# Final
# Environmental Assessment

## Interstate Highway 35 West (IH 35W) Frontage Roads, TxDOT Dallas District

From: Dale Earnhardt Way

To: The IH 35E/IH35W Interchange

Control-Section-Job (CSJ): 0081-13-065

Denton County, Texas

Date: June 2020

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

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## LIST OF ACRONYMS

The following is a list of acronyms used throughout this document and their definitions.

| | |
|---|---|
| ACS | American Community Survey |
| ACT | Antiquities Code of Texas |
| ADA | Americans with Disabilities Act |
| ADT | Average Daily Traffic |
| AOI | Area of Influence |
| APE | Area of Potential Effect |
| BMP | Best Management Practice |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CGP | Construction General Permit |
| CIA | Community Impacts Assessment |
| CMP | Congestion Management Process |
| CO | Carbon Monoxide |
| CSJ | Control-section-job number |
| CWA | Clean Water Act |
| DHHS | Department of Health and Human Services |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EJ | Environmental Justice |
| EO | Executive Order |
| EPA | Environmental Protection Agency |
| EPIC | Environmental Permits, Issues, and Commitments |
| ETC | Estimated Time of Completion |
| FEMA | Federal Emergency Management Agency |
| FHWA | Federal Highway Administration |
| FIRM | Floodplain Insurance Rate Map |
| FM | Farm-to-Market Road |
| FONSI | Finding of No Significant Impact |
| FPPA | Farmland Protection Policy Act |
| FTA | Federal Transit Administration |
| IH | Interstate Highway |
| ISA | Initial Site Assessment |
| LEP | Limited English Proficiency |
| LPST | Leaking Petroleum Storage Tank |
| LWCF | Land and Water Conservation Fund |
| MBTA | Migratory Birds Treaty Act |
| MOU | Memorandum of Understanding |
| MPH | Miles Per Hour |
| MSAT | Mobile Source Air Toxics |
| MS4 | Municipal Separate Storm Sewer System |
| MTP | Metropolitan Transportation Plan |
| NAAQS | National Ambient Air Quality Standards |
| NAC | Noise Abatement Criteria |

| | |
|---|---|
| NCTCOG | North Central Texas Council of Governments |
| NEPA | National Environmental Policy Act |
| NFIP | National Flood Insurance Program |
| NHPA | National Historic Preservation Act |
| NOA | Notice of Availability |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NWP | Nationwide Permit |
| PCN | Preconstruction Notification |
| PM | Particulate Matter |
| PS&E | Plans, Specifications, and Estimates |
| PST | Petroleum Storage Tank |
| PWC | Parks and Wildlife Code |
| ROW | Right-of-Way |
| RSA | Resource Study Area |
| RTC | Regional Transportation Council |
| RTHL | Recorded Texas Historic Landmarks |
| SAL | State Antiquities Landmark |
| SGCN | Species of Greatest Conservation Need |
| SHPO | State Historic Preservation Officer |
| SIP | State Implementation Plan |
| STIP | Statewide Transportation Program |
| SW3P | Stormwater Pollution Prevention Plan |
| TAC | Texas Administrative Code |
| TAQA | Traffic Air Quality Analysis |
| TCAP | Texas Conservation Action Plan |
| TCEQ | Texas Commission on Environmental Quality |
| TERP | Texas Emissions Reduction Plan |
| THC | Texas Historical Commission |
| TIP | Transportation Improvement Program |
| TMDL | Total Maximum Daily Load |
| TPDES | Texas Pollutant Discharge Elimination System |
| TP&P | Transportation Planning and Programming Division |
| TPW | Texas Parks and Wildlife |
| TPWD | Texas Parks and Wildlife Department |
| TWDB | Texas Water Development Board |
| TxDOT | Texas Department of Transportation |
| URARPAPA | Uniform Relocation Assistance and Real Property Acquisition Policies Act |
| US | United States Highway |
| USACE | United States Army Corps of Engineers |
| USC | United States Code |
| USCB | United States Census Bureau |
| USDOT | United States Department of Transportation |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| WOUS | Waters of the United States |

# 1.0 INTRODUCTION

The Texas Department of Transportation (TxDOT) is proposing improvements to Interstate Highway 35 West (IH 35W) from Dale Earnhardt Way in the City of Fort Worth to south of the IH 35E/IH35W interchange in the City of Denton, Denton County, Texas; a distance of approximately 12.3 miles. The proposed project consists of the construction of continuous, one-way, two-lane urban, northbound and southbound frontage roads along IH 35W, entrance and exit ramp reversals, flipping three interchanges so that the IH 35W mainlanes cross over these streets; constructing a new interchange for the future Denton Creek Road, and expanding the Cleveland Gibbs Road, FM 407, Robson Ranch Road/Crawford Road, and proposed Loop 288/Vintage Road interchanges. See **Appendix A: Maps – Project Location Map, USGS Topographic Map,** and **Aerial 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 Draft EA was made available for public review and TxDOT considered all comments received during the public comment period. If TxDOT determines that there are no significant adverse effects as a result of the proposed project, a Finding of No Significant Impact (FONSI), will be prepared, signed, and be made available to the public.

# 2.0 PROJECT DESCRIPTION

## 2.1 Existing Facility

*Mainlanes*

The mainlanes consist of two 12-foot wide general-purpose lanes in each direction with 4-foot to 6-foot wide inside shoulders and 9-foot to 12-foot wide outside shoulders separated by a 35 to 40-foot wide median.

*Frontage Roads*

At the north end of the project, the existing IH 35W contains an approximate 0.5-mile long, discontinuous, two-way, southbound frontage road consisting of two 12-foot wide lanes with a 10-foot wide outside shoulder and a 4-foot wide inside shoulder. The frontage road provides no access to IH 35W.

*Entrance/ Exit Ramps*

The existing northbound and southbound entrance and exit ramps consist of one 14-foot wide lane with 2-foot wide inside shoulders and 10-foot wide outside shoulders. All of the existing ramp configurations at interchanges are of a conventional diamond design.

*Interchanges*

The existing Dale Earnhardt Way at IH 35W consists of two 12-foot wide eastbound and westbound travel lanes separated by 14-foot wide two-way left-turn lane, and 10-foot wide outside shoulders. Dale Earnhardt Way crosses over the IH 35W mainlanes.

The existing FM 1171 (Cross Timber Road) at IH 35W consists of one 12-foot wide travel lane in each direction. FM 1171 (Cross Timber Road) crosses over the IH 35W mainlanes.

The existing Cleveland Gibbs Road at IH 35W consists of one 12-foot wide travel lane in each direction. Cleveland Gibbs Road crosses over the IH 35W mainlanes.

The existing FM 407 at IH 35W consists of one 12-foot wide travel lane in each direction separated by 14-foot wide two-way left-turn lane. FM 407 crosses under the IH 35W mainlanes.

The existing Old Justin Road at IH 35W consists of one 12-foot wide travel lane in each direction. Old Justin Road crosses over the IH 35W mainlanes. There is no access to IH 35W from Old Justin Road.

The existing Robson Ranch Road west of IH 35W consists of one eastbound 12-foot wide travel lane, one eastbound 12-foot wide dedicated right-turn lane, and two westbound 12-foot wide travel lanes. The existing Crawford Road at IH 35W consists of one eastbound 12-foot wide travel lane and one westbound 12-foot wide travel lane. Robson Ranch Road/Crawford Road crosses under the IH 35W mainlanes.

The existing John Paine/Allred Road at IH 35W consists of one eastbound 12-foot wide travel lane and one westbound 12-foot wide travel lane. John Paine/Allred Road crosses over the IH 35W mainlanes. There is no access to IH 35W from John Paine/Allred Road.

The existing FM 2449/Vintage Road at IH 35W consists of one eastbound 12-foot wide travel lane and one westbound 12-foot wide travel lane. The FM 2449/Vintage Road crosses over the IH 35W mainlanes.

See **Appendix B: Project Photographs**, **Appendix C: Project Schematic**, and **Appendix D: Typical Sections**.

## 2.2 Proposed Facility

*Mainlanes*

The proposed project includes replacement of the existing IH 35W cross-street overpasses with new overpasses at IH 35W/Cross Timbers Road, IH 35W/FM 407, IH 35W/Old Justin Road, IH 35W/Robson Ranch Road/Crawford Road, and IH 35W/John Paine Road/Allred Road. The width of the bridge structures is based on the ultimate IH 35W mainlanes. Constructing the ultimate bridge structures along with changing the IH 35W ramp

configuration from a conventional diamond to a reverse diamond (X ramp), requires portions of the ultimate IH 35W mainlanes to be constructed with transition pavement sections to tie back to the existing. The proposed mainlanes at the interchanges would consist of three 12-foot wide lanes in each direction with 10-foot wide inside shoulders and 12-foot wide outside shoulders.

*Frontage Roads*

The proposed northbound and southbound frontage roads would consist of one 12-foot wide inside travel lane, one 14-foot wide outside shared use lane with 2-foot wide curb offsets, and a 6-foot wide sidewalk in each direction.

The proposed northbound and southbound frontage road bridges would consist of one 12-foot wide inside travel lane, one 14-foot wide outside shared use lane with two-foot wide inside and outside shoulders, and an 8-foot wide sidewalk in each direction.

*Entrance/ Exit Ramps*

The proposed northbound and southbound entrance and exit ramps would consist of one 14-foot wide lane with 4-foot wide inside shoulders and 8-foot wide outside shoulders. All of the proposed ramp configurations at interchanges would be of a reverse diamond (X ramp) design.

*Interchanges*

The proposed Dale Earnhardt Way at IH 35W would consist of one inside 12-foot wide travel lane, one 14-foot wide outside shared use lane with a 2-foot wide curb offset, a 10-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets in each direction. The eastbound and westbound roadways would be separated by a 14-foot wide two-way left-turn lane.

The proposed FM 1171 (Cross Timber Road) at IH 35W would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, two 12-foot wide travel lanes, one 14-foot wide outside shared use lane with a 2-foot wide outside curb offset, an 18-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets in each direction. FM 1171 (Cross Timber Road) would be flipped so that the IH 35W mainlanes cross over FM 1171 (Cross Timber Road).

The proposed eastbound Cleveland Gibbs Road at IH 35W would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, one 12-foot wide travel lane, and one outside 14-foot wide shared use lane. The westbound roadway would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, one 12-foot wide travel lane, one 14-foot wide outside shared use lane with a 2-foot wide outside curb offset, an 18-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets. Cleveland Gibbs Road would be flipped so that the IH 35W mainlanes cross over Cleveland Gibbs Road. The interchange would be relocated

approximately 400 feet north of its existing location and would tie into a future Cleveland Gibbs Road designed and constructed by others.

The proposed eastbound Denton Creek Road at IH 35W is a new interchange and would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, one 12-foot wide travel lane, one 14-foot wide outside shared use lane with a 2-foot wide outside curb offset, an 18-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets. The westbound roadway would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, one 12-foot wide travel lane, and one outside 14-foot wide shared use lane. The new interchange would tie into a future Denton Creek Road designed and constructed by others.

The proposed FM 407 at IH 35W would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, two 12-foot wide travel lanes, one 14-foot wide outside shared use lane with a 2-foot wide outside curb offset, an 18-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets in each direction.

The proposed Old Justin Road at IH 35W interchange would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, one 12-foot wide travel lane, one 14-foot wide outside shared use lane with a 2-foot wide outside curb offset, an 18-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets in each direction. Old Justin Road would be flipped so that the IH 35W mainlanes cross over Old Justin Road and access from Justin Road to IH 35W would be provided via ramps.

The proposed Robson Ranch Road/Crawford Road at the IH 35W interchange would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, one 12-foot wide travel lane, one 14-foot wide outside shared use lane with a 2-foot wide outside curb offset, an 18-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets in each direction.

The proposed Loop 288/Vintage Road (FM 2499) at the IH 35W interchange would consist of one inside 12-foot wide dedicated left-turn lane with a 2-foot wide inside curb offset, one 12-foot wide travel lane, one 14-foot wide outside shared use lane with a 2-foot wide outside curb offset, an 18-foot wide outside median, and a 20-foot wide U-turn lane with 2-foot wide inside and outside curb offsets in each direction.

*Right of Way*

The proposed project would require approximately 95.43 acres of additional right of way (ROW) and 2.47 acres of permanent drainage easements.

See **Appendix B: Project Photographs**, **Appendix C: Project Schematic**, and **Appendix D: Typical Sections.**

## 2.3 Logical Termini and Independent Utility

*Logical Termini*

Federal regulations require that federally funded transportation projects have logical termini. 23 CFR 771.111(f)(1). Simply stated, this means that a project must have rational beginning and end points. Those end points may not be created simply to avoid proper analysis of environmental impacts. The logical termini for the IH 35W Frontage Roads project are from Dale Earnhardt Way to the IH 35E/IH 35W interchange, and were determined to be the logical termini because these roadways are major traffic generators.

*Independent Utility*

Federal regulations require that a project have independent utility and be a reasonable expenditure even if no other transportation improvements are made in the area. 23 CFR 771.111(f)(2). This means a project must be able to provide benefit by itself, and that the project not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built. Within the logical termini, the IH 35W Frontage Roads project is of independent utility because the proposed project can improve safety and provide access to adjacent land uses, which satisfies the project's need with no other projects being constructed. Because the project stands alone, it cannot and does not irretrievably commit federal funds for other future transportation projects. The project limits encompass the entire length of the project in which construction would take place and account for transitions into the existing roadway.

Federal law prohibits a project from restricting consideration of alternatives for other reasonably foreseeable transportation improvements. 23 CFR 771.111(f)(3). This means that a project must not dictate or restrict any future roadway alternatives. The proposed project would not restrict the consideration of alternatives for other foreseeable transportation improvements because ongoing design coordination has occurred to ensure that the proposed project would accommodate projects by others in the area. Other projects within the project limits include improvements to Cleveland Gibbs Road, Denton Creek Road, FM 407, and Loop 288/Vintage Road (FM 2499). The proposed project and these projects as mentioned are included in the transportation planning documents of the region. See **Appendix A: Project Location Map**, **USGS Map**, and **Aerial Map**; **Appendix B: Project Photographs**; **Appendix C: Project Schematic**; and **Appendix D: Typical Sections**.

## 2.4 Planning and Programming Status

The proposed project is included in the North Central Texas Council of Governments (NCTCOG) Mobility 2045 Metropolitan Transportation Plan (MTP) and in the 2019-2022 Transportation Improvement Program (TIP). The total project cost is estimated to be approximately $354 million. The project would be funded by state, and federal funds. The MTP and Statewide Transportation Improvement Program (STIP) pages for the proposed IH 35W Frontage Roads

project are included in **Appendix E: Plan and Program Excerpts**. The proposed project letting date would be 2022 and the estimated time of completion (ETC) would be 2028.

# 3.0 PURPOSE AND NEED

## 3.1 Need

The proposed project is needed to address transportation issues associated with travel safety, population and employment growth, and access to development in the project corridor. These issues are discussed in greater detail in Section 3.2.

## 3.2 Supporting Facts and Data

### *3.2.1 Travel Safety*

IH 35W vehicle crash data for the years 2017 to 2019 was obtained from TxDOT and used to identify design or operational issues leading to safety concerns, such as vehicle conflicts associated with problematic merging areas, ramp queue spillback onto mainlanes, or uncontrolled freeway access. The total crash concentration was calculated by determining the number of crashes per mile, converting to percentages of the total number of crashes (267), and assigning the percentages to one of seven crash concentration ranges. The highest crash concentrations on IH 35W are centered around 1) FM 2449/Vintage Road, 2) Robson Ranch Road/Crawford Road, and 3) FM 407. There are also slightly higher crash concentrations from Dale Earnhardt Way to just north of FM 1171 (Cross Timber Road).

### *3.2.2 Population and Employment*

*Mobility 2045*, prepared by the NCTCOG, is a guidance document for the implementation of multimodal transportation improvements, policies, and programs in the 12-county Metropolitan Planning Area (MPA) through the year 2045. According to Mobility 2045, the 12-county Dallas-Fort Worth (DFW) MPA had a 2010 population of approximately 6.4 million persons. By 2045, the population of the 12-county DFW MPA is projected to be 11.2 million persons; an increase in growth of approximately 75%.

According to NCTCOG population projections, the 2017 population of Denton County was 804,396 persons and the 2045 population is projected to be 1,346,316 persons; an increase in growth of approximately 67.3%.

The Texas Water Development Board (TWDB) conducts population projections to assist in regional water planning. **Table 1** shows the projected populations of five of the six cities or towns within the IH 35W project area for the years 2020 and 2040.

Table 1: Projected Populations for the Cities in the IH 35W Project Area

| City | 2020 | 2040 | Percent Increase |
|---|---|---|---|
| Town of Argyle | 6,000 | 13,000 | 116.7 |
| City of Denton | 160,145 | 211,733 | 32.2 |
| Town of Flower Mound | 75,555 | 93,000 | 23.1 |
| City of Fort Worth | 953,971 | 1,490,815 | 56.3 |
| Town of Northlake | 4,500 | 31,010 | 589.1 |

Source: TWDB 2016 Regional Water Plan.
http://www2.twdb.texas.gov/ReportServerExt/Pages/ReportViewer.aspx?%2fProjections%2fpop_City&rs:Command=Render
Accessed 7-18-19

As shown in **Table 1**, the 2020 projected populations for five of the six cities or towns in the IH 35W Frontage Roads project area are projected to grow from 23.1 to 589.1% by 2040.

According to the NCTCOG, 4,584,235 persons were employed in the 12-county DFW MPA in 2017. By 2045, 7,024,227 persons are projected to be employed in the 12- county DFW MPA; an increase in growth of approximately 53.2 percent. In Denton County, 298,071 persons were forecast to be employed in 2017. By 2045, Denton County employment is projected to be 479,619 persons; an increase in growth of approximately 60.9%.

### *3.2.3 Access to Development in the Project Corridor*

The IH 35W corridor is one of the last areas north of DFW with room for the development of large master planned communities with access to major employment centers such as Charles Schwab, Mercedes-Benz Financial, and Stanley Black and Decker. A number of existing and planned residential and commercial developments are under construction or are pending along the IH 35W corridor. The proposed frontage roads would facilitate access to these developments, which include the following:

- Indian Springs – This 160-acre development in the Town of Northlake will consist of high-density residential and commercial uses.
- Canyon Falls – This is a 1,119-acre master-planned community in the towns of Flower Mound, Northlake, and Argyle.
- Avalon at Argyle – This 404-acre development in the Town of Argyle includes a mix of commercial and residential uses with a mix of lot sizes and densities.
- Pecan Square – This 1,157-acre development in the Town of Northlake includes a mix of commercial and residential uses with a mix of lot sizes and densities.
- The Highlands – This is a 363-acre residential development with one-acre homesites in the Town of Northlake.
- The Heath Tract – This is an approximate 417-acre tract of land in Argyle, Texas that is proposed for development.

- Harvest – This is a 1,200-acre residential development in the Town of Argyle.
- The Ridge at Northlake – This is an approximate 820-acre mixed use development in the Town of Northlake.
- Hunter Ranch – This 3,179-acre master planned community in the City of Denton will include retail/commercial, industrial, single-family residential, medium density residential, schools, parks, and open space.
- Robson Ranch – This is a 2,700-acre master planned retirement community with 7,200 homes in the City of Denton.
- Cole Ranch – This 3,432-acre master planned community in the City of Denton will include retail/commercial, industrial, single-family residential, medium density residential, schools, parks, and open space.

### 3.3 Purpose

The purpose of the project is to improve safety and provide access to adjacent land uses.

## 4.0 ALTERNATIVES

### 4.1 Build Alternative

The Build Alternative consists of the construction of continuous, one-way, two-lane urban, northbound and southbound frontage roads along IH 35W. Other improvements would include changing the IH 35W ramp configuration from a conventional diamond to a reverse diamond (X ramp); flipping the Farm-to-Market (FM) 1171 (Cross Timber Road), Old Justin Road, and John Paine Road/Allred Road interchanges so that the IH 35W mainlanes cross over these streets; constructing an interchange for the future Denton Creek Road, and expanding the Cleveland Gibbs Road, FM 407, Robson Ranch Road/Crawford Road, and proposed Loop 288/Vintage Road interchanges.

In accordance with the March 11, 2010 Federal policy statement on Bicycle and Pedestrian Accommodations Regulations and Recommendations by the U.S. Department of Transportation, bicycle and pedestrian facilities would be included 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 and Americans with Disabilities Act (ADA) compliant sidewalks (width of 6 to 8 feet) would be included along the proposed frontage roads for the entire project limits.

The proposed project would require approximately 95.43 acres of additional ROW and 2.47 acres of permanent drainage easements.

### 4.2 No-Build Alternative

The No-Build Alternative serves as both the baseline against which the Build Alternative is evaluated and as an actual option within the project limits. The No-Build Alternative assumes no construction of any improvements within the project limits. The geometric configurations for the frontage roads, and ramps will remain in their present state. The No-Build Alternative would not improve safety or provide access to adjacent land uses and therefore, does not meet the purpose and need of the proposed improvements.

### 4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

A preliminary constraints analysis was conducted prior to schematic design so that environmental impacts could be avoided or minimized during the preliminary design process. Consequently, the proposed Build Alternative is the only build alternative considered.

## 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. They are also available online at http://www.keepitmovingdallas.com/IH35WFR.

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

### 5.1 Right of way/Displacements

**Build Alternative:** The Build Alternative would require approximately 95.43 acres of additional ROW and 2.47 acres of permanent drainage easements. No displacements are required. The ROW would be acquired from numerous properties along the east and west sides of the project.

The ROW acquisition would be limited to those properties required for roadway construction and would be acquired from properties along the east and west sides of the project (see **Appendix C: Project Schematic** and **Appendix D: Typical Sections**). Encroachment-alteration effects could include the loss of developable land for commercial use.

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

- Constraints were mapped and used in the planning process to avoid displacements.
- 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 or easements would be acquired, and no displacements would occur.

## 5.2 Land Use

Developed and undeveloped lands are present within the proposed project area; however, the majority of land in the project area is undeveloped. Adjacent undeveloped land consists of vacant (not utilized), agriculture (ranch and pasture), woodlands, fence row vegetation, streams, and ponds. Adjacent developed land includes the Texas Motor Speedway at the southwest corner of IH 35W at Dale Earnhardt Way, a concrete plant on the west side of IH 35W north of Cross Timbers Road, the Town of Draper RV Park and liquor store at the southwest corner of IH 35W at FM 407, the Harvest Residential Subdivision on the west side of IH 35W north of FM 407, and a number of industrial facilities on the west side of IH 35W north of Corbin Road, and University of North Texas Lovelace Stadium and Mean Green Village on the east side of IH 35W south of FM 1515.

There are 26 stream crossings within the proposed project limits. These streams consist of two tributaries to Elizabeth Creek, Catherine Branch, Denton Creek and one tributary, Cleveland Branch and one tributary, Graham Branch and seven tributaries, five tributaries to Graveyard Branch, Roark Branch and one tributary, Hickory Creek, and Dry Fork Hickory Creek and one tributary. There are floodplains and potential wetlands associated with some of these stream crossings within the proposed project area. Stream crossings and 100-year floodplains are shown on the **Project Resource Map** in **Appendix F: Resource-specific Maps**.

**Build Alternative:** Implementation of the Build Alternative would result in the conversion of approximately 95.43 acres of vacant land into transportation ROW and 2.47 acres of vacant land into permanent drainage easements. The land use changes associated with the proposed project do not conflict with the goals of the Towns of Argyle, Northlake, Flower Mound, and the City of Denton's Comprehensive Plans. The land use changes 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 changes resulting 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 U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) *Custom Soil Resource Report for Denton County, Texas* (December 5, 2019) was used to determine the soil units present within the proposed project area. **Table 2** lists the soil units within the project area (existing and proposed ROW) and their farmland classification.

**Table 2: Soil Units Within the Project Area and Their Farmland Classifications**

| Map Unit Name | Farmland Classification | Acres in Project Area[1] | Percent of Project Area |
|---|---|---|---|
| Aledo association, undulating | Not prime farmland | 1.0 | 0.13 |
| Altoga silty clay, 2 to 5 percent slopes | Farmland of statewide importance | 31.0 | 4.13 |
| Altoga silty clay, 5 to 8 percent slopes | Not prime farmland | 0.1 | 0.01 |
| Altoga silty clay, 5 to 12 percent slopes, eroded | Not prime farmland | 7.9 | 1.06 |
| Arents, gently undulating, occasionally flooded | Not prime farmland | 4.5 | 0.60 |
| Branyon clay, 0 to 1 percent slopes | All areas are prime farmland | 2.5 | 0.33 |
| Branyon clay, 1 to 3 percent slopes | All areas are prime farmland | 0.3 | 0.04 |
| Burleson clay, 0 to 1 percent slopes | All areas are prime farmland | 19.9 | 2.65 |
| Burleson clay, 1 to 3 percent slopes | All areas are prime farmland | 4.0 | 0.53 |
| Frio silty clay, frequently flooded | Not prime farmland | 70.7 | 9.43 |
| Gasil fine sandy loam, 1 to 3 percent slopes | All areas are prime farmland | 0.5 | 0.07 |
| Gasil fine sandy loam, 3 to 8 percent slopes | Not prime farmland | 1.0 | 0.13 |
| Gowen clay loam, frequently flooded | Not prime farmland | 9.8 | 1.31 |
| Justin fine sandy loam, 1 to 3 percent slopes | All areas are prime farmland | 1.4 | 0.19 |
| Justin fine sandy loam, 3 to 5 percent slopes | All areas are prime farmland | 4.3 | 0.57 |
| Lindale clay loam, 1 to 3 percent slopes | All areas are prime farmland | 73.6 | 9.81 |
| Medlin-Sanger clay, 5 to 15 percent slopes | Not prime farmland | 43.9 | 5.85 |
| Medlin-Sanger stony clay, 5 to 15 percent slopes | Not prime farmland | 7.4 | 0.99 |
| Mingo clay loam, 1 to 3 percent slopes | Farmland of statewide importance | 14.8 | 1.97 |
| Navo clay loam, 0 to 1 percent slopes | Farmland of statewide importance | 0.2 | 0.03 |
| Navo clay loam, 1 to 3 percent slopes | Farmland of statewide importance | 24.1 | 3.21 |
| Ovan clay, occasionally flooded | Not prime farmland | 2.7 | 0.36 |
| Ponder loam, 0 to 1 percent slopes | All areas are prime farmland | 15.5 | 2.07 |
| Ponder loam, 1 to 3 percent slopes | All areas are prime farmland | 125.9 | 16.79 |

Table 2: Soil Units Within the Project Area and Their Farmland Classifications

| Map Unit Name | Farmland Classification | Acres in Project Area[1] | Percent of Project Area |
|---|---|---|---|
| Sanger clay, 1 to 3 percent slopes | All areas are prime farmland | 87.9 | 11.72 |
| Sanger clay, 3 to 5 percent slopes | All areas are prime farmland | 57.8 | 7.71 |
| Slidell clay, 1 to 3 percent slopes | All areas are prime farmland | 47.5 | 6.33 |
| Somervell gravelly loam, 1 to 5 percent slopes | Not prime farmland | 50.4 | 6.72 |
| Speck clay loam, 1 to 3 percent slopes | Not prime farmland | 23.7 | 3.16 |
| Wilson clay loam, 1 to 3 percent slopes | Farmland of statewide importance | 15.7 | 2.09 |
| | Total | 750[2] | 100 |

Source: *Custom Soil Resource Report for Denton County, Texas*. USDA NRCS. December 5, 2019.
[1] Project area is defined as existing and proposed ROW.
[2] Approximate number.

**Build Alternative:** The Farmland Conversion Impact Rating for Corridor Type Projects was completed on November 26, 2019 and scored 35 on Part IV for Denton County. The NRCS has identified the proposed corridor as containing areas of Prime Farmland. The total rating of the Denton County site 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 FPPA documentation available in ECOS, which is on file with TxDOT Dallas District.

Farmland impacts would be limited to areas directly adjacent to the existing IH 35W Frontage Road 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:** There would be no IH 35W Frontage Road project related impacts because no ROW would be acquired.

### 5.4 Utility Relocation

Utility adjustment requirements within the project area 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 fire and police departments in the Towns of Argyle, Flower Mound, Northlake, and City of Denton. The closest fire department is located approximately 1.14 miles west of the project on Old Justine Road. The closest hospital is located adjacent to the project at the northeast corner of IH 35W at Crawford Road. The closest police station is located approximately 0.93 mile west of the project on FM 407.

**Build Alternative:** It is reasonably foreseeable that utilities will have to be relocated as a result of this project. The impacts resulting from removal of any utilities from within existing highway ROW have been considered as part of the project impacts under each of the resource area subheadings within this environmental assessment. Additionally, if utilities will be re-located within highway ROW, then the impacts resulting from re-installation of the utilities within highway ROW has also been considered as part of the project impacts under each of the resource area subheadings within this environmental assessment. To the extent that the owner of any displaced utility determines to re-install the displaced utility at a location outside of highway ROW, such location will be determined by the owner of the utility subject to the rules and policies governing the utility relocation process.

Formal utilities location and advance planning would be required to facilitate pipeline and utilities adjustments and to otherwise avoid associated impacts. TxDOT Dallas District SUE Coordinator and ROW would be responsible for the adjustments and displacements. Required utility adjustments would occur prior to or during construction of the proposed project. The adjustments and relocation of any utilities would be managed so that no substantial interruptions would occur. Utility adjustments would be confined to the project area; therefore, encroachment-alteration effects are not anticipated.

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, but 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.

Following completion of the proposed project, emergency services would have a more efficient facility to use in the performance of their duties resulting in faster response times, which is crucial for emergencies requiring an immediate response. After construction is complete, emergency response times are expected to be lower than current response times.

**No-Build Alternative:** Under the No-Build Alternative there would be no project-related impacts to utilities or emergency services.

### 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 *Guidelines for Emphasizing Bicycle and Pedestrian Accommodations*. These guidelines implement the USDOT's March 11, 2010 Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations.

Bicycle traffic would be accommodated on the proposed northbound and southbound frontage roads with 14-foot wide outside shared use lanes with 2-foot wide curb offsets. There would be six to eight-foot wide ADA-compliant sidewalks along the entire project limits in each direction (see **Appendix C: Project Schematic** and **Appendix D: Typical Sections**).

Encroachment-alteration effects consist of the potential for the 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

A community impacts assessment (CIA) was performed for the proposed project within a study area that was developed to include the communities potentially impacted by the proposed project. The assessment included an evaluation of community cohesion, access and travel patterns, environmental justice (EJ) and limited English proficiency (LEP) populations potentially affected by the proposed project. The boundaries of the community study area are based upon adjacent Census Block Groups within Denton County, and encompass the Towns of Argyle and Draper, as well as portions of the Towns of Bartonville, Flower Mound and Northlake, and City of Denton. A detailed discussion of the community impacts can be found in the *Community Impacts Assessment Technical Report Form* completed for the proposed project and available at the TxDOT Dallas District office.

Land use within the community study area is primarily agricultural and ranch land in its western portion; however, the area is quickly developing with a number of existing and planned residential developments underway. The eastern portion of the study area is primarily residential neighborhoods. Existing residential areas can be found along either side of US 377, in the northeast in Denton, and southeast in Flower Mound and Bartonville. There are also large areas of newly-built single-family residential developments within Northlake. The majority of residential areas throughout the study area are single family, though areas of higher-density urban development can be found in the northern limits in Denton. There are educational facilities interspersed across the central and northern portions of the study area. There is one area of industrial land use on the east side of IH 35W near Dale Earnhardt Way and another area at the northern limits of the study area adjacent to the IH 35W on the west side. There are a number of golf courses surrounded by older single-family developments in the eastern portion of the study area. There is a large area of undeveloped land within a

riparian/floodplain in the southern portion of the study area, stemming from Denton Creek, which flows into Grapevine Lake just east of the study area.

**Build Alternative:** Access to adjacent land from Dale Earnhardt Way north to FM 1515 would be improved by the continuous frontage roads, improved intersections, and new roadway connections. Currently, there is only access via cross streets.

All of the existing entrance and exit ramps on IH 35W would be flipped and moved from approximately 0.45 mile to 1.63 mile north or south of their present locations. Changes in travel time relative to the existing ramp locations are anticipated to be minimal.

The Build Alternative would also provide access to Cleveland Gibbs Road, the future Denton Creek Road, Sam Davis Road, Old Justin Road, John Paine Road/Allred Road. Currently, there is no access to IH 35W from these roadways.

The proposed FM 1515 at IH 35 interchange would be constructed by others and currently does not have access to IH 35W. The proposed IH 35W Frontage Roads project would construct one southbound IH 35W entrance ramp from the proposed FM 1515 interchange approximately 2.36 miles south of the existing FM 1515 and one northbound IH 35W exit ramp to the proposed FM 1515 interchange approximately 1.45 miles south of the existing FM 1515.

No adverse impacts are anticipated as a result of the ramp reversals and relocations. Travel times in the CIA study area would not be negatively impacted and new access to IH 35W from roadways without existing access would be provided.

The proposed project would not change the existing level of separation of any geographic areas or groups of people in the project area. The proposed project would not require any displacements. The addition of continuous frontage roads would provide direct access to all adjacent properties reducing their physical separation, while reconstructed interchanges as well as new interchanges, would substantially reduce physical separation for other properties with current access to those cross-streets. The inclusion of continuous sidewalks and shared-use lanes along frontage roads would also reduce physical separation for pedestrian and bicycle movement, which would aid future development adjacent to the project. Furthermore, the inclusion of frontage roads with sidewalks would provide a framework for future public transport as adjacent commercial and residential developments advance. The proposed project would also improve safety for movements across and along the project area by providing greater capacity for vehicular movement and new capacity for pedestrians and bicycles.

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

Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires the responsibility of each Federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

Based on 2010 U.S. Census data, there are 25 census blocks that indicate half or more of the population as minorities. The majority of these census blocks have very low populations. The EJ-predominant census block with the largest population (52% minority population) can be found just north of the project limits, at the edge of the study area within the City of Denton, and located less than a mile from the University of North Texas. The largest minority populations within this census block are Hispanic or Latino and Black or African American. The next largest EJ-predominant census block within the study area can be found at the very eastern edge of the study area, within the Town of Flower Mound. This census block is predominantly Hispanic or Latino.

Only two EJ census blocks can be found adjacent to the project corridor, with large portions of the corridor being unpopulated ranchland. It should be noted that demographics have likely changed significantly since the 2010 census was conducted nearly a decade ago. Notably, a number of recent housing developments have brought many people to areas near adjacent to the project location.

According to the 2013-2017 American Community Survey 5-Year Estimates Median Income Summary, no census block group or census block geographies show a median household income below the DHHS poverty level for a family of four of $25,750; however, Census Tract 209 does have a median income level below the poverty level. Median income in the study area within census block groups ranges from $36,641 to $119,535 and within census tracts ranges from $21,285 to $119,015. There are an estimated 632 households within the study area below the poverty level. Block Group 1, Census Tract 208 has the lowest median income and the most households below poverty level at 189 households for block groups. This is the same block group with the largest population and a majority minority population, found in the City of Denton on the northern limits of the study area near the University of North Texas.

**Build Alternative:** The proposed project would be consistent with Executive Order (EO) 12898. EJ populations would realize the same benefits as non-EJ populations: improved access, increased capacity, improved mobility, alleviated congestion, and improved traffic safety. There would be no displacements, separation of neighborhoods, or changes in community cohesion. It is not anticipated that the populations in the two EJ census blocks adjacent to the project corridor would be adversely impacted to changes in access or travel patterns because motorists would enter and exit IH 35W from the same cross streets as they currently do and travel times would be similar. No adverse encroachment-alteration effects on EJ populations are anticipated.

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:** Implementation of the No-Build Alternative would result in no adverse or beneficial impacts to EJ populations.

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

EO 13166 requires federal agencies to develop and implement a plan to provide services to LEP individuals to ensure meaningful access to programs and activities conducted by federal agencies. LEP Individuals are defined as individuals who do not speak English as their primary language and who have a limited ability to read, write, speak, or understand English. Meaningful access is defined as language assistance that results in accurate, timely, and effective communication to the LEP individual.

According to the 2013-2017 American Community Survey 5-Year Estimates Limited English Proficiency Summary, all census block groups show the presence of LEP populations, with the highest being Block Group 1, Census Tract 208 with 8.2%. At the census tract level, Census Tract 208 has 14% LEP population, and Census Tract 209 has 11%, with Spanish being the most spoken. The primary language spoken by LEP populations is Spanish at 52% of all LEP populations across all census block groups. However, Block Group 2, Census Tract 203.07 has a slightly larger LEP population that speaks Other Indo-European Languages (3.1%) compared to Spanish-speaking LEP population (2.9%). Also, Block Group 2, Census Tract 203.10 has zero Spanish-speaking LEP peoples, but has an Asian and Pacific Island language speaking LEP population of 4.8% of the total population, and amounts to an estimated 22 persons.

A public meeting was held on May 16, 2019 at the Argyle Middle School. Bilingual English/Spanish public meeting notices were mailed to adjacent property owners. Public meeting display ads were published in English and Spanish newspapers and Spanish-speaking staff were present at the public meeting. The public meeting notices stated that accommodations for other non-English languages would be provided if requested ahead of the meeting; however, no assistance in a language other than English was required.

An on-line virtual public hearing was held on April 30, 2020 at http://www.keepitmovingdallas.com/IH35WFR. Bilingual English/Spanish public hearing notices were mailed to adjacent property owners and other interested persons. Public hearing display ads were published in English and Spanish newspapers. The public hearing notices stated that special communication accommodations or an interpreter for non-English languages would be provided if requested ahead of the hearing; however, no assistance was required. The virtual public hearing included both audio and visual components. English and Spanish versions of the virtual public hearing were available for viewing through May 15,

2020. Persons without internet access could call TxDOT between 8:00 am to 5:00 pm on weekdays to ask questions about the project and access project materials during the project development process. Immediately following the conclusion of the virtual public hearing presentation, members of the public could call a telephone number to provide verbal testimony or submit formal written comments by mail or email.

### 5.7 Visual/Aesthetics

IH 35W is a divided four--lane highway with an approximate 0.5-mile long, discontinuous, two-way, southbound frontage road at the north end of the project. Eight roads cross the project with Dale Earnhardt Way, FM 1171 (Cross Timber Road), Cleveland Gibbs Road, Old Justin Road, John Paine/Allred Road, and FM 2449/Vintage Road crossing over the IH 35W mainlanes, and FM 407 and Robson Ranch Road/Crawford Road crossing under the mainlanes. Vegetation in the ROW primarily consists of maintained grasses with minimal tree cover at some of the stream crossings. Aesthetic enhancement of the existing roadway is minimal.

**Build Alternative:** Visual impacts resulting from the Build Alternative would include the construction of northbound and southbound frontage roads along IH 35W; changing the IH 35W ramp configuration from a conventional diamond to a reverse diamond (X ramp) configuration; flipping FM 1171 (Cross Timber Road), Cleveland Gibbs Road, and Old Justin Road so that they cross under the IH 35W mainlanes, moving the location of the Cleveland Gibbs Road intersection; constructing a future Denton Creek Road interchange, and expanding the Cleveland Gibbs Road, FM 407, Robson Ranch Road/Crawford Road, and proposed Loop 288/Vintage Road interchanges..

Because this is a change from the existing condition, the viewsheds of existing residences and business facilities would be directly impacted. The proposed project would not substantially change the views and setting from the existing conditions within the project limits because there are already mainlanes and numerous grade-separated interchanges within the corridor. No substantial visual impacts are anticipated for views towards and from the roadway.

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 IH 35W Frontage Road 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.

Evaluation of impacts to cultural resources has been conducted under Section 106 of the National Historic Preservation Act in accordance with the Programmatic Agreement among FHWA, TxDOT, the Texas State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings. See **Appendix G: Resource Agency Coordination** for the coordination documentation.

### *5.8.1 Archeological Resources*

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).

**Build Alternative:** An archeological background study was completed in September 2019. Results of the background study concluded that local geologic and soil conditions are not conducive to the preservation of buried archeological materials. Since no sites were identified in the APE or areas adjacent to the currently proposed improvements and the subject area would be considered low probability for containing intact archeological materials, no additional survey is recommended at this time.

Pursuant to Stipulation VI of the Programmatic Agreement (PA-TU) and 43 TAC 2.24(f)(1)(C) of the MOU, TxDOT finds that the proposed undertaking would not affect archeological historic properties on or eligible for listing in the NRHP (36 CFR 800.16(l)) or as SALs. No further investigations are warranted. See **Appendix G: Resource Agency Coordination** for archeological resources coordination documentation.

If unanticipated archeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archeological staff will be contacted to initiate post-review discovery procedures under the provisions of the PA-TU and MOU.

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.

**No-Build Alternative:** The proposed improvements would not occur; therefore, no impacts to potential archeological resources would occur.

### *5.8.2 Historic Properties*

TxDOT historians reviewed the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files and found no historically significant resources previously documented within the area of potential effects (APE). The TxDOT Section 106 Programmatic Agreement defines the APE for this project as 150' from the proposed new ROW and the existing ROW where no new ROW is necessary. TxDOT historians conducted a desktop analysis and examination of historic aerial photographs of the APE.

TxDOT identified the historic-age date of 1980 for any potential historic properties. TxDOT historians identified one historic-age property in the APE, a barn constructed prior to 1968. This barn (on the southwest corner of the intersection of IH 35W and CR 338 is abandoned and no longer associated with any agricultural residence or activities. Therefore, TxDOT finds this barn to be not eligible for listing in the NRHP.

TxDOT held a public meeting and a public hearing about this project in May 2019 and April 2020, respectively. TxDOT did not receive any comments related to any historic properties in the project area.

**Build Alternative:** 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, On January 9, 2020, TxDOT historians determined that there are no historic properties affected by this project. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects. Individual project coordination with SHPO is not required. See **Appendix G: Resource Agency Coordination** for historic resources coordination documentation.

**No-Build Alternative:** The No-Build Alternative would not affect historic properties.

## 5.9 Protected Lands

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 a historic site of national, State, or local significance. Section 6(f) protects properties funded by the Land and Water Conservation Fund (LWCF). Texas Parks and Wildlife Code (PWC) Chapter 26 mandates that any department, agency, political subdivision, county, or municipality of Texas may not approve any program or project that requires the use or taking of any public land designated and used prior to the arrangement of the program or project as a park, recreation area, scientific area, wildlife refuge, or historic site unless it is determined that there is no feasible and prudent alternative to the use or taking of such land; and the program or project includes

all reasonable planning to minimize harm to the land, as a park, recreation area, scientific area, wildlife refuge, or historic site, resulting from the use or taking.

There are no Section 4(f), Section 6(f), or Chapter 26 properties present in the project area.

## 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 27 streams within the project limits. These streams consist of two tributaries to Elizabeth Creek; Catherine Branch; Denton Creek and one tributary to Denton Creek; Cleveland Branch and one tributary to Cleveland Branch, Graham Branch and seven tributaries to Graham Branch, five tributaries to Graveyard Branch, Roark Branch and one tributary to Roark Branch, Hickory Creek, and Dry Fork Hickory Creek and one tributary to Dry Fork Hickory Creek.

**Build Alternative:** This project will involve regulated activity in jurisdictional waters and therefore will require authorization under Section 404. The following table (**Table 3**) shows the waters that are anticipated to be jurisdictional waters in which regulated activity is anticipated to take place. It also indicates whether the impacts are anticipated to be authorized under Section 404 by a non-reporting nationwide permit (i.e., no pre-construction notification required), or if it is anticipated that a nationwide permit with pre-construction notification, individual permit, letter of permission, or regional general permit will be required.

## Table 3: Waters of the U.S. in the Project Area and Build Alternative Impacts

| Crossing Number | Waterbody or Wetland Number | Waterbody Name (Type) | Temporary Fill for Crossing | | | Permanent Fill for Crossing | | | Authorization Type |
|---|---|---|---|---|---|---|---|---|---|
| | | | Waterbody or Wetlands (Acres) | Streams (Linear Feet/ Acres) | Cubic Yards of Fill Material to be Discharged | Waterbody or Wetlands (Acres) | Streams (Linear Feet/Acres) | Cubic Yards of Fill Material to be Discharged | |
| 1 | 1 | Unnamed Tributary of Elizabeth Creek (Ephemeral stream) | - | 17/ 0.002 | 1.30 | - | - | | NWP 14 |
| 2 | 2 | Elizabeth Creek Tributary 2 (Ephemeral stream) | - | 22/ 0.002 | 1.48 | - | - | | NWP 14 |
| 3 | 3 | Catherine Branch (Perennial stream) | - | 150/ 0.038 | 30.56 | - | - | | NWP 14 |
| 4 | 4 | Open Water 1 (Pond/ Impoundment) | - | - | - | 0.057 | - | 23.27 | NWP 14 with PCN |
| 5 | 5 | Denton Creek Tributary 6 (Intermittent stream) | - | 588/ 0.027 | 1.85 | - | 22/ 0.001 | 0.17 | NWP 14 |
| 6 | 6 | Denton Creek (Perennial stream) | - | 120/ 0.138 | 111.11 | - | - | | NWP 14 |
| 7 | 7 | Unnamed Tributary of Cleveland Branch (Ephemeral stream) | - | 240/ 0.011 | 3.07 | - | - | | NWP 14 |
| 8 | 8 | Cleveland Branch (Ephemeral stream) | - | 87/ 0.002 | 0.62 | 0.038 | 60/ 0.014 | 10.24 | NWP 14 with PCN |
| | 9 | Wetland 1 (Palustrine emergent) | | | | | | | |
| 9 | 10 | Graham Branch Tributary 10 (Ephemeral stream) | - | 189/ 0.013 | 8.80 | 0.017 | - | 16.67 | NWP 14 with PCN |
| | 11 | Wetland 2 (Palustrine emergent) | | | | | | | |
| 10 | 12 | Graham Branch Tributary 10.1 (Ephemeral stream) | - | 218/ 0.01 | 5.19 | 0.018 | - | 7.74 | NWP 14 with PCN |
| | 13 | Wetland 3 (Palustrine emergent) | | | | | | | |
| 11 | 14 | Unnamed Tributary of Graham Branch 1 (Ephemeral stream) | - | 152/ 0.007 | 3.95 | - | - | - | NWP 14 |
| 12 | 15 | Graham Branch Tributary 13 (Intermittent stream) | - | 73/ 0.01 | 5.41 | - | - | - | NWP 14 |
| 13 | 16 | Unnamed Tributary of Graham Branch 2 (Intermittent stream) | - | 78/ 0.018 | 9.75 | 0.001 | - | 0.74 | NWP 14 with PCN |
| | 17 | Wetland 4 (Palustrine emergent) | | | | | | | |
| 14 | 18 | Unnamed Tributary of Graham Branch 3 (Intermittent stream) | - | 54/ 0.01 | 5.33 | 0.001 | - | 0.61 | NWP 14 |

Table 3: Waters of the U.S. in the Project Area and Build Alternative Impacts

| Crossing Number | Waterbody or Wetland Number | Waterbody Name (Type) | Temporary Fill for Crossing | | | Permanent Fill for Crossing | | | Authorization Type |
|---|---|---|---|---|---|---|---|---|---|
| | | | Waterbody or Wetlands (Acres) | Streams (Linear Feet/ Acres) | Cubic Yards of Fill Material to be Discharged | Waterbody or Wetlands (Acres) | Streams (Linear Feet/Acres) | Cubic Yards of Fill Material to be Discharged | |
| | 19 | Wetland 5 (Palustrine emergent) | | | | | | | NWP 14 with PCN |
| 15 | 20 | Graham Branch at Sam Davis Rd. (Intermittent stream) | 0.043 | 112/ 0.09 | 68.50 | - | - | - | NWP 14 with PCN |
| | 21 | Wetland 6 (Palustrine emergent) | | | | | | | |
| | 22 | Wetland 7 (Palustrine emergent) | | | | | | | |
| 16 | 23 | Graham Branch Tributary 15 (Intermittent stream) | - | 185/ 0.017 | 6.97 | 0.025 | - | 9.33 | NWP 14 with PCN |
| | 24 | Wetland 8 (Palustrine emergent) | | | | | | | |
| 17 | 25 | Graham Branch at IH 35W (Intermittent stream) | - | 305/ 0.035 | 14.26 | - | - | - | NWP 14 |
| 18 | 26 | Unnamed Tributary of Graveyard Branch 1 (Ephemeral stream) | - | 100/ 0.023 | 3.78 | 0.027 | - | 5.56 | NWP 14 with PCN |
| | 27 | Wetland 9 (Palustrine emergent) | | | | | | | |
| 19 | 28 | Unnamed Tributary of Graveyard Branch 2 (Ephemeral stream) | - | 276/ 0.019 | 10.74 | 0.008 | - | 7.53 | NWP 14 with PCN |
| | 29 | Wetland 10 (Palustrine emergent) | | | | | | | |
| | 30 | Wetland 11 (Palustrine emergent) | | | | | | | |
| 20 | 31 | Graveyard Branch Tributary 2.1 (Ephemeral stream) | - | 44/ 0.004 | 2.27 | - | 152/ 0.014 | 7.41 | NWP 14 |
| 21 | 32 | Graveyard Branch Tributary 2 (Ephemeral stream) | - | 42/ 0.003 | 5.19 | - | 145/ 0.01 | 1.61 | NWP 14 |
| 22 | 33 | Graveyard Branch Tributary Unnamed (Ephemeral stream) | - | 44/ 0.003 | 1.48 | 0.061 | 131/ 0.009 | 39.18 | NWP 14 with PCN |
| | 34 | Wetland 12 (Palustrine emergent) | | | | | | | |
| 23 | 35 | Roark Branch Tributary 5.1 (Ephemeral stream) | - | 739/ 0.051 | 27.41 | - | 319/ 0.022 | 11.85 | NWP 14 with PCN |
| 24 | 36 | Roark Branch (Intermittent stream) | - | | | - | 150/ 0.069 | 92.59 | NWP 14 |

Table 3: Waters of the U.S. in the Project Area and Build Alternative Impacts

| Crossing Number | Waterbody or Wetland Number | Waterbody Name (Type) | Temporary Fill for Crossing | | | Permanent Fill for Crossing | | | Authorization Type |
|---|---|---|---|---|---|---|---|---|---|
| | | | Waterbody or Wetlands (Acres) | Streams (Linear Feet/ Acres) | Cubic Yards of Fill Material to be Discharged | Waterbody or Wetlands (Acres) | Streams (Linear Feet/Acres) | Cubic Yards of Fill Material to be Discharged | |
| 25 | 37 | Hickory Creek (Intermittent stream) | - | 70/ 0.092 | 49.26 | - | - | - | NWP 14 |
| 26 | 38 | Dry Fork Hickory Creek (Intermittent stream) | - | 128/ 0.044 | 24.07 | - | - | - | NWP 14 |
| 27 | 39 | Unnamed Tributary of Dry Fork Hickory Creek Tributary 1 (Ephemeral stream) | - | 22/ 0.001 | 0.77 | - | 87/ 0.004 | 2.69 | NWP 14 |

Source: Study Team. November 2019.

As shown in **Table 3**, implementation of the Build Alternative would result in impacts to Waters of the U.S. These impacts would result from paved roadway construction, culvert installation, culvert replacement, and bridge column and riprap installation. Stream crossings and 100-year floodplains are shown on the **Project Resource Map** in **Appendix F: Resource-specific Maps**. See the I*H 35W Frontage Roads Water Resources Technical Report* for detailed information and figures.

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

### *5.10.1 Clean Water Act Section 404*

Crossings 4 and 5, Crossings 8 through 10, Crossings 13 and 14, Crossing 16, Crossings 18 through 24, and Crossing 27 would be permanently impacted by the proposed project. These crossings would be authorized under Nationwide Permit (NWP) 14 – Linear Transportation Projects. The activities at these crossings 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 NWP.

A Preconstruction Notification (PCN) would be required at Crossing 4, Crossings 8 through 10, Crossings 13 through 16, Crossings 18 and 19, and Crossing 22 because of wetland impacts. Compensatory mitigation would be required for crossings that exceed 0.10-acre thresholds, according to the current NWP criteria.

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.

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.

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.

**No-Build Alternative:** Construction of the proposed IH 35W Frontage Roads project would not occur so there would be no project-related impacts to Waters of the U.S.

### *5.10.2 Clean Water Act Section 401*

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

General Condition 25 of the NWP Program requires applicants using NWP 14 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 and storm inlet sediment traps.

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 IH 35W Frontage Roads project would not occur, there would be no project-related impacts on water quality associated with the No-Build Alternative.

### *5.10.3 Executive Order 11990 Wetlands*

Executive Order (EO) 11990 (Protection of Wetlands) prohibits new construction in wetlands unless (1) there is no practicable alternative to such construction, and (2) the project includes all practicable measures to minimize harm to wetlands.

**Build Alternative**: Pursuant to EO 11990 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 August 14-15 and August 22-23, 2019. Results of the reconnaissance identified wetlands within the project limits at Crossing 4, Crossings 8 through 10, Crossings 13 through 16, Crossings 18 and 19, and Crossing 22. These wetlands consist of one impoundment in the 100-year floodzone with the remaining wetlands abutting streams. Based on the current design analysis, there are no practicable alternatives to construction in wetlands.

The proposed action includes all practicable measures to minimize harm to wetlands. Impacts on wetlands would be minimized by keeping the construction footprint as small as possible while enabling construction that meets all requirements for the proposed project's implementation. The construction contractor would be required to avoid and minimize unnecessary impacts on wetlands during construction and BMPs would be implemented.

When taking economic, environmental, and other pertinent factors into consideration, impacts to the wetlands cannot be completely avoided based on the current design. However, impacts to the wetlands would be minimized to the greatest extent practicable and permitted through the appropriate Section 404 permit. Further information is provided in the Water Resources Technical Report available for review at the TxDOT Dallas District office.

**No-Build Alternative:** There would be no project-related impacts on wetlands associated with the No-Build Alternative because construction would not occur.

### *5.10.4 Rivers and Harbors Act*

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build alternative would have an impact on this resource category or subject matter. 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 (0826_07). It is within the watershed (Lower Denton Creek) of the impaired assessment unit, and drains to the impaired assessment unit. The proposed project is located approximately 3.9 linear miles northwest of the impaired assessment unit. The proposed project and the impaired assessment unit are in the middle of the watershed. See **Table 4** for a description and location of the impaired water.

Table 4: 2018 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? |
|---|---|---|---|---|---|---|
| 0826_07 | 0826 | Grapevine Lake | From Grapevine Dam in Tarrant County up to normal pool elevation of 535 feet (impounds Denton Creek); upper portion of reservoir east of Marshall Creek Park. | pH | Yes | No |

Sources: 2018 Texas Integrated Report - Texas 303(d) List https://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/18txir/2018_303d.pdf (accessed 2/10/20) and TCEQ Surface Water Quality Viewer https://tceq.maps.arcgis.com/apps/webappviewer/index.html?id=b0ab6bac411a49189106064b70bbe778 (accessed 2/10/20).

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

### *5.10.6 Clean Water Act Section 402*

**Build Alternative:** Since TPDES Construction General Permit (CGP) authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the project. The *Project Development Process Manual* and

the *Plans, Specifications, and Estimates (PS&E) Preparation Manual* require a storm water pollution prevention plan (SWP3) be included in the plans of all projects that disturb one or more acres. The *Construction Contract Administration Manual* requires that the appropriate CGP authorization documents (notice of intent or site notice) be completed, posted, and submitted, when required by the CGP, to TCEQ and the municipal separate storm sewer system (MS4) operator. It also requires that projects be inspected to ensure compliance with the CGP.

The *PS&E Preparation Manual* requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the "Required Specification Checklists" require Special Provision 506-003 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SW3P and complete the appropriate authorization documents.

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

### *5.10.7 Floodplains*

**Build Alternative:** Based on a review of the Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Map (FIRM) numbers 48121C0360G, 48121C0365G, 48121C0370G, 48121C0505G, 48121C0495G, and 48121C0515G for Denton County, Texas, the proposed project area lies within Zone A, Zone AE, and Zone X and intersects the 100-year floodplain at 13 locations (FEMA 2012). There are 126.08 acres of the proposed project that are located within the 100-year floodplain. 100-year floodplains are shown on the **Project Resource Map** in **Appendix F: Resource-specific Maps**.

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 at 23 CFR 650.105(q).

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 Coastal Barrier Resources Act (CBRA) does not apply.

#### *5.10.10 Coastal Zone Management*

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

#### *5.10.11 Edwards Aquifer*

The TCEQ Edwards Aquifer Rules do not apply.

#### *5.10.12 International Boundary and Water Commission (IBWC)*

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

#### *5.10.13 Drinking Water Systems*

The TCEQ's Source Water Assessment Viewer and the Texas Water Development Board (TWDB) Groundwater Data Viewer, accessed January 13, 2020, did not reveal any registered water wells within the IH 35W Frontage Roads project area.

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

### 5.11 Biological Resources

This section of the EA addresses potential impacts to biological resources under the various subheadings below. For more information regarding biological resources refer to the *IH 35W Frontage Roads Tier I Site Assessment* and *Species Analysis Form* available at the TxDOT Dallas District office.

#### *5.11.1 Texas Parks and Wildlife Coordination*

**Build Alternative:** Coordination with the Texas Parks and Wildlife Department (TPWD) is required per the 2013 TPWD/TxDOT (2017 Revision) MOU because:

1) The proposed project requires a NWP with PCN from the U.S. Army Corps of Engineers (USACE).
2) The proposed project would impact more than 200 linear feet of stream channel at a single and complete stream crossing.
3) The proposed project is within range and potential suitable habitat is present for the following Species of Greatest Conservation Need (SGCN) for which there are no species BMPs: Strecker's chorus frog (*Pseudacris streckeri*), Woodhouse's toad (*Anaxyrus woodhousii*), eastern spotted skunk (*Spilogale putorius*), long-tailed weasel (*Mustela frenata*), mink (*Neovison vison*), mountain lion (*Puma concolor*), southern short-tailed shrew (*Blarina carolinensis*), swamp rabbit (*Sylvilagus aquaticus*), thirteen-lined ground squirrel (*Ictidomys tridecemlineatus*), western hog-nosed skunk (*Conepatus leuconotus*), woodland vole (*Microtus pinetorum*), eastern box turtle (*Terrapene carolina*), slender glass lizard (*Ophisaurus attenuatus*), smooth softshell (*Apolone mutica*), western box turtle (*Terrapene ornata*), and Topeka purple-coneflower (*Echinacea atrorubens*).
4) The proposed project may impact remnant vegetation according to NDD and TCAP review.
5) The proposed project would impact at least 0.10 acre of riparian vegetation, and
6) The proposed project disturbs habitat in an area equal to or greater than the area of disturbance indicated in the Threshold Table PA.

Early coordination with TPWD was initiated on January 24, 2020 and completed on March 13, 2020. See **Appendix G: Resource Agency Coordination** for the coordination documentation. The *IH 35W Frontage Roads Biological Resources Technical Report* documentation is maintained in the project file at the TxDOT Dallas District Office.

**No-Build Alternative:** The No-Build Alternative would not potentially impact state-listed threatened species and SGCN.

### *5.11.2 Impacts to Vegetation*

**Build Alternative:** According to the MOU with TPWD, important remnant vegetation includes 1) rare vegetation communities and 2) those that are suitable habitat for SGCNs. To address the first component, Texas Natural Diversity Database (TXNDD) data obtained from TPWD on December 20, 2019 was reviewed along with the USFWS Official Species List, dated December 3, 2019. The TXNDD search radii was 1.5 miles and 10 miles from the proposed project. The NDD search revealed one element of occurrence record within 1.5 miles of the proposed project area: Mollisol Blackland Prairie (*Schizachyrium scoparium – Andropogon gerardii - Sorghastrum nutans – Bifora americana* Mollisol Grassland). This community is located outside of the project area; therefore, it would not be impacted by the proposed

project. The NDD search also revealed seven element of occurrence records within 10 miles of the proposed project area and consist of two records for the Texas heelsplitter (*Potamilus amphichaenus*), four records for Mollisol Blackland Prairie (*Schizachyrium scoparium – Andropogon gerardii - Sorghastrum nutans – Bifora americana* Mollisol Grassland), and one record for the Eastern spotted skunk (*Spilogale putorius*). These species and plant communities are located outside of the project area and would not be impacted by the proposed project.

To address important remnant vegetation's second component, general habitat types of those SGCNs that may be impacted by the proposed project (see **Section 5.11.1**), include agricultural, forest, freshwater wetland, grassland, riparian, riverine, savanna/open woodland, shrubland, and woodland. These habitat types are located immediately adjacent to the existing IH 35 corridor, and each includes an edge component. The majority of riparian, riverine, freshwater wetland, woodland, and forest habitat is located along Denton Creek, with smaller amounts present at Tributary to Graham Branch, Roark Branch, Hickory Creek, Dry Branch Hickory Creek, and smaller culvert crossings. Habitat in an agricultural area is present north of Old Justin Road. In general, savannah/open woodland, shrubland, and grassland areas are located throughout the project area within rural residential properties, pastures, and areas used for hay production. Developed habitat is located throughout the project area. Impacts to these habitats were quantified, based on the MOU type that best fits vegetation present in the given habitat, by using the Ecological Management Systems of Texas (EMST) correcting for discrepancies using actual observed vegetation types as discussed below.

Plant species from the TPWD Annotated County Lists of Rare Species for Denton County with potential suitable habitat present in the proposed project's action area that may be impacted consist of the Topeka purple-coneflower (*Echinacea atrorubens*). This species was not observed during the site visits conducted on November 6, 2019 and December 7-8, 2019. No remnant vegetation was observed during site reconnaissance and no remnant vegetation is anticipated to be impacted by the proposed project.

Species BMPs for the Topeka purple-coneflower have not been established in the MOU BMPs PA between TxDOT and TPWD.

Vegetation impacts from the proposed project were assessed using Ecological Mapping System of Texas (EMST) vegetation data for the corridor followed up with field investigations to verify the mapped MOU type habitats. The proposed project would directly impact the following MOU Type habitats: Agriculture (1.2 acre); Cross Timbers Woodland and Forest (16.1 acres); Disturbed Prairie (77.2 acres); Edwards Plateau Savannah, Woodland, and Shrubland (0.1 acre); Open Water (2.1 acres); Riparian (7.1 acres); and Urban (659.7 acres). 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).

a) The 16.1 acres of impacts to Cross Timbers Woodland and Forest MOU type exceeds the 2-acre threshold described in the Threshold PA.
b) The 77.2-acre impact to the Disturbed Prairie MOU type exceeds the 3-acre threshold described in the Threshold PA.
c) The 7.1-acre impact to the Riparian MOU type exceeds the 0.1-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 Open Water MOU type or areas classified as the Urban MOU type.

Potential impacts to vegetation would be confined to the existing and proposed ROW and permanent drainage 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:** The No-Build Alternative would not cause construction-related impacts to vegetation; however, 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 federal EO 13112 on Invasive Species. The department implements this EO on a programmatic basis through its *Roadside Vegetation Management Manual* and *Landscape and Aesthetics Design Manual*.

#### *5.11.4 Executive Memorandum on Environmentally and Economically Beneficial Landscaping*

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

#### *5.11.5 Impacts to Wildlife*

The proposed project is located in Denton County. 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 western cottonmouth (*Agkistrodon piscivorus leucostoma*), red-eared slider (*Trachemys scripta*), great plains rat snake (*Pantherophis emoryi*), and the American toad (*Anaxyrus americanus*). Various waterfowl species could utilize the aquatic habitat. The agricultural fields and pastures still serve as foraging areas for resident and migratory species. No wildlife species were observed during field reconnaissance.

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 IH 35W 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*

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

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

**No-Build Alternative:** Under the No-Build Alternative, the proposed improvements would not occur; therefore, no impacts to migratory birds are anticipated.

#### *5.11.7 Fish and Wildlife Coordination Act*

**Build Alternative:** All impacts to Waters of the U.S. would be authorized by NWP 14 with a PCN. Therefore, the USFWS considers Fish and Wildlife Coordination Act coordination to be complete as part of the NWP review, which was last authorized and reissued on March 19, 2017.

**No-Build Alternative:** Under the No-Build Alternative, the proposed improvements would not occur; therefore, coordination under the FWCA is not anticipated.

#### *5.11.8 Bald and Golden Eagle Protection Act of 2007*

**Build Alternative:** No Eagles were observed during field investigations conducted on November 6, 2019 and December 7-8, 2019. The project area does not contain mature coniferous or hardwood trees adjacent to large open bodies of water. The riparian canopy adjacent to narrow streams is too dense to accommodate Eagle wingspans. Lake Grapevine is approximately five miles away and would provide better foraging habitat for the Bald Eagle. 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.

This project is not within 660 feet of an active or inactive Bald or Golden Eagle nest. Therefore, no coordination with USFWS is required.

**No-Build Alternative:** Under the No-Build Alternative, the proposed improvements would not occur; therefore, impacts to bald and golden eagles are not anticipated.

#### *5.11.9 Magnuson-Stevens Fishery Conservation Management Act*

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

#### *5.11.10 Marine Mammal Protection Act*

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

### *5.11.11 Threatened, Endangered, and Candidate Species*

As detailed in the Biological Resource Technical Report, specifically the Species Analysis Spreadsheet and Species Analysis Form, desktop analysis, and field investigations conducted on November 6, 2019 and December 7-8, 2019 indicate that this proposed project would have no effect on any federally listed threatened, endangered, or candidate species.

<u>Endangered Species Act</u>

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 December 3, 2019, 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. 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 does not include large rivers, marshes, flooded croplands, playas, or large wetlands. In addition, 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, which lines up with the proposed project 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.

State-listed Threatened and Endangered Species, and SGCN

During the field investigations potential suitable habitat was observed within the proposed project area for the following state-listed threatened species (as identified on TPWD's Annotated County List of Rare Species for Denton County): Louisiana pigtoe (*Pleurobema riddellii*), sandbank pocketbook (*Lampsillis satura*), Texas heelsplitter (*Potamilus amphichaenus*), and timber rattlesnake (*Crotalus horridus*). 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 Denton County, accessed on December 3, 2019): Strecker's chorus frog (*Pseudacris streckeri*), Woodhouse's toad (*Anaxyrus woodhousii*), Western Burrowing Owl (*Athene cunicularia hypugaea*), eastern spotted skunk (*Spilogale putorius*), long-tailed weasel (*Mustela frenata*), mink (*Neovison vison*), mountain lion (*Puma concolor*), southern short-tailed shrew (*Blarina carolinensis*), swamp rabbit (*Sylvilagus aquaticus*), thirteen-lined ground squirrel (*Ictidomys tridecemlineatus*), western hog-nosed skunk (*Conepatus leuconotus*), woodland vole (*Microtus pinetorum*), eastern box turtle (*Terrapene carolina*), slender glass lizard (*Ophisaurus attenuatus*), smooth softshell (*Apolone mutica*), Texas garter snake (*Thamnophis sirtalis annectens*), western box turtle (*Terrapene ornata*), and Topeka purple-coneflower (*Echinacea atrorubens*).

The implementation of approved species-specific BMPs for the Louisiana pigtoe, sandbank pocketbook, Texas heelsplitter, Timber rattlesnake, Texas garter snake, and Western burrowing owl eliminates the need for coordination for impacts to the above state-listed threatened species and SGCN as described in §2.206(1) of the 2013 TPWD/TxDOT (2017 Revision) MOU. These BMPs and other avoidance and minimization measures for the SGCNs that do not have approved species-specific BMPs are included in **Section 8.1: Post-Environmental Clearance Activities**.

**Build Alternative:** There is the potential that impacts to suitable habitat could result in direct impacts to the Louisiana pigtoe, sandbank pocketbook, Texas heelsplitter, and timber rattlesnake; however, the proposed project is not anticipated to result in the 'take' of any state-listed threatened species.

**No-Build Alternative:** Under the No-Build Alternative, the proposed project would not be constructed; therefore, there would be no potential impacts to suitable habitat for state-listed species or SGCN.

## 5.12 Air Quality

**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.

### *5.12.1 Transportation Conformity*

This project is located within an area designated by the U.S. Environmental Protection Agency (EPA) as a serious and marginal nonattainment area for the 2008 and 2015 ozone national ambient air quality standards (NAAQS), respectively; therefore, transportation conformity rules apply. Conformity for older standards is satisfied by conformity to the more stringent 2008 and 2015 ozone NAAQS.

The proposed action is consistent with the NCTCOG's financially constrained *Mobility 2045* and the 2019-2022 TIP, as amended, which were initially found to conform to the TCEQ State Implementation Plan (SIP) by FHWA and FTA on November 21, 2018. 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. Copies of the MTP and STIP pages, and FHWA Determination of Project-level Conformity are included in **Appendix E: Plan and Program Excerpts**.

### *5.12.2 CO Traffic Air Quality Analysis (TAQA)*

Traffic data for the estimated time of completion (ETC) year 2028 and design year 2045 is 96,120 vehicles per day and 126,850 vehicles per day, respectively. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that the carbon monoxide standard would ever be exceeded as a result of any project with an average annual daily traffic (AADT) below 140,000. The AADT projections for the project do not exceed 140,000 vehicles per day; therefore, a Traffic Air Quality Analysis was not required.

### *5.12.3 Mobile Source Air Toxics (MSAT)*

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.

### *5.12.4 Congestion Management Process (CMP)*

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 will consist of addition of shared use lanes; dedicated left-turn and right-turn lanes, and sidewalks. Individual projects are listed in **Table 5**.

**Table 5: Congestion Management Process Strategies**

| Operational Improvements in Travel Corridor | | | |
|---|---|---|---|
| Location | Type | Project Code | Implementation Date |
| SH 114 From East of FM 156 to West of IH 35W | New Roadway | 53195.00 | 2028 |
| US 377 From Crawford Road to North of Hickory Creek | Addition of Lanes | 55242.00 | 2045 |
| IH 35W From SH 114 to IH 35W/IH 35E Interchange | Addition of Lanes | 55242.00 | 2045 |
| FM 1515 From Bonnie Brae to Masch Branch | Addition of Lanes | 55239.00 | 2045 |
| IH 35W From Tarrant County Line to SH 114 | Addition of Lanes | 55230.00 | 2045 |

Source: NCTCOG Transportation Improvement Program Information System (TIPINS). Accessed September 2, 2019.

### *5.12.5 Air Quality Construction Emissions Reduction Strategies*

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 in general accordance with the American Society for Testing and Materials Practice Standard E1527-13. The purpose of the ISA is to identify possible hazardous materials within the project limits.

### *5.13.1 Hazardous Materials Regulatory Database*

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 *IH 35W Frontage Roads Hazardous Materials Initial Site Assessment Report* is maintained in the TxDOT Dallas District project files.

**Build Alternative:** Based on the search results of the Hazardous Materials Regulatory Database, there is the potential for hazardous materials impacts to the project from existing hazardous materials sites within the proposed ROW and/or adjoining the project. A total of 13 sites were identified in the database. These sites were assessed for risk and grouped into one of three categories (low, moderate, or high environmental risk) as to their potential to affect the proposed project.

Low Environmental Risk: The issue has a low or no potential to affect the proposed project and no further investigations are required.

Moderate Environmental Risk: The issue has a moderate potential to affect the proposed project. Not enough information is currently known about the project and/or the issue to determine potential impacts. Further investigation, and/or additional project design and ROW, is required.

High Environmental Risk: The issue has a high potential to impact the proposed project and further investigations, coordination, or contingencies may be required.

One site was determined to be a moderate environmental risk to the proposed project. The site, Interstate Texaco, 1201 FM 407, Corral City, TX (Map ID 8) is at the adjacent southwest corner of FM 407 at IH 35W. The site is a PST, LPST, and VCP site, and is currently a vacant lot. ROW acquisition is proposed from this site along FM 407 and at the corner with IH 35W. The site is shown on the **Project Resource Map** in **Appendix F: Resource-specific Maps**.

The remaining sites are considered low environmental risks to the project. There are no high-risk sites.

### *5.13.2 Petroleum Pipelines*

According to the Texas Railroad Commission Well and Pipeline Viewer (accessed 7-30-19), one gas transmission line and 11 gas gathering lines cross the project. Based on the contents of the natural gas pipelines, these features are not considered an environmental concern. Formal utilities location and advance planning would be required to facilitate pipeline and utilities adjustments and to otherwise avoid associated impacts. TxDOT Dallas District SUE Coordinator and ROW will be responsible for the adjustments and displacements.

### *5.13.3 Oil/Gas Wells*

Eleven gas wells on six pad sites are situated within 200 feet of existing and/or proposed ROW. These gas wells and pad sites are considered a low environmental risk at this time. If the project design was to change and ROW would be acquired from any of these pad sites or any wells would be displaced, the risk level may be elevated.

One gas well/pad site (API 12131372) is adjacent to existing ROW along FM 338 (Cleveland Gibbs Rd). The schematic shows FM 338 will be removed from its current location. No significant excavation adjacent to or ROW from this well site is proposed. Based on this information, the well site is a low environmental risk to the project at this time. If the project design was to change and ROW would be acquired from this pad site and/or the well would be displaced, the risk level may be elevated.

### *5.13.4 Field Investigations*

During field investigations, pole-mounted electrical transformers were identified along various sections of IH 35W. No environmental concerns were observed. These transformers are considered a low environmental risk for the project.

### *5.13.5 Asbestos and Lead-Containing-Paint*

The proposed project would require bridge structures to be demolished or renovated. These structures would be assessed and mitigated for asbestos and lead-containing-paint, as needed, within the construction process according to Standard Specification Item 6.10 (and applicable Provisions), and the TxDOT guidance document: *Guidance for Handling Asbestos in Construction Projects*, dated January 26, 2007.

**No-Build Alternative:** Under the No-Build Alternative, impacts associated with hazardous materials are not anticipated.

## 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 *IH 35W Frontage Roads 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 the Noise Abatement Criteria (NAC) shown in **Table 5** for various land use activity areas that are used as one of two means to determine when a traffic noise impact would occur.

Table 5: FHWA Noise Abatement Criteria

| 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 year

traffic (2025) and proposed year (2045) volumes utilized in the model were approved by TxDOT – Transportation Planning and Programing Division (TPP).

Existing and predicted traffic noise levels were modeled at receiver locations (**Table 6** and **Project Resource Map** in **Appendix F: Resource-specific Maps**) that represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

**Table 6: Traffic Noise Levels dB(A) Leq**

| Representative Receiver | NAC Category | NAC Level | Existing | Predicted 2045 | Change (+/-) | Noise Impact |
|---|---|---|---|---|---|---|
| R1 - Single-family Residential | B | 67 | 61 | 62 | +1 | No |
| R2 - Single-family Residential | B | 67 | 51 | 53 | +2 | No |
| R3 - RV Park | B | 67 | 69 | 73 | +4 | Yes |
| R4 – Townhome Phase 2 - Single-family Residential | B | 67 | 63 | 66 | +3 | Yes |
| R5 – Townside Phase 2 - Single-family Residential | B | 67 | 63 | 66 | +3 | Yes |
| R6 - Single-family Residential | B | 67 | 61 | 64 | +3 | No |
| R7 - Single-family Residential | B | 67 | 52 | 55 | +3 | No |
| R8 - Women's Heath Surgical Hospital | D | 52 | 40 | 46 | +6 | No |
| R9 - Single-family Residential | B | 67 | 56 | 61 | +5 | No |
| R10 - Single-family Residential | B | 67 | 54 | 57 | +3 | No |
| R11 - Single-family Residential | B | 67 | 54 | 57 | +3 | No |
| R12 - Mean Green Village (UNT baseball field, bleacher seating) | B | 67 | 57 | 62 | +5 | No |
| R13 - Apogee Stadium (football field, bleacher seating) | B | 67 | 51 | 53 | +2 | No |

Source: Study team. December 2019.

As indicated in **Table 6**, the proposed project would result in traffic noise impact to three receivers. 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 greater than 50% of impacted, first row receivers by at least five dB(A); in order to be "reasonable," it must not exceed the cost-effectiveness criterion of $25,000 for each receiver that would benefit by a reduction of at least five dB(A) and the abatement measure must be able to reduce the noise level at least one impacted, first row receiver by at least seven dB(A).

Noise barriers are the most commonly used noise abatement measure. Noise barriers were evaluated for each of the impacted receiver locations. It was determined that noise barriers would not be feasible and reasonable for the three impacted receivers and, therefore, are not proposed for incorporation into the project.

Any subsequent project design changes may require a reevaluation of this preliminary noise barrier proposal. The final decision to construct the proposed noise barrier will not be made until completion of the project design, utility evaluation, and polling of adjacent property owners.

However, to avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, no new activities are planned or constructed along or within the predicted (2045) noise impact contours shown in **Table 7**.

**Table 7: Noise Impact Contours in the Project Study Area**

| Limits | Land Use NAC Category | Impact Contour* | Distance from Proposed ROW Line |
|---|---|---|---|
| Dale Earnhardt Way to FM 1171 | B & C | 66 dB(A) | 265 feet |
| | E | 71 dB(A) | 30 feet |
| FM 1171 to IH 35E/IH35W Interchange | B & C | 66 dB(A) | 200 feet |
| | E | 71 dB(A) | 5 feet |

* 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 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.

**No-Build Alternative:** Under the No-Build Alternative, noise levels along IH 35W would be expected to increase with an associated increase in traffic volumes.

### 5.15 Induced Growth

**Build Alternative:** Refer to the *IH 35W Frontage Roads Indirect and Cumulative Impacts Analysis* for a detailed discussion of the indirect impacts associated with the proposed project. 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 Code of Federal Regulations [CFR] Section 1508.8). Indirect effects differ from the direct

impacts associated with the construction and operation of the Build Alternative and are caused by another action or actions that have an established relationship or connection to the Build Alternative. These induced actions are those that would not or could not occur without the implementation of the Build Alternative.

The potential for induced growth impacts was determined using a planning judgment approach consisting of interviews with the planning departments of the City of Denton and Towns of Argyle, Flower Mound, and Northlake. Cartographic techniques using map overlays of environmental constraints such as cemeteries, floodplains, and parks were used to identify areas where potential induced growth would not likely occur.

The AOI for the proposed project was established with a methodology of using the location of next major parallel roadways. The proposed project's AOI was established using US 377 and FM 156 as eastern and western borders, with SH 114 and US 380 as southern and northern borders to encompass the proposed project limits. Then, meetings and communication were initiated with the City of Denton and Towns of Argyle, Draper, Flower Mound, and Northlake to discuss the AOI and locations of potential induced growth.

Based on the information from the planning departments of the City of Denton and Towns of Argyle, Flower Mound and Northlake, planning documents, land use and zoning maps, thoroughfare plans, and population, employment and housing trend data, there is potential for induced growth on the approximately 2,355.8 acres of land. The induced growth is anticipated to consist of commercial, community facilities, and mixed-use development.

These induced growth areas would impact approximately 4.3 percent of the existing non-urban land cover within the AOI. These non-urban land cover types include Agriculture, Crosstimbers Woodland and Forest, Disturbed Prairie, Edwards Plateau Savannah, Woodland, and Shrubland, Riparian, and Tallgrass Prairie, Grassland. Numerous wildlife species may utilize the vegetation for food and habitat; however, similar and higher quality habitat is present in the surrounding areas such as the 100-year floodplains and riparian areas associated with Catherine Branch, Denton Creek, Cleveland Branch, Roark Branch, Hickory Creek, Dry Fork of Hickory Creek, and various tributaries.

Approximately 4.3 percent of the prime farmland soils and farmland soils of statewide importance in the AOI would be impacted by potential induced development; however, this is not considered substantial.

Waters of the US and floodplains are unlikely to undergo induced impact due to regulatory protections; therefore, the open waters, wetlands, and floodplains were avoided in the determination of induced growth areas indicated by planners.

The expected development in the AOI would improve the socioeconomic conditions of the communities through the construction of new homes and businesses. It is anticipated that environmental justice (EJ) and non-EJ populations would benefit from the induced growth impacts equally.

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. All developers, public and private, would be subject to the Clean Water Act, Endangered Species Act, and Migratory Bird Treaty Act; however, private developers would not be subject to Section 106 of the National Historic Preservation Act. 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 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 Northlake, Flower Mound, Argyle, Denton and, to a lesser extent, Denton County.

**No-Build Alternative:** Under the No-Build Alternative, indirect and induced growth impacts are not anticipated.

## 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). The purpose of a cumulative impacts analysis is to assess the direct and indirect impacts of the proposed project within the larger context of past, present, and future actions that are independent of the proposed project, but which are likely to affect the same resources.

**Build Alternative:** In accordance with TxDOT's *Cumulative Impacts Analysis Guidelines* (January 2019), the cumulative impacts analysis evaluated past, present and reasonably foreseeable actions that would impact vegetation and wildlife habitat, and farmlands. These resources were evaluated in the cumulative impacts analysis because there are direct and induced-growth impacts, and the resources are in poor and/or declining health.

The cumulative impact analysis considers both geographic and temporal study limits. A Resource Study Area (RSA) has both temporal and geographic components. The year 2001 was used as the beginning temporal boundary because it corresponds to the end of the longest period of economic expansion in recent U.S. history. The temporal boundary extends to 2045, the end of the current MTP planning cycle. The geographical boundary for vegetation and wildlife habitat, and farmlands consists of the Elm Fork Trinity River and Denton Creek watershed subbasins.

The cumulative impacts to vegetation and wildlife habitat would affect approximately 66 percent of non-Urban MOU Habitat-type vegetation within the RSA. It is likely that most of the wildlife that resides in the RSA would migrate to other areas of available non-human-altered habitat such as those protected within floodplain areas near rivers and streams. 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 44-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.

The cumulative impacts to prime farmland soils subject to the FPPA would affect approximately 69 percent of the prime farmland soils subject to FPPA within the RSA.

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 (Northlake, Flower Mound, Argyle, Denton and, to a lesser extent, Denton County) would be subject to the laws and ordinances regulating residential, commercial and industrial development set by each municipal government.

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 Denton County is 120 acres.

**No-Build Alternative:** Under the No-Build Alternative, cumulative impacts are not anticipated.

## 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:

### *5.17.1 Construction Noise*

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receptors is expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

### *5.17.2 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 particulate matter from diesel powered construction equipment and vehicles. The potential impacts of PM emissions will be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. Considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized including compliance with applicable regulatory requirements, it is not anticipated that emissions from construction of this project will have a significant impact on air quality in the area. Refer to **Section 5.12** of this EA and the *IH 35W Frontage Roads Air Quality Assessment Technical Report* for a detailed discussion of fugitive dust and air pollutants.

### *5.17.3 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. 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.

### *5.17.4 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.

### *5.17.5 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. In residential areas, major activity would be limited to normal work hours whenever practicable, to avoid noise and related impacts to the local population.

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 two publicly-owned airports, three privately-owned airports, and five privately-owned heliports found near the proposed project area. The elevations of the airports/ heliports,

runway lengths, and the approximate distances between the airports/ heliports and proposed project are provided in **Table 8**.

**Table 8: Airports and Heliports Near the Project Area**

| Site No. | Site Information | Elevation (Feet) | Runway Length (Feet) | Airport Location Relative to Project (Approximate) |
|---|---|---|---|---|
| 24625.1*A | Northwest Regional Airport<br>-97.232237 W<br>33.049845 N<br>Roanoke, TX 76092<br>(Public Airport) | 643 | 3,500 | 6,307 feet east |
| 23749.04*H | Denton Community Hospital<br>Denton, TX 76201<br>(Private Heliport) | 675 | Not applicable | 6,737 feet north |
| 23750.*A | Denton Enterprise Municipal Airport<br>97.197946 W<br>33.202099 N<br>Denton, TX 76201<br>(Public Airport) | 642 | 7,002 | 9,963 feet west |
| 23887.31*H | Bell Training Facility<br>Fort Worth, TX 76101<br>(Private Heliport) | 657 | Not applicable | 10,560 feet west-northwest |
| 23887.12*H | Beechwood<br>Denton, TX 76219<br>(Private Heliport) | 645 | Not applicable | 10,626 feet southwest |
| 24137.67*A | Dooley Airport<br>97.272517 W<br>33.098732 N<br>Justin, TX 76247<br>(Private Airport) | 650 | 1,750 | 14,439 feet west |
| 23749.2*A | Myska Field Airport<br>-97.138068 W<br>33.155676 N<br>Denton, TX 76205<br>(Private, Airport) | 595 | 1,250 | 15,535 feet east |
| 23348.01*H | Hawk Nest Heliport<br>Argyle, TX 76226<br>(Private Heliport) | 657 | Not applicable | 16,648 feet east |
| 23348.02*H | Furst Ranch<br>Argyle, TX 76226<br>(Private Heliport) | 725 | Not applicable | 16,779 feet east |
| 23348.*A | Leroux Airport<br>97.155013 W<br>33.101788 N<br>Argyle, TX 76226<br>(Private Airport) | 670 | 2,380 | 20,622 feet east |

Table 8: Airports and Heliports Near the Project Area

| Site No. | Site Information | Elevation (Feet) | Runway Length (Feet) | Airport Location Relative to Project (Approximate) |
|---|---|---|---|---|
| 23895.3*A | Fort Worth Alliance Airport<br>97.318806 W<br>32.987639 N<br>Fort Worth, TX 76177<br>(Public Airport) | 722 | 11,010 | 26,255 feet southwest |

Source: Source: Federal Aviation Administration, Airport Data and Contact Information Form; Airport Facilities Data and Airport Runways Data. https://www.faa.gov/airports/airport_safety/airportdata_5010/. Accessed 1/21/20.

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/ heliports 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. **Appendix G: Resource Agency Coordination** includes the written coordination exchanges.

## 7.0 PUBLIC INVOLVEMENT

### Stakeholder Meetings

TxDOT conducted an initial project stakeholder meeting in April 2011 with representatives of the Northwest Independent School District (ISD), City of Roanoke, Town of Argyle, Town of Northlake, City of Haslet, North Central Texas Council of Governments (NCTCOG), TxDOT, City of Denton, Town of Flower Mound, Denton County, and Hillwood Properties.

In May 2017, TxDOT conducted an IH 35W project meeting with representatives of the Town of Northlake and in June 2017, TxDOT conducted an IH 35W/Loop 288 ramp and mainlane meeting with the TxDOT Denton Area Office. In January 2018, TxDOT conducted an IH 35W project meetings with representatives of the City of Fort Worth, City of Haslet, Town of Argyle, and Town of Northlake.

In February and March of 2018, TxDOT conducted project stakeholder meetings with representatives of Denton County, Tarrant County, Town of Draper (formerly Corral City), Denton County Transit Authority (DCTA), U.T. Austin Center for Transportation Research, Town of Flower Mound, and the North Tarrant Express (NTE) project team.

### Public Meeting

An open house public meeting was conducted by TxDOT on May 16, 2019 for elected and public officials, county and municipal staff, and the general public to view and comment on the proposed IH 35W Frontage Roads project. There were five commenters from the public meeting. The comments were positive regarding the proposed project improvements. One comment regarding flooding associated with a culvert outfall was coordinated with the property owner by TxDOT. The **Public Meeting Comment and Response Matrix** is included in **Appendix H**.

### Public Hearing

The NOA of the Draft EA was published in both English and Spanish in various newspapers that serve the project area, and was also made available online at www.txdot.gov and www.keepitmovingdallas.com. The Draft EA, maps showing the proposed project location and design, and other information regarding the project are on file and available online at http://www.keepitmovingdallas.com/IH35WFR.

An on-line virtual public hearing was held on April 30, 2020 at http://www.keepitmovingdallas.com/IH35WFR. A total of 1,058 persons viewed the project website. There were 12 commenters from the virtual public hearing. Two of the comments were for support of the project. One comment requested the addition of managed lanes. Another comment requested a clear area of at least five feet between the frontage road curb and sidewalk. One comment requested clarification regarding the proposed improvements at the Cleveland Gibbs/IH 35W interchange. Four comments were about frontage road access or denial. Two comments requested construction timelines. One comment requested that surplus ROW be dedicated back to adjacent property owners. The virtual public hearing documentation will be available online at http://www.keepitmovingdallas.com/IH35WFR. The **Virtual Public Hearing Viewer Analytics Page** and **Virtual Public Hearing Comment and Response Matrix** are included in **Appendix H**.

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 DESIGN/CONSTRUCTION COMMITMENTS

## 8.1 Post-Environmental Clearance Activities

Activities to be completed after environmental clearance are listed and discussed as follows:

1. Utilities: Utility relocations would be required throughout the corridor. Utility agreements and notice to owners would be required for this project prior to construction.
2. Section 404: The proposed project would require a NWP 14 with a PCN. The PCN would be obtained before construction. The proposed project would comply with all general conditions of the NWP.
3. Section 401: The Section 401 Certification requirements for NWP 14 be met by implementing a SW3P. The SW3P would include at least one BMP for erosion control, sediment control, and post-construction TSS control from the Tier 1 Section 401 Water Quality Certification Conditions for NWPs as published by the TCEQ.
4. Section 402: The project contractor would comply with the CGP, SW3P, and complete the appropriate authorization documents.
5. Wetlands: The project contractor would minimize impacts to wetlands during construction by keeping the construction footprint as small as possible while enabling construction that meets all requirements for the proposed project's implementation. BMPs would be implemented during construction.
6. Floodplains: Notification and coordination with the local floodplain administrator is required because portions of the project are within the 100-year floodplain. This coordination would be completed prior to the start of construction.
7. Invasive Species: The project contractor is required to preserve native vegetation to the extent practical. The contractor must adhere to Construction Specification Requirements Specs 162, 164, 192, 193, 506, 730, 751, & 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

8. Threatened, Endangered, and Candidate Species: The following BMPs would be implemented per the 2013 MOU (2017 Revision) for the proposed project:
   a) For the Western Burrowing Owl, the following Bird BMPs and MBTA guidelines, as present as a Special Note on the PS&E EPIC sheet, would be implemented:
      i. 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.
      ii. Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season.
      iii. Avoid the removal of unoccupied, inactive nests as practicable.
      iv. Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
      v. Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.
      vi. Migratory Birds: 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.
   b) The following Freshwater Mussel BMPs would be implemented for the Louisiana pigtoe, sandbank pocketbook, and Texas heelsplitter:
      i. When work is in the water; survey project footprints for state listed species where appropriate habitat exists.
      ii. When work is in the water and mussels are discovered during surveys; relocate state listed and SGCN mussels under TPWD authorization and implement Water Quality BMPs.
      iii. When work is adjacent to the water; Water Quality BMPs implemented as part of the SWPPP for a construction general permit or any conditions of the 401 water quality certification for the project will be implemented. (Note, SWPPP and 401 BMPS are not listed in this PA).
   c) The following SWPPP and 401 Water Quality BMPs would be implemented:

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

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

d) The following Terrestrial Reptile BMPs would be implemented for the timber rattlesnake and Texas garter snake:
   i. Apply hydro-mulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydro-mulching 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.
   ii. For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling.
   iii. Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
   iv. Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
   v. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
e) TxDOT proposes the following for species that do not have approved species BMPs:
   i. Eastern spotted skunk and western hog-nosed skunk - 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.
   ii. Eastern box turtle, slender glass lizard, and western box turtle - Terrestrial Reptile BMPs (see above).
   iii. Strecker's chorus frog, Woodhouse's toad, and smooth softshell - Amphibian and Aquatic Reptile BMPs:
      i) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
      ii) Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats.

iii) Maintain hydrologic regime and connections between wetlands and other aquatic features.
iv) Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may directly impact, potential habitat for the target species.
v) 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.
vi) Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features.
vii) 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.
viii) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible.
ix) 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 water 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.
x) For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80-feet long in each direction, or whichever is the lesser of the two.
xi) For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs.
xii) 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.

iv. Long-tailed weasel, mink, mountain lion, southern short-tailed shrew, swamp rabbit, thirteen-lined ground squirrel, woodland vole, Topeka purple coneflower - Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

9. Detours: County and local public safety officials would be notified of any road closures or detours during construction. Detour timing and necessary rerouting of emergency vehicles would be coordinated with the proper local agencies during construction.
10. Air Quality: Implement fugitive dust control measures contained in standard specifications to minimize potential impacts of PM emissions during construction.
11. Hazardous Materials: One site is considered a moderate environmental risk. Additional investigation and/or research is warranted to determine if this site may potentially affect the proposed project. Any unanticipated hazardous materials encountered during construction would be handled according to the applicable federal, state and local regulations per TxDOT Standard Specification.
12. Hazardous Materials for Bridge Structures: Bridge structures being demolished or renovated will need to be assessed and mitigated for asbestos and lead containing paint, as needed, within the construction process according to Standard Specification Item 6.10 (and applicable Provisions), and the TxDOT guidance document: *Guidance for Handling Asbestos in Construction Projects*, dated January 26, 2007.
13. Public Involvement: Before construction, a notice of impending construction will be provided to owners of adjoining property and affected local governments and public officials.

## 8.2 Design/Construction Commitments

Archeological Resources: If unanticipated archaeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archaeological staff will be contacted to initiate post-review discovery procedures.

Wetlands: The construction contractor would be required to avoid and minimize unnecessary impacts on wetlands during construction.

Construction (TPDES): Contractor shall comply with the CGP and SW3P. Complete, post and submit notice of intent and notice of termination to TCEQ and the MS4 operator. Inspect the project to ensure compliance with the CGP.

Drinking Water Systems: If any unknown wells are encountered during construction activities, they would need to be properly plugged in accordance with state statutes.

Hazardous Materials: 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 the proposed project would be removed as soon as the work schedules permit. The contractor would initiate early regulatory agency coordination during project development.

Vegetation: Avoid and minimize disturbance of vegetation and soils. All disturbed areas would be revegetated, according to TxDOT specifications, as soon as it becomes practicable. In accordance with EO 13112 on Invasive Species, the Executive Memorandum on Beneficial Landscaping, and the 1999 FHWA guidance on invasive species, all revegetation would, to the extent practicable, use only native species. Furthermore, BMPs would be used to control and prevent the spread of invasive species.

Migratory Birds: Take all appropriate actions to prevent the take of migratory birds, their active nests, eggs or young by the use of proper phasing of the project or other appropriate actions. Refer to Section 8.1 for applicable BMPs.

Air Quality: 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.

Threatened, Endangered, and Candidate Species: If any species on the Denton County threatened and endangered species list is sighted in the project area during construction, construction would stop and contractor would notify the TxDOT Area Engineer. Refer to **Section 8.1** for applicable BMPs.

## 9.0 CONCLUSION

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

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# 11.0 APPENDICES

Appendix A – Maps

Appendix B – Project Photographs

Appendix C – Project Schematic

Appendix D – Typical Sections

Appendix E – Plan and Program Excerpts

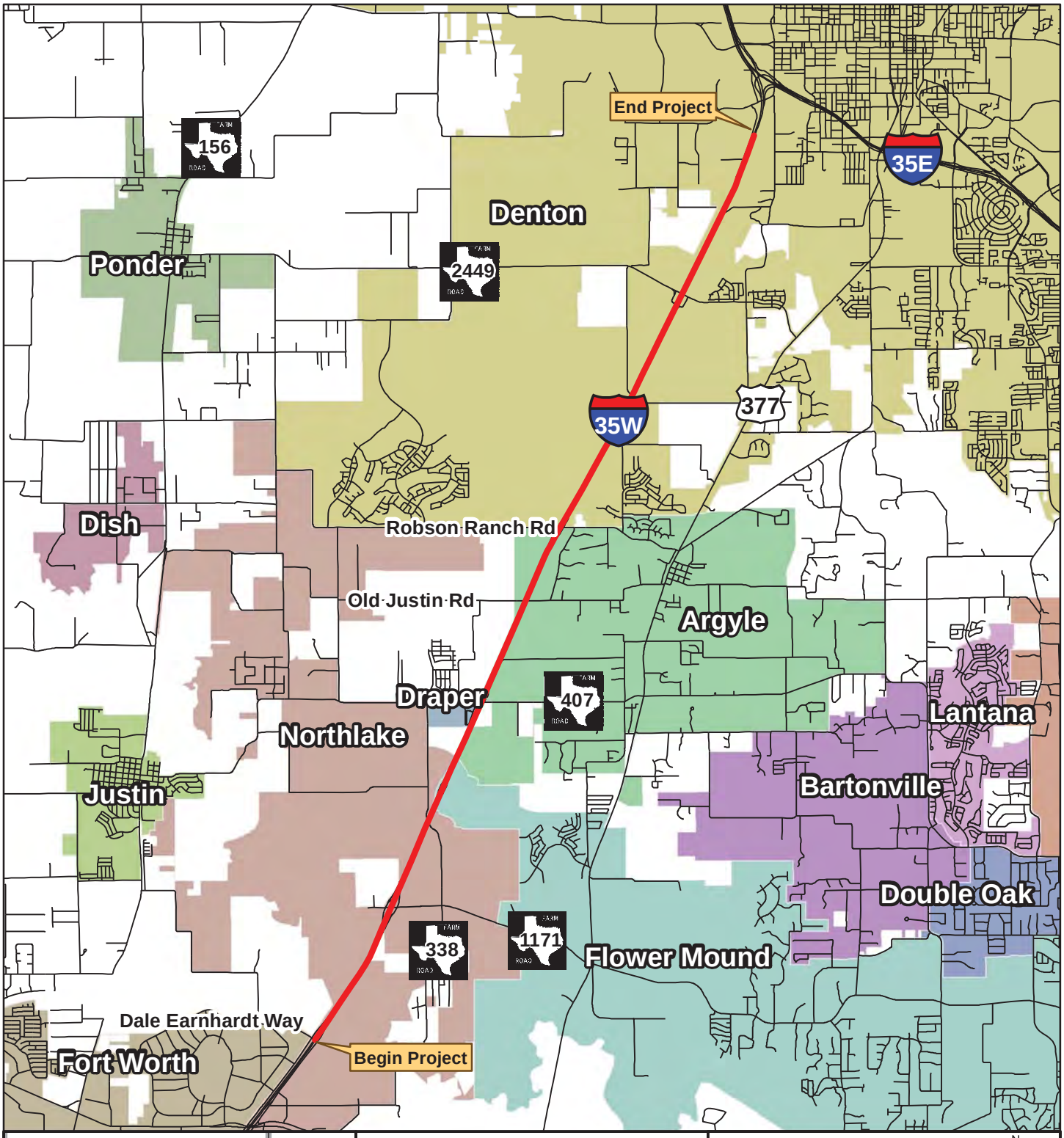
Appendix F – Resource-specific Maps

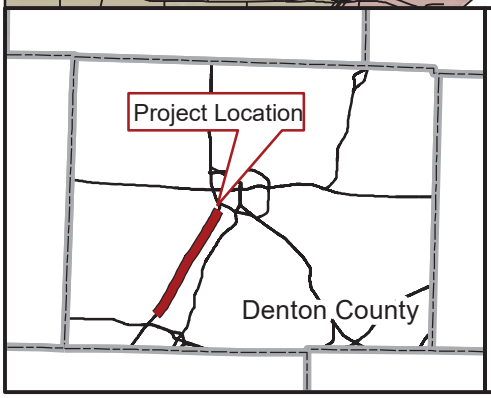
Appendix G – Resource Agency Coordination

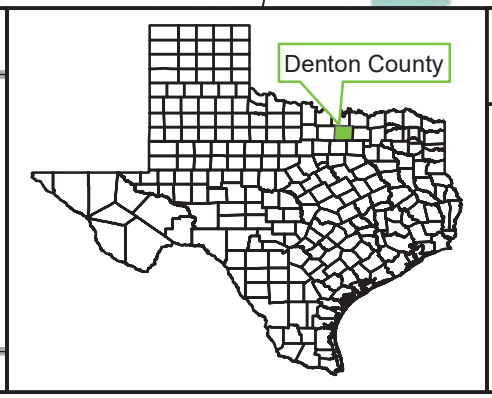
Appendix H – Comment and Response Matrices

# Appendix A
# Maps

| Description | Number of Pages |
|---|---|
| Project Location Map | 1 |
| USGS Map | 1 |
| Aerial Map | 1 |




0 9,000 Feet

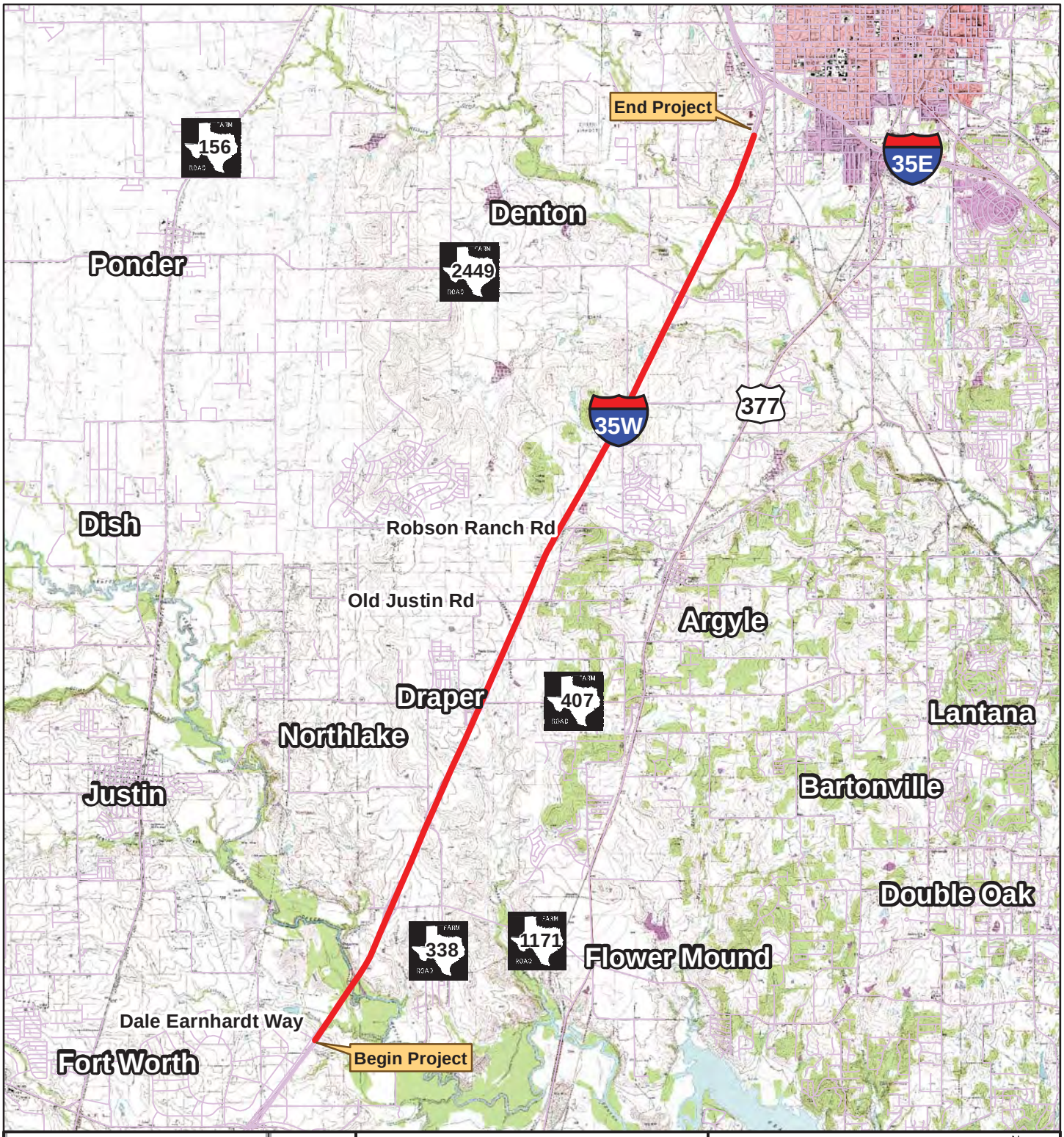
N W E S

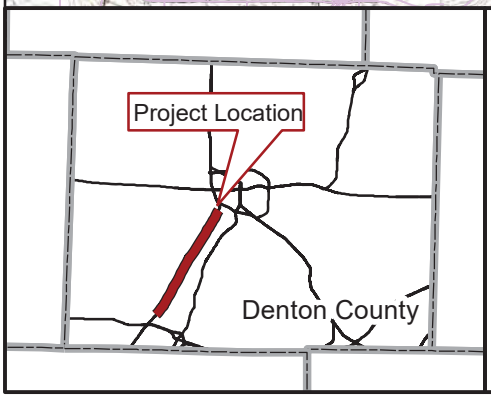
**PROJECT LOCATION MAP**
**IH 35W FRONTAGE ROADS**

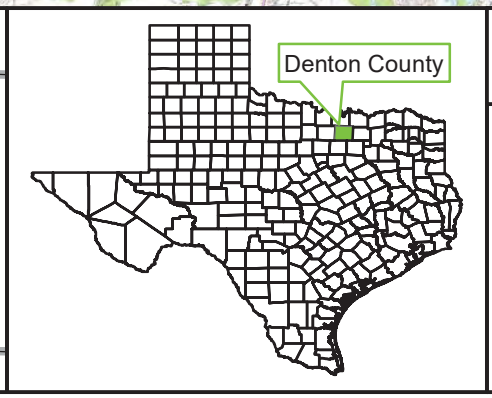
FROM DALE EARNHARDT WAY
TO SOUTH OF THE IH 35E/IH 35W
INTERCHANGE

DENTON COUNTY

CSJ: 0081-13-065




0 9,000 Feet

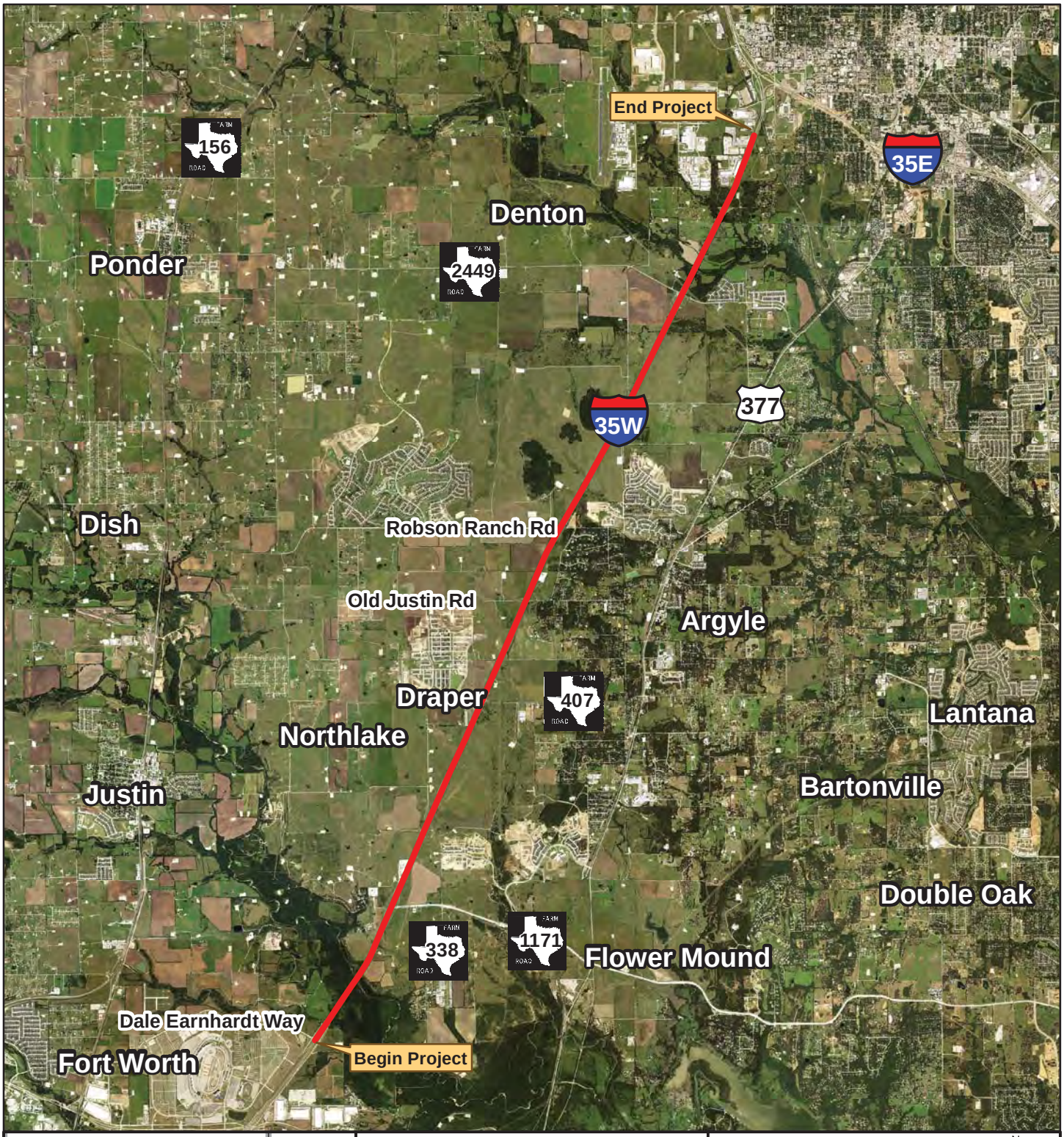
N W E S

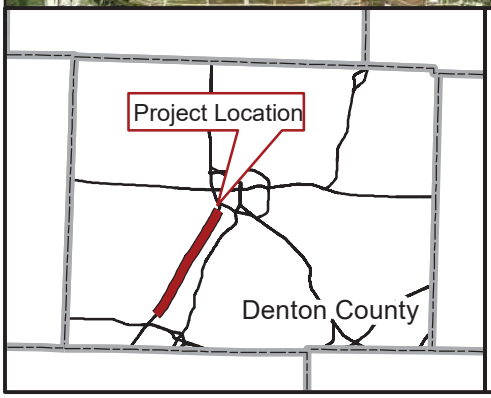
**USGS TOPOGRAPHIC MAP**
**IH 35W FRONTAGE ROADS**

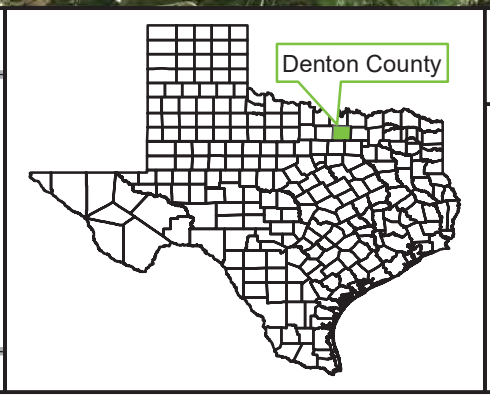
FROM DALE EARNHARDT WAY
TO SOUTH OF THE IH 35E/IH 35W
INTERCHANGE

DENTON COUNTY

CSJ: 0081-13-065




0 9,000 Feet

N W E S

**AERIAL MAP**
**IH 35W FRONTAGE ROADS**

FROM DALE EARNHARDT WAY
TO SOUTH OF THE IH 35E/IH 35W
INTERCHANGE

DENTON COUNTY

CSJ: 0081-13-065

# Appendix B
# Project Photographs

**Photograph 1:** View looking south along the IH 35W northbound frontage road near STA. 229+00 at the southern project terminus. Date of photograph: 12/7/19.

**Photograph 2:** View looking north along the IH 35W northbound entrance ramp near STA. 229+00 from near the southern project terminus. Date of photograph: 12/7/19.

**Photograph 3:** View looking west southwest along the southbound IH 35W exit ramp to Dale Earnhardt Way. Date of photograph: 12/8/19.

**Photograph 4:** View looking northeast towards Catherine Branch crossing on the IH 35W east ROW from near STA. 237+00. Date of photograph: 12/7/19.

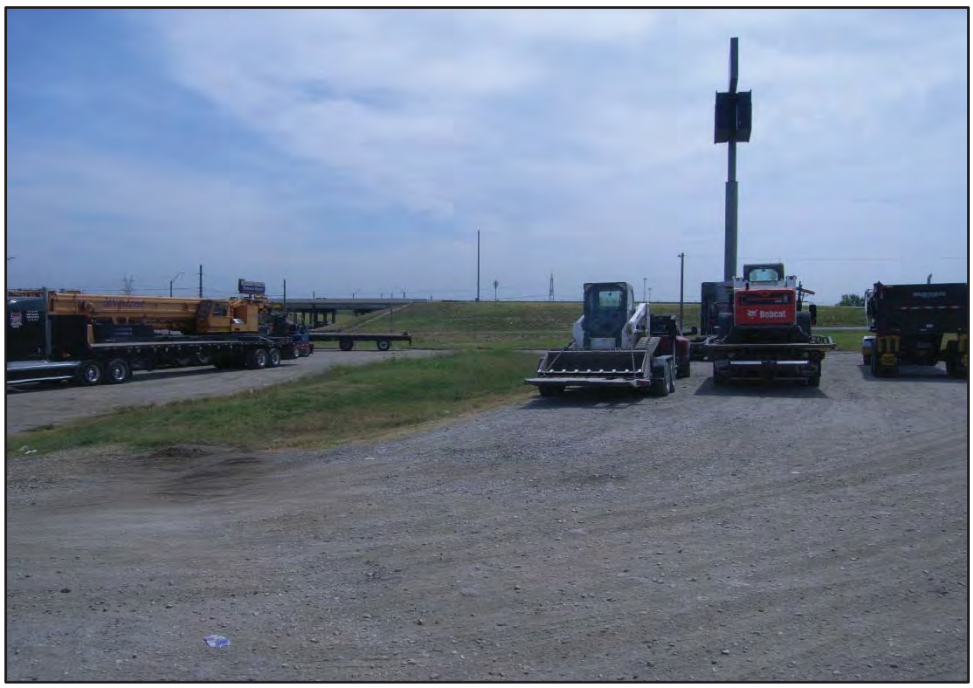
**Photograph 5:** View looking northeast towards the Catherine Branch from the IH 35W west ROW near STA. 240+00. Date of photograph: 12/8/19.

**Photograph 6:** View looking southwest across Denton Creek from the IH 35W west ROW near STA. 277+00. Date of photograph: 12/8/19.

**Photograph 7:** View looking south-southwest towards the Denton Creek at IH 35W crossing from the IH 35W east ROW near STA. 280+00. Date of photograph: 12/7/19.

**Photograph 8:** View looking east southeast towards the Cleveland Branch from the IH 35W east ROW near STA. 300+00. Date of photograph: 12/7/19.

**Photograph 9:** View looking south towards IH 35 W west from the FM 1171/ Cross Timbers Road ROW near STA. 330+00. Date of photograph: 12/8/19.



**Photograph 10:** View looking northeast across the former Interstate Texaco PST, LPST, and VCP site (currently a vacant lot) at 1201 FM 407, Corral City (now Draper), TX. (Map ID 8). ROW would be required from this site and it is a moderate environmental risk to the project. Date of photograph: 8/1/19.

**Photograph 11:** View looking northwest towards Graham Branch from IH 35W west ROW near STA. 520+00. Date of photograph: 12/8/19.

**Photograph 12:** View looking south along southbound IH 35W from the IH 35W west ROW near STA. 561+00. Date of photograph: 12/8/19.

**Photograph 13:** View looking northwest from Taylor Road towards Wise Health Emergency Center and iCare Urgent Care at 7214 Crawford Road, Argyle, TX. This facility is at the northeast corner of Crawford Road at IH 35W. Date of photograph: 11/26/19.

**Photograph 14:** View looking north along southbound IH 35W from the west ROW near STA. 665+00. Date of photograph: 12/8/19.

**Photograph 15:** View looking northeast across the Roark Branch from IH 35W west ROW near STA. 734+00. Date of photograph: 12/8/19.

**Photograph 16:** View looking south-southwest towards FM 2449/ Vintage Boulevard from the IH 35W west ROW near STA. 765+00. Date of photograph: 12/8/19.

**Photograph 17:** View looking east towards Hickory Creek from the IH 35W west ROW near STA. 779+00. Date of photograph: 12/8/19.

**Photograph 18:** View looking southwest towards Corbin Road from the IH 35W west ROW near STA. 825+00. Date of photograph: 12/7/19.

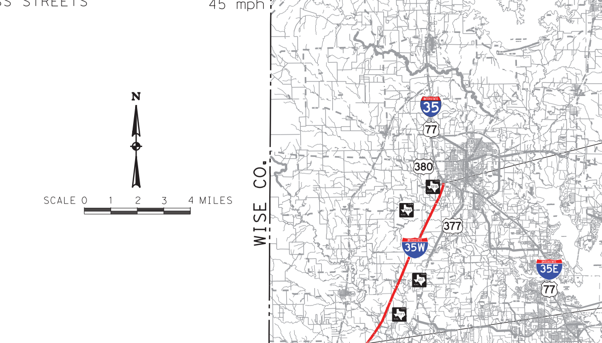
**Photograph 19:** View looking south along the southbound IH 35W mainlanes north of FM 1515 and the northern project terminus. Date of photograph: 12/8/19.

# Appendix C
# Project Schematic

**Texas Department of Transportation**

DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
TO SOUTH OF IH 35E/IH 35W INTERCHANGE
CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)

| ROADWAY TYPE | DESIGN SPEED |
|---|---|
| FREEWAY | 70 mph |
| RAMPS | 50 mph |
| FRONTAGE ROADS | 45 mph |
| CROSS STREETS | 45 mph |




END PROJECT
IH 35W FRONTAGE ROADS
℄ IH 35W STA 104+09.09
TRM 85-0.477
END CSJ: 0081-13-065

BEGIN PROJECT
IH 35W FRONTAGE ROADS
℄ IH 35W STA 219+83.68
TRM 72+0.230
BEGIN CSJ: 0081-13-065

EQUATION:
℄ IH 35W STA. 870+73.58=
℄ IH 35W STA. 100+00.00 (BY OTHERS)

LOCATION MAP
DECEMBER 2019
SCALE: 1"=100'
ROLL 1 OF 34

SHEET INDEX


ROLL 1: PLAN VIEW-IH 35W FRONTAGE ROADS BEGIN PROJECT TO STA 241+00
ROLL 2: PLAN VIEW-IH 35W FRONTAGE ROADS STA 241+00 TO STA 310+00
ROLL 3: PLAN VIEW-IH 35W FRONTAGE ROADS STA 310+00 TO STA 379+00
ROLL 4: PLAN VIEW-IH 35W FRONTAGE ROADS STA 379+00 TO STA 448+00
ROLL 5: PLAN VIEW-IH 35W FRONTAGE ROADS STA 448+00 TO STA 517+00
ROLL 6: PLAN VIEW-IH 35W FRONTAGE ROADS STA 517+00 TO STA 586+00
ROLL 7: PLAN VIEW-IH 35W FRONTAGE ROADS STA 586+00 TO STA 655+00
ROLL 8: PLAN VIEW-IH 35W FRONTAGE ROADS STA 655+00 TO STA 724+00
ROLL 9: PLAN VIEW-IH 35W FRONTAGE ROADS STA 724+00 TO STA 793+00
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ROLL 22: PROFILE VIEW-IH 35W NBML STA 1576+00 TO 1764+00
ROLL 23: PROFILE VIEW-IH 35W NBML STA 1764+00 TO END PROJECT
ROLL 24: PROFILE VIEW-IH 35W SBML BEGIN PROJECT TO STA 2386+00
ROLL 25: PROFILE VIEW-IH 35W SBML STA 2386+00 TO STA 2574+00
ROLL 26: PROFILE VIEW-IH 35W SBML STA 2574+00 TO STA 2762+00
ROLL 27: PROFILE VIEW-IH 35W SBML STA 2762+00 TO END PROJECT
ROLL 28: PROFILE VIEW-IH 35W NB RAMPS
ROLL 29: PROFILE VIEW-IH 35W NB RAMPS
ROLL 30: PROFILE VIEW-IH 35W SB RAMPS
ROLL 31: PROFILE VIEW-IH 35W SB RAMPS
ROLL 32: PROFILE VIEW-IH 35W CROSS STREETS
ROLL 33: PROFILE VIEW-IH 35W CROSS STREETS
ROLL 34: PROFILE VIEW-IH 35W CROSS STREETS


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| NAME | P.E. NO. | DATE |
|---|---|---|
| JESUS GONZALEZ JR., P.E. | 111427 | 12/06/2019 |


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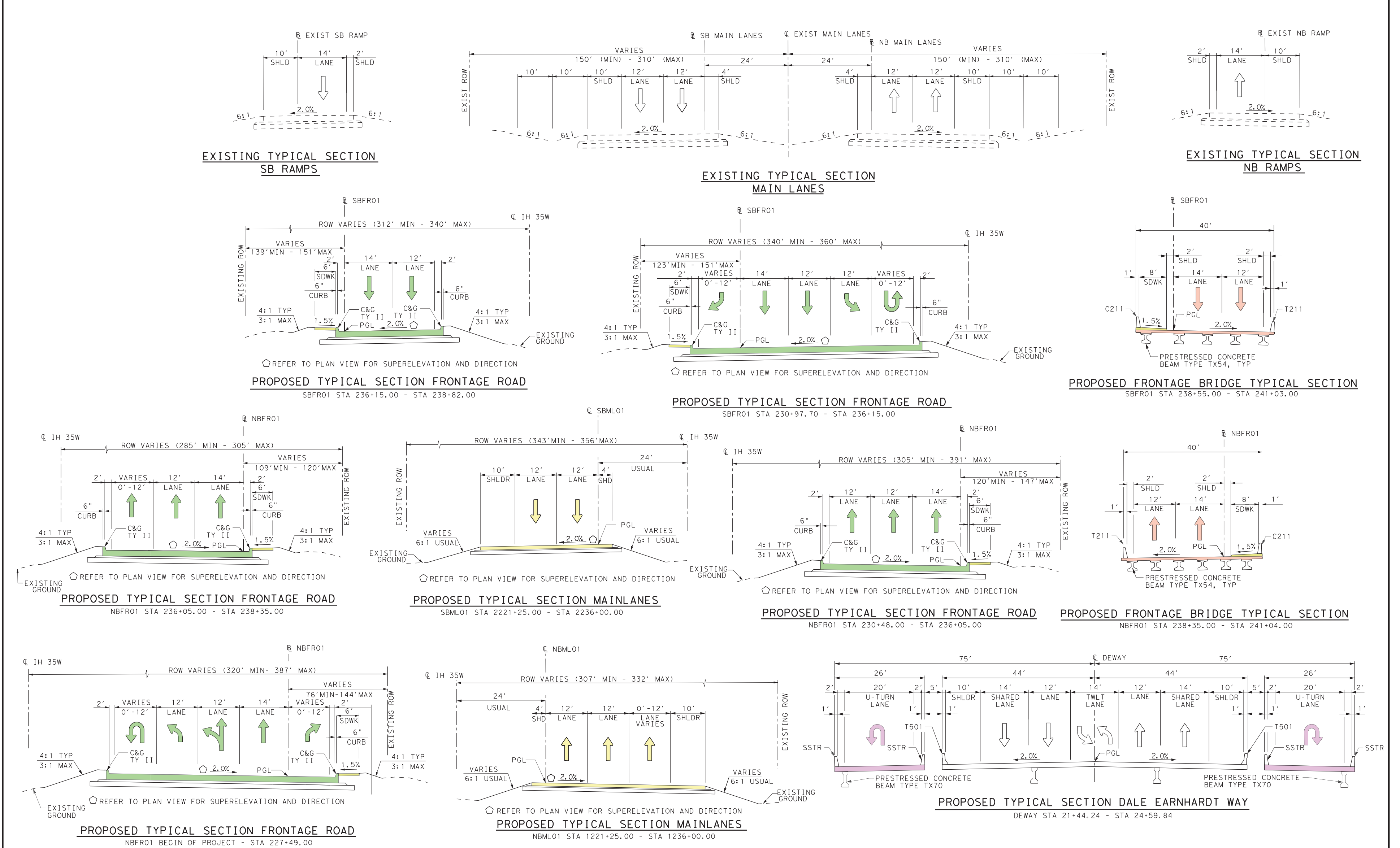

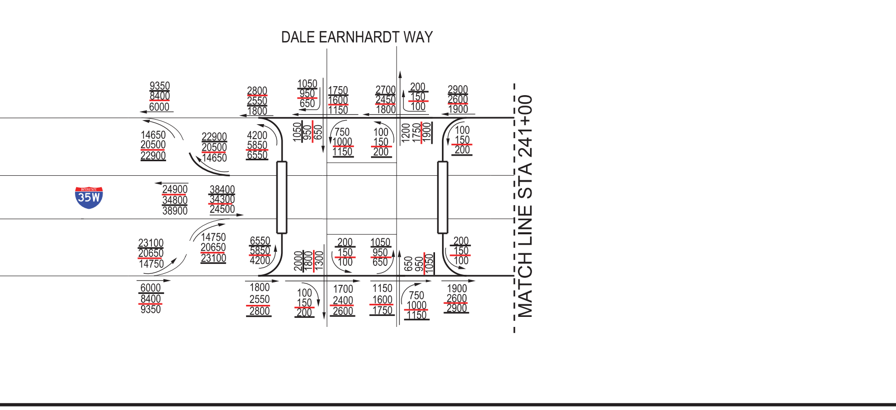

Texas Department of Transportation
DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
TO SOUTH OF IH 35E/IH 35W INTERCHANGE
CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)
LOCATION MAP
DECEMBER 2019
SCALE: 1"=100'
ROLL 1 OF 34
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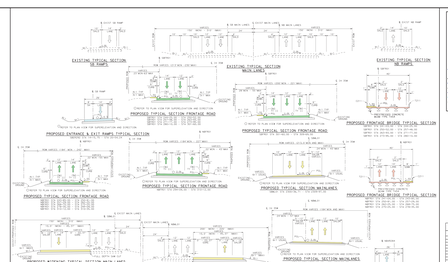


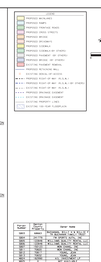

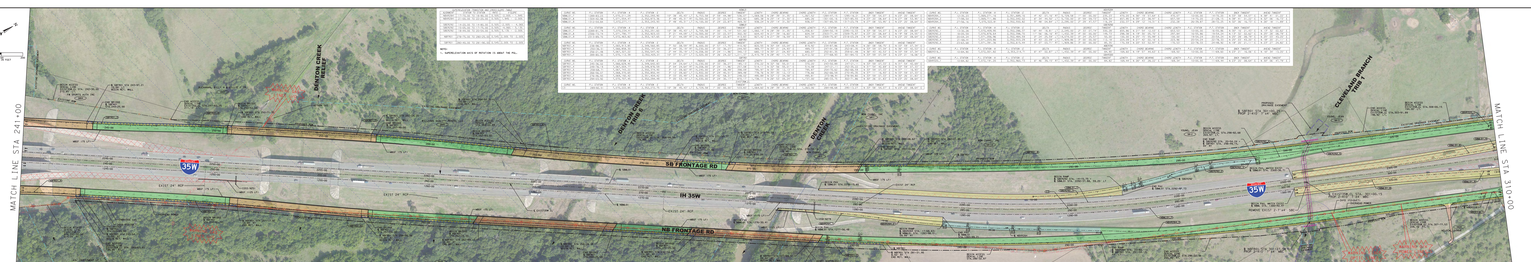


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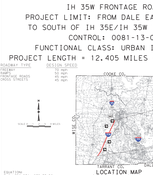


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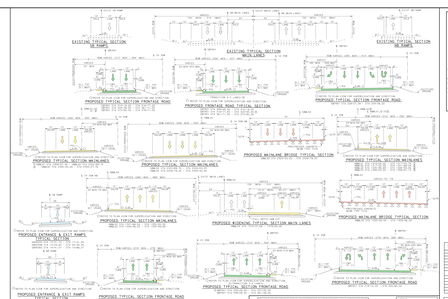
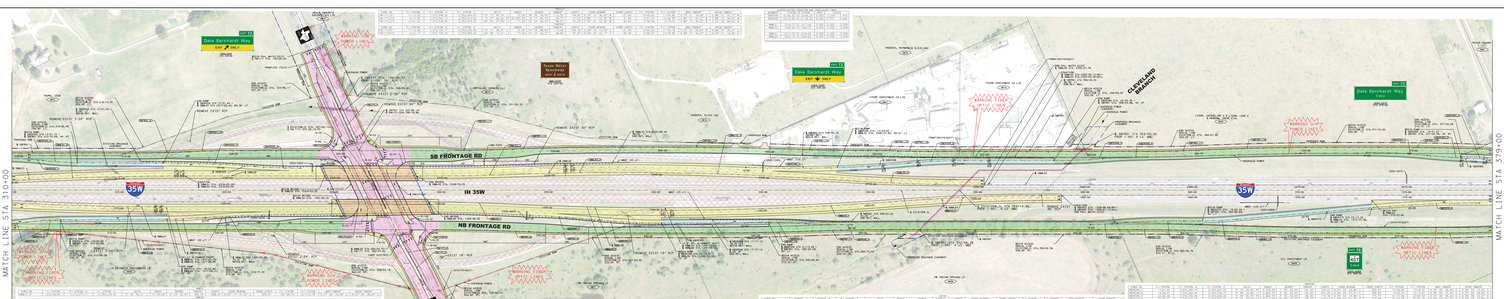
LOCATION MAP
DECEMBER 2019
SCALE: 1" = 100'
ROLL 3 OF 34



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DENTON COUNTY
IH 35W FRONTAGE ROADS
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LOCATION MAP
DECEMBER 2019
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ROLL 3 OF 34

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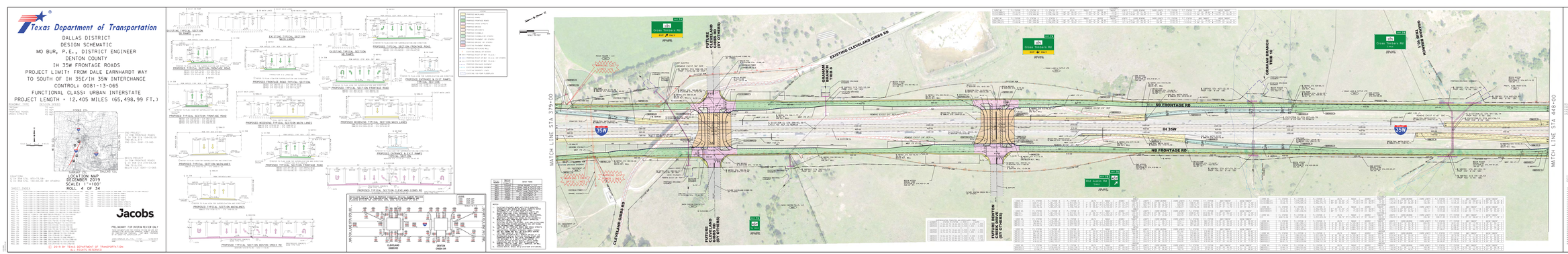


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ROLL 4 OF 34
SHEET INDEX
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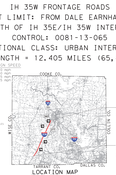


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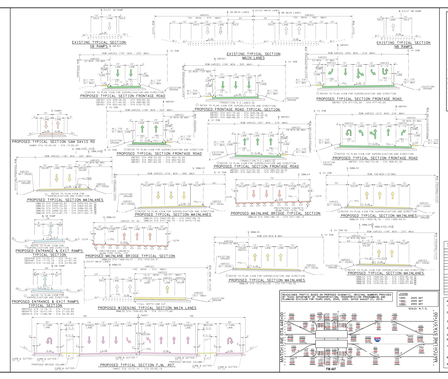


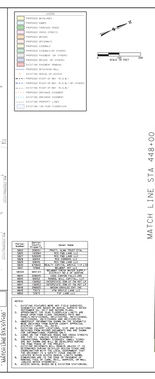

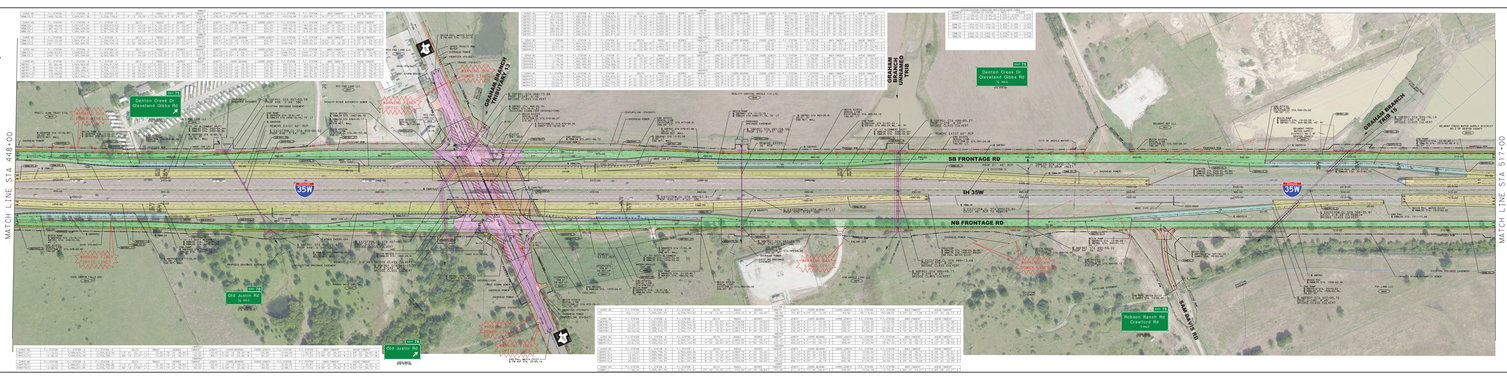


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LOCATION MAP
DECEMBER 2019
SCALE: 1" = 100'
ROLL 6 OF 34

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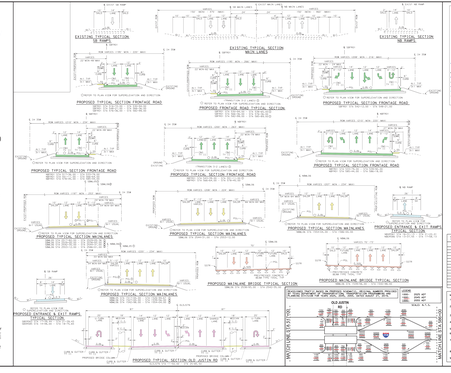

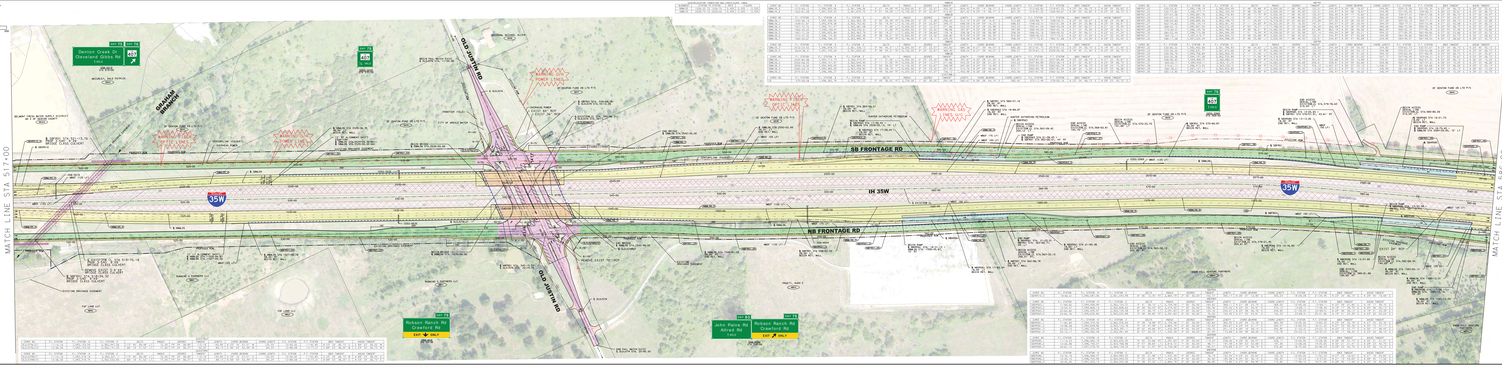


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DENTON COUNTY
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LOCATION MAP
DECEMBER 2019
SCALE: 1" = 100'
ROLL 6 OF 34

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DESIGN SCHEMATIC
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| ROADWAY TYPE | DESIGN SPEED |
|---|---|
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| RAMPS | 50 mph |
| FRONTAGE ROADS | 45 mph |
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EQUATION:
℄ IH 35W STA. 870+73.58=
℄ IH 35W STA. 100+00.00 (BY OTHERS)

LOCATION MAP
DECEMBER 2019
SCALE: 1"=100'
ROLL 7 OF 34

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| JESUS GONZALEZ JR., P.E. | 111427 | 12/06/2019 |
|---|---|---|
| NAME | P.E. NO. | DATE |


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12/6/2019
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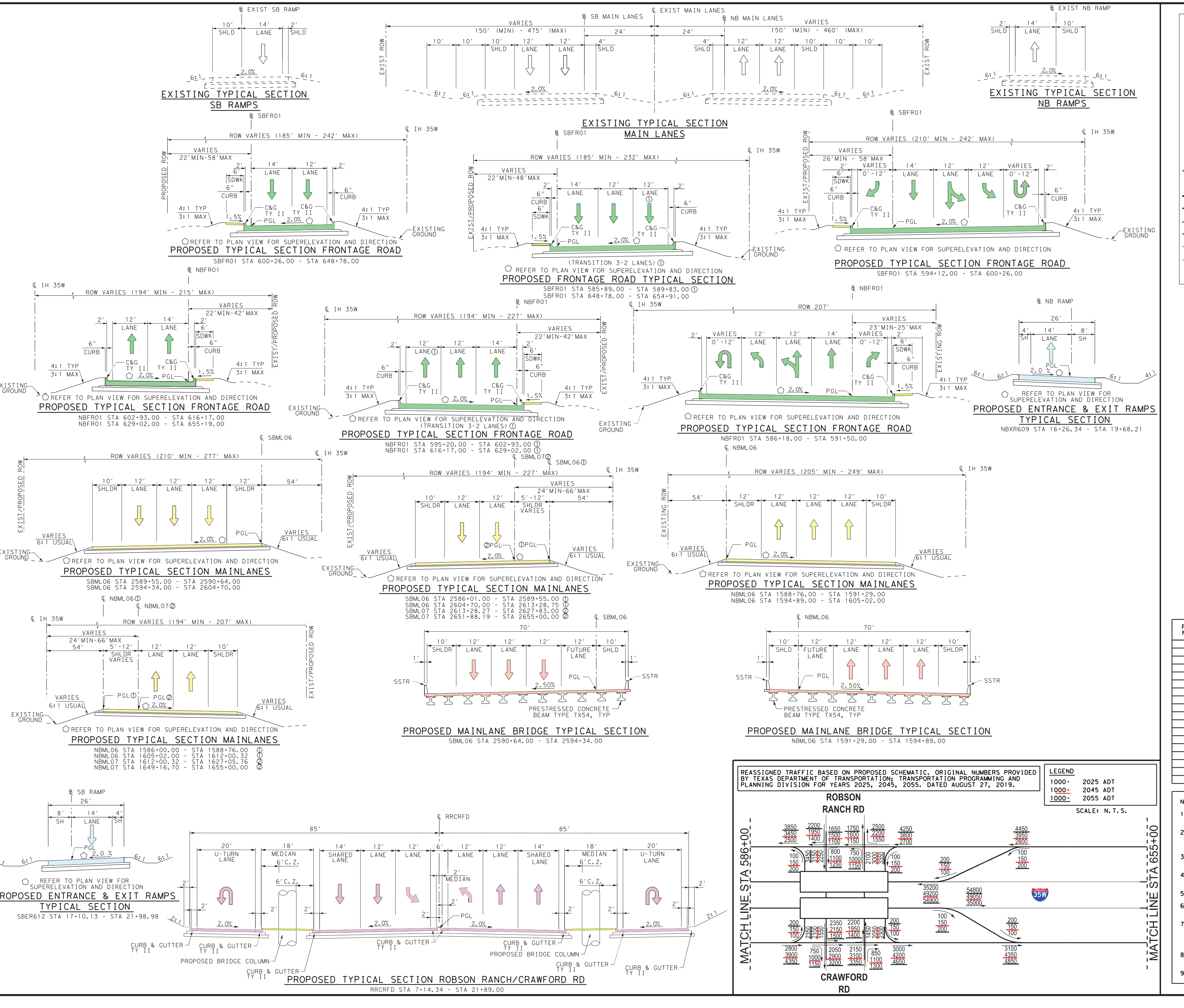
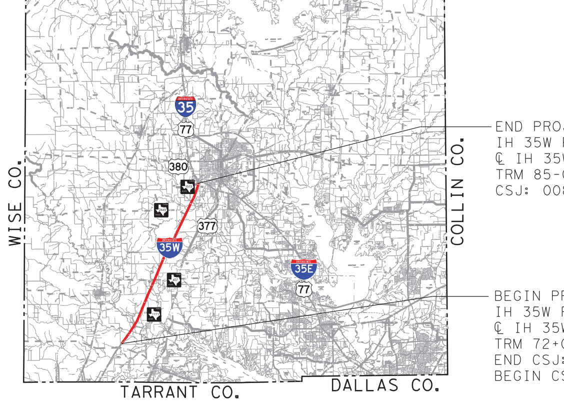


**Texas Department of Transportation**

DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
TO SOUTH OF IH 35E/IH 35W INTERCHANGE
CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)


LOCATION MAP
DECEMBER 2019
SCALE: 1"=100'
ROLL 7 OF 34

**Jacobs**

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Texas Department of Transportation

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MO BUR, P.E., DISTRICT ENGINEER
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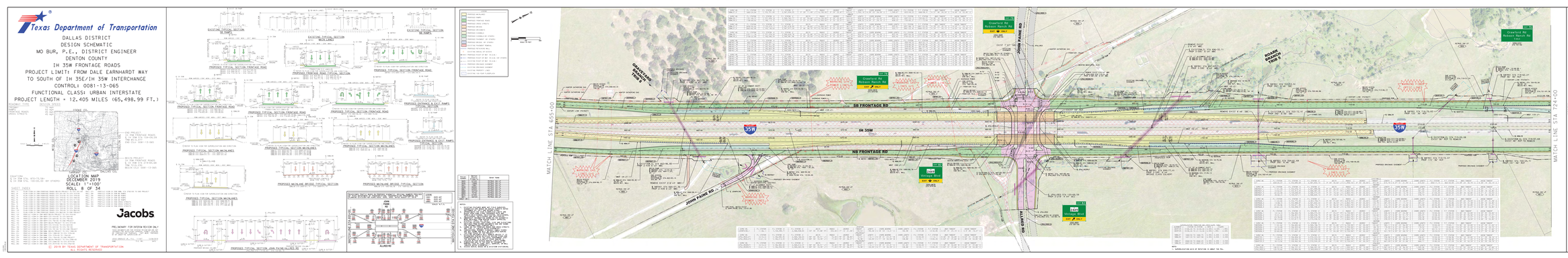


Texas Department of Transportation

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IH 35W FRONTAGE ROADS
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CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)

| ROADWAY TYPE | DESIGN SPEED |
|---|---|
| FREEWAY | 70 mph |
| RAMPS | 50 mph |
| FRONTAGE ROADS | 45 mph |
| CROSS STREETS | 45 mph |

EQUATION:
℄ IH 35W STA. 870+73.58=
℄ IH 35W STA. 100+00.00 (BY OTHERS)

LOCATION MAP
DECEMBER 2019
SCALE: 1"=100'
ROLL 9 OF 34

SHEET INDEX


ROLL 1: PLAN VIEW-IH 35W FRONTAGE ROADS BEGIN PROJECT TO STA 241+00
ROLL 2: PLAN VIEW-IH 35W FRONTAGE ROADS STA 241+00 TO STA 310+00
ROLL 3: PLAN VIEW-IH 35W FRONTAGE ROADS STA 310+00 TO STA 379+00
ROLL 4: PLAN VIEW-IH 35W FRONTAGE ROADS STA 379+00 TO STA 448+00
ROLL 5: PLAN VIEW-IH 35W FRONTAGE ROADS STA 448+00 TO STA 517+00
ROLL 6: PLAN VIEW-IH 35W FRONTAGE ROADS STA 517+00 TO STA 586+00
ROLL 7: PLAN VIEW-IH 35W FRONTAGE ROADS STA 586+00 TO STA 655+00
ROLL 8: PLAN VIEW-IH 35W FRONTAGE ROADS STA 655+00 TO STA 724+00
ROLL 9: PLAN VIEW-IH 35W FRONTAGE ROADS STA 724+00 TO STA 793+00
ROLL 10: PLAN VIEW-IH 35W FRONTAGE ROADS STA 793+00 TO STA 862+00
ROLL 11: PLAN VIEW-IH 35W FRONTAGE ROADS STA 862+00 TO END PROJECT
ROLL 12: PROFILE VIEW-IH 35W NBFR BEGIN PROJECT TO STA 416+00
ROLL 13: PROFILE VIEW-IH 35W NBFR STA 416+00 TO STA 604+00
ROLL 14: PROFILE VIEW-IH 35W NBFR STA 604+00 TO STA 792+00
ROLL 15: PROFILE VIEW-IH 35W NBFR STA 792+00 TO END PROJECT
ROLL 16: PROFILE VIEW-IH 35W SBFR BEGIN PROJECT TO STA 415+00
ROLL 17: PROFILE VIEW-IH 35W SBFR STA 415+00 TO STA 603+00
ROLL 18: PROFILE VIEW-IH 35W SBFR STA 603+00 TO STA 791+00
ROLL 19: PROFILE VIEW-IH 35W SBFR STA 791+00 TO STA END PROJECT
ROLL 20: PROFILE VIEW-IH 35W NBML BEGIN PROJECT TO STA 1388+00
ROLL 21: PROFILE VIEW-IH 35W NBML STA 1388+00 TO STA 1576+00
ROLL 22: PROFILE VIEW-IH 35W NBML STA 1576+00 TO STA 1764+00
ROLL 23: PROFILE VIEW-IH 35W NBML STA 1764+00 TO END PROJECT
ROLL 24: PROFILE VIEW-IH 35W SBML BEGIN PROJECT TO STA 2386+00
ROLL 25: PROFILE VIEW-IH 35W SBML STA 2386+00 TO STA 2574+00
ROLL 26: PROFILE VIEW-IH 35W SBML STA 2574+00 TO STA 2762+00
ROLL 27: PROFILE VIEW-IH 35W SBML STA 2762+00 TO END PROJECT
ROLL 28: PROFILE VIEW-IH 35W NB RAMPS
ROLL 29: PROFILE VIEW-IH 35W NB RAMPS
ROLL 30: PROFILE VIEW-IH 35W SB RAMPS
ROLL 31: PROFILE VIEW-IH 35W SB RAMPS
ROLL 32: PROFILE VIEW-IH 35W CROSS STREETS
ROLL 33: PROFILE VIEW-IH 35W CROSS STREETS
ROLL 34: PROFILE VIEW-IH 35W CROSS STREETS


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| NAME | P.E. NO. | DATE |
|---|---|---|
| JESUS GONZALEZ JR., P.E. | 111427 | 12/06/2019 |


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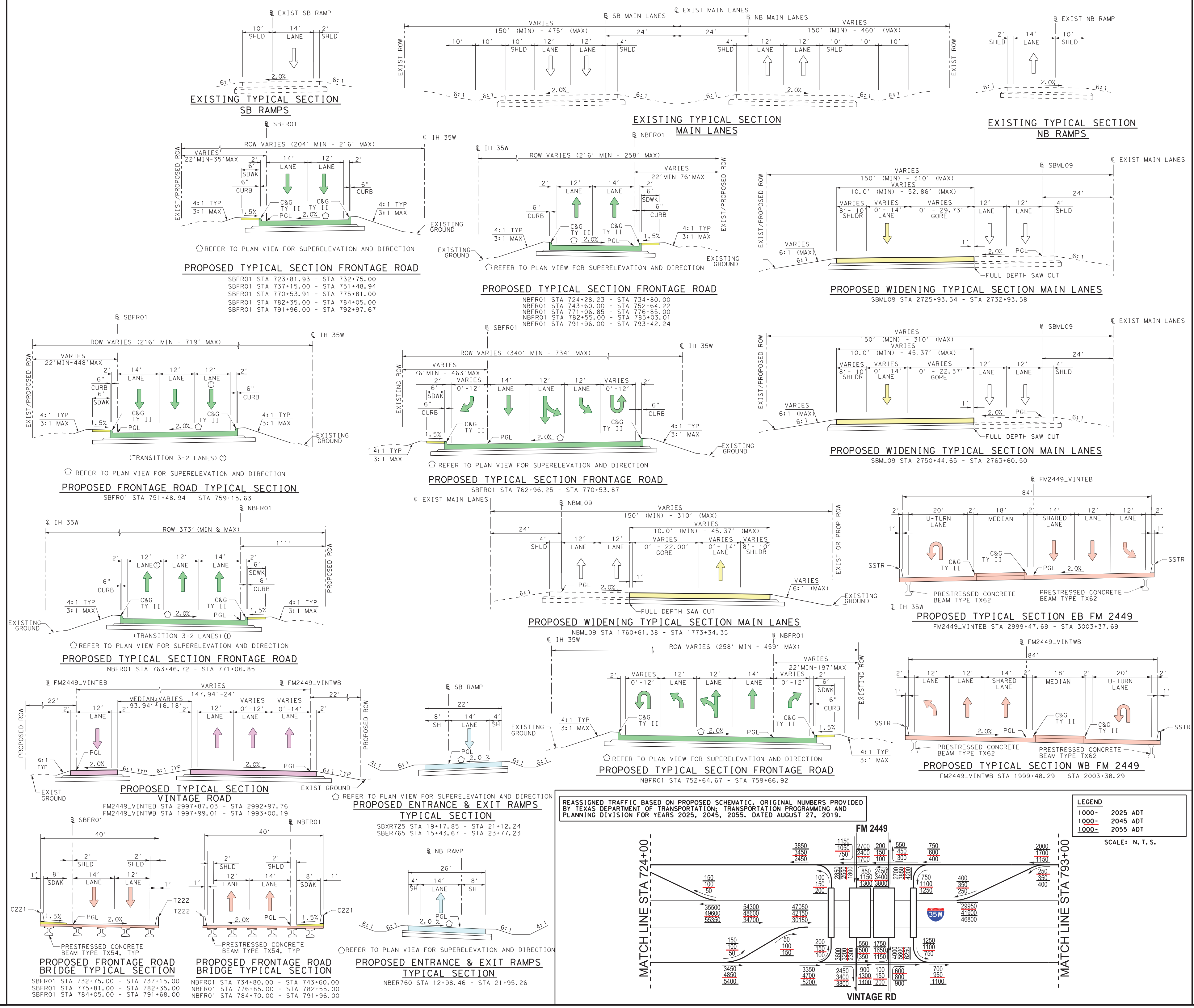


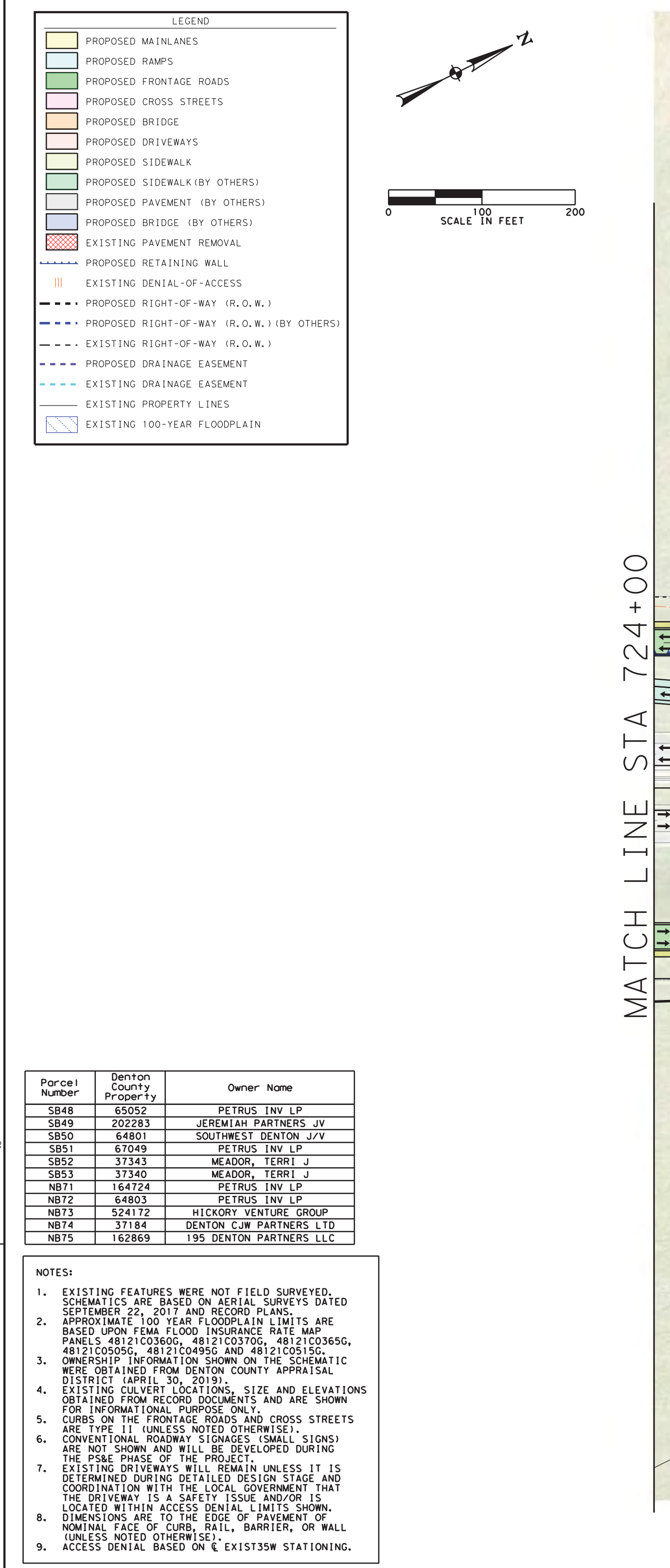

Texas Department of Transportation
DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
TO SOUTH OF IH 35E/IH 35W INTERCHANGE
CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)
LOCATION MAP
DECEMBER 2019
SCALE: 1"=100'
ROLL 9 OF 34
Jacobs
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# Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
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| ROADWAY TYPE | DESIGN SPEED |
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| FREEWAY | 70 mph |
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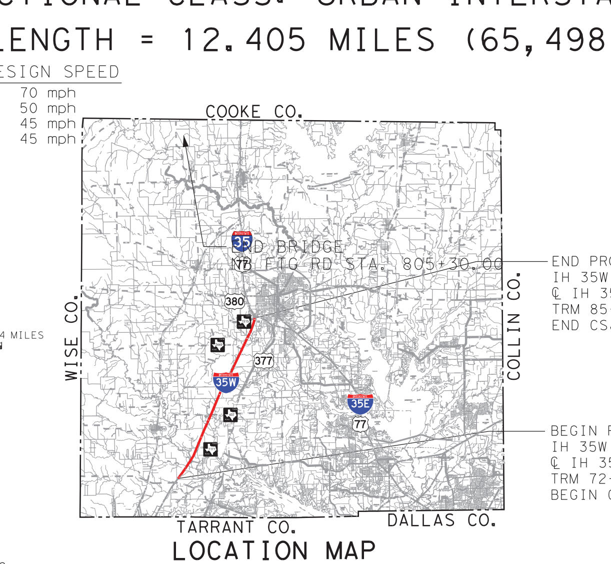


END PROJECT
IH 35W FRONTAGE ROADS
℄ IH 35W STA 104+09.09
TRM 85-0.477
END CSJ: 0081-13-065

BEGIN PROJECT
IH 35W FRONTAGE ROADS
℄ IH 35W STA 219+83.68
TRM 72+0.230
BEGIN CSJ: 0081-13-065

EQUATION:
℄ IH 35W STA. 870+73.58=
℄ IH 35W STA. 100+00.00 (BY OTHERS)

LOCATION MAP
DECEMBER 2019
SCALE: 1"=100′
ROLL 10 OF 34

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Jacobs

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JESUS GONZALEZ JR., P.E. 111427 12/06/2019
NAME P.E. NO. DATE


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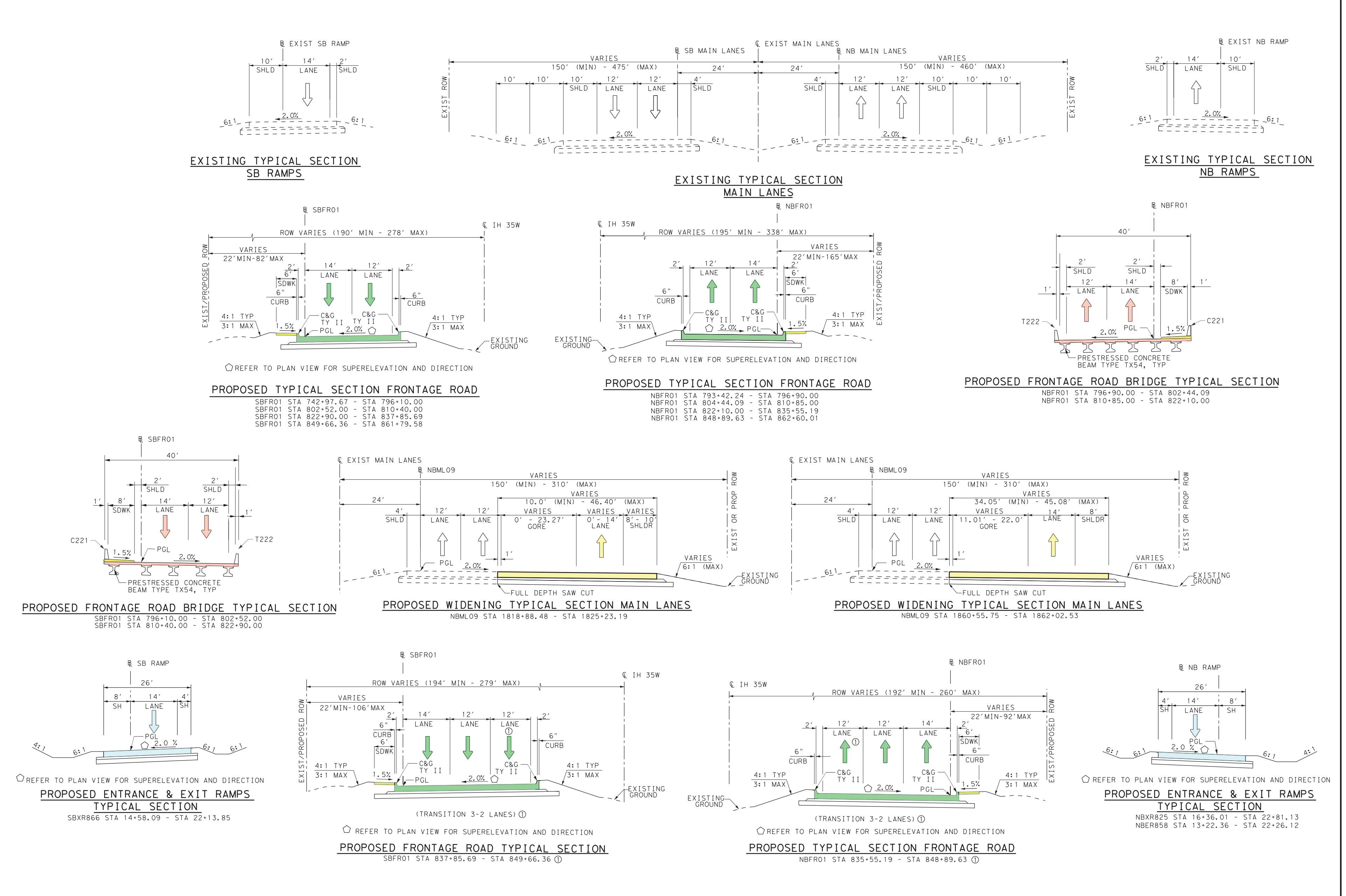
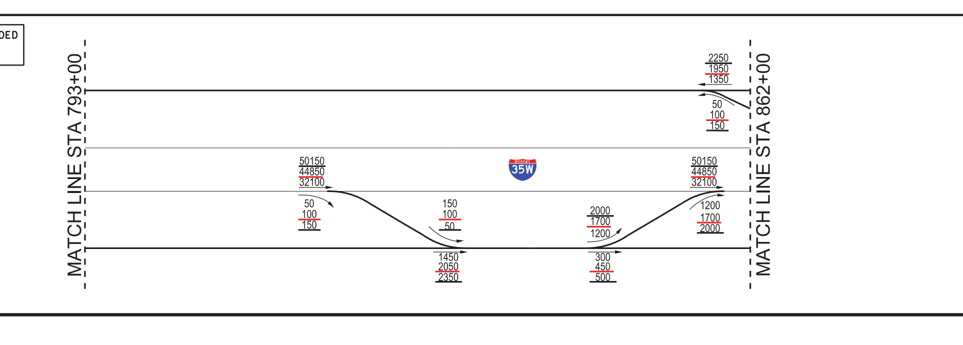



REASSIGNED TRAFFIC BASED ON PROPOSED SCHEMATIC. ORIGINAL NUMBERS PROVIDED BY TEXAS DEPARTMENT OF TRANSPORTATION; TRANSPORTATION PROGRAMMING AND PLANNING DIVISION FOR YEARS 2025, 2045, 2055. DATED AUGUST 27, 2019.




LEGEND
1000- 2025 ADT
1000- 2045 ADT
1000- 2055 ADT
SCALE: N.T.S.

| Parcel Number | Denton County Property | Owner Name |
|---|---|---|
| SB53 | 37343 | MEADOR, TERRI J |
| SB54 | 37093 | MEADOR, TERRI J |
| SB55 | 733774 | HAMMER, ROBERT |
| SB56 | 75204 | MASON, JAMES F TRUSTEE |
| SB57 | 37895 | MASON, JAMES F TRUSTEE |
| SB58 | 464870 | MASON, JAMES F TRUSTEE |
| SB58A | 464869 | MASON, JAMES F TRUSTEE |
| SB59 | 464739 | SCHLUMBERGER TECHNOLOGY |
| SB60 | 464738 | SCG GRANITE POINT BUSINESS |
| SB61 | 145693 | SADEGHIAN, KHOSROW TRTS OF KAMY REAL PROPERTY TRUST |
| SB62 | 128465 | MILLER, SHARON LEE |
| SB63 | 128467 | WDMI LLC |
| SB64 | 223198 | LATTIMORE MATERIALS CO LP |
| NB71 | 164724 | PETRUS INV LP |
| NB75 | 162869 | 195 DENTON PARTNERS LLC |
| NB76 | 37324 | 195 DENTON PARTNERS LLC |
| NB77 | 162864 | 195 DENTON PARTNERS LLC |
| NB78 | 162865 | 197 DENTON PARTNERS LLC |
| NB79 | 162867 | 195 DENTON PARTNERS LLC |
| NB80 | 76187 | ECCLESIASTICAL EQUITY, LP |
| NB81 | 113156 | ECCLESIASTICAL EQUITY, LP |
| NB82 | 133093 | ECCLESIASTICAL EQUITY, LP |
| NB83 | 160696 | ECCLESIASTICAL EQUITY, LP |
| NB84 | 122986 | ECCLESIASTICAL EQUITY, LP |
| NB85 | 122985 | ECCLESIASTICAL EQUITY, LP |
| NB86 | 35325 | JONES, ROBERT W |
| NB87 | 35323 | JONES FAMILY TRUST |
| NB88 | 35319 | LATTIMORE MATERIALS CO LP |
| NB89 | 39303 | JONES, ROBERT W |

NOTES:

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED ON AERIAL SURVEYS DATED SEPTEMBER 22, 2017 AND RECORD PLANS.
2. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE RATE MAP PANELS 48121C0360G, 48121C0370G, 48121C0365G, 48121C0505G, 48121C0495G AND 48121C0515G.
3. OWNERSHIP INFORMATION SHOWN ON THE SCHEMATIC WERE OBTAINED FROM DENTON COUNTY APPRAISAL DISTRICT (APRIL 30, 2019).
4. EXISTING CULVERT LOCATIONS, SIZE AND ELEVATIONS OBTAINED FROM RECORD DOCUMENTS AND ARE SHOWN FOR INFORMATIONAL PURPOSE ONLY.
5. CURBS ON THE FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (UNLESS NOTED OTHERWISE).
6. CONVENTIONAL ROADWAY SIGNAGES (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
7. 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.
8. DIMENSIONS ARE TO THE EDGE OF PAVEMENT OF NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL (UNLESS NOTED OTHERWISE).
9. ACCESS DENIAL BASED ON ℄ EXIST35W STATIONING.

SUPERELEVATION TRANSITION AND CROSS-SLOPE TABLE

| ALIGNMENT | STATION TO STATION | RATE | X-SLOPE |
|---|---|---|---|
| NBXR825 | 17+40.00 TO 19+50.00 | 0.50% | -2.00% ~ 5.10% |
| NBXR825 | 20+10.00 TO 22+20.00 | 0.50% | 5.10% ~ -2.00% |
| | | | |
| NBER858 | 15+35.00 TO 17+00.00 | 0.50% | -2.00% ~ 3.47% |
| NBER858 | 18+18.00 TO 19+83.00 | 0.50% | 3.47% ~ -2.00% |
| | | | |
| SBXR866 | 18+00.00 TO 19+20.00 | 0.50% | -2.00% ~ 1.95% |
| SBXR866 | 24+00.00 TO 25+20.00 | 0.50% | 1.95% ~ -2.00% |
| | | | |
| NBFR01 | 822+45.00 TO 823+95.00 | 0.54% | 2.00% ~ -2.00% |
| | | | |
| SBFR01 | 823+15.00 TO 824+65.00 | 0.54% | 2.00% ~ -2.00% |

NOTE:
1. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.

NBML09

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBML09_3 | 1837+59.26 | 7,119,670.98 | 2,375,760.15 | 6° 01′ 35.09" LT | 5,753.58′ | 0° 59′ 44.98" | 302.86′ | 605.17′ | N 23° 18′ 12.59" E | 604.89′ | 1834+56.39 | 1840+61.56 | N 26° 19′ 00.14" E | N 20° 17′ 25.05" E |

SBML09

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SBML09_3 | 2837+56.73 | 7,119,690.00 | 2,375,716.01 | 6° 01′ 35.09" LT | 5,705.58′ | 1° 00′ 15.14" | 300.34′ | 600.12′ | N 23° 18′ 12.59" E | 599.84′ | 2834+56.39 | 2840+56.51 | N 26° 19′ 00.14" E | N 20° 17′ 25.05" E |

NBFR01

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBFR01_50 | 805+02.83 | 7,116,642.99 | 2,374,441.75 | 1° 54′ 39.21" LT | 14,318.00′ | 0° 24′ 00.60" | 238.78′ | 477.52′ | N 25° 28′ 35.72" E | 477.50′ | 802+64.05 | 807+41.57 | N 26° 25′ 55.33" E | N 24° 31′ 16.12" E |
| NBFR01_51 | 809+02.17 | 7,117,006.35 | 2,374,607.52 | 1° 47′ 22.89" RT | 10,282.00′ | 0° 33′ 26.08" | 160.60′ | 321.17′ | N 25° 25′ 11.40" E | 321.16′ | 807+41.57 | 810+62.74 | N 24° 31′ 29.96" E | N 26° 18′ 52.85" E |
| NBFR01_52 | 838+09.87 | 7,119,612.75 | 2,375,896.52 | 6° 00′ 55.41" LT | 10,572.00′ | 0° 32′ 31.05" | 555.48′ | 1,109.94′ | N 23° 18′ 25.14" E | 1,109.43′ | 832+54.39 | 843+64.33 | N 26° 18′ 52.85" E | N 20° 17′ 57.44" E |

SBFR01

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SBFR01_62 | 795+35.53 | 7,115,968.59 | 2,373,723.92 | 2° 31′ 52.00" LT | 10,294.00′ | 0° 33′ 23.74" | 227.41′ | 454.75′ | N 25° 02′ 56.85" E | 454.71′ | 793+08.12 | 797+62.87 | N 26° 18′ 52.85" E | N 23° 47′ 00.85" E |
| SBFR01_63 | 800+78.91 | 7,116,465.90 | 2,373,943.08 | 2° 31′ 52.00" RT | 14,306.00′ | 0° 24′ 01.81" | 316.04′ | 631.98′ | N 25° 02′ 56.85" E | 631.93′ | 797+62.87 | 803+94.85 | N 23° 47′ 00.85" E | N 26° 18′ 52.85" E |
| SBFR01_64 | 811+68.14 | 7,117,442.34 | 2,374,425.99 | 2° 47′ 05.22" LT | 5,000.00′ | 1° 08′ 45.30" | 121.53′ | 243.02′ | N 24° 55′ 20.24" E | 242.99′ | 810+46.61 | 812+89.63 | N 26° 18′ 52.85" E | N 23° 31′ 47.63" E |
| SBFR01_65 | 814+11.16 | 7,117,665.20 | 2,374,523.02 | 2° 47′ 05.22" RT | 5,000.00′ | 1° 08′ 45.30" | 121.53′ | 243.02′ | N 24° 55′ 20.24" E | 242.99′ | 812+89.63 | 815+32.64 | N 23° 31′ 47.63" E | N 26° 18′ 52.85" E |
| SBFR01_66 | 828+50.18 | 7,118,955.14 | 2,375,160.97 | 2° 47′ 05.22" RT | 5,000.00′ | 1° 08′ 45.30" | 121.53′ | 243.02′ | N 27° 42′ 25.46" E | 242.99′ | 827+28.65 | 829+71.67 | N 26° 18′ 52.85" E | N 29° 05′ 58.07" E |
| SBFR01_67 | 830+93.20 | 7,119,167.53 | 2,375,279.18 | 2° 47′ 05.22" LT | 5,000.00′ | 1° 08′ 45.30" | 121.53′ | 243.02′ | N 27° 42′ 25.46" E | 242.99′ | 829+71.67 | 832+14.69 | N 29° 05′ 58.07" E | N 26° 18′ 52.85" E |
| SBFR01_68 | 835+41.41 | 7,119,569.33 | 2,375,477.89 | 1° 10′ 50.27" LT | 10,294.00′ | 0° 33′ 23.74" | 106.06′ | 212.12′ | N 25° 43′ 27.72" E | 212.11′ | 834+35.35 | 836+47.46 | N 26° 18′ 52.85" E | N 25° 08′ 02.58" E |
| SBFR01_69 | 838+55.77 | 7,119,853.94 | 2,375,611.41 | 4° 46′ 16.70" LT | 5,000.00′ | 1° 08′ 45.30" | 208.31′ | 416.37′ | N 22° 44′ 54.24" E | 416.25′ | 836+47.46 | 840+63.84 | N 25° 08′ 02.58" E | N 20° 21′ 45.89" E |
| SBFR01_70 | 841+35.89 | 7,120,116.78 | 2,375,708.97 | 1° 39′ 04.31" RT | 5,000.00′ | 1° 08′ 45.30" | 72.05′ | 144.09′ | N 21° 11′ 18.04" E | 144.09′ | 840+63.84 | 842+07.93 | N 20° 21′ 45.89" E | N 22° 00′ 50.20" E |
| SBFR01_71 | 843+61.79 | 7,120,326.22 | 2,375,793.65 | 1° 42′ 52.76" LT | 10,282.00′ | 0° 33′ 26.08" | 153.86′ | 307.70′ | N 21° 09′ 23.82" E | 307.69′ | 842+07.93 | 845+15.63 | N 22° 00′ 50.20" E | N 20° 17′ 57.44" E |
| SBFR01_72 | 857+26.25 | 7,121,605.96 | 2,376,267.02 | 2° 41′ 15.57" RT | 5,000.00′ | 1° 08′ 45.30" | 117.29′ | 234.54′ | N 21° 38′ 35.22" E | 234.52′ | 856+08.96 | 858+43.50 | N 20° 17′ 57.44" E | N 22° 59′ 13.00" E |
| SBFR01_73 | 859+60.80 | 7,121,821.92 | 2,376,358.63 | 2° 41′ 15.57" LT | 5,000.00′ | 1° 08′ 45.30" | 117.29′ | 234.54′ | N 21° 38′ 35.22" E | 234.52′ | 858+43.50 | 860+78.05 | N 22° 59′ 13.00" E | N 20° 17′ 57.44" E |

NBXR825

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBXR825_1 | 13+75.54 | 7,118,320.03 | 2,375,118.87 | 7° 30′ 00.00" RT | 5,729.58′ | 1° 00′ 00.00" | 375.54′ | 750.00′ | N 30° 03′ 52.85" E | 749.46′ | 10+00.00 | 17+50.00 | N 26° 18′ 52.85" E | N 33° 48′ 52.85" E |
| NBXR825_2 | 19+81.07 | 7,118,824.03 | 2,375,456.45 | 7° 14′ 57.43" LT | 1,450.00′ | 3° 57′ 05.16" | 91.85′ | 183.46′ | N 30° 11′ 24.13" E | 183.34′ | 18+89.22 | 20+72.68 | N 33° 48′ 52.85" E | N 26° 33′ 55.42" E |
| NBXR825_3 | 23+57.73 | 7,119,161.51 | 2,375,624.27 | 6° 06′ 41.45" RT | 1,435.00′ | 3° 59′ 33.85" | 76.61′ | 153.07′ | N 29° 22′ 13.57" E | 152.99′ | 22+81.13 | 24+34.19 | N 26° 18′ 52.85" E | N 32° 25′ 34.30" E |
| NBXR825_4 | 25+31.29 | 7,119,308.13 | 2,375,717.41 | 7° 44′ 30.29" LT | 1,435.00′ | 3° 59′ 33.85" | 97.10′ | 193.90′ | N 28° 33′ 19.15" E | 193.75′ | 24+34.19 | 26+28.09 | N 32° 25′ 34.30" E | N 24° 41′ 04.01" E |

NBER858

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NBER858_1 | 10+85.00 | 7,120,714.46 | 2,376,278.45 | 6° 47′ 32.50" LT | 1,432.39′ | 4° 00′ 00.00" | 85.00′ | 169.81′ | N 16° 54′ 11.19" E | 169.71′ | 10+00.00 | 11+69.81 | N 20° 17′ 57.44" E | N 13° 30′ 24.93" E |
| NBER858_2 | 12+46.06 | 7,120,871.26 | 2,376,316.11 | 6° 05′ 39.55" RT | 1,432.39′ | 4° 00′ 00.00" | 76.25′ | 152.36′ | N 16° 33′ 14.71" E | 152.29′ | 11+69.81 | 13+22.17 | N 13° 30′ 24.93" E | N 19° 36′ 04.48" E |
| NBER858_3 | 17+59.28 | 7,121,354.87 | 2,376,488.33 | 4° 20′ 55.11" LT | 2,864.79′ | 2° 00′ 00.00" | 108.77′ | 217.43′ | N 17° 25′ 36.92" E | 217.38′ | 16+50.51 | 18+67.95 | N 19° 36′ 04.48" E | N 15° 15′ 09.37" E |
| NBER858_4 | 24+77.28 | 7,122,047.68 | 2,376,677.24 | 5° 02′ 15.68" RT | 5,730.00′ | 0° 59′ 59.73" | 252.07′ | 503.81′ | N 17° 46′ 17.21" E | 503.64′ | 22+25.21 | 27+29.02 | N 15° 15′ 09.37" E | N 20° 17′ 25.05" E |

SBXR866

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SBXR866_1 | 11+18.65 | 7,120,996.21 | 2,376,067.06 | 4° 44′ 34.48" RT | 2,865.00′ | 1° 59′ 59.47" | 118.65′ | 237.16′ | N 22° 40′ 14.68" E | 237.10′ | 10+00.00 | 12+37.16 | N 20° 17′ 57.44" E | N 25° 02′ 31.92" E |
| SBXR866_2 | 13+47.68 | 7,121,203.84 | 2,376,164.07 | 4° 25′ 05.74" LT | 2,865.00′ | 1° 59′ 59.47" | 110.52′ | 220.93′ | N 22° 49′ 59.05" E | 220.87′ | 12+37.16 | 14+58.09 | N 25° 02′ 31.92" E | N 20° 37′ 26.18" E |
| SBXR866_3 | 22+08.35 | 7,122,009.45 | 2,376,467.26 | 6° 26′ 17.93" RT | 5,730.00′ | 0° 59′ 59.73" | 322.28′ | 643.88′ | N 23° 50′ 35.14" E | 643.54′ | 18+86.07 | 25+29.95 | N 20° 37′ 26.18" E | N 27° 03′ 44.11" E |
| SBXR866_4 | 28+56.87 | 7,122,587.57 | 2,376,762.62 | 6° 31′ 52.98" LT | 5,729.58′ | 1° 00′ 00.00" | 326.92′ | 653.14′ | N 23° 47′ 47.62" E | 652.78′ | 25+29.95 | 31+83.08 | N 27° 03′ 44.11" E | N 20° 31′ 51.13" E |

EXIST35W_CL

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C8 | 837+58.91 | 7,119,681.31 | 2,375,738.49 | 6° 01′ 02.70" LT | 5,729.58′ | 1° 00′ 00.00" | 301.15′ | 601.74′ | N 23° 18′ 28.79" E | 601.47′ | 834+57.76 | 840+59.50 | N 26° 19′ 00.14" E | N 20° 17′ 57.44" E |

CORBIN

| CURVE NO. | P.I. STATION | P.I. STATION - N | P.I. STATION - E | DELTA | RADIUS | DEGREE | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH | P.C. STATION | P.T. STATION | BACK TANGENT | AHEAD TANGENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORBIN_1 | 12+85.16 | 7,118,390.50 | 2,374,842.65 | 93° 34′ 56.14" RT | 100.00′ | 57° 17′ 44.81" | 106.46′ | 163.33′ | S 46° 25′ 28.36" E | 145.77′ | 11+78.70 | 13+42.04 | N 86° 47′ 03.57" E | S 0° 21′ 59.71" W |
| CORBIN_2 | 15+01.32 | 7,118,124.77 | 2,374,840.95 | 50° 01′ 28.11" LT | 100.00′ | 57° 17′ 44.81" | 46.66′ | 87.31′ | S 24° 38′ 44.35" E | 84.56′ | 14+54.66 | 15+41.97 | S 0° 21′ 59.71" W | S 49° 39′ 28.41" E |
| CORBIN_3 | 17+22.37 | 7,117,977.78 | 2,375,014.02 | 74° 20′ 55.77" LT | 60.00′ | 95° 29′ 34.68" | 45.50′ | 77.86′ | S 86° 49′ 56.29" E | 72.51′ | 16+76.87 | 17+54.73 | S 49° 39′ 28.41" E | N 55° 59′ 35.82" E |
| CORBIN_4 | 23+94.10 | 7,118,360.82 | 2,375,581.76 | 32° 13′ 40.40" RT | 150.00′ | 38° 11′ 49.87" | 43.33′ | 84.37′ | N 72° 06′ 26.02" E | 83.26′ | 23+50.77 | 24+35.14 | N 55° 59′ 35.82" E | N 88° 13′ 16.22" E |


Texas Department of Transportation
DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
TO SOUTH OF IH 35E/IH 35W INTERCHANGE
CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)
LOCATION MAP
DECEMBER 2019
SCALE: 1"=100′
ROLL 10 OF 34
Jacobs
PRELIMINARY FOR INTERIM REVIEW ONLY
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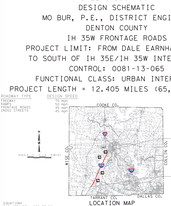
Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
TO SOUTH OF IH 35E/IH 35W INTERCHANGE
CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)

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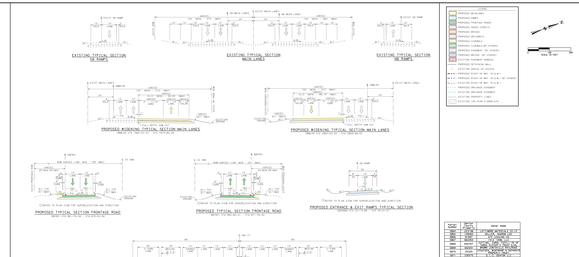
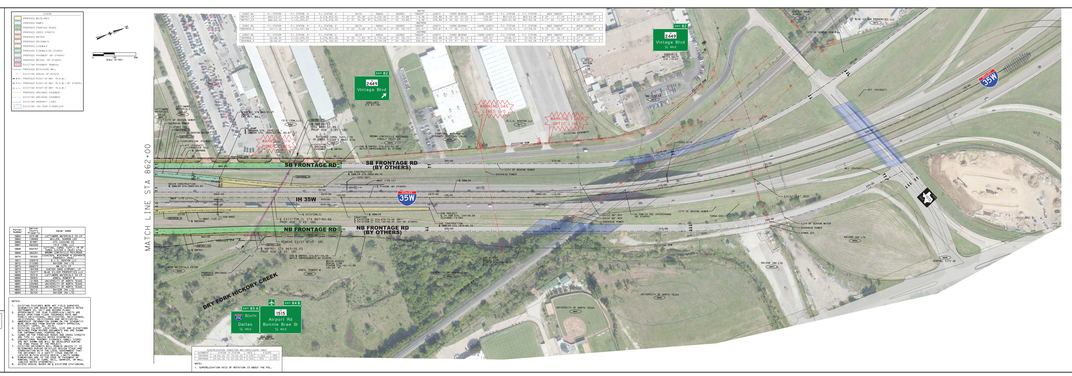
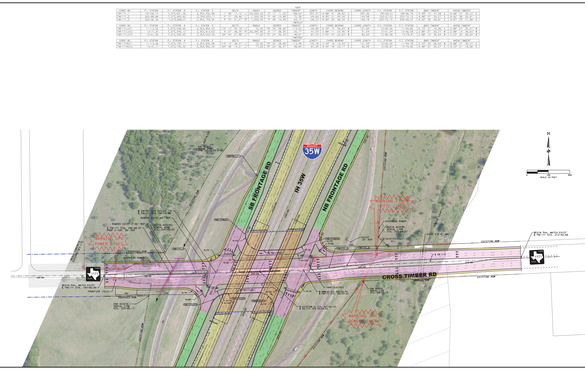
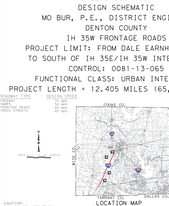



Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
MO BUR, P.E., DISTRICT ENGINEER
DENTON COUNTY
IH 35W FRONTAGE ROADS
PROJECT LIMIT: FROM DALE EARNHARDT WAY
TO SOUTH OF IH 35E/IH 35W INTERCHANGE
CONTROL: 0081-13-065
FUNCTIONAL CLASS: URBAN INTERSTATE
PROJECT LENGTH = 12.405 MILES (65,498.99 FT.)



LOCATION MAP
DECEMBER 2019
SCALE: 1" = 100'
ROLL 11 OF 34

Jacobs

PRELIMINARY FOR DESIGN REVIEW ONLY

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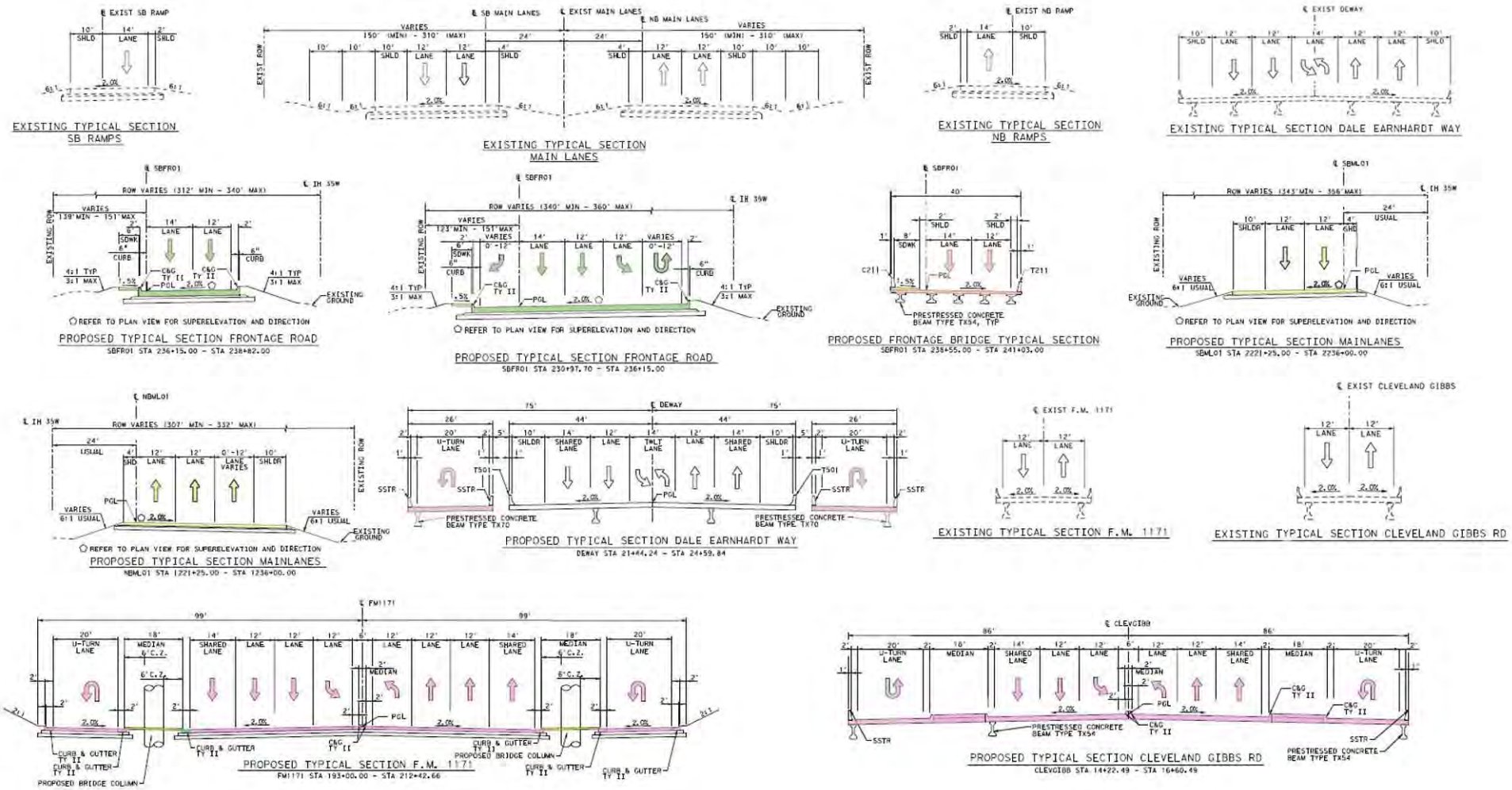
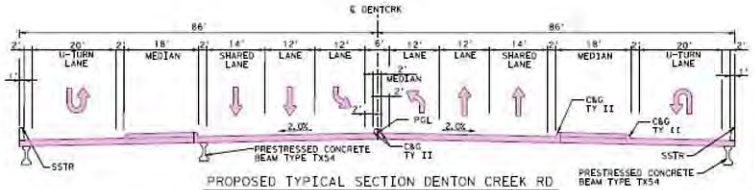
# Appendix D
# Typical Sections



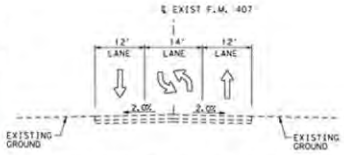

# TYPICAL SECTIONS
# IH 35W FRONTAGE ROADS

FROM DALE EARNHARDT WAY
TO SOUTH OF THE IH 35E/IH 35W
INTERCHANGE
DENTON COUNTY
CSJ: 0081-13-065

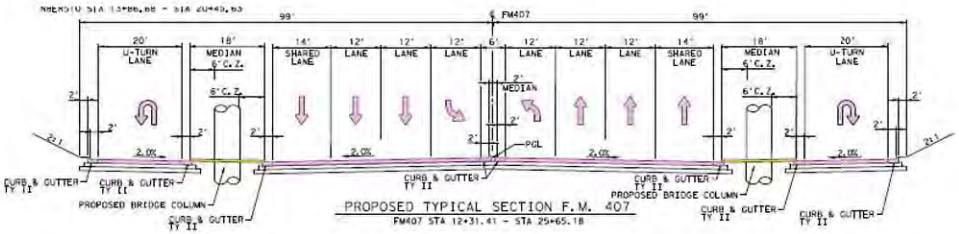



PROPOSED TYPICAL SECTION DENTON CREEK RD

DENTCRK STA 8+74.40 - STA 11+14.40

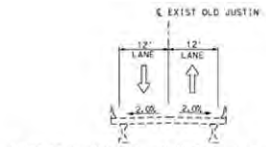



EXISTING TYPICAL SECTION F.M. 407

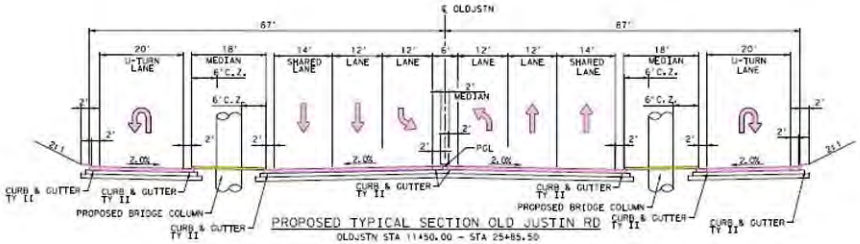



PROPOSED TYPICAL SECTION F.M. 407

FM407 STA 12+31.41 - STA 25+65.18

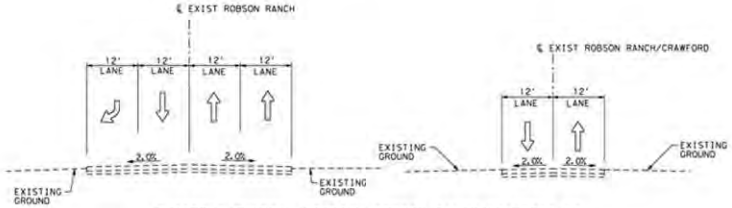



EXISTING TYPICAL SECTION OLD JUSTIN RD

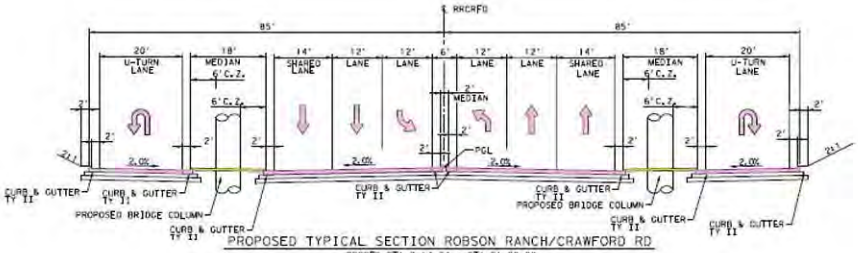



PROPOSED TYPICAL SECTION OLD JUSTIN RD

OLDJSTN STA 11+50.00 - STA 25+85.50

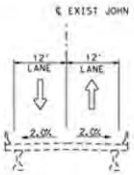



EXISTING TYPICAL SECTION ROBSON RANCH/CRAWFORD RD

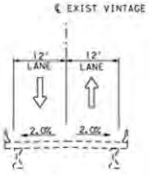



PROPOSED TYPICAL SECTION ROBSON RANCH/CRAWFORD RD

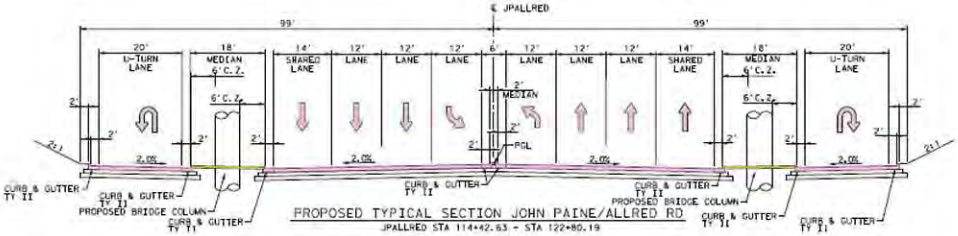
RRCRFD STA 7+14.34 - STA 21+89.00




EXISTING TYPICAL SECTION JOHN PAINE/ALLRED RD

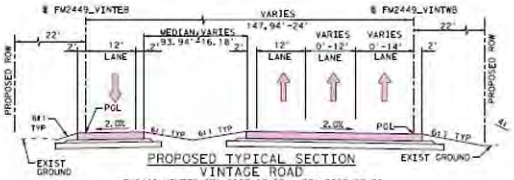



EXISTING TYPICAL SECTION VINTAGE ROAD




PROPOSED TYPICAL SECTION JOHN PAINE/ALLRED RD

JPALLRED STA 114+42.63 - STA 122+80.19




PROPOSED TYPICAL SECTION VINTAGE ROAD

FM2449_VINTEB STA 2997+87.03 - STA 2992+97.76

FM2449_VINTWB STA 1997499.01 - STA 1993400.19

# TYPICAL SECTIONS
# IH 35W FRONTAGE ROADS

FROM DALE EARNHARDT WAY
TO SOUTH OF THE IH 35E/IH 35W
INTERCHANGE
DENTON COUNTY
CSJ: 0081-13-065

# Appendix E
# Plan and Program Excerpts

| Description | Number of Pages |
|---|---|
| Metropolitan Transportation Plan (MTP) Page | 1 |
| Statewide Transportation Improvement Program (STIP) Page | 1 |
| FHWA Determination of Project-level Conformity | 1 |

# Mobility 2045
## Freeway/Tollway Summary Table

| FT Corridor | ID | Facility | From | To | 2018 (Attainment Year) | 2020 (Attainment Year) | 2028 | 2037 | 2045 | Type | YOE Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 - IH 35E Stemmons | 7.40.1 | IH 35E | IH 635 | Loop 12 | 10 (Frwy) + 4 (ML/T-C), 4/6 (Frtg-D) | 10 (Frwy) + 4 (ML/T-C), 4/6 (Frtg-D) | 10 (Frwy) + 4 (ML/T-C), 4/6 (Frtg-D) | 10 (Frwy) + 4 (ML/T-C), 2/6 (Frtg-C) | 12 (Frwy) + 4 (ML/T-C), 2/6 (Frtg-C) | | included w/ 7.50.1 |
| 21 - IH 35E Stemmons | 7.50.1 | IH 35E | Loop 12 | Spur 482/Storey Lane | 6 (Frwy) + 2 (ML/T-C), 2/3 NB (Frtg-D) | 6 (Frwy) + 2 (ML/T-C), 2/3 NB (Frtg-D) | 6 (Frwy) + 2 (ML/T-C), 4/6 (Frtg-D) | 6 (Frwy) + 2 (ML/T-C), 4/6 (Frtg-D) | 8 (Frwy) + 2 (ML/T-C), 4/6 (Frtg-D) | | $400,000,000 |
| 21 - IH 35E Stemmons | 7.50.2 | IH 35E | Spur 482/Storey Lane | SH 183 | 6 (Frwy), 4/6 (Frtg-D) | 6 (Frwy), 4/6 (Frtg-D) | 6 (Frwy), 4/6 (Frtg-D) | 6 (Frwy), 4/6 (Frtg-D) | 8 (Frwy), 4/6 (Frtg-D) | | included w/ 7.50.1 |
| 21 - IH 35E Stemmons | 7.60.1 | IH 35E | SH 183 | Inwood Blvd | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | | $975,322,754 |
| 21 - IH 35E Stemmons | 7.60.2 | IH 35E | Inwood Blvd | Medical District Dr | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | | included w/ 7.60.1 |
| 21 - IH 35E Stemmons | 7.60.4 | IH 35E | Medical District Dr | Market Center Blvd | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | | included w/ 7.60.1 |
| 21 - IH 35E Stemmons | 7.60.5 | IH 35E | Market Center Blvd | Oak Lawn Avenue | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | 10 (Frwy) + 2 (ML/T-R), 4/6 (Frtg-C) | | included w/ 7.60.1 |
| 22 - IH 35W (North) | 5.10.1 | IH 35W | IH 35W/IH 35E | Loop 288 (S of Denton) | 4 (Frwy), 2 SB (Frtg-D) | 4 (Frwy), 2 SB (Frtg-D) | 4 (Frwy), 4/6 (Frtg-D) | 4 (Frwy), 4/6 (Frtg-D) | 6 (Frwy), 4/6 (Frtg-D) | | included w/ 3.10.1 |
| 22 - IH 35W (North) | 5.10.2 | IH 35W | Loop 288 (S of Denton) | SH 114 | 4 (Frwy), 4 (Frtg-D) | 4 (Frwy), 4 (Frtg-D) | 4 (Frwy), 4/6 (Frtg-D) | 4 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | | included w/ 3.10.1 |
| 22 - IH 35W (North) | 5.20.1 | IH 35W | SH 114 | Eagle Pkwy | 4 (Frwy), 4 (Frtg-D) | 4 (Frwy), 4/6 (Frtg-C) | 4 (Frwy), 4/6 (Frtg-C) | 4 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | | included w/ 3.10.1 |
| 23 - IH 35W (South) | 5.80.1 | IH 35W | IH 20 | FM 1187 | 6 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | 10 (Frwy), 4/6 (Frtg-C) | 10 (Frwy), 4/6 (Frtg-C) | | $600,000,000 |
| 23 - IH 35W (South) | 5.80.2 | IH 35W | FM 1187 | SH 174 (Tarrant County Line) | 6 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | 8 (Frwy), 4/6 (Frtg-C) | 8 (Frwy), 4/6 (Frtg-C) | | included w/ 5.80.1 |
| 23 - IH 35W (South) | 5.90.1 | IH 35W | SH 174 (Tarrant County Line) | Hidden Creek Pkwy | 4 (Frwy), 4/6 (Frtg-C) | 4 (Frwy), 4/6 (Frtg-C) | 4 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | 6 (Frwy), 4/6 (Frtg-C) | | $800,000,000 |

(HOV/ExL) - HOV/Tolled Express Lanes
(HOV) - HOV Lanes
(ExL) - Express Lanes
(ML/T) - Tolled Managed Lanes
(-C) - Concurrent Lanes
(-R) - Reversible Lanes

*Interim Pk-Hr Lanes
**Technology Lanes

**2019-2022 STIP** — **11/2019 Revision: Approved 01/29/2020**

| DISTRICT | MPO | COUNTY | CSJ | TIP FY | HWY | PHASE | CITY | YOE COST |
|---|---|---|---|---|---|---|---|---|
| DALLAS | NCTCOG | COLLIN | 0135-03-046 | 2021 | US 380 | E,ENG,R,ACQ | PRINCETON | $ 12,000,000 |

**LIMITS FROM** AIRPORT DRIVE
**LIMITS TO** 4TH STREET
**PROJECT DESCR** WIDEN 4 LANE ROADWAY TO 6 LANE DIVIDED
**REMARKS P7** ADVANCE ENGINEERING AND ROW PHASES TO FY2021; ADD PROJECT TO THE 2019-2022 TIP/STIP
**PROJECT HISTORY** PART OF REGIONAL 10 YEAR PLAN
**PROJECT SPONSOR** TXDOT-DALLAS
**REVISION DATE** 11/2019
**MPO PROJ NUM** 55233
**FUNDING CAT(S)** SW PE,SW ROW

**TOTAL PROJECT COST INFORMATION**

| | | | |
|---|---|---|---|
| PREL ENG | $ 2,000,000 | COST OF APPROVED PHASES | $ 12,000,000 |
| ROW PURCH | $ 10,000,000 | | |
| CONSTR | $ 30,000,000 | | |
| CONST ENG | $ 1,767,178 | | |
| CONTING | $ 73,975 | | |
| INDIRECT | $ 0 | | |
| BOND FIN | $ 0 | | |
| PT CHG ORD | $ 0 | | |
| TOTAL CST | $ 43,841,153 | | |

**AUTHORIZED FUNDING BY CATEGORY/SHARE**

| CATEGORY | FEDERAL | STATE | REGIONAL | LOCAL | LC | TOTAL |
|---|---|---|---|---|---|---|
| SW PE | $ 0 | $ 2,000,000 | $ 0 | $ 0 | $ 0 | $ 2,000,000 |
| SW ROW | $ 8,000,000 | $ 1,000,000 | $ 0 | $ 1,000,000 | $ 0 | $ 10,000,000 |
| TOTAL | $ 8,000,000 | $ 3,000,000 | $ 0 | $ 1,000,000 | $ 0 | $ 12,000,000 |

**2019-2022 STIP** — **11/2019 Revision: Approved 01/29/2020**

| DISTRICT | MPO | COUNTY | CSJ | TIP FY | HWY | PHASE | CITY | YOE COST |
|---|---|---|---|---|---|---|---|---|
| DALLAS | NCTCOG | DALLAS | 0095-13-038 | 2021 | IH 20 | E,ENG,R,ACQ | MESQUITE | $ 13,000,000 |

**LIMITS FROM** LAWSON ROAD
**LIMITS TO** KAUFMAN COUNTY LINE
**PROJECT DESCR** ADD 0 TO 4 LANE CONTINUOUS FRONTAGE ROADS
**REMARKS P7** ADD PROJECT TO THE 2019-2022 TIP/STIP
**PROJECT HISTORY**
**PROJECT SPONSOR** TXDOT-DALLAS
**REVISION DATE** 11/2019
**MPO PROJ NUM** 55232
**FUNDING CAT(S)** SW PE,SW ROW

**TOTAL PROJECT COST INFORMATION**

| | | | |
|---|---|---|---|
| PREL ENG | $ 3,000,000 | COST OF APPROVED PHASES | $ 13,000,000 |
| ROW PURCH | $ 10,000,000 | | |
| CONSTR | $ 74,050,000 | | |
| CONST ENG | $ 3,628,450 | | |
| CONTING | $ 925,625 | | |
| INDIRECT | $ 0 | | |
| BOND FIN | $ 0 | | |
| PT CHG ORD | $ 0 | | |
| TOTAL CST | $ 91,604,075 | | |

**AUTHORIZED FUNDING BY CATEGORY/SHARE**

| CATEGORY | FEDERAL | STATE | REGIONAL | LOCAL | LC | TOTAL |
|---|---|---|---|---|---|---|
| SW PE | $ 0 | $ 3,000,000 | $ 0 | $ 0 | $ 0 | $ 3,000,000 |
| SW ROW | $ 9,000,000 | $ 1,000,000 | $ 0 | $ 0 | $ 0 | $ 10,000,000 |
| TOTAL | $ 9,000,000 | $ 4,000,000 | $ 0 | $ 0 | $ 0 | $ 13,000,000 |

**2019-2022 STIP** — **11/2019 Revision: Approved 01/29/2020**

| DISTRICT | MPO | COUNTY | CSJ | TIP FY | HWY | PHASE | CITY | YOE COST |
|---|---|---|---|---|---|---|---|---|
| DALLAS | NCTCOG | DENTON | 0081-13-065 | 2021 | IH 35W | E,ENG,R,ACQ | VARIOUS | $ 44,502,945 |

**LIMITS FROM** DALE EARNHARDT WAY
**LIMITS TO** SOUTH OF IH 35E/IH 35W INTERCHANGE
**PROJECT DESCR** RECONSTRUCT 2 TO 4/6 LANE DISCONTINUOUS FRONTAGE ROADS
**REMARKS P7** ADD PROJECT TO THE 2019-2022 TIP/STIP
**PROJECT HISTORY**
**PROJECT SPONSOR** TXDOT-DALLAS
**REVISION DATE** 11/2019
**MPO PROJ NUM** 55259
**FUNDING CAT(S)** SW PE,SW ROW

**TOTAL PROJECT COST INFORMATION**

| | | | |
|---|---|---|---|
| PREL ENG | $ 14,502,945 | COST OF APPROVED PHASES | $ 44,502,945 |
| ROW PURCH | $ 30,000,000 | | |
| CONSTR | $ 295,978,469 | | |
| CONST ENG | $ 12,728,000 | | |
| CONTING | $ 532,800 | | |
| INDIRECT | $ 0 | | |
| BOND FIN | $ 0 | | |
| PT CHG ORD | $ 0 | | |
| TOTAL CST | $ 353,742,214 | | |

**AUTHORIZED FUNDING BY CATEGORY/SHARE**

| CATEGORY | FEDERAL | STATE | REGIONAL | LOCAL | LC | TOTAL |
|---|---|---|---|---|---|---|
| SW PE | $ 0 | $ 14,502,945 | $ 0 | $ 0 | $ 0 | $ 14,502,945 |
| SW ROW | $ 27,000,000 | $ 3,000,000 | $ 0 | $ 0 | $ 0 | $ 30,000,000 |
| TOTAL | $ 27,000,000 | $ 17,502,945 | $ 0 | $ 0 | $ 0 | $ 44,502,945 |

**TxDOT ENV Transportation Conformity Validation Complete:**

**Project CSJ Numbers:** 0081-13-065

**Signature** Timothy Wood

**Name:** Tim Wood

**Title:** ENV Air Specialist

**Date:** 2/18/2020

**FHWA/FTA Determination of the Project-level Conformity:**

**Signature** BARBARA C MALEY Digitally signed by BARBARA C MALEY Date: 2020.02.20 11:06:33 -06'00'

**Name:** _____

**Title:** **Air Quality Specialist and Transportation Planner**

**Date:** _____

# Appendix F
# Resource-specific Maps

| Description | Number of Pages |
|---|---|
| Project Resource Map | 20 |

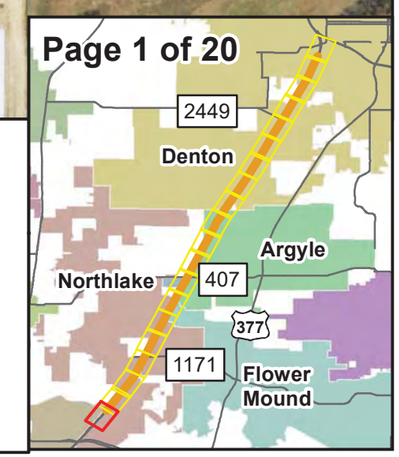
Dale Earnhardt Way

Elizabeth Creek Trib 2

195+00 200+00 205+00 210+00 215+00 220+00 225+00 230+00 235+00

Unnamed Tributary of Elizabeth Creek

Elizabeth Creek Trib 2




## Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Easement
- Proposed Pavement
- Sidewalks
- Stream
- Delineated Stream
- Delineated Open Water
- Delineated Wetland Feature
- 100-Year Floodplain
- Cemetery
- Non-Impacted Noise Receiver
- Impacted Noise Receiver
- Hardous Materials Moderate Risk
- Gas Well

W N S E

0 250 500 Feet

Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

Dale Earnhardt Way

k Trib 2

Catherine Branch

Denton

225+00 230+00 235+00 240+00 245+00 250+00 255+00 260+00 265+00

Open Water 1

Elizabeth Creek Trib 2

Catherine Branch

## Legend

- Existing Right-of-Way
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- Gas Well

W N S E

0 250 500 Feet

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TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

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From Dale Earnhardt Way
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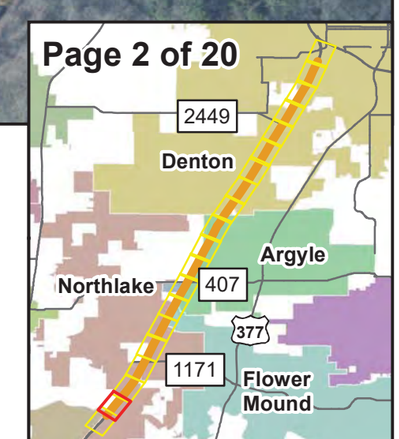
Interchange
Denton County, Texas

CSJ: 0081-13-065



Denton Creek

Denton Creek Trib 6

255+00

260+00

265+00

270+00

275+00

280+00

285+00

290+00

295+00

300+00

Open Water 1

Denton Creek

Unnamed
of Clevela

## Legend

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- Gas Well

N
W
E
S

0 250 500 Feet

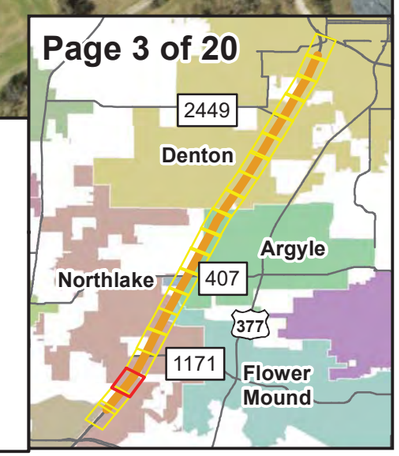
Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065



R1

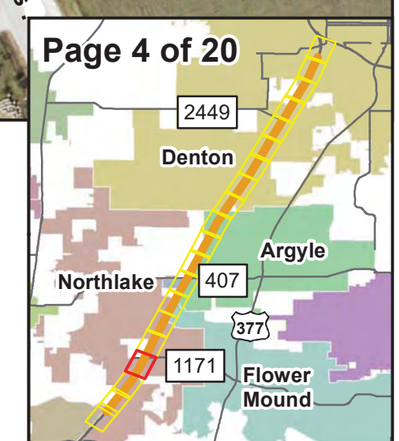
1171 Cross Timbers Rd.

295+00 300+00 305+00 310+00 315+00 320+00 325+00 330+00 335+00

Unnamed Tributary of Cleveland Branch

Cleveland Branch

1171 Cross Timbers

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N Z S E

0 250 500 Feet

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TNRIS Aerial Imagery (2018)
Study Group (2019)

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## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
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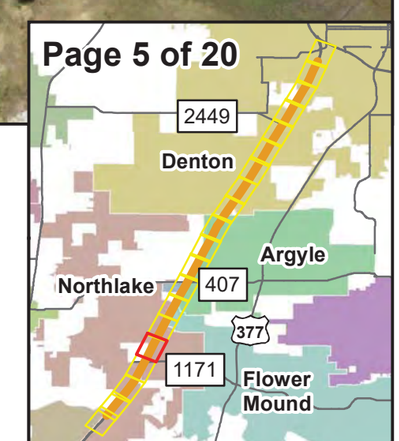
Interchange
Denton County, Texas

CSJ: 0081-13-065

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N S E

0 250 500 Feet

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N S E

0 250 500 Feet

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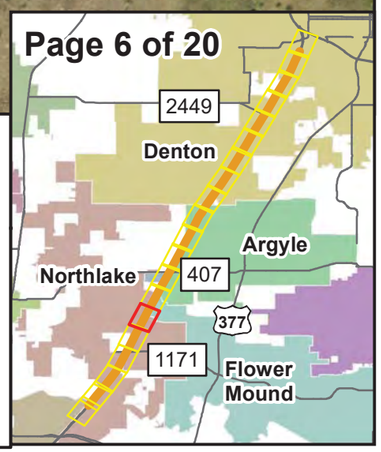

Graham Branch Trib 10

Graham Branch Trib 10.1

405+00 410+00 415+00 420+00 425+00 430+00 435+00 440+00 445+00

Wetland 3

Wetland 2

Graham Branch Trib 10.1

## Legend

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N S E

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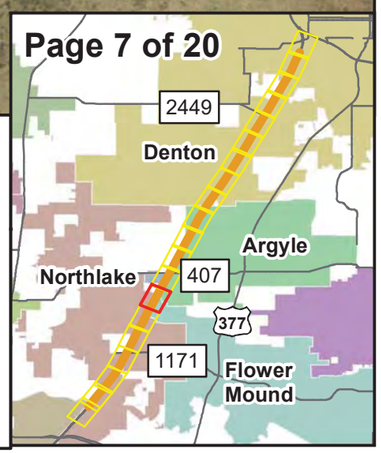


Graham Branch Trib 10.1

R3

407

440+00

445+00

450+00

455+00

460+00

465+00

470+00

475+00

480+00

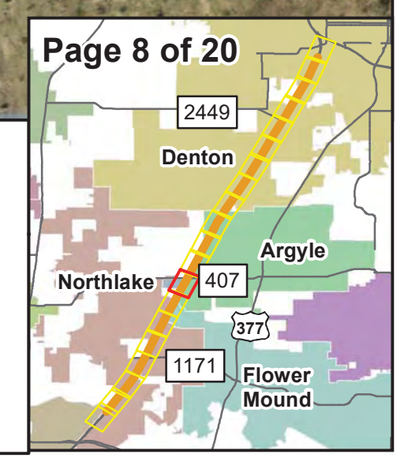
Wetland 3

Graham Branch Trib 10.1

Unnamed Tributary
of Graham Branch 1

Graham Branch Trib 13

407

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N S E

0 250 500 Feet

Base Map Source:
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Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

R4

R5

Trib. to Graham Branch

Wetland 8

475+00 480+00 485+00 490+00 495+00 500+00 505+00 510+00 515+00

Wetland 4

Wetland 5

Unnamed Tributary of Graham Branch 2

Unnamed Tributary of Graham Branch 3

Graham Branch Trib 15

Graham Branch

Wetland 6

Graham Branch

Graham Branch

## Legend

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N W E S

0 250 500 Feet

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Study Group (2019)

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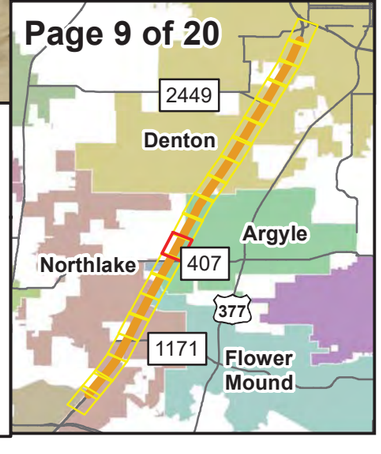


Trib. to Graham Branch

Graham Branch

Wetland 8

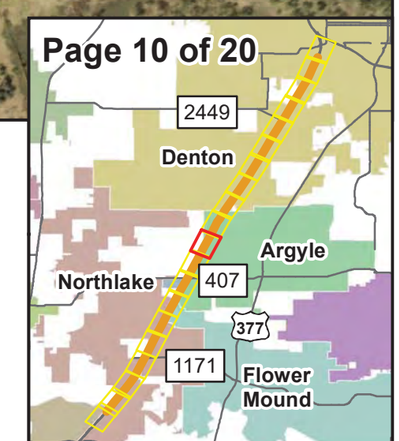
Old Justin Rd.

R7

510+00 515+00 520+00 525+00 530+00 535+00 540+00 545+00 550+00 555+0

Graham Branch

Old Justin Rd.

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N S E

0 250 500 Feet

Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

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From Dale Earnhardt Way
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Interchange
Denton County, Texas

CSJ: 0081-13-065

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N W E S

0 250 500 Feet

Base Map Source:
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Study Group (2019)

# PROJECT RESOURCE MAP

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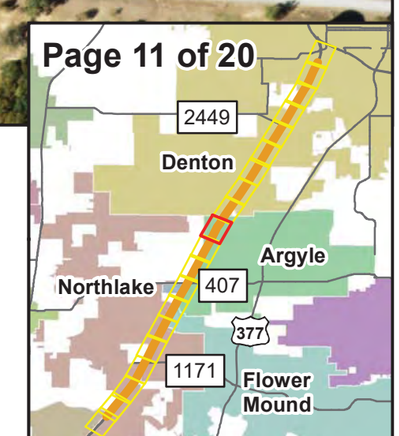


Robson Ranch Rd.

Unnamed Tributary of Graveyard Branch 2

Wetland 11

585+00 590+00 595+00 600+00 605+00 610+00 615+00 620+00 625+00

Wetland 10

Unnamed Tributary of Graveyard Branch 1

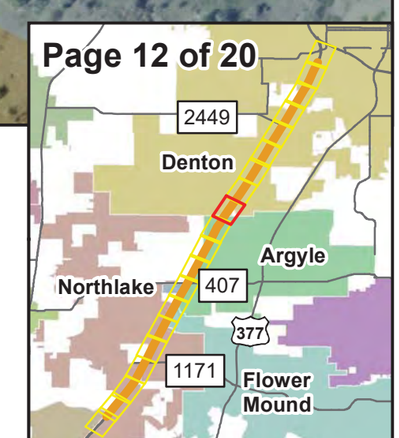
Unnamed Tributary of Graveyard Branch 2

R8

Crawford Rd.

Graveyard Branch Trib 2.1

Graveyard Branch Trib 2

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- Gas Well

N S E W

0 250 500 Feet

Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

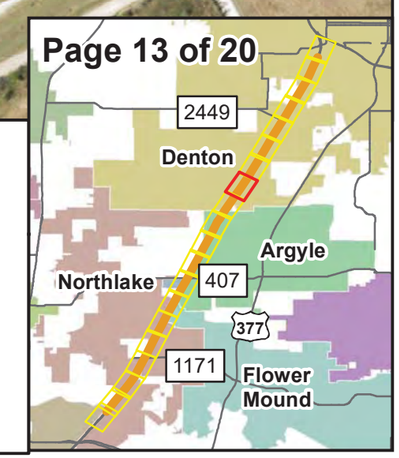
620+00
625+00
630+00
635+00
640+00
645+00
650+00
655+00
660+00

Graveyard Branch Trib 2.1

Graveyard Branch Trib 2

Graveyard Branch Trib Unnamed

Wetland 12

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N S E

0 250 500 Feet

Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
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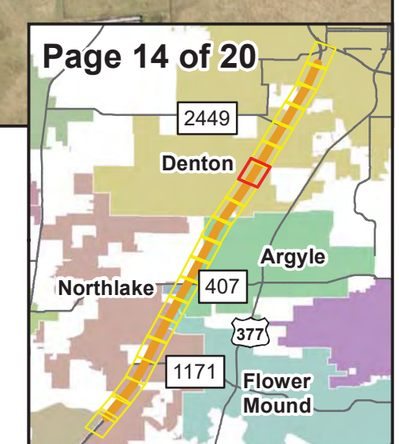
Interchange
Denton County, Texas

CSJ: 0081-13-065

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- Gas Well

N Z S E

0 250 500 Feet

Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

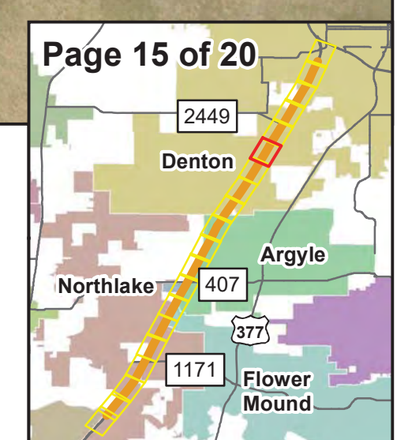
John Paine Rd.

Roark Branch

690+00 695+00 700+00 705+00 710+00 715+00 720+00 725+00 730+00

Roark Branch Trib 5.1

Allred Rd.

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N Z S E

0 250 500 Feet

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From Dale Earnhardt Way
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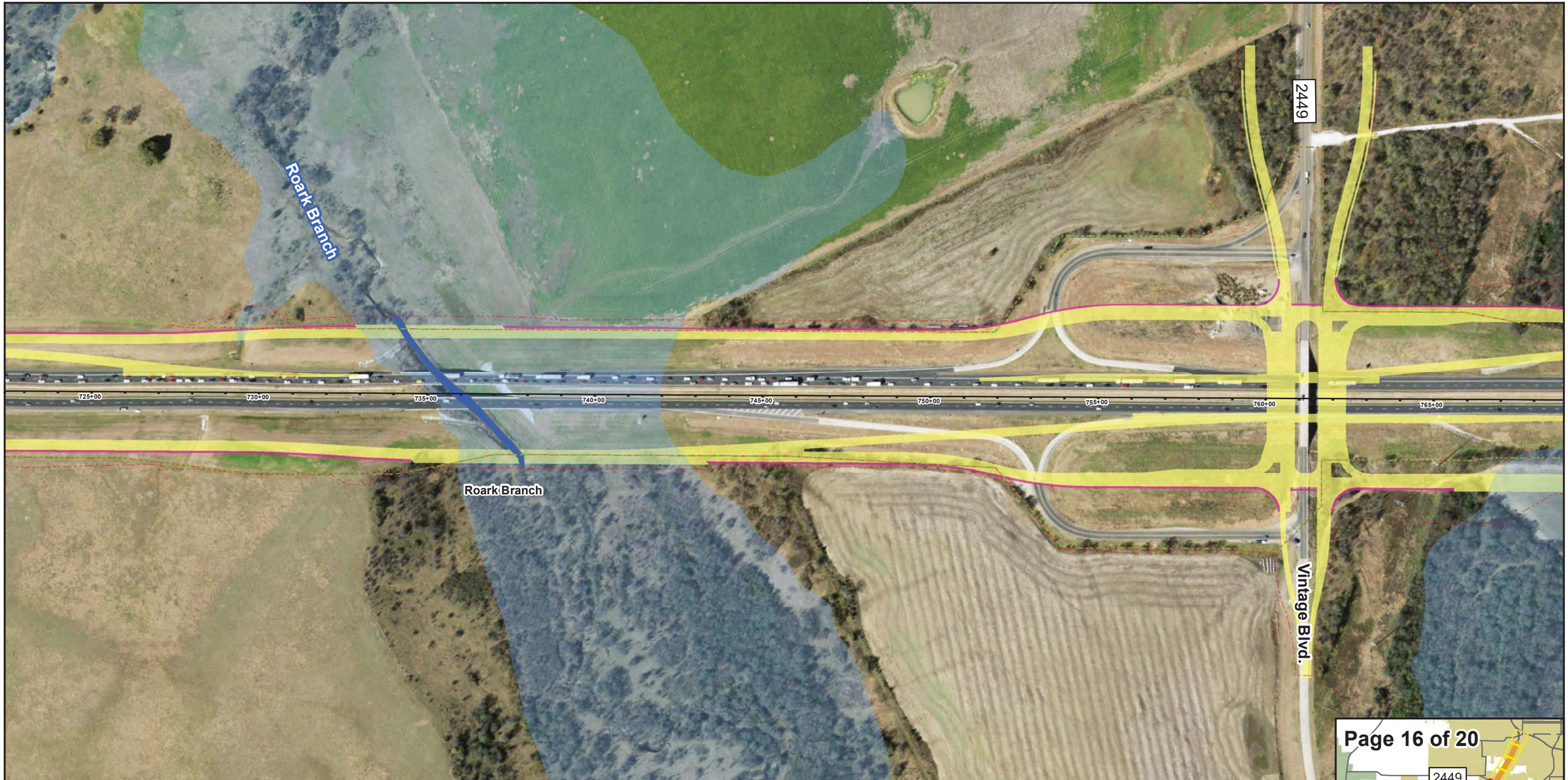
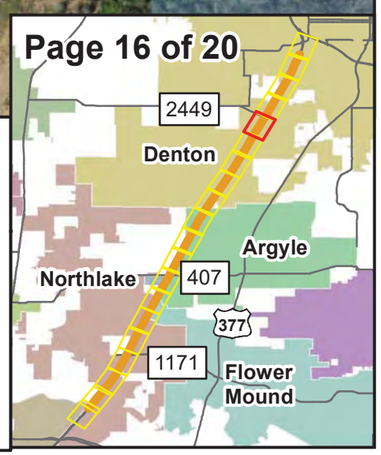
Denton County, Texas

CSJ: 0081-13-065




## Legend

- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Easement
- Proposed Pavement
- Sidewalks
- Stream
- Delineated Stream
- Delineated Open Water
- Delineated Wetland Feature
- 100-Year Floodplain
- Cemetery
- Non-Impacted Noise Receiver
- Impacted Noise Receiver
- Hardous Materials Moderate Risk
- Gas Well

N Z S E

0 250 500 Feet

Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

## Legend

- Existing Right-of-Way
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0 250 500 Feet

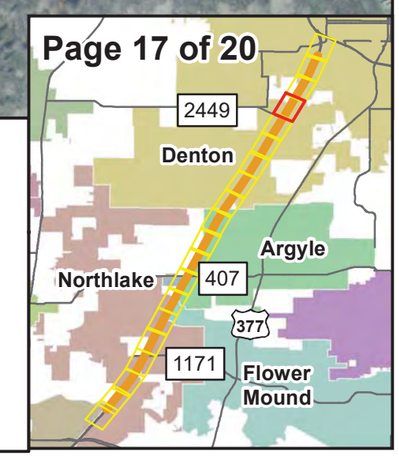
Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065



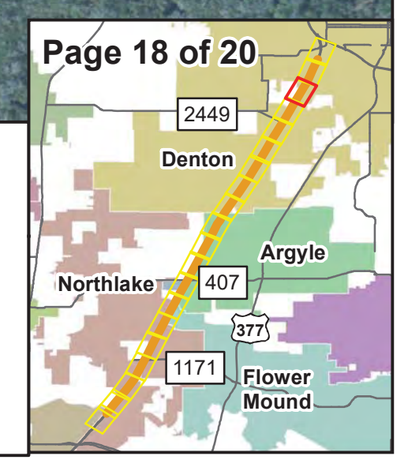
Dry Fork Hickory Creek

Corbin Rd.

795+00 800+00 805+00 810+00 815+00 820+00 825+00 830+00 835+00 840+00

Corbin Rd.

Dry Fork Hickory Creek

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0 250 500 Feet

Base Map Source:
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Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

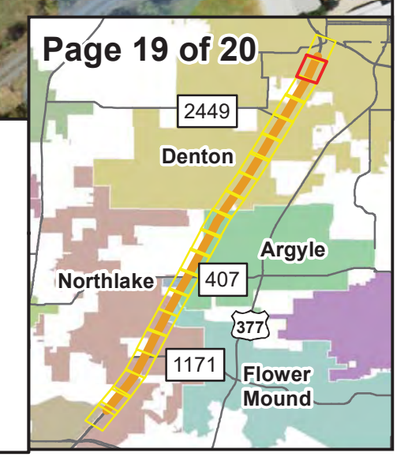
Metro St.

830+00 835+00 840+00 845+00 850+00 855+00 860+00 865+00 870+00

Unnamed Tributary of Dry Fork Hickory Creek Trib 1

R10

R11

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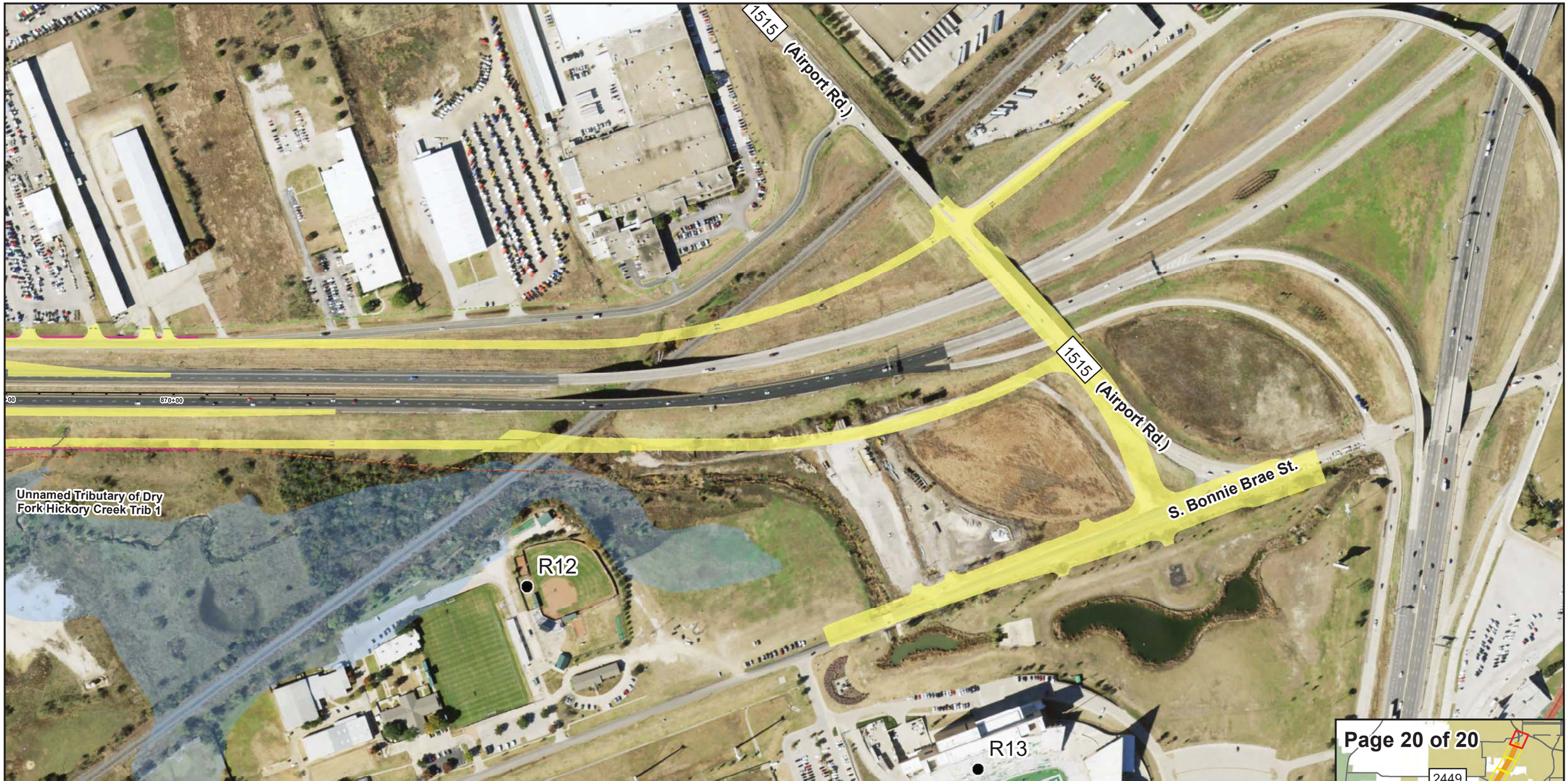
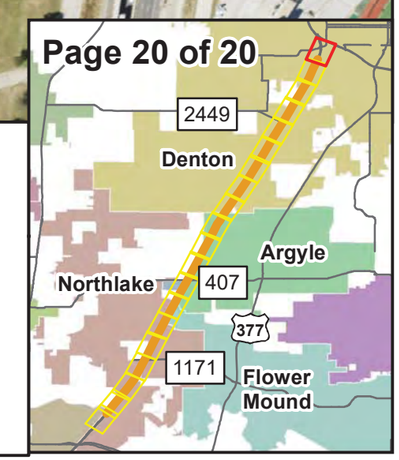
# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

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0 250 500 Feet

Base Map Source:
TNRIS Aerial Imagery (2018)
Study Group (2019)

# PROJECT RESOURCE MAP

## IH 35W FRONTAGE ROADS

From Dale Earnhardt Way
to south of the IH 35E/IH 35W
Interchange
Denton County, Texas

CSJ: 0081-13-065

# Appendix G
# Resource Agency Coordination

| Description | Number of Pages |
|---|---|
| Archeological Resources Coordination Documentation | 1 |
| Historic Resources Coordination Documentation | 5 |
| Texas Parks and Wildlife Department (TPWD) Coordination | 5 |

# MEMO

October 9, 2019

**To:** ECOS, Various Road Projects, Various CSJs, Various Districts

**From:** Scott Pletka, Ph.D.

**Subject:** Internal review under 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), and internal review under the Memorandum of Understanding (MOU) Between the Texas Historical Commission and the Texas Department of Transportation

---

Listed below are projects reviewed internally by qualified TxDOT archeologists. The projects will have no effect on archeological historic properties. As provided under the PA-TU, consultation with the Texas State Historic Preservation Officer is not necessary for these undertakings. As provided under the MOU, the proposed projects do not require individual coordination with the Texas Historical Commission.

| CSJ | District | County | Roadway | Description | Work Performed | Consultation | Initial Consult Date |
|---|---|---|---|---|---|---|---|
| 0081-13-065 | DAL | Denton | IH 35W | New road | Background Study | ETCT | 3/2/2018 |
| 0204-06-059 | BRY | Milam | US 79 | Trail/sidewalk | Background Study | Formal | |

Signature _____ Date: 10 / 09 / 2019
For TxDOT
cc: THC

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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# MEMO

January 9, 2020

**TO:** Administrative File
**From:** Rebekah Dobrasko

**District:** Dallas
**County:** Denton
**CSJ#:** 0081-13-065
**Highway:** IH 35 W
**Project Limits:** From Dale Earnhardt Way to south of the IH 35E/IH 35W Interchange
**Let Date:** September 2025

**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 9, 2019, and executed by FHWA and TxDOT.

---

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

**Determination of Eligibility:**
TxDOT historians reviewed the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files and found no historically significant resources previously documented within the area of potential effects (APE). The TxDOT Section 106 Programmatic Agreement defines the APE for this project as 150' from the proposed new ROW and the existing ROW where no new ROW is necessary.

TxDOT historians conducted a desktop analysis and examination of historic aerial photographs of the APE. The proposed project will take place on approximately 12 miles of IH 35W in the southwestern portion of Denton County. This area of Denton County was historically agricultural. The Texas Highway Department constructed IH 35W through Denton County in the late 1960s. This portion of the interstate was open to traffic by 1969.

The interstate brought minimal changes to this area of Denton County. The most notable landscape change is the development of oil and gas extraction industries along the interstate, the construction of industrial buildings outside of Denton on the northern portion of the project, and the construction

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of the Texas Motor Speedway (1996) and associated parking on the southern portion of the project. Based on the letting date for this project, TxDOT identified the historic-age date of 1980 for any potential historic properties. TxDOT historians identified one historic-age property in the APE, a barn constructed prior to 1968. This barn (on the southwest corner of the intersection of IH 35W and CR 338 is abandoned and no longer associated with any agricultural residence or activities. Therefore, TxDOT finds this barn to be **not eligible** for listing in the NRHP.

**Public Involvement:**
TxDOT held a public meeting about this project in May 2019 and did not receive any comments related to any historic properties in the project area.

**Determination of Effects:**
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 properties affected by this project. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects. Individual project coordination with SHPO is not required.

Lead Reviewer DocuSigned by: Rebekah Dobrasko 0F414A49C0E44B3... for TxDOT 1/9/2020
Rebekah Dobrasko Date

Approved by DocuSigned by: Bruce Jensen 7EBA09BEBA8043B... for TxDOT 1/9/2020
Bruce Jensen Date

DocuSign Envelope ID: 9593DA23-C415-40B9-9E9A-B48332080C26

Back To List

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

Archived WPD I | Print this Page

## Project Definition

Project Name: CSJ 0081-13-065 IH 35W Frontage Roads

CSJ: 0081 - 13 - 065

Anticipated Environmental Classification: EA

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

### Project Association(s)

### DCIS Project Funding and Location

### DCIS & P6 Letting Dates

### DCIS Project Description

### Jurisdiction

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

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

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

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

No — Is a local government's or a private developer's own staff or consultant preparing the CE documentation, EA or EIS?

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

☑ USACE ☐ IBWC ☐ USCG ☐ NPS ☐ IAJR ☐ Other NWP W/O PCN

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

### Environmental Clearance Project Description

#### Project Area

Typical Depth of Impacts: 1 (Feet) Maximum Depth of Impacts: 40 (Feet)

New ROW Required: 107 (Acres)

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

#### Project Description

Describe Limits of All Activities: Spell

The Texas Department of Transportation (TxDOT) is proposing improvements to Interstate Highway 35 West (IH 35W) from Dale Earnhardt Way in the City of Fort Worth to south of the IH 35E/IH35W interchange in the City of Denton, Denton County, Texas; a distance of approximately 12.3 miles. The proposed project consists of the construction of continuous, one-way, two-lane urban, northbound and southbound frontage roads, along IH 35W. Other improvements would include changing the IH 35W ramp configuration from a conventional diamond to a reverse diamond (X ramp); flipping the Farm-to-Market (FM) 1171 (Cross Timbers Road), Old Justin Road, and John Paine Road/Allred Road interchanges so that the IH 35W mainlanes cross over these streets; constructing an interchange for the future Denton Creek Road, and expanding the Cleveland Gibbs Road, FM 407, Robson Ranch Road/Crawford Road, and proposed Loop 288/Vintage Road interchanges.

Describe Project Setting:

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Land use surrounding IH 35W within the project limit includes a mix of light commercial and sparse retail businesses consisting of hardware stores, laboratory supplies and services, and RV park. IH 35W primarily traverses a more rural, agricultural landscape that features crop and livestock production. Fields of wheat, oats, maize, millet, and cotton can be seen on both sides of IH 35W, as well as improved pastures for cattle and other livestock production. Isolated residences are scattered along the project corridor between city of Denton to the north and Northlake to the south. Several creeks cross the roadway and create a large floodplain area, the major being Denton Creek just north of Dale Earnhardt Way, and Hickory Creek located north of Vintage boulevard.

**Describe Existing Facility:**

Mainlanes
The existing IH 35W within the project limits does not contain frontage roads and consists of two 12-foot wide mainlanes in each direction with 4-foot to 6-foot wide inside shoulders and 9-foot to 12-foot wide outside shoulders separated by a 35 to 40-foot wide median.

Entrance/ Exit Ramps
The existing northbound and southbound entrance and exit ramps consist of one 14-foot wide lane with 2-foot wide inside shoulders and 10-foot wide outside shoulders. All of the existing ramp configurations at interchanges are of a conventional diamond design.

Interchanges
The existing Dale Earnhardt Way at IH 35W consists of two 12-foot wide eastbound and westbound travel lanes separated by 14-foot wide two-way left-turn lane, and 10-foot wide outside shoulders. Dale Earnhardt Way crosses over the IH 35W mainlanes.

The existing FM 1171 (Cross Timbers Road) at IH 35W consists of one 12-foot wide travel lane in each direction. FM 1171 (Cross Timbers Road) crosses over the IH 35W mainlanes.

The existing Cleveland Gibbs Road at IH 35W consists of one 12-foot wide travel lane in each direction. Cleveland Gibbs Road crosses over the IH 35W mainlanes.

**Describe Proposed Facility:**

Mainlanes

The proposed project includes replacement of the existing IH 35W cross-street overpasses with new overpasses at IH 35W/Cross Timbers Road, IH 35W/FM 407, IH 35W/Old Justin Road, IH 35W/Robson Ranch Road/Crawford Road, and IH 35W/John Paine Road/Allred Road. The width of the bridge structures is based on the ultimate IH 35W mainlanes. Constructing the ultimate bridge structures along with changing the IH 35W ramp configuration from a conventional diamond to a reverse diamond (X ramp), requires portions of the ultimate IH 35W mainlanes to be constructed with transition pavement sections to tie back to the existing. The proposed mainlanes at the interchanges would consist of three 12-foot wide lanes in each direction with 10-foot wide inside shoulders and 12-foot wide outside shoulders.

Frontage Roads

The proposed northbound and southbound frontage roads would consist of one 12-foot wide inside travel lane, one 14-foot wide outside shared use lane with 2-foot wide curb offsets, and a 6-foot wide sidewalk in each direction. The proposed northbound and southbound frontage road bridges would consist of one 12-foot wide inside travel lane, one 14-foot wide outside shared use lane with two-foot wide inside and outside shoulders, and an 8-foot wide sidewalk in each direction.

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Yes **Would the project add capacity?**

**Transportation Planning**

**Environmental Clearance Information**

**Project Contacts**

**Last Updated By:** System Admin **Last Updated Date:** 09/12/2019 07:14:58

## Leslie Mirise

**From:** Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
**Sent:** Friday, March 13, 2020 12:44 PM
**To:** Leslie Mirise
**Cc:** Mohammed Shaikh; Dan Perge; Stirling Robertson
**Subject:** RE: CSJ 0081-13-065 IH 35W Frontage Roads - Request for Early Coordination

Leslie,

TPWD accepts the Best Management Practices proposed by the district for species in Denton County that have suitable habitat present but do not yet have BMPs identified under the 2017 BMP PA: We appreciate that TxDOT commits to implementing these proposed BMPs for the IH 35W frontage road project. Please contact our Kast and Spills Team (KAST) to coordinate with them should dewatering be needed for the project. Contact information for TPWD KAST Region 2 for Denton County can be found at the weblink: https://tpwd.texas.gov/landwater/water/environconcerns/kills_and_spills/regions/kas_r2.phtml. If I can provide any assistance with the USACE mitigation for this project, please feel free to reach out to me.

Thank you for submitting the following project for early coordination: IH 35W Frontage Roads (CSJ: 0081-13-065). TPWD appreciates TxDOT's commitment to implement the practices listed in the Tier I Site Assessment form submitted on February 28, 2020. 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

Sincerely,

Suzanne Walsh
Transportation Conservation Coordinator
(512) 389-4579

---

**From:** Leslie Mirise <Leslie.Mirise@txdot.gov>
**Sent:** Wednesday, March 4, 2020 4:20 PM
**To:** Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
**Cc:** Mohammed Shaikh <Mohammed.Shaikh@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Stirling Robertson <Stirling.Robertson@txdot.gov>
**Subject:** RE: CSJ 0081-13-065 IH 35W Frontage Roads - Request for Early Coordination

ALERT: This email came from an external source. Do not open attachments or click on links in unknown or unexpected emails.

Great – thanks!

*Leslie Mirise*
Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

---

**From:** Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
**Sent:** Wednesday, March 4, 2020 3:53 PM
**To:** Leslie Mirise <Leslie.Mirise@txdot.gov>
**Cc:** Mohammed Shaikh <Mohammed.Shaikh@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Stirling Robertson <Stirling.Robertson@txdot.gov>
**Subject:** RE: CSJ 0081-13-065 IH 35W Frontage Roads - Request for Early Coordination

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Leslie,

Thanks for the email. I appreciate the update the project schedule. I have two projects ahead of your IH 35 W Frontage Roads that I am finalizing my review. I should be able to provide any comments/recommendations next week.

Suzanne

---

**From:** Leslie Mirise <Leslie.Mirise@txdot.gov>
**Sent:** Tuesday, March 3, 2020 4:33 PM
**To:** Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
**Cc:** Mohammed Shaikh <Mohammed.Shaikh@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Stirling Robertson <Stirling.Robertson@txdot.gov>
**Subject:** RE: CSJ 0081-13-065 IH 35W Frontage Roads - Request for Early Coordination

ALERT: This email came from an external source. Do not open attachments or click on links in unknown or unexpected emails.

Hi Suzanne,

Just checking in to find out if there's anything I can provide for your review. There has been a slight change in the schedule I included in the submittal email. Originally the public hearing was scheduled for today; however, it's been pushed to mid-April. The overall environmental clearance date in May has not changed due to limited funding availability.

Thanks,

*Leslie Mirise*
Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

---

**From:** Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
**Sent:** Friday, February 14, 2020 4:31 PM
**To:** Leslie Mirise <Leslie.Mirise@txdot.gov>
**Cc:** Mohammed Shaikh <Mohammed.Shaikh@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Stirling Robertson <Stirling.Robertson@txdot.gov>
**Subject:** RE: CSJ 0081-13-065 IH 35W Frontage Roads - Request for Early Coordination

Hi Leslie,

I have initiated review of this project and will let you know if I have any questions or need additional information.

Thanks,
Suzanne

Suzanne Walsh
Transportation Conservation Coordinator
(512) 389-4579

---

**From:** WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
**Sent:** Friday, January 24, 2020 3:00 PM
**To:** Leslie Mirise <Leslie.Mirise@txdot.gov>; Mohammed Shaikh <Mohammed.Shaikh@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Stirling Robertson <Stirling.Robertson@txdot.gov>
**Cc:** Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
**Subject:** RE: CSJ 0081-13-065 IH 35W Frontage Roads - Request for Early Coordination

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID # 43061. 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 <Leslie.Mirise@txdot.gov>
**Sent:** Friday, January 24, 2020 1:55 PM
**To:** WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
**Cc:** Mohammed Shaikh <Mohammed.Shaikh@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Stirling Robertson <Stirling.Robertson@txdot.gov>
**Subject:** CSJ 0081-13-065 IH 35W Frontage Roads - Request for Early Coordination

Hello,

TxDOT requests early coordination for the IH 35W Frontage Roads Project in Denton County, Texas. Please see ECOS for the project description. New ROW is required, and the project is classified as an EA. Project documents include the following, and those of appropriate file size are attached:

1. Species Analysis Spreadsheet;
2. Species Analysis From;
3. Tier 1 Site Assessment Form;
4. USFWS Official Species List;
5. TPWD RTEST for Collin County;
6. NDD and EO reports;
7. EMST and Observed Vegetation Spreadsheet
8. EMST and Observed Vegetation Figures (available in ECOS due to file size)
9. Photos (available in ECOS due to file size)
10. TCAP for CRTB Ecoregion
11. NRCS Soil Report
12. Approved Schematic (available in ECOS due to file size; uploaded on 12/16/2019)

These documents, along with other project-related information, are available in ECOS under the CSJ: 0081-13-065.

The letting date is currently September 2025. However, the planned NEPA clearance date for this project is March 2020. The public hearing is tentatively scheduled for March 3, 2020. Please provide comments or complete coordination on or before March 2, 2020.

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

Thank you,

*Leslie Mirise*
Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

# Appendix H
# Comment and Response Matrices

| Description | Number of Pages |
|---|---|
| Public Meeting Comment and Response Matrix | 1 |
| Virtual Public Hearing Viewer Analytics Page | 1 |
| Virtual Public Hearing Comment and Response Matrix | 8 |

# Public Meeting Comment Response Matrix (Page 1 of 1)

**June 2019**

| Comment Number | Commenter Name | Date Received | Source | Comment Topic | Response |
|---|---|---|---|---|---|
| 1 | Louis A Burch | 5/16/19 | Form | Coordinate with TxDOT 407 Expansion Team. Hurry!! | Three agency meetings were held in March 2018, November 2018, and February 2019 to discuss the FM 407 study. Coordination with the TxDOT Dallas District, TxDOT Denton Area Office, and Jacobs Engineering was conducted for any available information concerning the IH 35W design. |
| 2 | John Harris | 5/16/19 | Form | Look forward to the widening and service roads; truly needed. Great job TxDOT. | Comment noted. |
| 3 | Stephen Ralston | 5/16/19 | Form | Please get the plans out as soon as possible on TxDOT's website. Thank you. | The plans can be viewed at the TxDOT Denton Area Office at 2624 W. Prairie Denton, TX 76201 or the TxDOT Dallas District Office at 4777 E. Highway 80, Mesquite, TX 75150. |
| 4 | Ron Fornae | 5/16/19 | Form | Absolutely wonderful. Please hit the gas. | Comment noted. |
| 5 | David Frazlor (Managing Partner is Brad Pazandak) | 5/31/19 | Form | Our property is on the SW corner of FM 407 and 1-35. Name is Randol Mill Capital Cup. While looking at the plans for Frontage Road along the west side of our property, I noticed TEX DOT was changing the drainage flow across our property. We already have a floodplain problem and we are working on CLOMR letter from FEMA. TEX DOT is moving the 3 6'x6' culvers that drain in the creek to the north some 140' replacing with 4 7'x7' culverts and does not drain into creek-140' + away. This will dump possibly almost twice as much water on our property and is really unacceptable with some mitigation plan on your part. We will be seriously damaged by this. | The culvert outfall on your property was shifted to avoid crossing proposed bridges and retaining walls. TxDOT will coordinate with Mr. Frazlor and Mr. Pazandak to discuss existing conditions and to prevent upstream and downstream flooding. |

# Pages

All Users
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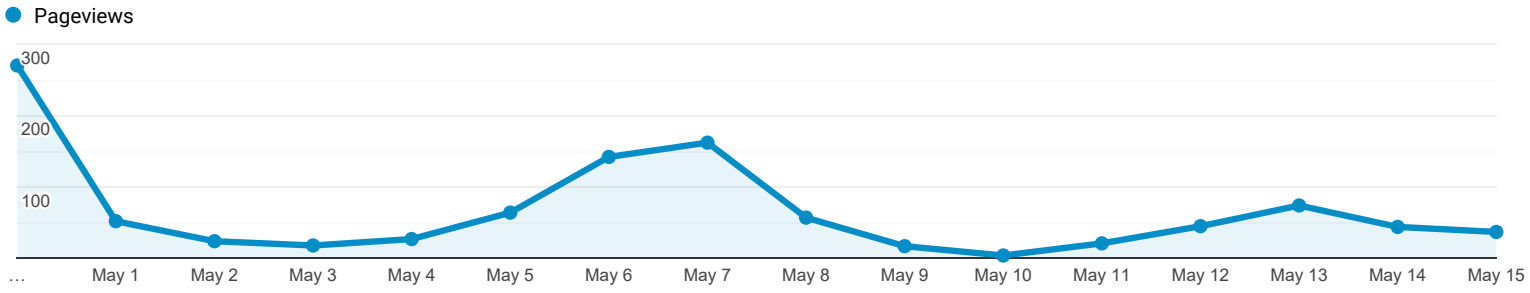
Apr 30, 2020 - May 15, 2020

Explorer




This data was filtered with the following filter expression: **/IH35WFR**

| Page | Pageviews | Unique Pageviews | Avg. Time on Page | Entrances | Bounce Rate | % Exit | Page Value |
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| | **1,058** % of Total: 12.44% (8,505) | **824** % of Total: 14.10% (5,843) | **00:04:28** Avg for View: 00:01:16 (251.27%) | **731** % of Total: 25.01% (2,923) | **63.70%** Avg for View: 49.90% (27.66%) | **68.05%** Avg for View: 34.37% (98.01%) | **$0.00** % of Total: 0.00% ($0.00) |
| 1. /IH35WFR | **1,041** (98.39%) | 812 (98.54%) | 00:04:25 | 723 (98.91%) | 63.98% | 68.20% | $0.00 (0.00%) |
| 2. /ih35wfr | **13** (1.23%) | 8 (0.97%) | 00:06:39 | 4 (0.55%) | 0.00% | 46.15% | $0.00 (0.00%) |
| 3. /IH35WFR?fbclid=IwAR0FKi-9vj-me0yBV_xmVvVLcm_kDT64IFkEnDFBJ9OAcyWdGD_dLSaxKFY | **1** (0.09%) | 1 (0.12%) | 00:00:00 | 1 (0.14%) | 100.00% | 100.00% | $0.00 (0.00%) |
| 4. /IH35WFR?fbclid=IwAR1amFxrEIX6o-5E1ruYhDru4XMDSGL5sQ04tpSSdouTqHSHtEsSL6gbFGE | **1** (0.09%) | 1 (0.12%) | 00:00:00 | 1 (0.14%) | 100.00% | 100.00% | $0.00 (0.00%) |
| 5. /IH35WFR?fbclid=IwAR2GqNEcMuP0Wo3kdQhGrs6XedCzQJYeOocuGu2M_iAXTfffkJhYfrJnsRg | **1** (0.09%) | 1 (0.12%) | 00:00:00 | 1 (0.14%) | 0.00% | 100.00% | $0.00 (0.00%) |
| 6. /IH35WFR?fbclid=IwAR2RFNuP14IJNZfpGz22sxx7FBvTHhPmT-cCPUUxkJwTK1WipZ6RqAVWPRY | **1** (0.09%) | 1 (0.12%) | 00:00:00 | 1 (0.14%) | 100.00% | 100.00% | $0.00 (0.00%) |

Rows 1 - 6 of 6

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| Comment Number | Commenter Name | Date Received | Source | Comment Topic | Response |
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| 1 | Jackson Hurst | As of May 15, 2020 | Virtual Room Comment Form | I love that the IH-35W Frontage Roads Improvement Project will construct 2 lane frontage roads in both the eastbound and westbound direction of IH-35W because the frontage roads will improve business access along IH-35W. | Comment noted. |
| 2 | Cecile Grady (North Central Texas Council of Governments) | April 30, 2020 | Emailed Letter of Support | Statement of Support- IH 35W from Dale Earnhardt Way to South of the IH 35E/IH 35W Interchange.<br><br>In the North Central Texas region, Interstate Highway (IH) 35W is a key transportation corridor that serves as a principal route for local commuters and provides access to several key highways and transportation facilities. The proposed project includes the construction of continuous northbound and southbound frontage roads and the reconfiguration of entrance and exit ramps. The recommended improvements to this segment of IH 35W are of regional significance because they will provide additional north-south connectivity to the region and to Denton County. The frontage road improvements will provide additional north-south connectivity to the region and to Denton County. The frontage road improvements will provide vital redundant capacity to serve incident and congestion management strategies in this corridor and offer increased accessibility to support the continued enhancement of the quality of life enjoyed by area residents. In addition, the proposed project will also include the reconstruction of the interchanges at Cross Timbers Road, Old Justin Road, and John Paine Road/ Allred Road so the IH 35W mainlanes cross over these streets. | Comment noted. |

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| | | | | The North Central Texas Council of Governments (NCTCOG) requests special consideration be given to multimodal elements of Mobility 2045: The Metropolitan Transportation Plan for North Central Texas, such as the planned Regional Veloweb. In addition, an off-street shared-use path with a minimum width of 10 to 14 feet would comply with the American Association of State Highway and Transportation Officials (AASHTO) guidance for development of bicycle facilities along roadways with high-speed traffic and provide safer and more comfortable accommodations for bicyclists.<br><br>Today, the Dallas-Fort Worth area is the fourth-largest metropolitan area in the United States with over 7 million people. By 2045, the region is projected to have a population of over 11 million. Additional roadway capacity will be needed at numerous strategic locations to meet the growing demand from both passenger vehicles and truck freight movements. The recommended roadway improvements to this section of IH 35W are consistent with Mobility 2045: The Metropolitan Transportation Plan for North Central Texas. Because of the regional importance of this project, NCTCOG is willing to provide any assistance in the planning, design, and implementation of this project. | |
| 3 | Michael McDonald | As of May 15, 2020 | Virtual Room Comment Form | Please include managed lanes to the project. | The proposed frontage roads project does not include managed lanes nor precludes their inclusion in the future. |

| Comment Number | Commenter Name | Date Received | Source | Comment Topic | Response |
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| 4 | David Hawkins | As of May 15, 2020 | Virtual Room Comment Form | Had the following comments:<br>1. What are rules/policies on granting access from frontage roads? Going through Argyle's section (Sheets 4-7), it appears that "restricted access" covers the entire length. No access /driveway on frontage would hinder any potential commercial development opportunities. Any appeals processes for these? | The Interstate system have been designated by the Texas Transportation Commission as controlled access facilities under Transportation Code §203.031. Access to/from the frontage roads at ramp junctions is controlled by TxDOT's *Roadway Design Manual* (RDM), *April 2018* in Chapter 3, Section 6 Figures 3-13 and 3-14. Access along the frontage roads in between ramp junctions is controlled by TxDOT's *Access Management Manual* (AMM), July 2011 in Chapter 2, Section 3, Figure 2-3 and Table 2-1 using the State's police power to control driveway location. |
| | | | | 2. On Sheet 7, there is a new GameGuard commercial development that is not shown (older aerial) that would need a driveway access from Old Justin Road (SE corner of I-35W/Old Justin Road intersection). | Information about the existing business in the SE corner of IH 35W and Old Justin Road is noted. Our aerial was taken before the development was constructed. The proposed improvements to Old Justin Road between the frontage roads will have no impact on the existing two driveways. |
| 5 | Chad Edwards, Assistant Director of the City of Fort Worth | May 18, 2020 | Email | We appreciate the opportunity to make comments on the IH 35W Frontage Road Project, CSJ: 0081-13-065, in Denton County. This project lies between the City of Fort Worth and the City of Denton along IH 35W in an area with future development potential. Future residential and commercial development along the corridor will induce pedestrian and bicycle trips and higher volumes of auto and truck traffic.<br><br>To guard against future safety issues, I ask that you consider a modification to the cross section to add a clear area of five feet or more between the curb and sidewalk. This separation improves pedestrian comfort and safety while using the facility.<br><br>This small adjustment to the project will have positive impacts in the future as the corridor | Comment Noted. This recommendation will be evaluated and implemented if feasible and does not significantly increase the proposed ROW along the corridor. The design meets the current guidance in TxDOT's *Roadway Design Manual*, April 2018 for sidewalks placed adjacent to the back of curb. |

| Comment Number | Commenter Name | Date Received | Source | Comment Topic | Response |
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| | | | | develops. Thank you for providing this opportunity to make comments on this project. | |
| 6 | Marla Homan | May 11, 2020 | Email | I have the following questions concerning the project.<br><br>1. What is the timeline for the 35W main lanes to be completed?<br><br>2. What is the update on the funding of the project from North Tarrant Parkway to Dale Ernhardt Way?<br><br>It is great to see the improvement of I-35W to Denton but there seems to be a gap in the construction which is causing a bad bottle-knee most of the time. The road between North Tarrant Parkway to Dale Ernhardt Way is not only in bad condition but traffic has to maneuver around trucks and potholes. | Mr. Nelson Underwood, P.E., TxDOT Project Manager, responded to Ms. Homan by email on May 11, 2020 with the following:<br><br>Ms. Homan,<br><br>The preliminary engineering on the main lanes has started back up which covers from the Tarrant/ Denton County line to the 35E/35W split. We are expecting schematic approval by December of this year and environmental clearance by July of 2021. The Ready to Let date currently is September 2023 and the letting date is August of 2025. The project is not funded, and the Dallas District is currently pursuing Clear Lane funding for IH 35W and SH 114.<br><br>I hope that answered your questions. |
| 7 | Jim Wills (DFW Manager) | May 15, 2020 at 11 a.m. | Email | Mr. Underwood, please find attached a letter in opposition to the design, as proposed, from the Town of Argyle and the owner of approximately 348 acres along the west side of the proposed frontage roads from Robson Ranch Road south, to just south of Old Justin Road, referenced in your report as "The Ridge" also known as Heritage.<br>Please let me know when we can expect a meeting to discuss our concerns.<br><br>(Letter provided is included in the Summary and Analysis Documentation) | Mr. Nelson Underwood, P.E., TxDOT Project Manager is planning to meet with the City of Argyle and Mr. Willis to discuss the existing/proposed access denial and where access openings will be permitted. |
| | | May 15, 2020 at 1:45 p.m. | Email | I am writing in opposition to the TxDot I35W frontage road construction plans that are located along the frontage of our property on the west side of I35W between Robson Ranch | Mr. Nelson Underwood, P.E., TxDOT Project Manager is planning to meet with the City of Argyle and Mr. Willis to discuss the existing/proposed access denial and where access openings will be permitted. |

| Comment Number | Commenter Name | Date Received | Source | Comment Topic | Response |
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| | | | | Road to just south of Old Justin Road (CSJ:0081-13-065).<br><br>I represent the ownership group in managing the planning, development and marketing of approximately 348 acres know as "Heritage", referred to as "The Ridge" in your report. I have been working for over six years with the Town of Argyle, and my planning and engineering group, JBI Partners, to plan a mixed use, regional commercial and residential development. The concept plan is attached. We were pleased to hear of the plans to construct frontage roads which would provide the access and circulation that is required for a regional commercial center.<br><br>But upon reviewing the plans, we were astonished at the "Denied Access" along 84%of our frontage along the proposed frontage road. This will severely limit any commercial traffic circulation, access and marketability for commercial users. It is even more astonishing that your plans for the frontage roads on the west side of I35W both north and south of our property do not have this restriction to access. This will result in a competitive disadvantage for our development when compared to the properties north and south of us.This will also cause a substantial loss of tax revenue to the Town of Argyle and substantial damage to our property.<br><br>Mr. Underwood, we are in favor of the frontage roads, but frontage roads that provide traffic access and not denied access. Improved access from the frontage roads provide for the | |

| Comment Number | Commenter Name | Date Received | Source | Comment Topic | Response |
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| | | | | health and safety of tax payers both locally and regionally. Denied access will negatively impact health and safety as well as future revenue to both Argyle and and our development.<br>Please let us know when we can meet to discuss further.<br><br>(The map attachment is included in the Summary and Analysis) | |
| 8 | John Harris | May 14, 2020 | Email | My name is John Harris and I have been working with D-F Denton Fund 28, Ltd. for several years as it relates to the 347 acres of land located at the SW corner of Robson Ranch Road and I35W. Their Comprehensive Site Plan (attached) extends from Robson Ranch Road to just south of Old Justin Road. During the last several years we have been working with the Town of Argyle planning a mixed use development for quality retail, office, multi-family and medical uses on the site and must say that the limited access shown on the proposed I35W Frontage Roads (84%) is devastating to the long term development of the tract, as well as to the Town of Argyle's future tax base. I have worked with TXDOT several times over the last 38 years and it has been my experience that we have only received denial of access at gore points of on and off ramps. This tract should be no different. With that said, I would like to strongly oppose the TXDOT Design Schematics for this project dated April 8, 2020.<br><br>If you would like to discuss further, please let me know. I will be happy to come to your office. | Mr. Nelson Underwood, P.E., TxDOT Project Manager, responded to Mr. Harris by email on May 18, 2020 with the following:<br>I want to thank you for your interest in the IH 35W project and the proposed improvements. Upon further investigation of the schematic I was able to determine what is going on with the access denial lines and offer an explanation.<br><br>When the ROW for the IH 35W corridor was first acquired, access denial was sown along all of the ROW between cross streets because TxDOT and FHWA did not want adjacent property owners to have direct access to the main lanes of 35W. When this project was being developed and proposed ROW was shown in the schematic, denial of access was only shown at ramps gores and the existing access denial was left in place and not removed along the existing ROW.<br><br>It is the policy of FHWA that we (TxDOT) show access of denial on our schematics where it currently exists today and where proposed ramp gores are to be located in relation to the proposed frontage roads. We (TxDOT Dallas District) will not be buying access of denial as indicated at the ramp/frontage road locations but will be enforcing access of denial through the permitting process. In cases where access denial already exists, that will be on a case by case basis. |

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| | | | | | I hope that this answers your concerns and questions. |
| 9 | Stephen Schattner | May 22, 2020 | Mailed Comment Form | The design does not require the state to maintain or keep the excess right of way between the existing property line and proposed road. It should be dedicated to the adjacent property owners.<br><br>For northeast corner of Interstate 35W at FM 407.<br><br>Denton Co. Property ID's 156952 & 156953. | The ROW line indicated in the Northeast corner of IH 35W and FM 407 is existing the ROW line established when property was acquired for the construction of IH 35W in the early 1960's. The typical border width for Frontage Roads is 20 feet behind the back of curb. Once the Frontage Roads are constructed, a determination will be made by TxDOT is the surplus ROW needed for future improvements or maintenance. If the determination is the surplus ROW is not needed, State Law requires TxDOT to first offer to sell surplus ROW at fair market value to the local governmental entity (GE). If the GE declines to purchase, then the abutting property owners are offered the property at fair market value. |
| 10 | Tara Higgins | May 1, 2020 | Email | I tried to navigate through all the documentation listed for the I35W project but I can't seem to find a timeline anywhere.<br><br>There is a listing of historical project time and future listed when I review the Hwy 377/ Pilot Point project Is there one for the 35W anywhere? In particular for the area of FM 2449.<br><br>Thank you for your assistance with this. | Mr. Nelson Underwood, P.E., TxDOT Project Manager, talked to Ms. Higgins on the phone about her question on May 1, 2020. |
| 11 | Williams Quality Rental LLC | April 30, 2020 | Emailed Public Hearing Comment | The owners of Williams Quality Rental LLC, would request an access to the frontage road at the most convenient location along the frontage road and with the least amount of impact to the costs of the project. This access would allow ingress and egress to the property. Please insure a safe travelable grade from the access road. | Comment noted. Please see the response to comment #8. |
| 12 | Kristen Bell | May 9, 2020 | Email | Hello! Thank you for the informative video. I did have one question. There is a bridge that goes over I35W that is Cleveland Gibbs Road (allows | Mr. Nelson Underwood, P.E., TxDOT Project Manager, responded to Ms. Bell by email on May 9, 2020 with the following: |

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| | | | | back way traffic from FM 407 to FM 1171). That is a very useful bridge for those who live in the community to get to and from Argyle Middle School. It does not have any highway access. Do you know what is happening to that bridge in this process? It does have quite a few potholes, so I am secretly hoping that it is not changing but will be improved. Thank you! | As part of the IH 35W frontage road project, we have looked and analyzed every cross street within the project corridor. TxDOT has also coordinated with developers and landowners along the corridor to come up with the best transportation facility that will operate well into the future. In meetings with the City of Northlake and Hillwood, the future alignment of Cleveland-Gibbs will not be following the skewed bridge over 35W but will be rebuilt into a urban style intersection. This change in location aligns with the Town of Northlake thoroughfare plan and the future development on the west side of 35W. I am including a link to the website that shows the section of 35W and Cleveland-Gibbs. http://www.keepitmovingdallas.com/sites/default/files/docs/Rolls%204-6-From%20N%20of%20FM%201171%20to%20N%20of%20Old%20Justin%20Road.pdf<br><br>If you have any further questions I would be glad to answer them. |