas/Lancaster City Limit	University Hills along The Dallas/Lancaster City Limits	Construct 0 to 4 lane divided roadway and bicycle/pedestrian facilities	$4,809,552	Major Collector
NRSA1-DAL- 185	TxDOT Dallas	82130	Addition of lanes	0000-18-018	Hickory Creek Road	FM 2181	River Pass	Widen from 2 lanes to 4 lanes (ultimate 6 lanes)	$3,500,000	Major Collector
NRSA1-DAL- 187	TxDOT Dallas	20290	Bridge, Intersection Improvement, Bike/Pedestrian	0353-06-057	SH 114/ Texas Plaza bridge	SL 12	SS 482	Construct 0 to 4 lane signature bridge with bicycle lane, sidewalks, Intersection Improvements, and ramp modifications	$54,413,449	Minor Arterial
NRSA1-DAL- 188	TxDOT Dallas	633	Intersection Improvement/ Reconstruct	~~0918-45-372~~ 0918-46-826	Dolphin Road	Spring Ave	North of Haskell Ave/Military Parkway	Reconstruct existing roadway from 4 lane undivided to 4 lane divided with intersection improvements at Haskell	$4,694,450	Minor Arterial
NRSA1-DAL- 189	TxDOT Dallas	55205	Reconstruction	1310-01-043	FM 407	Gulf Ave	West of Sage Drive	Realign existing 2 to 2 lane roadway	$2,848,473	Minor Arterial
NRSA1-DAL- 190	TxDOT Dallas	13017	Reconstruction, Addition of lanes	2588-02-008	FM 548	S of SH 205 (Kaufman County Line)	SH 205	Widen and reconstruct 2 lane rural to 4 lane divided urban roadway (ultimate 6)	$13,126,932	Minor Arterial

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ELLIS	0092-03-053	2019	IH 45	E,ENG,R,ACQ	FERRIS	$ 7,100,000

LIMITS FROM AT FM 664
LIMITS TO
PROJECT DESCR CONSTRUCT INTERCHANGE
REMARKS P7
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 13029
FUNDING CAT(S) S102,SBPE

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 2,000,000
ROW PURCH	$ 5,100,000
CONSTR	$ 40,419,966
CONST ENG	$ 1,822,785
CONTING	$ 1,162,074
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 50,504,825

COST OF APPROVED PHASES $ 7,100,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 2,000,000	$ 0	$ 0	$ 0	$ 2,000,000
S102	$ 4,080,000	$ 510,000	$ 0	$ 510,000	$ 0	$ 5,100,000
TOTAL	$ 4,080,000	$ 2,510,000	$ 0	$ 510,000	$ 0	$ 7,100,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ELLIS	0048-04-094	2019	IH 35E	E,ENG,R,ACQ,UTL	WAXAHACHIE	$ 19,500,000

LIMITS FROM AT FM 387 (BUTCHER ROAD)
LIMITS TO
PROJECT DESCR CONSTRUCT GRADE SEPARATION AND RECONSTRUCT 4/6 LANE FRONTAGE ROADS
REMARKS P7
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 13042
FUNDING CAT(S) S102,SBPE

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 2,500,000
ROW PURCH	$ 17,000,000
CONSTR	$ 42,000,000
CONST ENG	$ 2,367,755
CONTING	$ 1,509,507
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 65,377,262

COST OF APPROVED PHASES $ 19,500,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 2,500,000	$ 0	$ 0	$ 0	$ 2,500,000
S102	$ 15,100,000	$ 1,900,000	$ 0	$ 0	$ 0	$ 17,000,000
TOTAL	$ 15,100,000	$ 4,400,000	$ 0	$ 0	$ 0	$ 19,500,000

2019-2022 STIP — **11/2018 Revision: Approved 12/19/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2019	FM 548	E,ENG	FORNEY	$ 3,300,000

LIMITS FROM N OF US 80
LIMITS TO S OF SH 205 (ROCKWALL C/L)
PROJECT DESCR WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS REVISE LIMITS
P7
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 11/2018
MPO PROJ NUM 55111
FUNDING CAT(S) SBPE

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 3,300,000
ROW PURCH	$ 17,000,000
CONSTR	$ 84,650,269
CONST ENG	$ 3,318,257
CONTING	$ 1,331,317
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 109,599,843

COST OF APPROVED PHASES $ 3,300,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000
TOTAL	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ELLIS	0048-04-094	2021	IH 35E	C	WAXAHACHIE	$ 42,000,000

LIMITS FROM AT FM 387 (BUTCHER ROAD)
LIMITS TO
PROJECT DESCR CONSTRUCT GRADE SEPARATION AND RECONSTRUCT 4/6 LANE FRONTAGE ROADS
REMARKS P7
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 13042
FUNDING CAT(S) 4
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 2,500,000
ROW PURCH	$ 17,000,000
CONSTR	$ 42,000,000
CONST ENG	$ 2,367,755
CONTING	$ 1,509,507
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 65,377,262

COST OF APPROVED PHASES $ 42,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
4	$ 33,600,000	$ 8,400,000	$ 0	$ 0	$ 0	$ 42,000,000
TOTAL	$ 33,600,000	$ 8,400,000	$ 0	$ 0	$ 0	$ 42,000,000

2019-2022 STIP — **11/2018 Revision: Approved 12/19/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2021	FM 548	R,ACQ,UTL	FORNEY	$ 17,000,000

LIMITS FROM N OF US 80
LIMITS TO S OF SH 205 (ROCKWALL C/L)
PROJECT DESCR WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS REVISE LIMITS
P7
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 11/2018
MPO PROJ NUM 55111
FUNDING CAT(S) S102
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 3,300,000
ROW PURCH	$ 17,000,000
CONSTR	$ 84,650,269
CONST ENG	$ 3,318,257
CONTING	$ 1,331,317
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 109,599,843

COST OF APPROVED PHASES $ 17,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000
TOTAL	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2021	FM 548	R,ACQ,UTL	FORNEY	$ 17,000,000

LIMITS FROM N OF US 80 AT WALMART
LIMITS TO SH 205
PROJECT DESCR WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS P7
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 55111
FUNDING CAT(S) S102
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 3,300,000
ROW PURCH	$ 17,000,000
CONSTR	$ 84,650,269
CONST ENG	$ 3,318,257
CONTING	$ 1,331,317
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 109,599,843

COST OF APPROVED PHASES $ 17,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000
TOTAL	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2019	FM 548	E,ENG	FORNEY	$ 3,300,000

LIMITS FROM N OF US 80 AT WALMART
LIMITS TO SH 205
PROJECT DESCR WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS **P7**
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 55111
FUNDING CAT(S) SBPE
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 3,300,000
ROW PURCH	$ 17,000,000
CONSTR	$ 84,650,269
CONST ENG	$ 3,318,257
CONTING	$ 1,331,317
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 109,599,843

COST OF APPROVED PHASES $ 3,300,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000
TOTAL	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ROCKWALL	2588-02-008	2019	FM 548	R,ACQ	VARIOUS	$ 3,000,000

LIMITS FROM S OF SH 205 (KAUFMAN COUNTY LINE)
LIMITS TO SH 205
PROJECT DESCR WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)
REMARKS **P7**
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 13017
FUNDING CAT(S) S102
PROJECT HISTORY R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY202 1 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 1,500,000
ROW PURCH	$ 5,000,000
CONSTR	$ 6,200,000
CONST ENG	$ 304,688
CONTING	$ 122,244
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 13,126,932

COST OF APPROVED PHASES $ 3,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 2,400,000	$ 300,000	$ 0	$ 300,000	$ 0	$ 3,000,000
TOTAL	$ 2,400,000	$ 300,000	$ 0	$ 300,000	$ 0	$ 3,000,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ROCKWALL	0451-04-021	2019	SH 205	E,ENG,R,ACQ	ROCKWALL	$ 2,200,000

LIMITS FROM JCT SH 205/ JOHN KING (N. GOLIAD ST)
LIMITS TO NORTH OF JOHN KING (COLLIN COUNTY LINE)
PROJECT DESCR WIDEN 2 LANE RURAL HIGHWAY TO 4 LANE DIVIDED (6 LANE ULTIMATE)
REMARKS **P7**
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 55074
FUNDING CAT(S) S102,SBPE
PROJECT HISTORY 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 1,200,000
ROW PURCH	$ 1,000,000
CONSTR	$ 5,000,000
CONST ENG	$ 158,826
CONTING	$ 63,723
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 7,422,549

COST OF APPROVED PHASES $ 2,200,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 1,200,000	$ 0	$ 0	$ 0	$ 1,200,000
S102	$ 800,000	$ 100,000	$ 0	$ 100,000	$ 0	$ 1,000,000
TOTAL	$ 800,000	$ 1,300,000	$ 0	$ 100,000	$ 0	$ 2,200,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	0095-03-080	2021	US 80	E,ENG,R,ACQ,UTL	DALLAS	$ 19,000,000

LIMITS FROM LAWSON ROAD (DALLAS/KAUFMAN C/L)
LIMITS TO FM 460
PROJECT DESCR RECONSTRUCT AND WIDEN 4 TO 6 MAINLANES AND RECONSTRUCT 4 LANE DISCONTINUOUS FRON TAGE RDS TO 4 LANE CONTINUOUS FRONTAGE RDS
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 53086
FUNDING CAT(S) S102,SBPE
REMARKS P7
PROJECT HISTORY PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 7,000,000
ROW PURCH	$ 12,000,000
CONSTR	$ 133,000,000
CONST ENG	$ 5,563,981
CONTING	$ 232,911
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 157,796,892

COST OF APPROVED PHASES $ 19,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 7,000,000	$ 0	$ 0	$ 0	$ 7,000,000
S102	$ 9,600,000	$ 1,200,000	$ 0	$ 1,200,000	$ 0	$ 12,000,000
TOTAL	$ 9,600,000	$ 8,200,000	$ 0	$ 1,200,000	$ 0	$ 19,000,000

2019-2022 STIP — **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ROCKWALL	2588-02-008	2021	FM 548	R,UTL	VARIOUS	$ 2,000,000

LIMITS FROM S OF SH 205 (KAUFMAN COUNTY LINE)
LIMITS TO SH 205
PROJECT DESCR WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 13017
FUNDING CAT(S) S102
REMARKS P7
PROJECT HISTORY R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY202 1 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 1,500,000
ROW PURCH	$ 5,000,000
CONSTR	$ 6,200,000
CONST ENG	$ 304,688
CONTING	$ 122,244
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 13,126,932

COST OF APPROVED PHASES $ 2,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 1,600,000	$ 200,000	$ 0	$ 200,000	$ 0	$ 2,000,000
TOTAL	$ 1,600,000	$ 200,000	$ 0	$ 200,000	$ 0	$ 2,000,000

2019-2022 STIP — **07/2018 Revision: Administrative 10/25/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ROCKWALL	0451-04-021	2021	SH 205	C	ROCKWALL	$ 2,702,009

LIMITS FROM JCT SH 205/ JOHN KING (N. GOLIAD ST)
LIMITS TO NORTH OF JOHN KING (COLLIN COUNTY LINE)
PROJECT DESCR WIDEN 2 LANE RURAL HIGHWAY TO 4 LANE DIVIDED (6 LANE ULTIMATE)
PROJECT SPONSOR TXDOT-DALLAS
REVISION DATE 07/2018
MPO PROJ NUM 55074
FUNDING CAT(S) 2M
REMARKS P7
PROJECT HISTORY 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

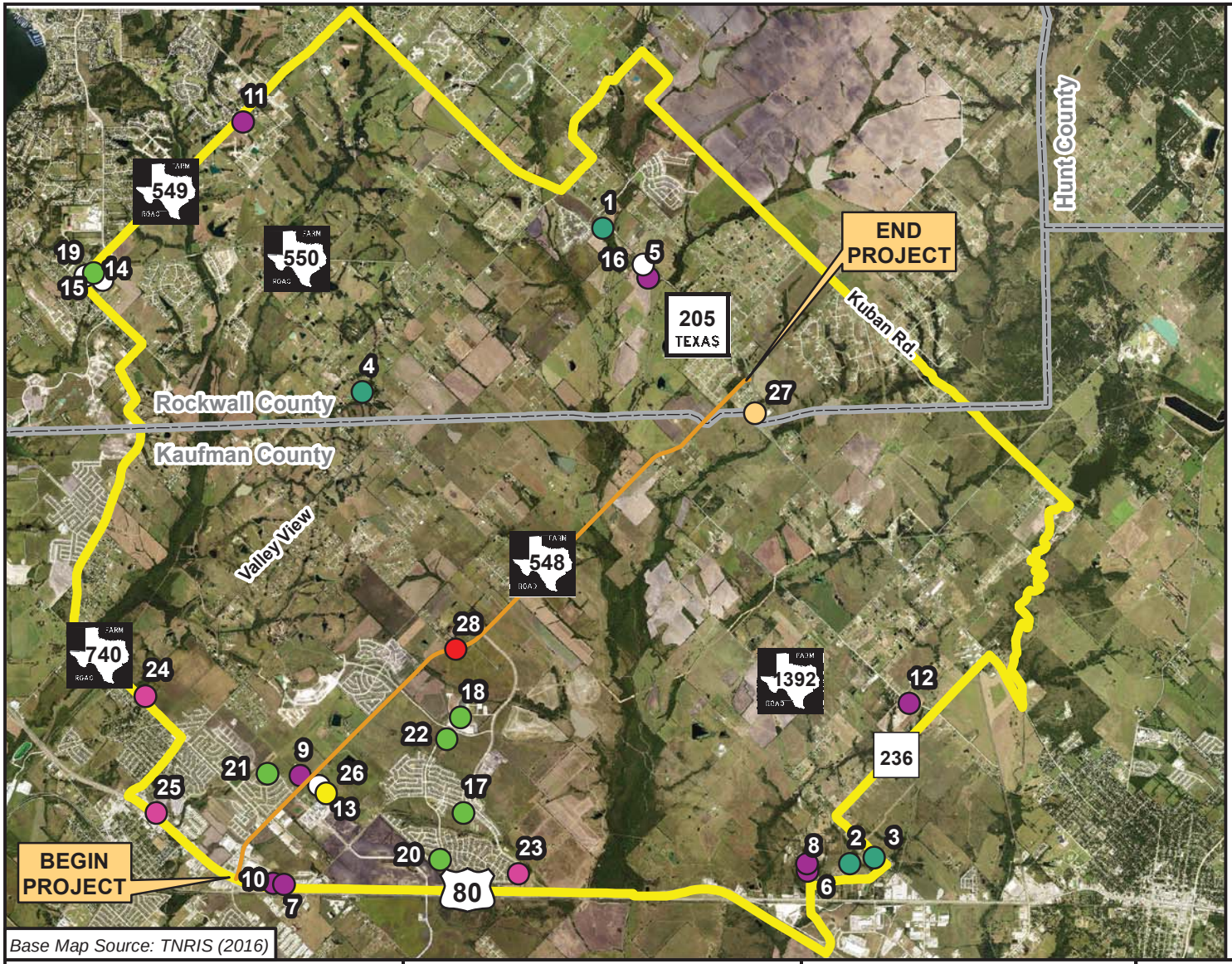
PREL ENG	$ 1,200,000
ROW PURCH	$ 1,000,000
CONSTR	$ 2,702,009
CONST ENG	$ 158,826
CONTING	$ 63,723
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 5,124,558

COST OF APPROVED PHASES $ 2,702,009

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 2,161,607	$ 540,402	$ 0	$ 0	$ 0	$ 2,702,009
TOTAL	$ 2,161,607	$ 540,402	$ 0	$ 0	$ 0	$ 2,702,009

Appendix F – Resource-Specific Maps



Community Facilities

1. Chisholm Cemetery
2. Lawrence Cemetery
3. Mt. Calvary Cemetery
4. Valley View Cemetery
5. Chisholm Baptist Church
6. Crosspoint Baptist Church
7. Free Life Church
8. Life Ministry Church
9. Mustang Creek Community Church (Iglesia Vision)
10. New River Church
11. Church of Jesus Christ of Latter-Day Saints
12. Victory Baptist Church
13. Forney Fire Station No. 2
14. Heath City Hall/Public Safety Bldg.
15. Heath Towne Center Park & Community Center
16. McLendon-Chisholm City Hall/Fire Station No. 1
17. Brown Middle School
18. North Forney High School
19. Amy Parks Elementary School
20. Blackburn Elementary School
21. Crosby Elementary School
22. Smith Elementary School
23. Windmill Farms Private School
24. By the Barnyard Gate
25. Cooper's Cottage Childcare
26. Silver Spring Forney
27. Airpark East Airport
28. R&R Plumbing

Legend

- Project Location
- CIA Study Area
- Airport
- Cemetery
- Place of Worship
- Civic Facility
- Educational Facility
- Childcare
- Commercial Displacement
- Senior Living/HUD LIHTC Housing
- County Boundary

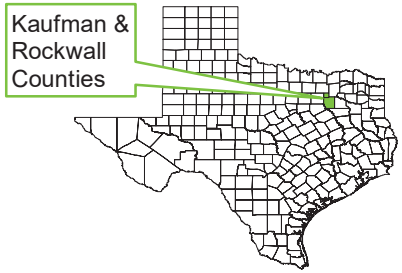


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FIGURE 1
LAND USE AND COMMUNITY FACILITIES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Burleson clay, 0 to 1 percent slopes
- Burleson clay, 1 to 3 percent slopes
- Ferris-Heiden complex, 2 to 5 percent slopes
- Heiden clay, 3 to 5 percent slopes
- Houston Black clay, 0 to 1 percent slopes
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- Terouge clay, occasionally flooded
- Terouge clay, frequently flooded
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N S E

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FIGURE 2
PROJECT AREA SOILS MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

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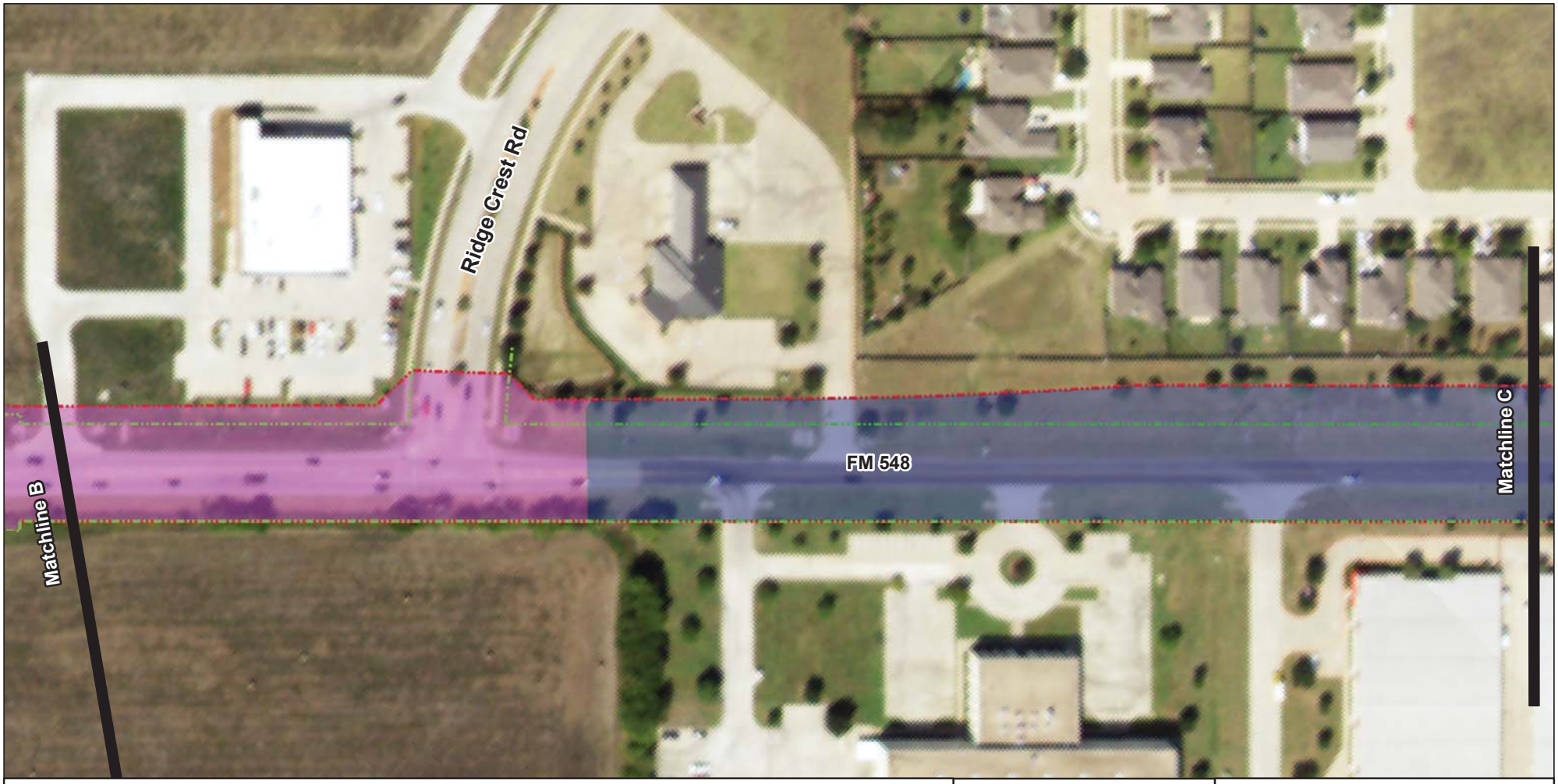

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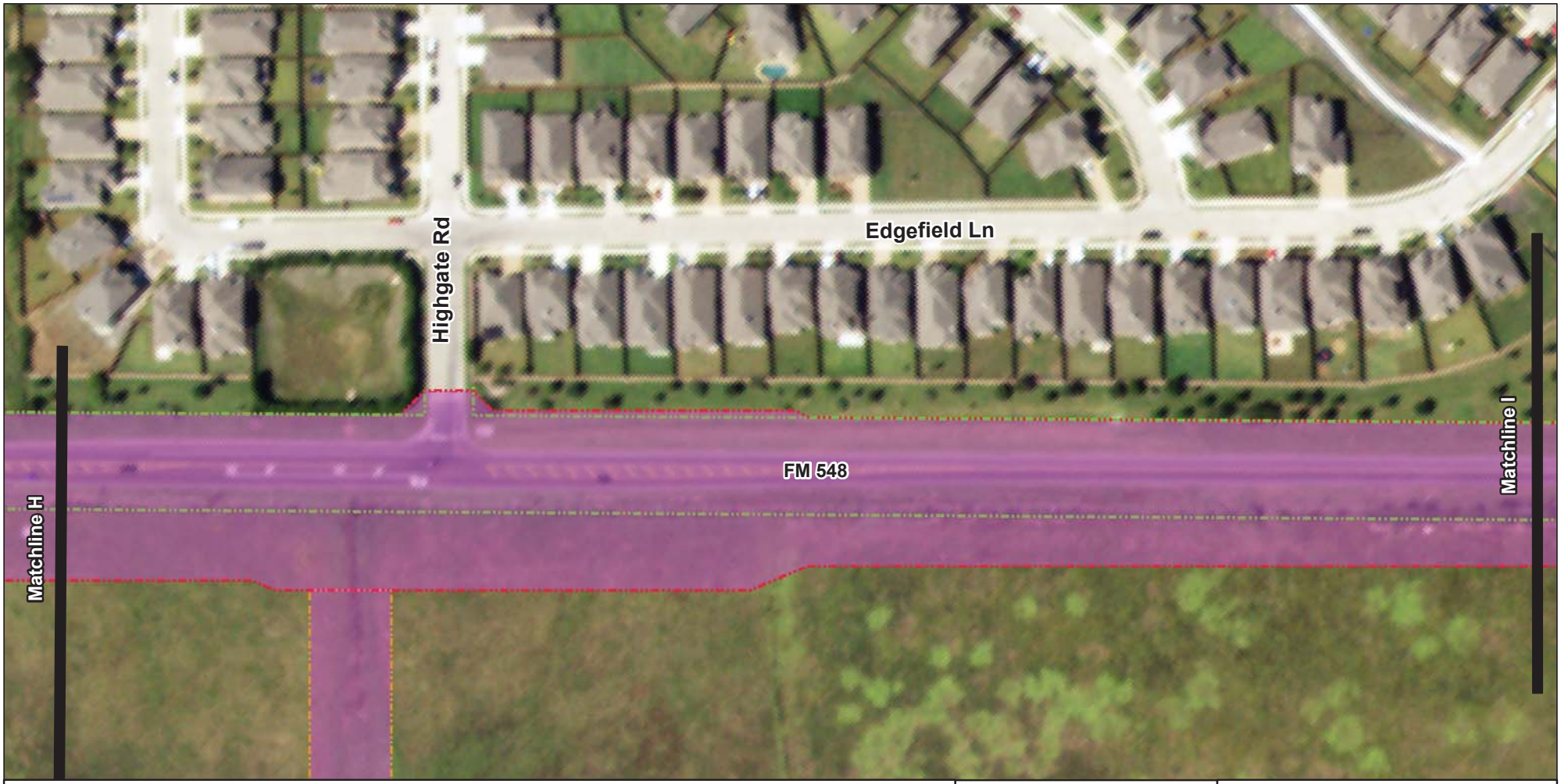

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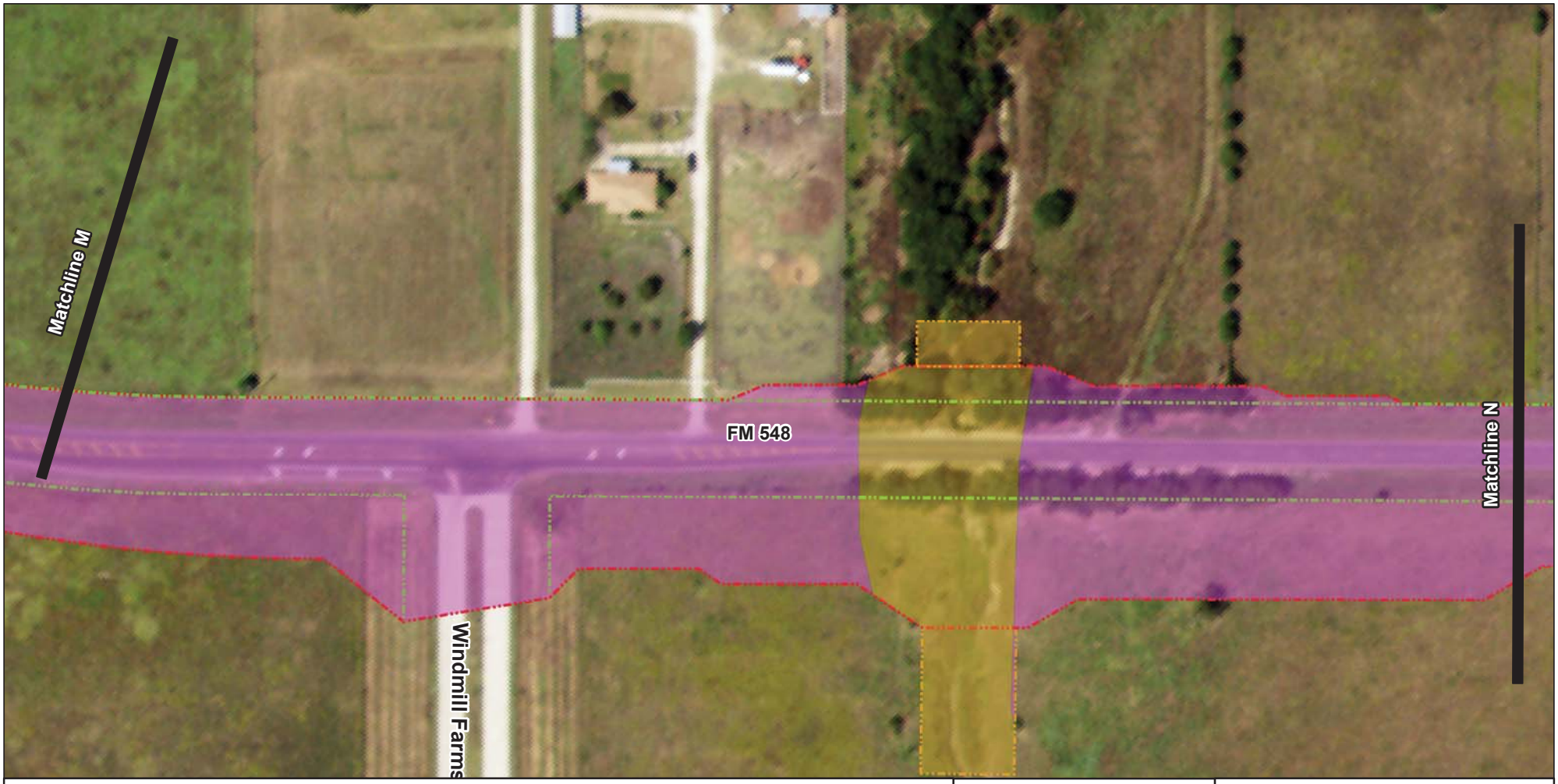

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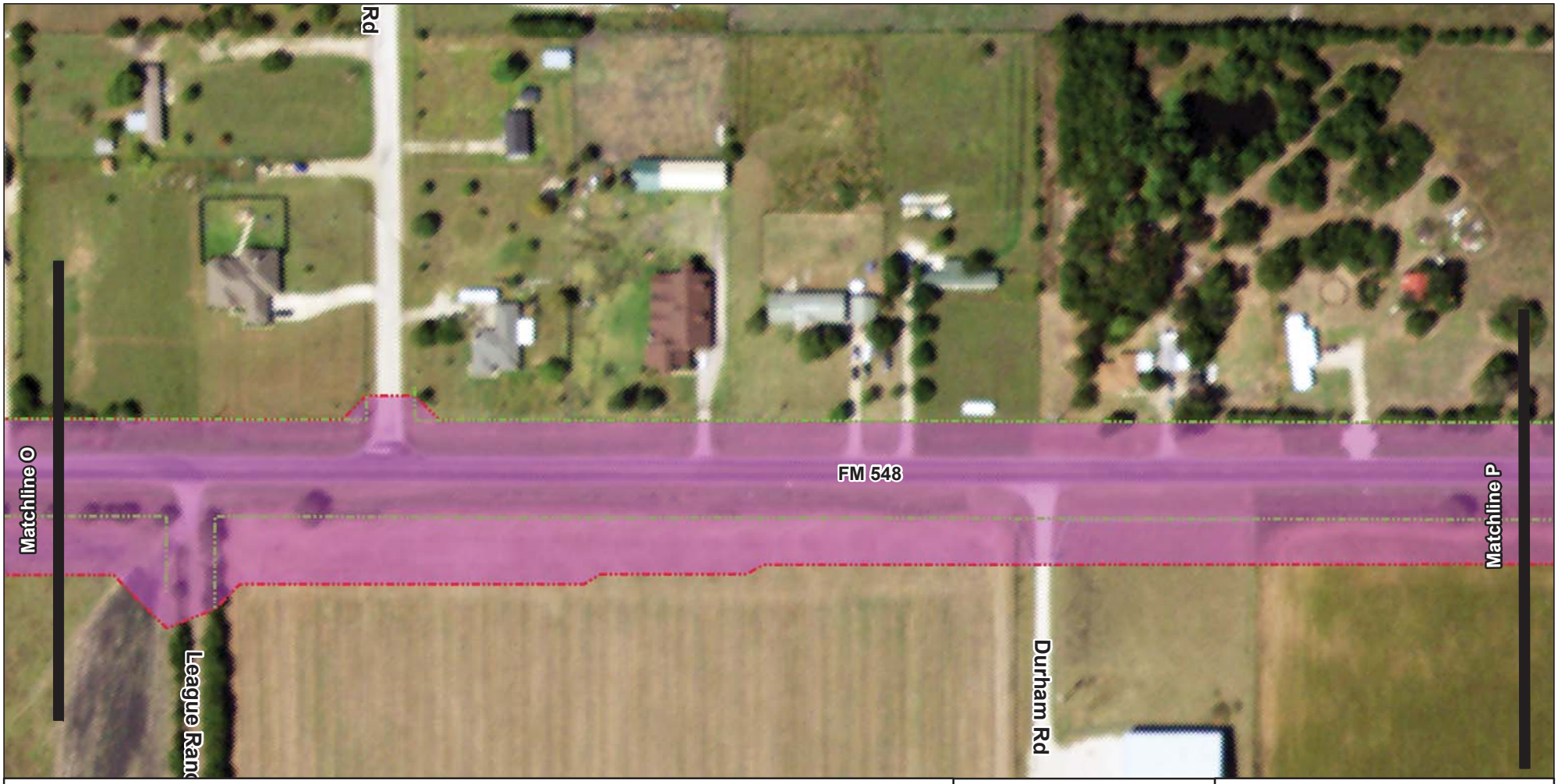

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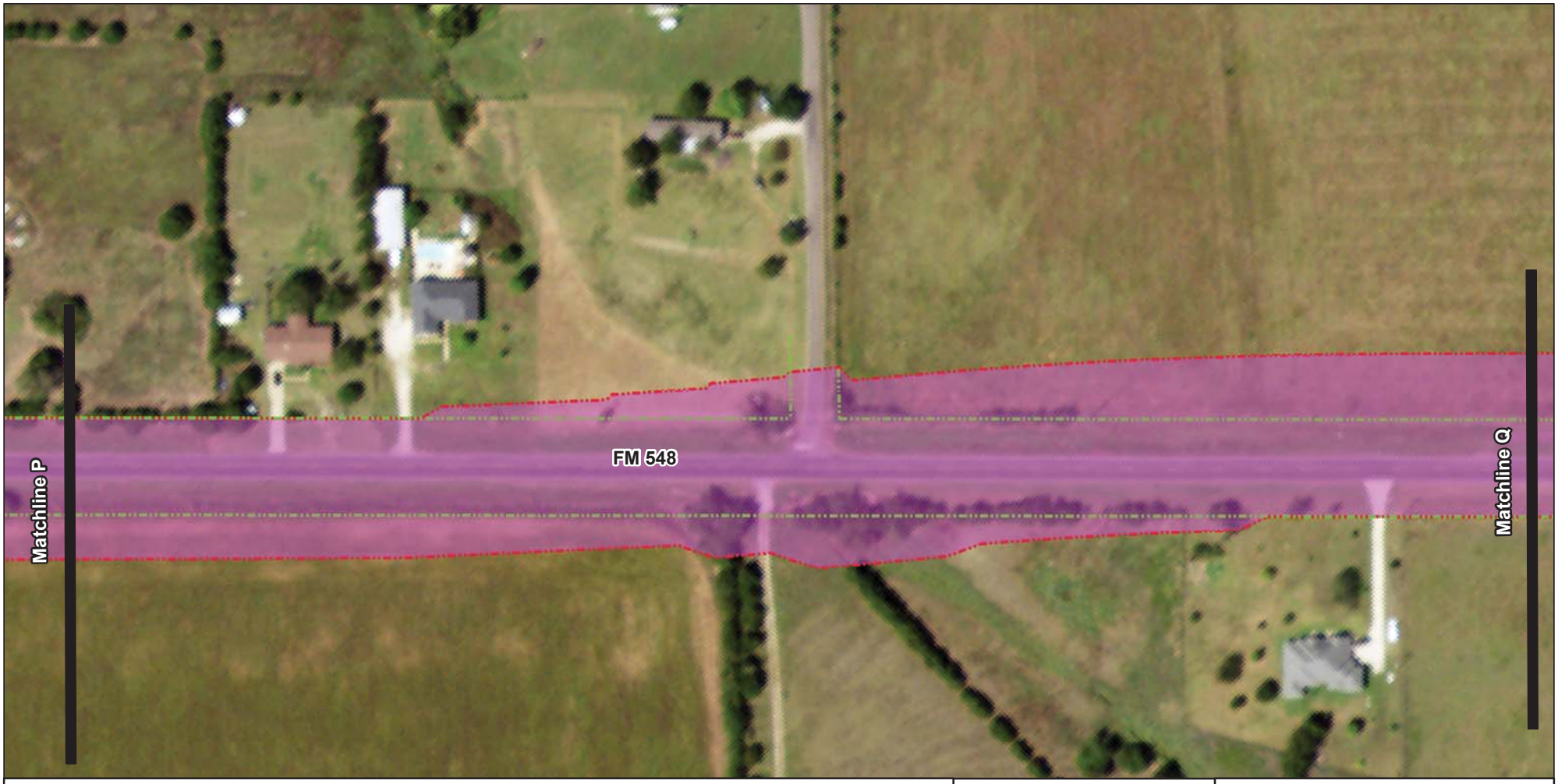

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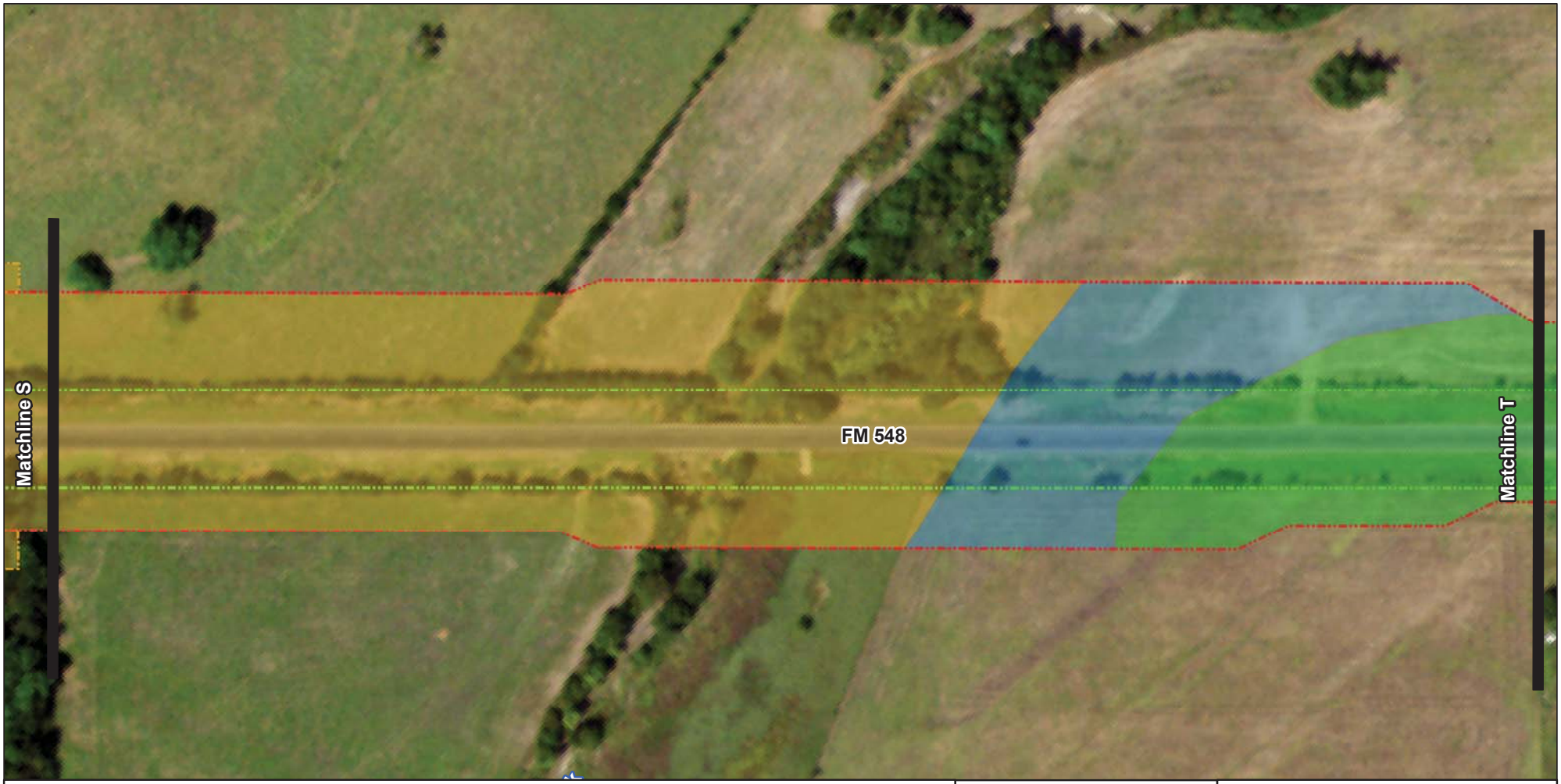

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- Houston Black clay, 0 to 1 percent slopes
- Houston Black clay, 1 to 3 percent slopes
- Terouge clay, occasionally flooded
- Terouge clay, frequently flooded
- Water

N W E S

0 200 Feet

FIGURE 2
PROJECT AREA SOILS MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

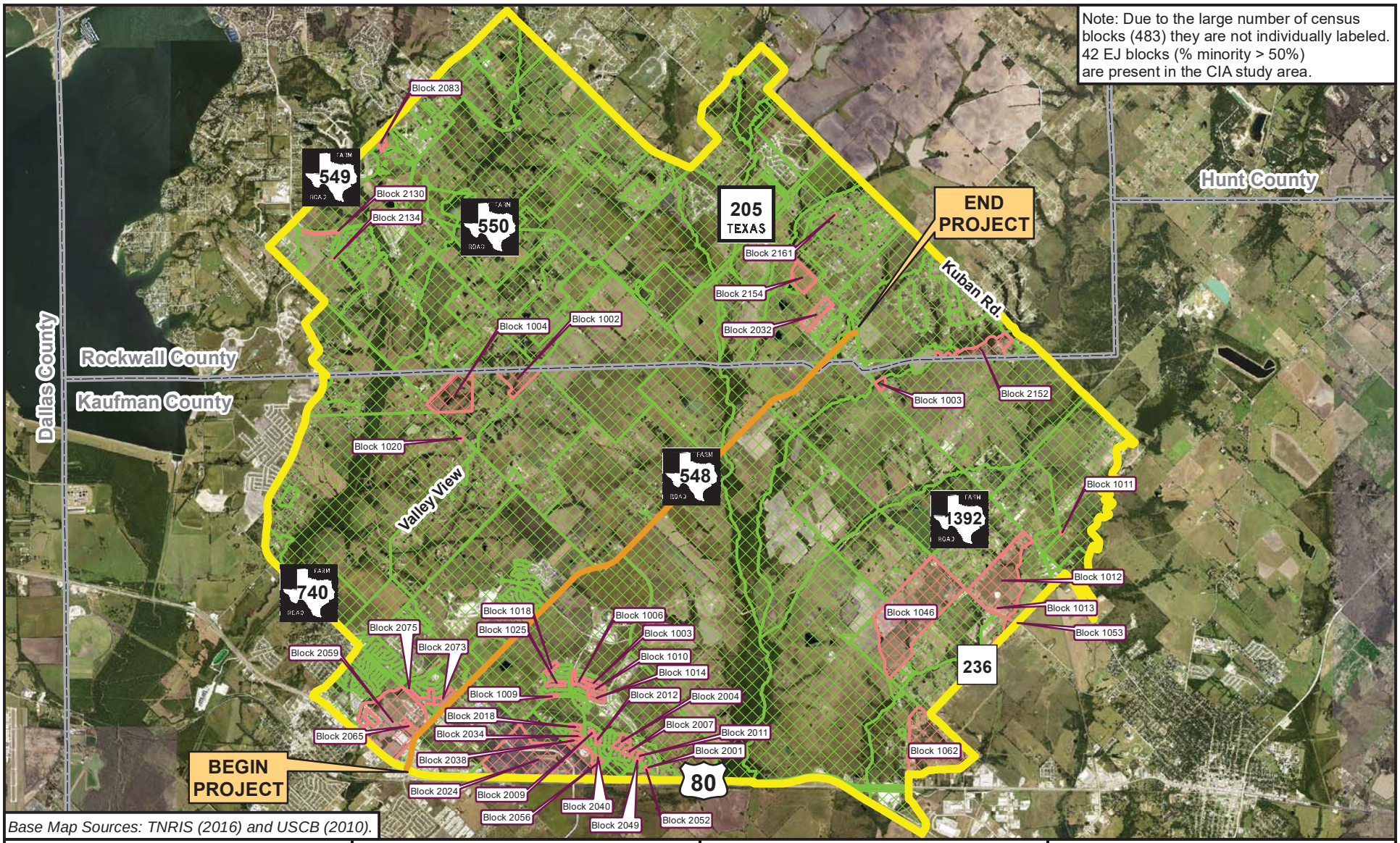


FIGURE 3
CENSUS GEOGRAPHIES MAP
Minority Populations

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

Base Map Source: TNRIS (2016)

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

Diamond Creek Dr

Matchline B

FM 548

Matchline C

Base Map Source: TNRIS (2016)

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N E S W

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

Crossing 2
Intermittent tributary to
Big Brushy Creek

FM 548

University Dr

Matchline E

Matchline F

Base Map Source: TNRIS (2016)

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

Base Map Source: TNRIS (2016)

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

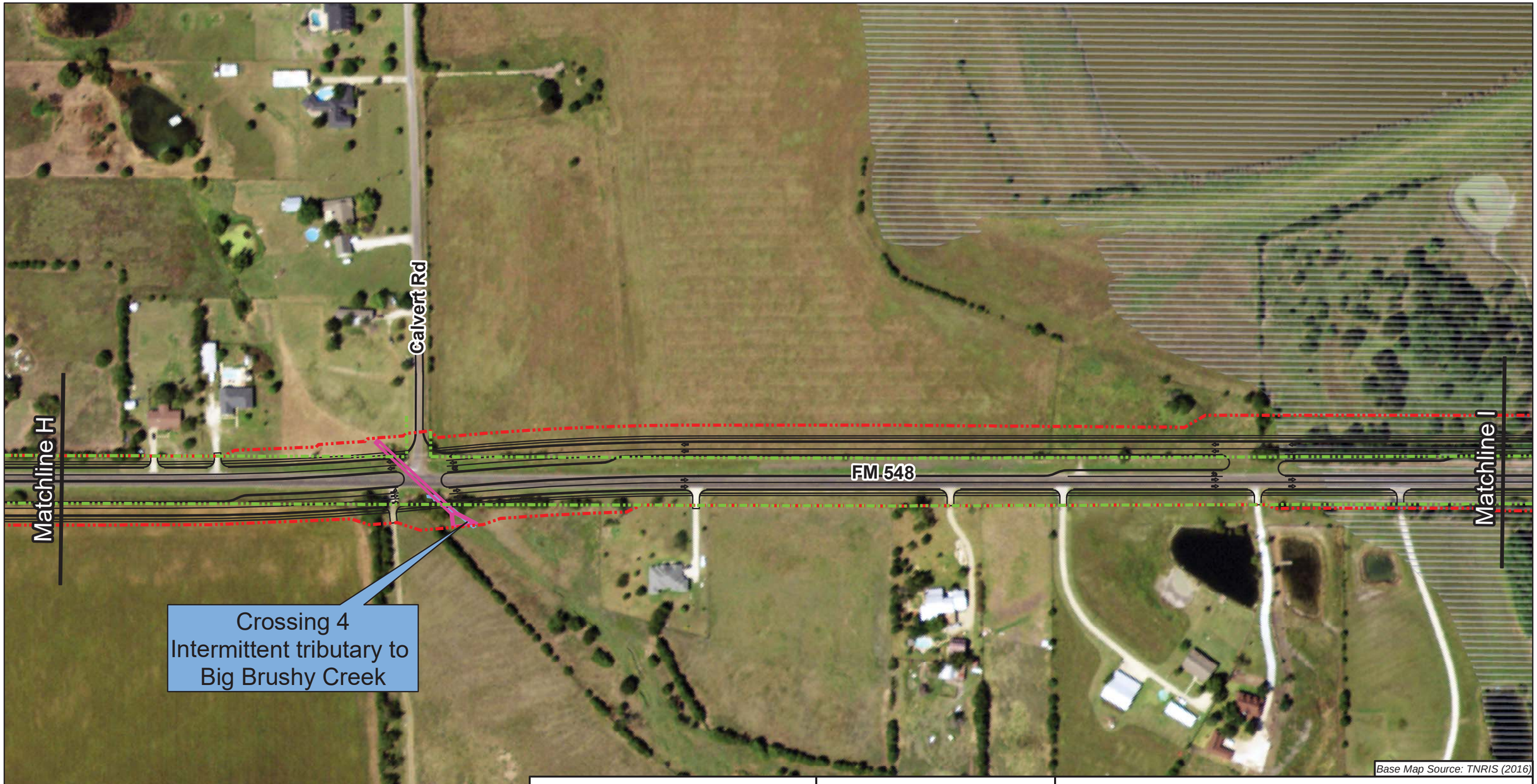


FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

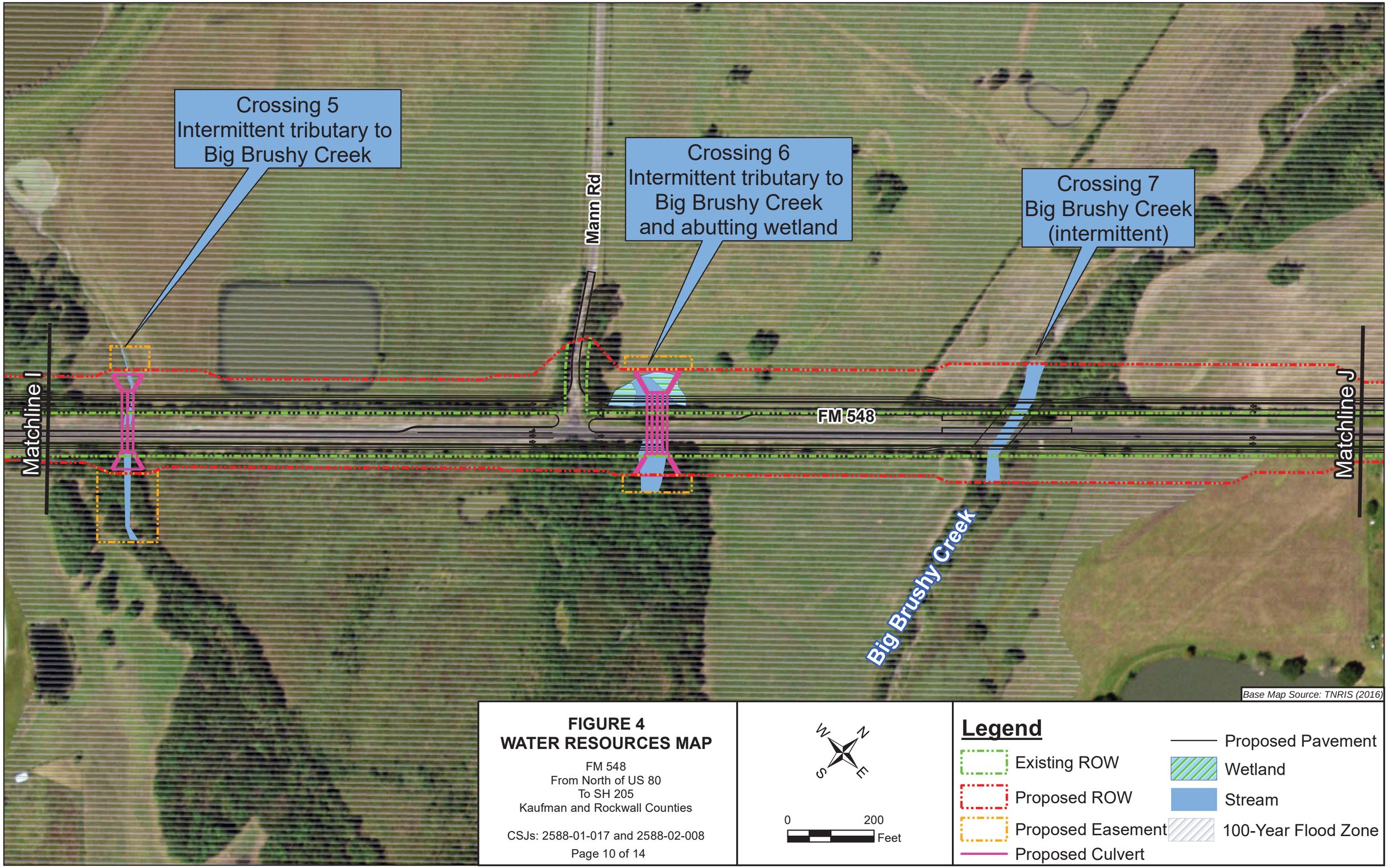


FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

Base Map Source: TNRIS (2016)

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 200
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

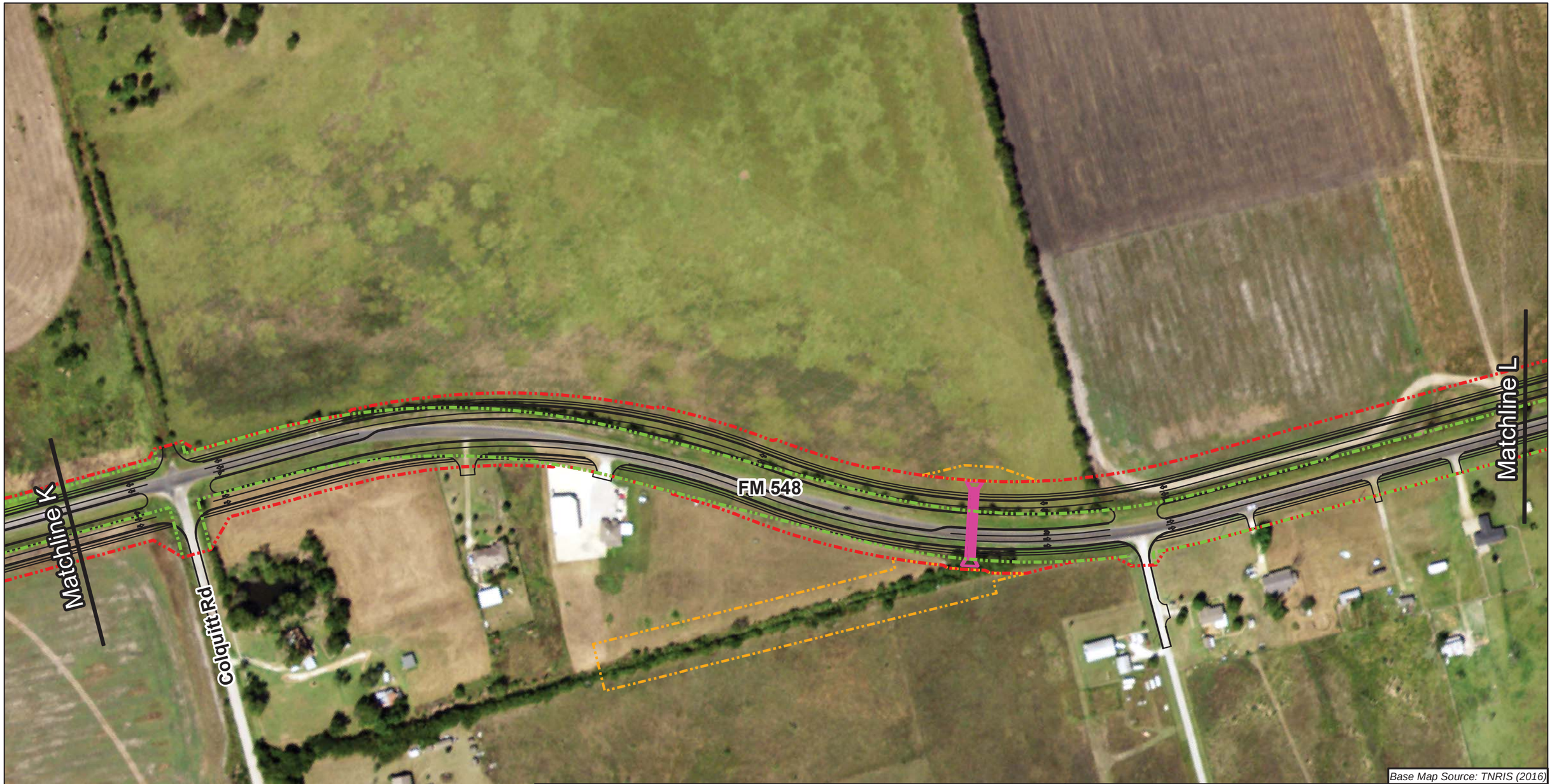


FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 200
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

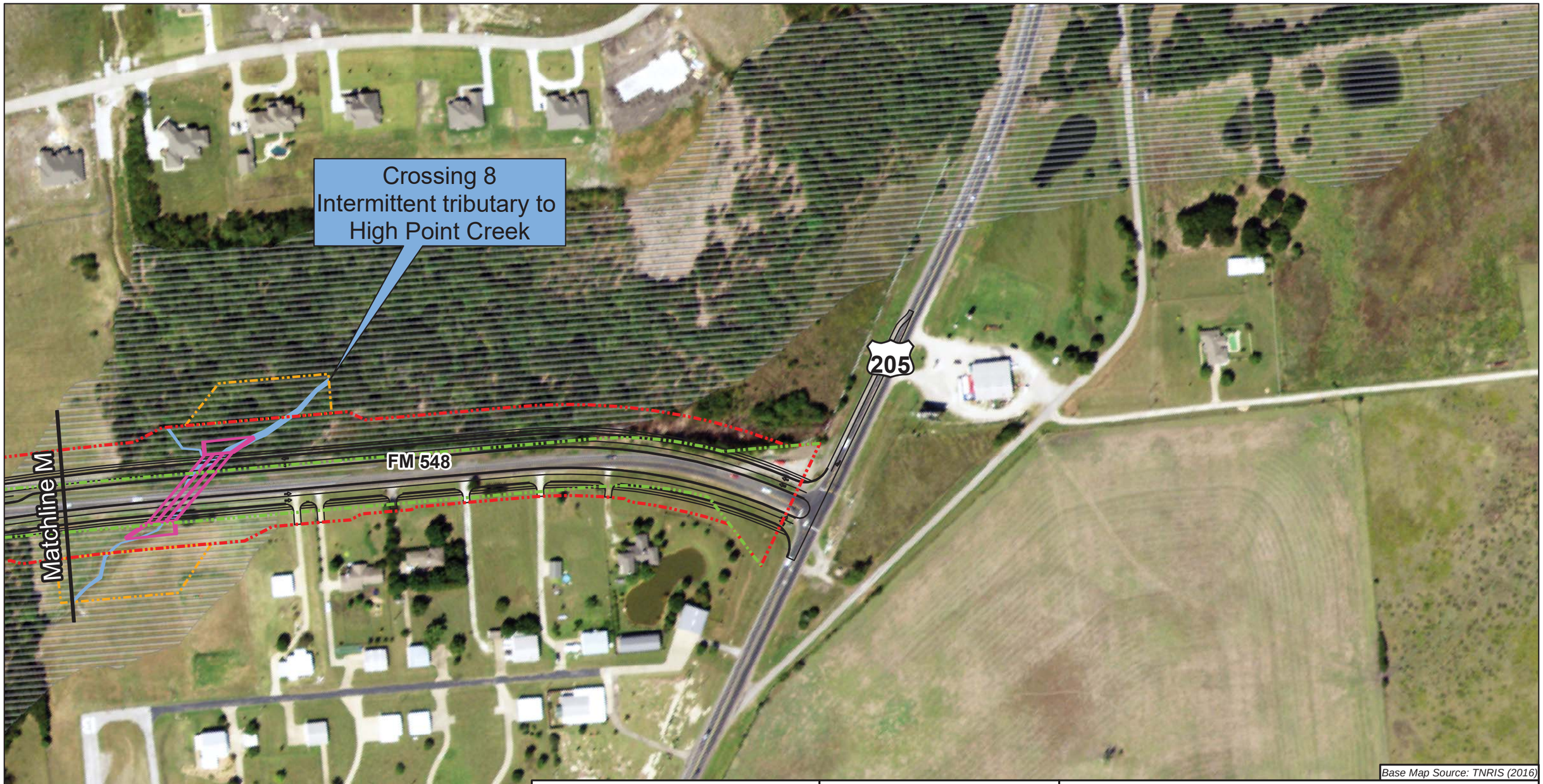
CSJs: 2588-01-017 and 2588-02-008

N W E S

0 200 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone



Base Map Source: TNRIS (2016)

FIGURE 4
WATER RESOURCES MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 200
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Proposed Culvert
- Proposed Pavement
- Wetland
- Stream
- 100-Year Flood Zone

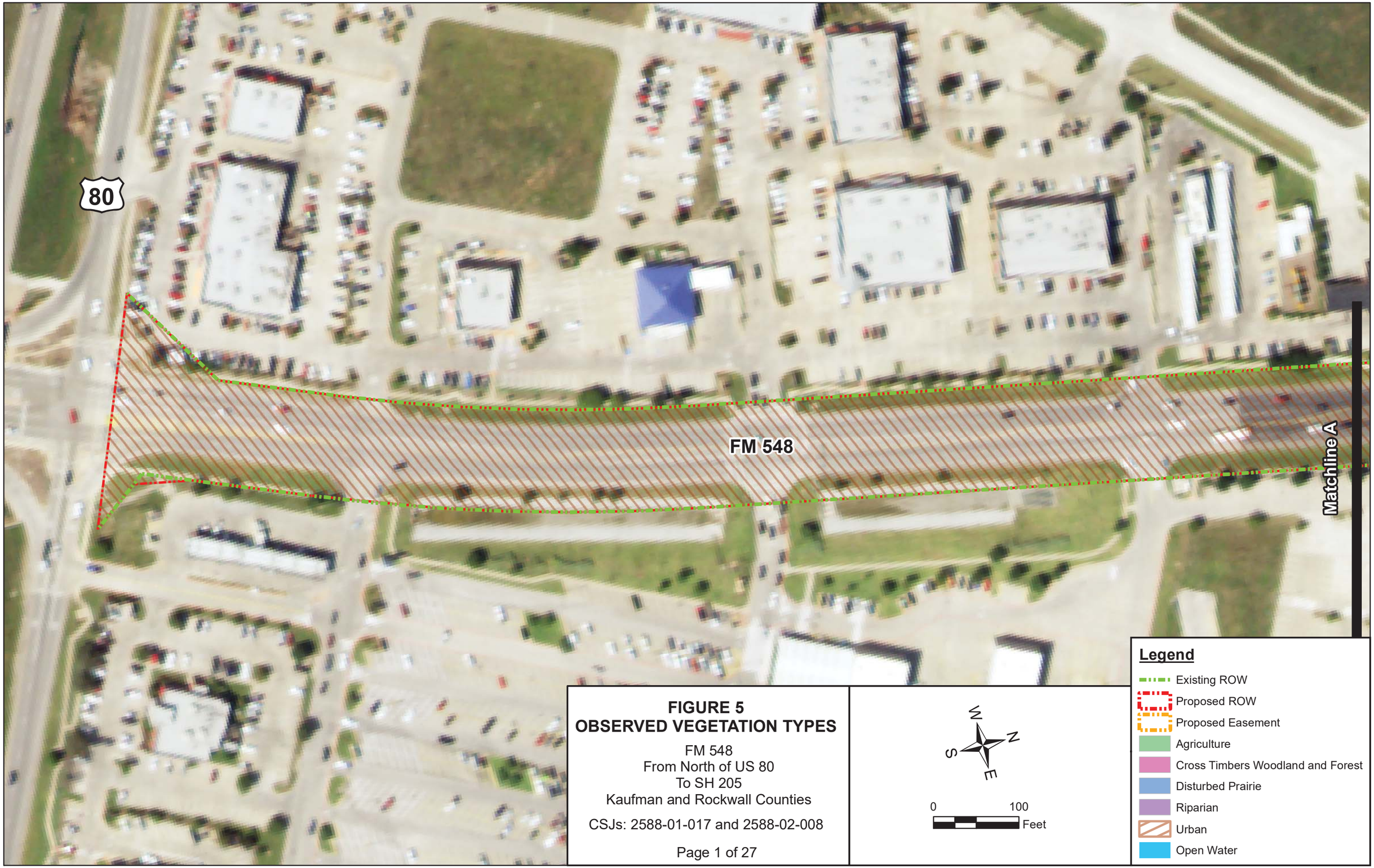


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

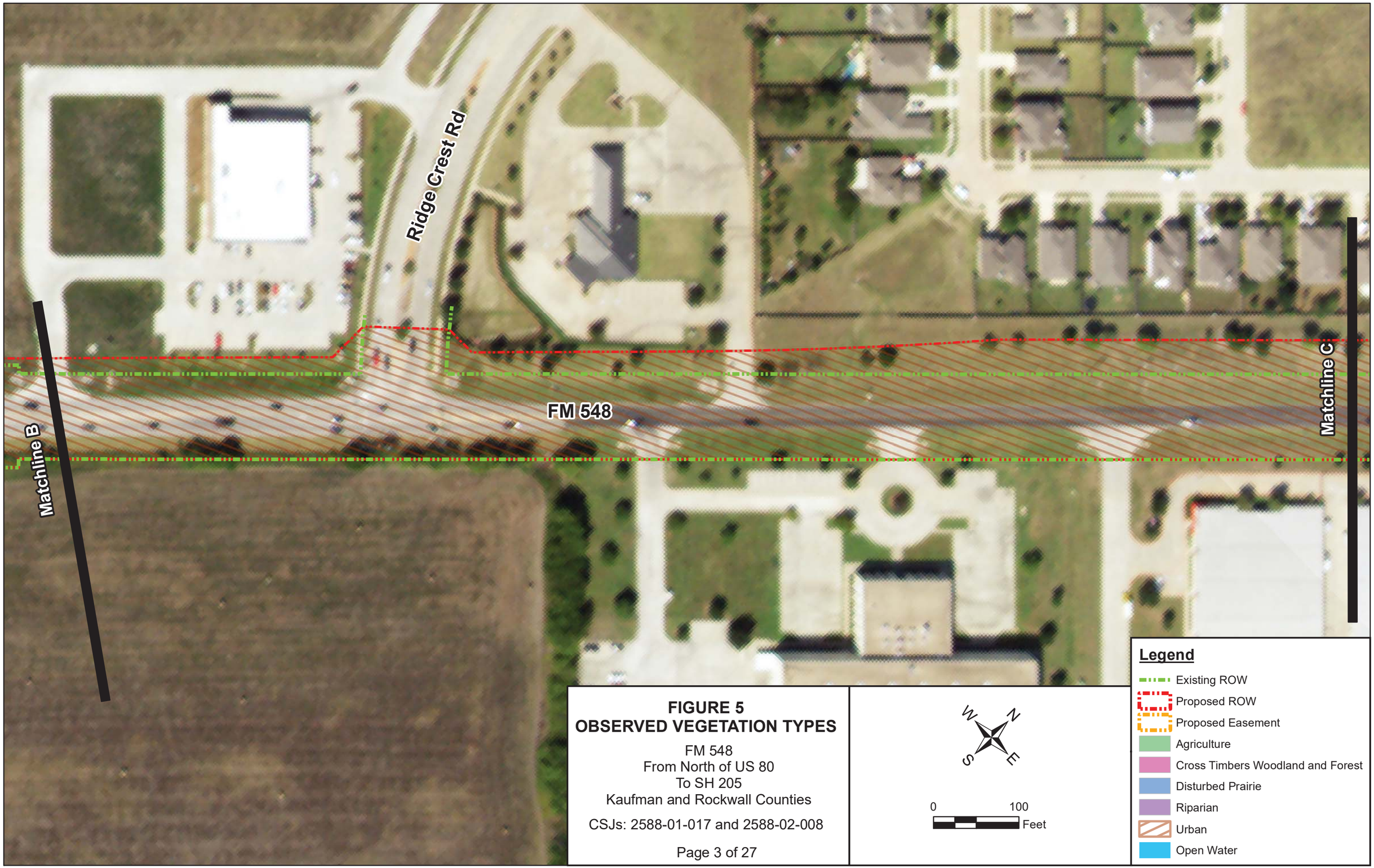


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

Matchline D

FM 548

Matchline E

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

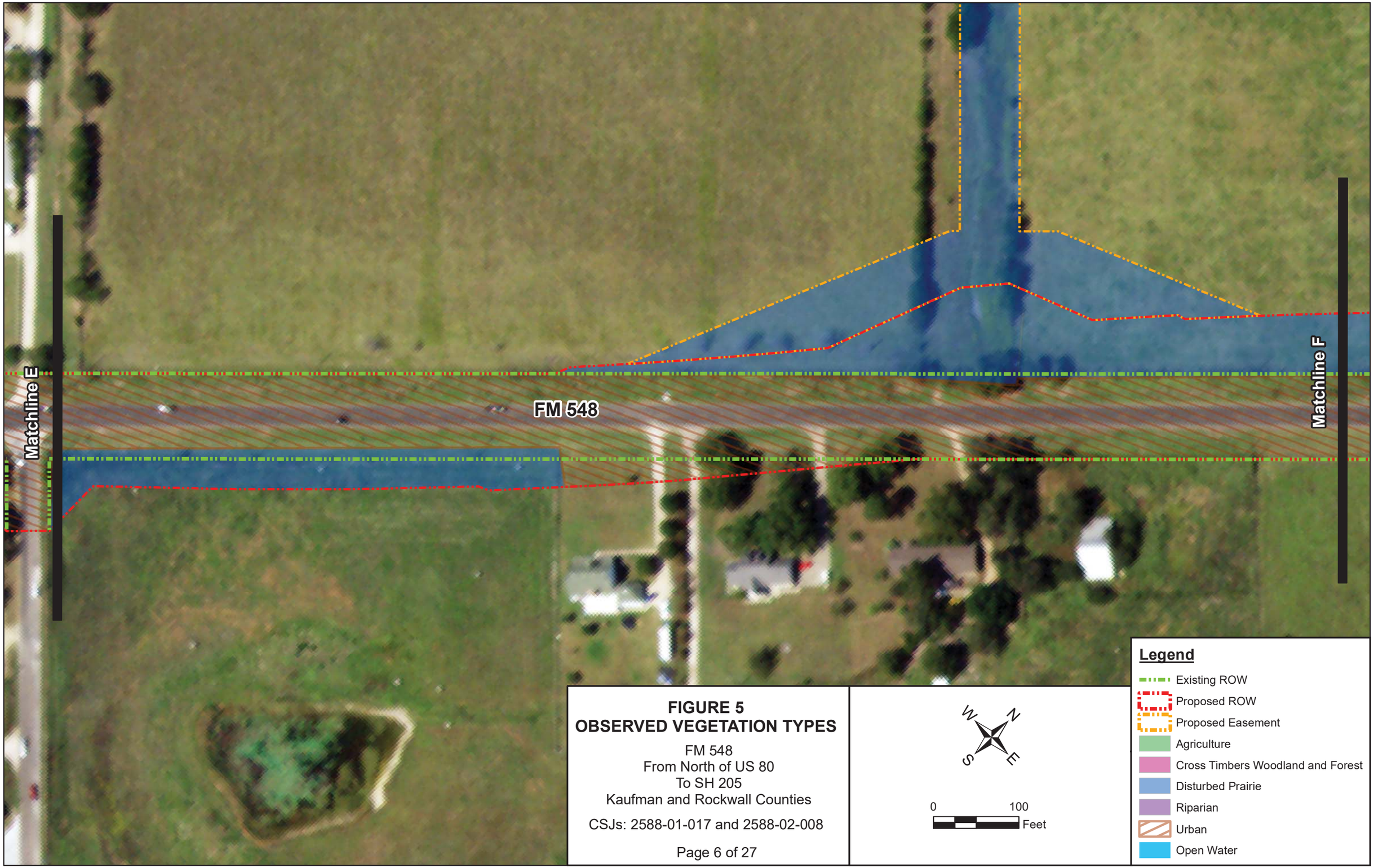


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

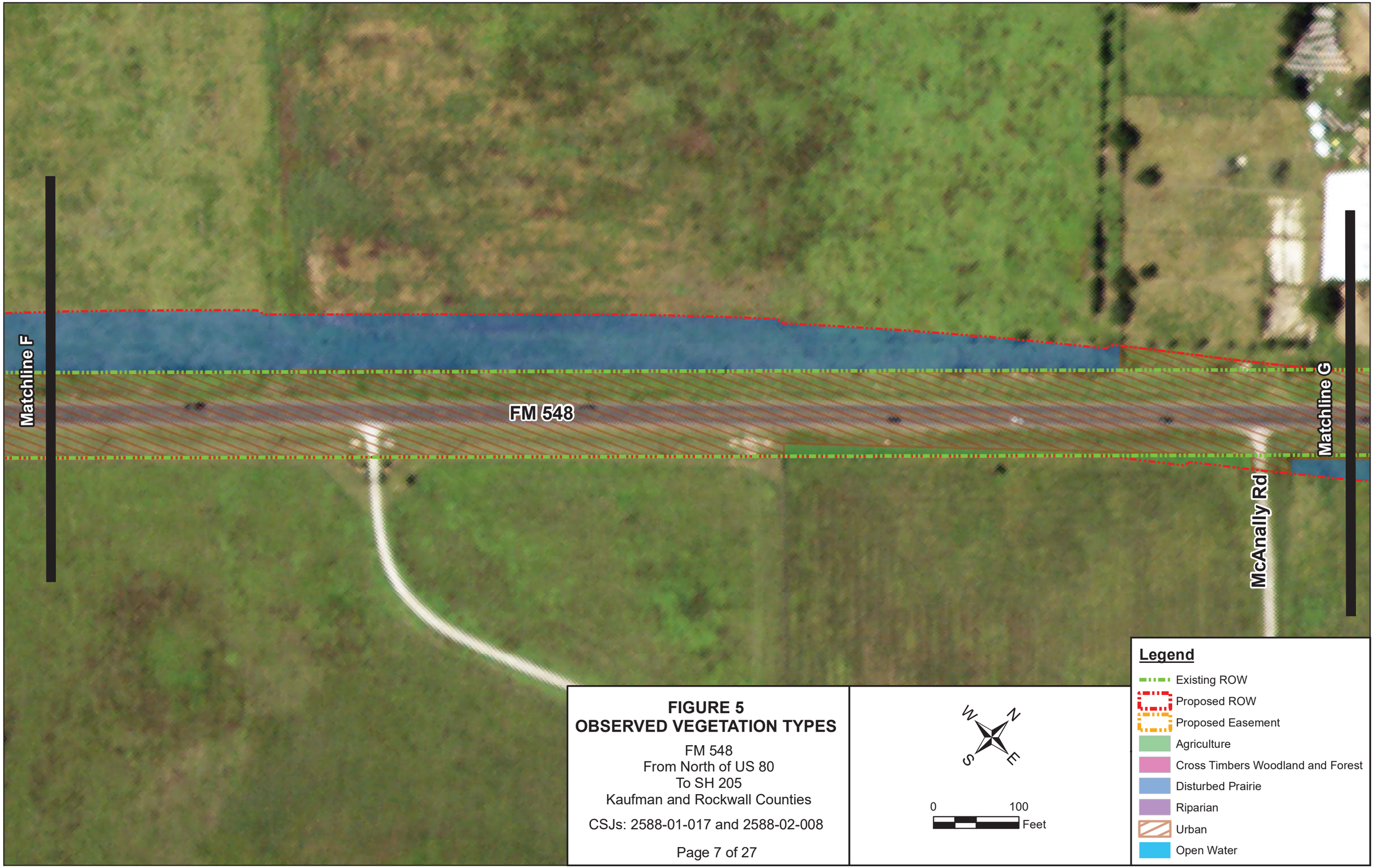


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

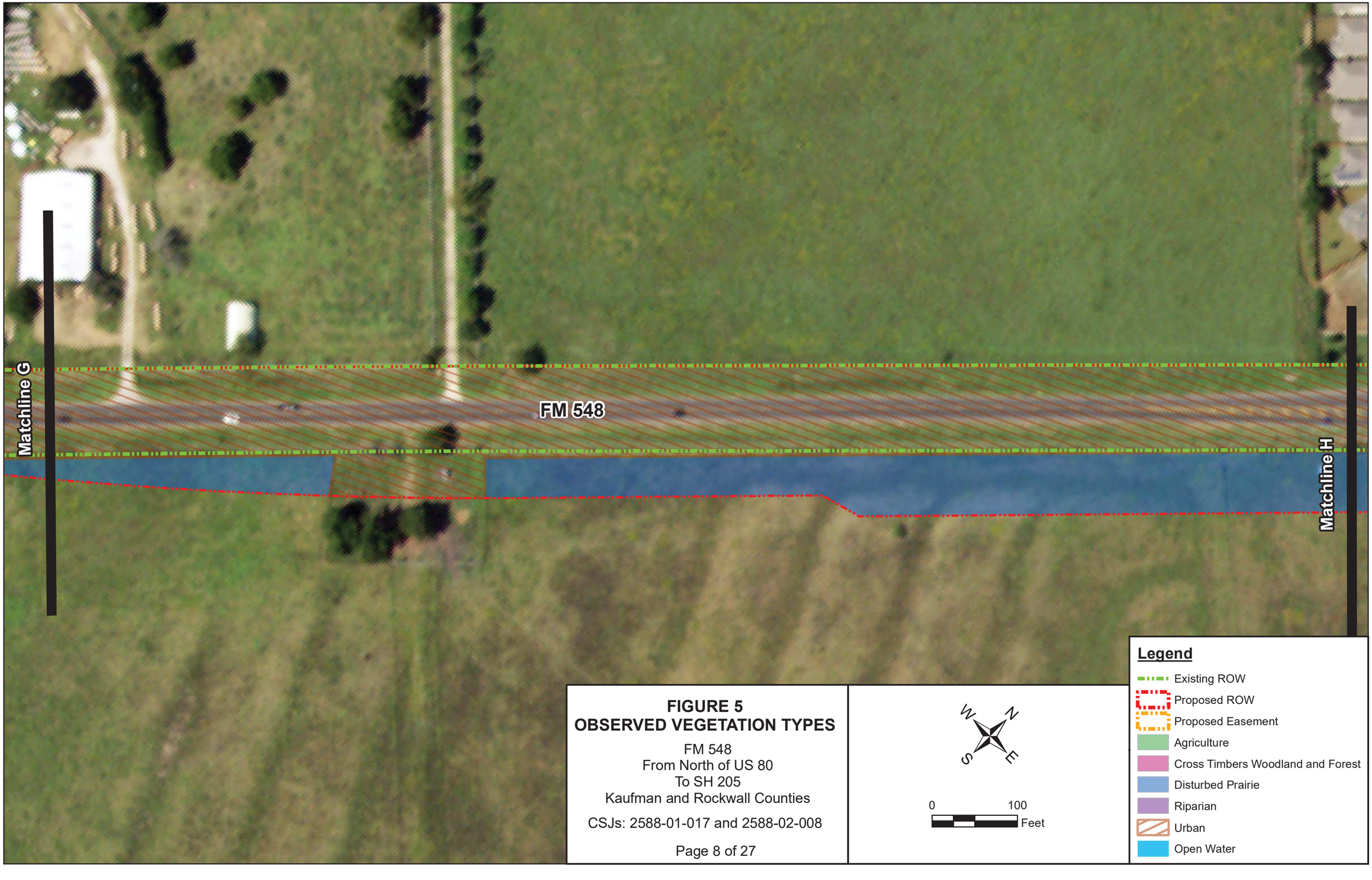


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

Highgate Rd

Edgefield Ln

FM 548

Matchline H

Matchline I

Crossing 1
Ephemeral tributary to
Big Brushy Creek

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

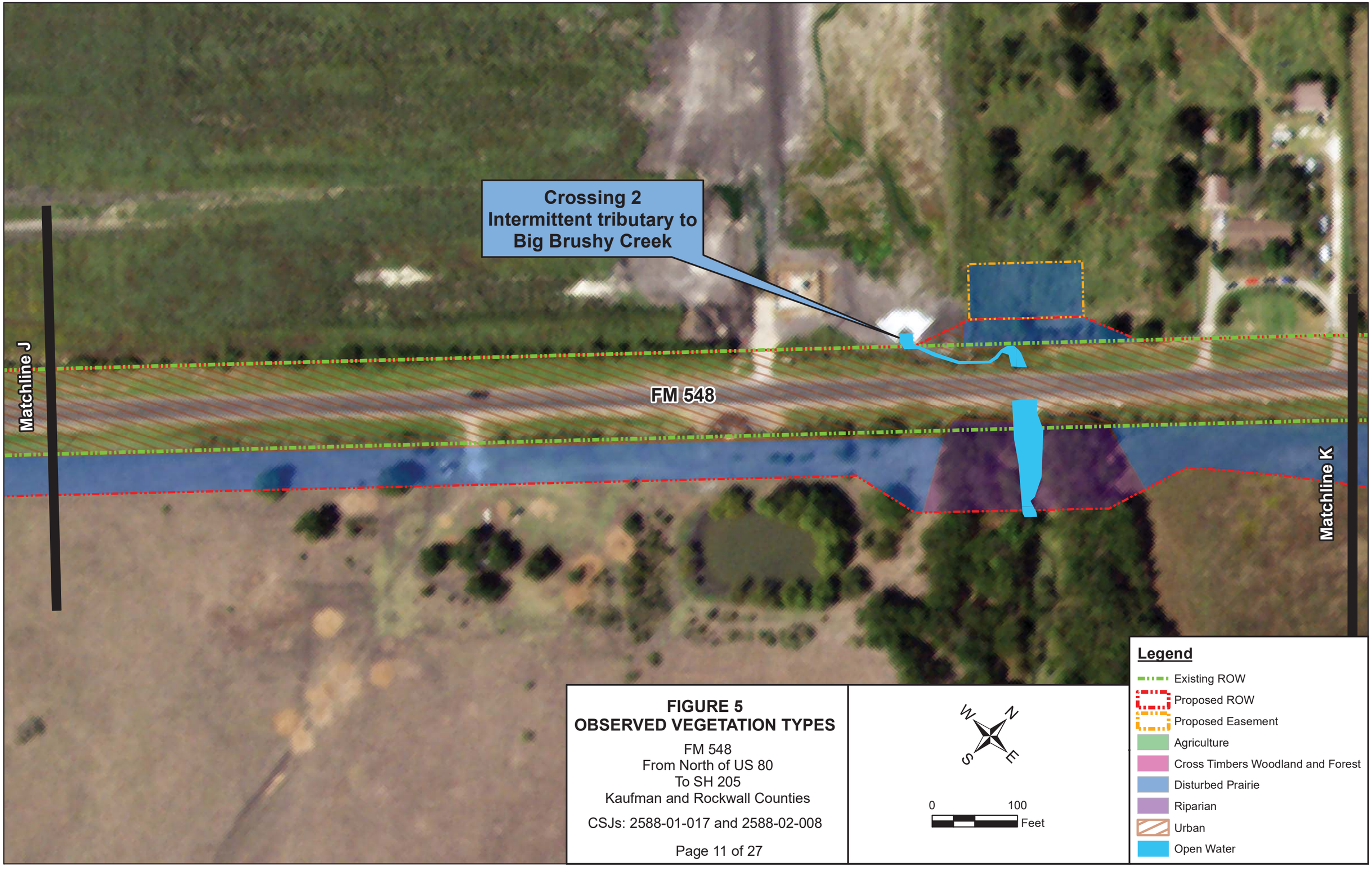


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

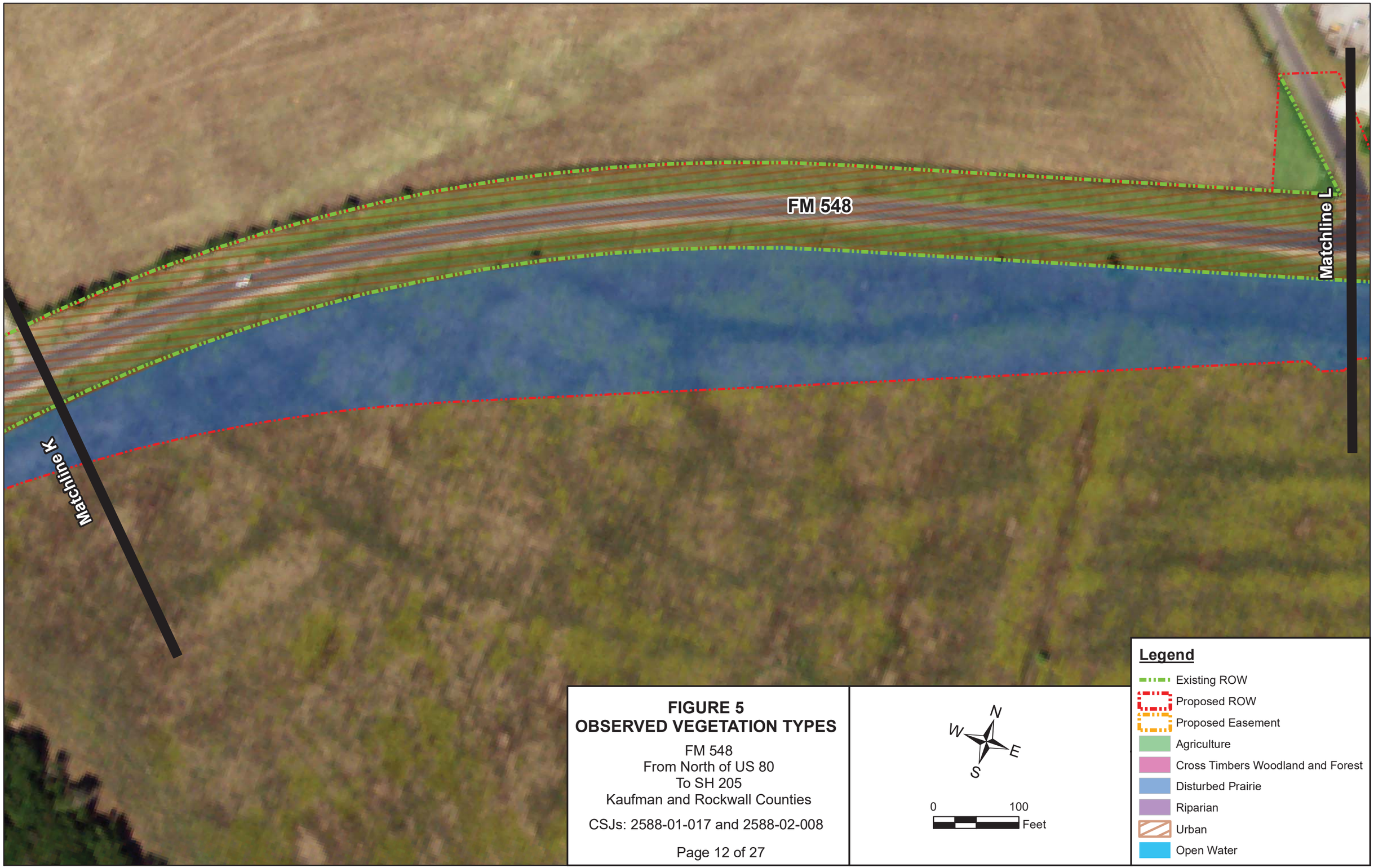


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

Matchline L

Matchline M

FM 548

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

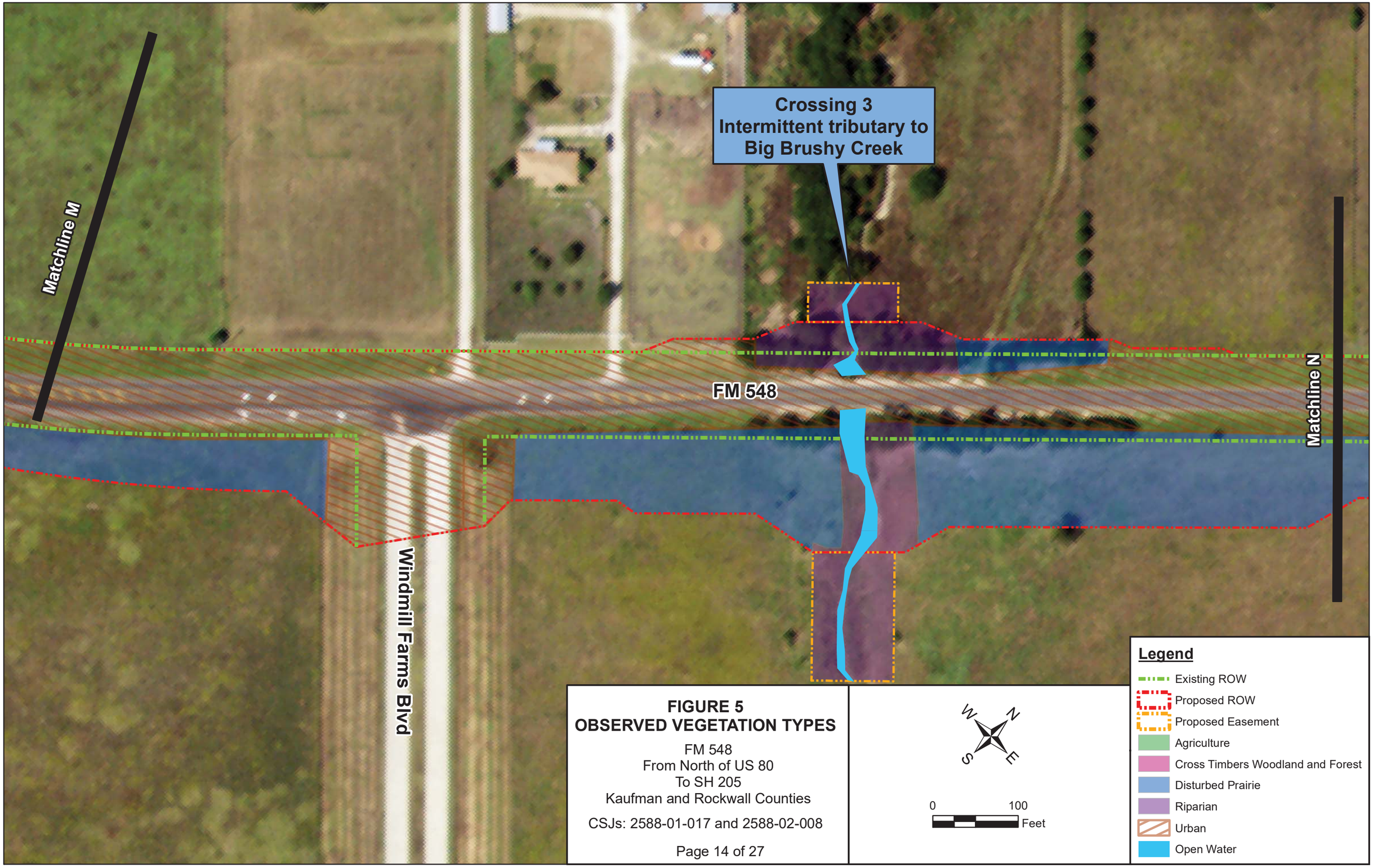


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

Rd

FM 548

Matchline O

Matchline P

League Ranch Rd

Durham Rd

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

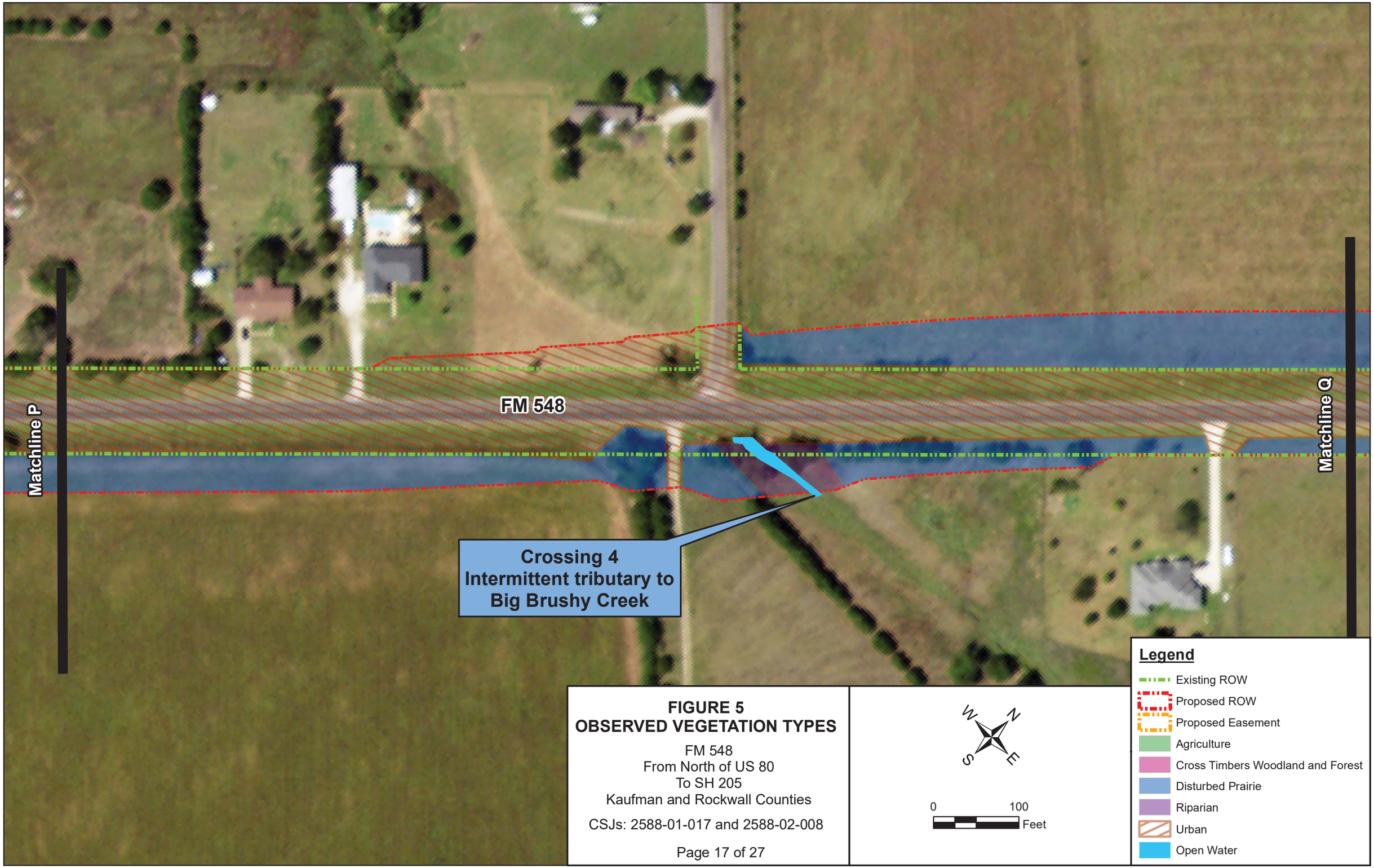


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

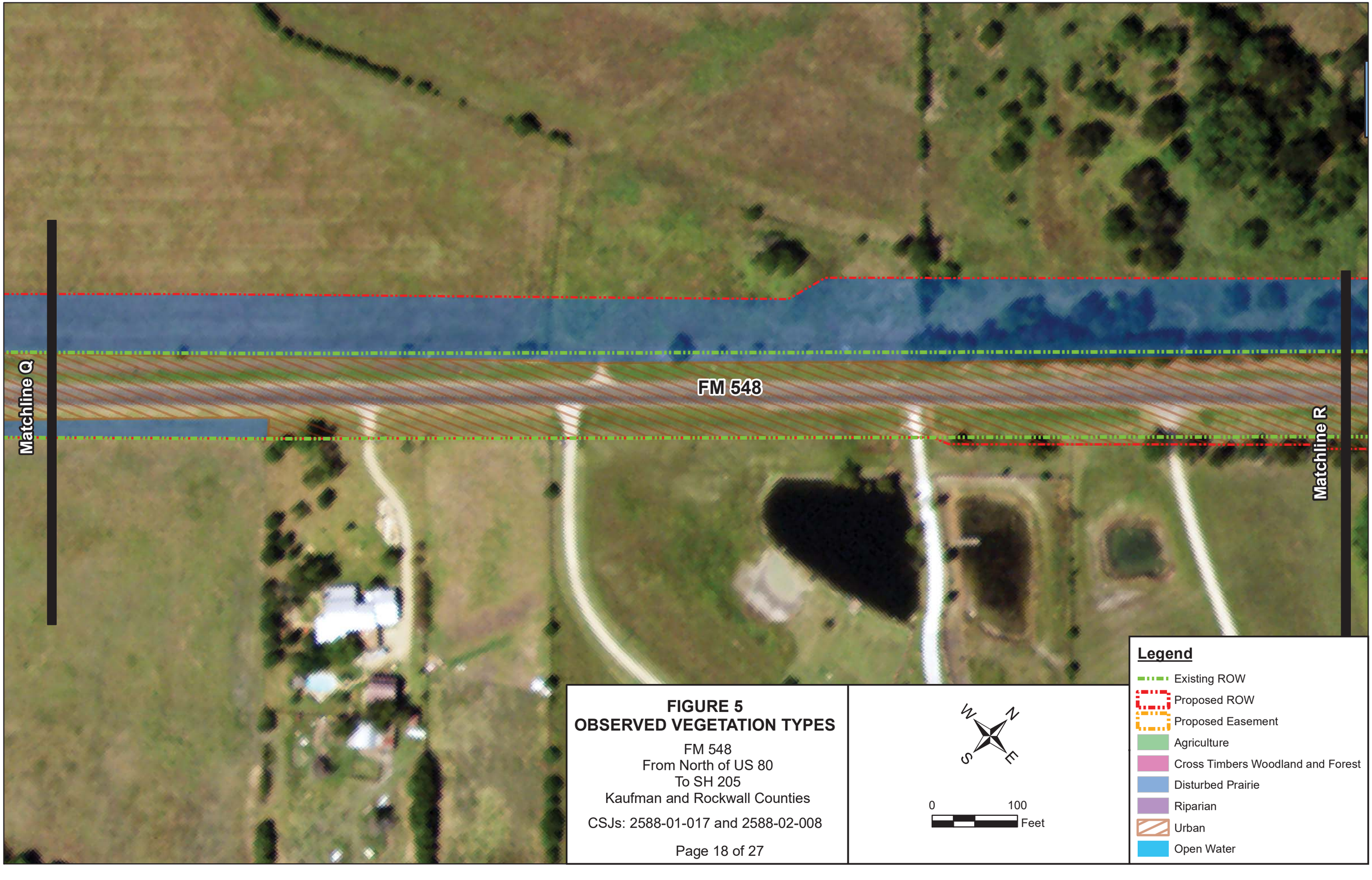


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

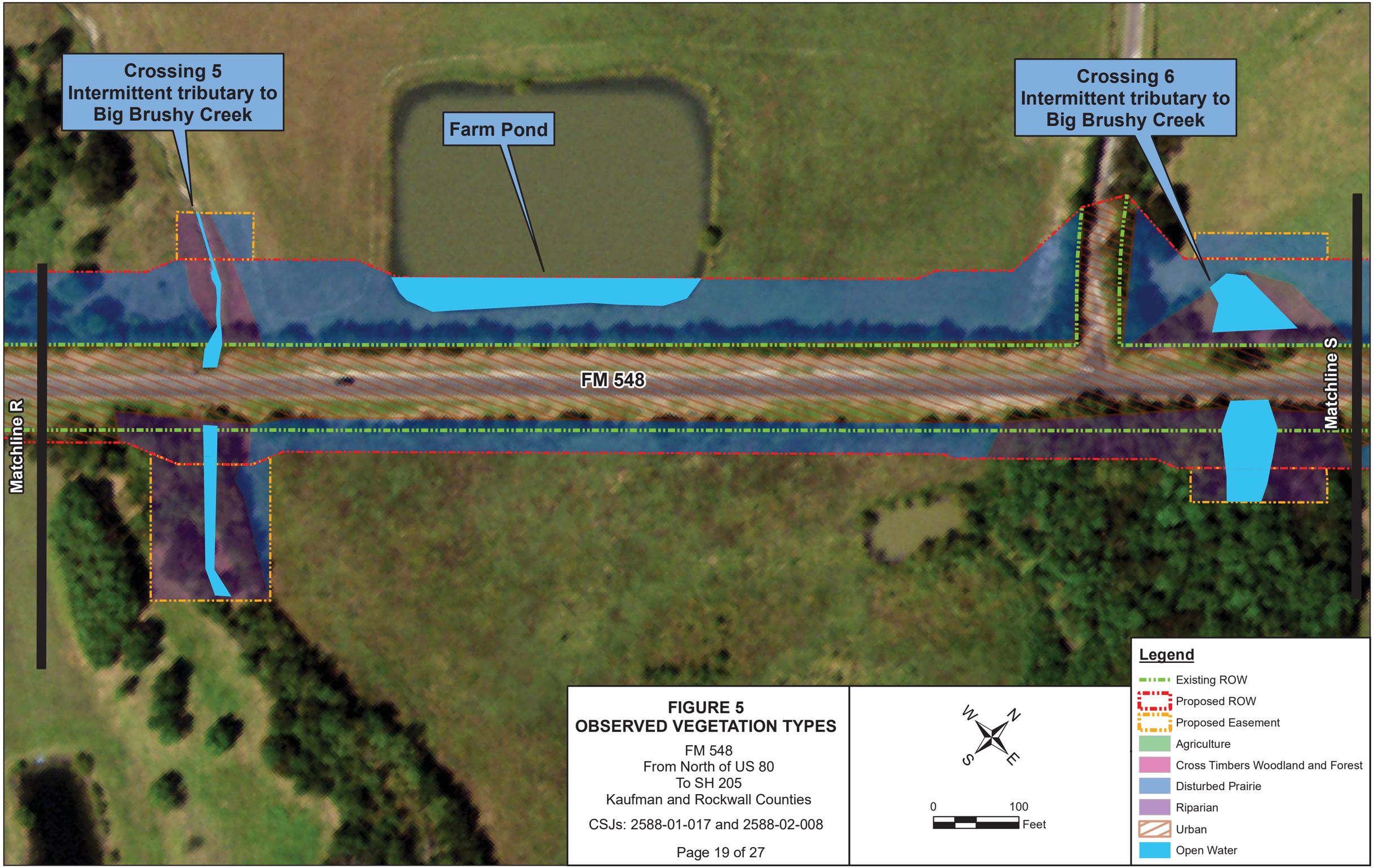


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

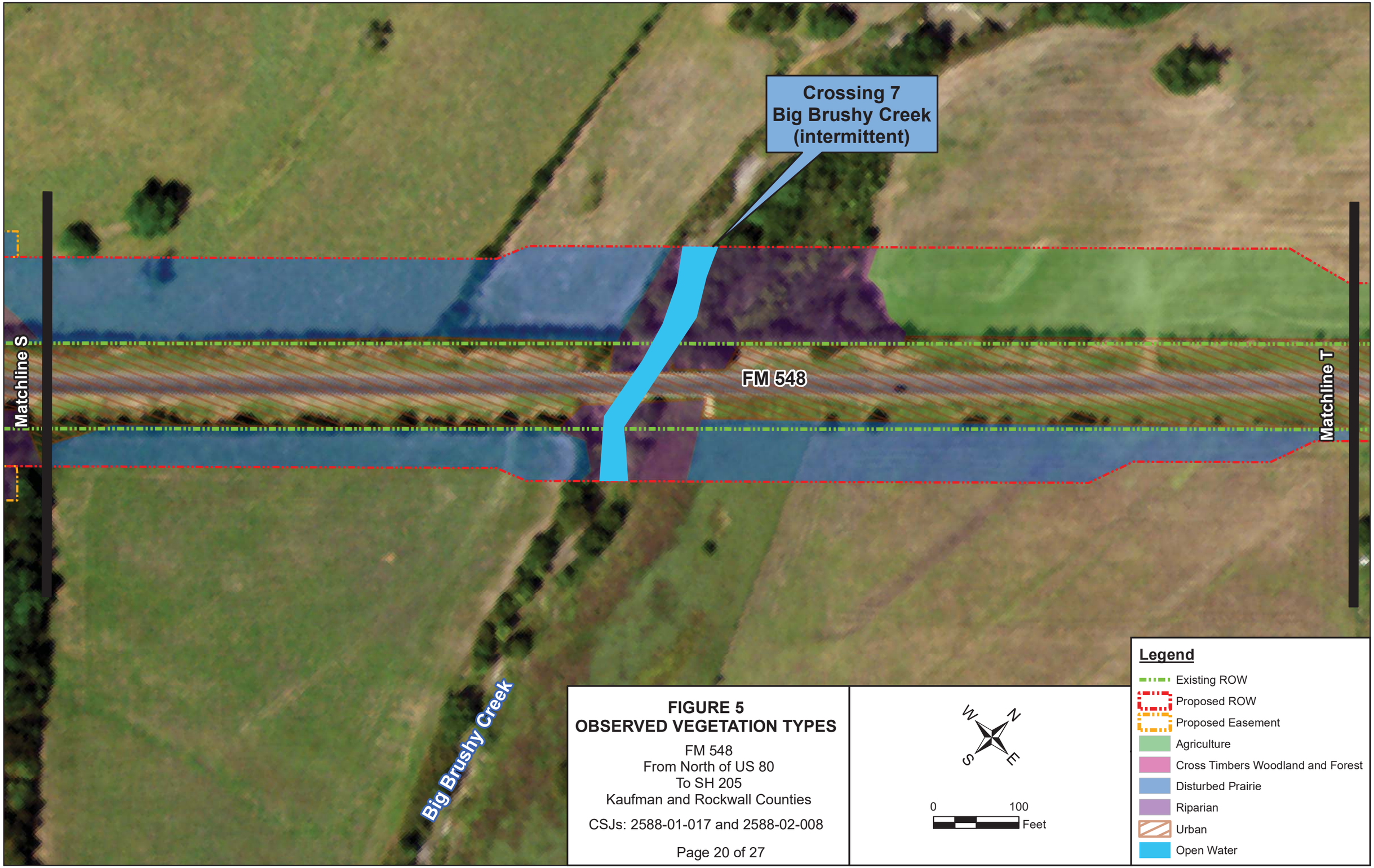


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

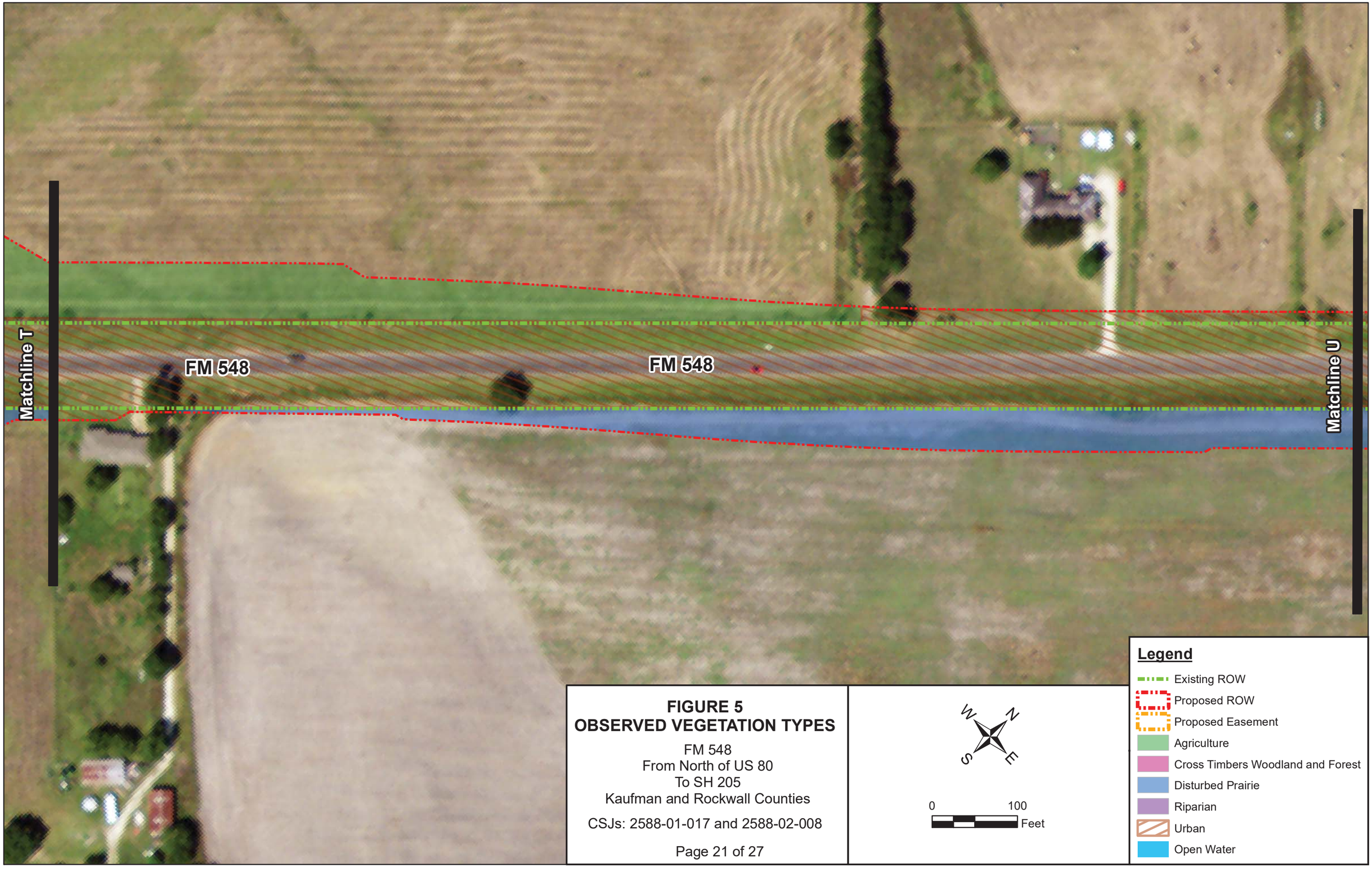


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

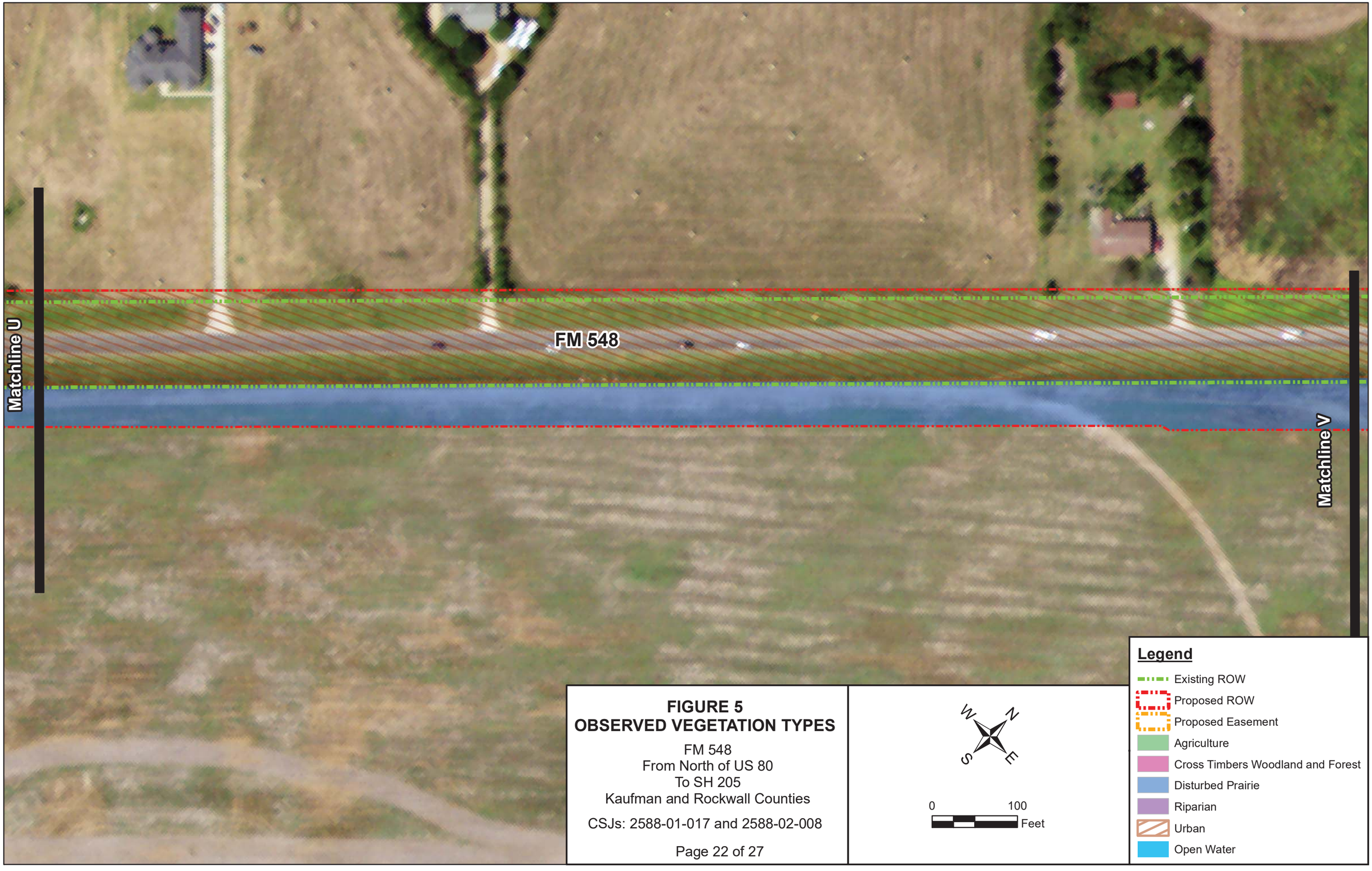


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

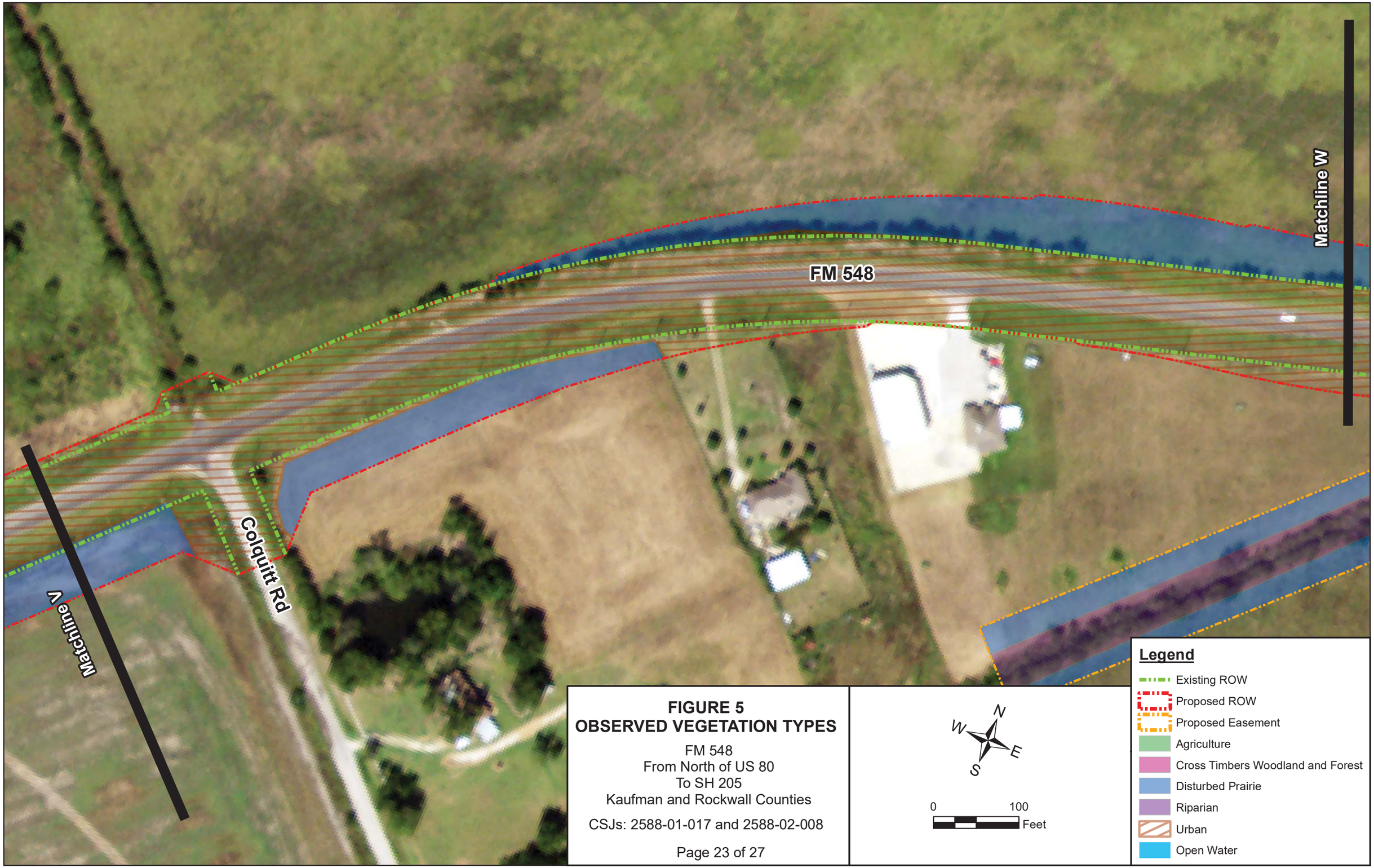


FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

- Existing ROW
- Proposed ROW
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- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

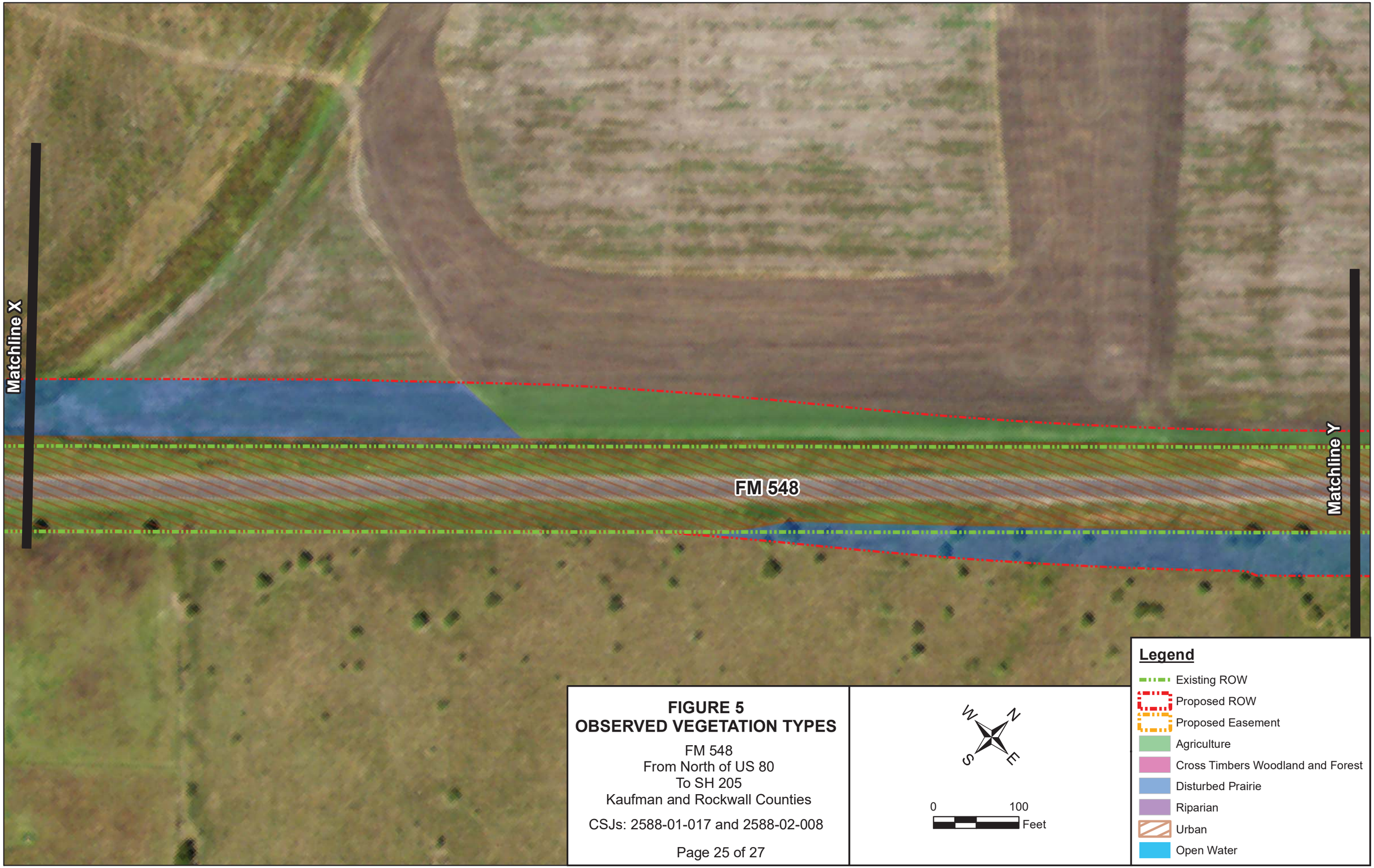

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

Chisholm Ridge Dr

FM 548

Matchline Y

Matchline Z

Crossing 9
Intermittent tributary to
High Point Creek

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N W E S

0 100 Feet

Legend

- Existing ROW
- Proposed ROW
- Proposed Easement
- Agriculture
- Cross Timbers Woodland and Forest
- Disturbed Prairie
- Riparian
- Urban
- Open Water

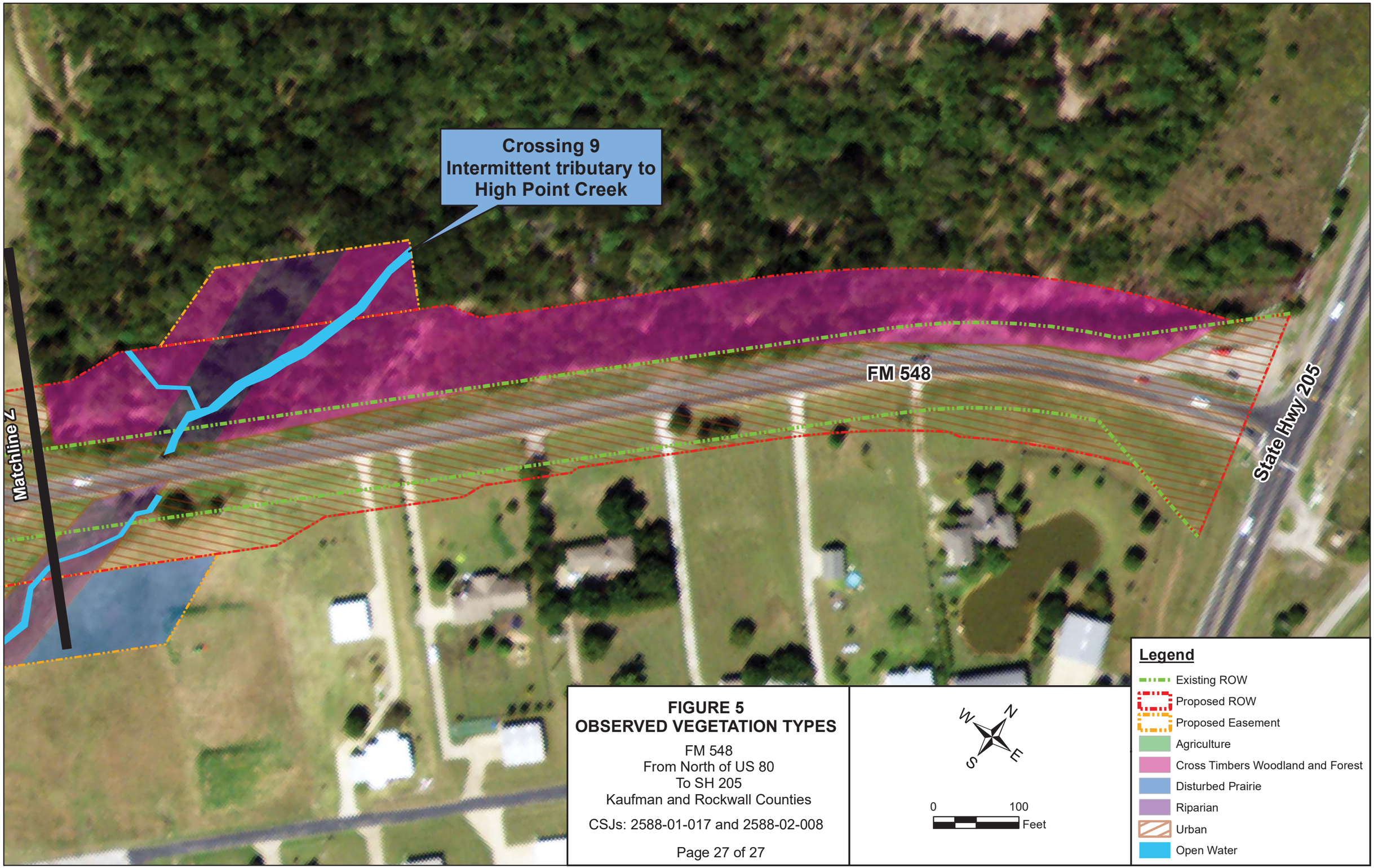

FIGURE 5
OBSERVED VEGETATION TYPES

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

N
W
E
S

0 100
Feet

Legend

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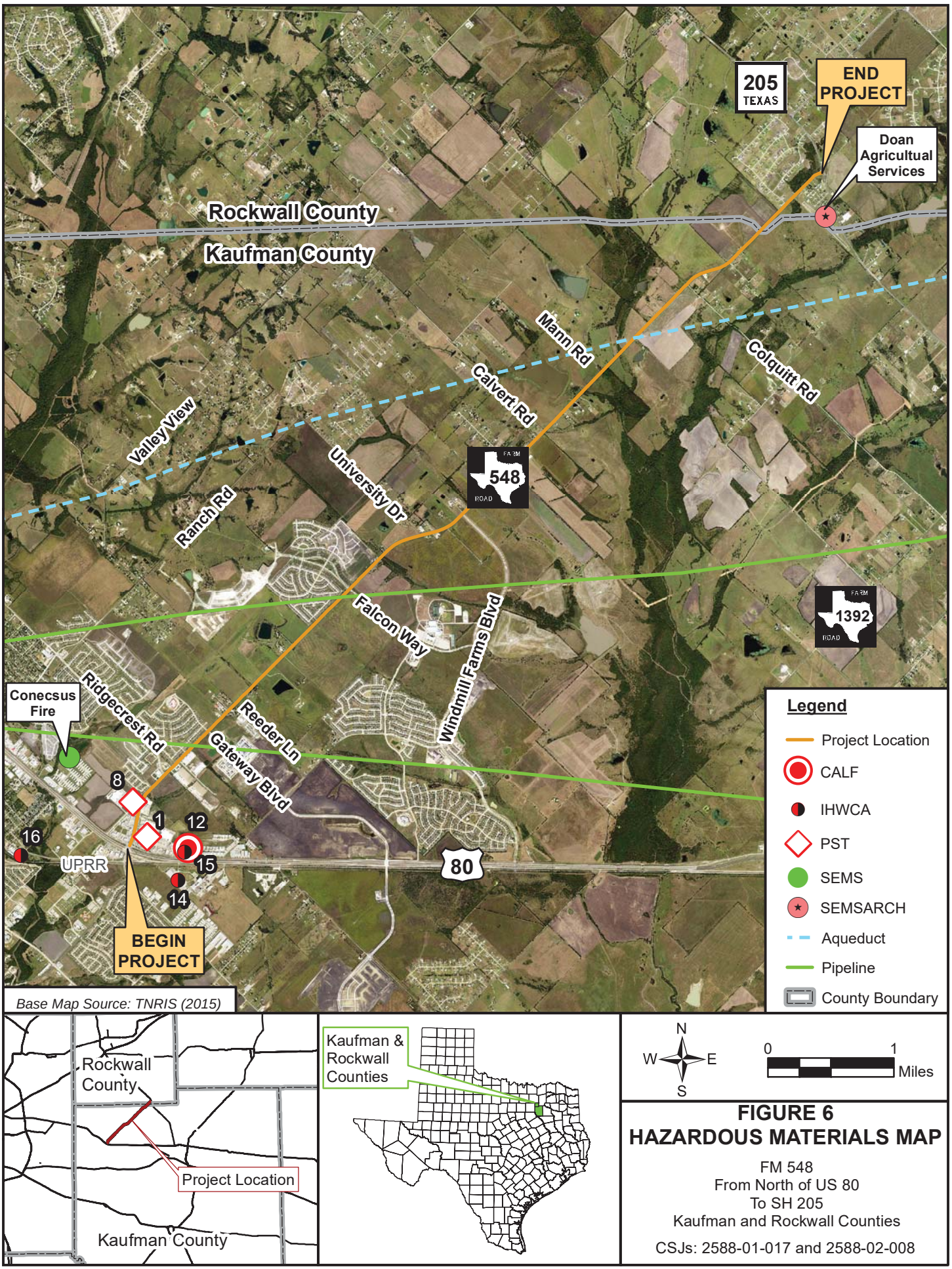
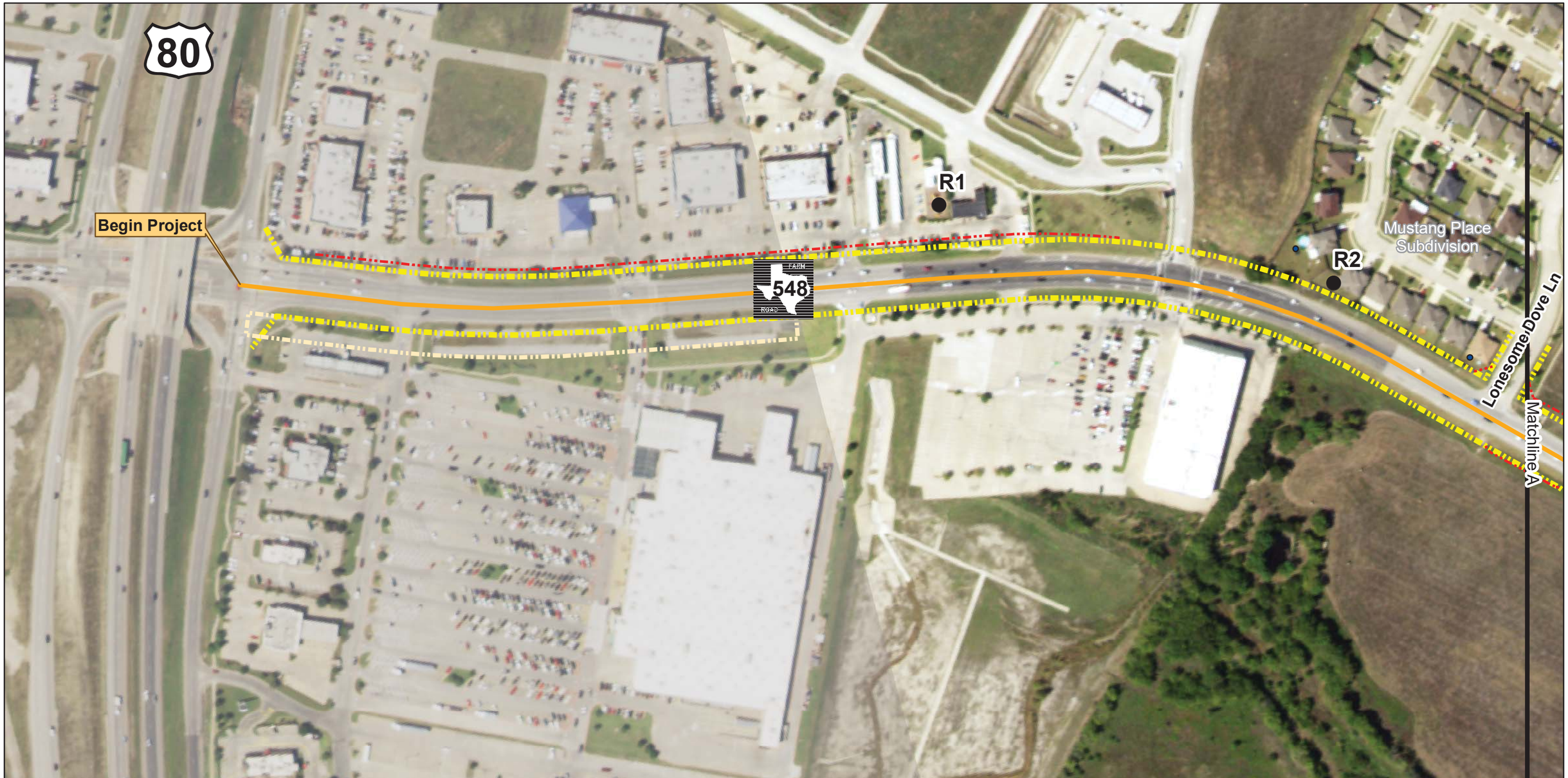


FIGURE 6
HAZARDOUS MATERIALS MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008



Souce: Esri, Digital Globe, GeoEye, Earthstar Geographics, GNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community (10/12/2016), FEMA (4/10/2013), and USFWS (1/1/2004).

Legend

- Project Limits
- Proposed ROW
- Existing ROW
- Proposed Drainage Easement
- Existing Drainage Easement
- Non-Impacted Noise Receiver
- Receiver Benefitting From A Proposed Noise Barrier
- Proposed Noise Wall

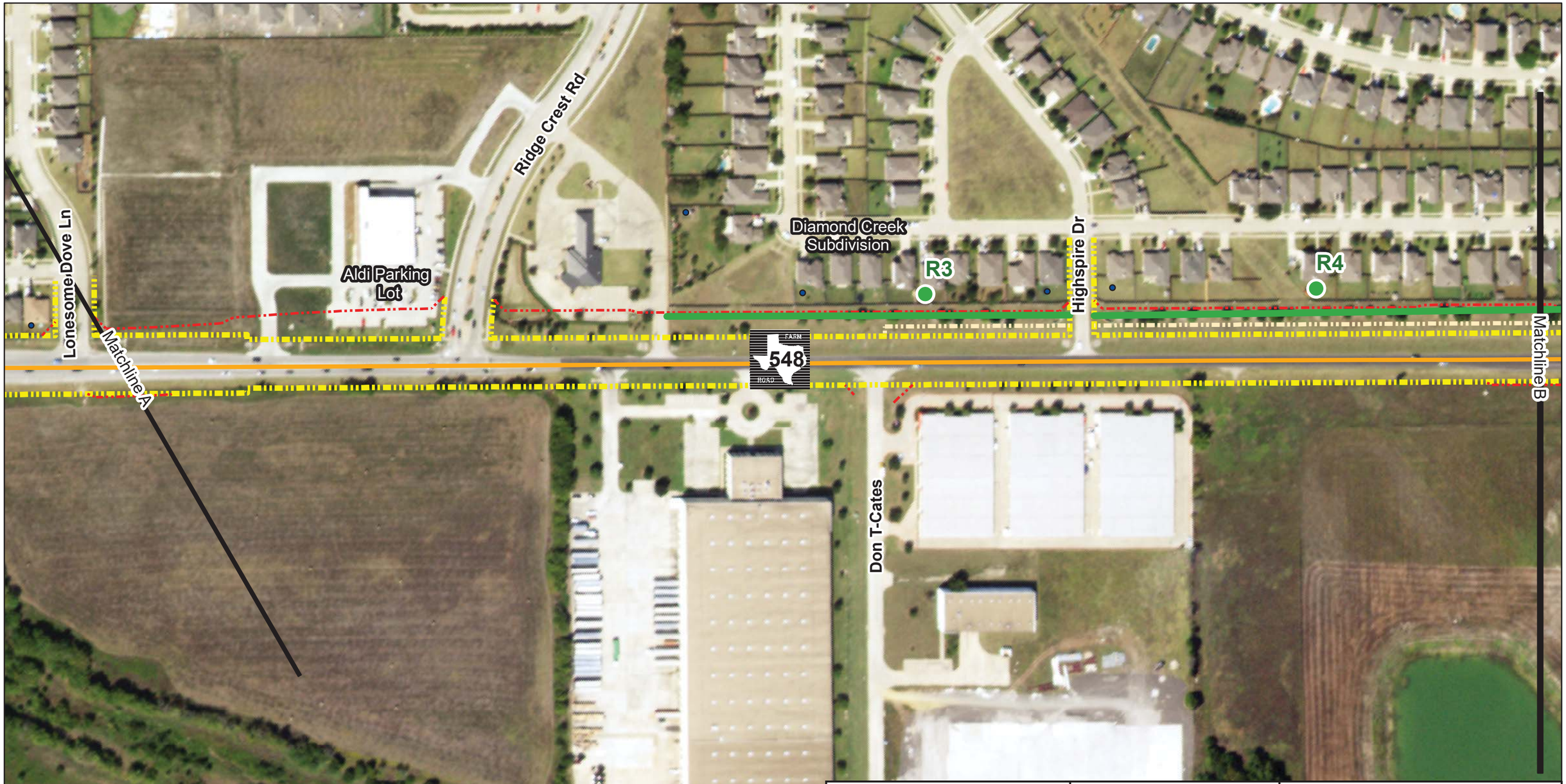
N
S
E
W

0 200 Feet

FIGURE 7
NOISE ANALYSIS RESULTS

FM 548
FROM NORTH OF US 80
TO SH 205
KAUFMAN AND
ROCKWALL COUNTIES

CSJs: 2588-01-017 and 2588-02-008



Souce: Esri, Digital Globe, GeoEye, Earthstar Geographics, GNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community (10/12/2016), FEMA (4/10/2013), and USFWS (1/1/2004).

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N W E S

0 200 Feet

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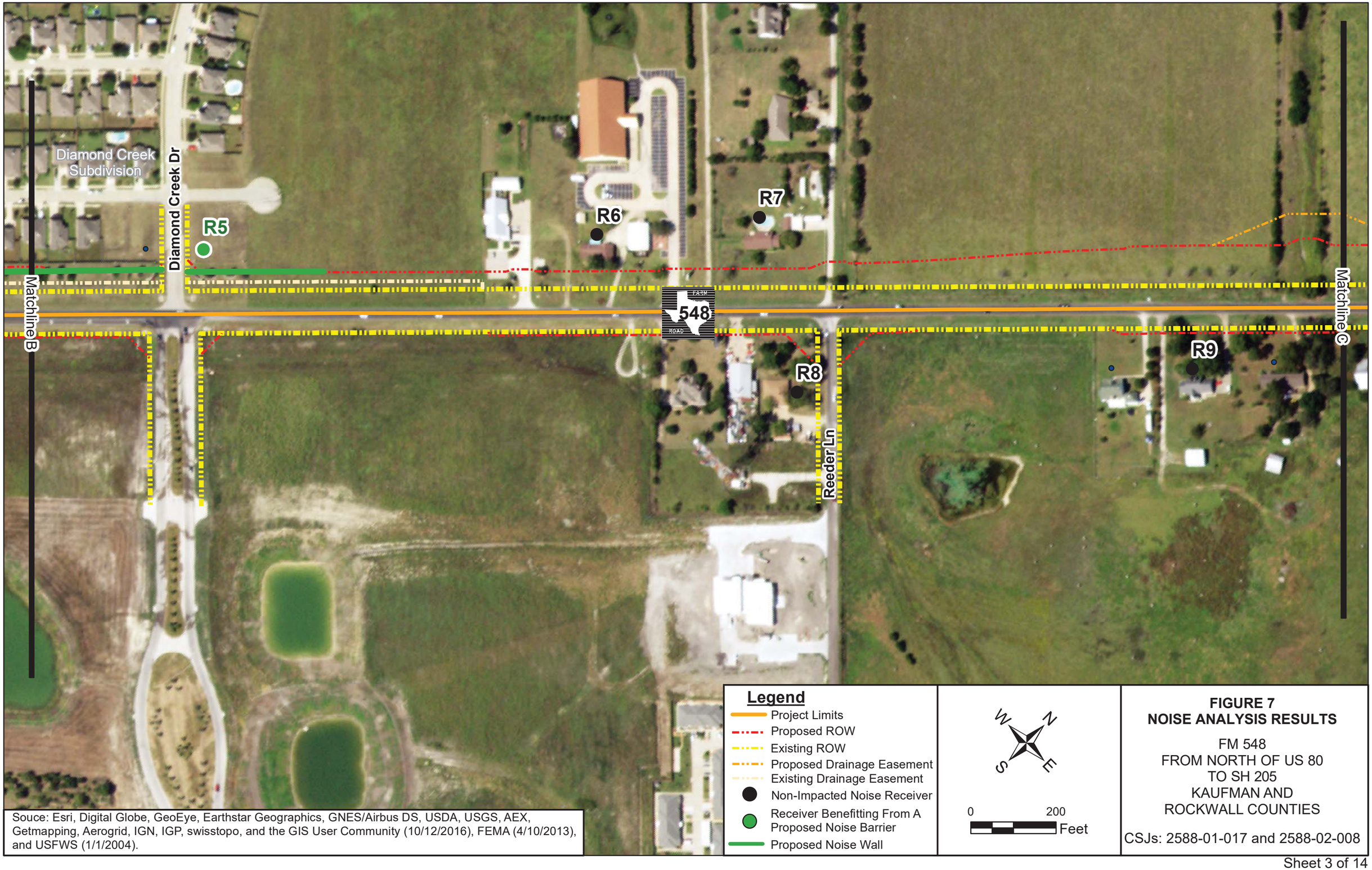

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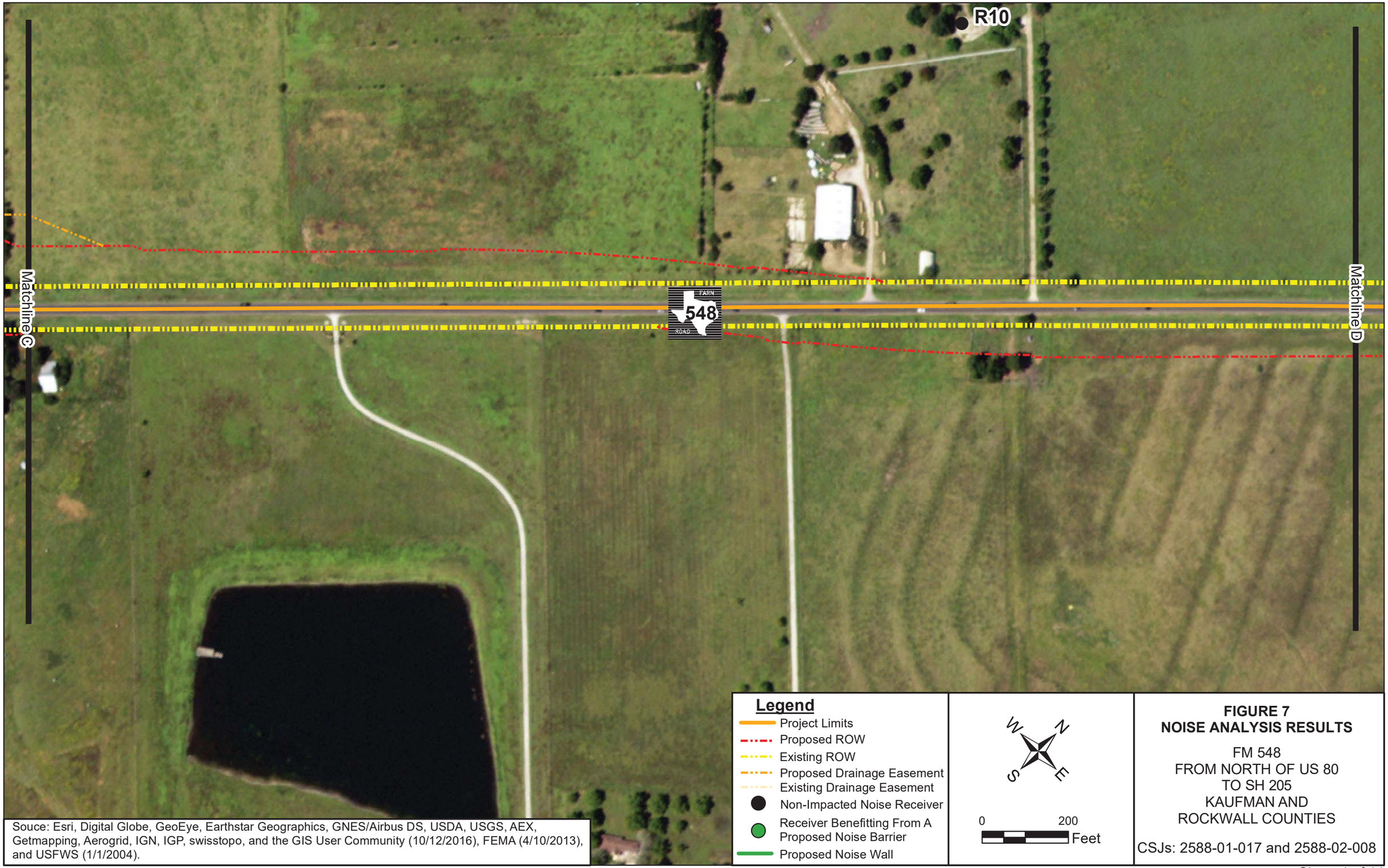

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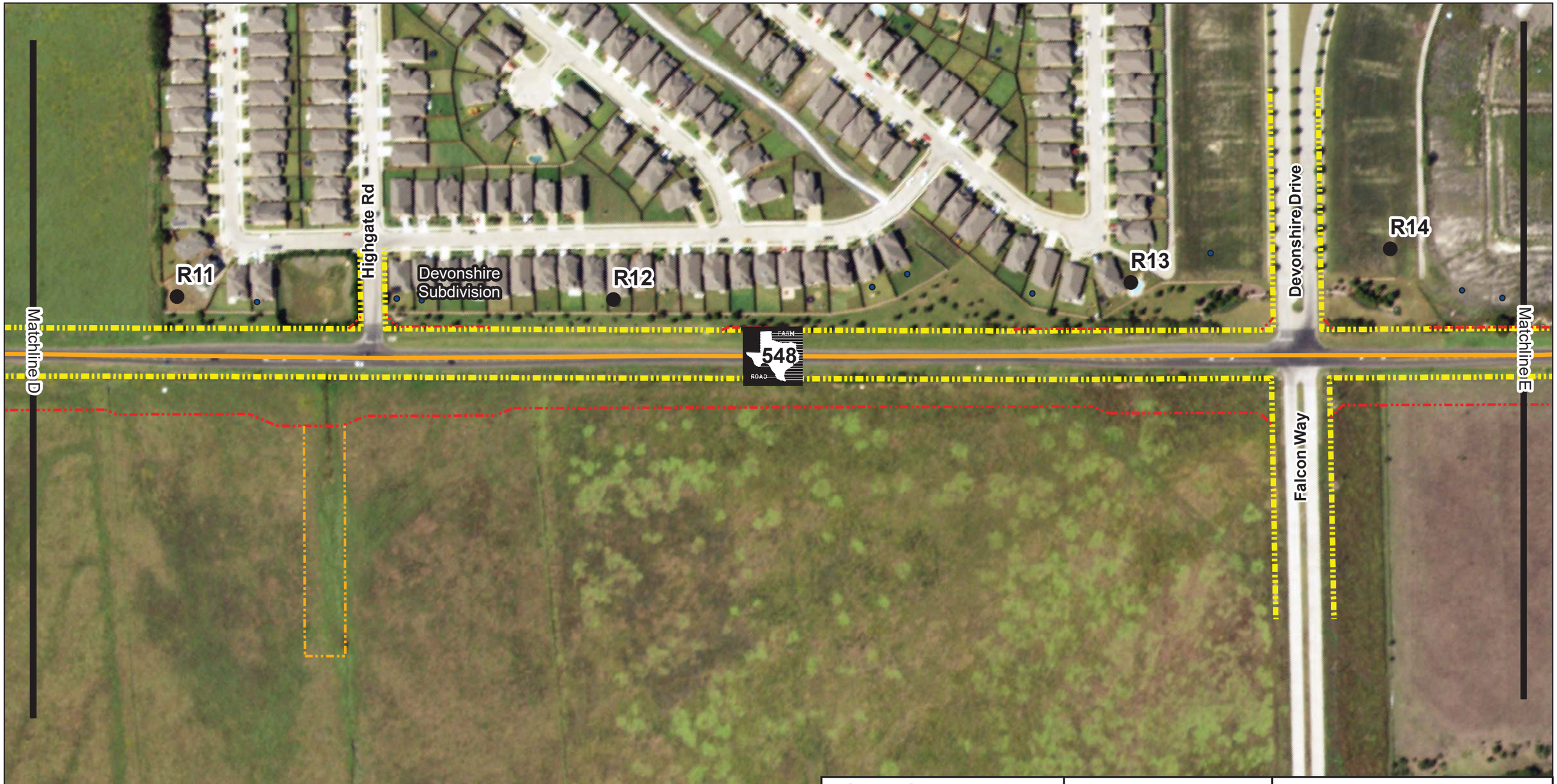

Souce: Esri, Digital Globe, GeoEye, Earthstar Geographics, GNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community (10/12/2016), FEMA (4/10/2013), and USFWS (1/1/2004).

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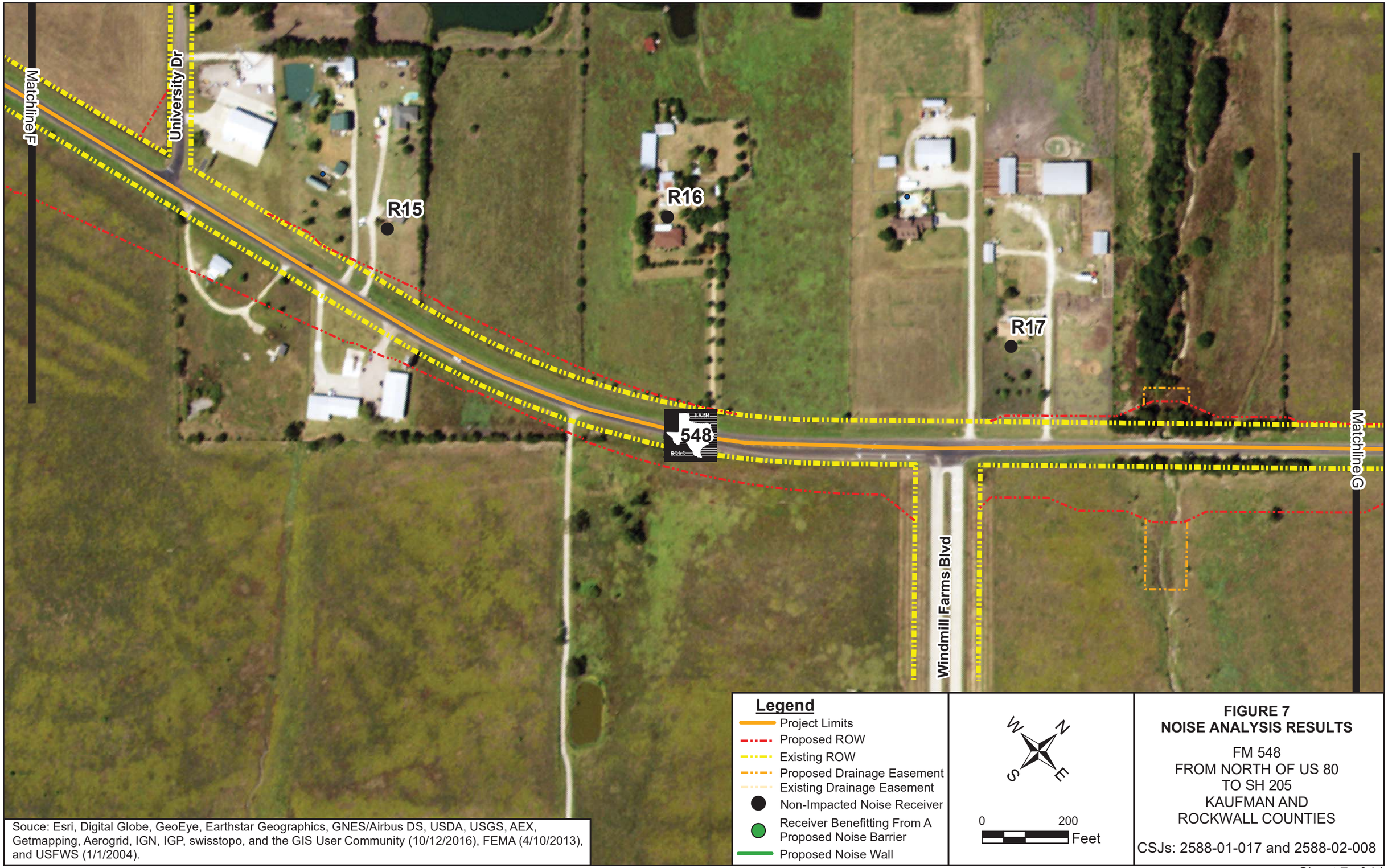

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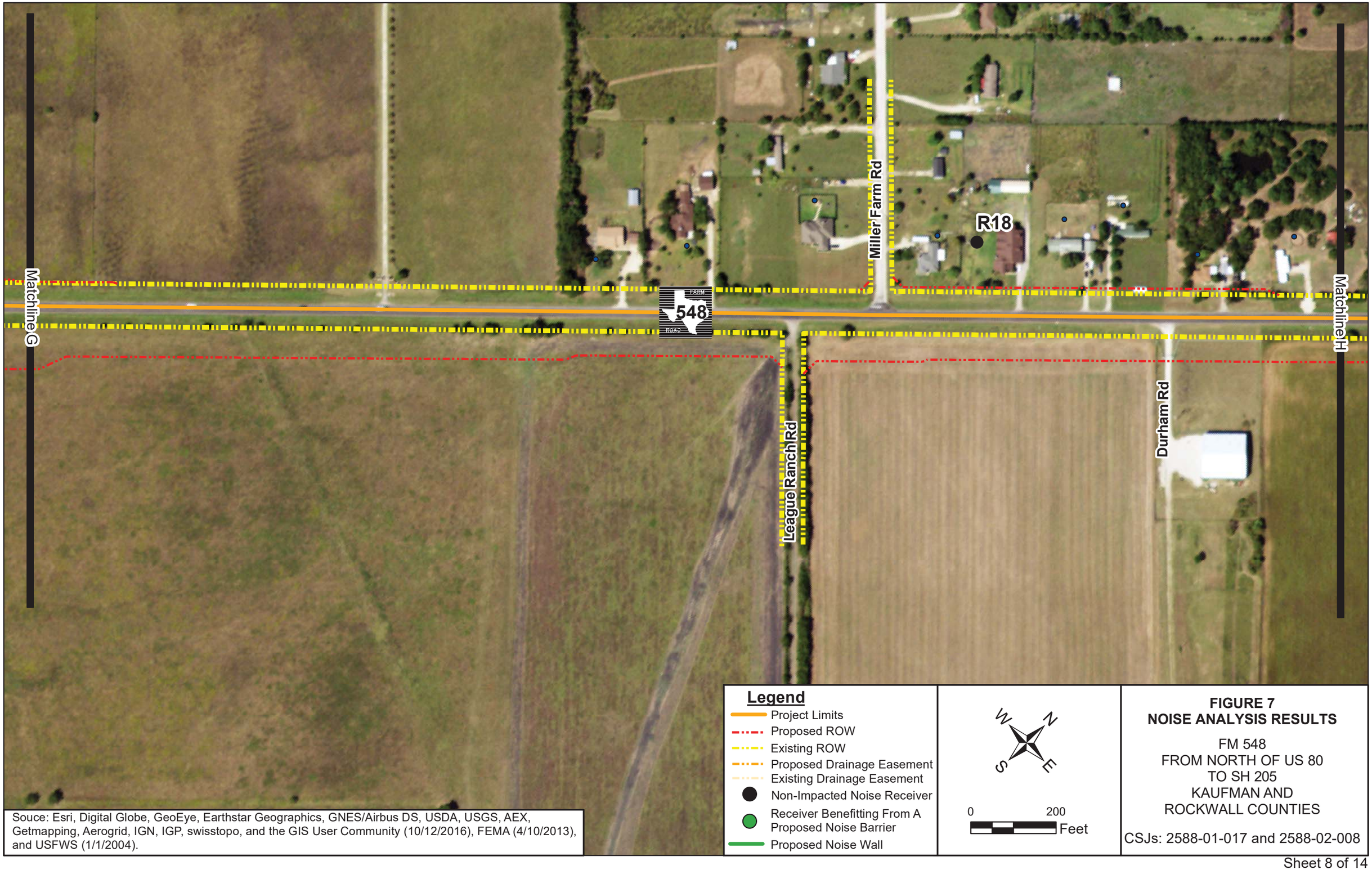

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N W E S

0 200 Feet

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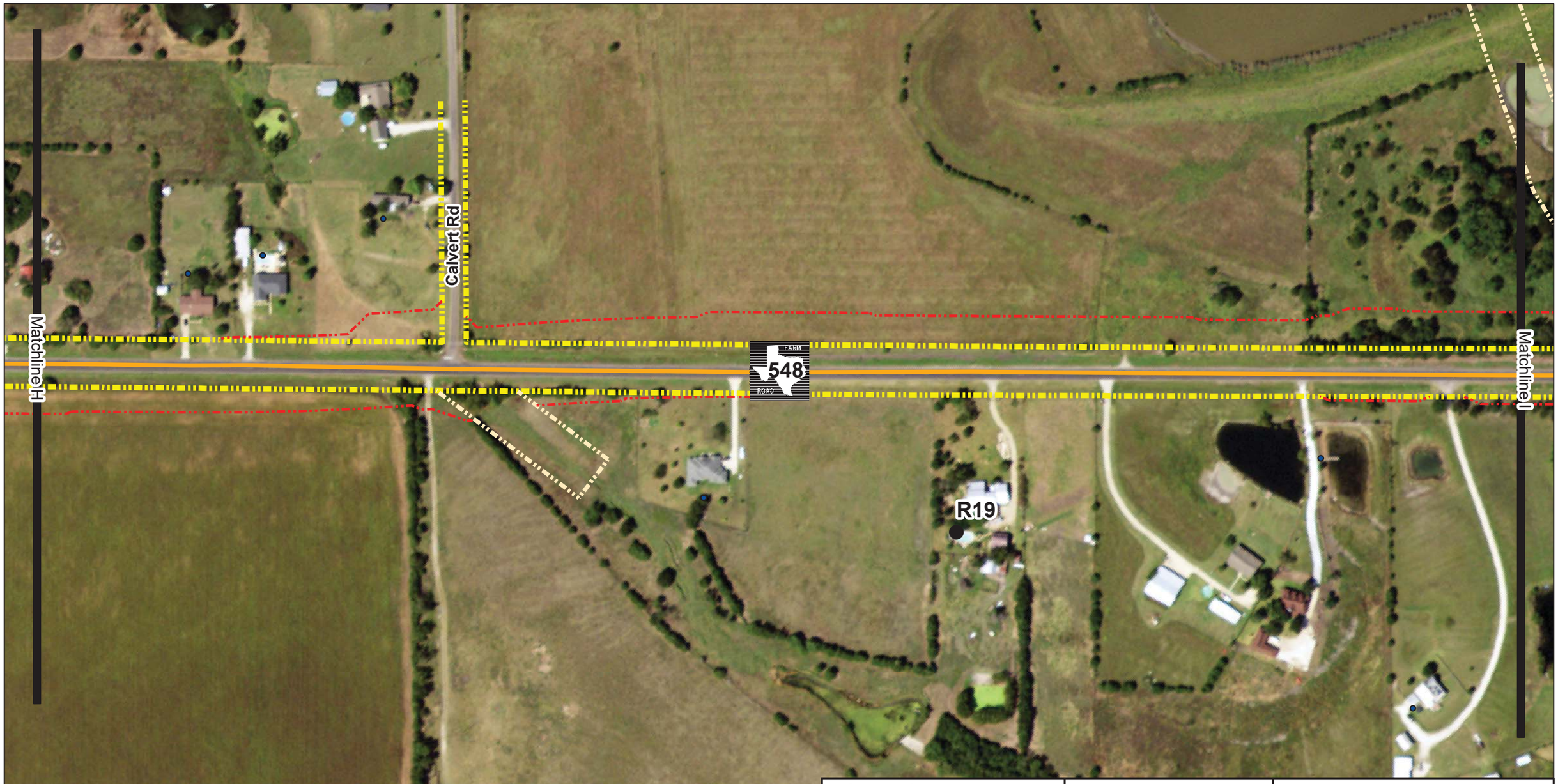

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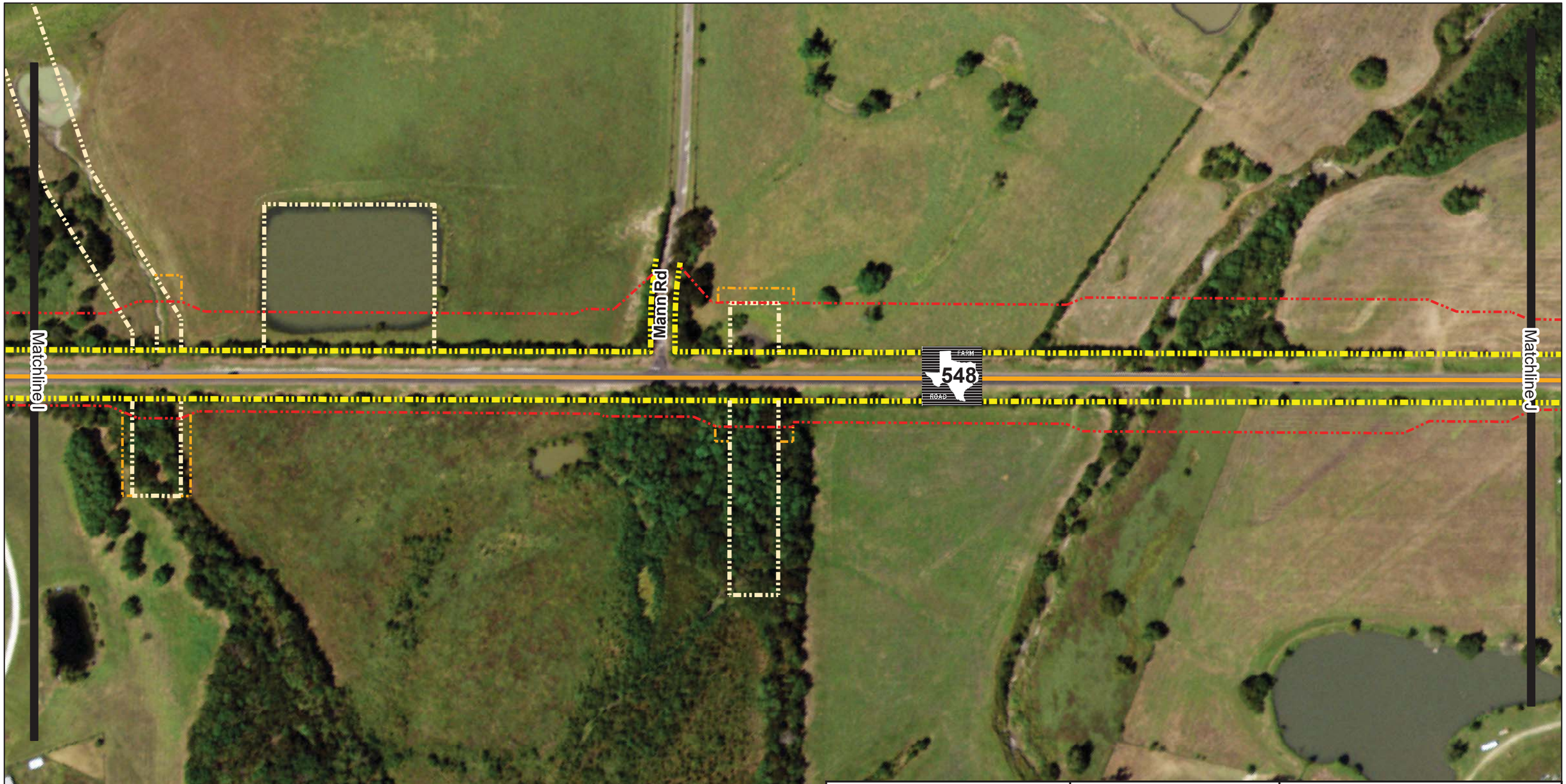

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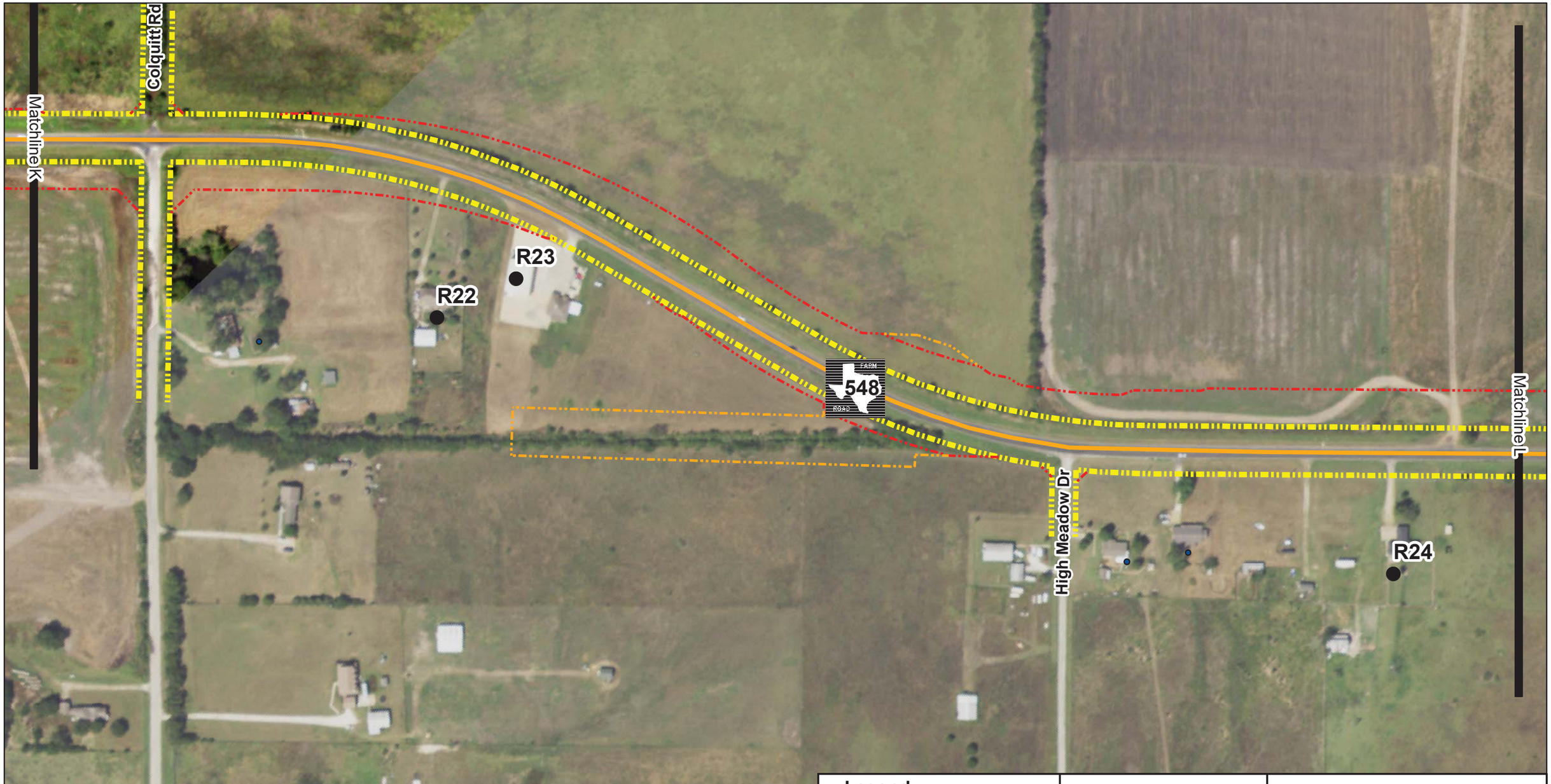

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0 200 Feet

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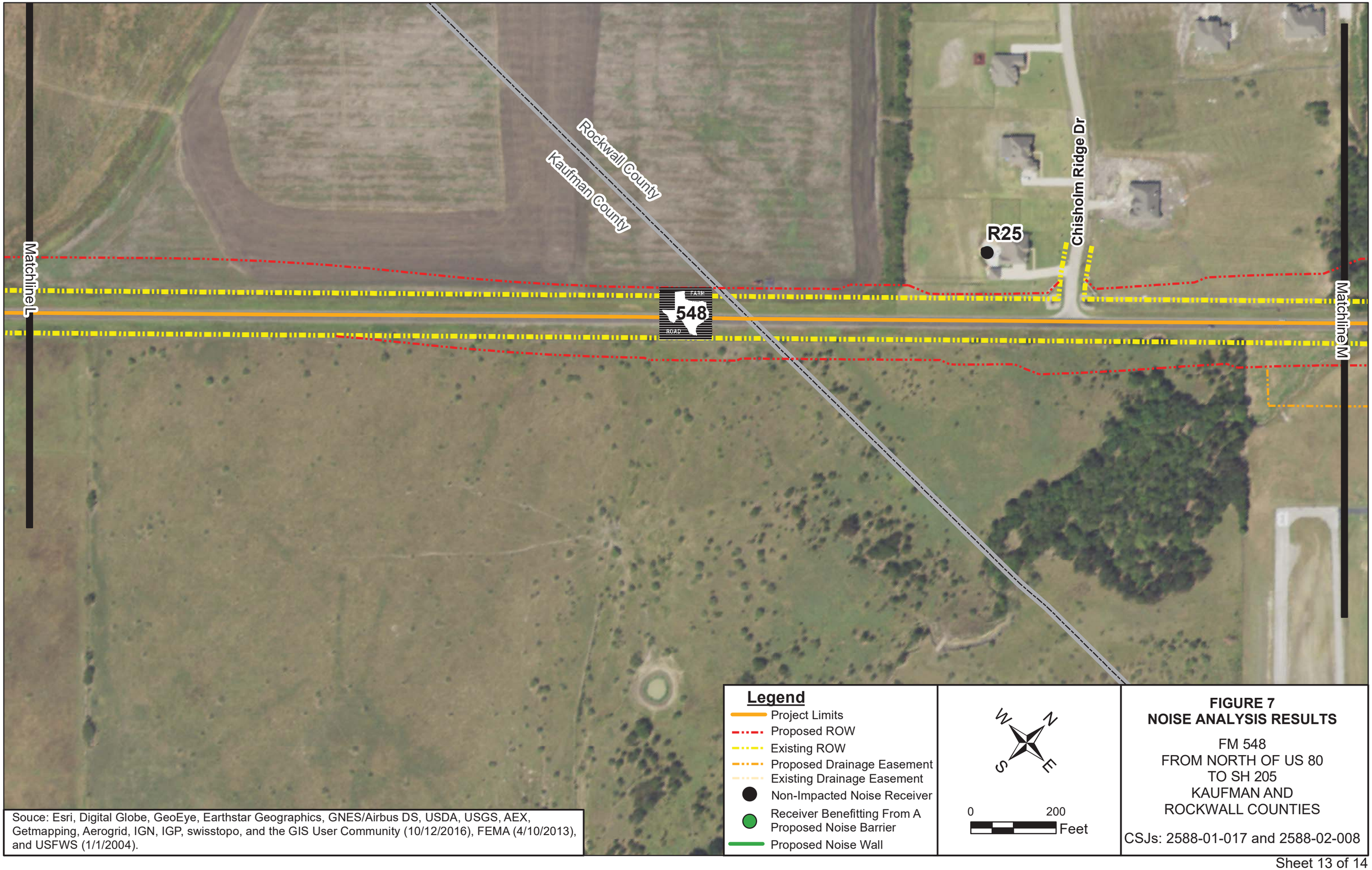

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N W E S

0 200 Feet

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NOISE ANALYSIS RESULTS

FM 548
FROM NORTH OF US 80
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KAUFMAN AND
ROCKWALL COUNTIES

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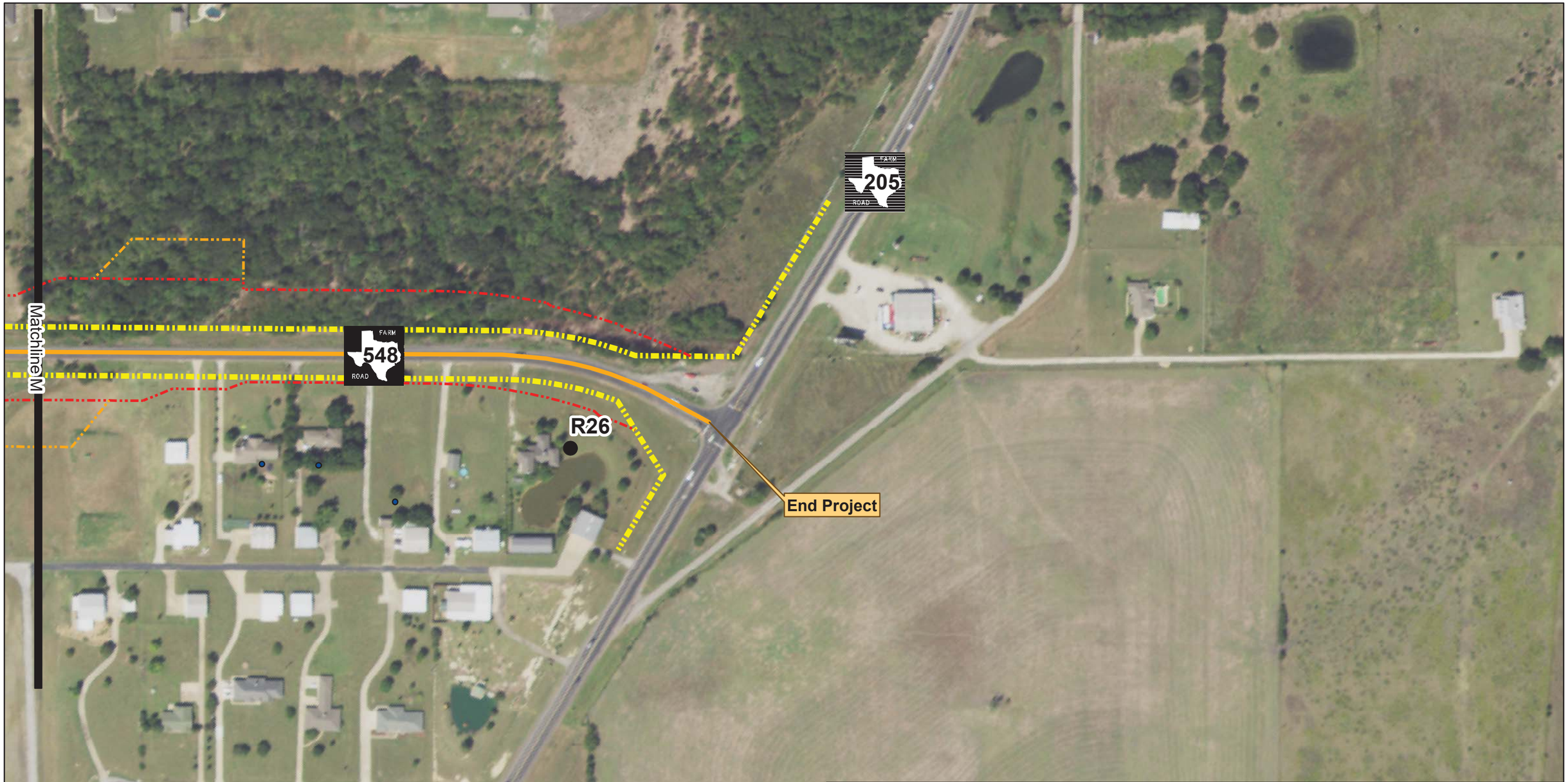

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N W E S

0 200 Feet

FIGURE 7
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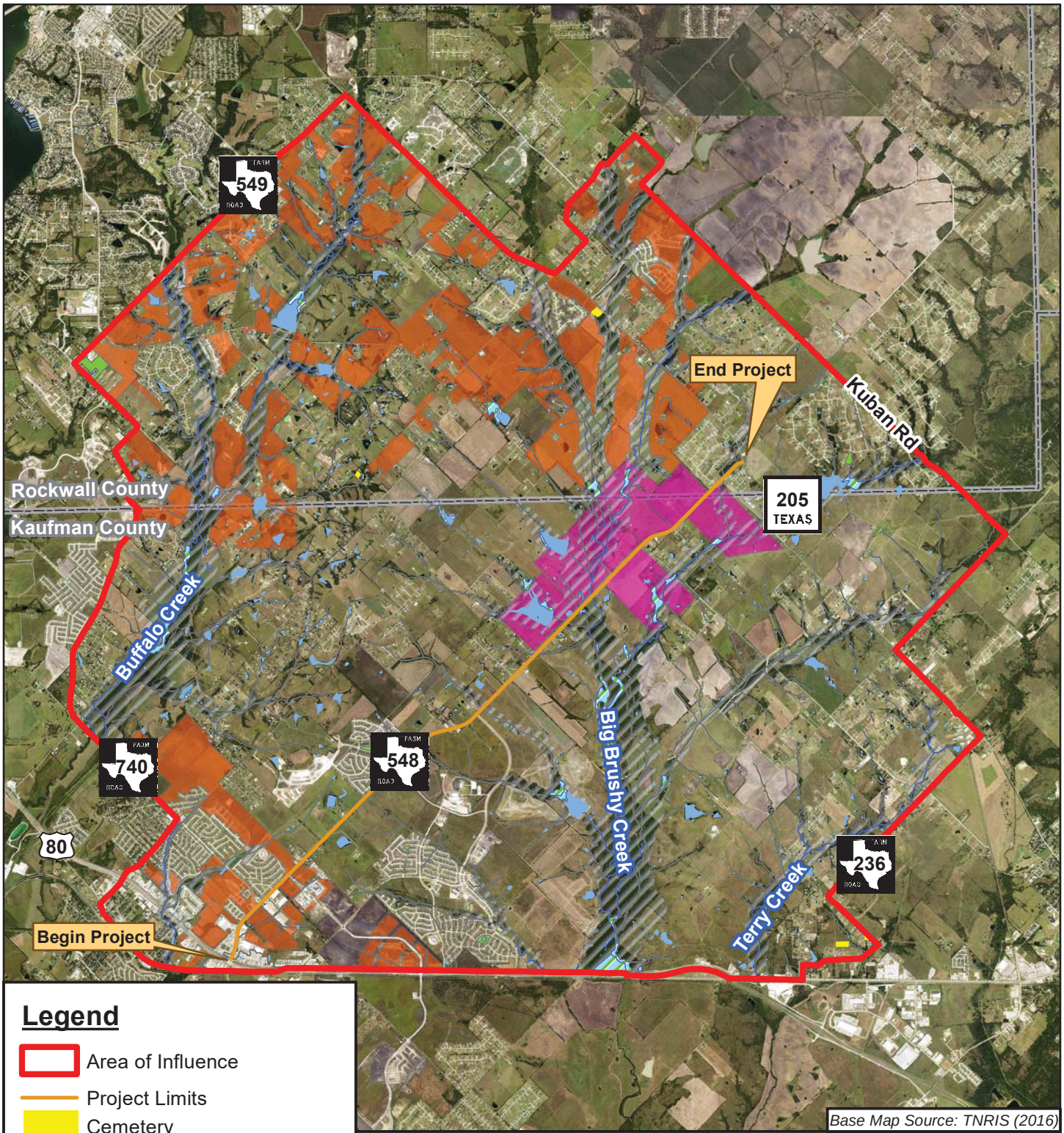
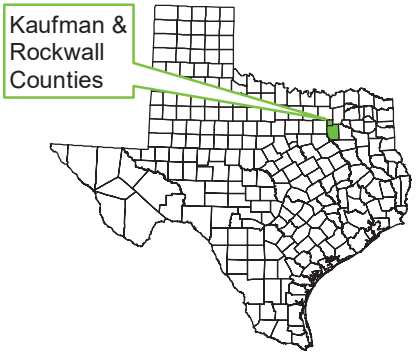


Legend

- Area of Influence
- Project Limits
- Cemetery
- Park
- Potential Wetland
- Lake/Pond
- Stream
- 100 Year Flood Zone
- Planned Development
- Potential Induced Growth

Base Map Source: TNRIS (2016)

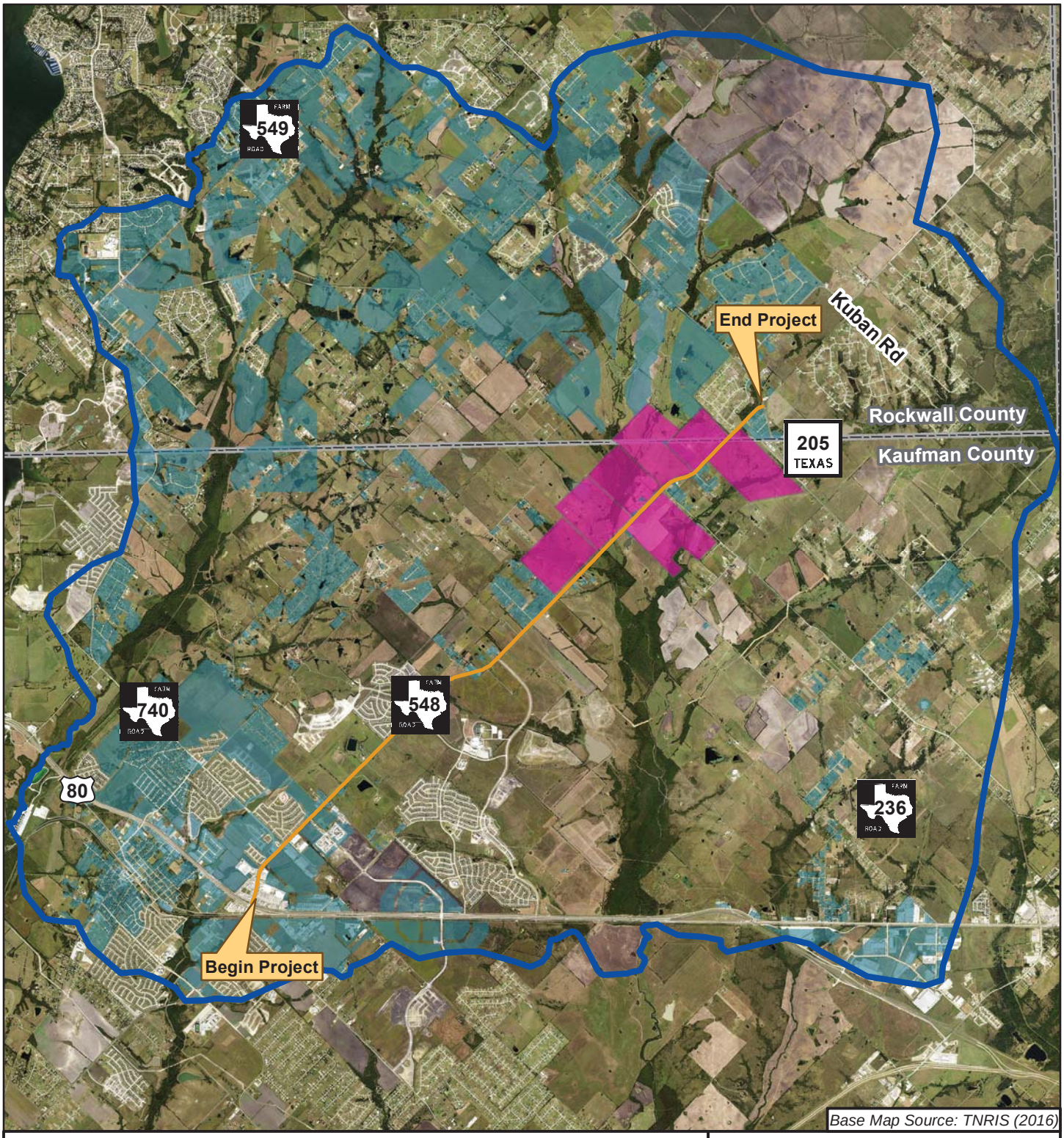


N
W E
S

0 8,000
Feet

FIGURE 8
INDIRECT IMPACTS AREA MAP
FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008



Legend

- Resource Study Area
- Project Limits
- Past, Present and Reasonably Foreseeable Actions
- Potential Induced Growth
- Kaufman/Rockwall County Line

N
W E
S

0 8,000
Feet

FIGURE 9
CUMULATIVE IMPACT AREA MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties
CSJs: 2588-01-017 and 2588-02-008

Appendix G – Resource Agency Coordination

Texas Department of Transportation

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

RECEIVED
FEB - 8 2019

February 8, 2019

Transmittal of AmaTerra Environmental, Inc. Draft Report: *Archeological Survey: FM 548 from North of US 80 to SH 205, Kaufman and Rockwall Counties, Texas.*
Kaufman and Rockwall Counties, Dallas District, CSJ: 2588-01-017
THC Antiquities Permit No. 8315

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

Dear Ms. Mercado-Allinger:

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

On behalf of the Texas Department of Transportation (TxDOT) Dallas District, AmaTerra conducted intensive archeological survey within the area of potential effects (APE) of a proposed widening of Farm-to-Market Road (FM) 548 from U.S. Highway (US) 80 in the City of Forney to State Highway (SH) 205 in Kaufman and Rockwall Counties, Texas. Archeological survey work was performed in compliance with the National Environmental Policy Act, National Historic Preservation Act § 106 and associated federal regulations (36 CFR 800), as well as the Texas Antiquities Code (9 TNRC 191) and associated state regulations (13 TAC 26). Currently, FM 548 consists of two 12-foot travel lanes, three-foot wide shoulders, and open ditches. The proposed roadway would include six total lanes (two 12-foot wide inside lanes, one 14-foot wide outside shared-use lane with two-foot wide curb offsets on each side), as well as proposed sidewalks for the length of the project. Proposed work also includes replacement of an existing bridge structure at Big Brushy Creek and replacement of nine existing culverts over minor ephemeral drainages. The archeological area of potential effects (APE) is approximately 7.84 miles in length with a typical width of 140 feet. The total APE spans 169.76 acres, with 98.26 acres of existing right-of-way (ROW), 69.49 acres of proposed ROW, and 8.01 acres of permanent drainage easements. The vertical APE would extend less than four feet throughout the majority of the project area except in areas of proposed bridge replacements, where proposed impacts would exceed 20 feet.

Survey methods complied with applicable standards outlined and defined in 13 TAC 26.15 and policies of the Texas Historical Commission, as well as guidelines of the Council of Texas Archeologists. The entire APE was subject to windshield survey, verifying that existing ROW was entirely disturbed by existing drainage improvements, utilities installation, and road

construction. Otherwise fieldwork employed a potential-based survey methodology: historical aerial imagery and topographic maps defined areas with potential for historic sites, and TxDOT Dallas PALM data targeted areas with moderate to high potential for buried prehistoric sites with integrity. Ultimately, 7.05 km (4.4 miles) encompassing 27.8 acres of new ROW were selected for intensive survey. CTA archeological survey standards call for a minimum of 71 shovel tests for surveys of this size; the fieldwork exceeded this with 74 shovel tests. In addition, three backhoe trenches were placed adjacent to Big Brushy Creek, where deep project impacts are expected and potential for buried sites is highest.

Two newly discovered historic-age sites (41KF174 and 41KF175) were recorded within the APE. Both are early to mid-twentieth century farmsteads containing limited structural remnants and sparse artifact scatters. Neither site meets any criterion for listing in the National Register of Historic Places (NRHP) or as a State Antiquities Landmark (SAL) and are therefore recommended as ineligible within the project area. However, site 41KF175 may extend south of the proposed ROW and further investigation may be required if future work in the vicinity has potential to impact the site.

A TxDOT archeologist has reviewed the report by AmaTerra and concurs with the results. **TxDOT seeks THC concurrence that**:

1. No archeological historic properties (36 CFR Part 800.16(1) or State Archeological Landmarks (13 TAC 26.12) are present within the 169.76 acres of APE evaluated by AmaTerra.

2. Since the survey was conducted under an individual THC Antiquities Permit, we are forwarding the draft for your review and processing in partial fulfillment of THC Antiquities Permit No. 8315. TxDOT finds the report acceptable as a draft and pending any final report review comments from your office, we request your concurrence that the report may proceed toward production.

Thank you for your consideration of this matter. If you have any questions regarding the survey report, please contact Joel Butler (512) 329-0031. If you have any other questions or have need of further information, please contact me at (214) 320-4472. Thank you for your consideration in this matter.

Sincerely,

J. Kevin Hanselka

J. Kevin Hanselka, Archeological Studies Program
Environmental Affairs Division

Cc w/attachment: Daniel Salazar, TxDOT Dallas District Environmental Coordinator; Michelle Lueck, ENV-PD; Kevin Hanselka, ENV-Arch; ENV Arch Project File

Draft Report: *Archeological Survey: FM 548 from North of US 80 to SH 205, Kaufman and Rockwall Counties, Texas.*
Kaufman and Rockwall Counties, Dallas District, CSJ: 2588-01-017
THC Antiquities Permit No. 8315

Cc w/o attachments: ECOS Scan

Concurrence By:

William A. Martin 2/8/19

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

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

DRAFT

Texas Department of Transportation

Archeological Survey

FM 548 from North of US 80 to SH 205, Kaufman and Rockwall Counties, Texas

CSJ: 2588-01-017 and 2588-02-008

Texas Antiquities Permit: 8315

Prepared by: AmaTerra Environmental, Inc.
Joel Butler and Heath Bentley

Date: January 2019

Texas Department of Transportation

Archeological Survey

FM 548 from North of US 80 to SH 205, Kaufman and Rockwall Counties, Texas

CSJ: 2588-01-017 and 2588-02-008

Texas Antiquities Permit: 8315

Prepared by: AmaTerra Environmental, Inc.
Joel Butler and Heath Bentley

Date: January 2019

Sarah Stroman

From: Sarah Stroman
Sent: Tuesday, July 03, 2018 9:47 AM
To: 'kellie@tribaladminservices.org'; 'Ivy@tribaladminservices.org'; 'holly@mathpo.org'; 'gary.mcadams@wichitatribe.com'; 'Terri.Parton@wichitatribe.com'; 'dhill@caddonation.org'; 'ashively@jenachoctaw.org'; 'kpenrod@delawarenation.com'; 'lbrown@tonkawatribe.com'; 'mallen@tonkawatribe.com'; 'martinac@comanchenation.com'; 'theodorev@comanchenation.com'
Subject: Section 106 Consultation, Texas Department of Transportation, CSJ: 2588-01-017; FM 548 from US 80 to SH 205, Highway Widening and Improvements; Kaufman and Rockwall Counties, Dallas District
Attachments: 258801017_Consultation_Request_03-Jul-2018.pdf

Sec. 106 Consultation

JULY 3, 2018

We kindly request your comments regarding a proposed undertaking. Please see the attached info for project details and information. A summary is provided below.

Summary:

Project ID (CSJ), County and TxDOT District	*CSJ: 2588-01-017; FM 548 from US 80 to SH 205, Highway Widening and Improvements; Kaufman and Rockwall Counties, Dallas District*
Project Sponsor:	*TxDOT*
Short Description:	*Widen and improve facility*
New Right of Way:	*69.83 acres*
Depth of Impacts:	*4- 20 ft.*
Known Archeological Sites or Properties in project area:	*Yes*
Identification Efforts:	*Survey*
Recommendations:	*Proceed to construction*

Contact:

Nicolle Kord
512-416-2698

Laura Cruzada
512-416-2638

Sarah G. Stroman

Texas Department of Transportation
Environmental Affairs Division
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512/416-2608 Office
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Sarah.Stroman@txdot.gov

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

July 3, 2018

RE: CSJ: 2588-01-017; FM 548 from US 80 to SH 205, Highway Widening and Improvements, Section 106 Consultation; Kaufman and Rockwall Counties, Dallas District

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

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

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

Undertaking Description

TxDOT's Dallas District is proposing to widen and make improvements to Farm to Market Road (FM) 548 from U.S. Highway (US) 80 in the City of Forney to State Highway (SH) 205 in Kaufman and Rockwall Counties, Texas (**Exhibit A**).

FM 548 presently consists of two 12-foot travel lanes, three-foot wide shoulders, and open ditches. The proposed roadway would include six total lanes (two 12-foot wide inside lanes, one 14-foot wide outside shared-use lane with two-foot wide curb offsets on each side), as well as proposed sidewalks for the length of the project. The proposed project includes the replacement of an existing bridge structure over Big Brushy Creek as well as replacement of five existing bridge class culverts and four non-bridge-class culverts over minor ephemeral drainages. A closed drainage system (curb-and-gutter and storm sewer) is proposed for the entire length of the project (**Exhibit B**). The project would require 69.83 acres of new right-of-way (ROW) and 5.53 acres of permanent drainage easements.

Area of Potential Effects

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

- The project limits extend from US 80 to SH 205 along FM 548. The total project length is thus 12.6 miles (66,528 feet).
- The existing right of way is 100 feet in width.

- The latitude and longitude for the end points of the project are:
    - Begin latitude: +32.743141 Begin longitude: -96.448370
    - End latitude: +32.819025 End longitude: -96.352196
- The existing right of way comprises an area estimated at 97.92 acres.
- About 69.83 acres of proposed, new ROW would be required in discontinuous segments along either side of existing ROW.
- About 5.53 acres of permanent drainage easements would be required at about nine locations along the APE.
- The vertical APE would extend less than four feet throughout the majority of the project area except in areas of proposed bridge replacements, where proposed impacts would exceed 20 feet.
- For the purposes of this cultural resources review, the APE also includes an additional 50-foot area around the previously-described horizontal dimensions to account for potential alterations to the proposed APE included in the final project design. Consultation would be continued if potential impacts extend beyond this additional area, based on the final design

Identification Efforts

For this project, TxDOT has conducted a survey. Areas targeted for survey were identified using a potential-based survey methodology. Historic aerial imagery and topographic maps were inspected for potential historic-age sites and areas within the APE identified by the TxDOT Dallas Potential Archeological Liability Map (PALM) as having moderate to high geoarcheological potential for buried prehistoric sites were selected as well. As a result of this selection process, approximately 23,150 linear feet of proposed ROW encompassing 27.8 acres were surveyed; the existing ROW was observed to be entirely disturbed from existing drainage improvements, utilities trenching, and road construction activities. Seventy-four shovel tests and three backhoe trenches were excavated in support of the survey (**Exhibit C**).

Two newly discovered historic-age sites (41KF174 and 41KF175) were observed and recorded within the APE. Both sites are early to mid-twentieth century farmsteads containing limited structural remnants and sparse artifact scatters. Aside from the results from survey, map analysis and deed research, both sites have little potential for future research. Therefore, neither site meets any criterion for listing in the National Register of Historic Places (NRHP) or as a State Antiquities Landmark (SAL) and are therefore recommended as ineligible within the project area. However, site 41KF175 may extend south of the proposed ROW and further investigation may be required if future work in the vicinity has potential to impact the site. The archeological survey report is available for review upon request. In summary:

- Two historic-aged sites encountered in the APE do not qualify as archeological historic properties (36 CFR 800.16(l)).
- The survey also found that much of the project's APE has been extensively disturbed by prior construction. Such activities would have destroyed any fragile archeological materials and

moved more durable archeological materials from their original location, if any such material occurred within the APE. Any sites that may occur within the existing ROW would likely lack sufficient integrity of location, association, and materials to be able to address important questions of history and prehistory (36 CFR 60.4).

- There is little to no reasonable potential to expect unknown archeological historic properties (36 CFR 800.16(l)) to be located within the APE.

Findings and Recommendations

Based on the above, TxDOT proposes the following findings and recommendations:

- survey of the APE has found no archeological historic properties (36 CFR 800.16(l)), the project would have no effect on such properties, and the proposed project may proceed to construction;

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

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

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

Thank you for your attention to this matter. If you have questions, please contact Laura Cruzada at 512/416-2638 (email: Laura.Cruzada@txdot.gov) or Nicolle Kord at 512/416-2698 (email: Nicolle.Kord@txdot.gov. When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,

Scott Pletka, Deputy Section Director
Environmental Affairs Division

_____ _____

Concurrence by: Date:

Enclosure

cc w/ enclosure: ENV-ARCH ECOS

Exhibit A. Project location map.

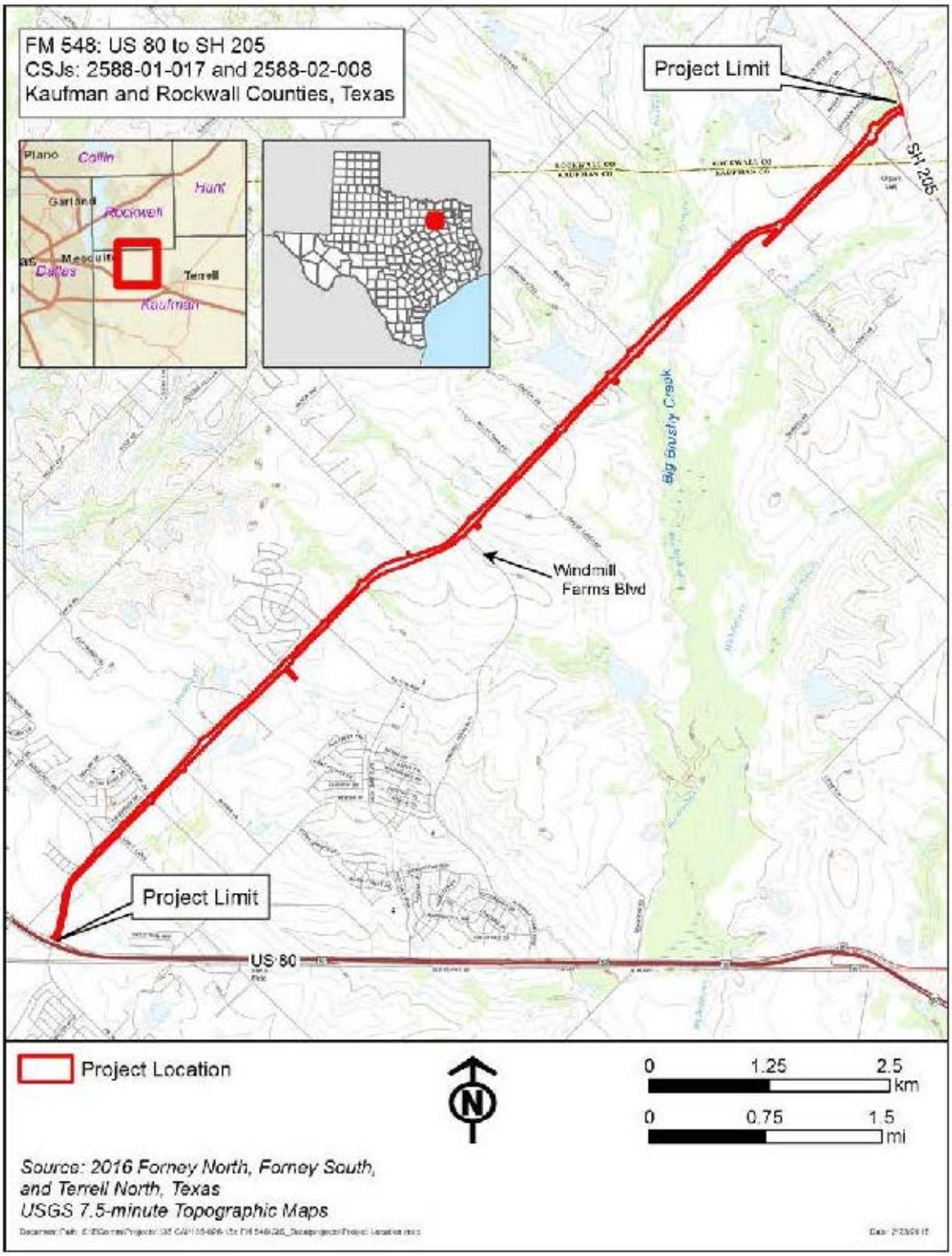
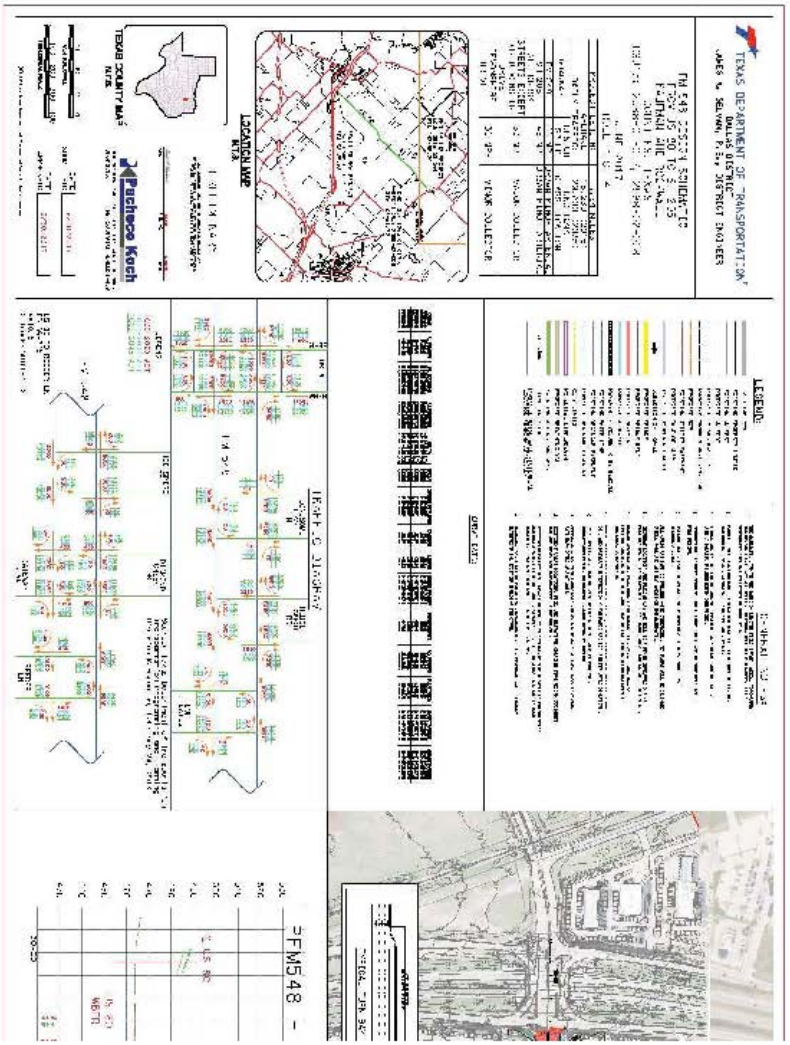
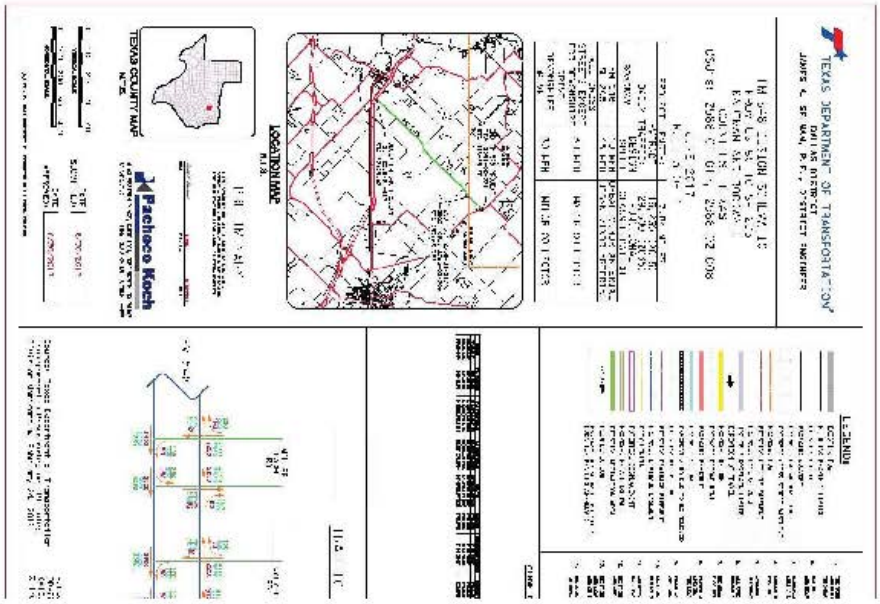
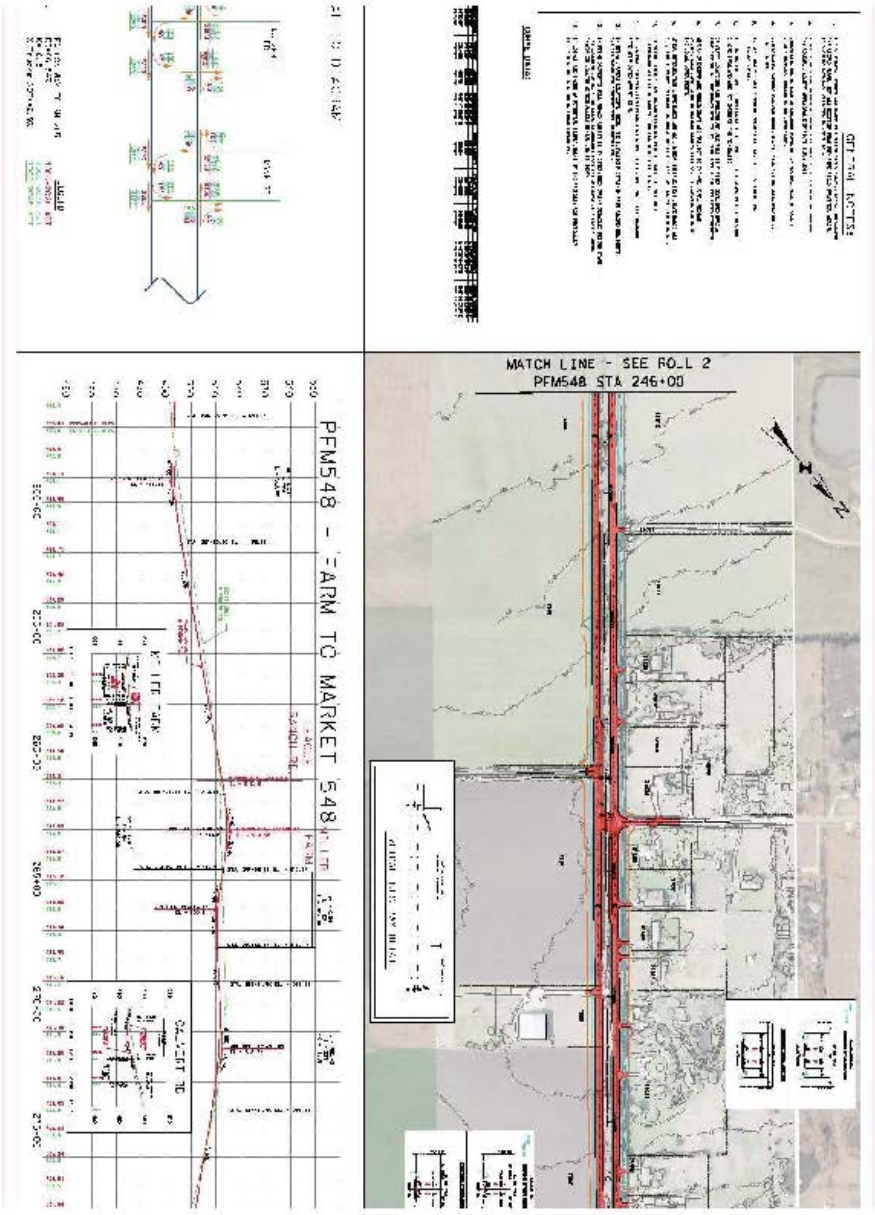


Exhibit B. Project schematics.



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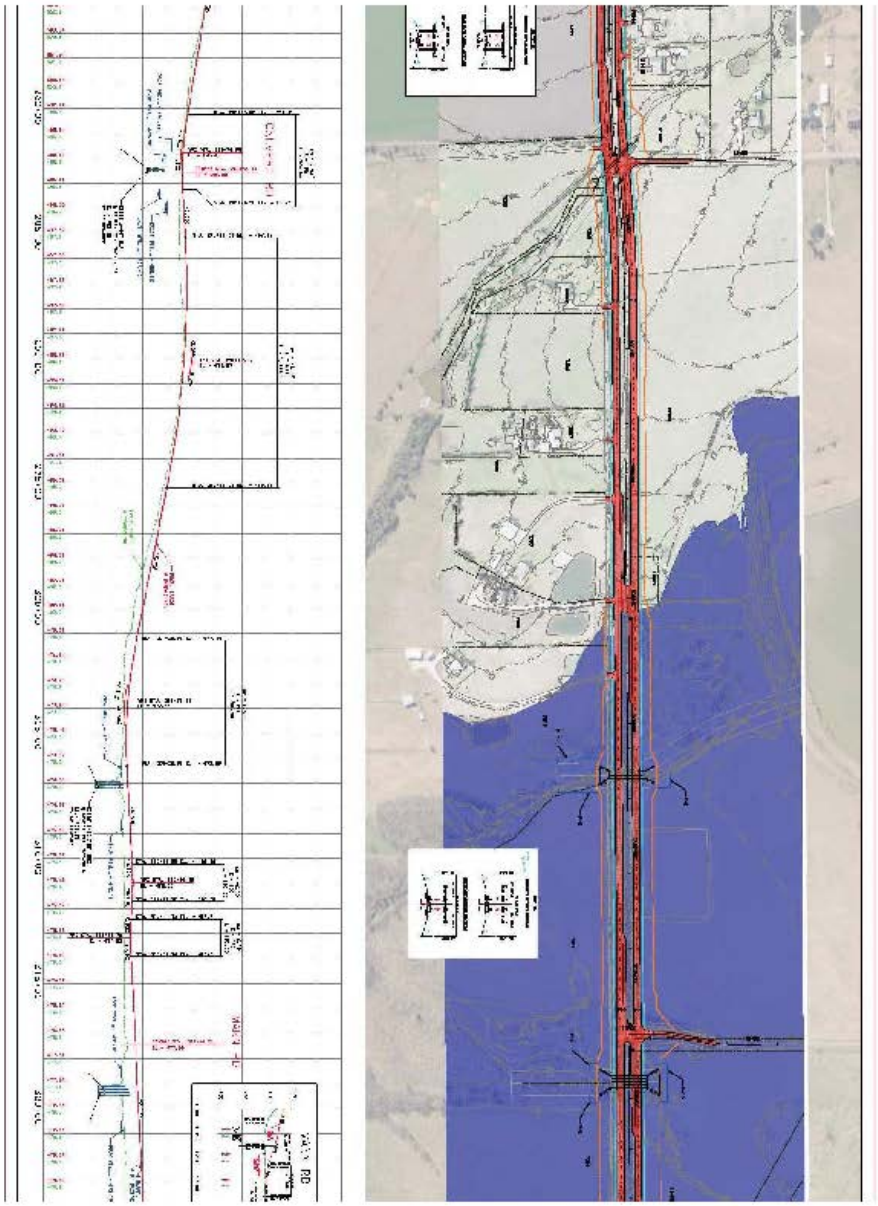

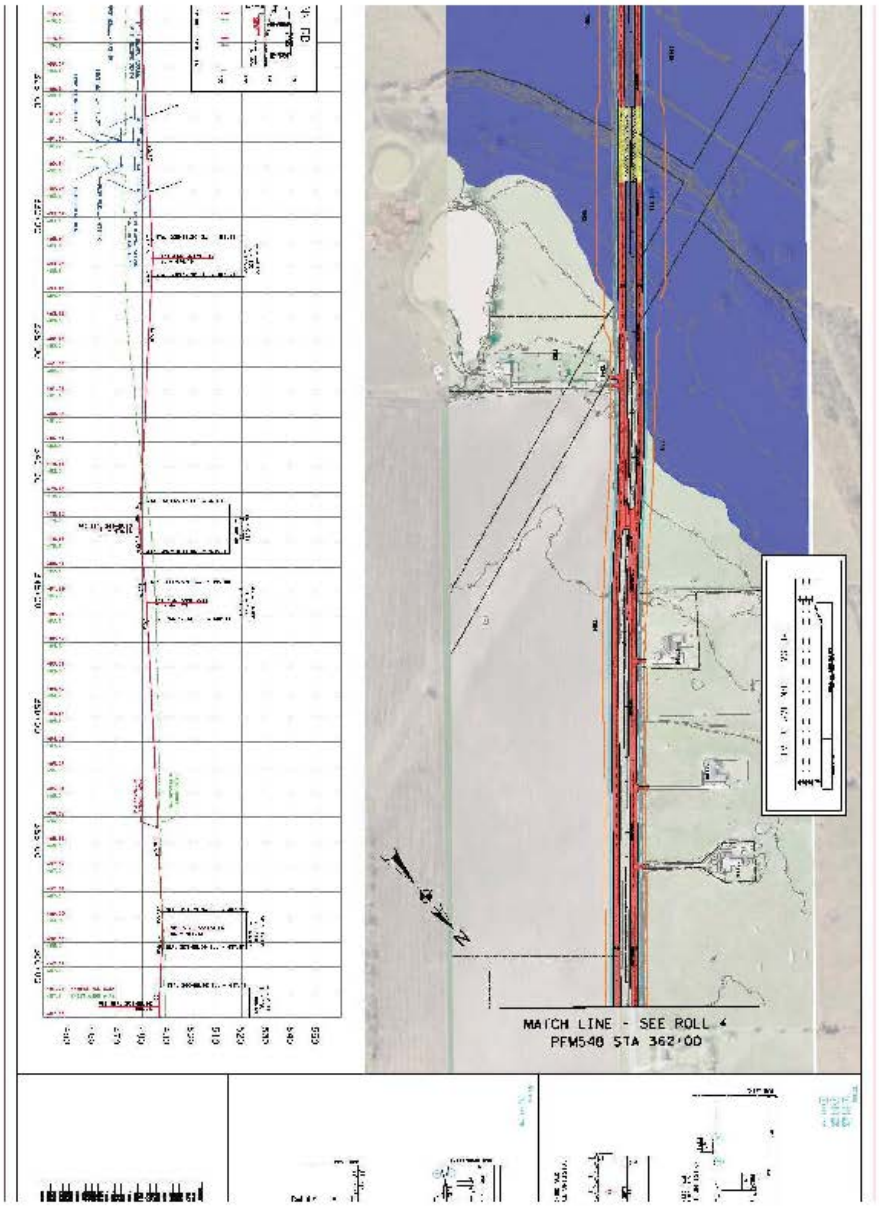
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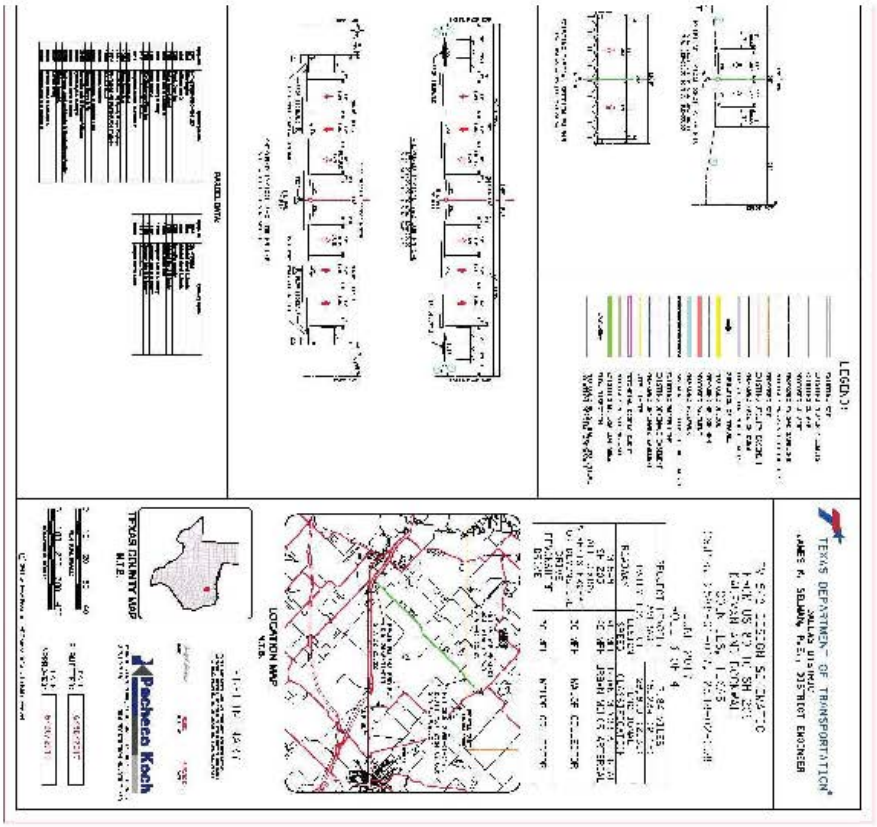

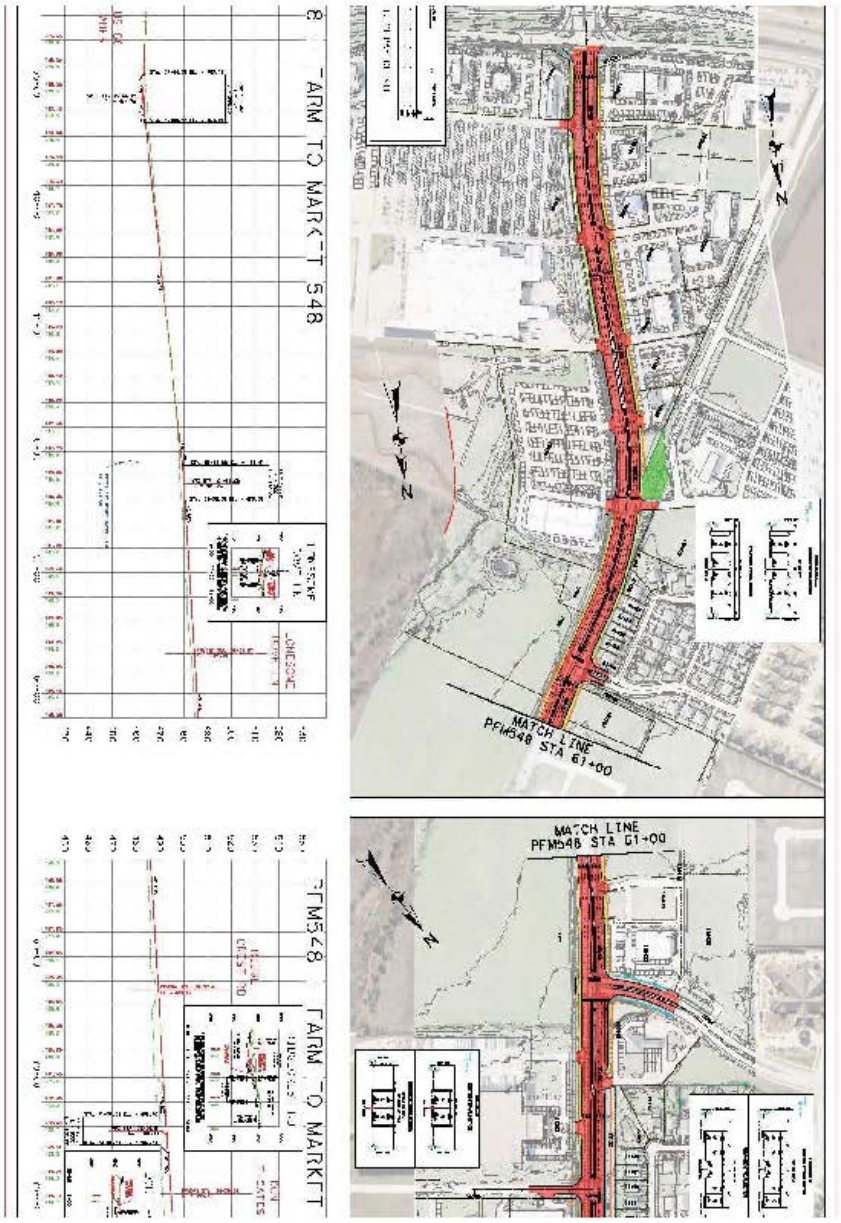
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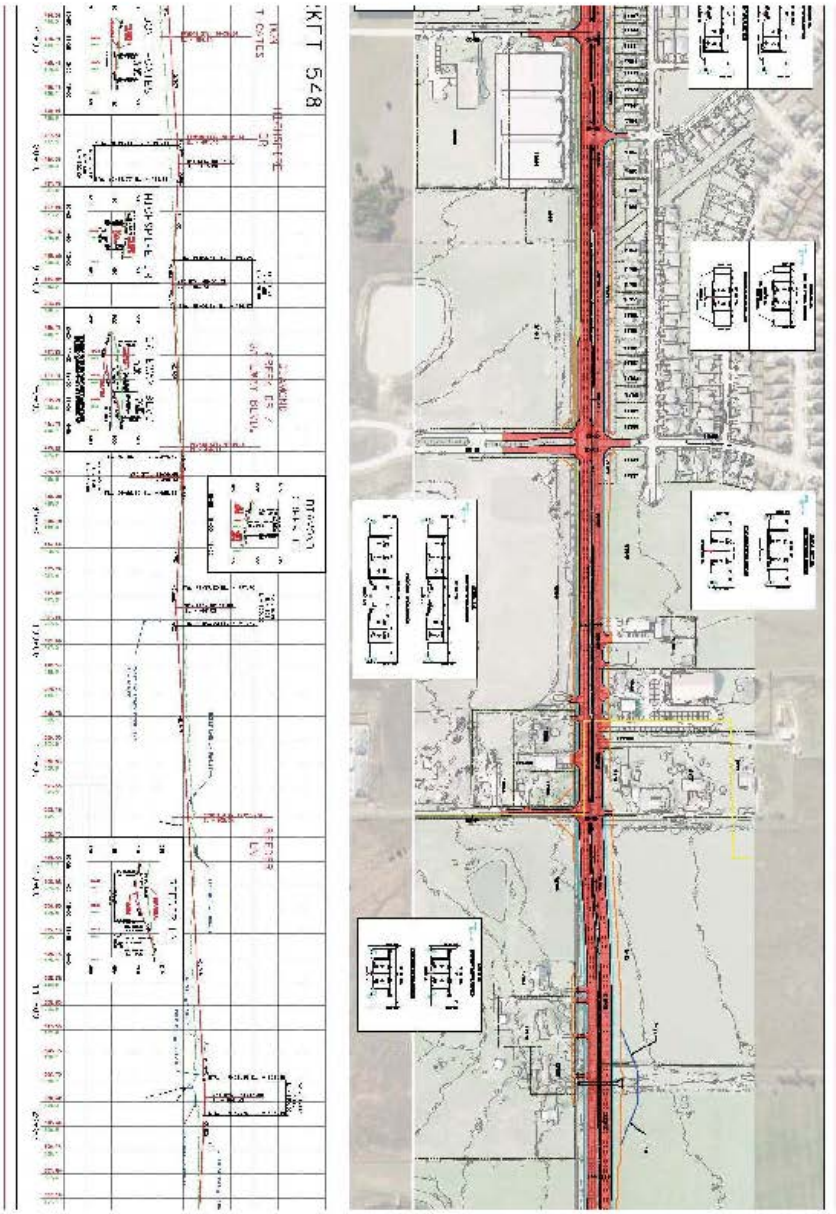
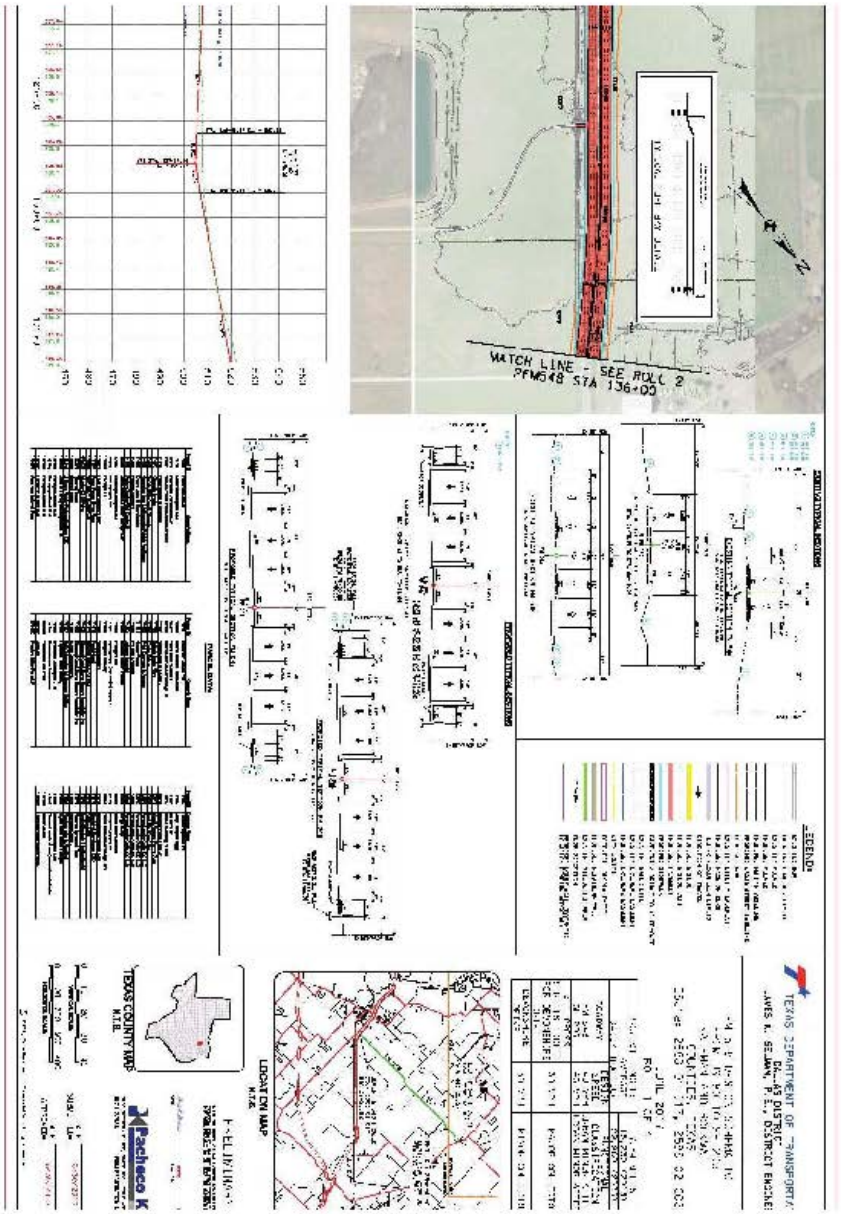
FARM TO MARKET


FM 548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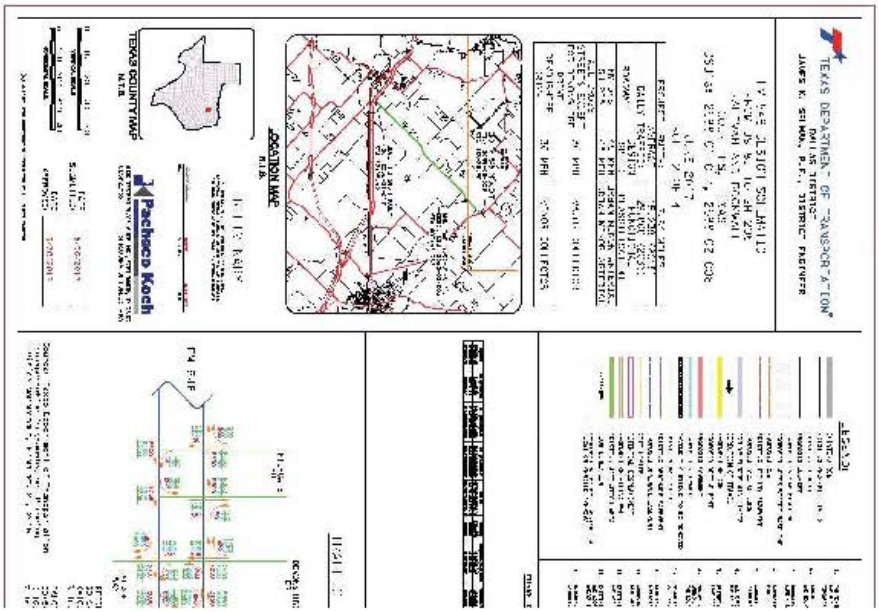
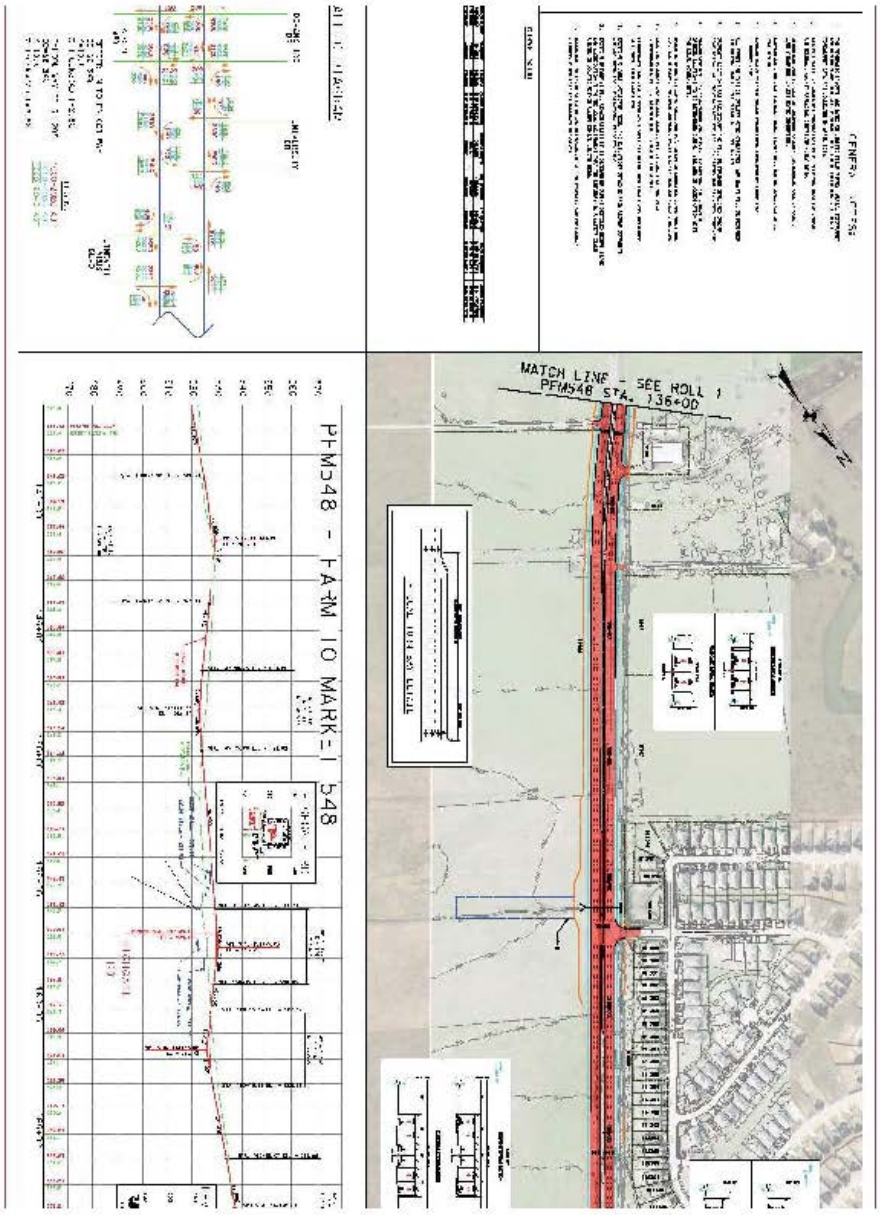
LEGEND
TEXAS COUNTY MAP
LOCATION MAP

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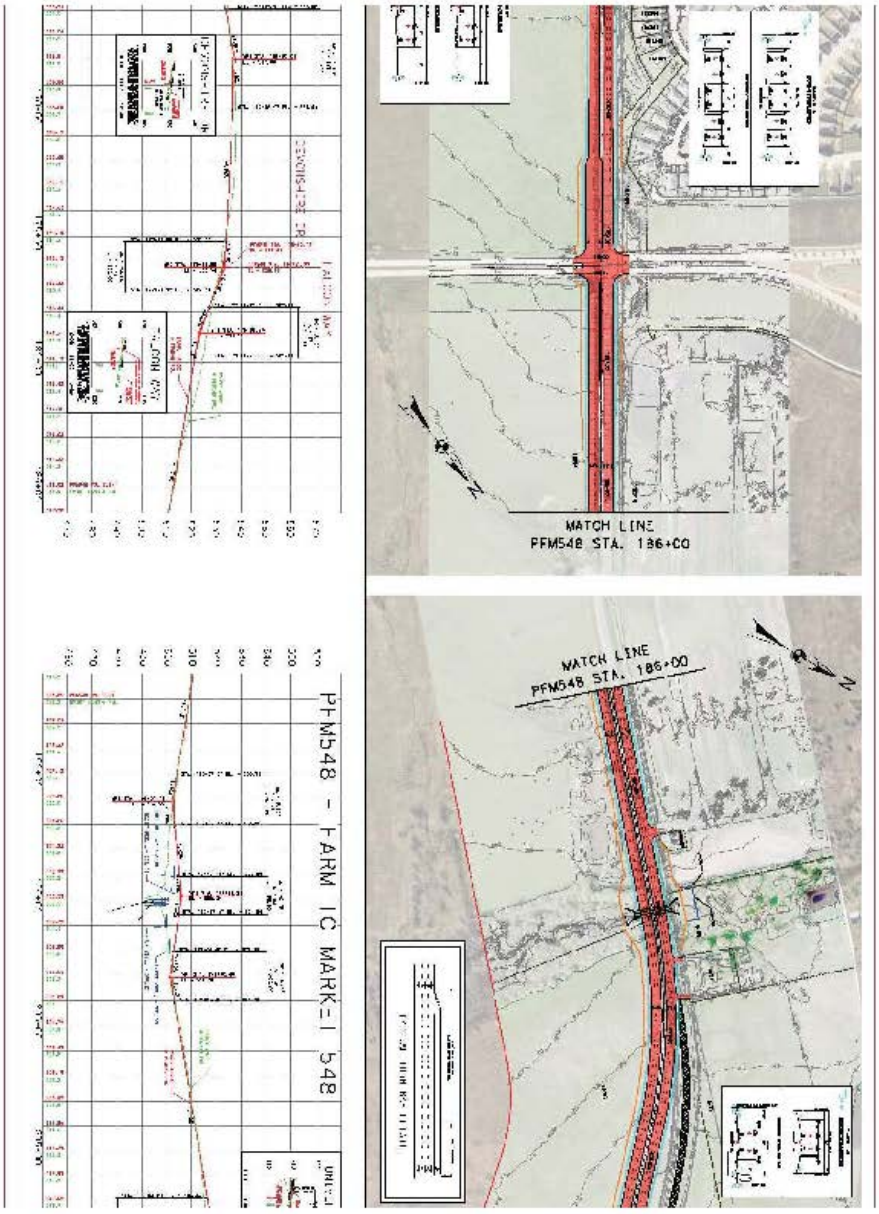
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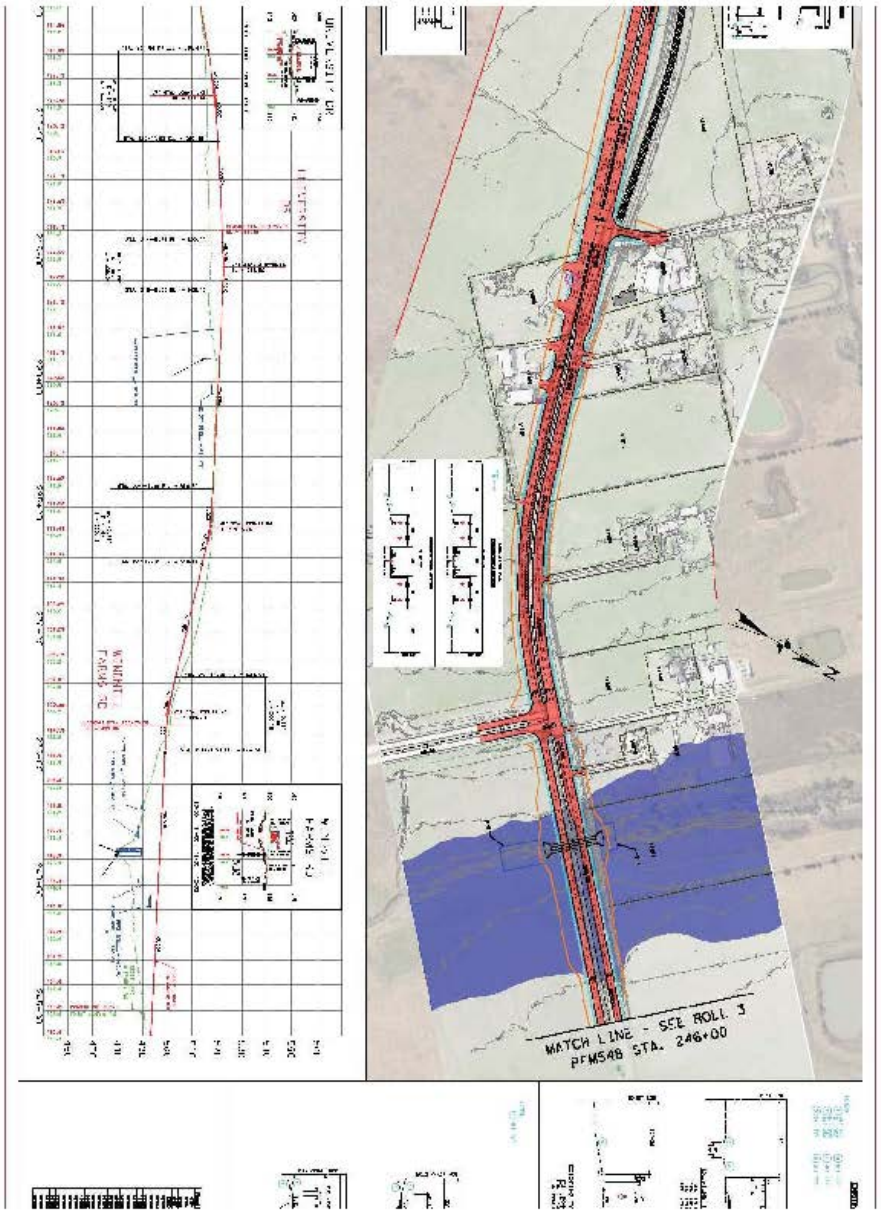
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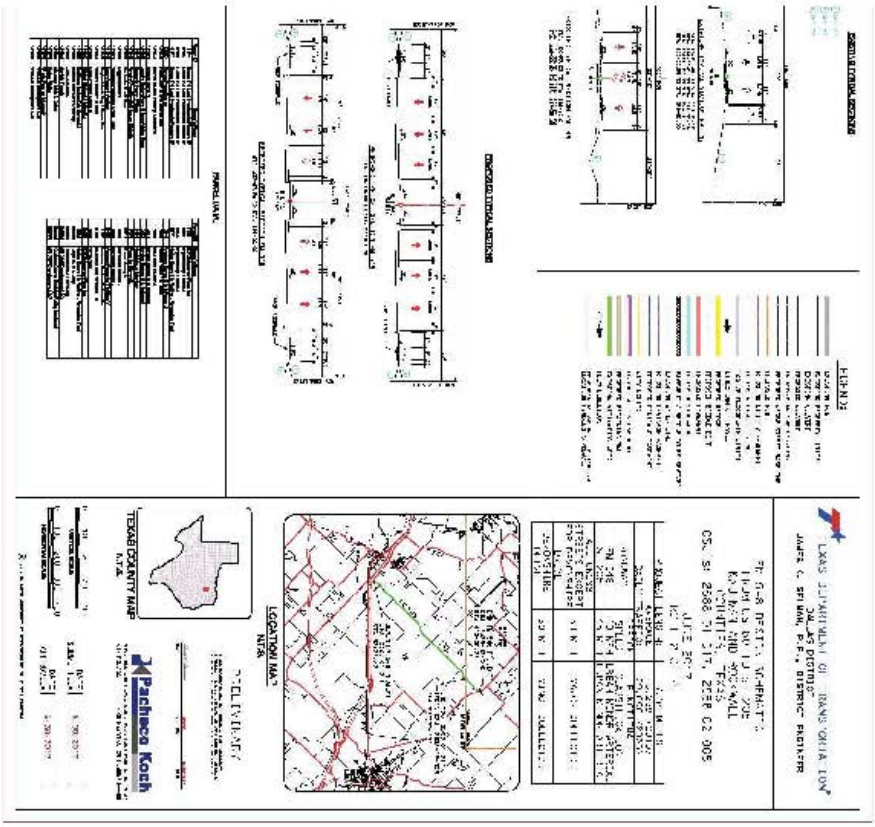
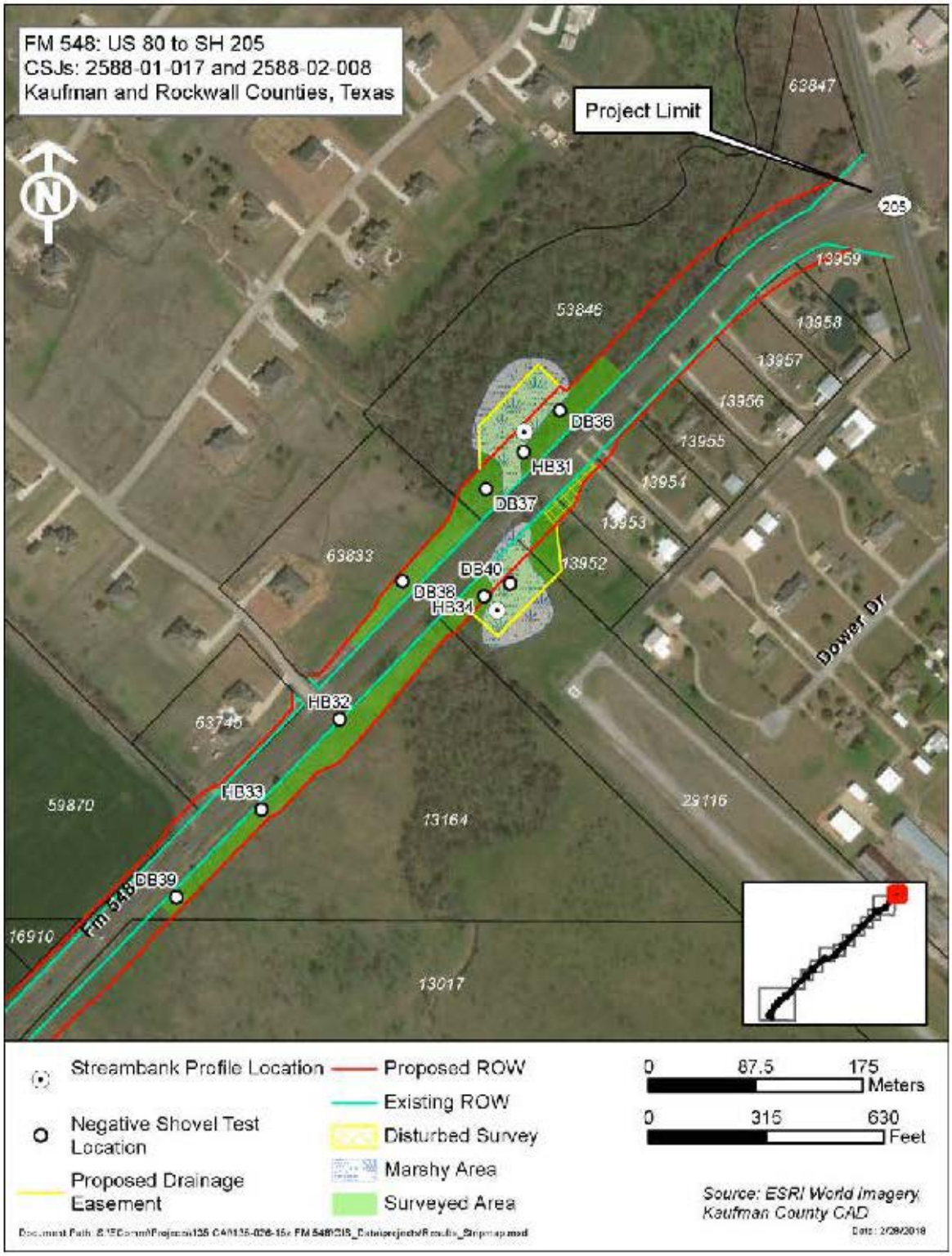
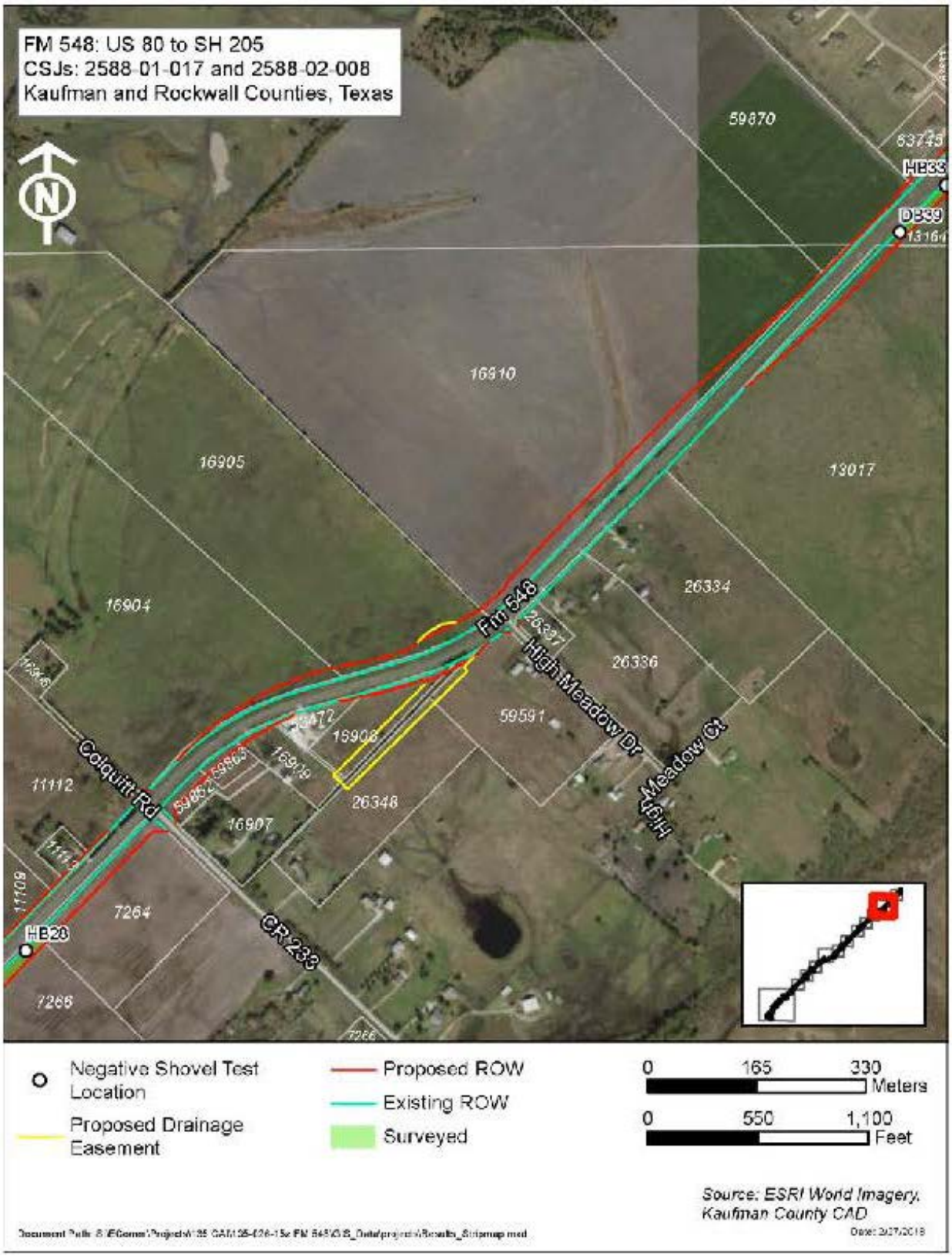


Exhibit C. Survey results.

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26336
59591
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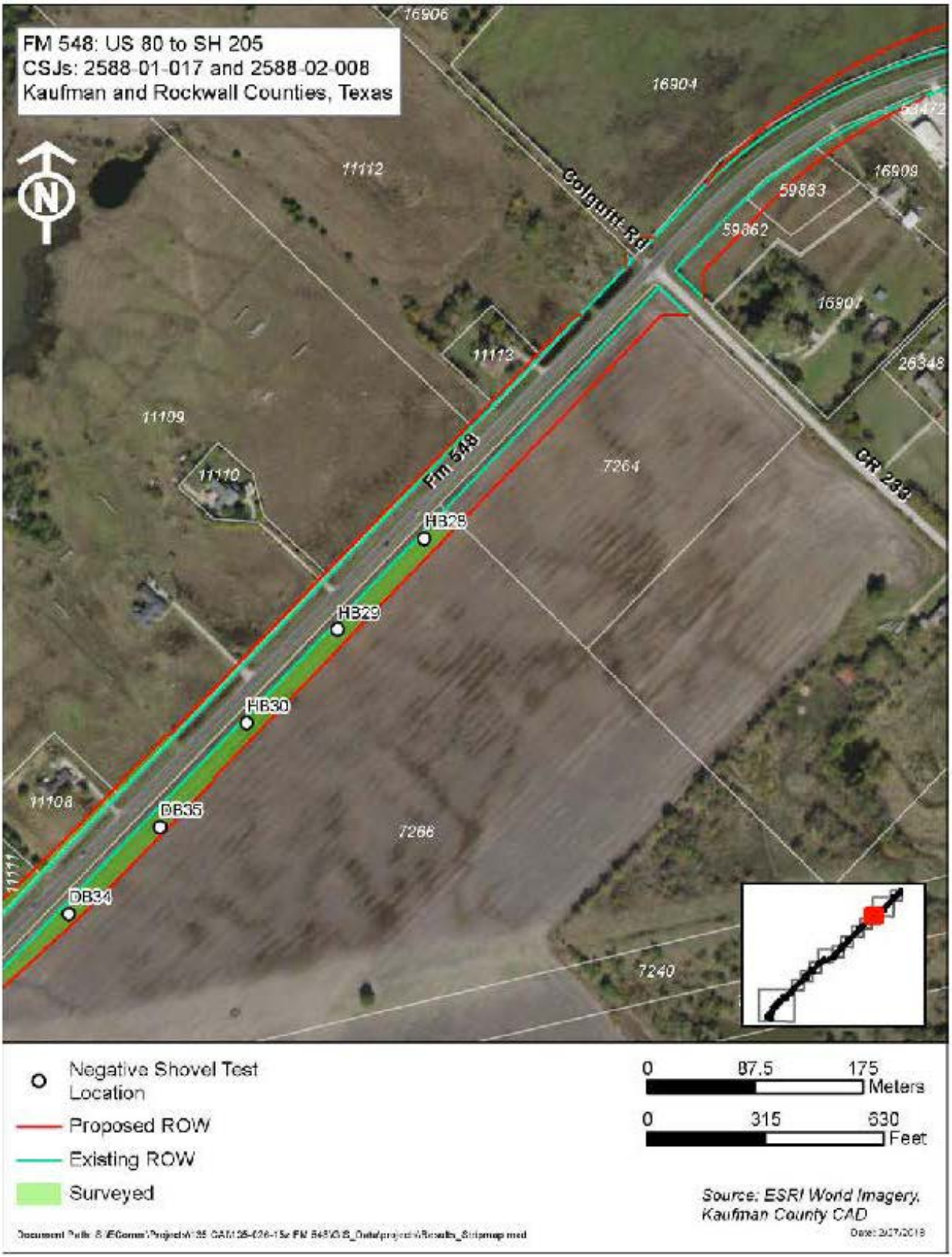
16908
16909
59863
59864
11112
26348
16907
11109
7264
HB28
CR 233
7266
Fm 548
High Meadow Dr
Meadow Ct
Colquitt Rd
Negative Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Surveyed
0 165 330 Meters
0 550 1,100 Feet
Source: ESRI World Imagery, Kaufman County CAD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59862
16907
11113
26348
11109
11110
Fm 548
7264
CR 233
HB28
HB29
HB30
11108
DB35
7266
DB34
11111
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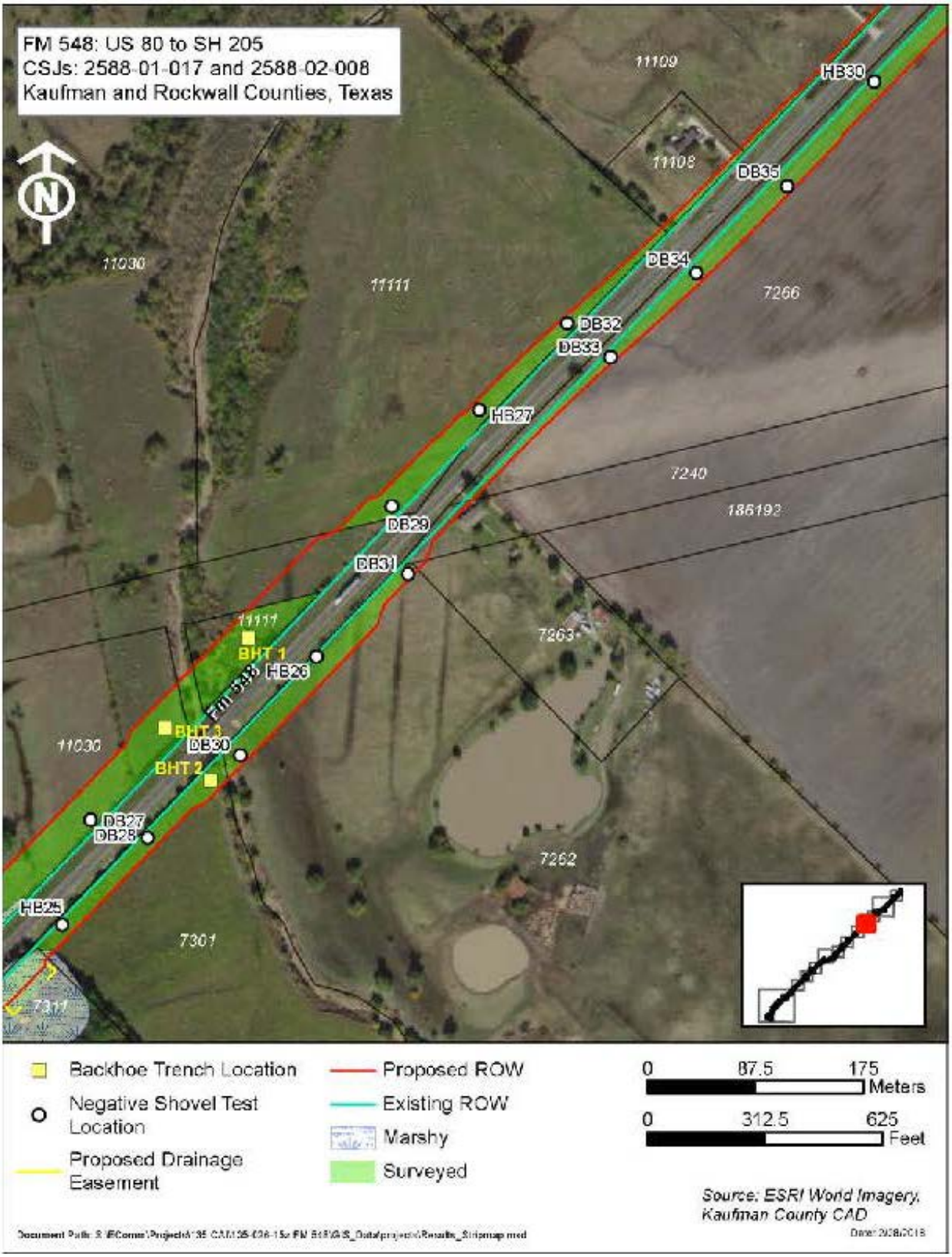
Negative Shovel Test Location
Proposed ROW
Existing ROW
Surveyed
0 87.5 175 Meters
0 315 630 Feet
Source: ESRI World Imagery, Kaufman County CAD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7240
186193
7263
7262
7301
7311
HB30
DB35
DB34
DB32
DB33
HB27
DB29
DB31
HB26
BHT 1
BHT 3
BHT 2
DB30
DB27
DB28
HB25
Backhoe Trench Location
Negative Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Marshy
Surveyed
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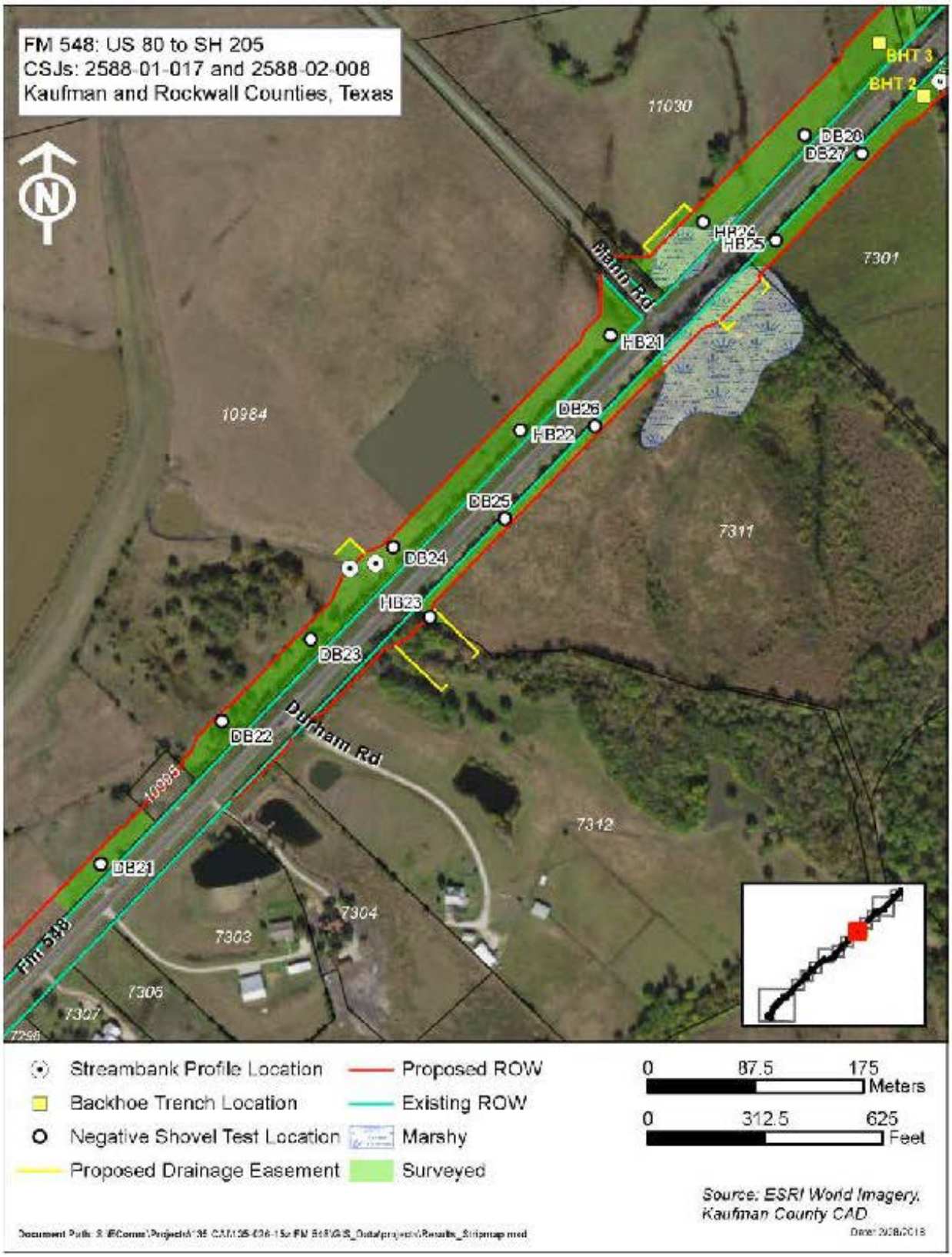
Meters
0 312.5 625
Feet
Source: ESRI World Imagery, Kaufman County CAD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BHT 2
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HB26
HB25
7301
Durham Rd
HB21
10984
DB26
HB22
DB25
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DB24
HB23
DB23
DB22
Durham Rd
10995
7312
DB21
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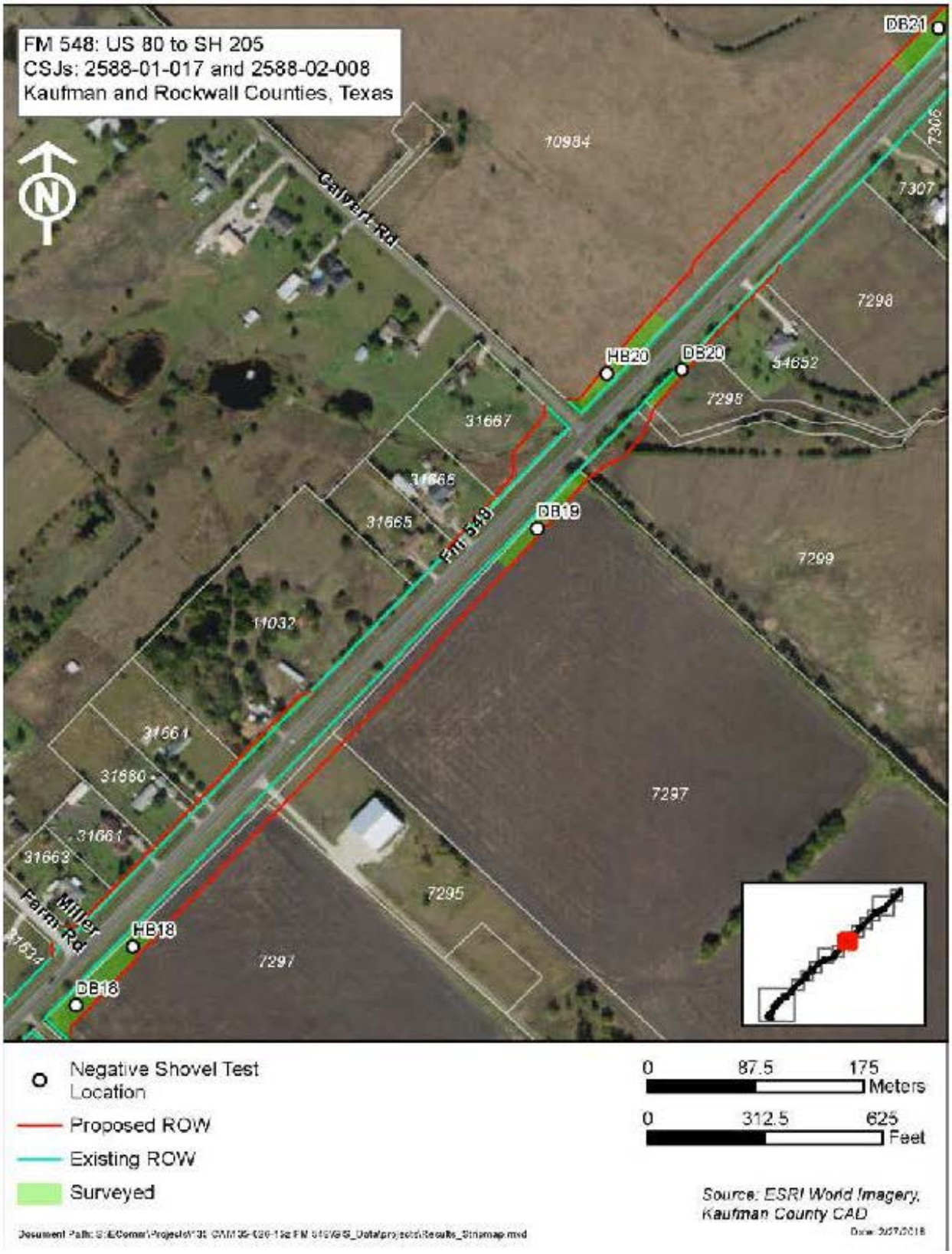
7303
FM 548
7306
7307
7298
Streambank Profile Location
Backhoe Trench Location
Negative Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Marshy
Surveyed
0 87.5 175
Meters
0 312.5 625
Feet
Source: ESRI World Imagery,
Kaufman County CAD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CSJs: 2588-01-017 and 2588-02-008
Kaufman and Rockwall Counties, Texas
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FM 548
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HB20
DB19
HB18
DB18
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7307
7298
54652
31667
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11032
31661
31660
31663
7299
7297
7295
Negative Shovel Test Location
Proposed ROW
Existing ROW
Surveyed
0 87.5 175 Meters
0 312.5 625 Feet
Source: ESRI World Imagery, Kaufman County CAD


FM 548: US 80 to SH 205
CSJs: 2588-01-017 and 2588-02-008
Kaufman and Rockwall Counties, Texas
N
Miller Farm Rd
League Ranch Rd
Fm 548
HB18
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HB15
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56969
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31633
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Streambank Profile Location
Negative Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Surveyed
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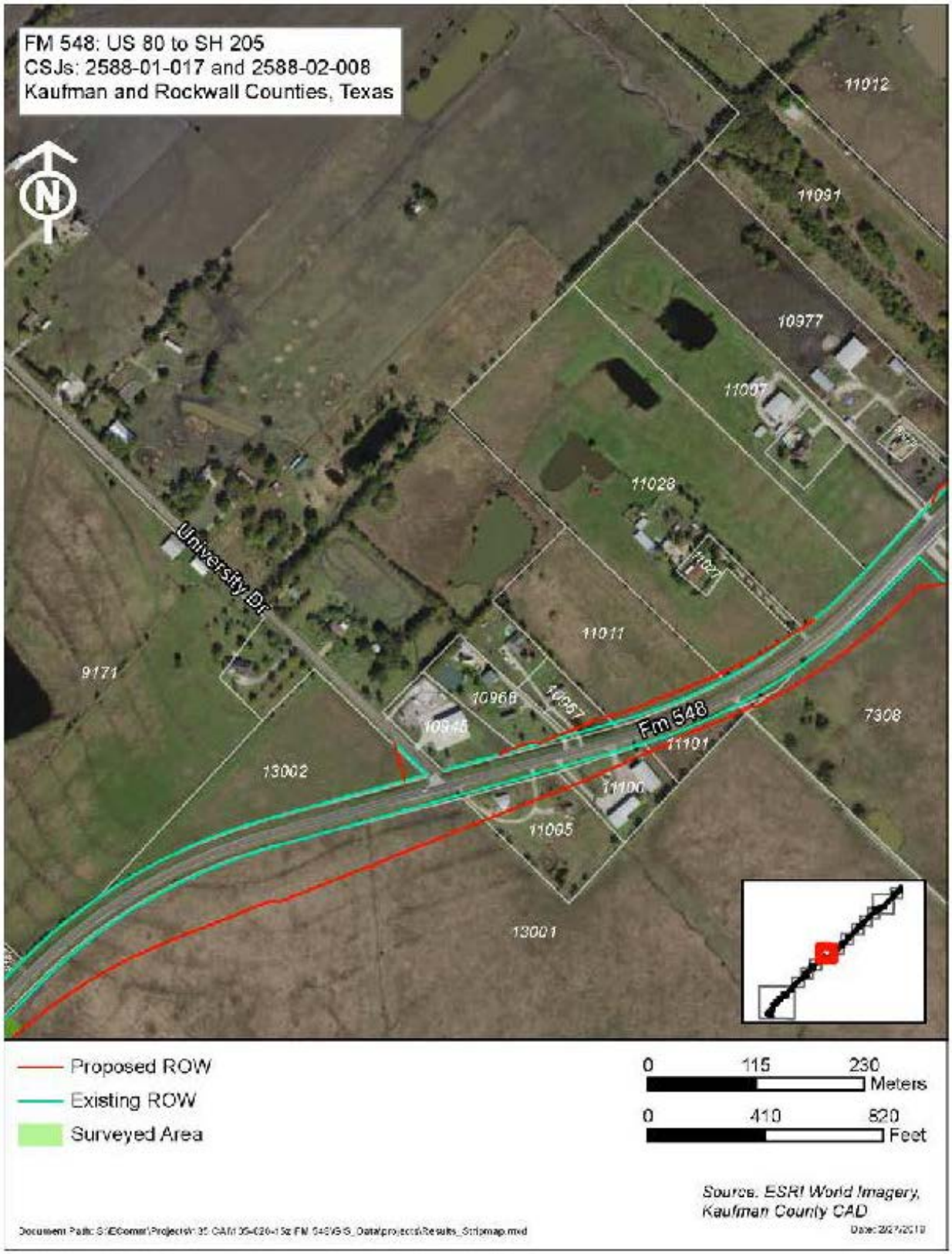
0 312.5 625 Feet
Source: ESRI World Imagery, Kaufman County CAD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Kaufman and Rockwall Counties, Texas
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Fm 548
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7308
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Existing ROW
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Meters
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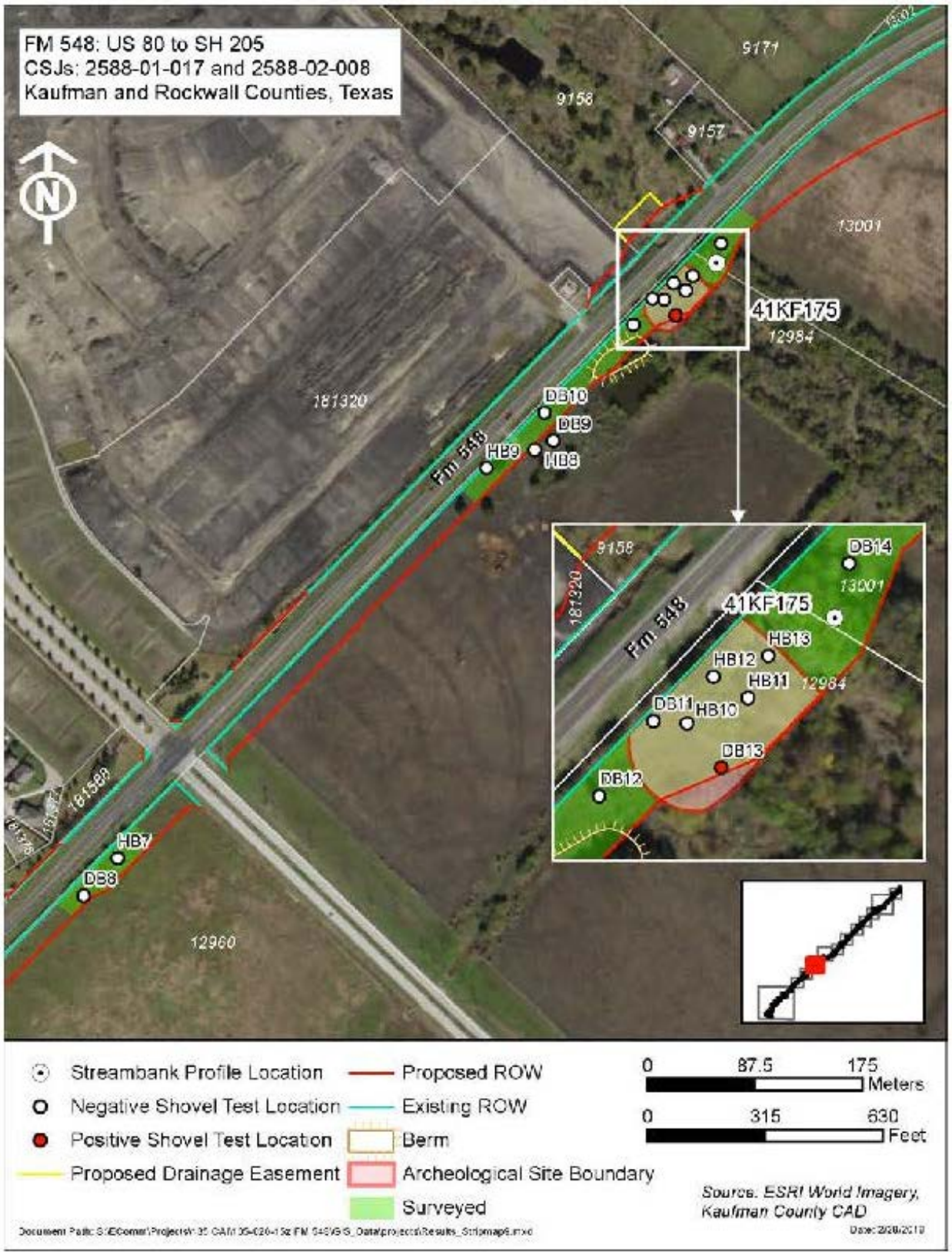
Feet
Source: ESRI World Imagery,
Kaufman County CAD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CSJs: 2588-01-017 and 2588-02-008
Kaufman and Rockwall Counties, Texas
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9171
9158
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13001
41KF175
12984
181320
DB10
DB9
HB9
HB8
Fm 548
DB14
41KF175
HB13
HB12
HB11
DB11
HB10
DB13
DB12
181589
HB7
DB8
12960
Streambank Profile Location
Negative Shovel Test Location
Positive Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Berm
Archeological Site Boundary
Surveyed
0 87.5 175
Meters
0 315 630
Feet
Source: ESRI World Imagery,
Kaufman County CAD


FM 548: US 80 to SH 205
CSJs: 2588-01-017 and 2588-02-008
Kaufman and Rockwall Counties, Texas
N
HB7
DB8
181538
181539
181590
FM 548
9147
12960
9144
HB1
DB2
41KF174
Negative Shovel Test Location
Positive Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Archeological Site Boundary
Surveyed
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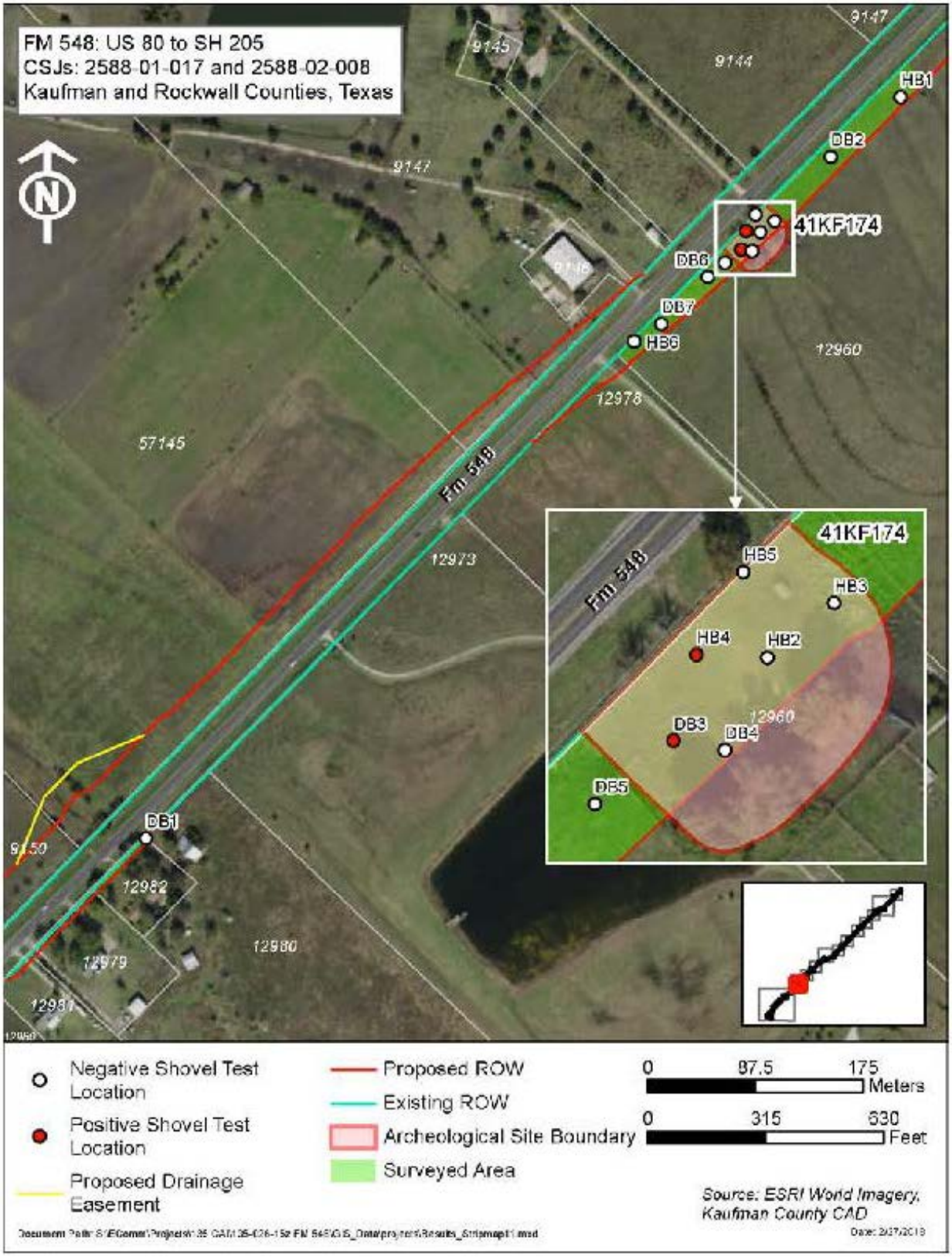
0 315 630 Feet
Source: ESRI World Imagery, Kaufman County CAD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Kaufman and Rockwall Counties, Texas
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HB1
DB2
41KF174
DB6
DB7
HB6
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Fm 548
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HB5
HB3
HB4
HB2
DB3
DB4
12960
DB5
DB1
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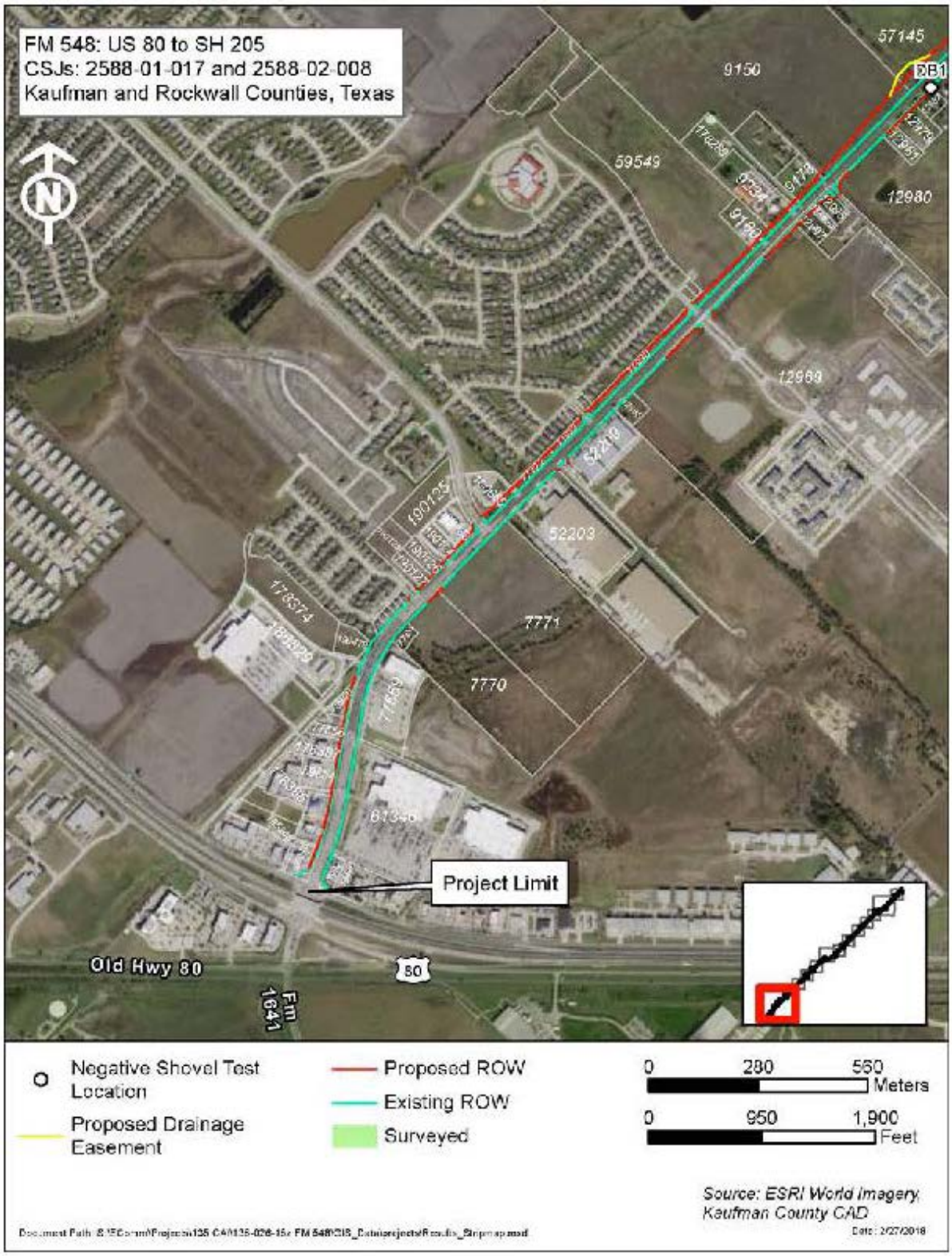
12982
12979
12980
12981
Negative Shovel Test Location
Positive Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Archeological Site Boundary
Surveyed Area
0 87.5 175 Meters
0 315 630 Feet
Source: ESRI World Imagery, Kaufman County CAD


FM 548: US 80 to SH 205
CSJs: 2588-01-017 and 2588-02-008
Kaufman and Rockwall Counties, Texas
N
57145
9150
EB1
59549
12980
12969
52203
7771
7770
Project Limit
Old Hwy 80
80
Fm 1641
Negative Shovel Test Location
Proposed Drainage Easement
Proposed ROW
Existing ROW
Surveyed
0 280 560 Meters
0 950 1,900 Feet
Source: ESRI World Imagery
Kaufman County CAD

Kiowa Tribe
Office of Historic Preservation
P.O. Box 50
Carnegie, OK 73015

July 9, 2018

Laura Cruzada
Archeological Studies Branch
Environmental Affairs Division
Texas Department of Transportation
125 East 11th Street
Austin, TX. 78701-2483

RE: Section 106 Consultation and Review for proposed CSJ: 2588-01-017; FM 548 from US 80 to SH 205, Highway Widening and Improvements in Dallas, Kaufman and Rockwall Counties, TX

Dear Miss Cruzada,

The Kiowa Tribe Office of Historic Preservation has received the information and materials requested for our Section 106 Review and Consultation. Section 106 of the National Historic Preservation Act of 1966 (NHPA), and 36 CFR Part 800 requires consultation with the Kiowa Tribe.

Given the information provided, you are hereby notified that the proposal project location should have minimal potential to adversely affect any known Archaeological, Historical, or Sacred Kiowa sites. Therefore, in accordance with 36 CFR 800.4(d) (1), you may proceed with your proposed project. However, please be advised undiscovered properties may be encountered and must be immediately reported to the Kiowa Tribe Office of Historic Preservation under both the NHPA and NAGPRA regulations.

This information is provided to assist you in complying with 36 CFR Part 800 for Section 106 Consultation procedures. Please retain this correspondence to show compliance. Should you have any questions, please do not hesitate to contact me at kellie@tribaladminservices.org. Thank you for your time and consideration.

Sincerely,

Kellie J. Lewis
Acting Tribal Historic Preservation Officer (THPO)

Kellie J. Lewis
Acting Tribal Historic Preservation Officer (THPO)
Phone: (405) 435-1650 ***kellie@tribaladminservices.org*** ***Complex: (580) 654-2300***

Sarah Stroman

From: Kimberly Penrod <kpenrod@delawarenation.com>
Sent: Monday, July 30, 2018 9:00 AM
To: Sarah Stroman
Subject: RE: Section 106 Consultation, Texas Department of Transportation, CSJ: 2588-01-017; FM 548 from US 80 to SH 205, Highway Widening and Improvements; Kaufman and Rockwall Counties, Dallas District

Sarah,
The protection of our tribal cultural resources and tribal trust resources will take all of us working together.
We look forward to working with you and your agency.
With the information you have submitted we can concur at present with this proposed plan.

As with any new project, we never know what may come to light until work begins.
The Delaware Nation asks that you keep us up to date on the progress of this project and
if any discoveries arise please contact us immediately.

Our department is trying to go as paper free as possible. If it is at all feasible for your office to send email correspondence we would greatly appreciate.

If you need anything additional from me please do not hesitate to contact me.

Respectfully,

Kim Penrod
Delaware Nation
Director, Cultural Resources/106
Archives, Library and Museum
31064 State Highway 281
PO Box 825
Anadarko, OK 73005
(405)-247-2448 Ext. 1403 Office
(405)-924-9485 Cell
kpenrod@delawarenation.com

Unless someone like you cares a whole awful lot, nothing is going to get better. It's not. ~Dr. Seuss

---

From: Sarah Stroman <Sarah.Stroman@txdot.gov>
Sent: Tuesday, July 3, 2018 9:47 AM
To: kellie@tribaladminservices.org; Ivy@tribaladminservices.org; holly@mathpo.org; gary.mcadams@wichitatribe.com; Terri.Parton@wichitatribe.com; dhill@caddonation.org; ashively@jenachoctaw.org; Kimberly Penrod <kpenrod@delawarenation.com>; lbrown@tonkawatribe.com; mallen@tonkawatribe.com; martinac@comanchenation.com; theodorev@comanchenation.com
Subject: Section 106 Consultation, Texas Department of Transportation, CSJ: 2588-01-017; FM 548 from US 80 to SH 205, Highway Widening and Improvements; Kaufman and Rockwall Counties, Dallas District

Sec. 106 Consultation

JULY 3, 2018

Contact:

Nicolle Kord

512-416-2698

Laura Cruzada

512-416-2638

We kindly request your comments regarding a proposed undertaking. Please see the attached info for project details and information. A summary is provided below.

Summary:

Project ID (CSJ), County and TxDOT District	*CSJ: 2588-01-017; FM 548 from US 80 to SH 205, Highway Widening and Improvements; Kaufman and Rockwall Counties, Dallas District*
Project Sponsor:	*TxDOT*
Short Description:	*Widen and improve facility*
New Right of Way:	*69.83 acres*
Depth of Impacts:	*4- 20 ft.*
Known Archeological Sites or Properties in project area:	*Yes*
Identification Efforts:	*Survey*
Recommendations:	*Proceed to construction*

Sarah G. Stroman

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

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

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

Sarah.Stroman@txdot.gov

Leslie Mirise

From: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Sent: Thursday, February 21, 2019 3:56 PM
To: Leslie Mirise
Subject: RE: CSJ 2588-01-017, etc. FM 548 Widening - Request for Early Coordination

Leslie,

I do not have any comments on this project.

Thank you for submitting the following project for early coordination: FM 548 widening (CSJ 2588-01-017). TPWD appreciates TxDOT's commitment to implement the practices listed in the Tier I Site Assessment submitted on January 24, 2019. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect plants, fish, and wildlife. According to §2.204(g) of the 2013 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link: http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Thank you,

Sue Reilly
Transportation Assessment Liaison
Texas Parks and Wildlife
Wildlife Division
512-389-8021

From: WHAB_TxDOT
Sent: Friday, January 25, 2019 2:03 PM
To: Leslie Mirise <Leslie.Mirise@txdot.gov>; Daniel Salazar <Daniel.Salazar@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Christine Polito <Christine.Polito@txdot.gov>
Cc: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Subject: RE: CSJ 2588-01-017, etc. FM 548 Widening - Request for Early Coordination

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID # 41338. 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: Leslie Mirise [mailto:Leslie.Mirise@txdot.gov]
Sent: Thursday, January 24, 2019 5:02 PM
To: WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
Cc: Daniel Salazar <Daniel.Salazar@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Christine Polito <Christine.Polito@txdot.gov>
Subject: CSJ 2588-01-017, etc. FM 548 Widening - Request for Early Coordination

Hello,

TxDOT requests early coordination for the FM 548 Widening Project in Kaufman and Rockwall counties, Texas. I have attached the following:

1. The Tier 1 Site Assessment Form, including BMPs to be implemented;
2. The Biological Evaluation Form, for the purpose of reviewing the analyses performed on federally listed species that share state-listing status;
3. Supporting Documents including but not limited to location map, species lists from TPWD and USFWS/IPaC, EMST documentation, and site photos;
4. The EMST and Observed Vegetation Excel spreadsheet; and
5. A separate NDD information file.

These documents, along with other project-related information, are also available in ECOS under the CSJ: 0442-02-161. The project schematic was approved on December 28, 2018 and is available in ECOS in the Documents/Project section under the filename: CSJ 2588-01-017, etc. FM 548, Approved Schematic 12-28-2018.pdf

Please feel free to contact me with any questions or if you need any additional information.

Thank you,

Leslie Mirise
Environmental Specialist
Dallas District – Advance Planning
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office

(214) 320-4470 FAX

A Texas Department of Transportation (TxDOT) message

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

March 7, 2019

Transmitted Via E-mail

Mrs. Barbara C. Maley, AICP
Env/Tranp Plan Coord & Air Quality Specialist
Barbara.Maley@dot.gov

Re: Request for Project-Level Conformity Determination
Kaufman and Rockwall Counties
CSJ 2588-01-017 and 2588-02-008
FM 548: From North of US 80 to SH 205

Dear Mrs. Maley:

Attached is the copy of the Transportation Conformity Report Form for your review and concurrence.

A project-level conformity determination is requested from you. If you have any questions regarding this project, please contact me at (512) 416-2659.

Sincerely,

DocuSigned by:
Timothy Wood
C9CB724D35CE4BD...

Tim Wood
Air Specialist
Environmental Affairs Division

Attachment(s)

Transportation Conformity Report Form

Project Facility Name: FM 548

MPO Project IDs: NRSA1-DAL-169, NRSA1-DAL-190

Project CSJ Numbers: 2588-01-017 and 2588-02-008

Project Limits

From: North of US 80

To: SH 205

Project Sponsor: TxDOT

Project Description[1]: Widen two-lane rural roadway to a six-lane divided urban minor arterial from US 80 to Windmill Farms Boulevard. Widen two-lane rural roadway to a four-lane divided urban arterial (six-lane divided ultimate) from Windmill Farms Boulevard to SH 205.

Date of anticipated environmental decision/re-evaluation: June 2019

Let Year: 2023

ETC[2] Year: 2025

Conformity Year[3]: non-regionally significant

Total Project Cost: $122,686,775

Adding Capacity? ☒ Yes ☐ No

Counties: Kaufman and Rockwall

Project Classification: ☐ CE ☒ EA ☐ EIS ☐ Re-evaluation

Important Information

A determination of project-level conformity is not permanent. It is recommended that conformity be checked early and often in the project development process, but that this specific form be coordinated within 60 days of the anticipated environmental decision to avoid coordinating the form more than once. The following events would require a project's conformity determination to be reevaluated.

1. Changes to the project's design concept, scope, limit, funding, or estimated time of completion (ETC) year
2. Changes to the project's listing in the MTP, TIP, or STIP related to design concept, scope and limits; funding or ETC year
3. New conformity determinations on the applicable MTP, TIP, or STIP (even if it occurs after the FHWA/FTA project-level conformity determination has been made)

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[1] Project description, project details, and other project information should include enough detail in order to make a determination of project consistency with the MTP, TIP, STIP, and corresponding transportation conformity determination.

[2] The ETC or estimated time of completion year is the date the entire project as described in the environmental review document will be open to traffic.

[3] If this project is NOT considered regionally significant by the MPO, enter "N/A – non-regionally significant". In addition, note that the conformity year is sometimes referred to as the network year. When a MTP identifies a specific timeframe during which a project will be operational, the last year of that timeframe is the conformity year.

In particular, if there is a planned MTP update/amendment and associated transportation conformity determination expected to be completed on or near the time of project approval, it is recommended that the project sponsor prepare this conformity determination after the plan update/amendment and associated transportation conformity determination is completed, if the update/amendment will affect the project as specified in item 1 above. Consult with ENV air specialist if further assistance is needed.

Instructions

Check the appropriate box for each question, using the most current information available, and be aware that the answers will dictate which questions must be answered for each specific project. Start with Step One, and follow the instructions included in each step, if any additional instructions are provided.

The information displayed between carets, <like this> represents a field that should be customized with project specific information. In the electronic file, these fields are highlighted in grey. Content prompts, like ***Choose an item***, represent dropdown menus, which also must be customized with project specific information.

If the form requires the preparer to "STOP" because something is lacking, then it is recommended that the time it would take to make the necessary changes to the MTP, TIP, or project should be re-evaluated against the project's proposed letting date (i.e., letting date may need to be adjusted).

Step 1: Is this a federal project with a federal lead other than FHWA/FTA?

☐ **Yes – STOP. Transportation conformity does not apply to the project, however, general conformity may apply.**

Consult the ENV air specialist regarding this project and potential general conformity requirements.

☒ No – Continue to Step 2.

Step 2: Is this a FHWA/FTA project[4]?

☒ Yes – Proceed to Step 4.

☐ No – Continue to Step 3.

Step 3: Is this project considered regionally significant[5] in accordance with 40 CFR 93.101 or 30 TAC 114.260(d)(2)(iv)?

☐ Yes – Continue to Step 4.

☐ No **– STOP. In accordance with 40 CFR 93.102(a)(2), a project level transportation conformity determination is not required for non-regionally significant, non-FHWA/FTA projects.**

[4] Note that this includes projects which may not have federal funding but would otherwise require federal approval.

[5] If a project is on the MPO's NON-regionally significant project list, it is not regionally significant. Each MPO may have different criteria for designating a project as regionally significant.

Step 4: Is the project located in a nonattainment or maintenance area[6] for ozone[7], nitrogen dioxide (NO2), carbon monoxide (CO), particulate matter (PM2.5 or PM10)?

☒ Yes – **Transportation conformity rules apply.** The project is located in the EPA designated **ten-county DFW moderate nonattainment**[8] area for **the 2008 eight-hour ozone NAAQS. Effective August 3, 2018, the EPA designated Dallas County as marginal nonattainment for the 2015 ozone NAAQS**. Continue to Step 5.

☐ No – **STOP. Transportation conformity does not apply to the project.**

Step 5: Is the project exempt[9] from conformity in accordance with 40 CFR 93.126[10] or 40 CFR 93.128[11]?

☐ Yes – **STOP. Transportation conformity does not apply to the project.** This project falls under the following exemption: ***Choose an item.***

☒ No – Continue to Step 6.

Step 6: Is the project exempt from the regional conformity analysis in accordance with 40 CFR 93.127?

☐ Yes – **The project is exempt from regional conformity requirements.** This project falls under the following exemption: ***Choose an item.*** Proceed to Step 16.

☒ No – Continue to Step 7.

Step 7: Does the project fall within the boundaries[12] of an MPO?

☒ Yes – Proceed to Step 9.

☐ No – Continue to Step 8.

[6] If unsure about the nonattainment or maintenance status, it can be checked in multiple locations, including: the EPA Greenbook, the TCEQ website, or the applicable table in the Air Quality toolkit.

[7] Note the 1997 ozone standard was revoked by EPA.

[8] Area classifications can be either maintenance, marginal nonattainment, moderate nonattainment, serious nonattainment, severe nonattainment, or extreme nonattainment

[9] Most added capacity projects will not be exempt, whereas most non-added capacity projects will be exempt.

[10] Ultimately, the interpretation of what projects types meet these exemption criteria is under the purview of the federal lead agency. For example, although it could be interpreted to meet some of the exemption project types, a project changing from general purpose to managed lanes is NOT considered to be exempt from conformity.

[11] Grouped CSJ projects, by rule, must be exempt under these criteria.

[12] i.e., within a Metropolitan Planning Area (MPA)

Step 8: Is the project design concept, scope and limits, conformity analysis year, and funding consistent with an approved[13] regional conformity analysis for an isolated rural area that meets the requirements of 40 CFR 93.109?

☐ Yes – **The project is consistent with an approved regional conformity determination that meets the requirements of 40 CFR 93.109 for isolated rural areas.** Proceed to Step 16.

☐ No **– STOP. The project is not consistent with a regional conformity determination for an isolated rural area. TxDOT will not take final action until the project is consistent with an approved regional conformity determination that meets the requirements of 40 CFR 93.109 for isolated rural areas.**

Do not sign this form. Please ensure that the project is included in and consistent with an approved regional conformity determination then reevaluate the project using this form.

Step 9: Are all of the project phases[14] for the entire project described in the environmental document included in the fiscally constrained portion of the MTP?

☒ Yes – Continue to Step 10.

☐ No **– STOP. The project was not included in the area's regional conformity determination, and, therefore, is not consistent with it.** The MTP needs to be amended to include this project and a new conformity determination needs to be made on the MTP before consistency can be determined for the project, or the project needs to be revised to be consistent with the existing MTP.

Consult with the district TP&D and MPO on how to proceed.

Step 10: Is at least one phase of the project beyond the NEPA study (corridor study) included in either the appropriate year of the conforming TIP[15] or in Appendix D (if will not be let within the timeframe of the TIP)?

☒ Yes – Continue to Step 11.

☐ No **– STOP. The project is not included in the conforming TIP and is therefore not consistent with it.** At least one phase of the project must be added to the conforming TIP before consistency can be determined.

Consult with the district TP&D and MPO on how to proceed.

[13] The consultation partners are responsible for approving regional conformity analyses.

[14] A project phase is a separate portion of a project such as: NEPA study, ROW acquisition, final design, construction, and/or partial construction.

[15] In Texas, a conforming TIP is one that has been included into the STIP, so projects must be in the STIP in order to show that they come from a conforming TIP.

Step 11: Are the current project limits the same[16] or do they fall within the project limits listed in the MTP and STIP?

☒ Yes – Continue to Step 12.

☐ No – **STOP. The project is not consistent with the conforming MTP and TIP**. Either the MTP and TIP, or the project needs to be revised before consistency can be **determined.**

Consult with the district TP&D and MPO on how to proceed.

Step 12: Is the activity being proposed the same as that in the MTP and STIP project description in both type[17] of facility and number[18] of lanes?

☒ Yes – Continue to Step 13.

☐ No – **STOP. The project is not consistent with the conforming MTP and TIP.** Either the MTP and TIP, or the project needs to be revised before consistency can be determined.

Consult with the district TP&D and MPO on how to proceed.

***Ste*p 13:** Does the project's ETC year fall between its identified conformity year[19] in the MTP and the previous conformity year identified in the MTP?

☐ Yes – Continue to Step 14.

☐ No – **STOP. The project is not consistent with the conforming MTP and TIP.** Either the MTP and TIP or the project needs to be revised before consistency can be determined.

Consult with the district TP&D and MPO on how to proceed.

☒ N/A – This project is non-regionally significant. Continue to Step 14.

Step 14: Is the estimated total project cost or the cost identified in the MTP greater than $1,500,000?

☒ Yes – Proceed to Step 15.

☐ No – Fiscal constraint requirements do not apply. This project is consistent with the currently conforming MTP and TIP. Proceed to Step 16.

[16] The limits are considered the same if the logical termini noted in the environmental document fall within the limits of the project noted in the MTP or the logical termini noted in the environmental document are not significantly greater (~1mile) than the limits noted in the MTP due to transition areas for safety or other factors required to be considered when establishing logical termini for environmental document purposes.

[17] The type of activity refers to the type of enhancement, such as: main lanes, frontage roads, HOV lanes, direct connectors, bridge replacement, etc…

[18] The number refers to the amount of each activity type, such as: number of main lanes or number of frontage lanes.

[19] For the purposes of this determination, the term conformity year is synonymous with the network analysis year for the MTP.

Step 15: Does the estimated project cost exceed what is contained in the MTP by more than 50%[20]?

☐ Yes – **STOP. The project is not consistent with the MTP and TIP because it is not fiscally constrained.** Either the MTP and TIP, or the project needs to be revised before consistency can be determined or a case-by-case decision will need to be made by FHWA.

Consult with the district TP&D and MPO on how to proceed.

☒ No – **This project is consistent with the currently conforming MTP and TIP**. Continue to Step 16.

Step 16: Is the project located in either a CO, $PM_{2.5}$, or PM_{10} nonattainment or maintenance area?[21]

☐ Yes – Continue to Step 17.

☒ No – **Hot-spot conformity requirements do not apply.** Proceed to Step 21.

Step 17: Is this a state or local project with NO federal funding and NO federal decision required?

☐ Yes – **Hot-spot conformity requirements do not apply.** Proceed to Step 21.

☐ No – **Hot-spot conformity requirements apply.** Request the local MPO to initiate a consultation call with the Consultation Partners.

Fill out the Hot-Spot Analysis Data for a Consultation Partner Decision Form to present the project data to the Consultation Partners for review prior to the consultation call.

Continue to Step 18.

Step 18: Did the consultation partners determine that this is a project of air quality concern (POAQC)?

☐ Yes – **A hot-spot analysis is required and must be approved by the consultation partners.**

Conduct a hot-spot analysis in accordance with the methodology approved by the consultation partners, and use the applicable EPA hot-spot guidance.

Continue to Step 19.

☐ No – **A hot-spot analysis is not required because the project is not a POAQC. The consultation partners made this determination on <insert date>.**

Proceed to Step 21.

[20] Multiply the MTP cost by 1.5. The current estimated total project cost should not exceed this amount.

[21] Note that this currently only applies to projects in El Paso.

Step 19: Does the approved hot-spot analysis verify that the project will not cause, contribute to, or worsen a violation of applicable CO, $PM_{2.5}$, or PM_{10} NAAQS or that the project will at least improve conditions from that of the no-build alternative?

☐ Yes – **The project is not anticipated to cause, contribute to, or worsen a violation of the applicable NAAQS.** Continue to Step 20.

☐ **No – STOP. The project, as it is currently presented, does not comply with conformity requirements because it is anticipated to cause, contribute to, or worsen a violation of the applicable NAAQS.**

Identify and get consultation partner agreement upon mitigation measures to offset project impacts to air quality. Reevaluate this project using this form once these mitigation measures have been identified and committed to.

Step 20: Have all the agreed upon mitigation measures as well as any applicable SIP control measures received a written commitment?

☐ Yes – Continue to Step 21.

☐ **No – STOP.**

Do not proceed until there are written commitments to implement all the agreed upon mitigation measures and any applicable SIP control measures. Reevaluate this project using this form once these commitments have been made in writing.

☐ N/A because no mitigation is required and there are no applicable SIP control measures which affect this project, Continue to Step 21.

Step 21: The transportation conformity evaluation is complete.

Attach applicable pages of the MTP and TIP, or the STIP, project schematics, typical sections, hot-spot analyses and determinations, and any conformity related public comment and response. Implement the following processing instructions as applicable.

☐ This is a regionally significant State-only project with no FHWA/FTA action required (the answer to Steps 3 is yes); therefore:

Submit this form to the ENV air specialist. If ENV concurs that all project level conformity requirements have been met, ENV shall sign the form below. Coordination with FHWA/FTA is not required.

Retain this form in the project file.

☒ This is a FHWA/FTA non-exempt project (the answer to Steps 2 and 4 is yes, and the answer to Steps 5 and 6 is no); therefore:

Submit this form to the ENV air specialist. After ENV air specialist review, ENV will coordinate this form with FHWA/FTA for a project level conformity determination. If FHWA/FTA agrees that all project level conformity requirements have been met, they shall sign the project level conformity determination line below. A project level conformity determination is not complete and project clearance cannot be given until FHWA/FTA signs this form.

Retain this form and any coordination with FHWA/FTA in the project file.

TxDOT ENV Transportation Conformity Validation Complete:

Project CSJ Numbers: 2588-01-017 and 2588-02-008

Signature DocuSigned by: Timothy Wood C9CB724D35CE4BD...

Name: Timothy Wood

Title: ENV Air Specialist

Date: 3/7/2019

FHWA/FTA Determination of the Project-level Conformity:

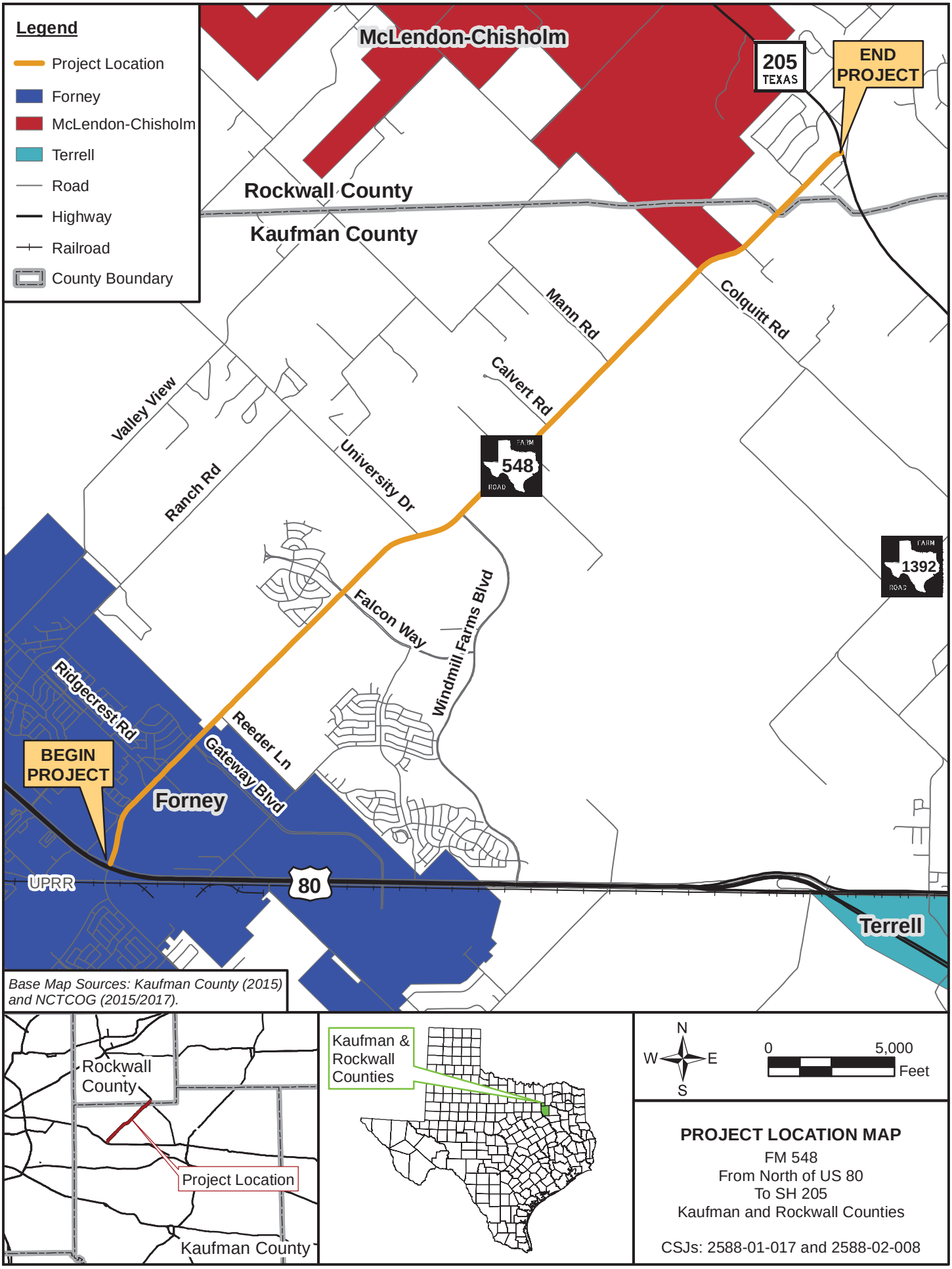
Signature BARBARA C MALEY Digitally signed by BARBARA C MALEY Date: 2019.03.15 10:47:26 -05'00'

Name: _____

Title: Air Quality Specialist and Transportation Planner

Date: _____

SUPPLEMENTAL INFORMATION



PROJECT LOCATION MAP

FM 548
From North of US 80
To SH 205
Kaufman and Rockwall Counties

CSJs: 2588-01-017 and 2588-02-008

Non-Regionally Significant Arterials

MTP ID	District	TIP Code	Project Type	CSJ	Facility	From	To	Description	YOE Total Project Cost	FFCS
NRSA1-DAL- 165	TxDOT Dallas	83030	Addition of lanes	0000-18-071	Hickox Road	Toler Road	Merritt Road	Widen from 2 lanes to 4 lanes (Phase 2)	$3,000,000	Minor Arterial
NRSA1-DAL- 166	TxDOT Dallas	83052	Addition of lanes	0000-18-026	Lawson Road	Milam Road	Clay-Mathis Road	Widen from 2 lanes to 4 lanes	$13,335,000	Minor Arterial
NRSA1-DAL- 167	TxDOT Dallas	83112	Addition of lanes	0000-18-027	Lebanon Road	Coit Road	Independence Parkway	Widen from 2 lanes to 4 lanes	$5,800,000	Major Collector
NRSA1-DAL- 168	TxDOT Dallas	83120	Addition of lanes	0000-18-028	Main Street	FM 423	DNT	Widen from 4 lanes to 6 lanes	$1,200,000	Minor Arterial
NRSA1-DAL- 169	TxDOT Dallas	55111	Addition of lanes	2588-01-017	FM 548	North of US 80	S of SH 205 (Rockwall C/L)	Widen and reconstruct 2 lane rural to 4 lane urban divided (6 lane ultimate)	$109,599,843	Major Collector
NRSA1-DAL- 171	TxDOT Dallas	83144	Addition of lanes	0000-18-033	Chaha Road	Rowlett Road	Kirby Road	Widen from 2 lanes to 3 lanes	$5,016,500	Major Collector
NRSA1-DAL- 173	TxDOT Dallas	83215	Addition of lanes	N/A	Ridgeview Drive	Alma	US 75	Widen from 2 lanes to 4 lanes	$18,979,785	Major Collector
NRSA1-DAL- 175	TxDOT Dallas	83284	New roadway	~~0751-02-027~~ 0751-05-001	FM 148	South of FM 3039	US 175	Construct 0 to 2 rural lane undivided	$8,000,000	Minor Arterial
NRSA1-DAL- 177	TxDOT Dallas	83129.1	New roadway	0000-18-030	Denton Creek Blvd	At Graham Branch		Build new location 0 to 4 lane bridge	$8,967,000	Minor Arterial

Non-Regionally Significant Arterials

MTP ID	District	TIP Code	Project Type	CSJ	Facility	From	To	Description	YOE Total Project Cost	FFCS
NRSA1-DAL- 178	TxDOT Dallas	83129.2	Interchange	0000-18-031	Denton Creek Blvd	At IH 35W		Interchange	$5,000,000	Minor Arterial
NRSA1-DAL- 179	TxDOT Dallas	83266	Intersection Improvement	0000-18-040	Skillern Road	Flower Mound Road	River Hill Drive	Reconstruct 2 to 2 lanes	$905,000	Minor Arterial
NRSA1-DAL- 182	TxDOT Dallas	20296	New roadway	0918-46-289	Valley Ridge Blvd	Mill Street	College Street	Construct 0 to 4 lane divided urban arterial	$17,770,000	Major Collector
NRSA1-DAL- 184	TxDOT Dallas	25025	New roadway	0918-47-237	Wheatland Road	Dallas/Lancaster City Limit	University Hills along The Dallas/Lancaster City Limits	Construct 0 to 4 lane divided roadway and bicycle/pedestrian facilities	$4,809,552	Major Collector
NRSA1-DAL- 185	TxDOT Dallas	82130	Addition of lanes	0000-18-018	Hickory Creek Road	FM 2181	River Pass	Widen from 2 lanes to 4 lanes (ultimate 6 lanes)	$3,500,000	Major Collector
NRSA1-DAL- 187	TxDOT Dallas	20290	Bridge, Intersection Improvement, Bike/Pedestrian	0353-06-057	SH 114/ Texas Plaza bridge	SL 12	SS 482	Construct 0 to 4 lane signature bridge with bicycle lane, sidewalks, Intersection Improvements, and ramp modifications	$54,413,449	Minor Arterial
NRSA1-DAL- 188	TxDOT Dallas	633	Intersection Improvement/ Reconstruct	~~0918-45-372~~ 0918-46-826	Dolphin Road	Spring Ave	North of Haskell Ave/Military Parkway	Reconstruct existing roadway from 4 lane undivided to 4 lane divided with intersection improvements at Haskell	$4,694,450	Minor Arterial
NRSA1-DAL- 189	TxDOT Dallas	55205	Reconstruction	1310-01-043	FM 407	Gulf Ave	West of Sage Drive	Realign existing 2 to 2 lane roadway	$2,848,473	Minor Arterial
NRSA1-DAL- 190	TxDOT Dallas	13017	Reconstruction, Addition of lanes	2588-02-008	FM 548	S of SH 205 (Kaufman County Line)	SH 205	Widen and reconstruct 2 lane rural to 4 lane divided urban roadway (ultimate 6)	$13,126,932	Minor Arterial

Source: North Central Texas Council of Governments

STIP Portal

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Project Management | Reports | Support

Project Management > Area List > STIPs (M-NCTCOG) > Revisions () > TIP Instances (Unassigned) > Highway Projects (Unassigned) > Project Details

Color Key: ☐ - Business rule violation ☐ - Value changed in current session ☐ - Different from DCIS or latest approved copy

Data

Statewide ☐ TIP Revision: None

District: DALLAS County: KAUFMAN

MPO: NCTCOG Highway: FM 548

CSJ: 2588 - 01 - 017 TIP FY: 2019

Phase: ☐ Construction ☑ Engineering ☐ Environmental ☑ Engineering ☐ Right-of-Way ☐ Acquisition ☐ Utilities ☐ Transfer

Total Project Cost Information

Prelim Engineering	$3,300,000
ROW Purchase	$17,000,000
Construction Cost	$84,650,269
Const Engineering	$3,318,257
Contingencies	$1,331,317
Indirect Costs	$0
Bond Financing	$0
Potential Chg Ord	$0
Total Project Cost	$109,599,843
YOE Cost	
Toll	☐
TCM	☐

Revision Date: 11/2018

Project Sponsor: TXDOT-DALLAS

MPO Proj Number: 55111

MTP Reference: NRSA1-DAL-169

City: FORNEY

NOX (Kg /D): 0.0000

VOC (Kg /D): 0.0000

PM10 (Kg /D): 0.0000

PM2.5 (Kg /D): 0.0000

CO (Lbs /D):

Limits From: N OF US 80

Limits To: S OF SH 205 (ROCKWALL C/L)

Project Description: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)

P7 Remarks: REVISE LIMITS

Project History: PART OF REGIONAL 10 YEAR PLAN

Authorized Funding by Category/Share

Category	Federal	State	Regional	Local	Local Contributions	Total
SBPE	$0	$3,300,000	$0	$0	$0	$3,300,000
Total	$0.00	$3,300,000	$0.00	$0.00	$0.00	$3,300,000

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2019	FM 548	E,ENG	FORNEY	$ 3,300,000

LIMITS FROM: N OF US 80
LIMITS TO: S OF SH 205 (ROCKWALL C/L)
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 11/2018
MPO PROJ NUM: 55111
FUNDING CAT(S): SBPE
REMARKS P7: REVISE LIMITS
PROJECT HISTORY: PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 3,300,000
ROW PURCH:	$ 17,000,000
CONST COST:	$ 84,650,269
CONST ENG:	$ 3,318,257
CONTING:	$ 1,331,317
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 109,599,843

COST OF APPROVED PHASES $ 3,300,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000
TOTAL	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000

TIP History

2019-2022 STIP — 11/2018 Revision: Approved 12/19/2018

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2019	FM 548	E,ENG	FORNEY	$ 3,300,000

LIMITS FROM: N OF US 80
LIMITS TO: S OF SH 205 (ROCKWALL C/L)
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS P7: REVISE LIMITS

PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 11/2018
MPO PROJ NUM: 55111
FUNDING CAT(S): SBPE
PROJECT HISTORY: PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 3,300,000
ROW PURCH:	$ 17,000,000
CONST COST:	$ 84,650,269
CONST ENG:	$ 3,318,257
CONTING:	$ 1,331,317
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 109,599,843

COST OF APPROVED PHASES $ 3,300,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000
TOTAL	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000

2019-2022 STIP **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2019	FM 548	E,ENG	FORNEY	$ 3,300,000

LIMITS FROM: N OF US 80 AT WALMART
LIMITS TO: SH 205
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS P7:

PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2018
MPO PROJ NUM: 55111
FUNDING CAT(S): SBPE
PROJECT HISTORY: PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 3,300,000
ROW PURCH:	$ 17,000,000
CONST COST:	$ 84,650,269
CONST ENG:	$ 3,318,257
CONTING:	$ 1,331,317
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 109,599,843

COST OF APPROVED PHASES $ 3,300,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000
TOTAL	$ 0	$ 3,300,000	$ 0	$ 0	$ 0	$ 3,300,000

Comment History

Time	User	Comment	Related Approval
2018/11/21 06:40:14	**Barbara Maley**		**11/2018: Approved**
2018/08/13 15:54:56	**Barbara Maley**		**07/2018: Approved**

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Project Management > Area List > STIPs (M-NCTCOG) > Revisions () > TIP Instances (Unassigned) > Highway Projects (Unassigned) > Project Details

Color Key: ☐ - Business rule violation ☐ - Value changed in current session ☐ - Different from DCIS or latest approved copy

Data

Statewide ☐ TIP Revision: None

District: DALLAS County: KAUFMAN

MPO: NCTCOG Highway: FM 548

CSJ: 2588 - 01 - 017 TIP FY: 2021

Phase: ☐ Construction ☐ Engineering ☐ Environmental ☐ Engineering ☑ Right-of-Way ☑ Acquisition ☑ Utilities ☐ Transfer

Total Project Cost Information

Prelim Engineering	$3,300,000
ROW Purchase	$17,000,000
Construction Cost	$84,650,269
Const Engineering	$3,318,257
Contingencies	$1,331,317
Indirect Costs	$0
Bond Financing	$0
Potential Chg Ord	$0
Total Project Cost	$109,599,843
YOE Cost	
Toll	☐
TCM	☐

Revision Date: 11/2018

Project Sponsor: TXDOT-DALLAS

MPO Proj Number: 55111

MTP Reference: NRSA1-DAL-169

City: FORNEY

NOX (Kg /D): 0.0000

VOC (Kg /D): 0.0000

PM10 (Kg /D): 0.0000

PM2.5 (Kg /D): 0.0000

CO (Lbs /D):

Limits From: N OF US 80

Limits To: S OF SH 205 (ROCKWALL C/L)

Project Description: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)

P7 Remarks: REVISE LIMITS

Project History: PART OF REGIONAL 10 YEAR PLAN

Authorized Funding by Category/Share

Category	Federal	State	Regional	Local	Local Contributions	Total
S102	$13,600,000	$1,700,000	$0	$1,700,000	$0	$17,000,000
Total	$13,600,000	$1,700,000	$0.00	$1,700,000	$0.00	$17,000,000

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2021	FM 548	R,ACQ,UTL	FORNEY	$ 17,000,000

LIMITS FROM: N OF US 80
LIMITS TO: S OF SH 205 (ROCKWALL C/L)
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 11/2018
MPO PROJ NUM: 55111
FUNDING CAT(S): S102
REMARKS P7: REVISE LIMITS
PROJECT HISTORY: PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 3,300,000
ROW PURCH:	$ 17,000,000
CONST COST:	$ 84,650,269
CONST ENG:	$ 3,318,257
CONTING:	$ 1,331,317
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 109,599,843

COST OF APPROVED PHASES $ 17,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000
TOTAL	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000

TIP History

2019-2022 STIP — 11/2018 Revision: Approved 12/19/2018

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2021	FM 548	R,ACQ,UTL	FORNEY	$ 17,000,000

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2021	FM 548	R,ACQ,UTL	FORNEY	$ 17,000,000

LIMITS FROM: N OF US 80
LIMITS TO: S OF SH 205 (ROCKWALL C/L)
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS P7: REVISE LIMITS

PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 11/2018
MPO PROJ NUM: 55111
FUNDING CAT(S): S102
PROJECT HISTORY: PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 3,300,000
ROW PURCH:	$ 17,000,000
CONST COST:	$ 84,650,269
CONST ENG:	$ 3,318,257
CONTING:	$ 1,331,317
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 109,599,843

COST OF APPROVED PHASES $ 17,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000
TOTAL	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000

2019-2022 STIP **07/2018 Revision: Approved 09/28/2018**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	KAUFMAN	2588-01-017	2021	FM 548	R,ACQ,UTL	FORNEY	$ 17,000,000

LIMITS FROM: N OF US 80 AT WALMART
LIMITS TO: SH 205
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS P7:

PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2018
MPO PROJ NUM: 55111
FUNDING CAT(S): S102
PROJECT HISTORY: PART OF REGIONAL 10 YEAR PLAN

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 3,300,000
ROW PURCH:	$ 17,000,000
CONST COST:	$ 84,650,269
CONST ENG:	$ 3,318,257
CONTING:	$ 1,331,317
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 109,599,843

COST OF APPROVED PHASES $ 17,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000
TOTAL	$ 13,600,000	$ 1,700,000	$ 0	$ 1,700,000	$ 0	$ 17,000,000

Comment History

Time	User	Comment	Related Approval
2018/11/21 07:46:57	**Barbara Maley**		**11/2018: Approved**
2018/08/13 15:54:57	**Barbara Maley**		**07/2018: Approved**

STIP Portal

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Project Management > Area List > STIPs (M-NCTCOG) > Revisions () > TIP Instances (Unassigned) > Highway Projects (Unassigned) > Project Details

Color Key: ☐ - Business rule violation ☐ - Value changed in current session ☐ - Different from DCIS or latest approved copy

Data

Statewide ☐ TIP Revision: None

District: DALLAS County: ROCKWALL

MPO: NCTCOG Highway: FM 548

CSJ: 2588 - 02 - 008 TIP FY: 2019

Phase: ☐ Construction ☐ Engineering ☐ Environmental ☐ Engineering ☑ Right-of-Way ☑ Acquisition ☐ Utilities ☐ Transfer

Revision Date: 07/2018

Project Sponsor: TXDOT-DALLAS

MPO Proj Number: 13017

MTP Reference: NRSA1-DAL-190

City: VARIOUS

NOX (Kg /D): 0.0000

VOC (Kg /D): 0.0000

PM10 (Kg /D): 0.0000

PM2.5 (Kg /D): 0.0000

CO (Lbs /D):

Limits From: S OF SH 205 (KAUFMAN COUNTY LINE)

Limits To: SH 205

Project Description: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)

P7 Remarks:

Project History: R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY2021 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

Total Project Cost Information

Prelim Engineering	$1,500,000
ROW Purchase	$5,000,000
Construction Cost	$6,200,000
Const Engineering	$304,688
Contingencies	$122,244
Indirect Costs	$0
Bond Financing	$0
Potential Chg Ord	$0
Total Project Cost	$13,126,932
YOE Cost	
Toll	☐
TCM	☐

Authorized Funding by Category/Share

Category	Federal	State	Regional	Local	Local Contributions	Total
S102	$2,400,000	$300,000	$0	$300,000	$0	$3,000,000
Total	$2,400,000	$300,000	$0.00	$300,000	$0.00	$3,000,000

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ROCKWALL	2588-02-008	2019	FM 548	R,ACQ	VARIOUS	$ 3,000,000

LIMITS FROM: S OF SH 205 (KAUFMAN COUNTY LINE)
LIMITS TO: SH 205
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2018
MPO PROJ NUM: 13017
FUNDING CAT(S): S102
REMARKS P7:
PROJECT HISTORY: R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY2021 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,500,000
ROW PURCH:	$ 5,000,000
CONST COST:	$ 6,200,000
CONST ENG:	$ 304,688
CONTING:	$ 122,244
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 13,126,932

COST OF APPROVED PHASES $ 3,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 2,400,000	$ 300,000	$ 0	$ 300,000	$ 0	$ 3,000,000
TOTAL	$ 2,400,000	$ 300,000	$ 0	$ 300,000	$ 0	$ 3,000,000

TIP History

2019-2022 STIP — 07/2018 Revision: Approved 09/28/2018

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST

DISTRICT	MPO	COUNTY	CSJ	KPA	HWY	PHASE	CITY	TOT COST
DALLAS	NCTCOG	ROCKWALL	2588-02-008	2019	FM 548	R,ACQ	VARIOUS	$ 3,000,000

LIMITS FROM: S OF SH 205 (KAUFMAN COUNTY LINE)
LIMITS TO: SH 205
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2018
MPO PROJ NUM: 13017
FUNDING CAT(S): S102
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)
REMARKS P7:
PROJECT HISTORY: R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY2021 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$	1,500,000
ROW PURCH:	$	5,000,000
CONST COST:	$	6,200,000
CONST ENG:	$	304,688
CONTING:	$	122,244
INDIRECT:	$	0
BOND FIN:	$	0
POT CHG ORD:	$	0
TOTAL COST:	$	13,126,932

COST OF APPROVED PHASES
$ 3,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 2,400,000	$ 300,000	$ 0	$ 300,000	$ 0	$ 3,000,000
TOTAL	$ 2,400,000	$ 300,000	$ 0	$ 300,000	$ 0	$ 3,000,000

Comment History

Time	User	Comment	Related Approval
2018/08/13 15:54:56	**Barbara Maley**		**07/2018: Approved**

STIP Portal

Logged in as Tim Wood | Log Out

Project Management | Reports | Support

Project Management > Area List > STIPs (M-NCTCOG) > Revisions () > TIP Instances (Unassigned) > Highway Projects (Unassigned) > Project Details

Color Key: ☐ - Business rule violation ☐ - Value changed in current session ☐ - Different from DCIS or latest approved copy

Data

Statewide ☐ TIP Revision: None

District: DALLAS County: ROCKWALL

MPO: NCTCOG Highway: FM 548

CSJ: 2588 - 02 - 008 TIP FY: 2021

Phase: ☐ Construction ☐ Engineering ☐ Environmental ☐ Engineering ☑ Right-of-Way ☐ Acquisition ☑ Utilities ☐ Transfer

Revision Date: 07/2018

Project Sponsor: TXDOT-DALLAS

MPO Proj Number: 13017

MTP Reference: NRSA1-DAL-190

City: VARIOUS

NOX (Kg /D): 0.0000

VOC (Kg /D): 0.0000

PM10 (Kg /D): 0.0000

PM2.5 (Kg /D): 0.0000

CO (Lbs /D):

Limits From: S OF SH 205 (KAUFMAN COUNTY LINE)

Limits To: SH 205

Project Description: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)

P7 Remarks:

Project History: R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY2021 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

Total Project Cost Information

Prelim Engineering	$1,500,000
ROW Purchase	$5,000,000
Construction Cost	$6,200,000
Const Engineering	$304,688
Contingencies	$122,244
Indirect Costs	$0
Bond Financing	$0
Potential Chg Ord	$0
Total Project Cost	$13,126,932
YOE Cost	
Toll	☐
TCM	☐

Authorized Funding by Category/Share

Category	Federal	State	Regional	Local	Local Contributions	Total
S102	$1,600,000	$200,000	$0	$200,000	$0	$2,000,000
Total	$1,600,000	$200,000	$0.00	$200,000	$0.00	$2,000,000

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
DALLAS	NCTCOG	ROCKWALL	2588-02-008	2021	FM 548	R,UTL	VARIOUS	$ 2,000,000

LIMITS FROM: S OF SH 205 (KAUFMAN COUNTY LINE)
LIMITS TO: SH 205
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)
REMARKS P7:
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2018
MPO PROJ NUM: 13017
FUNDING CAT(S): S102
PROJECT HISTORY: R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY2021 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,500,000
ROW PURCH:	$ 5,000,000
CONST COST:	$ 6,200,000
CONST ENG:	$ 304,688
CONTING:	$ 122,244
INDIRECT:	$ 0
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 13,126,932

COST OF APPROVED PHASES $ 2,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 1,600,000	$ 200,000	$ 0	$ 200,000	$ 0	$ 2,000,000
TOTAL	$ 1,600,000	$ 200,000	$ 0	$ 200,000	$ 0	$ 2,000,000

TIP History

2019-2022 STIP — 07/2018 Revision: Approved 09/28/2018

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST

DISTRICT	MPO	COUNTY	CSJ	KPA	HWY	PHASE	CITY	TOT COST
DALLAS	NCTCOG	ROCKWALL	2588-02-008	2021	FM 548	R,UTL	VARIOUS	$ 2,000,000

LIMITS FROM: S OF SH 205 (KAUFMAN COUNTY LINE)
LIMITS TO: SH 205
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2018
PROJECT DESCR: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)
MPO PROJ NUM: 13017
FUNDING CAT(S): S102
REMARKS P7:
PROJECT HISTORY: R PHASE IN FY2019 IS $3 MILLION FOR ROW; R PHASE IN FY2021 IS $2 MILLION FOR UTILITIES; 10 YEAR PLAN PROJECT

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$	1,500,000
ROW PURCH:	$	5,000,000
CONST COST:	$	6,200,000
CONST ENG:	$	304,688
CONTING:	$	122,244
INDIRECT:	$	0
BOND FIN:	$	0
POT CHG ORD:	$	0
TOTAL COST:	$	13,126,932

COST OF APPROVED PHASES
$ 2,000,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 1,600,000	$ 200,000	$ 0	$ 200,000	$ 0	$ 2,000,000
TOTAL	$ 1,600,000	$ 200,000	$ 0	$ 200,000	$ 0	$ 2,000,000

Comment History

Time	User	Comment	Related Approval
2018/08/13 15:54:57	**Barbara Maley**		**07/2018: Approved**

STIP Portal

Texas Department of Transportation

Thu, Mar 07, 2019 11:33:25 AM

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	2374-04-083	IH 20	E	GRAND PRAIRIE	TXDOT-FORT WORTH

LIMITS FROM: TARRANT COUNTY LINE
LIMITS TO: SH 161
TIP DESCRIPTION: WIDEN FROM 8 TO 10 GENERAL PURPOSE LANES
REMARKS: CHANGE CSJ FROM 2374-05-084 TO 2374-04-083; RELATED TO TIP 55214/CSJ 2374-05-084

REV DATE: 07/2018
MPO PROJECT ID: 55213
MTP REFERENCE: FT1-30.70.2

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	2374-07-063	IH 635	E	COPPELL	TXDOT-DALLAS

LIMITS FROM: ROYAL LANE
LIMITS TO: WEST OF BELT LINE RD
TIP DESCRIPTION: CONSTRUCT 0 TO 2 LANE WB FRONTAGE ROAD AND RAMP MODIFICATIONS
REMARKS: LOCAL CONTRIBUTION TO BE PAID BY COPPELL

REV DATE: 07/2018
MPO PROJECT ID: 54047
MTP REFERENCE: AO1-130.10.2, NRSA1-130.10.2, TSMO2-005

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	KAUFMAN	2588-01-017	FM 548	C	FORNEY	TXDOT-DALLAS

LIMITS FROM: N OF US 80
LIMITS TO: S OF SH 205 (ROCKWALL C/L)
TIP DESCRIPTION: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE URBAN DIVIDED (6 LANE ULTIMATE)
REMARKS: REVISE LIMITS

REV DATE: 11/2018
MPO PROJECT ID: 55111
MTP REFERENCE: NRSA1-DAL-169

Project History: PART OF REGIONAL 10 YEAR PLAN

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	ROCKWALL	2588-02-008	FM 548	C	VARIOUS	TXDOT-DALLAS

LIMITS FROM: S OF SH 205 (KAUFMAN COUNTY LINE)
LIMITS TO: SH 205
TIP DESCRIPTION: WIDEN AND RECONSTRUCT 2 LANE RURAL TO 4 LANE DIVIDED URBAN ROADWAY (ULTIMATE 6)
REMARKS:

REV DATE: 07/2018
MPO PROJECT ID: 13017
MTP REFERENCE: NRSA1-DAL-190

Project History: 10 YEAR PLAN PROJECT

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	COLLIN	2845-01-014	FM 455	E,R	ANNA	COLLIN CO

LIMITS FROM: WILDWOOD TRAIL
LIMITS TO: SH 121
TIP DESCRIPTION: WIDEN FACILITY TO 4 LANE URBAN DIVIDED (ULTIMATE 6 LANE DIVIDED)
REMARKS:

REV DATE: 07/2018
MPO PROJECT ID: 52559
MTP REFERENCE: NRSA1-DAL-51

Project History: COLLIN COUNTY TO DONATE PLANS; ANNA TO PROVIDE PE FUNDS AS WELL

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	COLLIN	2845-01-020	FM 455	E,R	ANNA	TXDOT-DALLAS

LIMITS FROM: SH 5
LIMITS TO: EAST OF WILDWOOD TRAIL
TIP DESCRIPTION: RECONSTRUCT AND WIDEN 2 TO 4 LANE URBAN DIVIDED (ULTIMATE 6 LANES)
REMARKS: REVISE LIMITS

REV DATE: 02/2019
MPO PROJECT ID: 55238
MTP REFERENCE: NRSA1-DAL-306

PENDING FHWA APPROVAL

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	2964-06-011	SH 190	E,R	VARIOUS	TXDOT-DALLAS

LIMITS FROM: IH 30
LIMITS TO: US 80
TIP DESCRIPTION: CONSTRUCT 0 TO 6 LANE TOLLWAY AND 0 TO 4 LANE DISCONTINUOUS FRONTAGE ROADS
REMARKS: PGBT EAST BRANCH

REV DATE: 07/2018
MPO PROJECT ID: 54015
MTP REFERENCE: FT1-39.10.1

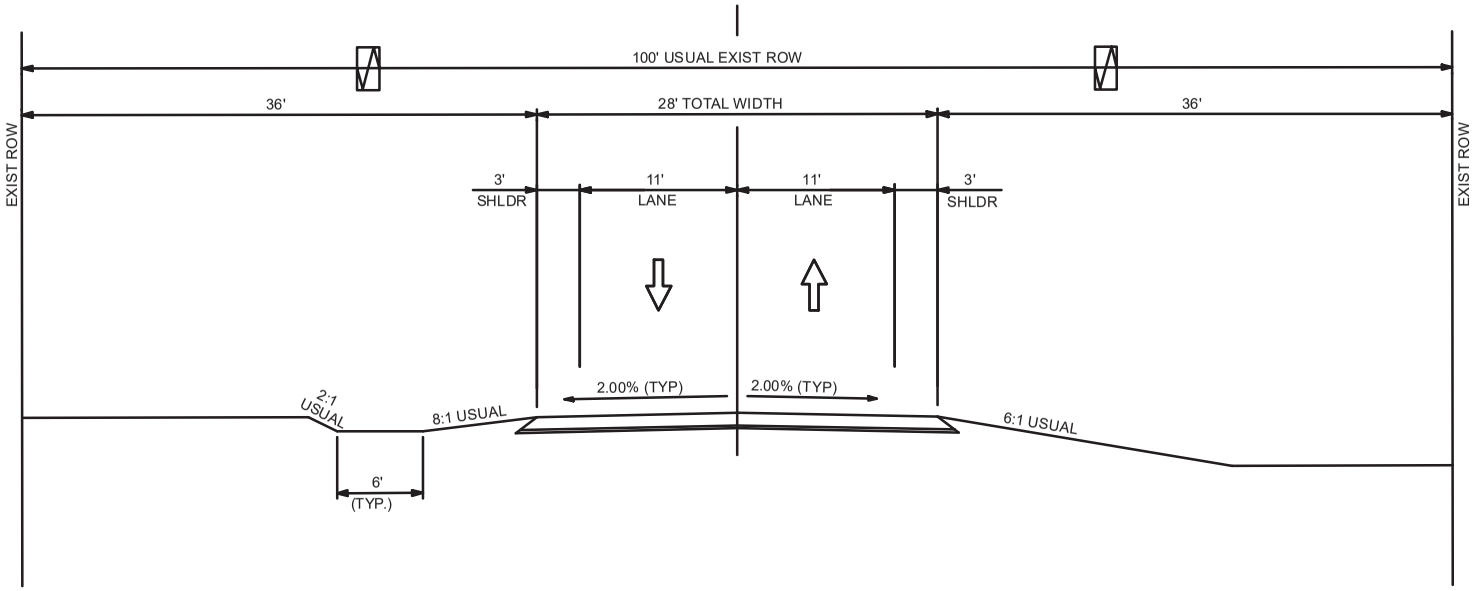
Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	2964-06-012	SH 190	E	VARIOUS	TXDOT-DALLAS

LIMITS FROM: US 80
LIMITS TO: IH 20
TIP DESCRIPTION: CONSTRUCT 0 TO 6 LANE TOLLWAY AND 0 TO 4 LANE DISCONTINOUS FRONTAGE ROADS
REMARKS: EIS ONGOING; PBGT EAST BRANCH

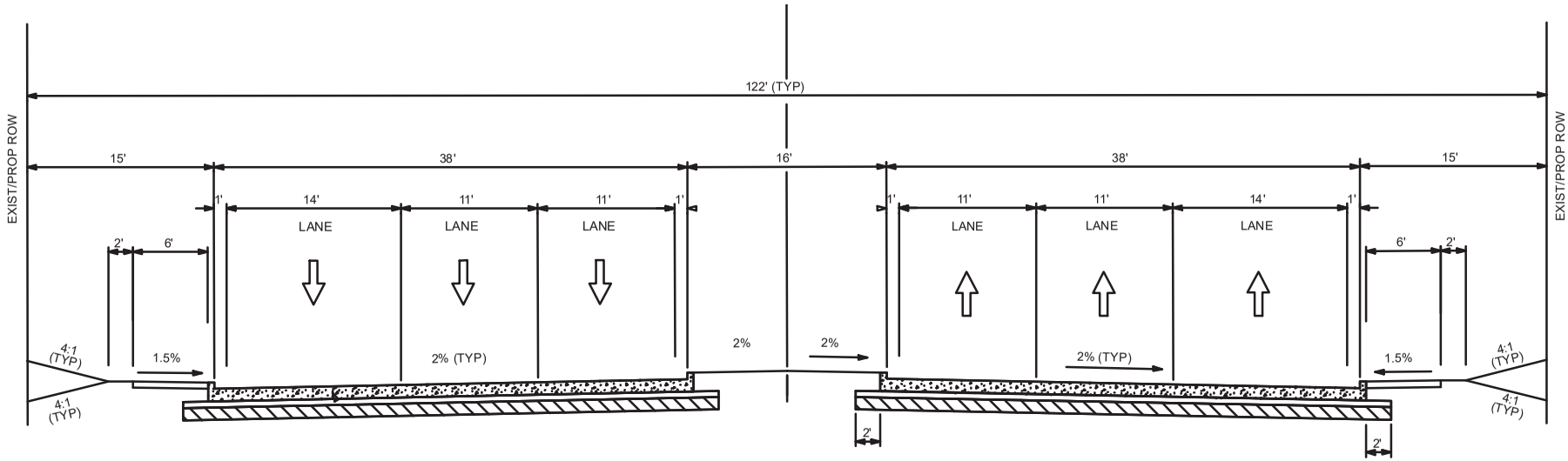
REV DATE: 07/2018
MPO PROJECT ID: 54070
MTP REFERENCE: FT1-39.10.1

Project History:



EXISTING TYPICAL SECTION FM 548

	FOR REPORT PURPOSES ONLY Not for construction, bidding, or permit purposes	TYPICAL SECTIONS FM 548 From North of US 80 To SH 205 Kaufman and Rockwall Counties CSJs: 2588-01-017 and 2588-02-008



PROPOSED TYPICAL SECTION FM 548

	FOR REPORT PURPOSES ONLY Not for construction, bidding, or permit purposes	TYPICAL SECTIONS FM 548 From North of US 80 To SH 205 Kaufman and Rockwall Counties CSJs: 2588-01-017 and 2588-02-008

Texas Department of Transportation

MEMO

March 18, 2019

TO: Administrative File
From: Rebekah Dobrasko

District: Dallas
County: Kaufman and Rockwall
CSJ#: 2588-01-017
Highway: FM 548
Let Date: March 2023

Project Limits: From US 80 to SH 205
Project Description: Stipulation IX, Appendix 6. Widen roadway and construct new bridges. Approximately 63.5 acres of new ROW and 8 acres of new permanent easement required. 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.

Proposed Project:
The Texas Department of Transportation – Dallas District proposes to widen approximately 7.8 miles of FM 548 in Kaufman and Rockwall Counties, Texas. TxDOT will widen FM 664 from two lanes to six travel lanes, and will construct new sidewalks for the length of the project. The project will replace an existing bridge over Brushy Creek as well as five bridge-class culverts and four culverts. Overall, TxDOT will acquire approximately 63.5 acres of new right-of-way (ROW) and 8 acres of new permanent drainage easements to construct this project.

Determination of Eligibility:
TxDOT historians reviewed the NRHP, the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL) and TxDOT files and found no historically significant resources within the area of potential effect (APE). Per our Section 106 Programmatic Agreement, the APE for this project is 150 feet from new ROW along existing roadway.

TxDOT contacted the Kaufman and Rockwall County Historical Commissions (CHC) about the proposed project. The CHCs did not respond to our inquiry about any potential historic resources along FM 548.

TxDOT conducted a historic resources reconnaissance survey of the project's APE. We identified 17 historic-age (prior to 1978) resources in the APE. The majority of the resources exhibited historic integrity issues and lacked any local significance. Overall TxDOT did not identify any resources that exhibited any historic significance or architectural significance. TxDOT finds all identified historic-age properties as **not eligible** for the NRHP.

Determination of Effects:
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 historic, non-archeological properties in the APE. Individual project coordination with SHPO is not required.

Lead Reviewer RMDobrasko for TxDOT 3/18/2019

Rebekah Dobrasko — Date

Approved by _____ for TxDOT 3.18.19

Bruce Jensen — Date