Biological Resources

I-820/SH 121 Northeast Interchange

Tarrant County
Fort Worth District

Main CSJ: 0008-13-124

Associated CSJs: 0008-13- 179, 202, 210, 221, 235, 236 & 237 and 0363-03-051 & 054

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

Biological Evaluation Form

Main CSJ: 0008-13-124, etc
Form Prepared By: Civil Associates, Inc.

Date of Evaluation: June 13, 2017
Proposed Letting Date: December 2017
District(s): Fort Worth
County(ies): Tarrant
Roadway Name: I-820 (East)

☐ *Project has no Federal nexus.*
☐ *Project not assigned to TxDOT under the NEPA Assignment MOU*

Limits From: For I-820 - from approximately 2,000 feet north of Pipeline Road/Glenview Drive to approximately 3,200 feet south of Randol Mill Road

Limits To: For SH 121 - from the SH 121/I-820 Interchange to approximately 5,000 feet west of Handley-Ederville Road

Project Description: Please see the following document that has been uploaded into TXECOS: Project Description (0008-13-124, etc.).pdf

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.

Endangered Species Act (ESA)

Yes — Is the action area of the proposed project within the range of federally protected species?

Yes — Did the USFWS IPaC system identify any endangered species that may occur or could potentially be affected by the proposed project activities?

Date that the IPaC system was accessed: June 1, 2017

No — Is the action area of the proposed project in suitable habitat of federally protected species?

*Explain:

The habitat preferences for federally listed threatened/endangered species, a brief discussion of habitat availability within the project's construction footprint, and an assessment of potential adverse effects on these federally-listed threatened or endangered species are included in the attached Species Impact Table.

Resources consulted or activities conducted to make effect determination (if applicable):

- ☒ TPWD County List
- ☒ USFWS Critical Habitat Maps
- ☐ Species Expert Consulted
- ☒ Aerial Photography
- ☐ Coastal Areas Maps
- ☒ Site Visit
- ☒ Topographic Map
- ☐ Species Study Conducted
- ☐ Karst Zone Maps
- ☒ Ecological Mapping System of Texas (EMST)
- ☒ Natural Diversity Database (NDD)

Other:

Date of site visits: August 12 and 13, 2014, September 16, 2014, and June 1, 2017.

The proposed project is located in an urbanized area, in Tarrant County and within the Cities of North Richland Hills, Richland Hills, Hurst, and Fort Worth. The project area consists of mowed/maintained vegetation and riparian corridors present throughout the length of the project.

Migratory Bird Treaty Act (MBTA)

Yes — Is there potential for nesting birds to be present in the project action area during construction?

No — Were active nests identified during the site survey?

Yes — Will BMPs will be incorporated to protect migratory bird nests?

Bald and Golden Eagle Protection Act (BGEPA)

No — Does the proposed project have the potential to impact Bald or Golden Eagles?

Fish and Wildlife Coordination Act (FWCA)

Yes — Does the project have impacts on one or more Waters of the U.S. or wetlands?

Yes — Is the project covered by a Nationwide Permit?

No — Is the project covered by an Individual Permit from the USACE?

Comments:

Activities within the water crossings would be covered by a NWP 14 with a PCN and a NWP 25.

Executive Order 13112 on Invasive Species

Yes — Would the proposed project be in compliance with EO 13112?

Comments:

In accordance with Executive Order 13112 on Invasive Species, seeding and replanting with TxDOT-approved seed mixes containing native species would be done where possible. Soil disturbance would be minimized in the ROW in order to minimize invasive species establishment.

Executive Memorandum on Environmentally and Economically Beneficial Landscaping

No — Would landscaping be included in the proposed projects?

Farmland Protection Policy Act (FPPA)

Yes Would the project require new ROW or permanent easements (Do not include temporary easements)?

No Is the project located in a "non-urbanized area" that contain areas mapped as prime, unique, statewide important or locally important farmland by the NRCS Web Soil Survey or Census Bureau?

General Comments

Findings

Endangered Species Act (ESA)

No suitable habitat was observed for any federally listed species. Therefore, there would be no effect on federally listed species. However, measures to avoid harm to any threatened and endangered species would be taken should they be observed during construction of the proposed project. Coordination with the USFWS would not be required. The USFWS IPaC website was accessed on June 1, 2017.

Essential Fish Habitat (EFH)

Tidally influenced waters do not occur within the project action area. Coordination with National Marine Fisheries Service is not required.

Coastal Barrier Resources Act (CBRA)

This project is not located within a designated CBRA map unit. Coordination with the U.S. Fish and Wildlife Service (USFWS) is not required.

Marine Mammal Protection Act (MMPA)

Marine mammals are protected under the Marine Mammal Protection Act (MMPA). The Texas coast provides suitable habitat and is within range of several marine mammals including the West Indian Manatee (*Trichechus manatus*), and bottlenose dolphin (*Tursiops truncatus*).

The project area does not contain suitable habitat for marine mammals. Coordination with NMFS is not required.

Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) 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.

A site survey did not identify active nests within the project action area. While no impact to migratory birds is expected, TxDOT will take all appropriate actions to prevent the take of migratory birds, their active nests, eggs, or young should they be discovered on the project site. Direction to contractors is provided on the standard EPIC sheet.

Bald and Golden Eagle Protection Act (BGEPA)

The proposed project does not have the potential to impact Bald or Golden Eagles.

Fish and Wildlife Coordination Act (FWCA)

The Fish and Wildlife Coordination Act (FWCA) of 1958 requires that federal agencies obtain comments from USFWS and TPWD. This coordination is required whenever a project involves impounding, diverting, or deepening a stream channel or other body of water.

The proposed project is authorized under a Section 404 of the Clean Water Act Nationwide Permit; therefore, no coordination under FWCA would be required.

Executive Order 13112 on Invasive Species (EO 13112)

Re-vegetation of disturbed areas would be in compliance with the Executive Order on Invasive Species (EO 13112). Regionally native and non-invasive plants will be used to the extent practicable in landscaping and re-vegetation.

Executive Memorandum on Beneficial Landscaping

Landscaping is not part of the proposed project. If revegetation is needed, disturbed areas would be revegetated according to TxDOT's standard practices, which to the extent practicable, complies with Executive Memorandum on Environmentally and Economically Beneficial Landscaping. Direction to contractors is provided on the standard EPIC sheet.

Farmland Protection Policy Act (FPPA)

Coordination with the National Resources Conservation Service (NRCS) for FPPA would not be required because the project is not located in areas mapped as prime, unique, statewide or locally important nor is it located in an "urbanized area" identified by the NRCS Web Soil Survey or Census Bureau.

Suggested Attachments

Aerial Map (with delineated project boundaries)

USFWS T&E List

TPWD T&E List

Species Impact Table

NDD EOID List and Tracked Managed Areas (Required for TPWD Coordination)

NOAA EFH Mapper Printout

USFWS CBRA Mapper Printout

EMST Project MOU Summary Table (Required for TPWD Coordination)

TPWD SGCN List

FPPA Documentation

NRCS Web Soil Survey Map

Census Bureau Urbanized Area Map

Landscaping Plans

Photos (Required for TPWD Coordination)

Previous TPWD Coordination Documentation (if applicable)

Tier I Site Assessment

Main CSJ: 0008-13-124, etc.
Form Prepared By: Civil Associates, Inc.

Date of Evaluation: June 6, 2017

☐ *Project is classified as a Categorical Exclusion*

Proposed Letting Date: December 2017

☐ *Project not assigned to TxDOT under the NEPA Assignment MOU*

District(s): Fort Worth
County(ies): Tarrant
Roadway Name: I-820 (East)
Limits From: For I-820 - from approximately 2,000 feet north of Pipeline Road/Glenview Drive to approximately 3,200 feet south of Randol Mill Road
Limits To: For SH 121 - from the SH 121/I-820 Interchange to approximately 5,000 feet west of Handley-Ederville Road
Project Description: Please see the following document that has been uploaded into TXECOS: Project Description (0008-13-124, etc.).pdf

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.

1. No — Is the project limited to a maintenance activity exempt from coordination?

   http://txdot.gov/inside-txdot/division/environmental/maintenance-program.html

2. Yes — Has the project previously completed coordination with TPWD?
   - No — The scope of revision relates to an issue TPWD commented on previously?
   - Yes — A substantial change is proposed from the original coordination or new impacts now exceed a threshold?

3. Yes — Is the project within range of a state threatened or endangered species or SGCN and suitable habitat is present?

*Explain:

Potential suitable habitat present within the proposed project area for the following rare species (as identified on TPWD's Annotated County List of Rare Species for Tarrant County): Western Burrowing Owl (Athene cunicularia hypugaea), Plains spotted skunk (Spilogale putorius interrupta), Texas garter snake (Thamnophis sirtalis annectens), and Texas milk vetch (Astragalus reflexus), and the state-listed threatened species: Louisiana pigtoe (Pleurobema riddellii), Sandbank pocketbook (Lampsilis satura), Texas heelsplitter (Potamilus amphichaenus), Texas pigtoe (Fusconaia askewi), and Timber rattlesnake (Crotalus horridus).

Date TPWD County List Accessed: June 6, 2017

Date that the NDD was accessed: June 13, 2017

What agency performed the NDD search? TxDOT

What version of the NDD was used? current TARHE Version

NDD Search Results for EOIDs and Tracked Managed Areas

EOID Number	Common Name	Scientific Name	Listing Status	Buffer Zone
12604	Eastern spotted skunk	*Spilogale putorius*		1.5 Mile

No — Does the BMP PA eliminate the requirement to coordinate for all species?

4. No — NDD and TCAP review indicates adverse impacts to remnant vegetation?

Comments:

According to the MOU with TPWD, important remnant vegetation includes communities listed as suitable habitat and within the range of SGCN. General habitat types listed for Cross Timbers Ecoregion SGCN present within the proposed project footprint include agricultural, riparian, woodland, shrubland, and developed. These general habitat types apply to multiple species.

Potential suitable habitat for the Texas milk vetch is present within the proposed project area. For the Texas milk vetch, there is potential habitat present such as such as roadsides on calcareous and clay substrates. Site visits were conducted on August 12 and 13, 2014, September 16, 2014, and June 1, 2017, outside the flowering/fruiting season (February to May) for the Texas milk vetch. The species was not observed during the site visits.

5. Yes — Does the project require a NWP with PCN or IP by USACE?

*Explain:

Activities within the water crossings would be covered by a NWP 14 with a PCN and a NWP 25.

6. Yes — Does the project include more than 200 linear feet of stream channel for each single and complete crossing of one or more of the following that is not already channelized or otherwise maintained:

Yes — Channel realignment; or

Yes — Stream bed or stream bank excavation, scraping, clearing, or other permanent disturbance.

*Explain:

Crossing 2 (WF-9) is approximately 1,488 linear feet. The existing stream would be realigned within the project limits.

7. No — Does the project contain known isolated wetlands outside the TxDOT ROW that will be directly impacted by the project?

8. Yes — Would the project impact at least 0.10 acre of riparian vegetation?

*Explain:

Approximately 7.9 acres of riparian vegetation exists within the proposed project area.

9. Yes — Does project disturb a habitat type in an area equal to or greater than the area of disturbance indicated in the Threshold Table Programmatic Agreement?

*Explain:

The approximately 14.8 acres of Edwards Plateau Savannah, Woodland, and Shrubland MOU Type habitat disturbance is greater than the 2 acres area of disturbance indicated in the Threshold Table PA for Cross Timbers.

The approximately 20.7 acres of Floodplain MOU Type habitat disturbance is greater than the 0.5 acre area of disturbance indicated in the Threshold Table PA for Cross Timbers.

*Attach associated file of EMST output (Mapper Report or other Excel File which includes MOU Type, Ecosystem Name, Common/Vegetation Type Name) in ECOS

Excel File Name:

EMST MOU Habitat Types (0008-13-124, etc.).pdf

9.1. Yes Is there a discrepancy between actual habitat(s) and EMST mapped habitat(s)?

*Explain:

There was no open water mapped in the EMST habitat map. Site visits identified water crossings and were mapped in the Actual habitat map.

The I-820 project area, south of SH 121, was mapped as Edwards Plateau Savannah, Woodland, and Shrubland in the EMST habitat map. Site visits show that the area closest to the water crossing better fits the Central Texas: Hardwood Forest and Riparian Hardwood Forest descriptions. The area is within a floodplain and deciduous trees such as American elm, cedar elm, sugarberry, and black willows were identified.

The EMST habitat mapped the area south of Central Park Drive as Urban; Edwards Plateau Savannah, Woodland, and Shrubland; Riparian, and Floodplain. Site visits show that the area better fits the Urban description because it contains predominantly of mowed grass.

The EMST habitat mapped the area south of Trinity Boulevard as Urban and Floodplain. Site visits show that the areas adjacent to the water crossings better fit the Central Texas: Hardwood Forest and Riparian Hardwood Forest descriptions. The area is within a floodplain and deciduous trees such as American elm, cedar elm, sugarberry, and black willows were identified.

Attach file showing discrepancy between actual and EMST mapped habitat(s).
File Name:

MOU Vegetation Map (TESCP EMST) and MOU Vegetation map (Actual) found in the uploaded file "Biological Evaluation Form and Tier I Site Assessment Form Attachments (0008-13-124, etc.).pdf " and "Project Area Photographs (0008-13-124, etc.).pdf" in ECOS.

Is TPWD Coordination Required?

Yes

☒ Early Coordination

☐ Administrated Coordination - Must be conducted through ENV-NRM

BMPs Implemented or EPICs included (as necessary):

The following EPICs and BMPs will be included in the project plans:

Whooping Crane - The contractor and/or TxDOT personnel would be advised of potential for Whooping Cranes to occur within the project limits. Construction personnel will be advised to avoid adverse impacts to this species and to report any sightings to TxDOT District environmental staff. Drainage modifications will be limited to the extent practical to accommodate the additional paved surface needed to bring the roadway up to current TxDOT safety standards. The construction personnel will report all sightings to TxDOT Fort Worth District Environmental staff. Reports should include the time, date and location and any available photos.

Bald and Golden Eagle Protection Act - Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season. Avoid the removal of unoccupied, inactive nest as practicable. Preventing the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair. Not collecting, capturing, relocating or transporting birds, eggs, young or active nest without a permit. Eagle Protection Act prohibits the taking or possession of and commerce in eagles, parts, feathers, nests, or eggs with limited exceptions. The definition of take includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. Eagles may not be taken for any purpose unless a permit is issued prior to the taking.

Texas garter snake and Timber rattlesnake - The contractor will be advised of potential occurrence of Texas garter snake and the Timber rattlesnake in the project area, and to avoid harming the species if encountered.

Plains Spotted Skunk - The contractor will be advised of potential occurrence of Plains Spotted Skunk in the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.

Western Burrowing Owl - The contractor will be advised of potential occurrence of the Western burrowing owl. The contractor would be prepared to take appropriate measures to avoid disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season. Avoid the removal of unoccupied, inactive nests, as practicable. As necessary, take appropriate measures to prevent the establishment of active nests during the nesting season on facilities and structures proposed for replacement or repair. Collecting, capturing, relocation, or transporting birds, eggs, young, or active nests
without a permit is prohibited.

Freshwater Mussel BMP (Louisiana pigtoe, Sandbank pocketbood, Texas heelsplitter and the Texas pigtoe) - When work in the water; survey project footprints for stated listed species where appropriate habitat exists. When work in the water; relocate state listed and SGCN mussels discovered during surveys under TPWD permit. When work is in or 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.

Migratory Bird Treaty Act - Between October 1 and February 15, the contractor would remove all old migratory bird nests from any structure that would be affected by the proposed project, and complete any bridge work/ demolition and /or vegetation clearing. In addition, the contractor would be prepared to prevent migratory birds from building nests by utilizing nest prevention methods, such as bird-deterrent netting and bird-repelling sprays and/or gels, between February 15 and October 1. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected
birds, active nests, eggs, and/or young would be avoided.

Texas milk vetch - During construction, efforts would be taken to avoid and minimizing disturbance of vegetation and soils. Areas within the existing ROW, but outside the limits of construction, would not be disturbed.

Vegetation Disturbance - During construction, efforts would be taken to avoid and minimizing disturbance of vegetation and soils. Areas within the existing ROW, but outside the limits of construction, would not be disturbed. Every effort would be made to preserve trees where they would neither compromise safety nor substantially interfere with the proposed projects.

TxDOT Contact Information

Name: Chad Putnam

Phone Number: 817-370-6567

E-mail: Chad.Putnam@txdot.gov

Suggested Attachments

Aerial Map (with delineated project boundaries)

USFWS T&E List

TPWD T&E List

Species Impact Table

NDD EOID List and Tracked Managed Areas (Required for TPWD Coordination)

EMST Project MOU Summary Table (Required for TPWD Coordination)

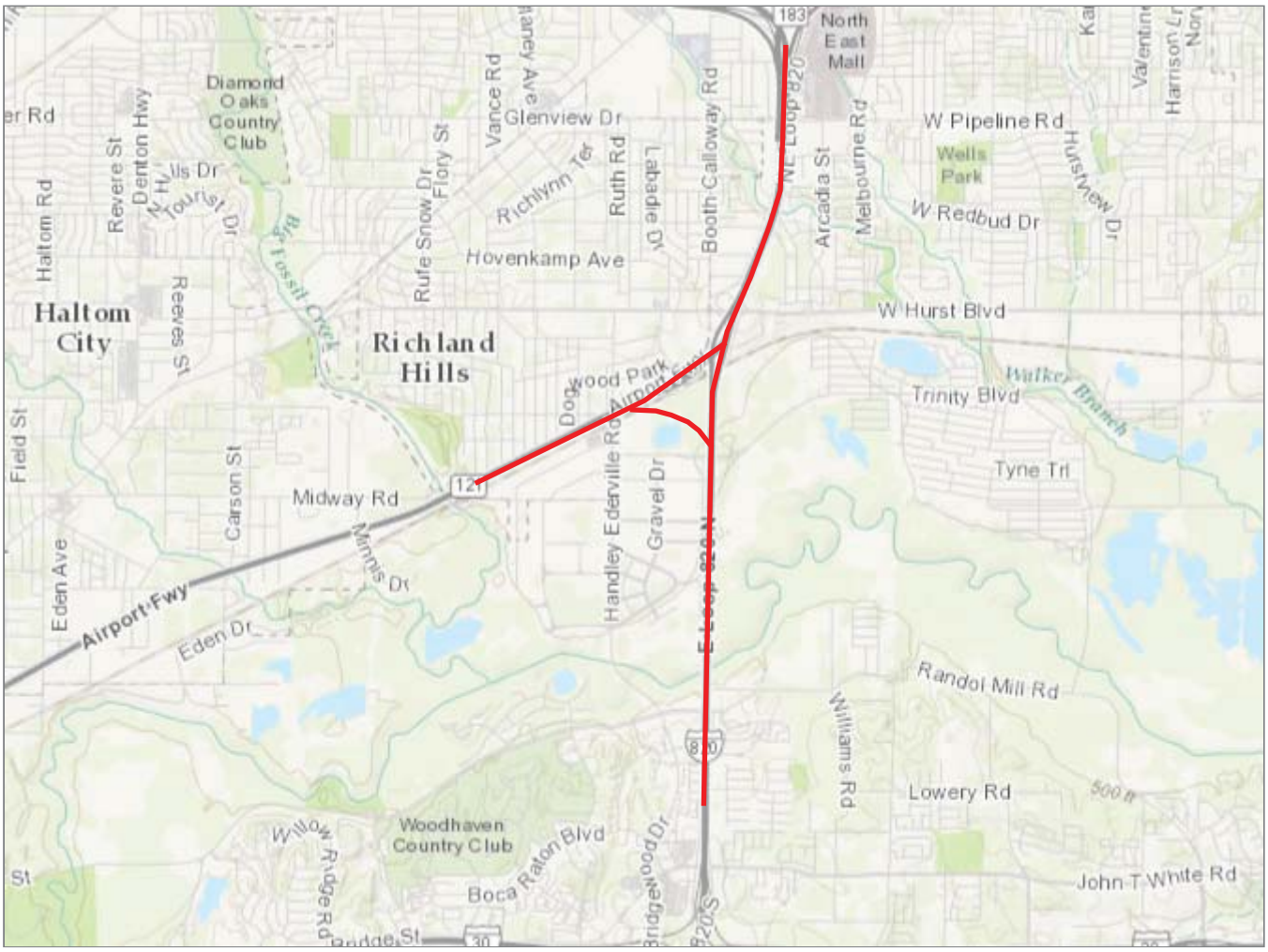
TPWD SGCN List

Photos (Required for TPWD Coordination)

Previous TPWD Coordination Documentation (if applicable)

Critical Habitat for Threatened & Endangered Species [USFWS]

A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.



U.S. Fish and Wildlife Service | City of Arlington, TX, City of Fort Worth, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, NGA, EPA, USDA

CRITICAL HABITAT MAP
I-820 (EAST)
I-820 from approximately 2,000 feet
north of Pipeline Road/Glenview Drive
to 3,200 feet south of Randol Mill Road
SH 121 from I-820 to approximately
5,000 feet west of Handley-Ederville Road
CSJ: 0008-13-124, etc.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arlington Ecological Services Field Office
2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247
Phone: (817) 277-1100 Fax: (817) 277-1129
http://www.fws.gov/southwest/es/arlingtontexas/
http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

In Reply Refer To: June 01, 2017
Consultation Code: 02ETAR00-2017-SLI-1265
Event Code: 02ETAR00-2017-E-02690
Project Name: I-820 (East)

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, which may occur within the boundary of your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under section 7(a)(1) of the Act, Federal agencies are directed to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Under and 7(a)(2) and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether their actions may affect threatened and endangered species and/or designated critical habitat. A Federal action is an activity or program authorized, funded, or carried out, in whole or in part, by a Federal agency (50 CFR 402.02).

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For Federal actions other than major construction activities, the Service suggests that a biological evaluation (similar to a Biological Assessment) be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

After evaluating the potential effects of a proposed action on federally listed species, one of the

following determinations should be made by the Federal agency:

1. No effect - the appropriate determination when a project, as proposed, is anticipated to have no effects to listed species or critical habitat. A "no effect" determination does not require section 7 consultation and no coordination or contact with the Service is necessary. However, the action agency should maintain a complete record of their evaluation, including the steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related information.
2. May affect, but is not likely to adversely affect - the appropriate determination when a proposed action's anticipated effects are insignificant, discountable, or completely beneficial. Insignificant effects relate to the size of the impact and should never reach the scale where "take" of a listed species occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects, or expect discountable effects to occur. This determination requires written concurrence from the Service. A biological evaluation or other supporting information justifying this determination should be submitted with a request for written concurrence.
3. May affect, is likely to adversely affect - the appropriate determination if any adverse effect to listed species or critical habitat may occur as a direct or indirect result of the proposed action, and the effect is not discountable or insignificant. This determination requires formal section 7 consultation.

The Service recommends that candidate species, proposed species, and proposed critical habitat be addressed should consultation be necessary. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:
http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (

http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

For additional information concerning migratory birds and eagle conservation plans, please contact the Service's Migratory Bird Office at 505-248-7882.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arlington Ecological Services Field Office
2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247
(817) 277-1100

Project Summary

Consultation Code: 02ETAR00-2017-SLI-1265

Event Code: 02ETAR00-2017-E-02690

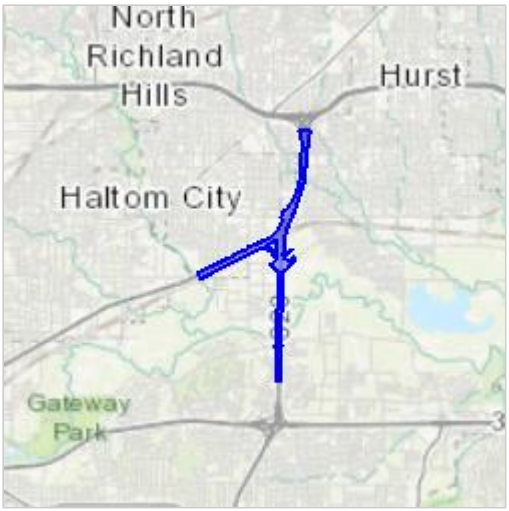
Project Name: I-820 (East)

Project Type: TRANSPORTATION

Project Description: CSJ: 0008-13-124, etc.

Project Location:

Approximate location of the project can be viewed in Google Maps:
https://www.google.com/maps/place/32.7996879738331N97.22434633779123W



Counties: Tarrant, TX

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Birds

NAME	STATUS
Least Tern *(Sterna antillarum)* Population: interior pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8505	Endangered
Piping Plover *(Charadrius melodus)* Population: except Great Lakes watershed There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *(Calidris canutus rufa)* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *(Grus americana)* Population: Wherever found, except where listed as an experimental population There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Critical habitats

There are no critical habitats within your project area.

TARRANT COUNTY

BIRDS		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	T

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Bald Eagle	*Haliaeetus leucocephalus*	DL	T

found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

Henslow's Sparrow	*Ammodramus henslowii*		

wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking

Interior Least Tern	*Sterna antillarum athalassos*	LE	E

subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony

Peregrine Falcon	*Falco peregrinus*	DL	T

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

TARRANT COUNTY

BIRDS

		Federal Status	State Status
Red Knot	*Calidris canutus rufa*	T	

Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. A small plump-bodied, short-necked shorebird that in breeding plumage, typically held from May through August, is a distinctive and unique pottery orange color. Its bill is dark, straight and, relative to other shorebirds, short-to-medium in length. After molting in late summer, this species is in a drab gray-and-white non-breeding plumage, typically held from September through April. In the non-breeding plumage, the knot might be confused with the omnipresent Sanderling. During this plumage, look for the knot's prominent pale eyebrow and whitish flanks with dark barring. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Primary prey items include coquina clam (Donax spp.) on beaches and dwarf surf clam (Mulinia lateralis) in bays, at least in the Laguna Madre. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore.

Sprague's Pipit *Anthus spragueii*

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

Western Burrowing Owl *Athene cunicularia hypugaea*

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Whooping Crane *Grus americana* LE E

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

FISHES

		Federal Status	State Status
Shovelnose sturgeon	*Scaphirhynchus platorynchus*		T

open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande

MAMMALS

		Federal Status	State Status
Gray wolf	*Canis lupus*	LE	E

extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands

Plains spotted skunk *Spilogale putorius interrupta*

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

TARRANT COUNTY

MAMMALS

		Federal Status	State Status
Red wolf	*Canis rufus*	LE	E

extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies

MOLLUSKS

		Federal Status	State Status
Louisiana pigtoe	*Pleurobema riddellii*		T

streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins

Sandbank pocketbook	*Lampsilis satura*		T

small to large rivers with moderate flows and swift current on gravel, gravel-sand, and sand bottoms; east Texas, Sulfur south through San Jacinto River basins; Neches River

Texas heelsplitter	*Potamilus amphichaenus*		T

quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins

Texas pigtoe	*Fusconaia askewi*		T

rivers with mixed mud, sand, and fine gravel in protected areas associated with fallen trees or other structures; east Texas River basins, Sulphur River, Cypress Creek, Sabine through Trinity rivers as well as San Jacinto River

REPTILES

		Federal Status	State Status
Texas garter snake	*Thamnophis sirtalis annectens*		

wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August

Texas horned lizard	*Phrynosoma cornutum*		T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Timber rattlesnake	*Crotalus horridus*		T

swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto

PLANTS

		Federal Status	State Status
Auriculate false foxglove	*Agalinis auriculata*		

Known in Texas from one late nineteenth century specimen record labeled -Benbrook-; in Oklahoma, degraded prairies, floodplains, fallow fields, and borders of upland sterile woods; in Arkansas, blackland prairie; Annual; Flowering August - October

TARRANT COUNTY

PLANTS

Federal Status State Status

Glen Rose yucca *Yucca necopina*

Texas endemic; grasslands on sandy soils and limestone outcrops; flowering April-June

Hall's prairie clover *Dalea hallii*

GLOBAL RANK: G3; In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides; Perennial; Flowering May-Sept; Fruiting June-Sept

Osage Plains false foxglove *Agalinis densiflora*

GLOBAL RANK: G3; Most records are from grasslands on shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils; Annual; Flowering Aug-Oct

Reverchon's curfpea *Pediomelum reverchonii*

GLOBAL RANK: G3; Mostly in prairies on shallow rocky calcareous substrates and limestone outcrops; Perennial; Flowering Jun-Sept; Fruiting June-July

Texas milk vetch *Astragalus reflexus*

GLOBAL RANK: G3; Grasslands, prairies, and roadsides on calcareous and clay substrates; Annual; Flowering Feb-June; Fruiting April-June

Topeka purple-coneflower *Echinacea atrorubens*

GLOBAL RANK: G3; Occurring mostly in tallgrass prairie of the southern Great Plains, in blackland prairies but also in a variety of other sites like limestone hillsides; Perennial; Flowering Jan-June; Fruiting Jan-May

TPWD Texas Natural Diversity Database

Element Occurrence Records and Managed Areas Search

Fort Worth District
June 13, 2017

CSJ: 0008-13-124, etc.

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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Texas Natural Diversity Database

The TXNDD maintains information on over 700 natural resource “Elements”. An Element can be a species, a native plant community, or an animal aggregation, such as a colonial waterbird rookery or a bat roost.

The TXNDD record for any Element is known as an Element Occurrence (EO). An EO is an area of land or water where an Element is or was present and has practical conservation value. Each EO is based on at least one observation, and potentially hundreds of observations, of an Element in a specified location.

Important: The NDD cannot be used for presence/absence determinations.

A search of the NDD was conducted using a 1.5 mile buffer and a 10 mile buffer around the entire project area. The results of the NDD search are reported below and on the subsequent pages. The NDD was checked using the NDD Mimic stored on TxDOTs Tarhe server.

EO's Identified in the Study Area

EOID	***Common Name***	***Scientific Name***	***Search Radius (Miles)***
12604	Eastern spotted skunk	*Spilogale putorius*	1.5
520	Cedar Elm-sugarberry Series	*Ulmus crassifolia-celtis laevigata series*	10
549		*Rookery*	10
3282		*Rookery*	10
5905	Little Bluestem-indiangrass Series	*Schizachyrium scoparium-sorghastrum nutans series*	10
10101	Texas milk vetch	*Astragalus reflexus*	10
11039	Osage Plains false foxglove	*Agalinis densiflora*	10
11562	Mollisol Blackland Prairie	*Schizachyrium scoparium - Andropogon gerardii - Sorghastrum nutans - Bifora americana Mollisol Grassland*	10
11563	Mollisol Blackland Prairie	*Schizachyrium scoparium - Andropogon gerardii - Sorghastrum nutans - Bifora americana Mollisol Grassland*	10
12796	Eastern spotted skunk	*Spilogale putorius*	10

Managed Areas Identified in the Study Area

Managed Area ID	*Name*	*Search Radius (Miles)*
93	GRAPEVINE LAKE (USCOE)	10

Additional Element Occurrence Details

Osage Plains false foxglove **GRR:** G3 **SRR:** S2
Agalinis densiflora **FS:** **SS:**

Element Occurrence ID (EOID): 11039 ***First Observation Date:*** None Specified

Last Observation Date: 1991-08-29

EO Data:
1991-08-29: Common.

General Description:
Limestone hillside.

Protection Comments:
None Specified

Management Comments:

Texas milk vetch **GRR:** G3 **SRR:** S3
Astragalus reflexus **FS:** **SS:**

Element Occurrence ID (EOID): 10101 ***First Observation Date:*** None Specified

Last Observation Date: 1937-05-10

EO Data:

General Description:
Dry soil in gravel pits.

Protection Comments:
None Specified

Management Comments:

	GRR: G5	SRR: SNR
Rookery	FS:	SS:

Element Occurrence ID (EOID): 549 ***First Observation Date:*** None Specified

Last Observation Date: 1989

EO Data:
NESTING COLONY OF THE CATTLE EGRET, LITTLE BLUE HERON, GREAT EGRET

General Description:
POST OAK TREES, 5 METERS

Protection Comments:
None Specified

Management Comments:

Element Occurrence ID (EOID): 3282 ***First Observation Date:*** None Specified

Last Observation Date: 1981

EO Data:
NESTING COLONY OF THE CATTLE EGRET, LITTLE BLUE HERON, GREAT EGRET, BLACK-CROWNED NIGHT-HERON, SNOWY EGRET

General Description:
HACKBERRY TREES, 5 METERS

Protection Comments:
None Specified

Management Comments:

	GRR: G2	SRR: S2
Little Bluestem-indiangrass Series		
Schizachyrium scoparium-sorghastrum nutans series	FS:	SS:

Element Occurrence ID (EOID): 5905 ***First Observation Date:*** None Specified

Last Observation Date: 1994

EO Data:

General Description:
MIDGRASS PRAIRIE ON FAIRLY SHALLOW GRAVELLY CLAY LOAM ON STEEP LIMESTONE SLOPE

Protection Comments:
None Specified

Management Comments:

Mollisol Blackland Prairie **GRR:** G1G2 **SRR:** SNR

Schizachyrium scoparium - Andropogon gerardii - Sorghastrum nutans - Bifora americana Mollisol Grassland **FS:** **SS:**

Element Occurrence ID (EOID): 11562 ***First Observation Date:*** None Specified

Last Observation Date: 2010-08-13

EO Data:

13 August 2010: This plant community is of medium quality grass species; Forb species are high quality; Exotic species are present; Woody cover is greater than 75 percent.

General Description:

13 August 2010:This site has an unnamed intermittent tributary to the West Fork of the Trinity River; See the Composition Tab for other species within the area.

Protection Comments:

None Specified

Management Comments:

13 August 2010: This winter and last, the Fort Worth Nature Center and Wildlife Refuge and volunteers have cleared a few acres, but woody plants are already reclaiming the cleared areas.

Element Occurrence ID (EOID): 11563 ***First Observation Date:*** None Specified

Last Observation Date: 2010-08-07

EO Data:

7 August 2010: This plant community is of absent to high quality grass species; Forb species are low to high quality; Exotic species are present; Woody cover is 51-75 percent.

General Description:

7 August 2010: This site has a tributary of Sycamore Creek; See the Composition Tab for other species within the area.

Protection Comments:

None Specified

Management Comments:

7 August 2010: This county park has been much abused from the standpoint of its prairie. Woody plants have been allowed to encroach substantially. Grassy areas between Resource Circle and the creek, more than half of the site, have been repeatedly mowed,

Eastern spotted skunk

Spilogale putorius

GRR: G4 **SRR:** S1S3
FS: **SS:**

Element Occurrence ID (EOID): 12604 ***First Observation Date:*** None Specified

Last Observation Date: 2015-03-20

EO Data:

12 October 1950: Skin and skull of one male preserved specimen; 8 November 1959: One adult male preserved specimen; 28 July 1964: One preserved specimen of unknown sex and age; June 1967: One adult female preserved specimen; 15 March 1972: One adu

General Description:

20 March 2015: This observation was recorded in bottomland hardwoods.

Protection Comments:

None Specified

Management Comments:

Element Occurrence ID (EOID): 12796 ***First Observation Date:*** None Specified

Last Observation Date: 1952-03-04

EO Data:

4 March 1952: Post-cranial skeleton , skin, and skull of one male preserved specimen.

General Description:

Protection Comments:

None Specified

Management Comments:

Cedar Elm-sugarberry Series

Ulmus crassifolia-celtis laevigata series

GRR: G2G3 **SRR:** S4
FS: **SS:**

Element Occurrence ID (EOID): 520 ***First Observation Date:*** None Specified

Last Observation Date: 1987-03

EO Data:

General Description:

PATCHY BOTTOMLAND DOMINATED BY CEDAR ELM, BUR OAK, SUGARBERRY; SOME LARGE, OLD TREES AND SOME AREAS OF THICK, YOUNG GROWTH

Protection Comments:

None Specified

Management Comments:

Additional Managed Area Details

GRAPEVINE LAKE (USCOE) *FDAPK*

Description:
PICNICING, CAMPING, BOAT LAUNCHING, TRAILS, AND UNDEVELOPED FACILITIES ON GRAPEVINE LAKE

Comments:
BOUNDARIES ARE APPROXIMATE; 8172 ACRES INCLUDES LAKE, 2784 ACRES ARE UNDER INTENSIVE RECREATIONAL USE

Legal Protection Comments:
None Specified

Manager: LAKE MANAGER

110 FAIRWAY DRIVE

GRAPEVINE, TX 51
817 481-4541

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
BIRDS						
American Peregrine Falcon *Falco peregrinus anatum*		T	Year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No	No impact	There is no habitat present such as cliff eyries.
Arctic Peregrine Falcon *Falco peregrinus tundrius*			Migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No	No impact -	There is no habitat present such as lake shores, coastlines, and barrier islands.
Bald Eagle *Haliaeetus leucocephalus*		T	Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds.	No	No impact	There is no habitat present such as large lakes and cliffs.
Henslow's Sparrow *Ammodramus henslowii*			Wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking.	No	No impact	There is no habitat present such as bunch grasses with vines and brambles.

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Interior Least Tern *Sterna antillarum athalassos*	E	E	Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony.	Yes	No effect	The West Fork Trinity River, gravel pit lakes, and other waters near or in the action area provide potential habitat for nesting, foraging or for transiting to/from nesting areas. The species were also recorded to utilize warehouse rooftops for potential nesting. However, use of the project area by the tern would be incidental and transitory and no direct impacts to the potential habitat would occur in the project area. It is not anticipated that individuals would be impacted during construction; however, the TxDOT-TPWD MOU Bird BMPs would be implemented and contractors would be instructed to notify TxDOT if this species is observed.
Peregrine Falcon *Falco peregrinus*		T	Both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (*F. p. anatum*) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, thus the species level shows this dual listing status; because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	No	No impact	There is no habitat present such as cliff eyries. No impacts are anticipated.

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Piping Plover *Charadrius melodus*	T	T	wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats	No	No effect	There is no habitat present such as beaches and bayside mud or salt flats. No impacts are anticipated. Additionally, the proposed project is a roadway project, and not a wind energy project.
Red Knot *Calidris canutus rufa*	T		Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. A small plump-bodied, short-necked shorebird that in breeding plumage, typically held from May through August, is a distinctive and unique pottery orange color. Its bill is dark, straight and, relative to other shorebirds, short-to-medium in length. After molting in late summer, this species is in a drab gray-and-white non-breeding plumage, typically held from September through April. In the non-breeding plumage, the knot might be confused with the omnipresent Sanderling. During this plumage, look for the knot's prominent pale eyebrow and whitish flanks with dark barring. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Primary prey items include coquina clam (*Donax* spp.) on beaches and dwarf surf clam (*Mulinia lateralis*) in bays, at least in the Laguna Madre. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore.	No	No effect	There is no habitat present such as shoreline of coast and bays, mudflats, or tidal flats, or herbaceous wetlands. Additionally, the proposed project is a roadway project, and not a wind energy project; therefore, effects/impacts to the Red Knot were not considered.

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Sprague's Pipit *Anthus spragueii*			Only in Texas during migration and winter, mid-September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	No	No impact	There is no habitat present such native upland prairie and coastal grasslands.
Western Burrowing Owl *Athene cunicularia hypugaea*			Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows.	Yes	May impact	There is potential habitat present such as open grasslands and vacant lots near human habitation within the construction limits of the proposed project. Individuals could be adversely impacted during construction; however, the TxDOT-TPWD MOU Bird BMPs would be implemented to minimize potential impacts.

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Whooping Crane *Grus americana*	E	E	The whooping crane breeds, migrates, winters, and forages in a variety of wetland and other habitats, including coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows and rivers, and agricultural fields. During migration, whooping cranes use a variety of habitats; however, wetland mosaics appear to be the most suitable. For feeding, whooping cranes primarily use shallow, seasonally and semi permanently flooded palustrine wetlands for roosting, and various cropland and emergent wetlands. Wintering habitat in the Aransas National Wildlife Refuge, Texas, includes salt marshes and tidal flats on the mainland and barrier islands, dominated by salt grass, saltwort, smooth cordgrass, glasswort, and sea ox-eye.	Yes	No effect	There is potential habitat present within the action area such as ponds and agricultural fields. These areas provide potential habitat as migratory stopover sites. However, the dense urban development and proximity to high-speed roadways of the potential habitat areas would render them unattractive to this species and any use would likely be rare, transitory, and of short duration. It is not anticipated that individuals would be impacted during construction; however, the TxDOT-TPWD MOU Bird BMPs would be implemented and contractors would be instructed to notify TxDOT if this species is observed.
FISHES						
Shovelnose sturgeon *Scaphirhynchus platorynchus*		T	Open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande.	No	No impact	A suitable habitat component, fast current, is not present in the project area. No impacts are anticipated.
MAMMALS						
Gray wolf *Canis lupus*	E	E	Extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands.	No	No effect	Extirpated species, last known occurrences in Texas was Brewster County in 1970. No impacts are anticipated.

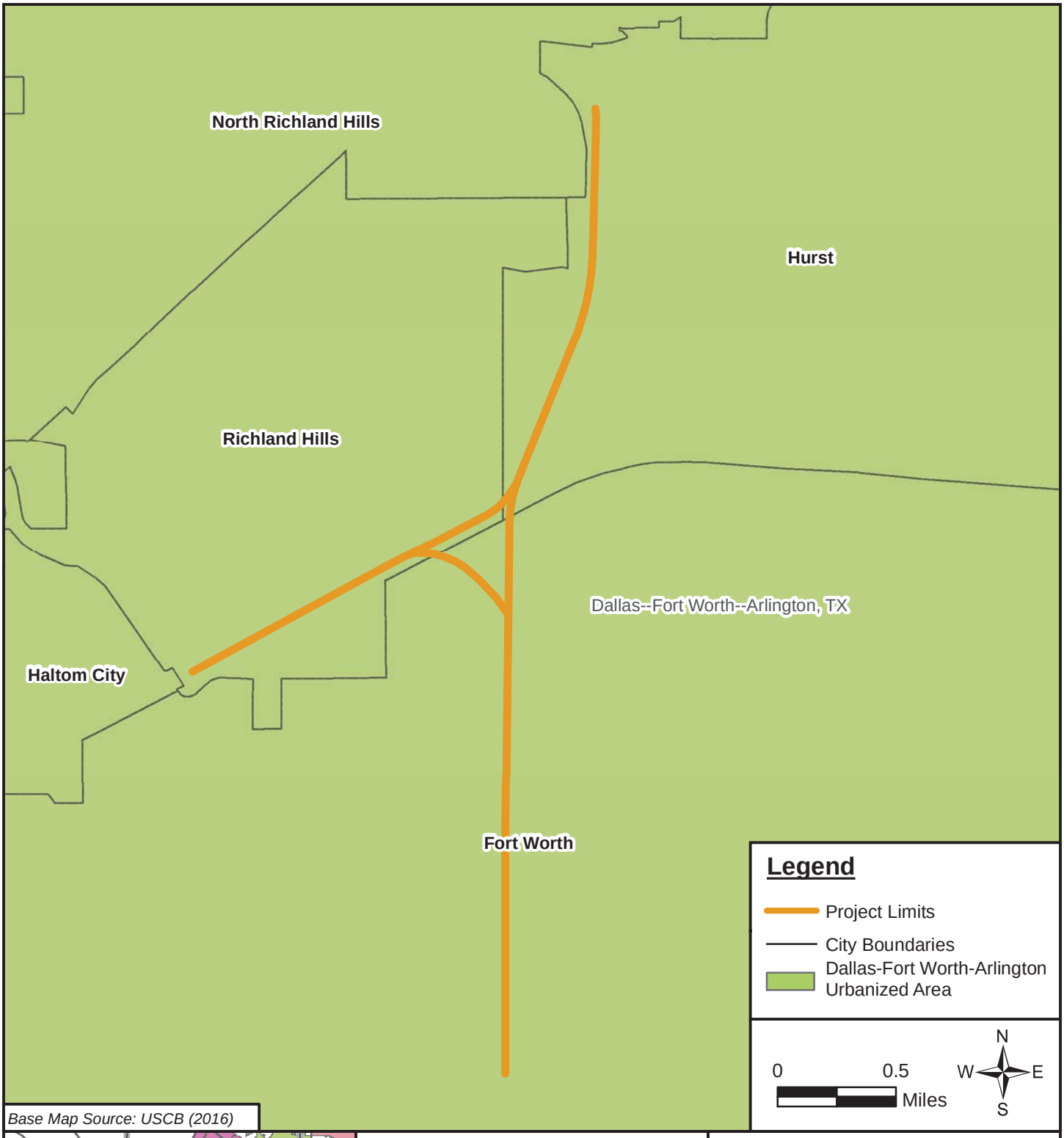
Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Plains spotted skunk *Spilogale putorius interrupta*			Catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie.	Yes	May impact	There is potential habitat present such as open fields, croplands, and fence rows within the construction limits of the proposed project. Individuals could be adversely impacted during construction; however, the TxDOT-TPWD MOU BMP for the species would be implemented.
Red wolf *Canis rufus*	E	E	Extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies.	No	No effect	Extirpated species. Declared extinct in wild in 1980. No impacts are anticipated.
MOLLUSKS						
Louisiana pigtoe *Pleurobema riddellii*		T	Streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins.	Yes	May impact	There is potential habitat present such as streams and moderate sized rivers. Individuals could be adversely impacted during construction; however, the TxDOT-TPWD MOU Mussel BMPs would be implemented to minimize potential impacts.
Sandbank pocketbook *Lampsilis satura*		T	small to large rivers with moderate flows and swift current on gravel, gravel-sand, and sand bottoms; east Texas, Sulfur south through San Jacinto River basins; Neches River	Yes	May impact	There is potential habitat present such as small river. Individuals could be adversely impacted during construction; however, the TxDOT-TPWD MOU Mussel BMPs would be implemented to minimize potential impacts.

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Texas heelsplitter *Potamilus amphichaenus*		T	Quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins.	Yes	May impact	There is potential habitat present such as quiet perennial streams. Individuals could be adversely impacted during construction; however, the TxDOT-TPWD MOU Mussel BMPs would be implemented to minimize potential impacts.
Texas pigtoe *Fusconaia askewi*		T	Rivers with mixed mud, sand, and fine gravel in protected areas associated with fallen trees or other structures; east Texas River basins, Sulphur River, Cypress Creek, Sabine through Trinity rivers as well as San Jacinto River	Yes	May impact	There is potential habitat present such as rivers with mixed mud, sand, and fine gravel within the construction limits of the proposed project. Individuals could be adversely impacted during construction; however, the TxDOT-TPWD MOU Mussel BMPs would be implemented to minimize potential impacts.
REPTILES						
Texas garter snake *Thamnophis sirtalis annectens*			Wet or moist microhabitats are conducive to the species occurrence, but are not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August.	Yes	May impact	There is potential habitat present such as wet or moist microhabitats within the construction limits of the proposed project. Individuals could be adversely impacted during construction; however, the contractors will be advised of potential occurrence in the project are, and to avoid harming the species, if encountered.

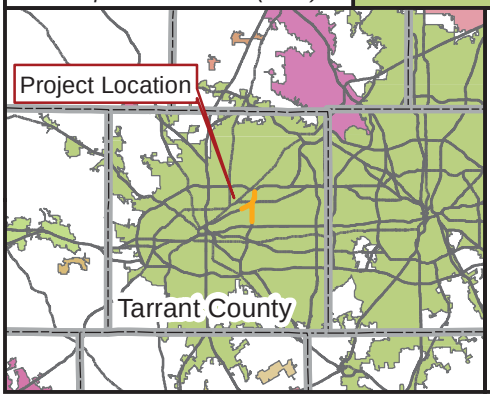
Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Texas horned lizard *Phrynosoma cornutum*		T	Open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.	No	No impact	There is no habitat present such as open, arid and semi- with regions with sparse vegetation. No impacts are anticipated.
Timber rattlesnake *Crotalus horridus*		T	Swamps, floodplains, upland woodlands, riparian zones, abandoned farmland; prefers dense ground cover, i.e., grapevines or palmetto.	Yes	May impact	There is potential habitat present such as floodplains, upland woodlands, riparian zones, and dense ground cover within the construction limits of the proposed project. Individuals could be adversely impacted during construction; however, the contractors will be advised of potential occurrence in the project are, and to avoid harming the species, if encountered.
PLANTS						
Auriculate false foxglove *Agalinis auriculata*			Known in Texas from one late nineteenth century specimen record labeled -Benbrook-; in Oklahoma, degraded prairies, floodplains, fallow fields, and borders of upland sterile woods; in Arkansas, blackland prairie; Annual; Flowering August - October	No	No impact	Although reported historically from 20 states, many states, including Texas, have no known extant populations.
Glen Rose yucca *Yucca necopina*			Texas endemic; grasslands on sandy soils and limestone outcrops; flowering April-June.	No	No impact	There is no habitat present such as clayey soil on top of limestone. No impacts are anticipated.

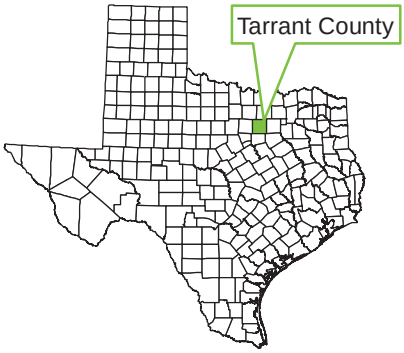
Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Hall's prairie clover *Dalea hallii*			GLOBAL RANK: G3; In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides; Perennial; Flowering May-Sept; Fruiting June-Sept	No	No impact	There is no habitat present such as grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides. No impacts are anticipated.
Osage Plains false foxglove *Agalinis densiflora*			GLOBAL RANK: G3; Most records are from grasslands on shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils; Annual; Flowering Aug-Oct	No	No impact	There is no habitat present such as shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils. No impacts are anticipated.
Reverchon's curfpea *Pediomelum reverchonii*			GLOBAL RANK: G3; Mostly in prairies on shallow rocky calcareous substrates and limestone outcrops; Perennial; Flowering Jun-Sept; Fruiting June-July	No	No impact	There is no habitat present such as prairies on shallow rocky calcareous substrates and limestone outcrops. No impacts are anticipated.
Texas milk vetch *Astragalus reflexus*			GLOBAL RANK: G3; Grasslands, prairies, and roadsides on calcareous and clay substrates; Annual; Flowering Feb-June; Fruiting April-June	Yes	May impact	There is potential habitat present such as roadsides on calcareous and clay substrates within the construction limits of the proposed project. Individuals could be adversely impacted during construction; however, the TxDOT-TPWD MOU Vegetation BMPs would be implemented to minimize potential impacts.
Topeka purple-coneflower *Echinacea atrorubens*			GLOBAL RANK: G3; Occurring mostly in tallgrass prairie of the southern Great Plains, in blackland prairies but also in a variety of other sites like limestone hillsides; Perennial; Flowering Jan-June; Fruiting Jan-May	No	No impact	There is no habitat present such as in tallgrass prairie of the southern Great Plains, in Blackland Prairies but also in a variety of other sites like limestone hillsides. No impacts are anticipated.
E – Endangered T – Threatened "blank" – Rare, but with no regulatory listing status						

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Source: *U.S. Fish & Wildlife Service IPaC Trust Resource Report (generated June 1, 2017); Texas Parks & Wildlife Department, Wildlife Division, Diversity and Habitat Assessment Programs, County Lists of Texas Special Species (Tarrant County, December 30, 2016), and Field Visits (August 12 and 13, 2014, September 16, 2014, June 1, 2017).*						



Base Map Source: USCB (2016)





URBAN AREA MAP

I-820 (EAST)

I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to 3,200 feet south of Randol Mill Road

SH 121 from I-820 to approximately 5,000 feet west of Handley-Ederville Road

CSJ: 0008-13-124, etc.

Texas Department of Transportation

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

January 30, 2002

DIST 02 FT. WORTH
TXDOT MAILROOM
FEB - 5 2002

NH ( ) IM
Environmental Assessment Coordination
Tarrant County
CSJ 0008-13-123, 124, 138

IH 820: North Interchange with SH 121, South to Randol Mill Road

Dr. Ray C. Telfair
Texas Parks and Wildlife Department
Wildlife Division
Wildlife Habitat Assessment Program
11942 FM 848
Tyler, Texas 75707-9657

Dear Dr. Telfair:

Consistent with the Memorandum of Understanding signed by our two agencies, attached is a copy of the environmental assessment covering the subject project for your review and comment. Any comments you may have on this document will assist the Department in ensuring that the Department's projects are sensitive to the natural resources of the state.

Please submit any comments you may have within 45 days from the date of this letter. If you do not have any comments on the document, please sign and date the bottom of this letter and return a copy to the Environmental Affairs Division. If no response is received after the 45 days have expired, we will proceed with project development. If you have any questions regarding this project, please contact Mr. William Hood at (512) 416-2623.

Sincerely,

Michelle Skinner
Project Management
Environmental Affairs Division

Attachment

☐ NO COMMENT: _____
Wildlife Habitat Assessment Program

DATE: _____

MMS:M

bcc: Fort Worth District
ERG WFH

Reference: ENV 850

Texas Department of Transportation

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

January 30, 2002

NH ( ) IM
Environmental Assessment Coordination
Tarrant County
CSJ 0008-13-123, 124, 138

IH 820: North Interchange with SH 121, South to Randol Mill Road

Ms. Celeste Brancel-Brown
Texas Parks and Wildlife Department
Endangered Resources Branch
3000 S. I.H. 35, Suite 100
Austin, Texas 78704

Dear Ms. Brown:

Consistent with the Memorandum of Understanding signed by our two agencies, attached is a copy of the environmental assessment covering the subject project for your review and comment. Any comments you may have on this document will assist the Department in ensuring that the Department's projects are sensitive to the natural resources of the state.

Please submit any comments you may have within 45 days from the date of this letter. If you do not have any comments on the document, please sign and date the bottom of this letter and return a copy to the Environmental Affairs Division. If no response is received after the 45 days have expired, we will proceed with project development. If you have any questions regarding this project please contact Mr. William Hood at 512-416-2623.

Sincerely,

Michelle Skinner
Project Management
Environmental Affairs Division

Attachment

☐ NO COMMENT:_____
Texas Biological and Conservation Data System

DATE:_____

MMS:M

bcc: Fort Worth District
ERG WFH

Reference: ENV 850

TEXAS PARKS & WILDLIFE

COMMISSIONERS

KATHARINE ARMSTRONG IDSAL
CHAIRMAN, SAN ANTONIO

ERNEST ANGELO, JR.
VICE-CHAIRMAN, MIDLAND

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DALLAS

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MARK E. WATSON, JR.
SAN ANTONIO

LEE M. BASS
CHAIRMAN-EMERITUS
FORT WORTH

ANDREW SANSOM
EXECUTIVE DIRECTOR

Give Thanks for the Memories...

Lone Star Legacy.

Give to the Lone Star Legacy Endowment Fund

March 8, 2002

Ms. Michelle Skinner
TxDOT-Environmental Affairs Division
125 East 11th Street
Austin, Texas 78701-2483

Dear Ms. Skinner:

This letter is in response to your review request, dated January 30, 2002, for potential impacts on rare, threatened, and endangered species from the proposed reconstruction of the IH 820/SH 121 south interchange, reconfiguration of the IH 820/Trinity Boulevard interchange, and roadway widening associated with each interchange in Tarrant County (0008-13-123, -124, and -138).

Given the small proportion of public versus private land in Texas, the TPWD Biological and Conservation Data System (BCD) does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the BCD do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within your project areas. These data cannot substitute for an on-site evaluation by your qualified biologists. The BCD information is intended to assist you in avoiding harm to species that may occur on your sites.

TPWD provided TxDOT comments on February 8, 1993, and March 15 1993, to Ms. Susan Thomas, Greiner, Inc., regarding this project. TPWD understands some modifications have been incorporated to the original design based on public comments gathered from several public meetings. The Department's previous comments are still applicable at this time for this project.

In addition to comments previously submitted, please note the following additional comments. The proposed project appears to still involve impacts upon wetland and upland areas. The preferred alternative appears to have the least impacts to wetlands. TPWD recommends mitigation for the remaining impacted habitat be incorporated into this project.

In addition to species identified previously, the federal and state listed endangered Interior Least Tern (*Sterna antillarum athalassos*), though not known to occur in the immediate project area, has been found associated with mining operations and gravel pits. Since the project is located along a major waterway (the Trinity River) and potentially has habitat remaining

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512-389-4800
www.tpwd.state.tx.us

from the gravel pits, this project may have the potential to impact this species, if suitable habitat is present.

Please review the entire, enclosed, updated county list, as rare species could be present depending upon habitat availability. If during construction, the project area is found to contain rare species, natural plant communities, or special features, TPWD recommends that precautions be taken to avoid impacts to them.

Excluding clearing activities during the breeding season for migratory bird species will help minimize impacts to this group. The Migratory Bird Treaty Act (MBTA) implicitly prohibits intentional and unintentional take of migratory birds, including their nests and eggs, except when authorized through a permit issued by the US Fish and Wildlife Service. Additional information regarding the MBTA may be obtained through the Southwest Regional Office (Region 2) Division of Migratory Birds, US Fish and Wildlife Service, at (505) 248-6879.

This letter does not constitute a review of general fish and wildlife habitat impacts that might result from the activity for which this information is provided. Should you need such a review, contact Kathy Boydston of the Wildlife Habitat Assessment Program, Wildlife Division (512/389-4571).

Thank you for the opportunity to comment on this project. Please contact us if you have any questions or need additional assistance (512/912-7011).

Sincerely,

Celeste Brancel-Brown, Environmental Review Coordinator
Wildlife Habitat Assessment Program, Wildlife Division
Threatened and Endangered Species

Enclosure

received
February 7, 2002

Texas Department of Transportation

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

January 30, 2002

NH ( ) IM
Environmental Assessment Coordination
Tarrant County
CSJ 0008-13-123, 124, 138

IH 820: North Interchange with SH 121, South to Randol Mill Road

Dr. Ray C. Telfair
Texas Parks and Wildlife Department
Wildlife Division
Wildlife Habitat Assessment Program
11942 FM 848
Tyler, Texas 75707-9657

PROJECT
MANAGEMENT

Dear Dr. Telfair:

Consistent with the Memorandum of Understanding signed by our two agencies, attached is a copy of the environmental assessment covering the subject project for your review and comment. Any comments you may have on this document will assist the Department in ensuring that the Department's projects are sensitive to the natural resources of the state.

Please submit any comments you may have within 45 days from the date of this letter. If you do not have any comments on the document, please sign and date the bottom of this letter and return a copy to the Environmental Affairs Division. If no response is received after the 45 days have expired, we will proceed with project development. If you have any questions regarding this project, please contact Mr. William Hood at (512) 416-2623.

Sincerely,

Michelle Skinner
Project Management
Environmental Affairs Division

Attachment

☑ NO COMMENT: Ray C. Telfair II (See copies of Note to File + revised pages)
Wildlife Habitat Assessment Program
DATE: April 29, 2002

Chad Putnam

From: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Sent: Friday, September 08, 2017 4:18 PM
To: Chad Putnam
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Categories: 0008-13-124

Chad,

Thank you for committing to these practices.

Thank you for submitting the following project for early coordination: I-820 (East) in Tarrant County (CSJ 0008-13-124). TPWD appreciates TxDOT's commitment to implement the practices listed in the Biological Evaluation Form submitted on July 14, 2017 and in subsequent emails. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect plants, fish, and wildlife.
According to §2.204(g) of the 2013 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link: http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Thank you,

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

From: Chad Putnam [mailto:Chad.Putnam@txdot.gov]
Sent: Wednesday, September 06, 2017 7:18 AM
To: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Sue,

Regarding comment number 1 below, TxDOT will include the following commitments in the project plans:

- In addition to BMPs required for a TCEQ Storm Water Pollution Prevention Plan and/or 401 water quality permit:
    - The use of equipment in streams and riparian areas during construction will be minimized to the extent necessary to complete the construction activities. When possible, equipment access would be from banks, bridge decks, or barges.
    - When temporary stream crossings are unavoidable, stream crossings would be removed stream crossings once they are no longer needed and stabilize banks and soils around the crossing.

    - When work in the water; the project footprints will be surveyed for stated listed species where appropriate habitat exists.
    - When work in the water; relocate state listed and SGCN mussels discovered during surveys under TPWD permit.
- Prior to conducting dewatering activities, TxDOT and or the contractor would coordinate with the TPWD Kills and Spills Team to obtain any necessary permits.

Regarding comment number 2 below, TxDOT will include the following commitments in the project plans:

- For all construction equipment and gear that comes in contact with any public waters:
    - Follow the "TPWD Clean/Drain/Dry Procedures and Zebra Mussel Decontamination Procedures for Contractors Working in Inland Public Waters" (https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/tools.phtml)

Thanks,

Chad Putnam

Work Schedule: Monday, Wednesday and Friday from 5:30 AM to 5 PM
Tuesday and Thursday from 1:30 PM to 6 PM

From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Friday, September 01, 2017 3:50 PM
To: Chad Putnam
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Chad,

I am going to give you a couple of comments below that are quite long, sorry. The upshot is 1) that if dewatering occurs, TxDOT or the contractor should get in touch with our KAST team and 2) that the contractor should avoid introducing invasive species.

1. TPW Code Section 1.011 grants TPWD authority to regulate and conserve aquatic animal life of public waters. Title 31, Chapter 57, Subchapter B, Section 57.157 of Texas Administrative Code (TAC) regulates take of mussels which are not limited to state-listed mussels. Section 12.301 of TPW Code identifies liability for wildlife taken in violation of TPW Code or a regulation adopted under TPW Code. Under TPW Code Section 12.015, 12.019, 66.015 and TAC 52.101-52.105, 52.202, and 57.251-57.259, TPWD regulates the introduction and stocking of fish, shellfish, and aquatic plants into public waters of the state. The Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters allows for movement (i.e., introduction, stocking, transplant, relocation) of aquatic species in waters of the state. Movement of aquatic species, even within the same river or estuary, has potential natural resources risk (e.g., exotics, timing for successful survival). Therefore, a permit is required to minimize that risk.
Dewatering activities can impact aquatic resources through stranding fish and mussels. Other harmful construction activities can trample, dredge, or fill areas exhibiting stationary aquatic resources such as plants and mussels. To avoid or reduce impacts, TPWD may recommend relocating all aquatic life, including, but not limited to, fish, turtles, and mussels, to an area of suitable habitat outside the project footprint. Relocation activities are done under the authority of a TPWD Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters. Information regarding this permit can be obtained at http://www.tpwd.state.tx.us/publications/fishboat/forms/ . Aquatic Resource Relocation Plans (ARRP) are used to plan resource handling activities and assist in the permitting process. If dewatering activities and other project-related activities cause mortality to fish and wildlife species, then the responsible party could be subject to investigation by the TPWD Kills and Spills Team (KAST) and could be liable for the value of the lost resources under the authority of TPW Code Sections 12.0011 (b) (1) and 12.301.
TPWD Recommendations:

- TPWD recommends that impact avoidance measures for aquatic organisms, including all native fish and freshwater mussel species, regardless of state-listing status, be considered during project planning and construction activities.
- If construction occurs during times when water is present in streams and dewatering activities or other harmful construction activities are involved (such as placement of temporary or permanent fills), then TPWD may recommend relocating potentially impacted native aquatic resources in conjunction with a Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters and an Aquatic Resource Relocation Plan. The ARRP should be completed and approved by the department 30 days prior to activity within project waters and/or resource relocation and submitted with an application for a no-cost Permit to Introduce Fish, Shellfish, or Aquatic Plants into Public Waters. It is imperative that the ARRP reference the appropriate project CSJ Number to facilitate searching for and reviewing previous coordination information in TPWD's project-tracking database. Aquatic Resource Relocation Plans can be submitted to Adam Whisenant, TPWD Region 2 KAST. Please contact Adam Whisenant at 903-566-8387 or adam.whisenant@tpwd.texas.gov or Greg Conlye at (903) 566-2518. for more information or to initiate coordination for a Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters.

2. TPW Code Section 66.007 and 66.0072 grant TPWD authority to regulate harmful or potentially harmful fish, shellfish, and aquatic plants. The list of these regulated species is published in Title 31, Chapter 57, Subchapter A of the TAC. Except as specifically authorized by permit, it is an offense to release into the water of this state, transport, or possess (e.g., accidental possession, transport, and introduction on improperly cleaned equipment) any species, hybrid of a species, subspecies, eggs, seeds, or any part of any species defined as a harmful or potentially harmful exotic fish, shellfish, or aquatic plant. This list includes many problematic plants such as giant and common salvinia, hydrilla, Eurasian watermilfoil, and alligatorweed, which cost the state over $1M annually to manage. The full list of prohibited species can be found on the TPWD website at:
http://tpwd.texas.gov/huntwild/wild/species/exotic/prohibited_aquatic.phtml .
Because many aquatic invasive plant species (AIS) can propagate from very small fragments, TPWD recommends that a brief AIS transfer prevention plan also be prepared to outline BMPs for preventing inadvertent transfer of these species to new areas on project equipment. These BMPs may include removal of mud/plant debris from all equipment and rinsing, preferably with high pressure and/or hot water and allowing equipment to dry before use in another water body. Please visit the TPWD Wildlife Habitat Assessment Program webpage to download the "TPWD Clean/Drain/Dry Procedures and Zebra Mussel Decontamination Procedures for Contractors Working in Inland Public Waters" (https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/tools.phtml) for further and more detailed information about how to avoid spreading harmful aquatic invasive species.

Thank you,

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

From: Chad Putnam [mailto:Chad.Putnam@txdot.gov]
Sent: Tuesday, August 22, 2017 7:01 AM
To: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Good morning,

I just wanted to follow up with you on this project to see if you were needing any additional information for your review? If there is anything you still need, please let me know and I will do my best to get it to you.

Thanks,

Chad Putnam

Work Schedule: Monday, Wednesday and Friday from 5:30 AM to 5 PM
Tuesday and Thursday from 1:30 PM to 6 PM

From: Chad Putnam
Sent: Thursday, August 03, 2017 8:18 AM
To: 'Sue Reilly'
Cc: John Maresh; Jamye Sawey
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Sue,

Regarding temporary crossings being installed on the project:

- We anticipate construction of temporary crossings at the West Fork Trinity River and Mosier Valley Lake. These would be completely removed and the crossing restored to pre-existing conditions once no longer needed during construction. Temporary crossings would consist of free draining material with appropriate sized pipes for water flow. Temporary fill to allow for a working platform (pad) for drill rigs and cranes will also be needed. These areas would also be restored to pre-existing conditions.
    - West Fork Trinity River: There are proposed drill shafts on both banks, contractor can construct from the banks. A temporary crossing will be needed for contractor access (from north to south) and for cranes to set beams.
    - Mosier Valley Lake: There are proposed drill shaft on both banks as well as within the OHW. A temporary pad to extend the bank to the drill shaft location will be needed to allow for drill shaft rigs and for cranes to set beams. A temporary crossing at this location would a contractor option as well.

Regarding dewatering:

- Depending on contractor preference, local dewatering would be needed at Mosier Valley Lake to install cofferdams for drill shaft and column construction.
- Depending on contractor preference, local dewatering would be needed at the West Fork Trinity River during installation of the bridge structure.

Regarding wetland or stream mitigation:

- Stream mitigation will be required WF-9, see the ECOS file: "Summary Table of Impacts to Potentially Jurisdictional Waters of the US (0008-13-124, etc.).pdf". The project will impact 1,449 LF (0.34 acre) of stream (WF-9) due to stream realignment. A NWP 14 with a PCN will be submitted to the USACE. Compensatory mitigation through a USACE-approved mitigation bank is proposed.

Thanks,

Chad Putnam

Work Schedule: Monday and Wednesday from 5 AM to 10 AM
Tuesday and Thursday from 5 AM to 10 AM; 1:30 PM to 5:30 PM
Friday from 5 AM to 5 PM

From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Tuesday, August 01, 2017 11:23 AM
To: Chad Putnam; John Maresh; Jamye Sawey; Michelle Lueck
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Chad,

I do have some questions about this project, primarily about impacts to riparian areas.

Will there be temporary crossings installed?
Will there be dewatering?
Is TxDOT proposing any wetland or stream mitigation for this project?

Thank you,

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

From: WHAB_TxDOT
Sent: Monday, July 17, 2017 10:42 AM
To: Chad Putnam <Chad.Putnam@txdot.gov>; John Maresh <John.Maresh@txdot.gov>; Jamye Sawey <Jamye.Sawey@txdot.gov>; Michelle Lueck <Michelle.Lueck@txdot.gov>
Cc: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID # 38196. 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: Chad Putnam [mailto:Chad.Putnam@txdot.gov]
Sent: Friday, July 14, 2017 2:27 PM
To: WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>; Jamye Sawey <Jamye.Sawey@txdot.gov>; Michelle Lueck <Michelle.Lueck@txdot.gov>
Subject: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Good afternoon,

The TxDOT Fort Worth District would like to request early coordination for a roadway reconstruction project located in Tarrant County. The Tier I Site Assessment and other supporting documentation have been uploaded into TXECOS under CSJ: 0008-13-124. Alternatively, you can retrieve the files by clicking the following link (or copying and pasting it into your web browser) within 21 days:

"https://ftp.dot.state.tx.us/dropbox/pickup.php?claimID=QvEu9gYKZxVyUGSj&claimPasscode=uDx5jfaLEbFPQX32&emailAddr=chad.putnam%40txdot.gov"

Thanks,

Chad Putnam
Environmental Specialist
TxDOT FTW District
817-370-6567
Chad.Putnam@txdot.gov

Work Schedule: Monday and Wednesday from 5 AM to 10 AM
Tuesday and Thursday from 5 AM to 10 AM; 1:30 PM to 5:30 PM
Friday from 5 AM to 5 PM

Chad Putnam

From: Chad Putnam
Sent: Wednesday, September 06, 2017 7:18 AM
To: Sue Reilly (Sue.Reilly@tpwd.texas.gov)
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Categories: 0008-13-124

Sue,

Regarding comment number 1 below, TxDOT will include the following commitments in the project plans:

- In addition to BMPs required for a TCEQ Storm Water Pollution Prevention Plan and/or 401 water quality permit:
  - The use of equipment in streams and riparian areas during construction will be minimized to the extent necessary to complete the construction activities. When possible, equipment access would be from banks, bridge decks, or barges.
  - When temporary stream crossings are unavoidable, stream crossings would be removed stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
  - When work in the water; the project footprints will be surveyed for stated listed species where appropriate habitat exists.
  - When work in the water; relocate state listed and SGCN mussels discovered during surveys under TPWD permit.
- Prior to conducting dewatering activities, TxDOT and or the contractor would coordinate with the TPWD Kills and Spills Team to obtain any necessary permits.

Regarding comment number 2 below, TxDOT will include the following commitments in the project plans:

- For all construction equipment and gear that comes in contact with any public waters:
  - Follow the "TPWD Clean/Drain/Dry Procedures and Zebra Mussel Decontamination Procedures for Contractors Working in Inland Public Waters" (https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/tools.phtml)

Thanks,

Chad Putnam

Work Schedule: Monday, Wednesday and Friday from 5:30 AM to 5 PM
Tuesday and Thursday from 1:30 PM to 6 PM

From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Friday, September 01, 2017 3:50 PM
To: Chad Putnam
Subject: RE: Early Coordination Request - CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County; FTW

Chad,

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TPWD Wildlife Division
512-389-8021

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Categories: 0008-13-124

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Categories: 0008-13-124

Good afternoon,

The TxDOT Fort Worth District would like to request early coordination for a roadway reconstruction project located in Tarrant County. The Tier I Site Assessment and other supporting documentation have been uploaded into TXECOS under CSJ: 0008-13-124. Alternatively, you can retrieve the files by clicking the following link (or copying and pasting it into your web browser) within 21 days:

"https://ftp.dot.state.tx.us/dropbox/pickup.php?claimID=QvEu9gYKZxVyUGSj&claimPasscode=uDx5jfaLEbFPQX32&emailAddr=chad.putnam%40txdot.gov"

Thanks,

Chad Putnam
Environmental Specialist
TxDOT FTW District
817-370-6567
Chad.Putnam@txdot.gov

Work Schedule: Monday and Wednesday from 5 AM to 10 AM
Tuesday and Thursday from 5 AM to 10 AM; 1:30 PM to 5:30 PM
Friday from 5 AM to 5 PM

Water Resources

I-820/SH 121 Northeast Interchange

Tarrant County
Fort Worth District

Main CSJ: 0008-13-124

Associated CSJs: 0008-13- 179, 202, 210, 221, 235, 236 & 237 and 0363-03-051 & 054

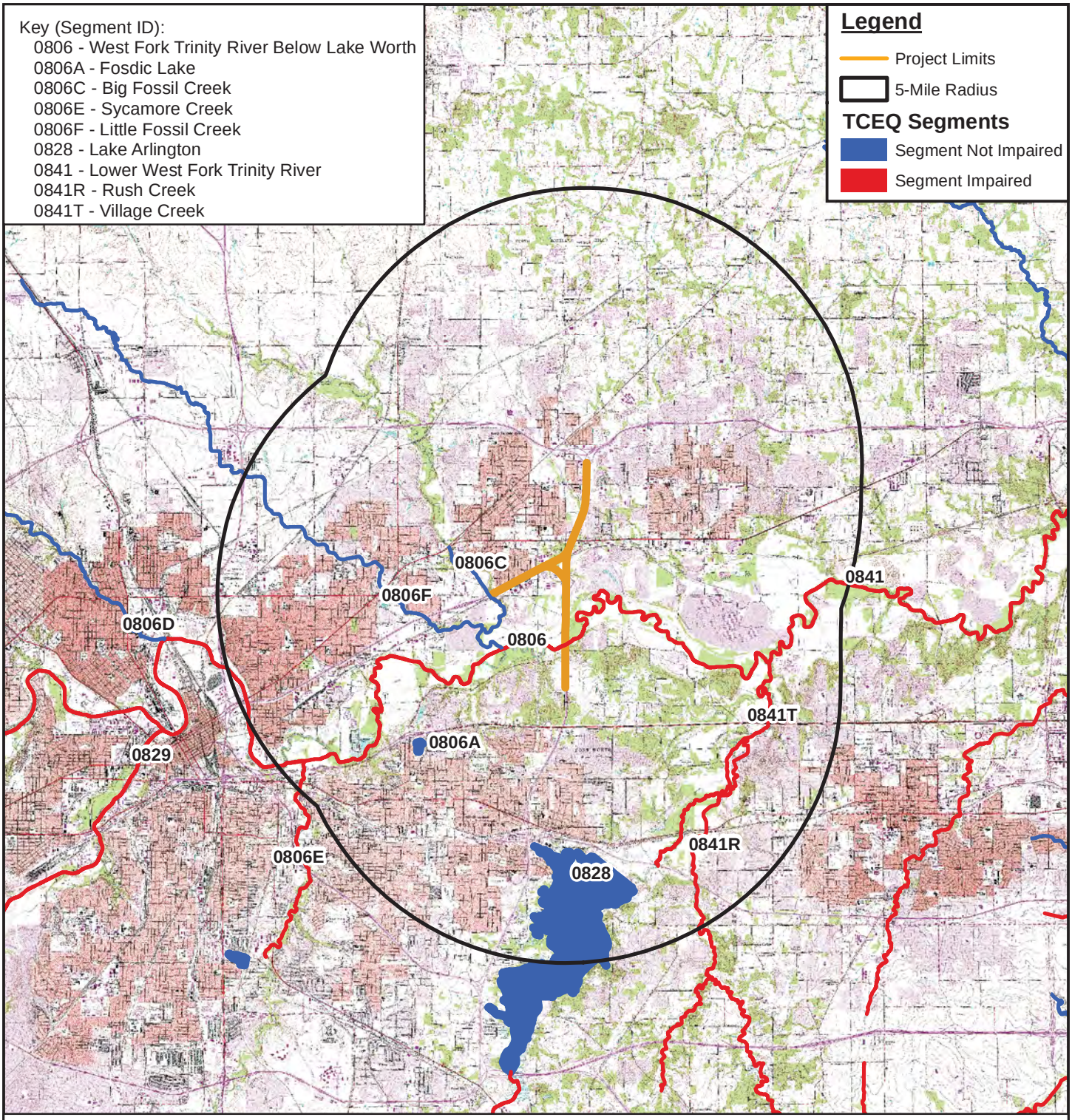
The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT

Table of Impacts for TCEQ Stream Segments

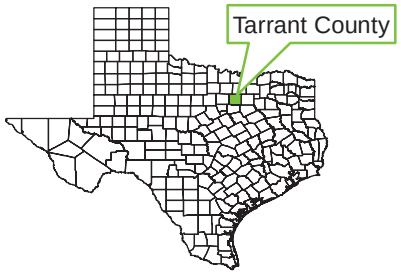
Project Name: I-820 (East) **CSJ:** 0008-13-124, etc. **County:** Tarrant **District:** Fort Worth **Date Completed:** 7/5/2017

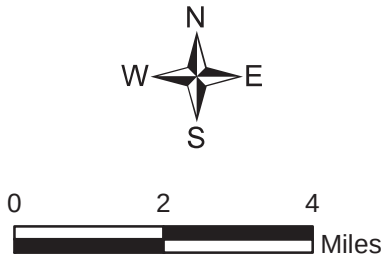
Please include, as an attachment, a map illustrating all TCEQ Segments within 5 miles of the project area and the applicable pages from the most current version of the Texas Integrated Report Index of Water Quality Impairments.

Segment ID	Name	Impaired (Y/N)	Complete the columns below if the Segment is impaired.			
			Assessment Unit ID	Impairment(s)	Would the project contribute to the constituent of concern? (Y/N)	Complete the column below if the project will contribute to the constituent of concern. Explain measures that would be taken to minimize impacts.
0806	West Fork Trinity River below Lake Worth	Y	0806_01	dioxin in edible tissue Polychlorinated biphenyls (PCBs) in edible tissue	N	
0806A	Fosdic Lake	N				
0806C	Big Fossil Creek	N				
0806E	Sycamore Creek	Y	0806E_01	bacteria	N	
0806F	Little Fossil Creek	N				
0828	Lake Arlington	N				
0841	Lower West Fork Trinity River	Y	0841_02	bacteria dioxin in edible tissue PCBs in edible tissue	N	
0841R	Rush Creek	Y	0841R_01	bacteria	N	
0841T	Village Creek	Y	0841T_01	bacteria	N	



Base Map Source: TNRIS, USGS 7.5 Minute Topographic Maps of Arlington (1981), Avondale (1981),Benbrook (1981), Colleyville (1981), Euless (1981), Fort Worth (1981), Grapevine (1981), Hurst (1981), Haltom City (1981), Keller (1981), Kennedale (1981), Lake Worth (1981).





TCEQ STREAM SEGMENTS WITHIN 5 MILES MAP

I-820 (EAST)

I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to 3,200 feet south of Randol Mill Road

SH 121 from I-820 to approximately 5,000 feet west of Handley-Ederville Road

CSJ: 0008-13-124, etc.

General Information

This index identifies all water bodies with one or more impairments. The index is divided into two main categories:

Category 4	Impairments that are not suitable for a TMDL or for which a TMDL has already been approved
Category 5	Impairments which may be suitable for development of a TMDL (303d List)

Explanation of Column Headings

SegID and Name: The unique identifier (SegID), segment name, and location of the water body. Items may be one of three types of numbers for SegID. The first type is a classified segment number (4 digits, e.g. 0218), as defined in the Texas Surface Water Quality Standards (TSWQS). The second type is an unclassified water body (e.g. 0218A), not defined in the Standards and associated with a classified water body because it is in the same watershed. The third type includes special Segments for Oyster Water Use (e.g. 2421OW) and Beach Watch Use (e.g. 2481CB) special areas. The segment name and description follow SegID.

AU_ID: Identifies the assessment unit (AU_ID, six or seven digits, *e.g.*, 0101A_01) and describes the location of the specific area within a classified or unclassified water body for which one or more water quality standards are not met.

Parameter(s): Pollutants or water quality conditions that assessment procedures indicate do not meet assigned water quality standards.

Category: One of two categories assigned to each impaired parameter to provide information about water quality status and management activities on that water body. Both Category 4 and Category 5 are each divided into three subcategories; when a water body has parameters in multiple subcategories, its overall category is the highest category. The category and its subcategories are defined below:

Category 4: Standard is not supported for one or more designated uses but does not require the development of a TMDL.
Category 4a - All TMDLs have been completed and approved by EPA.
Category 4b - Other control requirements are reasonably expected to result in the attainment of all standards.
Category 4c - Nonattainment is shown to be caused by pollution, not by pollutants and that the water quality conditions cannot be changed by the allocation and control of pollutaints through the TMDL process.

Category 5: The water body does not meet applicable water quality standards for one or more designated uses by one or more pollutants.
Category 5a - TMDLs are underway, scheduled, or will be scheduled for one or more parameters.
Category 5b - A review of the standards for one or more parameters will be conducted before a management strategy is selected, including a possible revision to the TSWQSs.
Category 5c - Additional data or information will be collected and/or evaluated for one or more parameters before a management strategy is selected.

Carryforward: Some previously listed impairments did not have adequate data to re-assess in 2014 and were carried forward from 2012 and remain impaired.

SegID: 0806 **West Fork Trinity River below Lake Worth**
from a point immediately upstream of the confluence of Village Creek in Tarrant County to Lake Worth Dam in Tarrant County

Parameter(s)		*Category*	*Carryforward*
dioxin in edible tissue			
0806_01	From confluence of Village Creek upstream to confluence of Clear Fork Trinity River	5a	Yes
0806_02	From confluence of Clear Fork Trinity River upstream to Lake Worth Dam	5a	No

Parameter(s)		*Category*	*Carryforward*
PCBs in edible tissue			
0806_01	From confluence of Village Creek upstream to confluence of Clear Fork Trinity River	5a	Yes
0806_02	From confluence of Clear Fork Trinity River upstream to Lake Worth Dam	5a	No

SegID: 0806E **Sycamore Creek**
Five mile stretch of Sycamore Creek running upstream from confluence with the W. Fork of Trinity River to confluence with Echo Lake Tributary in Fort Worth.

Parameter(s)		*Category*	*Carryforward*
bacteria			
0806E_01	Five mile stretch of Sycamore Creek running upstream from confluence with the W. Fork of Trinity River to confluence with Echo Lake Tributary in Fort Worth	5b	Yes

SegID: 0807 **Lake Worth**
From Lake Worth Dam in Tarrant County to a point 4.0 km (2.5 miles) downstream of Eagle Mountain Dam in Tarrant County, up to normal pool elevation of 594 feet (impounds West Fork Trinity River)

Parameter(s)		*Category*	*Carryforward*
aldrin in fish tissue			
0807_01	Entire reservoir	4b	No

Parameter(s)		*Category*	*Carryforward*
dieldrin in edible tissue			
0807_01	Entire reservoir	4b	No

Parameter(s)		*Category*	*Carryforward*
PCBs in edible tissue			
0807_01	Entire reservoir	4a	No

SegID: 0836B **Cedar Creek**
From the confluence with Richland Chambers Reservoir to the upper end of the creek (NHD RC 12030109012807)

Parameter(s)		*Category*	*Carryforward*
depressed dissolved oxygen			
0836B_01	Entire segment.	5b	Yes

SegID: 0838C **Walnut Creek**
From the confluence with Joe Pool Lake up to the headwaters at Spring Street in Burleson.

Parameter(s)		*Category*	*Carryforward*
bacteria			
0838C_01	From the confluence with Joe Pool Lake up to the headwaters at Spring Street in Burleson.	5b	No

SegID: 0841 **Lower West Fork Trinity River**
From a point immediately upstream of the confluence of the Elm Fork Trinity River in Dallas County to a point immediately upstream of the confluence of Village Creek in Tarrant County

Parameter(s)		*Category*	*Carryforward*
bacteria			
0841_01	From confluence of the Elm Fork Trinity River to the confluence with Johnson Creek.	4a	No
0841_02	From the confluence with Johnson Creek upstream to the confluence of Village Creek.	4a	No
Parameter(s)		*Category*	*Carryforward*
dioxin in edible tissue			
0841_01	From confluence of the Elm Fork Trinity River to the confluence with Johnson Creek.	5a	Yes
0841_02	From the confluence with Johnson Creek upstream to the confluence of Village Creek.	5a	Yes
Parameter(s)		*Category*	*Carryforward*
PCBs in edible tissue			
0841_01	From confluence of the Elm Fork Trinity River to the confluence with Johnson Creek.	5a	Yes
0841_02	From the confluence with Johnson Creek upstream to the confluence of Village Creek.	5a	Yes

SegID: 0841A **Mountain Creek Lake**
From Mountain Creek Lake Dam to the reservoir headwater at the confluence of Mountain and Fish Creeks, in Dallas County (impounds Mountain Creek)

Parameter(s)		*Category*	*Carryforward*
dioxin in edible tissue			
0841A_01	Entire reservoir	4a	Yes
Parameter(s)		*Category*	*Carryforward*
PCBs in edible tissue			
0841A_01	Entire reservoir	4a	No

SegID: 0841L **Johnson Creek**
Four mile stretch of Johnson Creek running upstream from confluence with the Arbor Creek to just upstream of I30 in Grand Prairie, Tarrant Co.

Parameter(s)		*Category*	*Carryforward*
bacteria			
0841L_01	From the confluence wit the Lower West Fork Trinity River, upstream to just south of Mayfield Road in Arlington, Tarrant, Co..	4a	No

SegID: 0841M **Kee Branch**
Six mile stretch of Kee Branch running upstream from confluence with Rush Creek to upper end of the creek (NHD RC 12030102000165).

Parameter(s)		*Category*	*Carryforward*
bacteria			
0841M_01	Entire Segment.	4a	No

SegID: 0841N **Kirby Creek**
Four mile stretch of Kirby Creek running upstream from confluence with Fish Creek in Grand Prairie, Dallas Co., to just upstream of Great Southwest Parkway in Arlington, Tarrant Co.

Parameter(s)		*Category*	*Carryforward*
bacteria			
0841N_01	Entire segment	5b	Yes

SegID: 0841R **Rush Creek**
A 5 mile stretch of Rush Creek running upstream from confluence with Village Creek to confluence with Kee Branch in Arlington, Tarrant Co.

Parameter(s)		*Category*	*Carryforward*
bacteria			
0841R_01	Entire segment.	4a	No

SegID: 0841T **Village Creek**
A 7 mile stretch of Village Creek running upstream from confluence with West Fork Trinity River to SH 303 approx. 0.75 mi. downstream of Lake Arlington.

Parameter(s)		*Category*	*Carryforward*
bacteria			
0841T_01	A 7 mile stretch of Village Creek running upstream from confluence with West Fork Trinity River to SH 303 approx. 0.75 mi. downstream of Lake Arlington.	4a	Yes

SegID: 0841U **West Irving Creek**
A 4 mile stretch of West Irving Branch running upstream from approx. 0.4 mi. downstream of Oakdale Rd. to just south of Sowers Road in Irving, Dallas Co.

Parameter(s)		*Category*	*Carryforward*
bacteria			
0841U_01	A 4 mile stretch of West Irving Branch running upstream from approx. 0.4 mi. downstream of Oakdale Rd. to just south of Sowers Road in Irving, Dallas Co.	4a	Yes

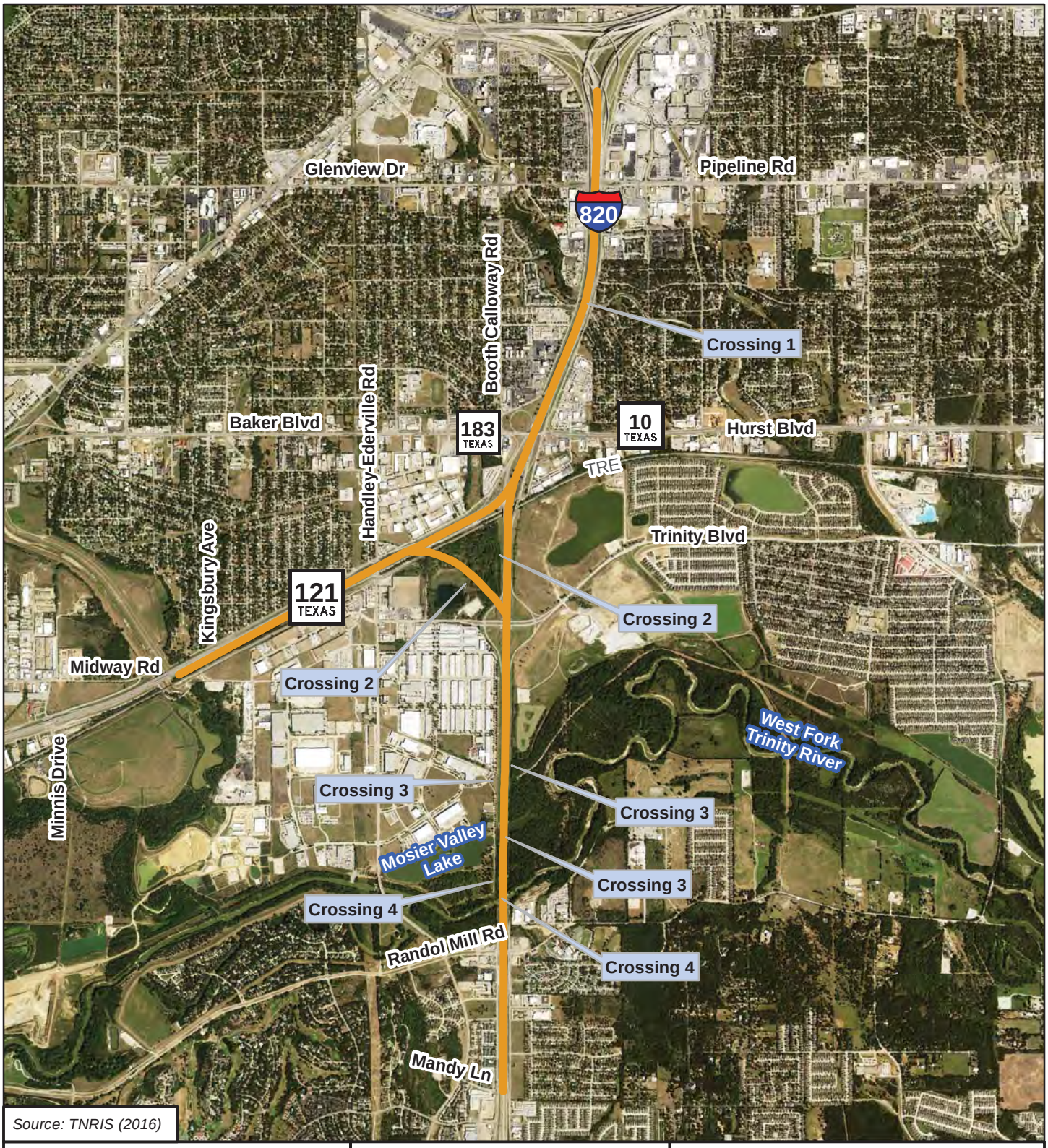
Summary Table of Impacts to Potentially Jurisdictional Waters of the U.S.

Project Name: I-820 (East) **CSJ:** 0008-13-124, etc. **County:** Tarrant **District:** Fort Worth **Date Completed:** 7/13/17

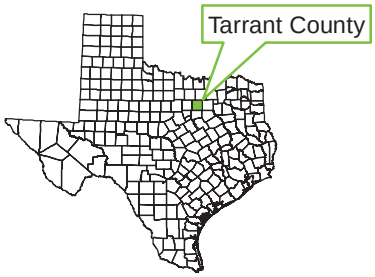
Please include, as an attachment, all supporting documentation that was used to populate the information in the table.

Waterbody ID[1]	Location Description (Ex: Lat. and Long.; Intersection, Station Number; etc.)	Resource Type[2]	Linear Feet in Project Area	Acres in Project Area	Single and Complete Crossing	Permanent Fill		Temporary Fill		Permit Type	Pre-Construction Notification	
						Linear Feet	Acres	Linear Feet	Acres		Required	If Yes, Reason[3]
Crossing 1: Calloway Branch	32.816748, -97.206369	PS	400	0.26	Yes	0	0	400	<0.10	NWP 25	No	
Crossing 2: WF-9	32.802919, -97.212781	IS	1,957	0.56	Yes	1,449	0.34	508	0.22	NWP 14	Yes	A
Crossing 2: Pond	32.800469, -97.215161	I	N/A	0.162		0	0	N/A	<0.10			
Crossing 3: Mosier Valley Lake	32.785355, -97.212558	I	374	1.33	Yes	100	<0.01	374	<0.10	NWP 25	No	
Crossing 3: Tributary to Mosier Valley Lake	32.785874 -97.212988	IS	1,790	0.706		0	0	1,180	<0.10			
Crossing 3: Tributary to Mosier Lake	32.786181, -97.212017	IS	947	0.791		0	0	847	<0.10			
Crossing 3: Abutting wetland	32.788536, -97.212089	NWF	N/A	0.061		0	0	0	0			
Crossing 4: West Fork Trinity River	32.781378, -97.212616	PS	396	0.631	Yes	0	0	396	<0.10	NWP 25	No	
Crossing 4: Tributary to West Fork Trinity River	32.781674, -97.213101	IS	1,353	0.507		0	0	1,353	<0.10			

[1] Waterbody ID may be the name of a feature or an assigned label such as "W-1" for a wetland.
[2] Resource Types: NFW – Non-forested wetland, FW – Forested wetland, PS – Perennial Stream, IS – Intermittent Stream, ES – Ephemeral Stream, I – Impoundment
[3] Reasons for PCN requirement:
A – The loss of waters of the U.S. exceeds 1/10 acre
B – There is a discharge in a special aquatic site (e.g., wetlands)
C – Potential endangered species
D – Potential historic properties
E – Discharge into pitcher plant bog or bald cypress-tupelo swamp
F – Discharge into the area of Caddo Lake within Texas that is designated as a "Wetland of International Importance" under the Ramsar Convention
G – Required by Louisiana Regional Conditions
H – Other



Source: TNRIS (2016)



N
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0 3,000
Feet

POTENTIALLY JURISDICTIONAL WATERS OF THE U.S. OVERVIEW MAP

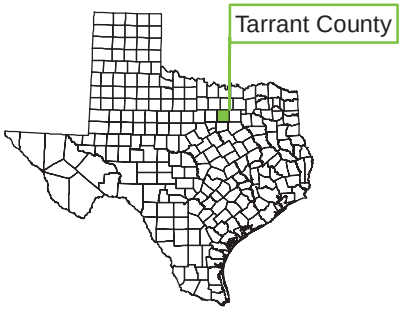
I-820 (EAST)

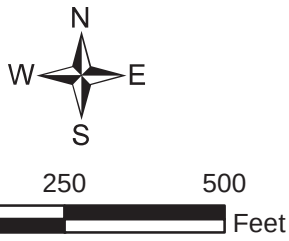
I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to 3,200 feet south of Randol Mill Road

SH 121 from I-820 to approximately 5,000 feet west of Handley-Ederville Road

CSJ: 0008-13-124, etc.

Sheet 1 of 5





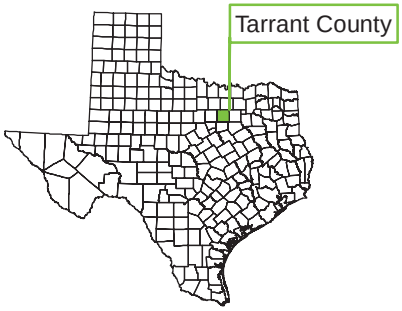
POTENTIALLY JURISDICTIONAL WATERS OF THE U.S. MAP
I-820 (EAST)

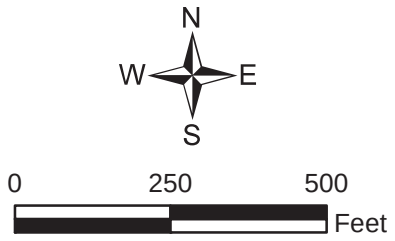
I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to 3,200 feet south of Randol Mill Road

SH 121 from I-820 to approximately 5,000 feet west of Handley-Ederville Road

CSJ: 0008-13-124, etc.

Sheet 2 of 5





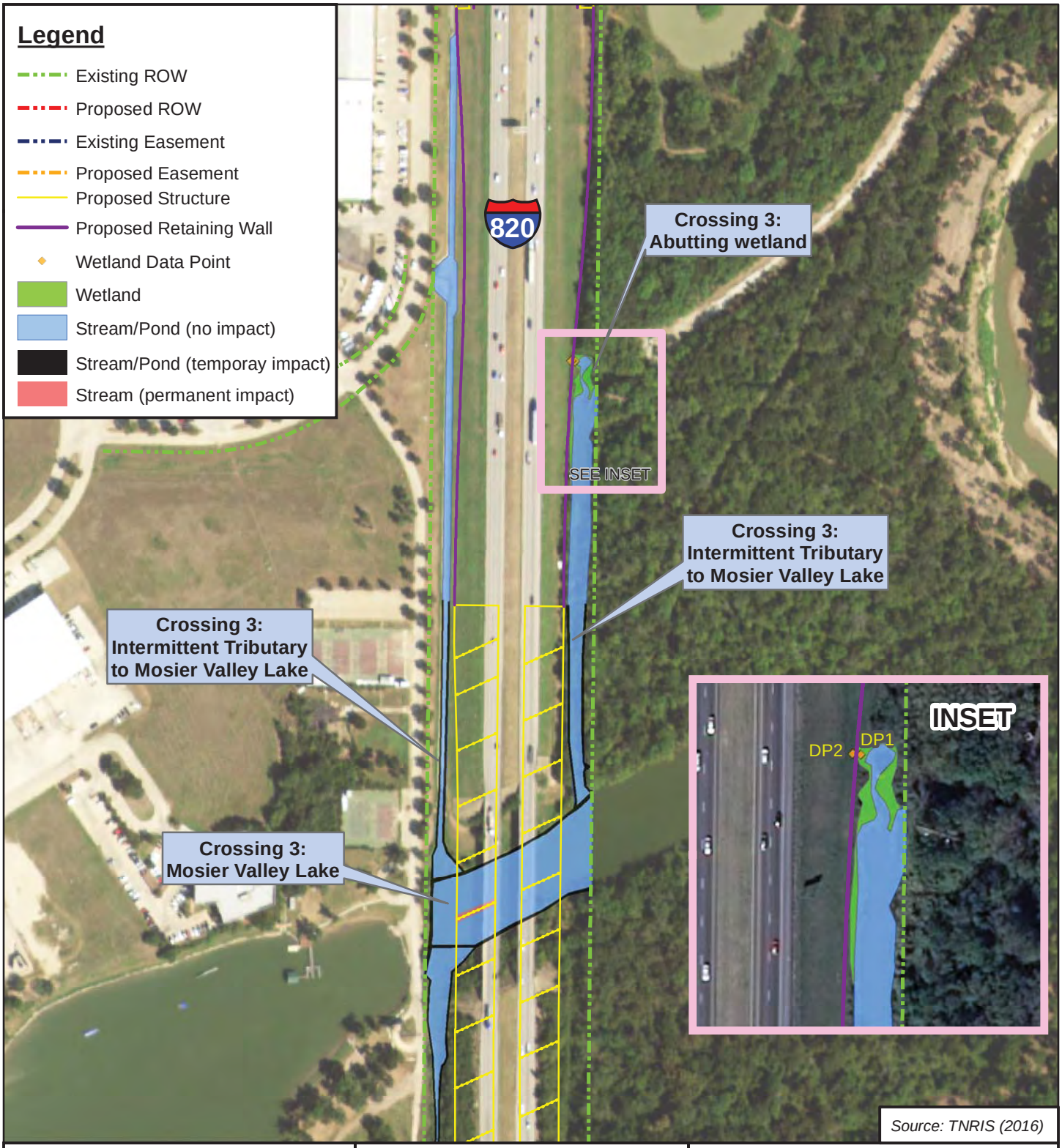
POTENTIALLY JURISDICTIONAL WATERS OF THE U.S. MAP
I-820 (EAST)

I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to 3,200 feet south of Randol Mill Road

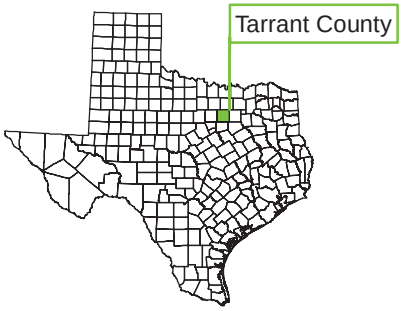
SH 121 from I-820 to approximately 5,000 feet west of Handley-Ederville Road

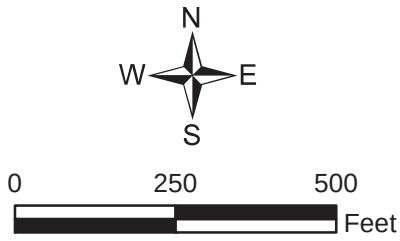
CSJ: 0008-13-124, etc.

Sheet 3 of 5



Source: TNRIS (2016)





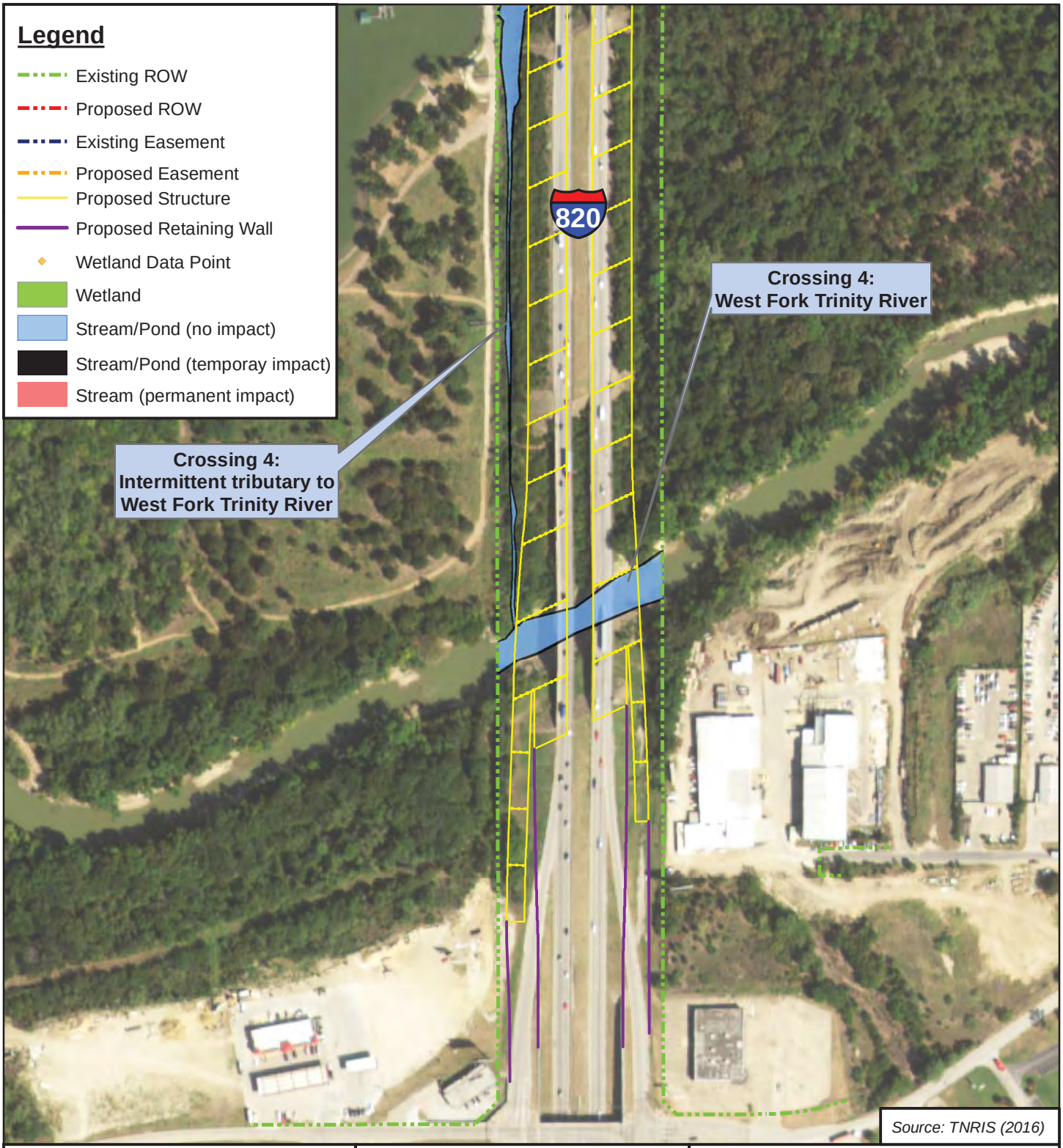
POTENTIALLY JURISDICTIONAL WATERS OF THE U.S. MAP
I-820 (EAST)

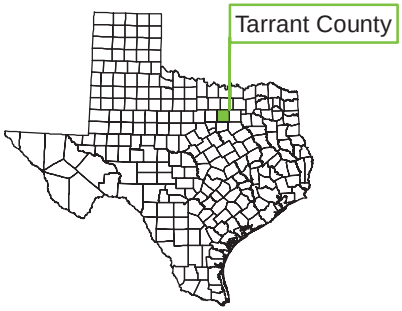
I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to 3,200 feet south of Randol Mill Road

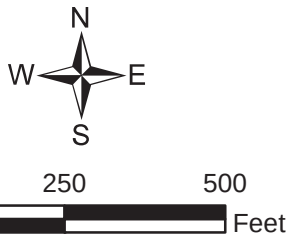
SH 121 from I-820 to approximately 5,000 feet west of Handley-Ederville Road

CSJ: 0008-13-124, etc.

Sheet 4 of 5







POTENTIALLY JURISDICTIONAL WATERS OF THE U.S. MAP
I-820 (EAST)

I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to 3,200 feet south of Randol Mill Road

SH 121 from I-820 to approximately 5,000 feet west of Handley-Ederville Road

CSJ: 0008-13-124, etc.

Sheet 5 of 5

I-820 (EAST) CSJ 0008-13-124, etc.
POTENTIALLY JURISDICTIONAL WATERS IMPACT CALCULATIONS

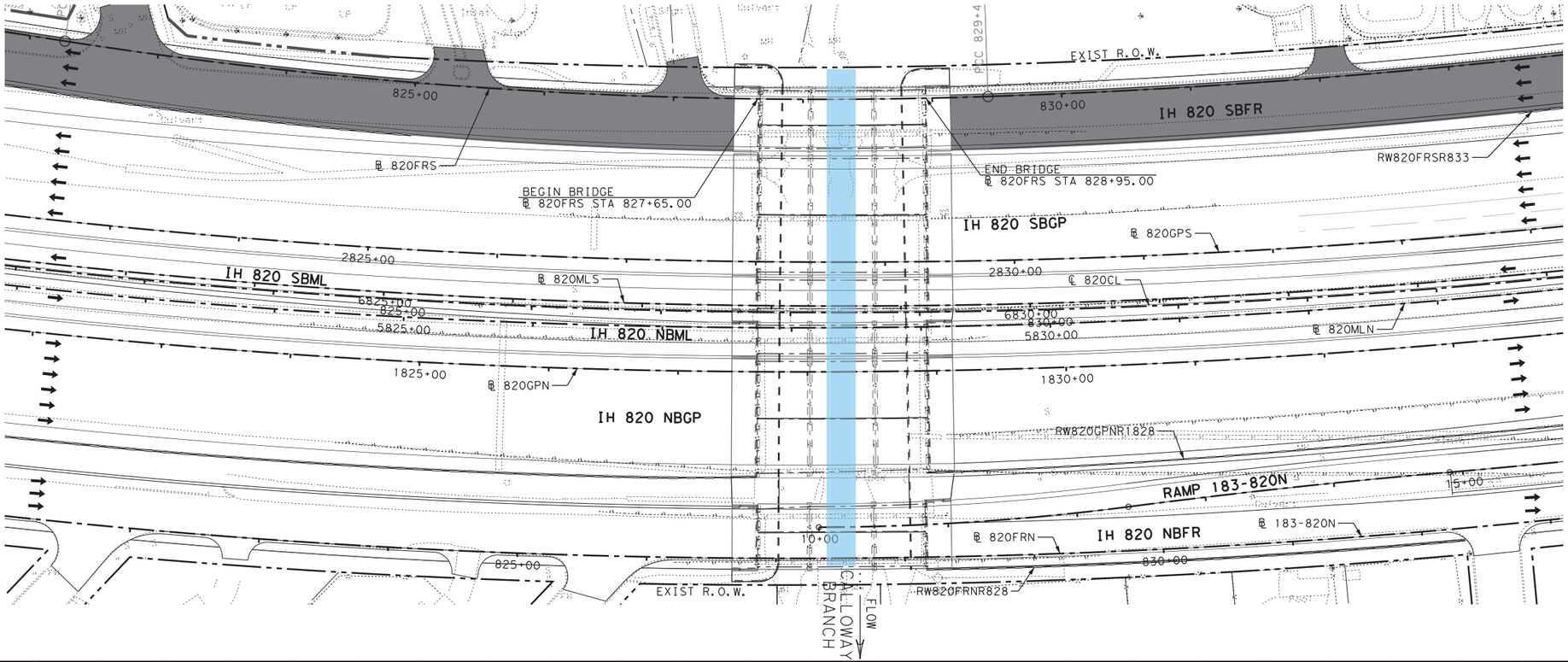
The polygon acreages/LF are created in ArcMap utilizing delineated data collected from a field sub-foot accurate GPS data.

	Acres	LF	Proposed Structure
CROSSING 1 - CALLOWAY BRANCH			
Delineated WOUS within ROW	0.260297	400	
Permanent Impacts	0	0	Proposed Bridge Structure's Columns installed outside the OHWM
Temporary Impacts	<0.10	400	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).
CROSSING 2 - WF-9			
Delineated WOUS within ROW	0.563216	1,957	
Permanent Impacts	0.342063	1,449	Fill, proposed bridge structures and culverts
Temporary Impacts	0.221153	508	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).
CROSSING 2 - POND			
Delineated WOUS within ROW	0.162005	N/A	
Permanent Impacts	0	N/A	Proposed bridge. Columns outside OHWM.
Temporary Impacts	<0.10	N/A	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).
CROSSING 3 - MOSIER VALLEY LAKE			
Delineated WOUS within ROW	1.32964	374	
Permanent Impacts	<0.01	100	Proposed bridge. Columns within OHWM.
Temporary Impacts	<0.10	374	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).

Finding the area of the columns	
13 columns	36 inch diameter
Area = 3.14*(r)2*13 columns	
	13,225.68 square inch
	0.002108463 acre

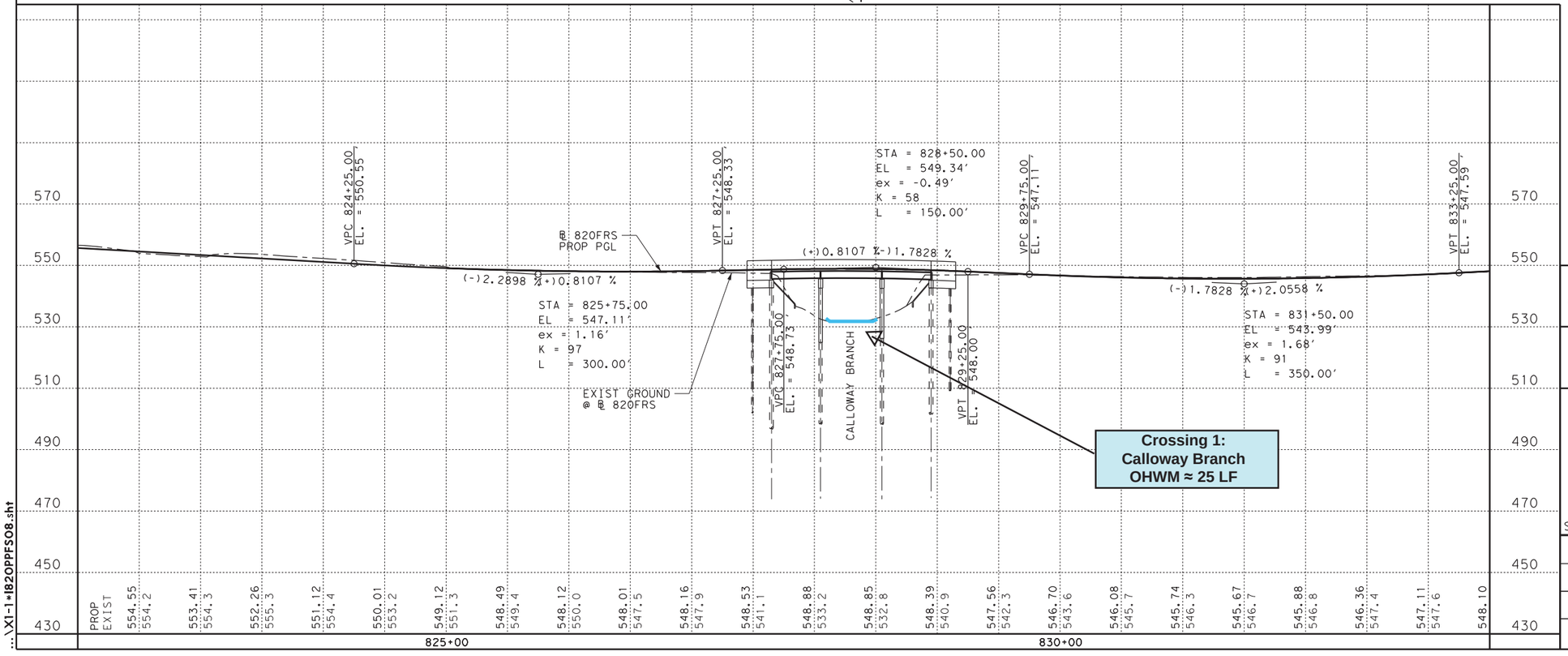
CROSSING 3 - INTERMITTENT TRIBUTARY TO MOSIER VALLEY LAKE			
Delineated WOUS within ROW	0.705646	1,790	
Permanent Impacts	0	0	None
Temporary Impacts	<0.10	1,180	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).
CROSSING 3 - INTERMITTENT TRIBUTARY TO MOSIER VALLEY LAKE			
Delineated WOUS within ROW	0.790581	947	
Permanent Impacts	0	0	None
Temporary Impacts	<0.10	847	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).
CROSSING 3 - ABUTTING WETLANDS			
Delineated WOUS within ROW	0.060853		
Permanent Impacts	0		None
Temporary Impacts	0		None
CROSSING 4 - WEST FORK TRINITY RIVER			
Delineated WOUS within ROW	0.630995	396	
Permanent Impacts	0	0	Proposed Bridge Structure's Columns installed outside the OHWM
Temporary Impacts	<0.10	396	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).
CROSSING 4 - INTERMITTENT TRIBUTARY TO WEST FORK TRINITY RIVER			
Delineated WOUS within ROW	0.507475	1,353	
Permanent Impacts	0	0	Proposed Bridge Structure's Columns installed outside the OHWM
Temporary Impacts	<0.10	1,353	Temporary impact during construction (such as, but not limited to incidentally fallbacks, temporary crossing, temporary dewatering, etc.).

The polygon acreages/LF are created in ArcMap using field sub-foot accurate GPS data.



LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- CONTROL-OF-ACCESS
- OHWM
- STREAM/POND



DESIGN SCHEMATIC

NOT INTENDED FOR CONSTRUCTION, BIDDING, AND OR PERMIT PURPOSES

JACOBS®
1999 BRYAN STREET, SUITE 1200
DALLAS, TX 75201-3136
Phone 214.638.0145
Firm Registration F-2966

Texas Department of Transportation
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IH 820

PLAN & PROFILE

FRONTAGE ROAD - IH 820 SB (FRS)

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 1 OF 6

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	1
CHECK	CONTROL	SECTION	JOB	
	0008	13	124,ETC.	

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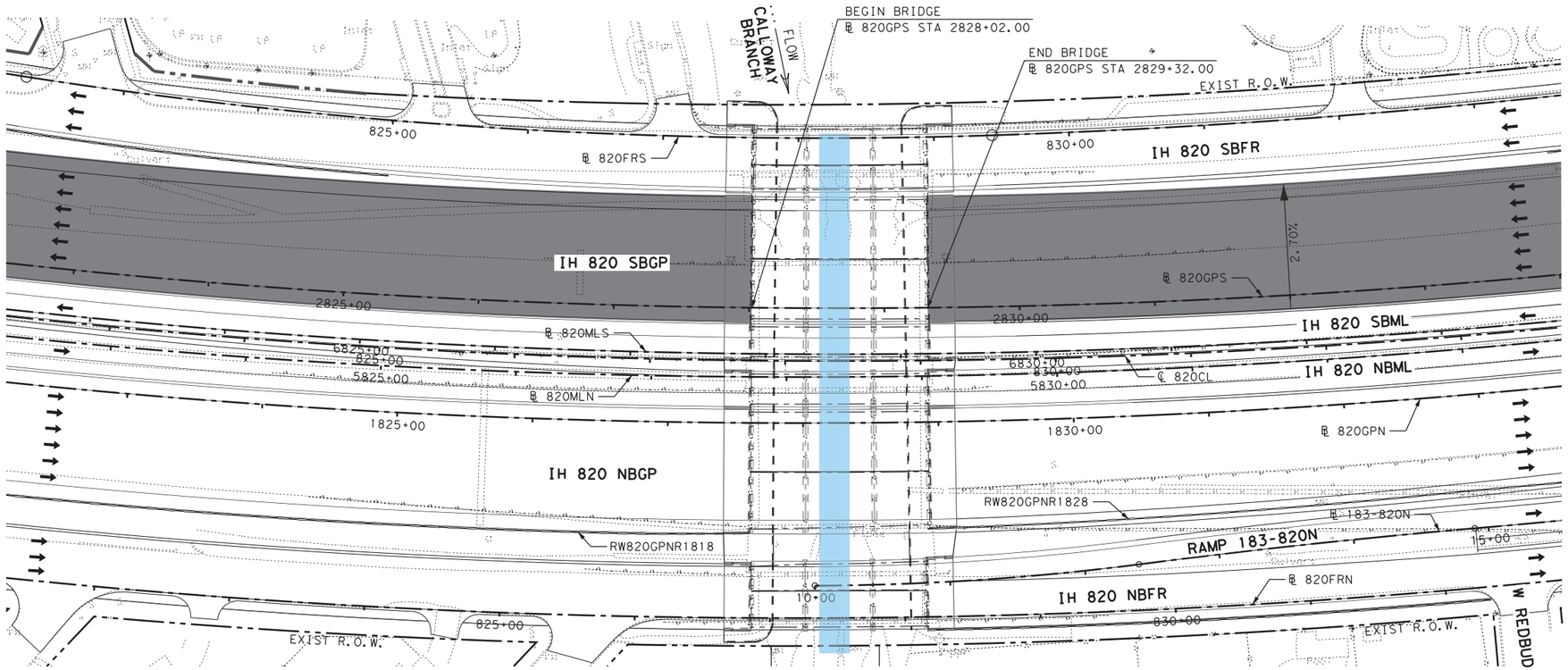
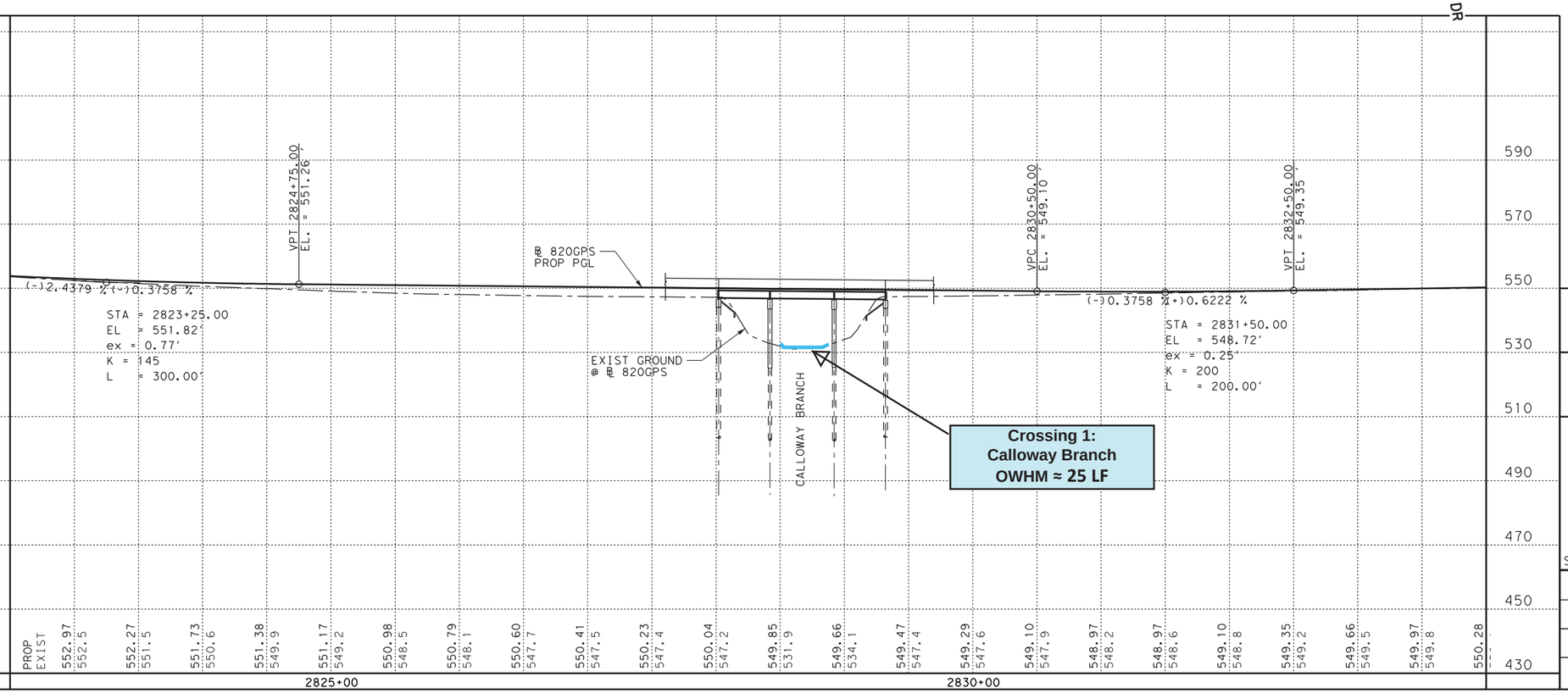


0 50 100
SCALE IN FEET

N

LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND



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IH 820

PLAN & PROFILE

GENERAL PURPOSE LANES - IH 820 SB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 2 OF 6

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	2
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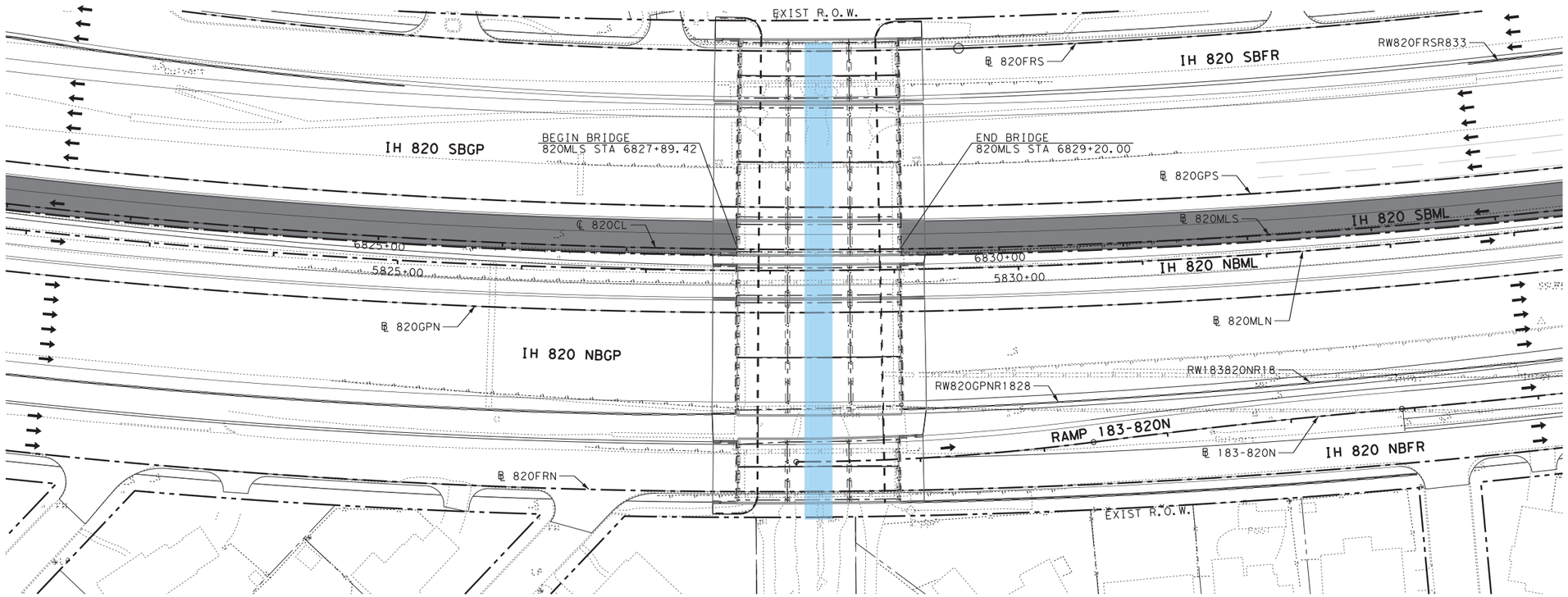

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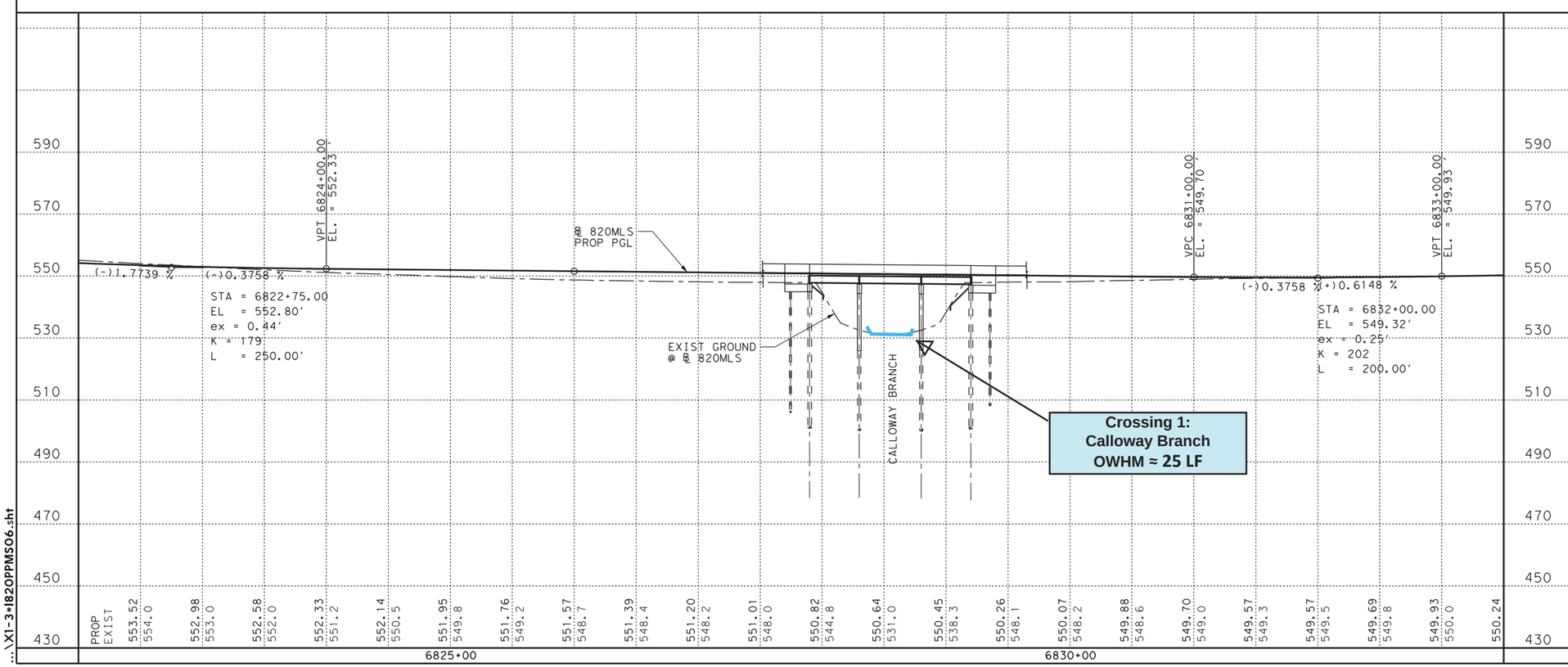
SCALE IN FEET

LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND



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PLAN & PROFILE

MANAGED LANES - IH 820 SB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 3 OF 6

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	3
CHECK	CONTROL	SECTION	JOB	
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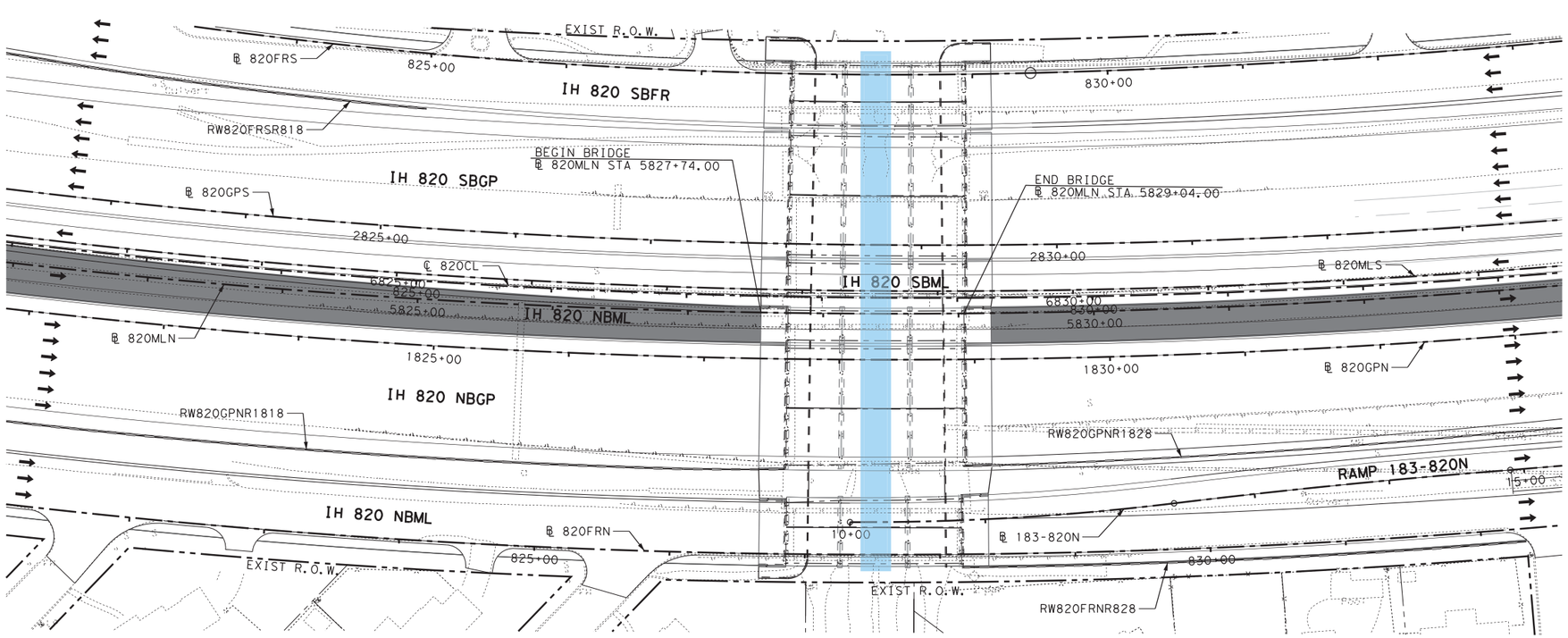
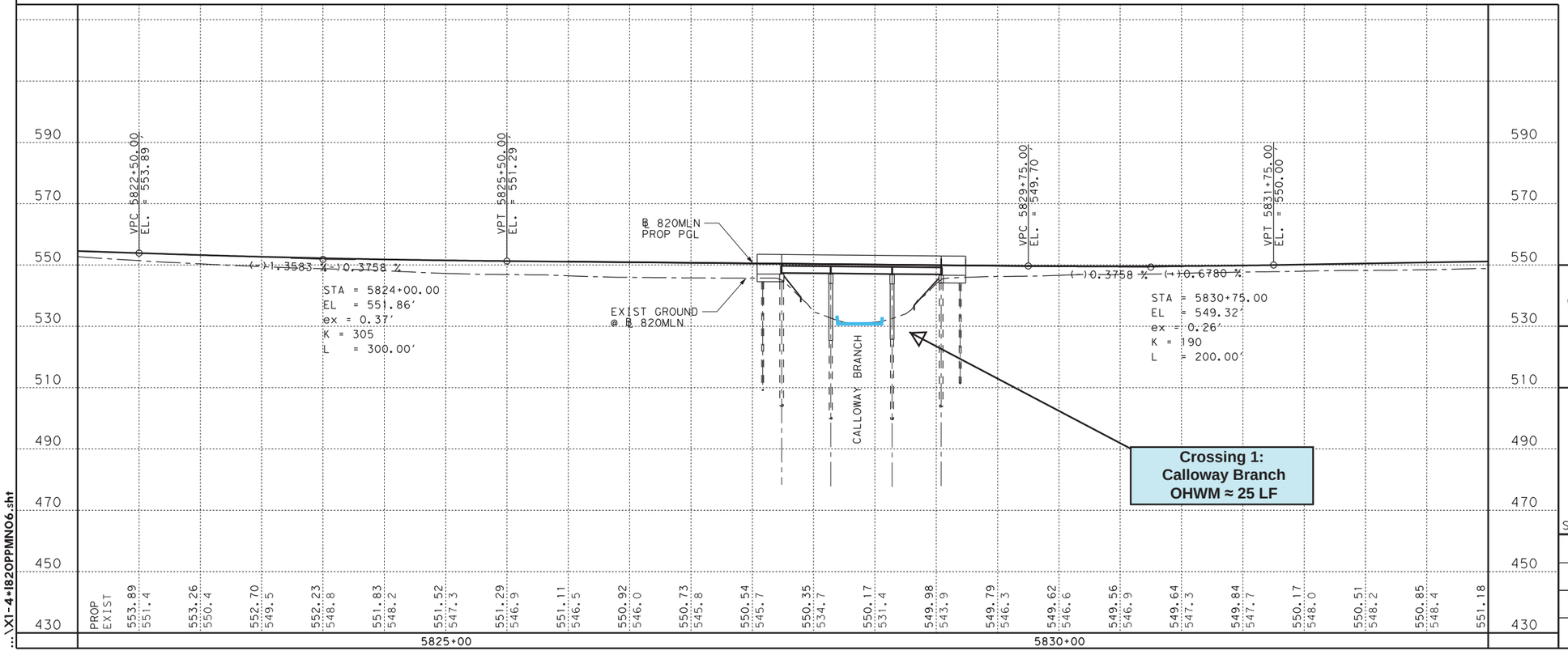


0 50 100
SCALE IN FEET

LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND



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MANAGED LANES - IH 820 NB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 4 OF 6

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	4
CHECK	CONTROL	SECTION	JOB	
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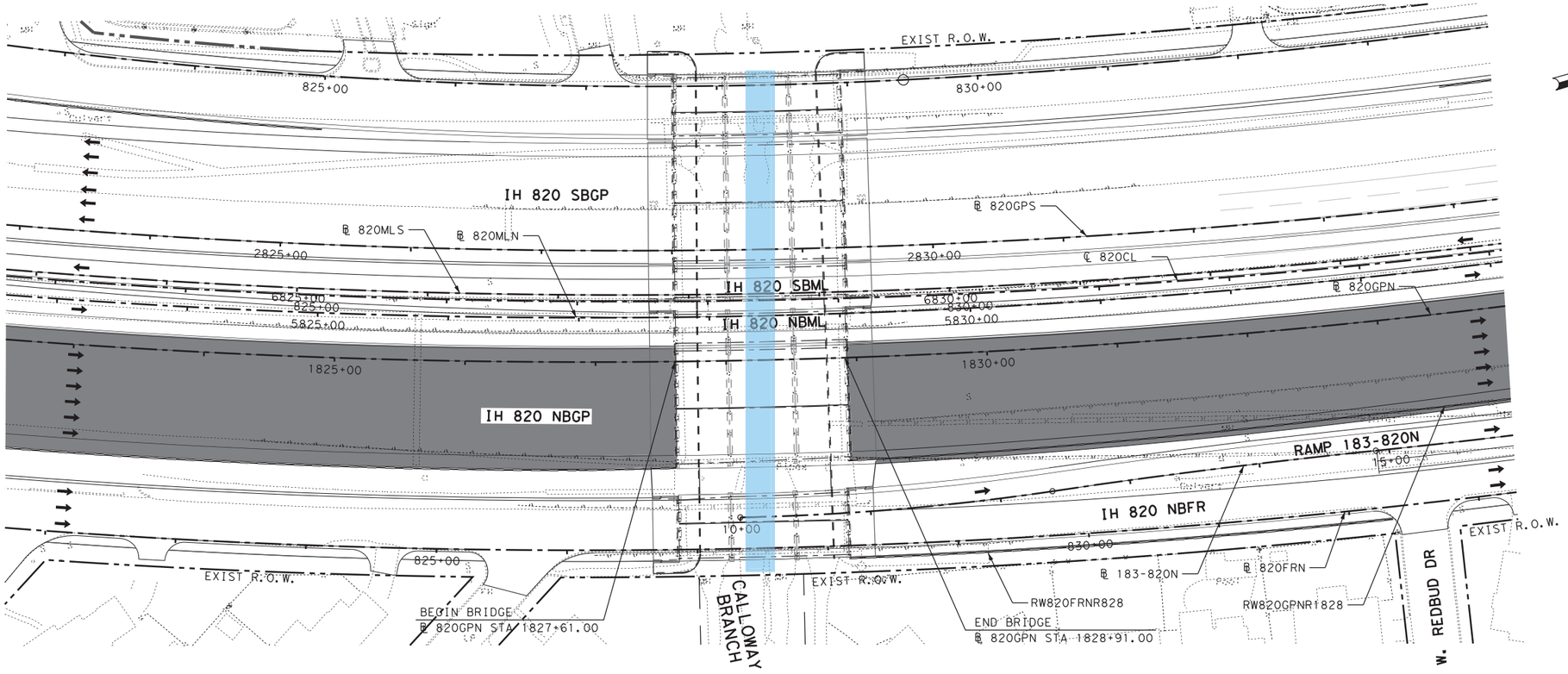
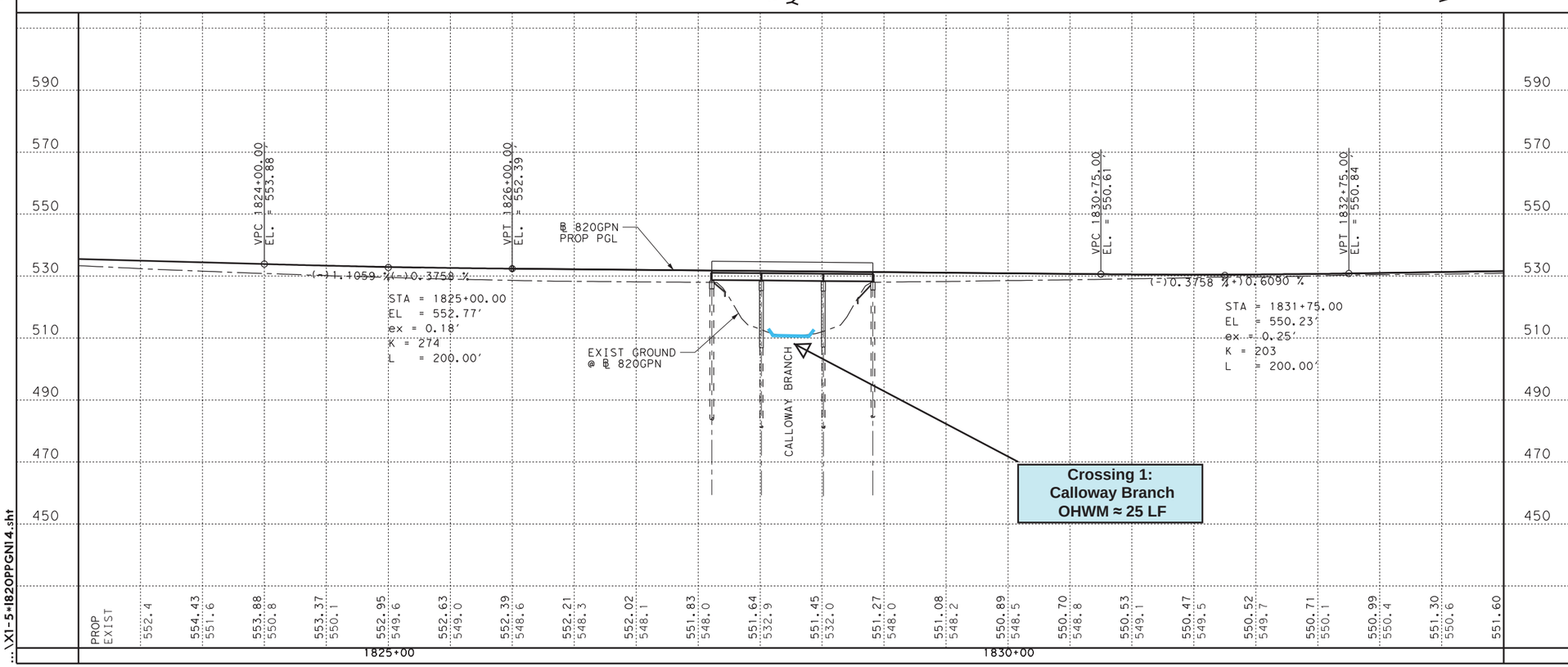


0 50 100
SCALE IN FEET

LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND



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GENERAL PURPOSE LANES - IH 820 NB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 5 OF 6

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	5
CHECK	CONTROL	SECTION	JOB	
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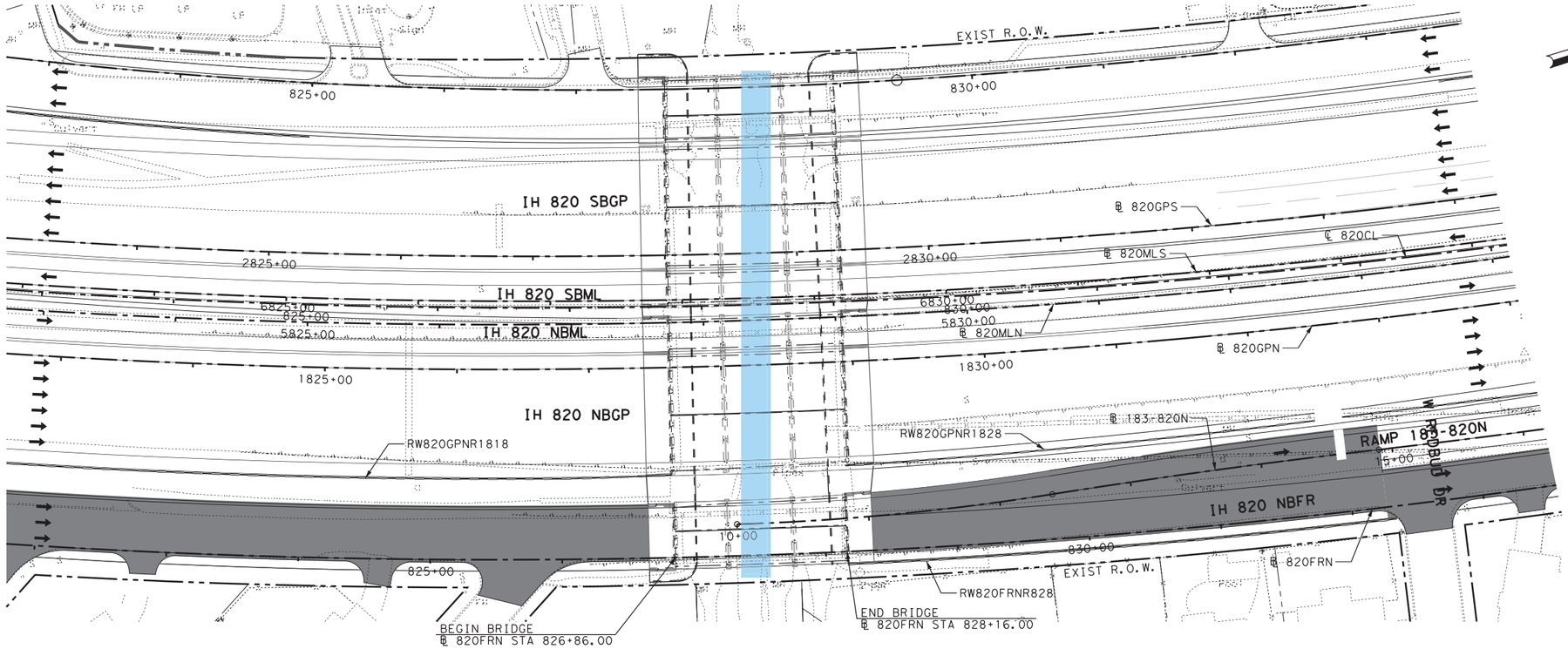
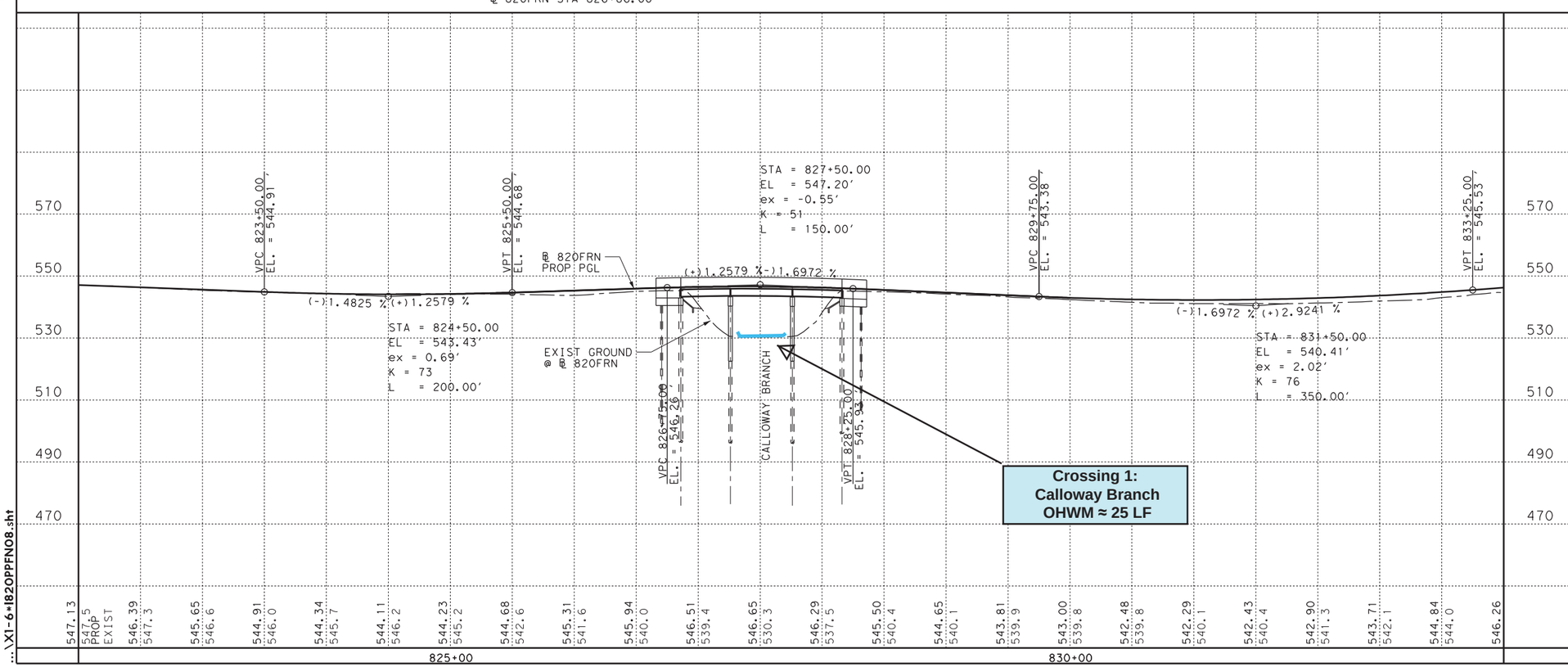


LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- CONTROL-OF-ACCESS
- OHWM
- STREAM/POND



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PLAN & PROFILE

FRONTAGE ROAD - IH 820 NB (FRN)

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 6 OF 6

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS	TEXAS	FTW	TARRANT	6
CHECK	CONTROL	SECTION	JOB	
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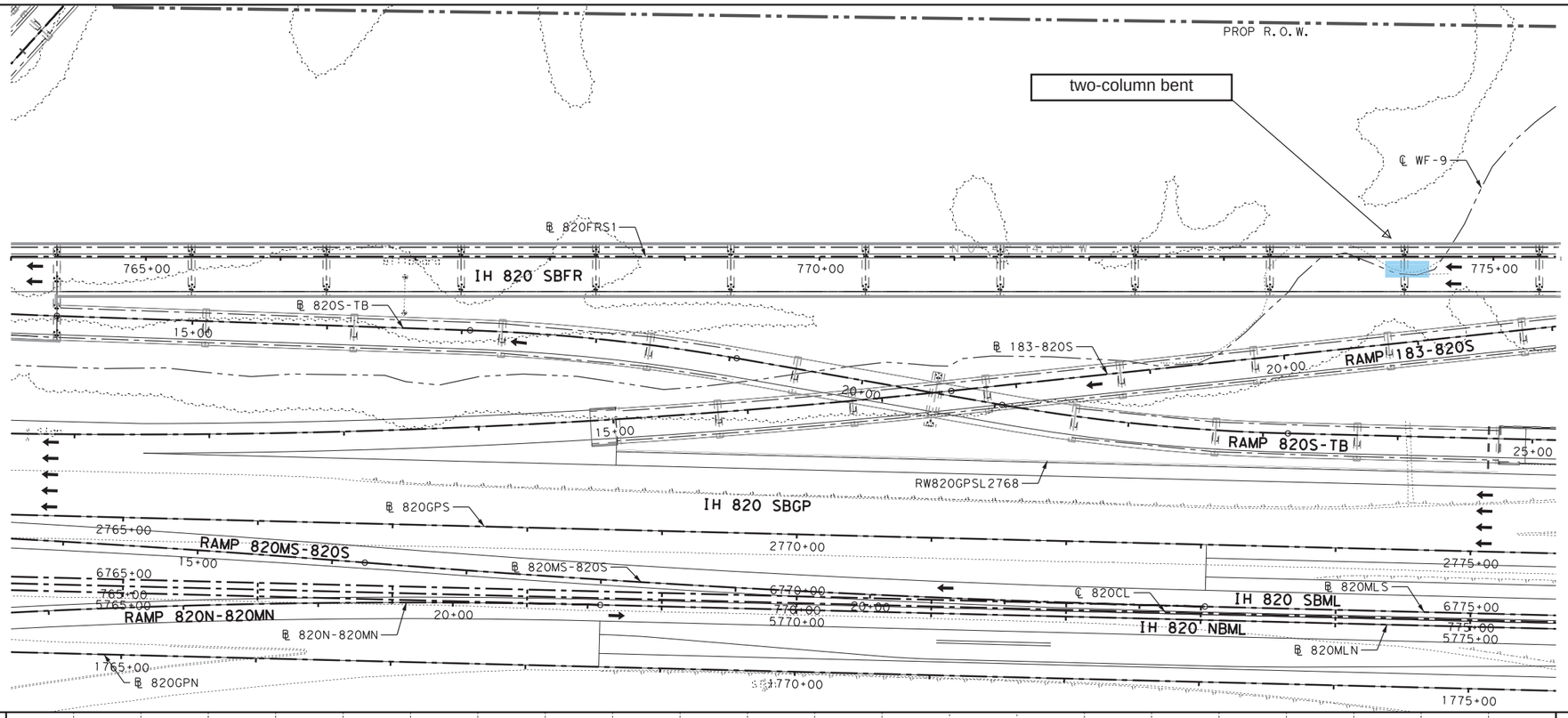
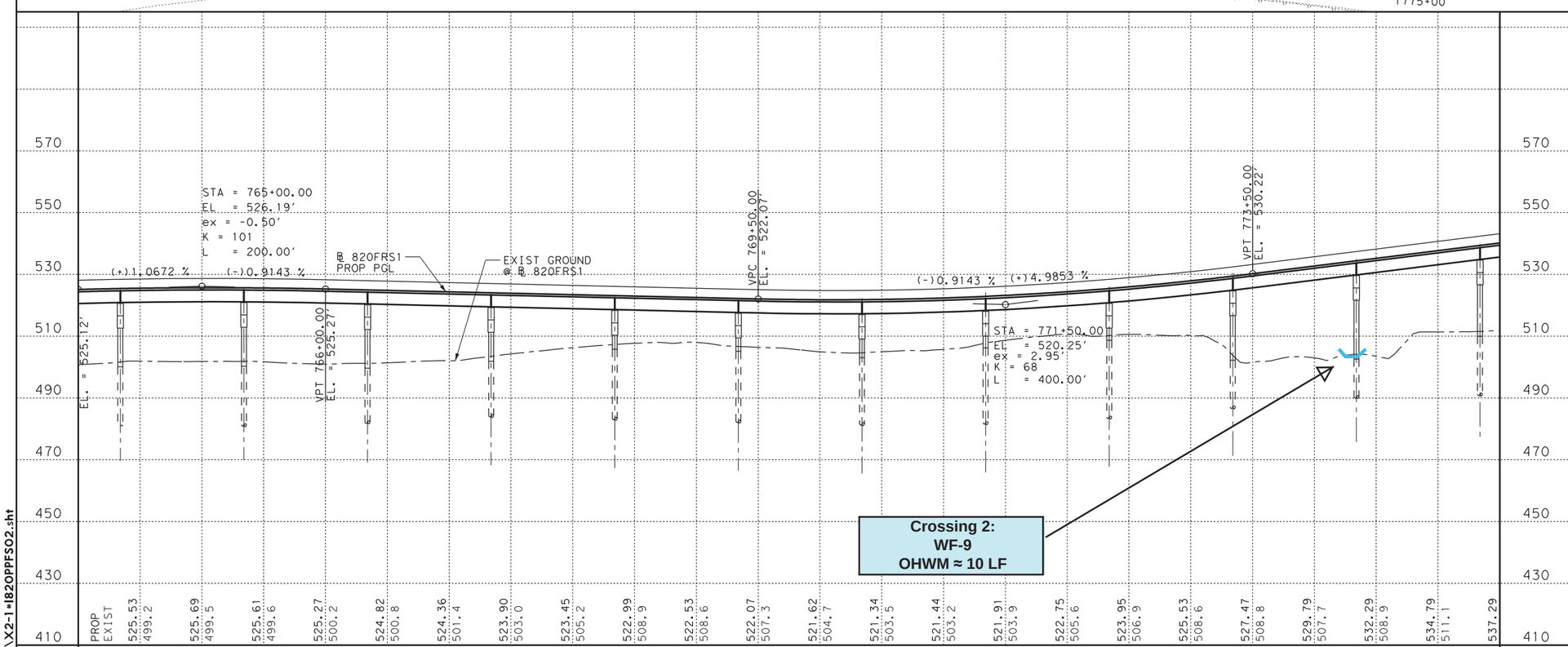


LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- CONTROL-OF-ACCESS
- OHWM
- STREAM/POND



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IH 820

PLAN & PROFILE

FRONTAGE ROAD - IH 820 SB (FRS1)

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	7
CHECK	CONTROL	SECTION	JOB	
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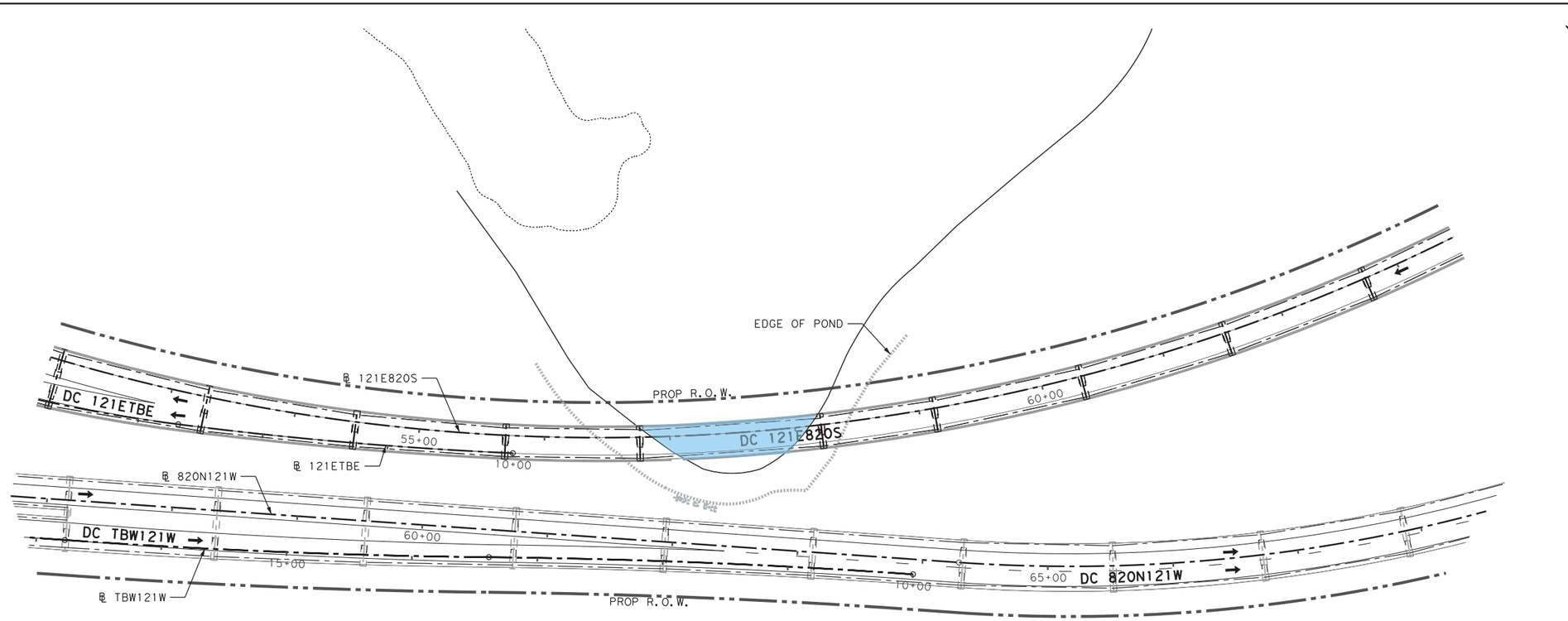
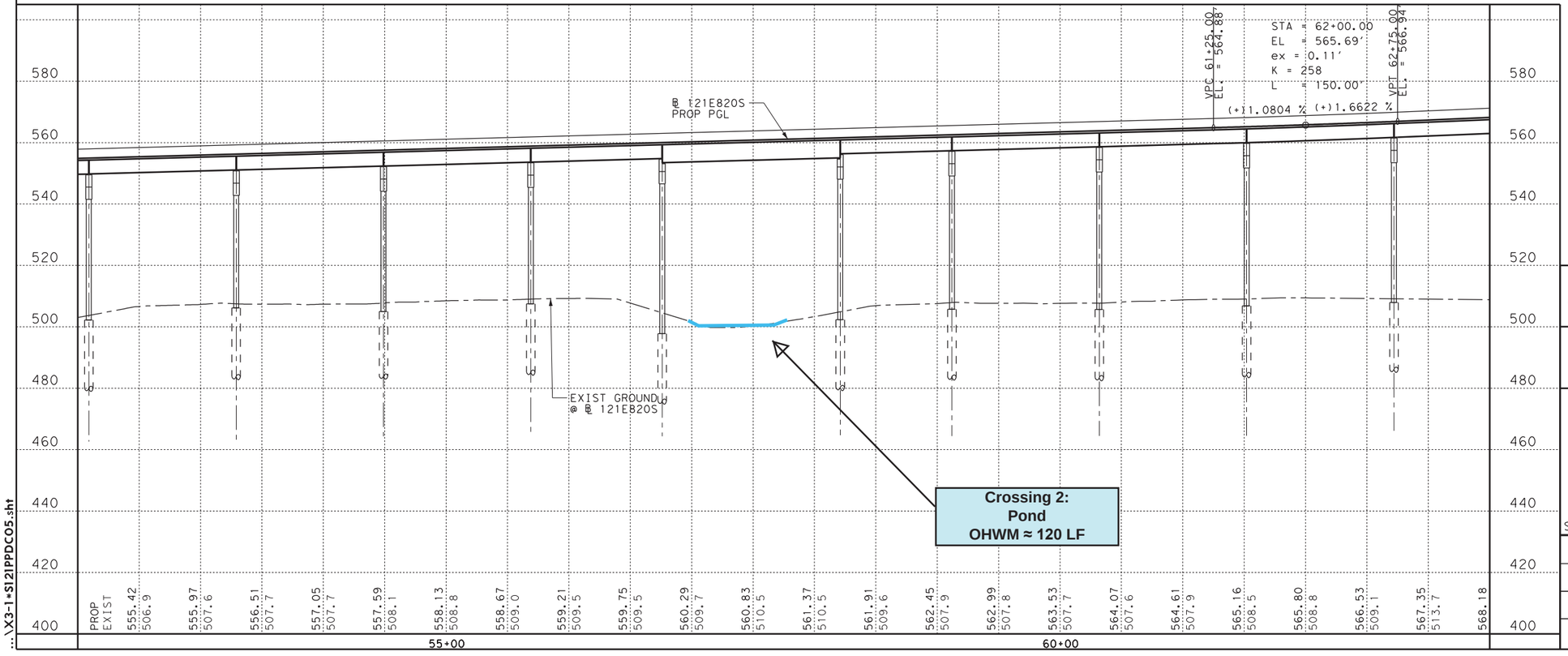


0 50 100
SCALE IN FEET

N

LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND



Crossing 2:
Pond
OHWM ≈ 120 LF

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SH 121

PLAN & PROFILE

DIRECT CONNECTOR - 121E820S

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	8
CHECK	CONTROL	SECTION	JOB	
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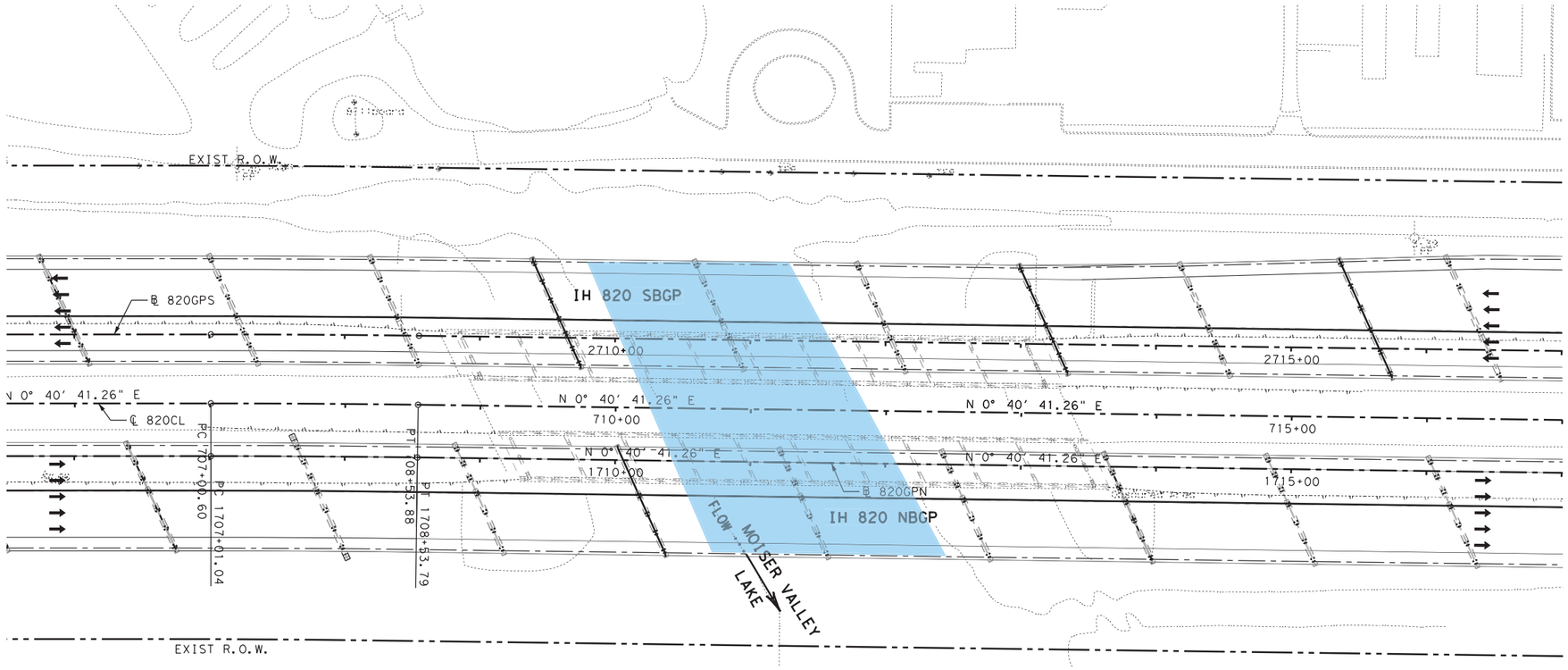

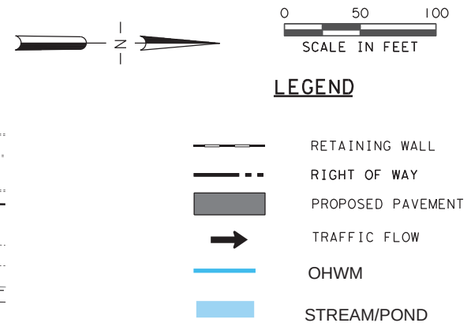

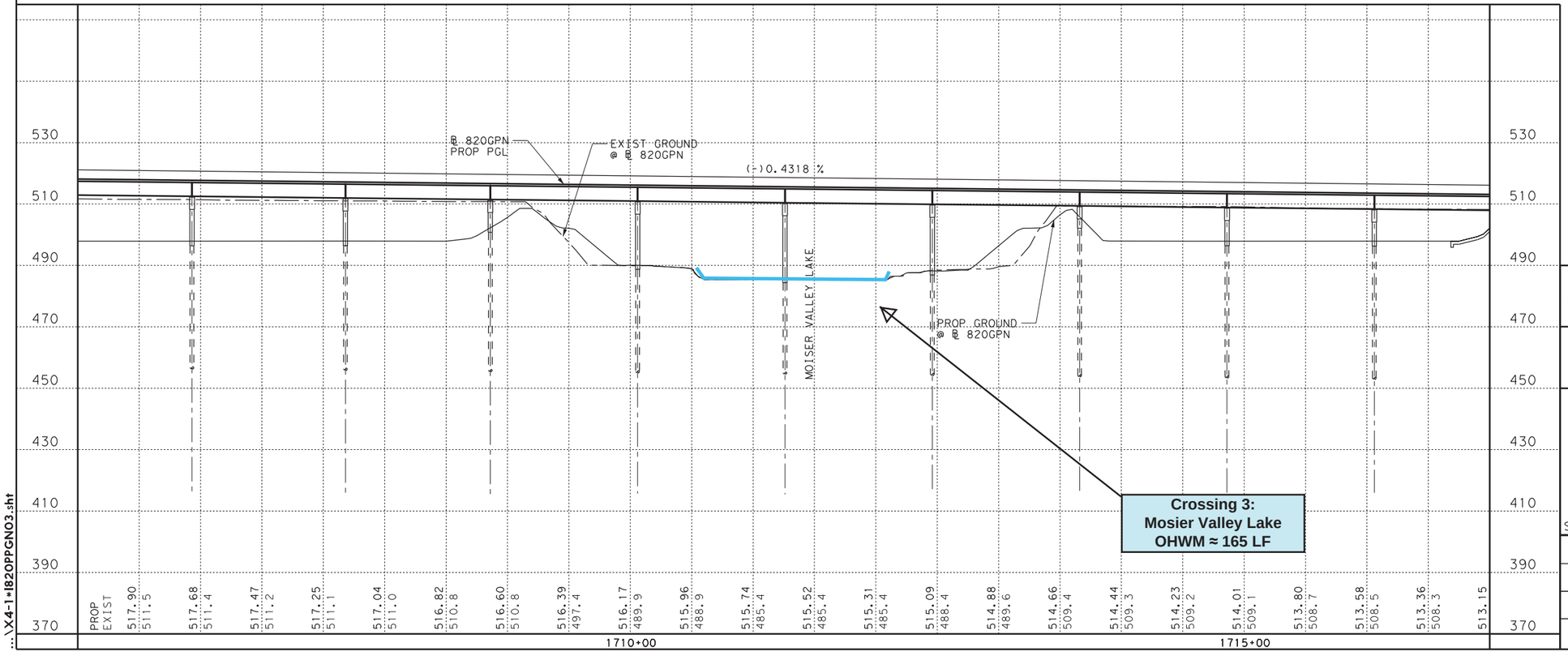

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IH 820

PLAN & PROFILE

GENERAL PURPOSE LANES - IH 820 NB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	9
CHECK	CONTROL	SECTION	JOB	
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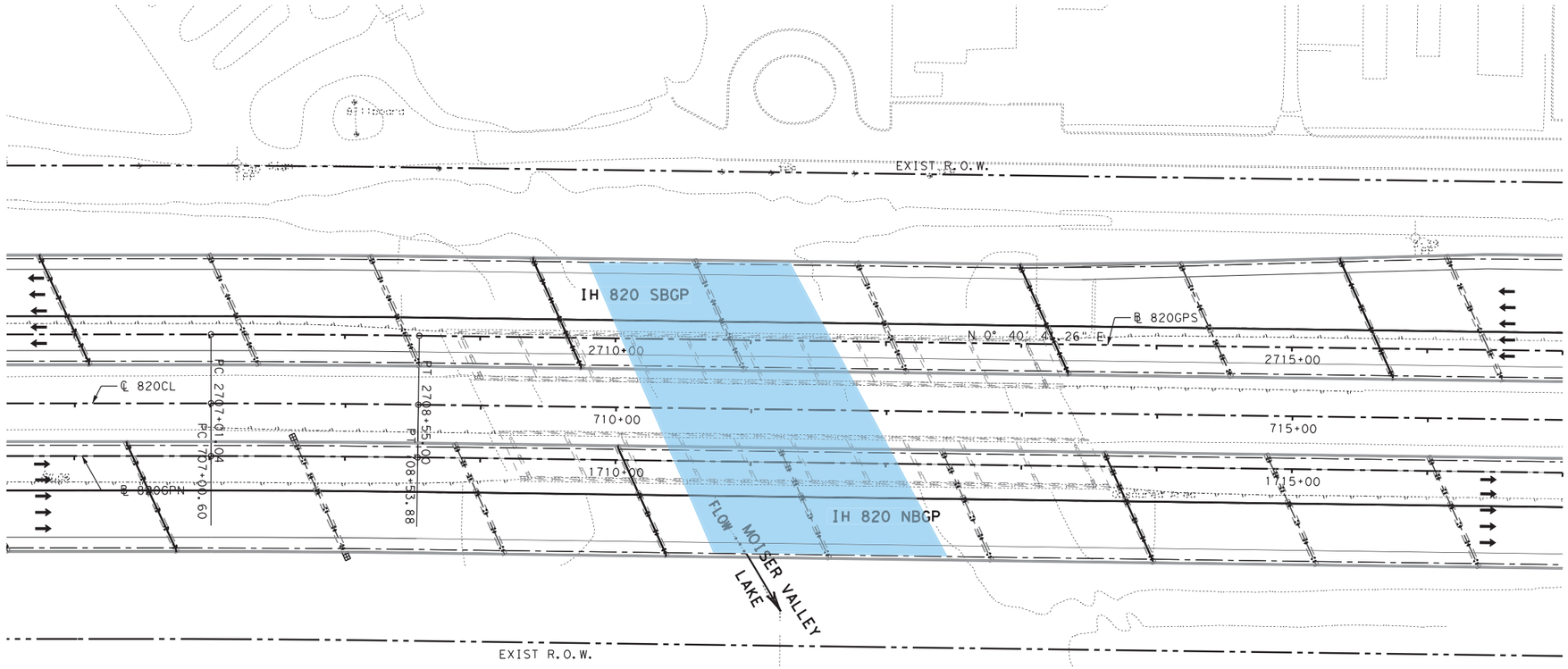
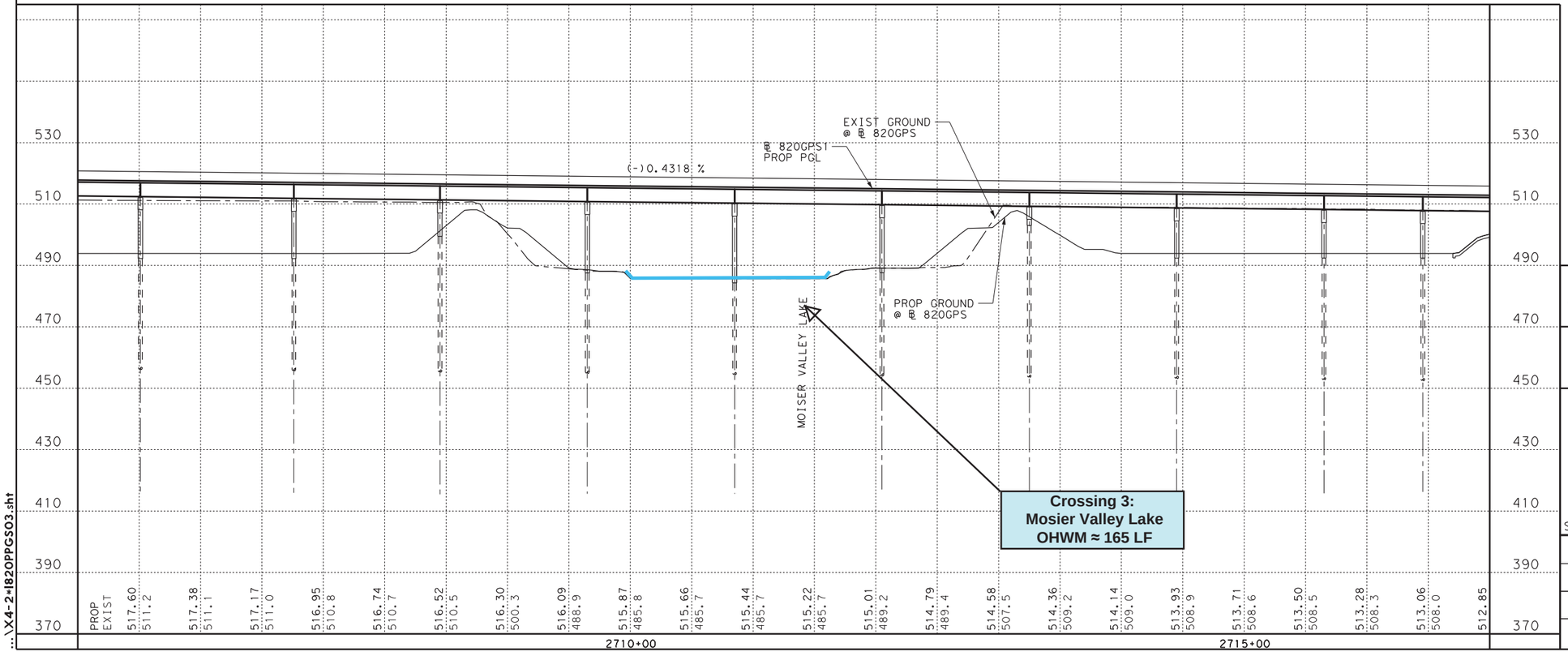


LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND



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IH 820

PLAN & PROFILE

GENERAL PURPOSE LANES - IH 820 SB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	10
CHECK	CONTROL	SECTION	JOB	
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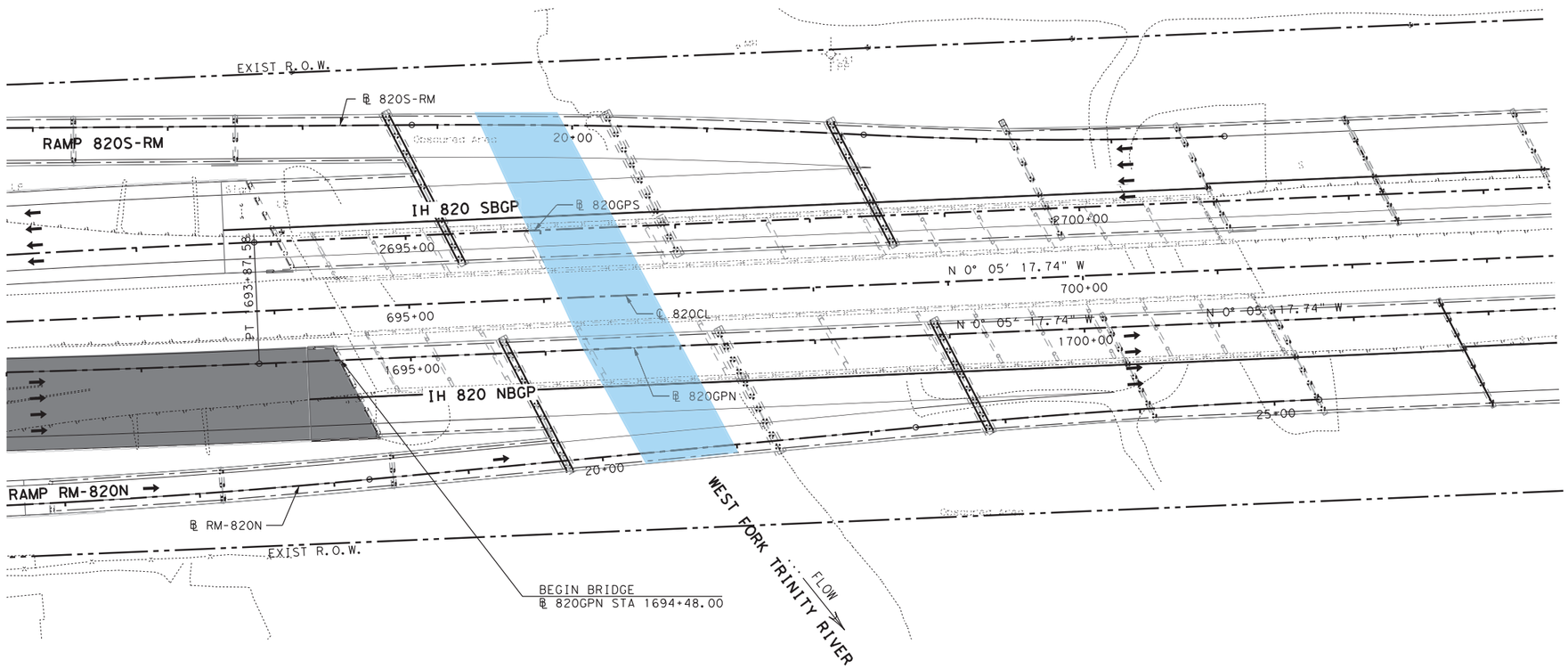

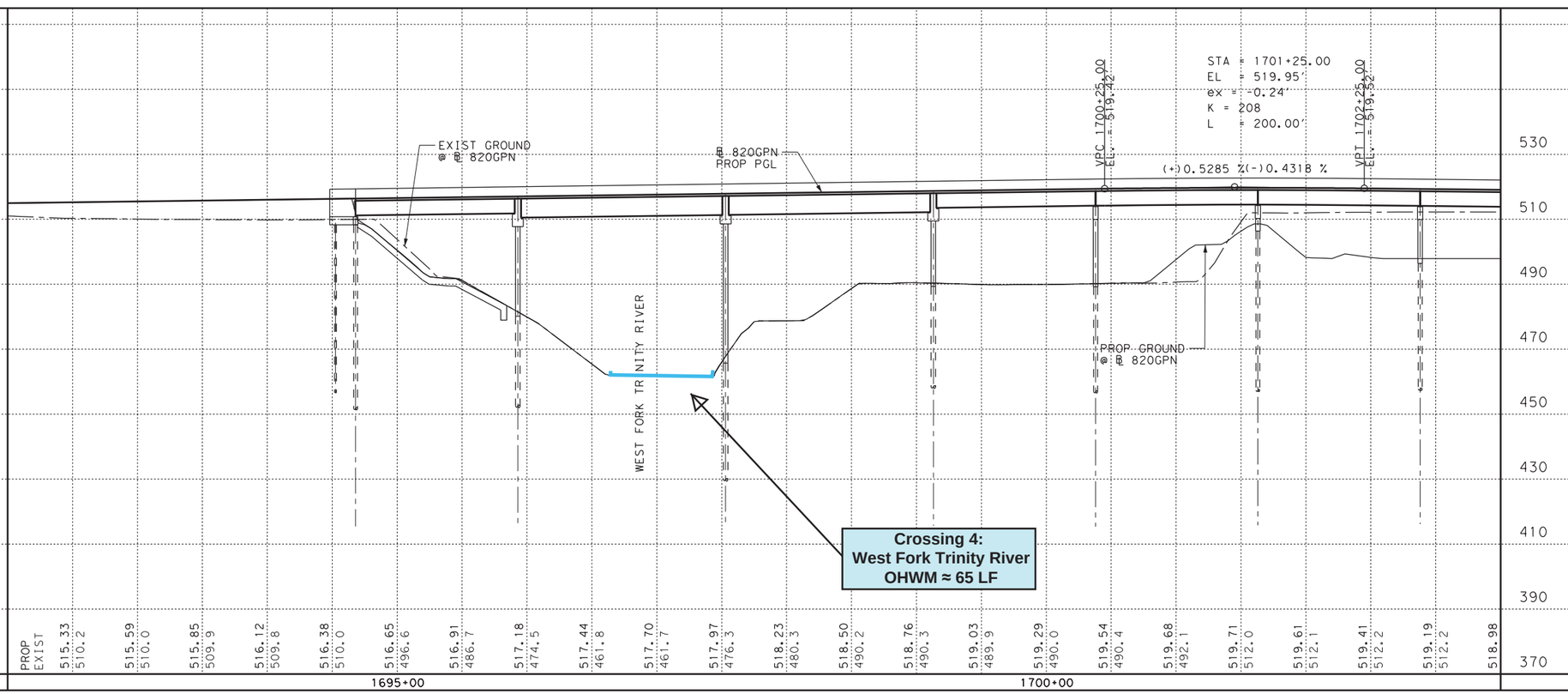

LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND

0 50 100
SCALE IN FEET

DESIGN SCHEMATIC

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GENERAL PURPOSE LANES - IH 820 NB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	11
CHECK	CONTROL	SECTION	JOB	
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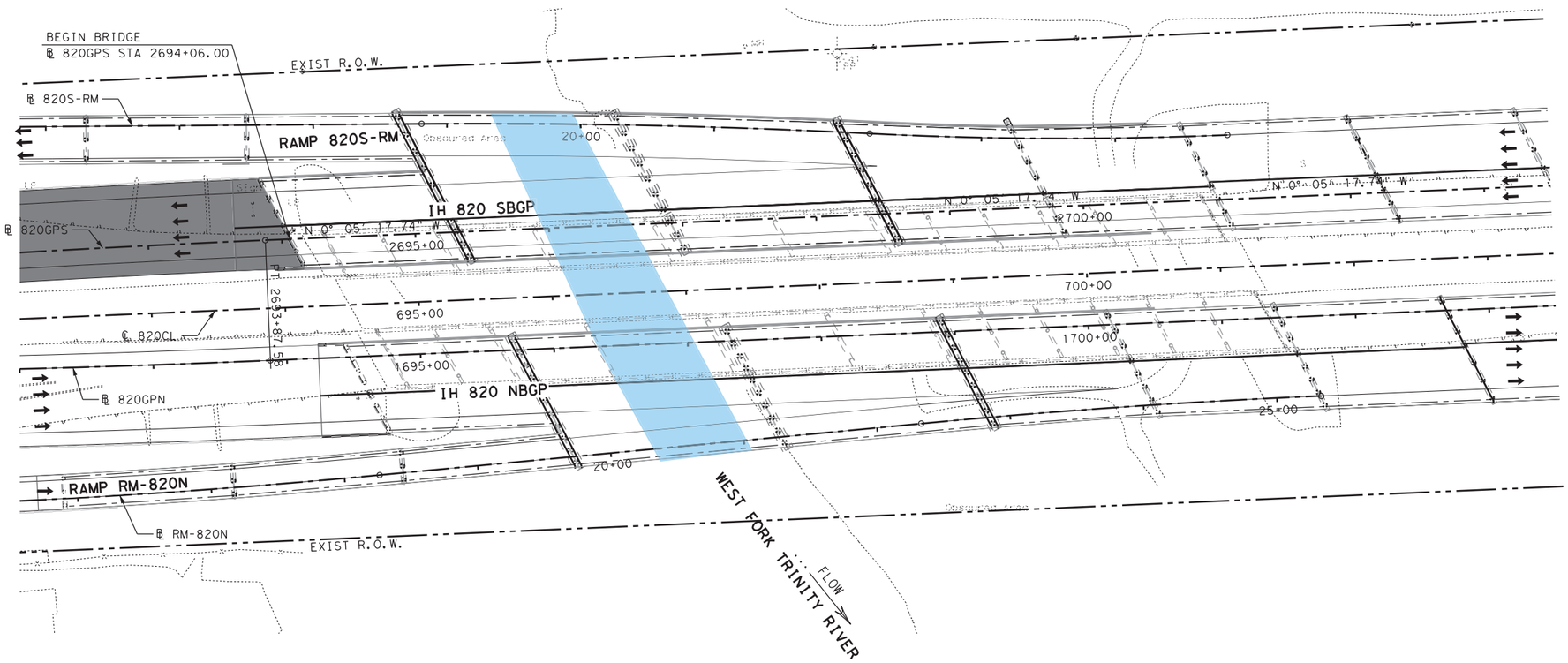
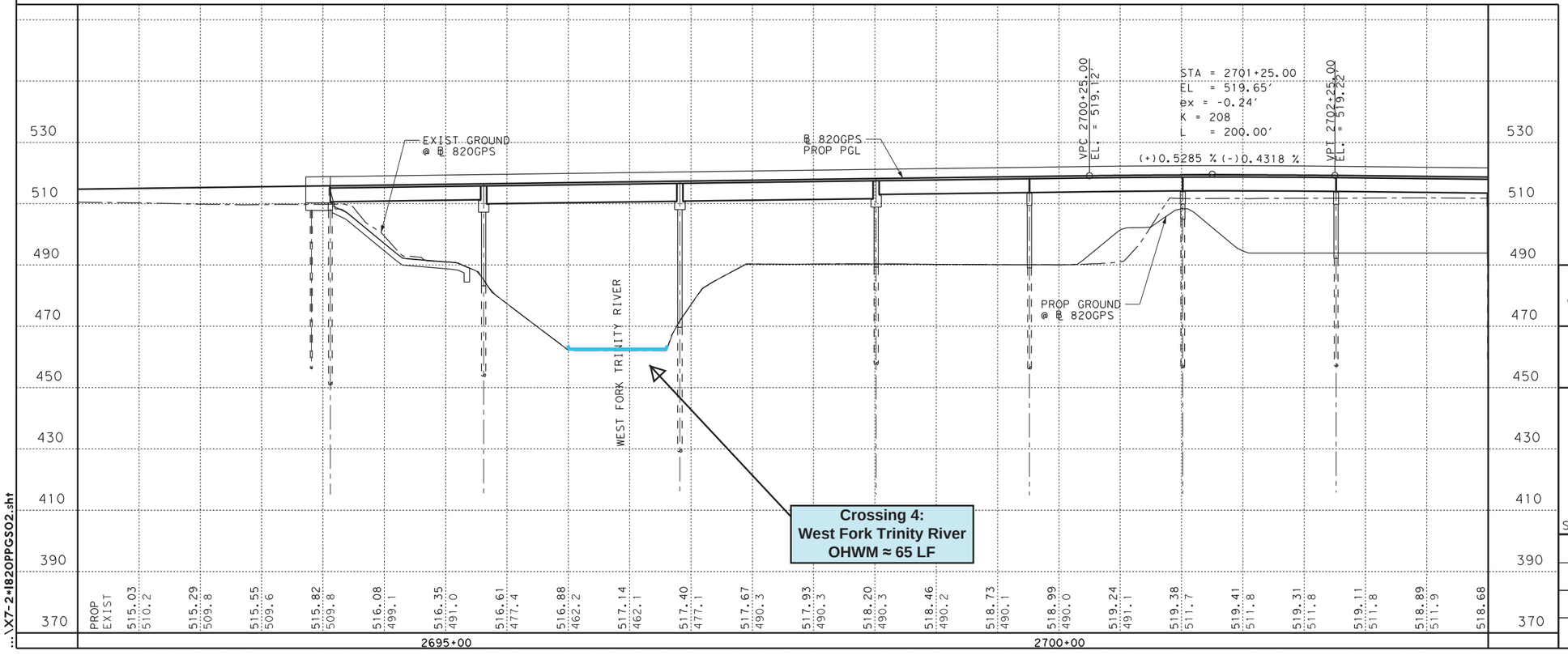


LEGEND

- RETAINING WALL
- RIGHT OF WAY
- PROPOSED PAVEMENT
- TRAFFIC FLOW
- OHWM
- STREAM/POND



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IH 820

PLAN & PROFILE

GENERAL PURPOSE LANES - IH 820 SB

SCALE: 1"=40'(V) 1"=100'(H)

SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	STATE PROJECT NO.		HIGHWAY NO.
MG	6			IH820
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
GRAPHICS KT	TEXAS	FTW	TARRANT	12
CHECK	CONTROL	SECTION	JOB	
	0008	13	124,ETC.	

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WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: I-820 (East) (CSJs 0008-13-124, 0363-03-051) City/County: Tarrant Sampling Date: 9-5-14

Applicant/Owner: Texas Department of Transportation State: TX Sampling Point: DP1

Investigator(s): CFH, RWP Section, Township, Range: Not Applicable

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR): J Lat: 32.788536° Long: -97.212089° Datum: NAD83

Soil Map Unit Name: Ovan clay, occasionally flooded NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No Significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No , Soil No , or Hydrology No Naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	Is the Sampled Area		
Hydric Soil Present?	Yes X	No ____	Within a Wetland?	Yes X	No ____
Wetland Hydrology Present?	Yes X	No ____			

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' rad)	Absolute% Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	= % Total Cover		
Sapling/Shrub Stratum (Plot size: 15' rad)			
1. None			
2.			
3.			
4.			
5.			
	= % Total Cover		
Herb Stratum (Plot size: 5' rad)			
1. *Panicum virgatum*	50	Yes	FAC
2. *Persicaria hydropiperoides*	30	Yes	OBL
3. *Mikania scandens*	10	No	FACW
4. *Ambrosia trifida*	10	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100	= % Total Cover	
Woody Vine Stratum (Plot size: 30' rad)			
1. None			
2.			
	= % Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	____	x 1 = ____
FACW species	____	x 2 = ____
FAC species	____	x 3 = ____
FACU species	____	x 4 = ____
UPL species	____	x 5 = ____
Column Totals:	____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

____ 3 - Prevalence Index is ≤3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: Vegetation meets hydrophytic vegetation criterion.

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR4/2	60	7.5YR3/2	40	D	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histols (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR 1, J**)
- ___ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ___ Dark Surface (S7) (**LRR G**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Very Dark Surface Unit (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks: Hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Agal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indictors (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ___ Crayfish burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes X No ___ Depth (inches): 3

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 2014 Google aerial shows that the approximate area of this data point location is inside of the area of inundation.

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: I-820 (East) (CSJs 0008-13-124, 0363-03-051) City/County: Tarrant Sampling Date: 9-5-14

Applicant/Owner: Texas Department of Transportation State: TX Sampling Point: DP2

Investigator(s): CFH, RWP Section, Township, Range: Not Applicable

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR): J Lat: 32.788539° Long: -97.212083° Datum: NAD83

Soil Map Unit Name: Ovan clay, occasionally flooded NWI Classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No , Soil No , or Hydrology No Significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No , Soil No , or Hydrology No Naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area		
Hydric Soil Present?	Yes X	No ____	Within a Wetland?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X			

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' rad)	Absolute% Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
		= % Total Cover	

Sapling/Shrub Stratum (Plot size: 15' rad)			
1. None			
2.			
3.			
4.			
5.			
		= % Total Cover	

Herb Stratum (Plot size: 5' rad)			
1. *Cynodon dactylon*	75	Yes	FACU
2. *Cardiospermum halicacabum*	10	No	FAC
3. *Panicum virgatum*	10	No	FAC
4. *Ambrosia trifida*	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100	= % Total Cover	

Woody Vine Stratum (Plot size: 30' rad)			
1. None			
2.			
		= % Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:			Multiply by:
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	100 (A)		375 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: Vegetation does not meet the hydrophytic vegetation criterion.

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR4/2	80	7.5YR3/2	20	D	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histols (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) (**LRR F**)
- ____ 1 cm Muck (A9) (**LRR F, G, H**)
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ____ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) (**LRR 1, J**)
- ____ Coast Prairie Redox (A16) (**LRR F, G, H**)
- ____ Dark Surface (S7) (**LRR G**)
- ____ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Very Dark Surface Unit (TF12)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** X **No** ____

Remarks: Hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Agal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Dry-Season Water Table (C2)
- ____ Oxidized Rhizospheres on Living Roots (C3) (**where not tilled**)
- ____ Presence of Reduced Iron (C4)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indictors (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Oxidized Rhizospheres on Living Roots (C3) (**where tilled**)
- ____ Crayfish burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ FAC-Neutral Test (D5)
- ____ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 2014 Google aerial shows that the approximate area of this data point location is outside of the area of inundation.

Remarks:

Texas Department of Transportation
2501 SW LOOP 820 | FORT WORTH, TEXAS 76133 | (817) 370-6500 | WWW.TXDOT.GOV

August 23, 2017

Main Project CSJ: **0008-13-124**
Bridge CSJs: **0008-13-235 & 0008-13-210**
Federal Project No.: **BR ( )**

I-820 from approximately 2,000 feet north of Pipeline Road/Glenview Drive to approximately 3,200 feet south of Randol Mill Road

SH 121 from I-820 to approximately 5,000 feet west of Handley Ederville Road

Hector Garcia, P.E.
Bridge Engineer
FHWA – Texas Division
300 E 8th Street, Rm 826
Austin, Texas 78701

Dear Mr. Garcia:

The Texas Department of Transportation (TxDOT) is requesting an exception from the United States Coast Guard (USCG) bridge permitting requirements for the proposed bridge replacement at I-820 and the West Fork Trinity River (WFTR) in Tarrant County, Texas. The existing I-820 structures over the WFTR were built in 1963 and are 658 feet in length and consist of 12 spans. The spans over the WFTR continuous steel "I" beams. The northbound structure is 40 feet wide from face of curb to face of curb, with an overall width of 44 feet 2inches. The southbound structure is 26 feet from the face of the curb to the face of curb and has an overall width of 35 feet 4 inches.

The proposed northbound structure over the WFTR is 695 feet in length and consists of four spans over the WFTR consisting of pre-stressed concrete Type TX 70 beams. The width of the northbound structure varies from 68 feet to 83 feet 2.625 inches from the face of the rail to the face of the rail. The southbound structure over the WFTR is 695 feet in length and consists of four spans over the WFTR consisting of pre-stressed concrete Type TX 70 beams. The width of the southbound structure varies from 68 feet to 112 feet 7.75 inches from the face of the rail to the face of the rail. For both proposed structures, no bents are located in the channel of the WFTR.

For the northbound structure, the horizontal clearance measured from the toe of slope/bank to the southernmost column is approximately 65 feet. The horizontal clearance measured from the toe of slope/bank to the northernmost column is approximately 12 feet. Vertical clearance measured for the 100 year FEMA water-surface elevations (WSEL) is approximately 10 feet.

For the southbound structure, the horizontal clearance measured from the toe of slope/bank to the southernmost column is approximately 68 feet. The horizontal clearance measured from the toe of slope/bank to the northernmost column is approximately 10 feet. Vertical clearance measured for the 100 year FEMA WSEL is approximately 10 feet.

PENDING APPROVAL

If you have questions, please contact me by phone at (817) 370-6567 or by email at chad.putnam@txdot.gov.

Sincerely,

Chad Putnam
Environmental Specialist
Fort Worth District

Attachments: USCG Bridge Project Questionnaire
Location Map
Bridge Layouts
Photos

PENDING APPROVAL

U.S. Department of Homeland Security
United States Coast Guard

Commander
Eighth Coast Guard District
Hale Boggs Federal Building

500 Poydras St., Rm. 1313
New Orleans, LA 70130-3310
Staff Symbol: (dpb)
Phone: (504) 671-2128
D8DBPALL@uscg.mil

BRIDGE PROJECT QUESTIONNAIRE

Please provide the following information:

A. NAVIGATION DATA:

1. Name of Waterway: West Fork Trinity River

1a. Mileage along waterway measured from mouth or confluence Approximately 33.305 miles (53.6 km) to the confluence of the West Fork Trinity River and the Trinity River

1b. Tributary of: Trinity River

2. Geographic Location: I-820 at West Fork Trinity River, Fort Worth, Tarrant County, TX (32.781, -97.213)
(Road Number, City, County, State) and (**Latitude and Longitude in NAD 83 form**)

3. Township, section and range, if applicable: N/A

4. Tidally influenced at proposed bridge site? Yes ____ No __X__ .
Range of tide: N/A
Tidal data source: N/A

5. Depth and width of waterway at proposed bridge site:

	Depths	Widths
At Mean High Tide	2 ft	65 ft .
At Mean Low Tide	N/A	N/A .

6. Character of present vessel traffic on waterway (check each that apply). If none , so state: None __X__.
Canoe _____ Rowboat _____ Small Motorboat _____ Cabin Cruiser
Houseboat _____ Pontoon Boat _____ Sailboat .

6a. Provide vertical and horizontal clearance requirement for largest vessel using the waterway: N/A .

6b. Provide photograph of each type of vessel using the waterway.

7. Are these waters used to transport interstate or foreign commerce?
Yes _____ No __X__ .

PENDING APPROVAL

7a. Are these waters susceptible to use in their natural condition or by reasonable improvement as a means to support interstate or foreign commerce?
Yes _____ No __X__ .

7b. Any planned waterway improvements to permit larger vessels to navigate (to your knowledge)? __No__ If so, what are they? _____

8. Any natural or manmade obstructions, bridges, dams, weirs, etc. downstream or upstream? Yes __X__ No _____ .

8a. If yes, provide upstream/downstream location with relation to the proposed bridge. Bridge crossing at Handley-Ederville Rd at the West Fork Trinity River – approximately 0.525 miles (0.845 km) upstream.
Bridge crossing at Precinct Line Rd at the West Fork Trinity River – approximately 4.143 miles (6.667 km) downstream

8b. If bridges are located upstream or downstream, provide vertical clearance at mean high water and mean low water and horizontal clearance normal to the axis of the channel. Bridge crossing at Handley-Ederville Rd at the West Fork Trinity River – clearance approximately 17.5 ft.
Bridge crossing at Precinct Line Rd at the West Fork Trinity River – clearance approximately 30 ft.

8c. Provide a photograph of the bridge from the waterway showing channel spans.

9. Will the structure replace an existing bridge? Yes __X__ No _____ .

9a. Provide permit number and issuing agencies of permits for bridge(s) to be replaced. N/A

9b. Provide vertical clearance at mean high water and mean low water and horizontal clearance normal to the axis of the channel for the proposed bridge.
I-820 NB Structure – clearance approximately 49.24 ft
I-820 SB Structure – clearance approximately 47.89 ft

10. List names and addresses of persons whose property adjoins bridge right-of-way.
BLUECREEK INC - 1200 E LOOP 820 S, FORT WORTH, 76119; BLUECREEK INC - 1201 E LOOP 820 N, FORT WORTH, 76119; TARRANT COUNTY WATER DISTRICT - 6507 RANDOL MILL RD, FORT WORTH, 76112; MYERS MIKE A - 199 E LOOP 820 N, FORT WORTH, 76112; VICTORY AWNING CO - 6801 OLD RANDOL MILL RD, FORT WORTH, 76120

11. List names and addresses/location of marinas, marine repair facilities, public boat ramps, private piers/docks along the waterway within ½ mile of the bridge site.
N/A

PENDING APPROVAL

12. Attach location map and plans for the proposed bridge; including vertical clearances above mean high water and mean low water and horizontal clearance normal to axis of the waterway.

13. Attach three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site.

Name of applicant: Texas Dept. of Transportation – Fort Worth District
Name of agent completing questionnaire: Chad Putnam
Name of agent's firm: Texas Dept. of Transportation – Fort Worth District
Agent's telephone number: (817) 370-6567
Address for correspondence: 2501 SW Loop 820, Fort Worth, TX 76133

Applicant's telephone number: (817) 370-6567

Date: 8-23-2017 Signature:

PLEASE NOTE: MISSING INFORMATION AND REQUIRED SIGNATURES WILL DELAY PROCESSING

Attachments: Location Map
Bridge Plans
Photographs

PENDING APPROVAL

Project Location in Question

West Fork Trinity River

West Fork Trinity River

Handley Ederville Rd

Randol Mill Rd

Randol Mill Rd

Old Randol Mill Rd

Randol Mill Rd

Rolling Stone

Stonegate N

Stonegate

Stoneview

Stone Forest

Stone Ridge

Stone Leigh

Stone Canyon

Stonegate N

Stonegate S

Stonegate S

Sunset Oaks Dr

Jack Newell Blvd S

Mosier Valley Dr

Mosier Valley Ct

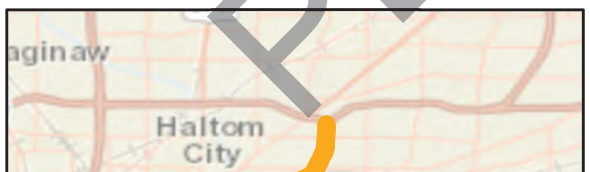
820

820

820

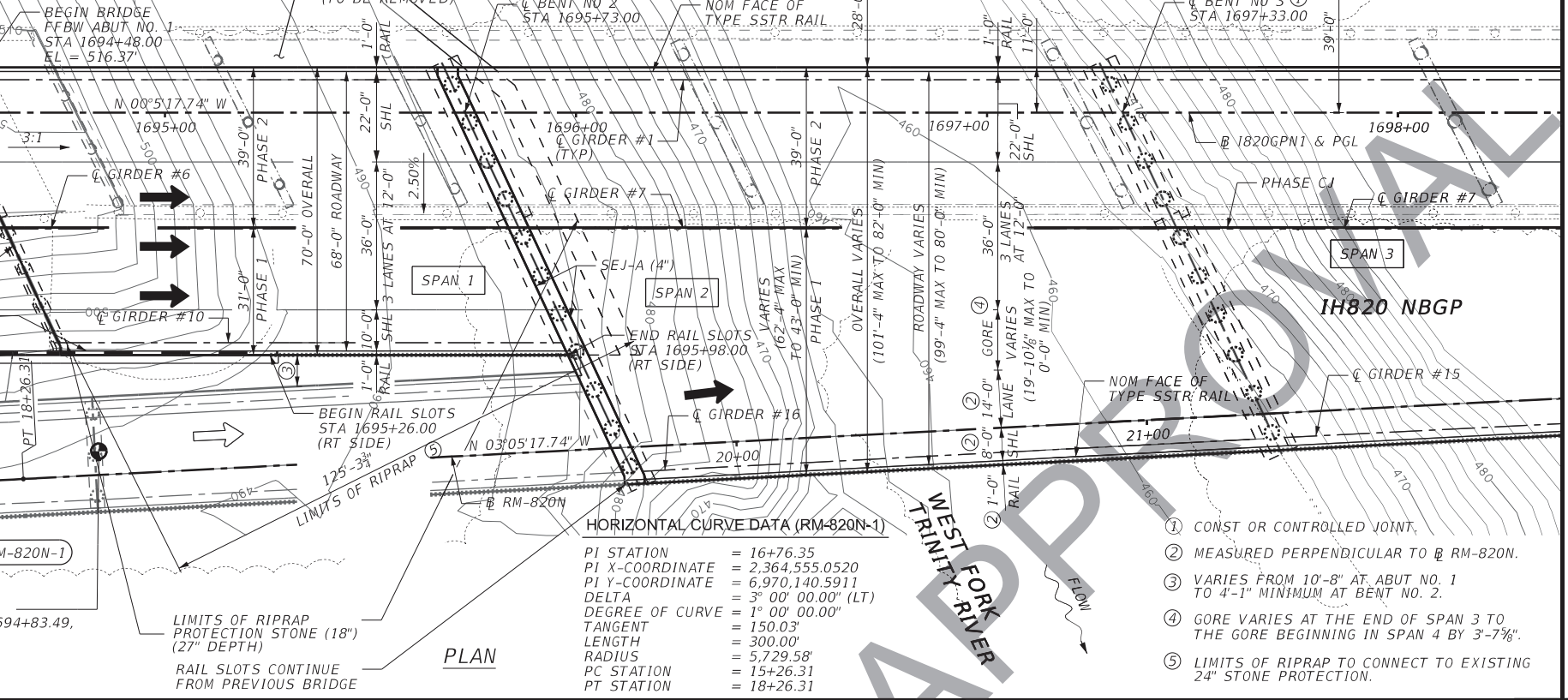
26

Image courtesy of USGS Image



Project Limits

PENDING APPROVAL



PLAN

HORIZONTAL CURVE DATA (RM-820N-1)

PI STATION	= 16+76.35
PI X-COORDINATE	= 2,364,555.0520
PI Y-COORDINATE	= 6,970,140.5911
DELTA	= 3° 00' 00.00" (LT)
DEGREE OF CURVE	= 1° 00' 00.00"
TANGENT	= 150.03'
LENGTH	= 300.00'
RADIUS	= 5,729.58'
PC STATION	= 15+26.31
PT STATION	= 18+26.31

1. CONST OR CONTROLLED JOINT.
2. MEASURED PERPENDICULAR TO ℄ RM-820N.
3. VARIES FROM 10'-8" AT ABUT NO. 1 TO 4'-1" MINIMUM AT BENT NO. 2.
4. GORE VARIES AT THE END OF SPAN 3 TO THE GORE BEGINNING IN SPAN 4 BY 3'-7⅝".
5. LIMITS OF RIPRAP TO CONNECT TO EXISTING 24" STONE PROTECTION.

2. THE COLL FOR ON F
3. FOR
4. SEE AND SEE
5. EXIS LAYO MET FOR OTH
6. "D" AT E
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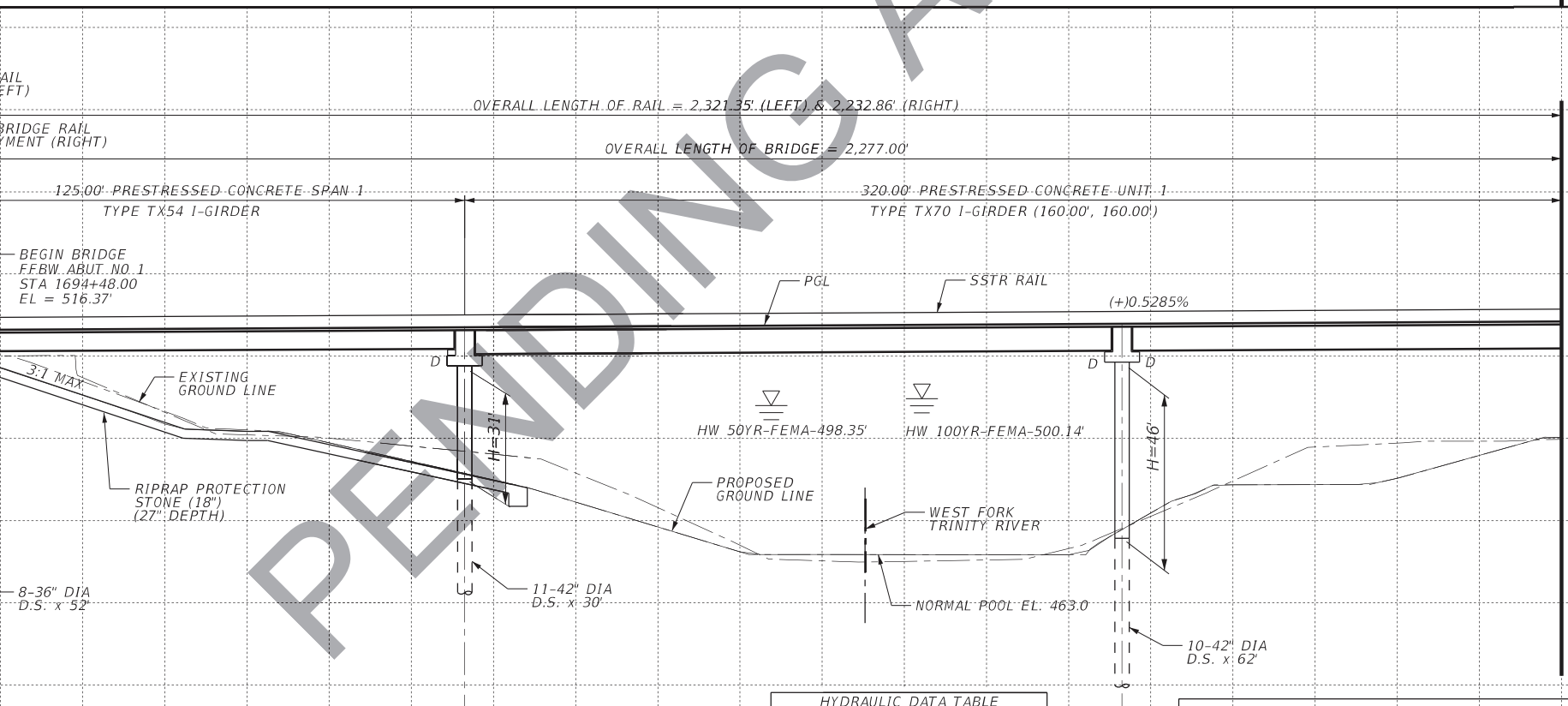


HL 93

JA

WE

SCALE:

PENDING APPROVAL

℄ BENT NO 4
STA 1698+93.00

NOM FACE OF
TYPE SSTR RAIL

STA 1700+18.00

(TO BE REMOVED)

℄ BENT NO. 6
STA 1701+43.00

N 00°05'17.74" W

1699+00

1700+00

1701+00

1702+00

℄ GIRDER #1
(TYP)

SPAN 5

SPAN 6

SPAN 4

PHASE 2

PHASE CJ

℄ GIRDER #6

IH820 NBGP

OVERALL VARIES
(101'-4" MAX TO 82'-0" MIN)

ROADWAY VARIES
(99'-4" MAX TO 80'-0" MIN)

3 LANES AT 12'

2.50%

SEJ-A (4")

VARIES
(62'-4" MAX
TO 43'-0" MIN)

PHASE 1

℄ RM-820N

℄ GIRDER #15

℄ GIRDER #12

RM-820N-2

VARIES
(14'-0" MAX
TO 12'-0"
MIN) LANE

23+00

24+00

25+00

NOM FACE OF
TYPE SSTR RAIL

SLAB PI (I820GPN1)
STA 1700+20.54
OFFSET 71.00' RT
END 8'-0" SHLDR
BEGIN TRANSITION

VARIES
(10'-0" MAX TO
8'-0" MIN)
SHLDR

PT 25+33.21

RAIL SLOTS CONT.
(RT SIDE)

END SHLDR TRANSITION
BEGIN 10'-0" SHLDR

MATCH LINE STA 1702+60

EXIST WEST FORK TRINITY RIVER BRIDGE
658' OVERALL LENGTH X 49'-10" WIDTH.
(8 CONC SPANS @ 41'-9" AND 1 324'
CONTINOUS I BEAM STEEL UNIT- 4 SPANS.)
26°34'00" LFS-36' RDWY TO BE REMOVED.

PLAN

(1) CONSTRUCTION JOINT OR CONTROLLED JOINT.

(2) MEASURED PERPENDICULAR TO ℄ RM-820N.

OVERALL LENGTH OF RAIL = 2,321.35' (LEFT) & 2,232.86' (RIGHT)

OVERALL LENGTH OF BRIDGE = 2,277.00'

375.00' PRESTRESSED CONCRETE UNIT 2
TYPE TX54 I-GIRDER (125.00', 125.00', 125.00')

STA = 1701+25.00
EL = 519.95'
ex = -0.24'
K = 208
L = 200.00'

VPC 1700+25.00
EL. = 519.42'

VPT 1702+25.00
EL. = 519.52'

PGL

SSTR RAIL

(+)0.5285 %

(-)0.4318 %

570

550

530

510

490

470

450

430

H=21'

H=22'

H=9'

HW 50YR
FEMA-498.35'

HW 100YR
FEMA-500.14'

PROPOSED
GROUND LINE

EXISTING
GROUND LINE

8-42" DIA
D.S. x 76'

8-54" DIA
D.S. x 95'

HYDRAULIC DATA TABLE		
DESIGN YEAR	FLOW (Q cfs)	VELOCITY (V fps)
100	60,980	6.99
50	49,305	6.33
LOW CHORD ELEV = 505.86'		

FOUNDATION NOTE:
FOUND DRILLED SHAFTS AT THE LENGTHS SHOWN
OR DEEPER TO OBTAIN A MINIMUM PENETRATION
INTO COMPETANT SHALE, LIMESTONE OR A COMBINATION

MATCH LINE STA 1702+60

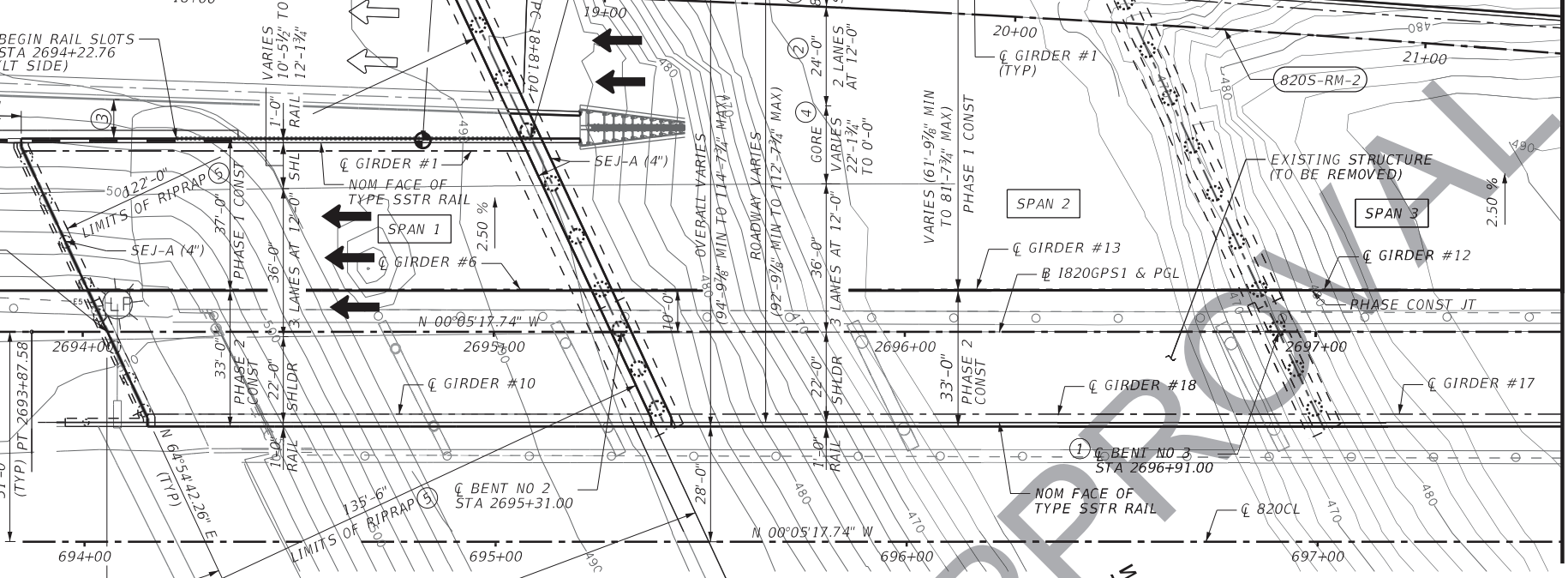
HL 93

JA

WE

SCALE:

PENDING APPROVAL



2. THE "H" VALU
COLUMN HEIG
FOR CALCULA
ON FIELD CO

3. FOR BORINGS

4. SEE ILLUMIN
AND CONDUIT
SEE SLAB SH

5. EXISTING UT
LAYOUTS HAV
METHODS. A
FOR THE CON
OTHERWISE.

6. "D" DENOTES
AT EXTERIOR

7. CONTRACTOR
STRUCTURES
AND RELOCAT

8. ALL DIMENSI
AND MUST B
SUPERELEVA

9. BRIDGE DES
DEVELOPMEN

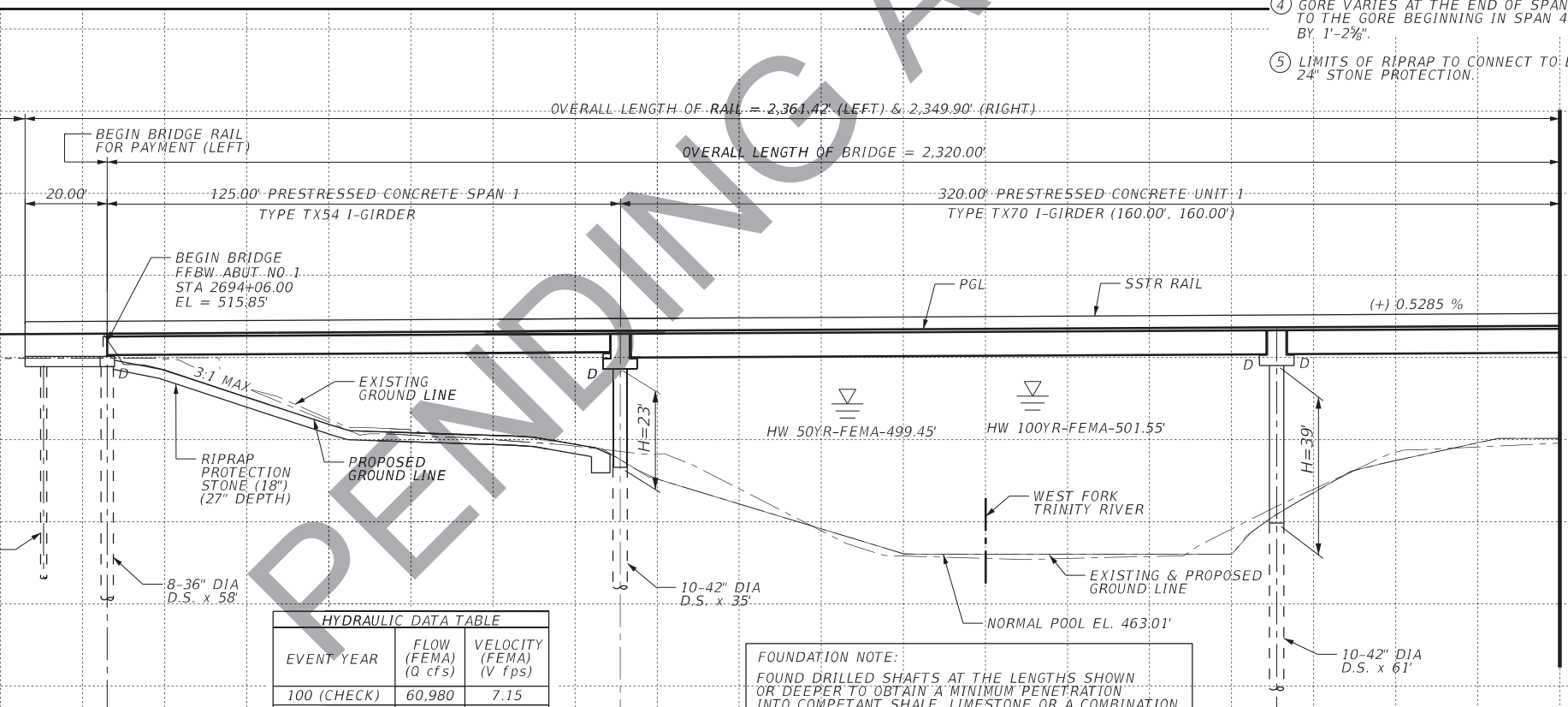
10. SEE HYDRAU

11. SEE GRADING
OF RIPRAP.

12. REFER TO AE
AESTHETICS
PATTERN DE
ON THE BENT
ADDITIONAL
THICKNESS
BID ITEMS.

NBI NO (EXIST)
NBI NO (EXIST)
FUNCT. CLASS =
DESIGN SPEED
EXIST ADT (201
PROP ADT (203
PROP ADT (204

1. CONST OR CONTROLLED JT.
2. MEASURED PERPENDICULAR TO ℄ 820S-RM.
3. VARIES FROM 10'-3½" AT ABUT NO.1 TO 6'-0⅞" MINIMUM AT BENT NO. 2.
4. GORE VARIES AT THE END OF SPAN 3 TO THE GORE BEGINNING IN SPAN 4 BY 1'-2⅝".
5. LIMITS OF RIPRAP TO CONNECT TO EXISTING 24" STONE PROTECTION.



HYDRAULIC DATA TABLE		
EVENT YEAR	FLOW (FEMA) (Q cfs)	VELOCITY (FEMA) (V fps)
100 (CHECK)	60,980	7.15

FOUNDATION NOTE:
FOUND DRILLED SHAFTS AT THE LENGTHS SHOWN OR DEEPER TO OBTAIN A MINIMUM PENETRATION INTO COMPETANT SHALE, LIMESTONE OR A COMBINATION

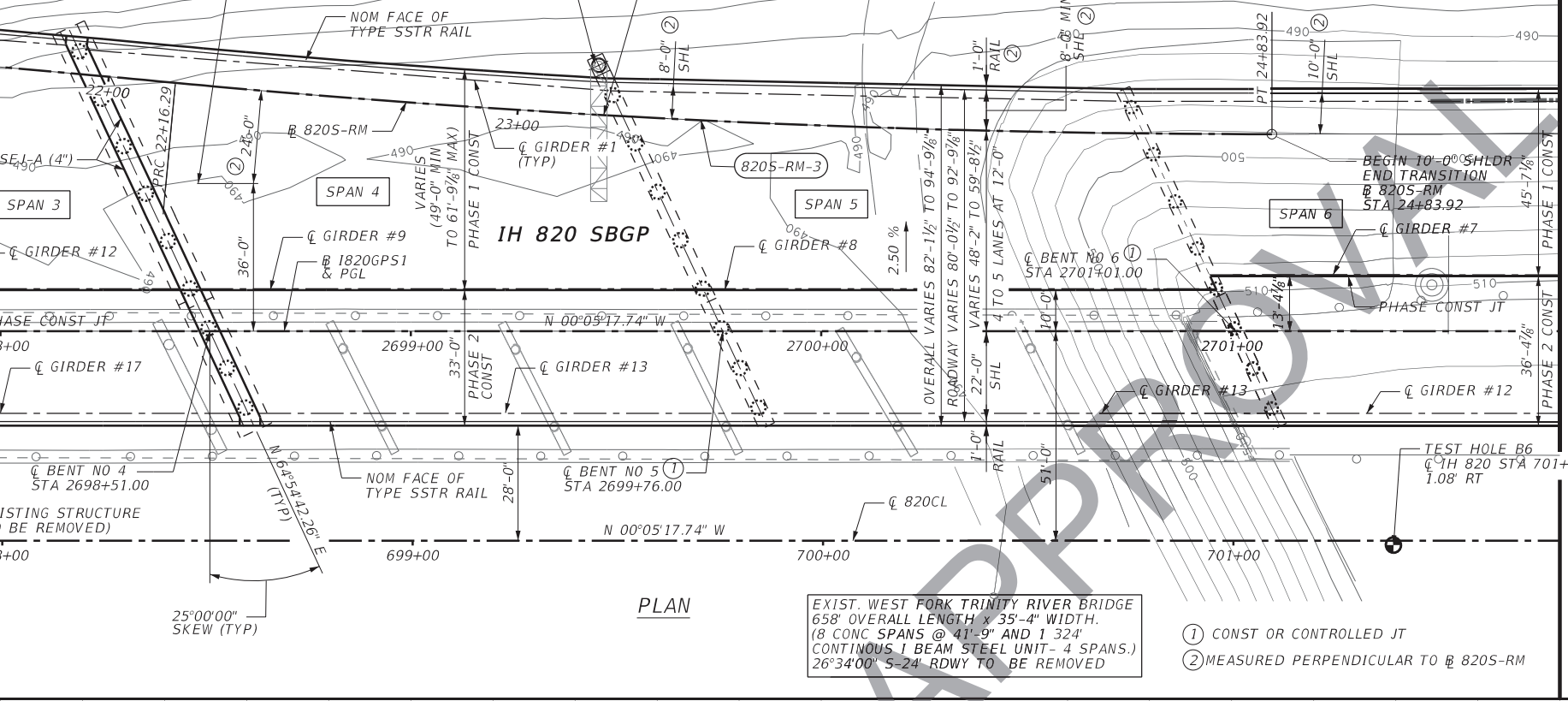
HL 93

JA

WE

SCALE:

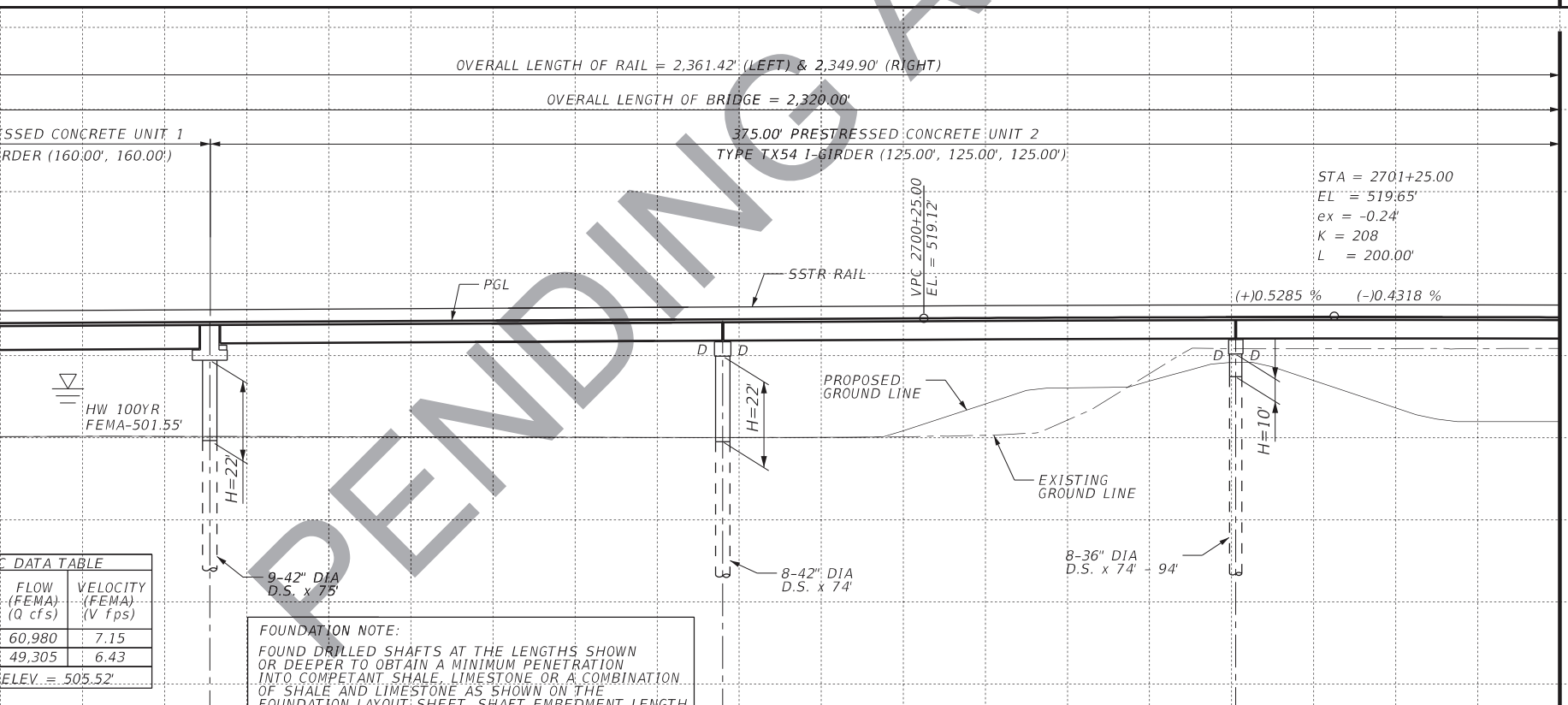
PENDING APPROVAL



PLAN

EXIST. WEST FORK TRINITY RIVER BRIDGE
658' OVERALL LENGTH x 35'-4" WIDTH.
(8 CONC SPANS @ 41'-9" AND 1 324'
CONTINOUS I BEAM STEEL UNIT- 4 SPANS.)
26°34'00" S-24' RDWY TO BE REMOVED

① CONST OR CONTROLLED JT
② MEASURED PERPENDICULAR TO ℄ 820S-RM



C DATA TABLE	
FLOW (FEMA) (Q cfs)	VELOCITY (FEMA) (V fps)
60,980	7.15
49,305	6.43
ELEV. = 505.52'	

FOUNDATION NOTE:
FOUND DRILLED SHAFTS AT THE LENGTHS SHOWN OR DEEPER TO OBTAIN A MINIMUM PENETRATION INTO COMPETANT SHALE, LIMESTONE OR A COMBINATION OF SHALE AND LIMESTONE AS SHOWN ON THE FOUNDATION LAYOUT SHEET. SHAFT EMBEDMENT LENGTH

HL 93

JA

WE

SCALE:

PENDING APPROVAL

PENDING APPROV

PENDING APPROVAL

PRE-ENGAGING

DRAFT NOT FOR CONSTRUCTION

DING APPRO

PENDING APPROVAL

PENDING APPROVAL

Chad Putnam

From: Osborn, Barry G CIV USARMY CESWF (US) [redacted]
Sent: Tuesday, August 22, 2017 9:45 AM
To: Chad Putnam
Subject: RE: SWF-2017-00502 USACE NWP 14 Application ~ CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County

Categories: 0008-13-124

Chad,

I received a response from Operations and based on the information you provided a Section 408 review for the project will not be required. I will continue to review the project and make a permit decision once I complete my review.

Thank you for providing the information on the project.

Barry

Barry G. Osborn
Regulatory Project Manager
U.S. Army Corps of Engineers
Fort Worth District, CESWF-DE-R
819 Taylor Street
P.O. Box 17300
Fort Worth, Texas 76102-0300
(817) 886-1734
[redacted]
Please help the Regulatory Program improve its service by completing the survey on the following website:
http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

-----Original Message-----
From: Chad Putnam [redacted]
Sent: Friday, August 18, 2017 7:55 AM
To: Osborn, Barry G CIV USARMY CESWF (US) [redacted]
Subject: [Non-DoD Source] RE: SWF-2017-00502 USACE NWP 14 Application ~ CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County

See if this will work for you. I added in the pavement overlay for the interim project where it extends beyond the ultimate facility limits. The full pavement overlay is shown on Sheet 5 of the Interim Project Layout that I sent you.

Thanks,

Chad Putnam

Work Schedule: Monday, Wednesday and Friday from 6 AM to 5 PM
Tuesday and Thursday from 1:30 PM to 5:30 PM

-----Original Message-----
From: Osborn, Barry G CIV USARMY CESWF (US) [redacted]
Sent: Friday, August 18, 2017 7:33 AM
To: Chad Putnam
Subject: RE: SWF-2017-00502 USACE NWP 14 Application ~ CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County

No problem. I will forward it when I get it. No hurry on this end.

Barry G. Osborn
Regulatory Project Manager
U.S. Army Corps of Engineers
Fort Worth District, CESWF-DE-R
819 Taylor Street
P.O. Box 17300
Fort Worth, Texas 76102-0300
(817) 886-1734
[redacted]
Please help the Regulatory Program improve its service by completing the survey on the following website:
Blockedhttp://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

-----Original Message-----
From: Chad Putnam [redacted]
Sent: Friday, August 18, 2017 7:32 AM
To: Osborn, Barry G CIV USARMY CESWF (US) [redacted]
Subject: [Non-DoD Source] RE: SWF-2017-00502 USACE NWP 14 Application ~ CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County

Sure thing. It may take just a little while as the file that I have doesn't currently have the lines and polygons labeled. I will forward it to you as soon as I get it cleaned up.

Thanks,

Chad Putnam

Work Schedule: Monday, Wednesday and Friday from 6 AM to 5 PM
Tuesday and Thursday from 1:30 PM to 5:30 PM

-----Original Message-----
From: Osborn, Barry G CIV USARMY CESWF (US) [redacted]
Sent: Friday, August 18, 2017 7:30 AM
To: Chad Putnam
Subject: RE: SWF-2017-00502 USACE NWP 14 Application ~ CSJ: 0008-13-124, etc.; I-820 (East); Tarrant County

Chad,

Could you also send the legend to the colors then I will forward this to our Operation Division for a Section 408 determination.

Barry

Barry G. Osborn
Regulatory Project Manager
U.S. Army Corps of Engineers
Fort Worth District, CESWF-DE-R
819 Taylor Street
P.O. Box 17300
Fort Worth, Texas 76102-0300
(817) 886-1734
[redacted]
Please help the Regulatory Program improve its service by completing the survey on the following website:
BlockedBlockedhttp://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

[redacted]

CDC Tracking Code: FW050917-01

FINAL CDC ACTION/FINDINGS FORM

(To be completed by CDC/Floodplain Administrator and submitted to NCTCOG)

CDC ACTION: (check one)

☐ granted with favorable/neutral comments from other signatories

☐ granted with one or more unfavorable comments from other signatories

■ granted with variance with favorable/neutral comments from other signatories

☐ granted with variance with one or more unfavorable comments from other signatories

☐ denied (please explain):

By my authority under the City/County, I hereby issue the City/County's findings and final action.

Signature of CDC/Floodplain Administrator

CLAIR C. DAVIS, P.E., CFM, CDC AND FLOODPLAIN ADMINISTRATOR, AUGUST 22, 2017

Typed Name/Title/Date

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

August 14, 2017

Mr. Clair Davis, P.E., CFM
Floodplain Administrator
City of Fort Worth
1000 Throckmorton Street
Fort Worth, Texas 76102-6311

Dear Mr. Davis:

In response to your letter of 17 May 2017, the U.S. Army Corps of Engineers Fort Worth District has completed the Technical Review of CDC application FW050917-01 IH 820 East Loop Improvements.

The results of the Technical Review indicate that the project meets the CDC Common Regional Criteria as stated in the CDC Manual 4th Edition.

Please contact Michael Danella, at 817-886-1690, if you have questions about the Technical Review or require additional information.

Sincerely,

BRIAN T. GIACOMOZZI, P.E., PMP, CEM
Chief, Engineering & Construction Division

cc:
Mr. Scott Yates, P.E.
Jacobs Engineering Group Inc.
777 Main Street
Fort Worth, Texas 76102

John Terry
H&H Resources, Inc.
15840 FM 529, Suite 211
Houston, Texas 77095

Ms. Mia Brown, CFM
Environment and Development Planner
North Central Texas Council of Governments
P.O. Box 5888
Arlington, Texas 76005