



South Texas Project Electric Generating Station 4000 Avenue F – Suite A Bay City, Texas 77414

October 28, 2009  
U7-C-STP-ACE-090002

U.S. Army Corps of Engineers – Galveston District  
Attention: Jayson Hudson  
2000 Fort Point Road  
Galveston, TX 77550

South Texas Project  
Units 3 and 4  
Permit Determination Request

Reference: Letter, Scott Head to Jayson Hudson, "Permit Determination Request",  
dated June 4, 2009, U7-C-STP-ACE-090001

STP Nuclear Operating Company (STPNOC) previously submitted information to the U.S. Army Corps of Engineers – Galveston District (USACE) to aid in conducting a Permit Determination for construction activities anticipated in association with STP Units 3 & 4 (Reference). Subsequent to that submittal, STPNOC has refined its construction plans and has generated new information regarding activities previously described.

This revised information is attached for your review. It includes new drawings depicting previously identified stream crossings in plan and profile along with similar plan and profile drawings of the proposed barge slip enhancement activities. In addition, we have included a new field data sheet documenting upland conditions existing at the barge slip site.

If you have any questions, please feel free to contact me at (361) 972-7136, or Russell W. Kiesling at (361)-972-4716

A handwritten signature in black ink, appearing to read "S-Head", is positioned above the typed name of Scott Head.

Scott Head  
Manager, Regulatory Affairs  
South Texas Project, Units 3 & 4

sad

Attachment

cc: w/o attachment except\*  
(paper copy)

C. M. Canady  
City of Austin  
Electric Utility Department  
721 Barton Springs Road  
Austin, TX 78704

\*Steven P. Frantz, Esquire  
A. H. Gutterman, Esquire  
Morgan, Lewis & Bockius LLP  
1111 Pennsylvania Ave. NW  
Washington, D.C. 20004

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Steve Winn  
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Joseph Kiwak  
Nuclear Innovation North America

Jon C. Wood, Esquire  
Cox Smith Matthews

J. J. Nesrsta  
R. K. Temple  
Kevin Pollo  
L. D. Blaylock  
CPS Energy

**STP Units 3 and 4**  
**Permit Determination Request**  
Revised and New Supporting Information

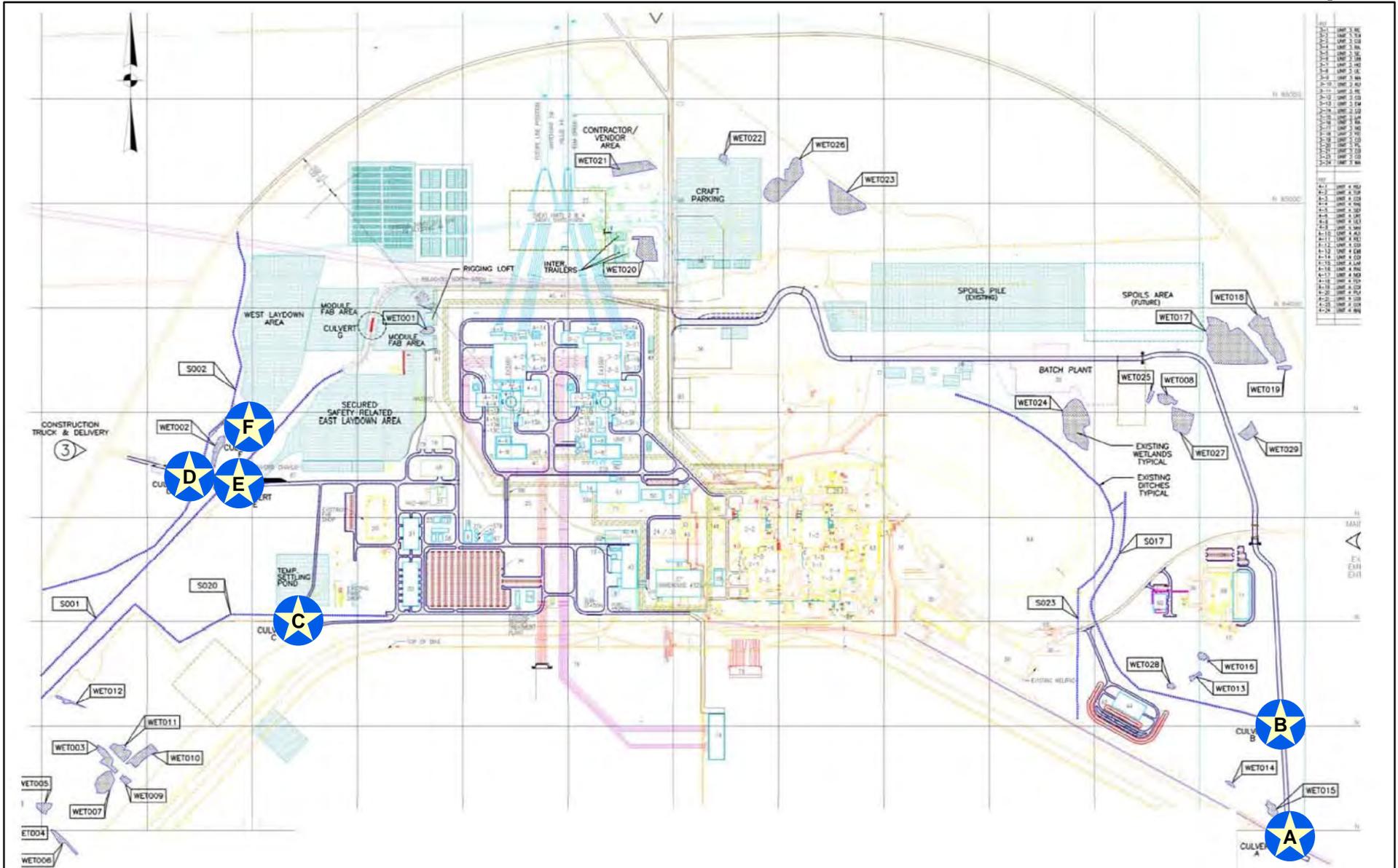
*October 27, 2009*

At the request of the U.S. Army Corps of Engineers - Galveston District (USACE), STP Nuclear Operating Company (STPNOC) submitted supporting materials to assist in identifying potential Section 404 permits required for construction activities associated with STP Units 3 and 4 in a letter dated June 4, 2009. Subsequent to that submittal, STPNOC has revised and updated some of the details and descriptions provided earlier. That new information is presented below.

New information updating the previously submitted data is attached in the following order:

- A. A new Site Plan drawing (Figure 1) showing the six jurisdictional stream crossings (A-F) proposed for the project. In addition, plan and profile drawings (Figures 2-13) are attached for each stream crossing showing culvert size and location along with the extent of jurisdictional waters impacted;
- B. New plan and profile drawings (Figures 14 & 15) depicting the proposed re-excavation and expansion of the two barge slips originally constructed for Units 1 & 2;
- C. A new drawing (Figure 16) depicting the location of the disposal area which will receive the dredged materials from the barge slip re-excavation and expansion. Also included is a cross section drawing through the berm surrounding the disposal area (Figure 17) and photographs of the berm and the area enclosed;
- D. A new Field Data Sheet documenting soils, hydrology and vegetation at the proposed barge slip re-excavation and expansion area. Photographs of the observation point and the surrounding area also are included;
- E. A new Table 1 summarizing the impacts to jurisdictional waters for each component of the proposed activities.

All previously submitted information not updated by this submittal should be considered current and accurate for your use in this Permit Determination.



**LEGEND**  
 A - Figures 2 & 3  
 B - Figures 4 & 5  
 C - Figures 6 & 7  
 D - Figures 8 & 9  
 E - Figures 10 & 11  
 F - Figures 12 & 13



NOT TO SCALE

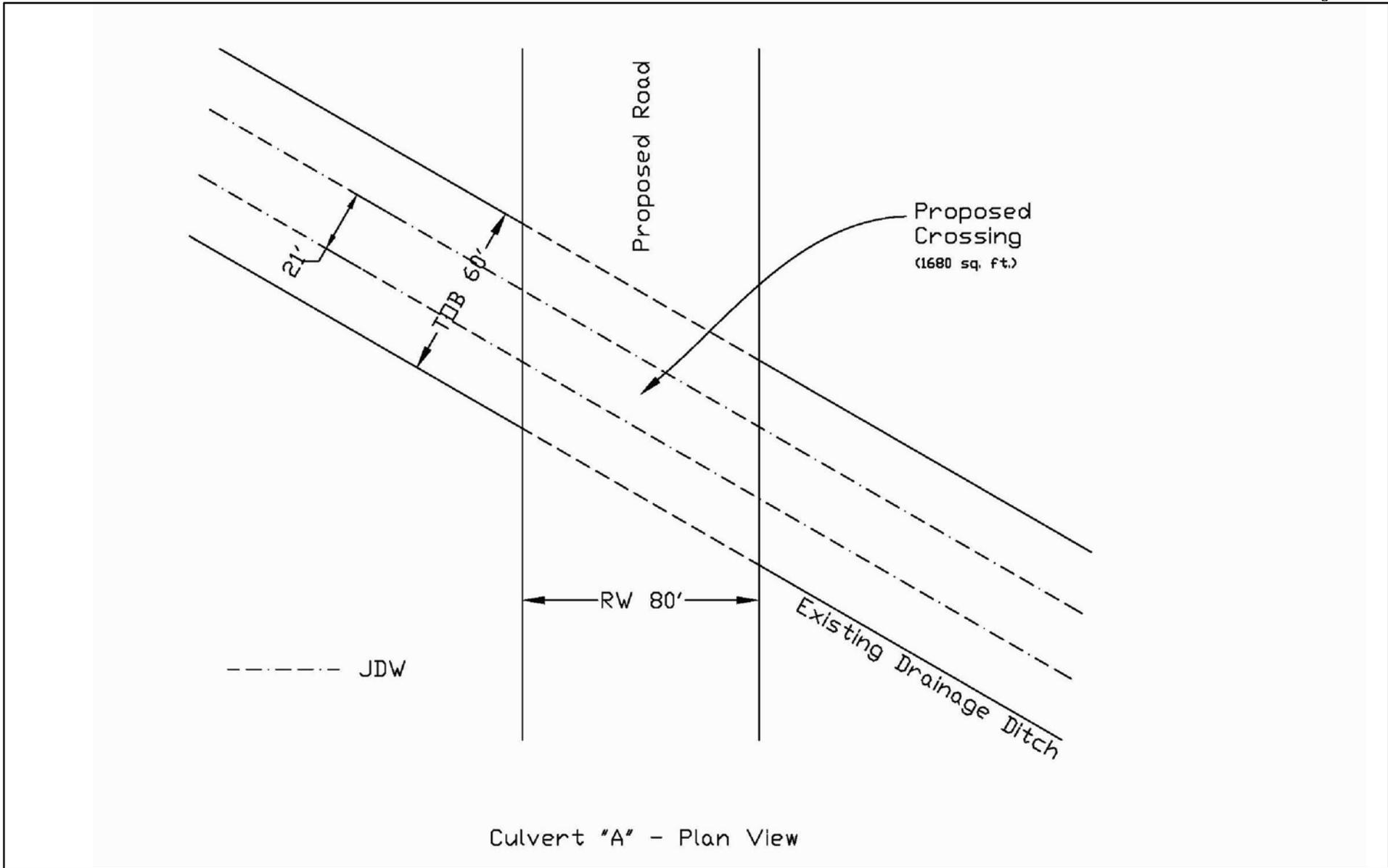
**Site Plan**  
 South Texas Project Units 3 & 4  
 Matagorda County, TX

**USACE:**  
**SWG-2007-786**

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Figure 1

Background: U0-SITE-C-DWG-SK-0035, courtesy FLOUR ENTERPRISES, INC.



Culvert "A" - Plan View



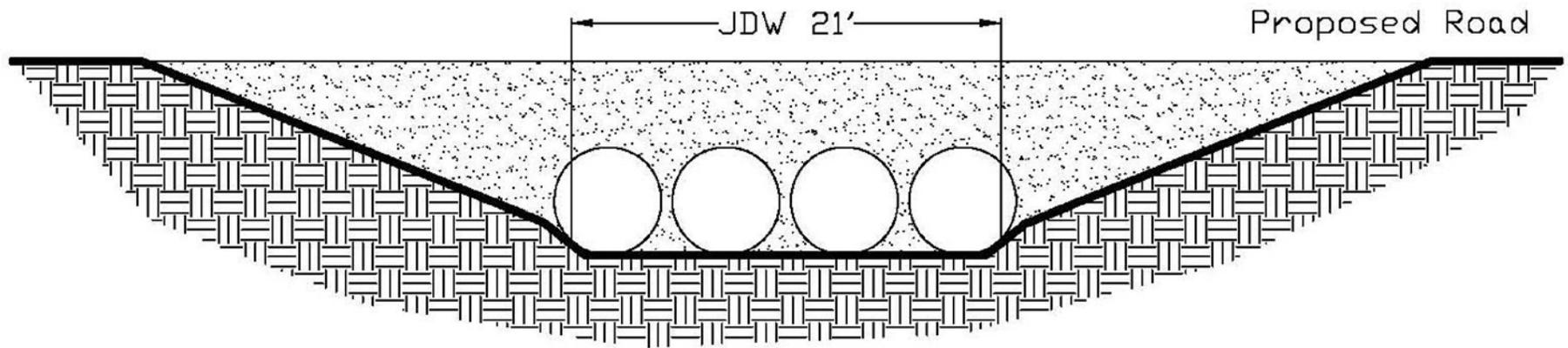
**LEGEND**  
 JDW: Jurisdictional Water  
 RW: Road Width  
 TOB: Top Of Bank

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Figure 2



Cross-section of culvert "A"



**LEGEND**

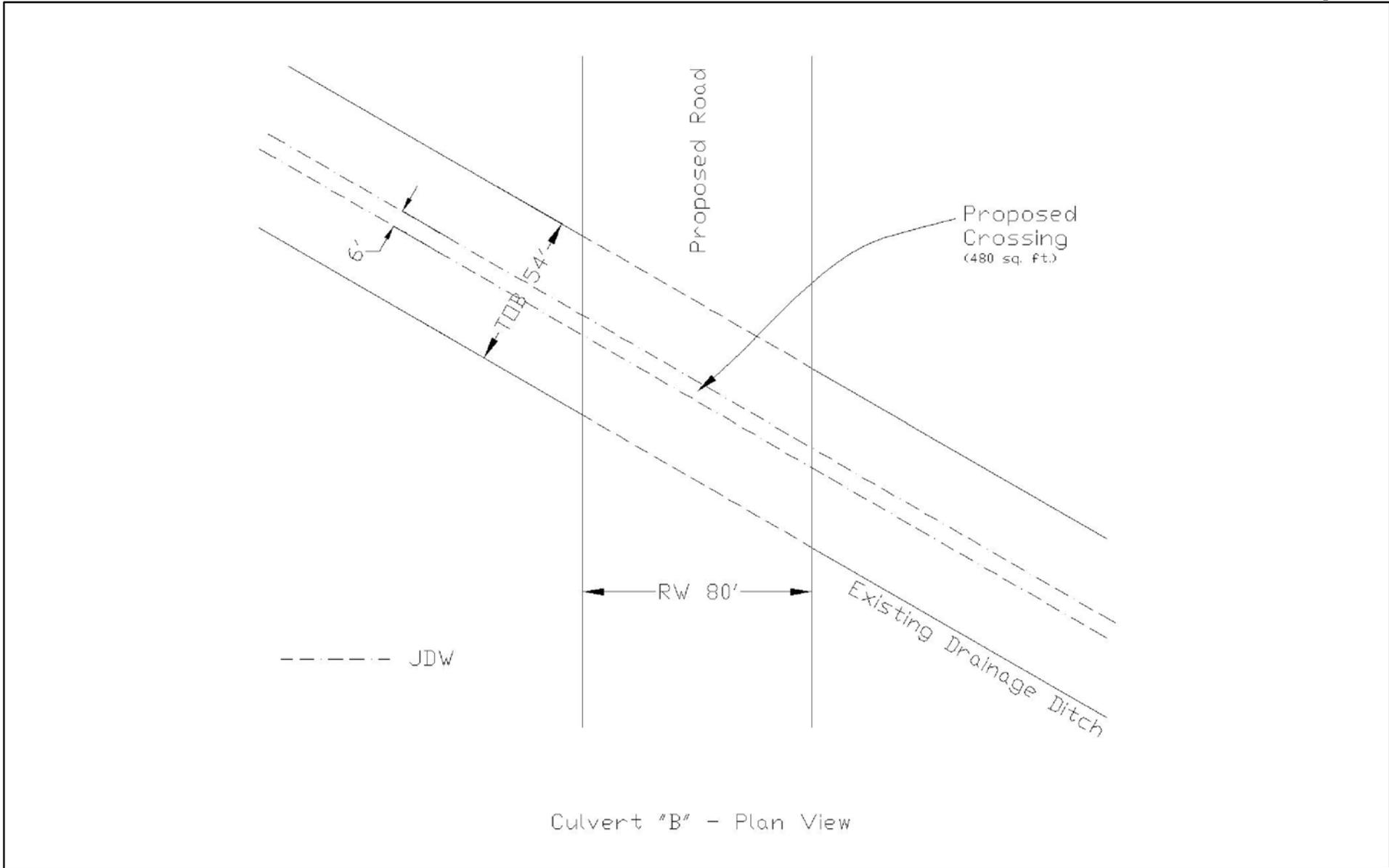
JDW: Jurisdictional Water

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Figure 3



**LEGEND**  
JDW: Jurisdictional Water  
RW: Road Width  
TOB: Top Of Bank

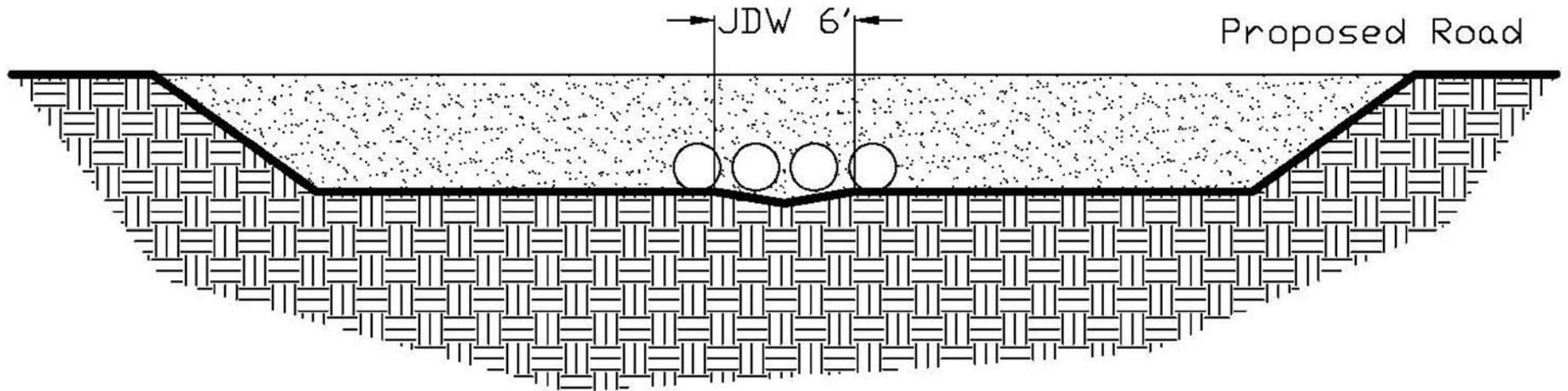
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Figure 4

Location: K:\GIS\Projects\NRG\10720\_008\_STP\STP-view\_section\_A.mxd



Cross-section of culvert "B"



**LEGEND**

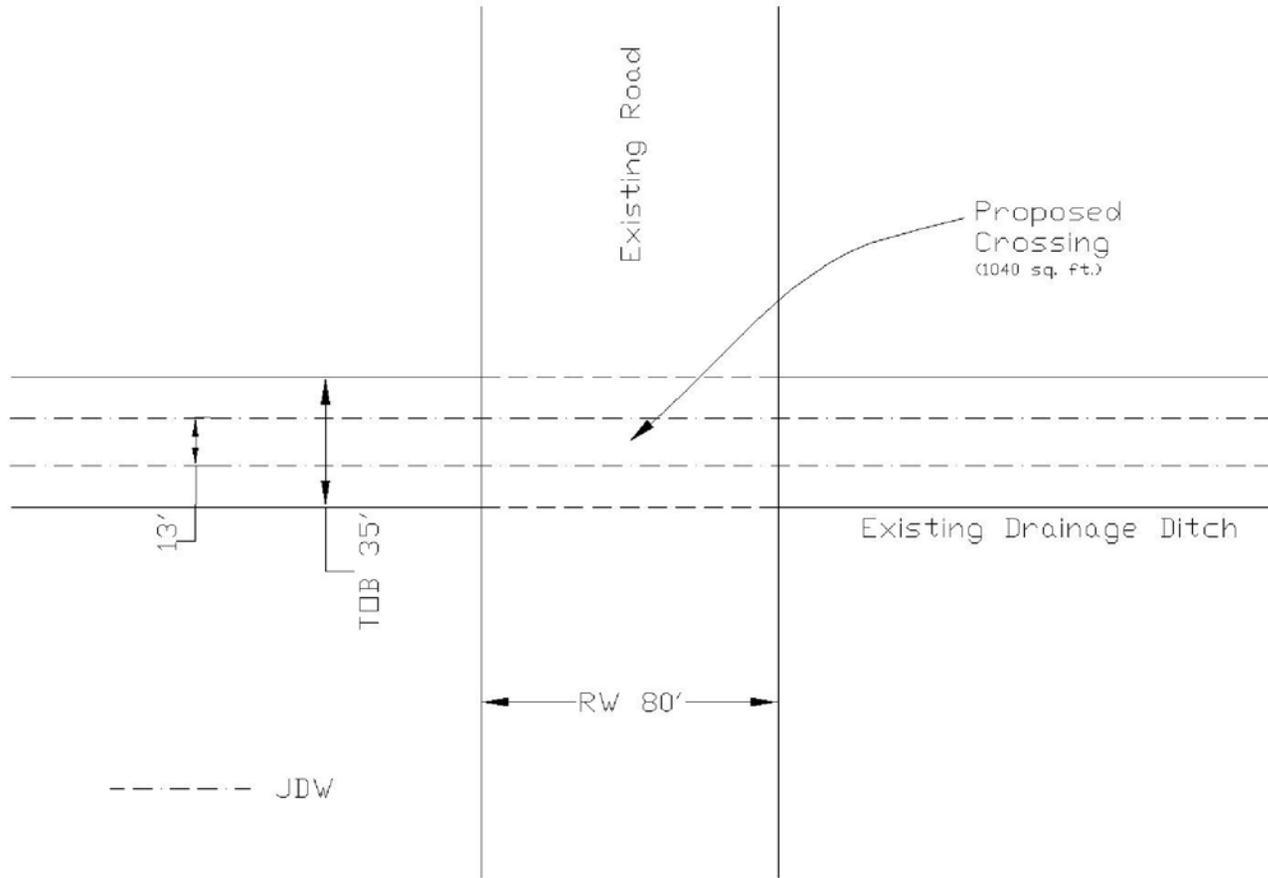
JDW: Jurisdictional Water

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Figure 5



Culvert "C" - Plan View



**LEGEND**

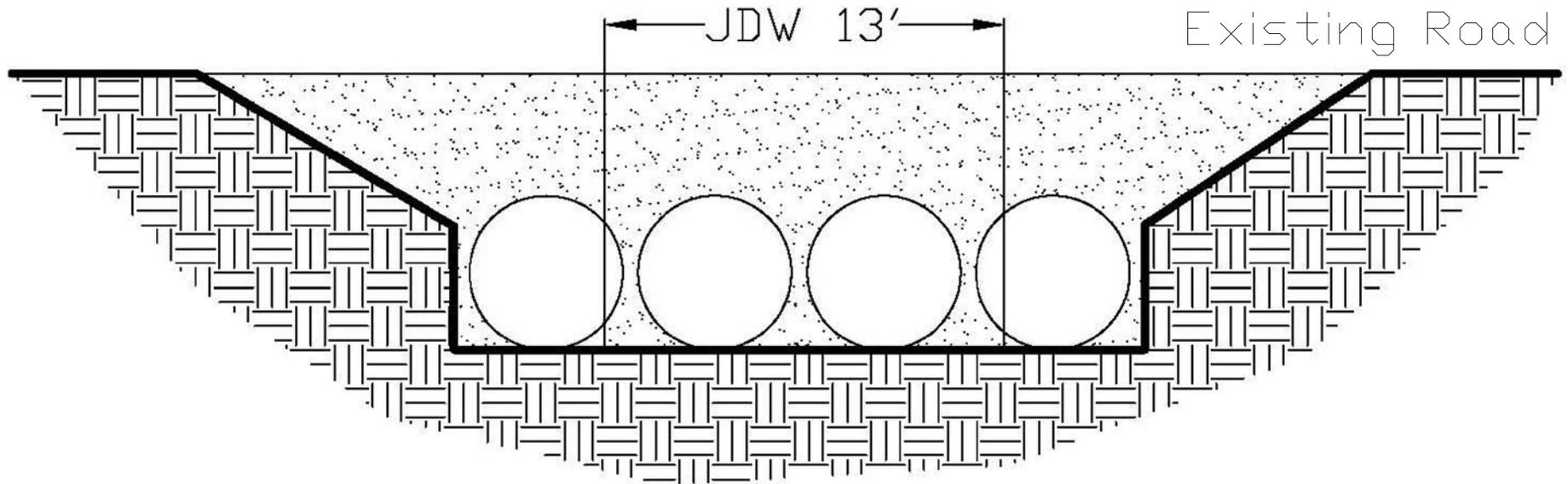
JDW: Jurisdictional Water  
RW: Road Width  
TOB: Top Of Bank

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Figure 6



Cross-section of culvert "C"



**LEGEND**

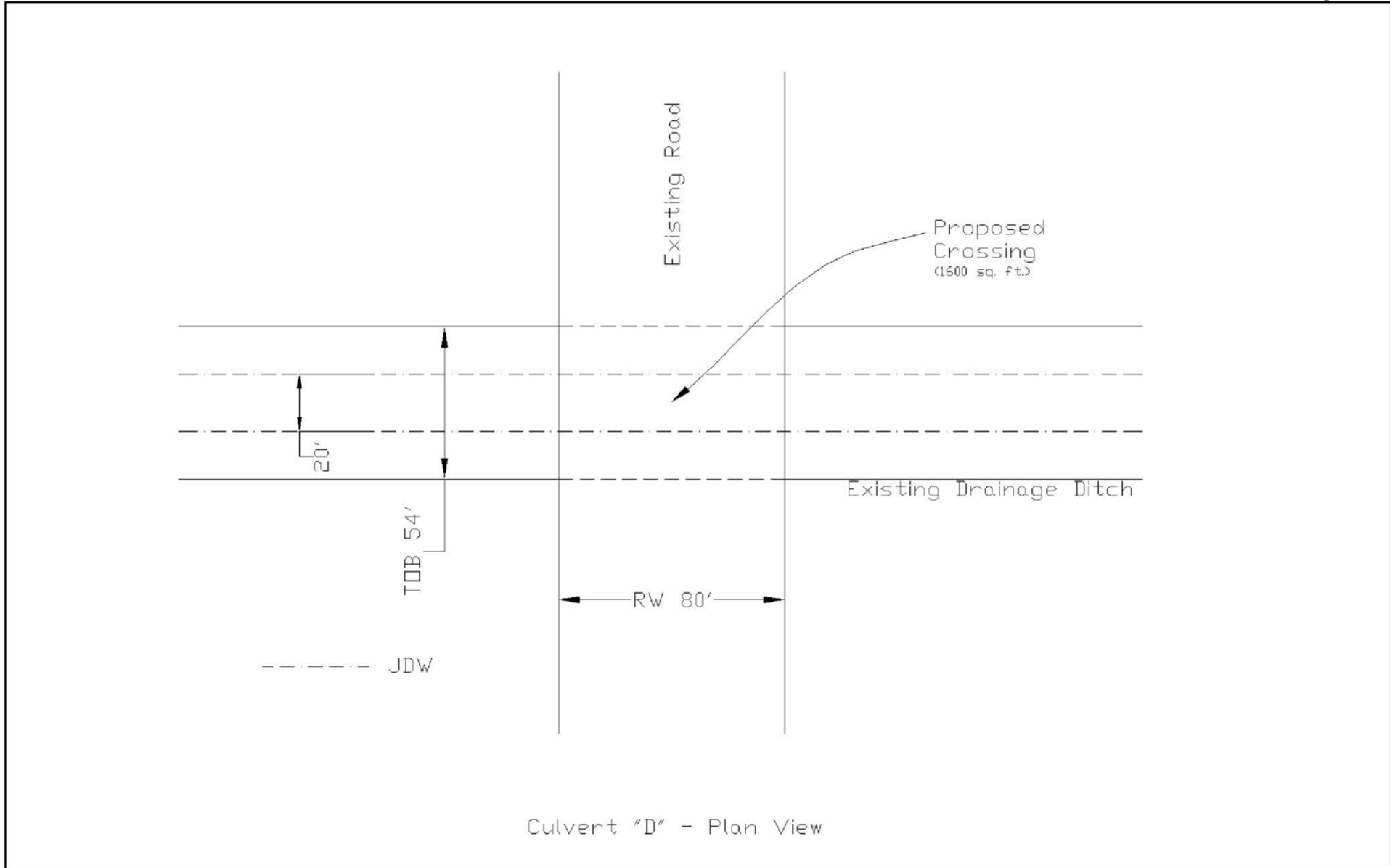
JDW: Jurisdictional Water

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Figure 7



Culvert "D" - Plan View



**LEGEND**

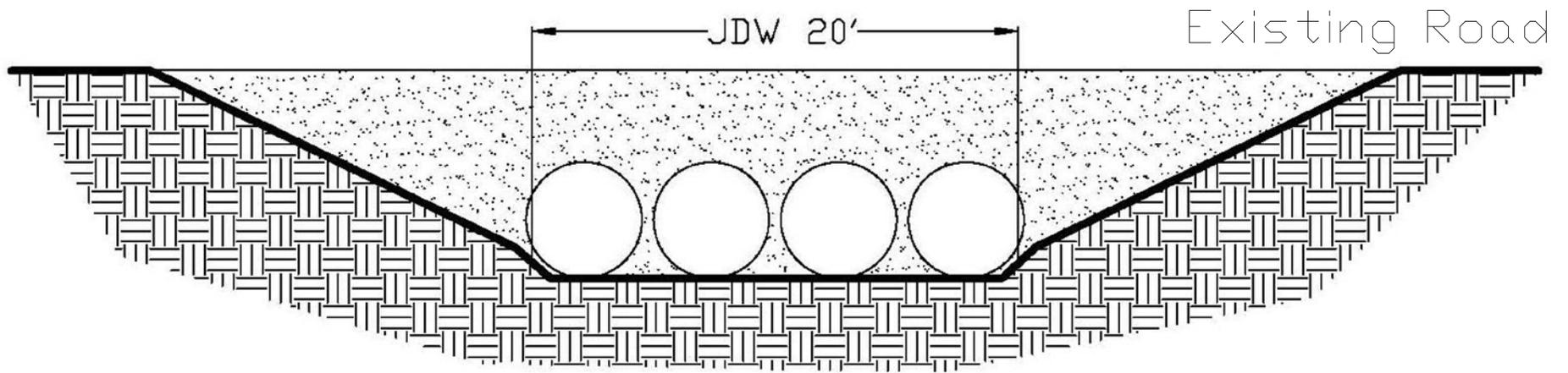
JDW: Jurisdictional Water  
RW: Road Width  
TOB: Top Of Bank

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Figure 8



Cross-section of culvert "D"



**LEGEND**

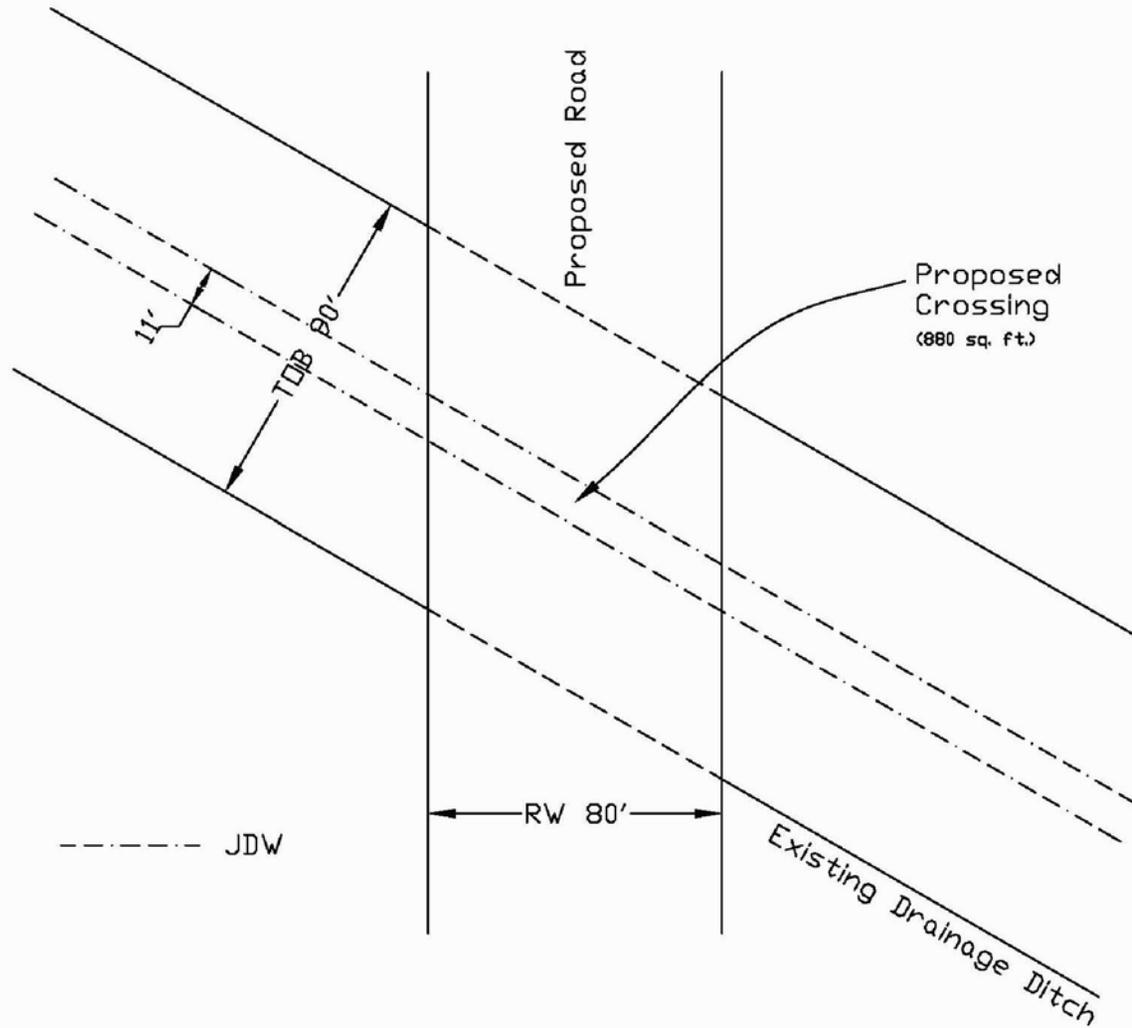
JDW: Jurisdictional Water

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Figure 9



Culvert "E" - Plan View



**LEGEND**

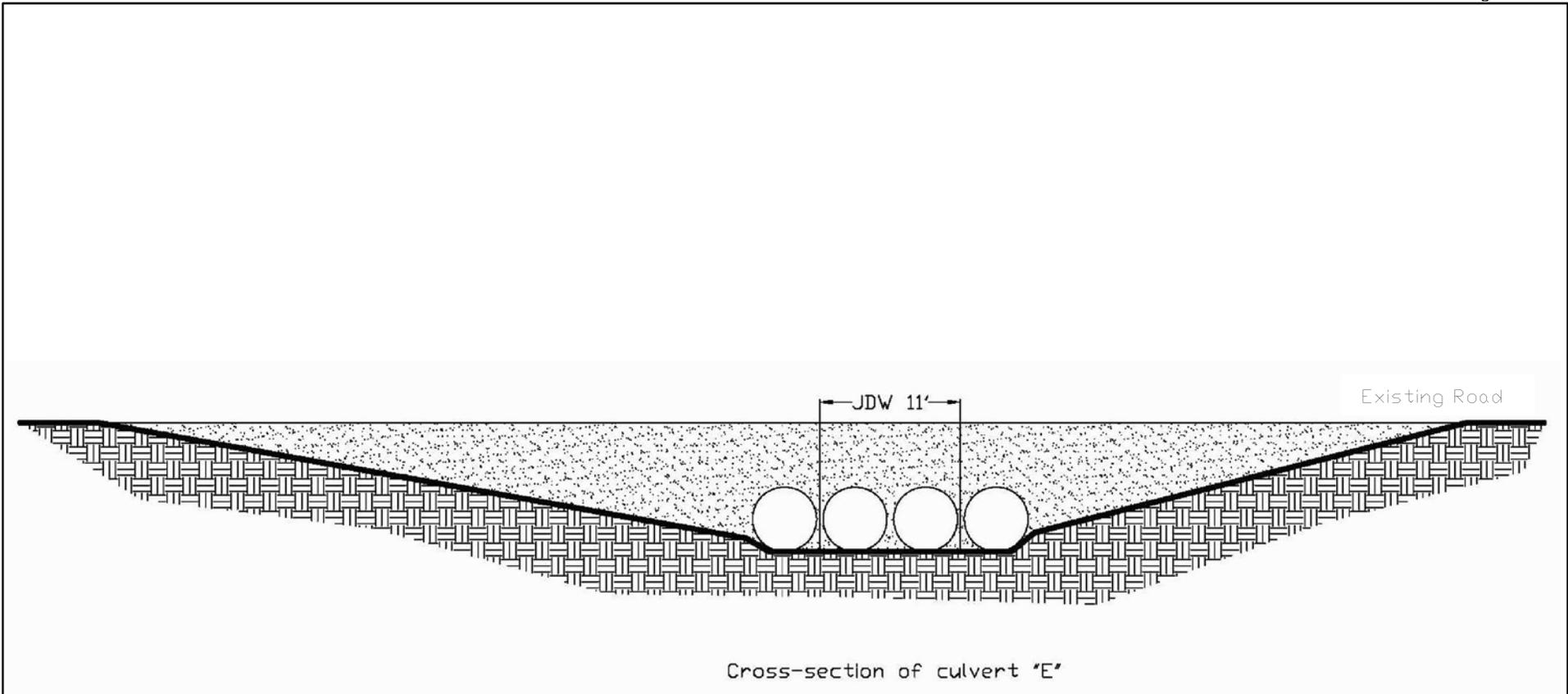
JDW: Jurisdictional Water  
RW: Road Width  
TOB: Top Of Bank

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Figure 10



**LEGEND**

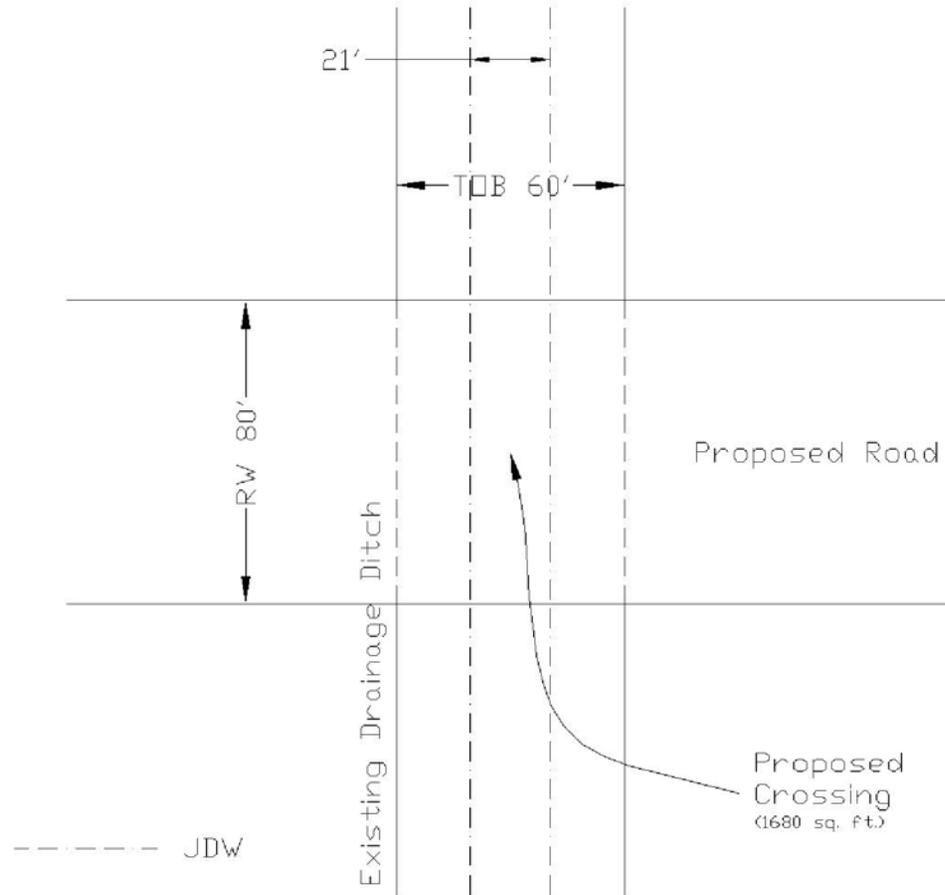
JDW: Jurisdictional Water

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Figure 11



Culvert "F" - Plan View



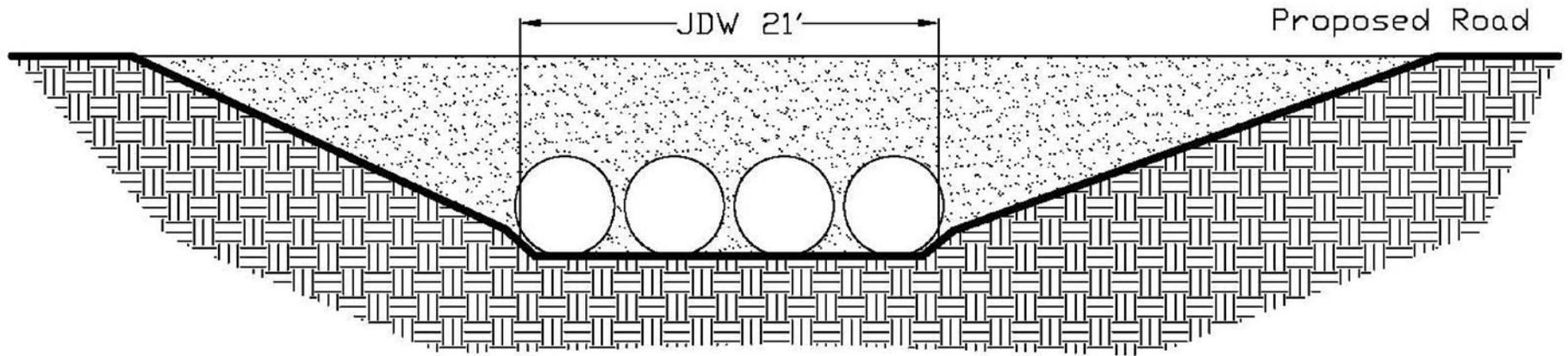
**LEGEND**  
 JDW: Jurisdictional Water  
 RW: Road Width  
 TOB: Top Of Bank

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Figure 12



Cross-section of culvert "F"



**LEGEND**

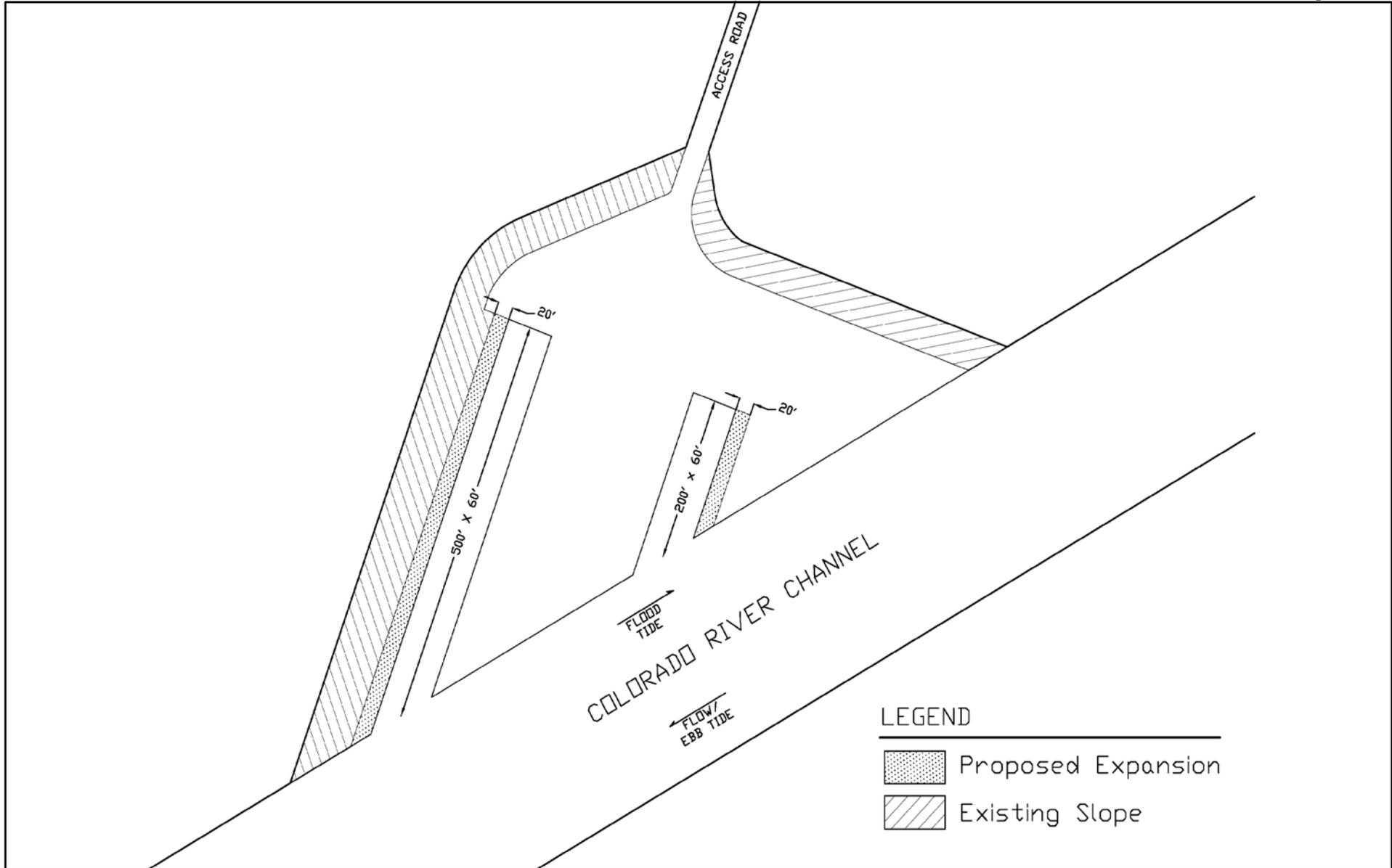
JDW: Jurisdictional Water

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Matagorda County, TX

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Figure 13



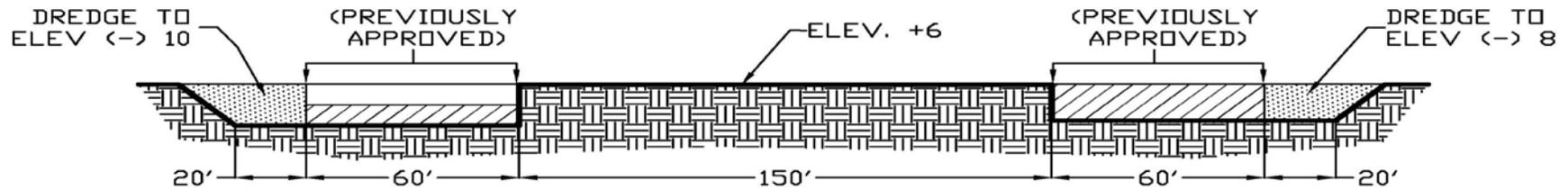
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Figure 14



CROSS SECTION BARGE SLIP

NOTE: ELEVATIONS SHOWN ARE IN FEET.  
 DATUM IS IN MEAN SEA LEVEL.

LEGEND

-  Proposed Expansion
-  Deposited Material To Be Removed

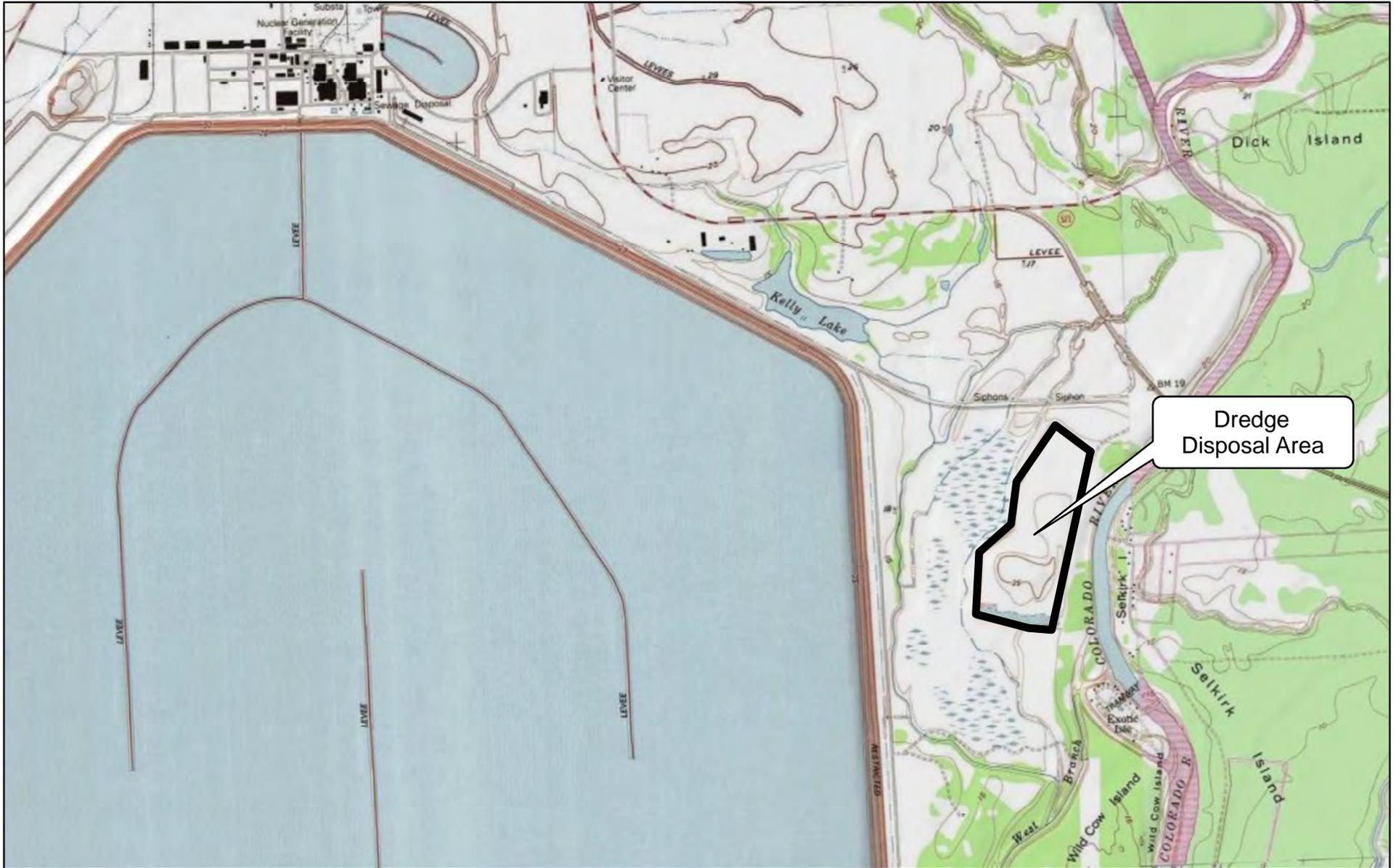


South Texas Project Units 3 & 4  
 Matagorda County, TX

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Figure 15



Dredge Disposal Area



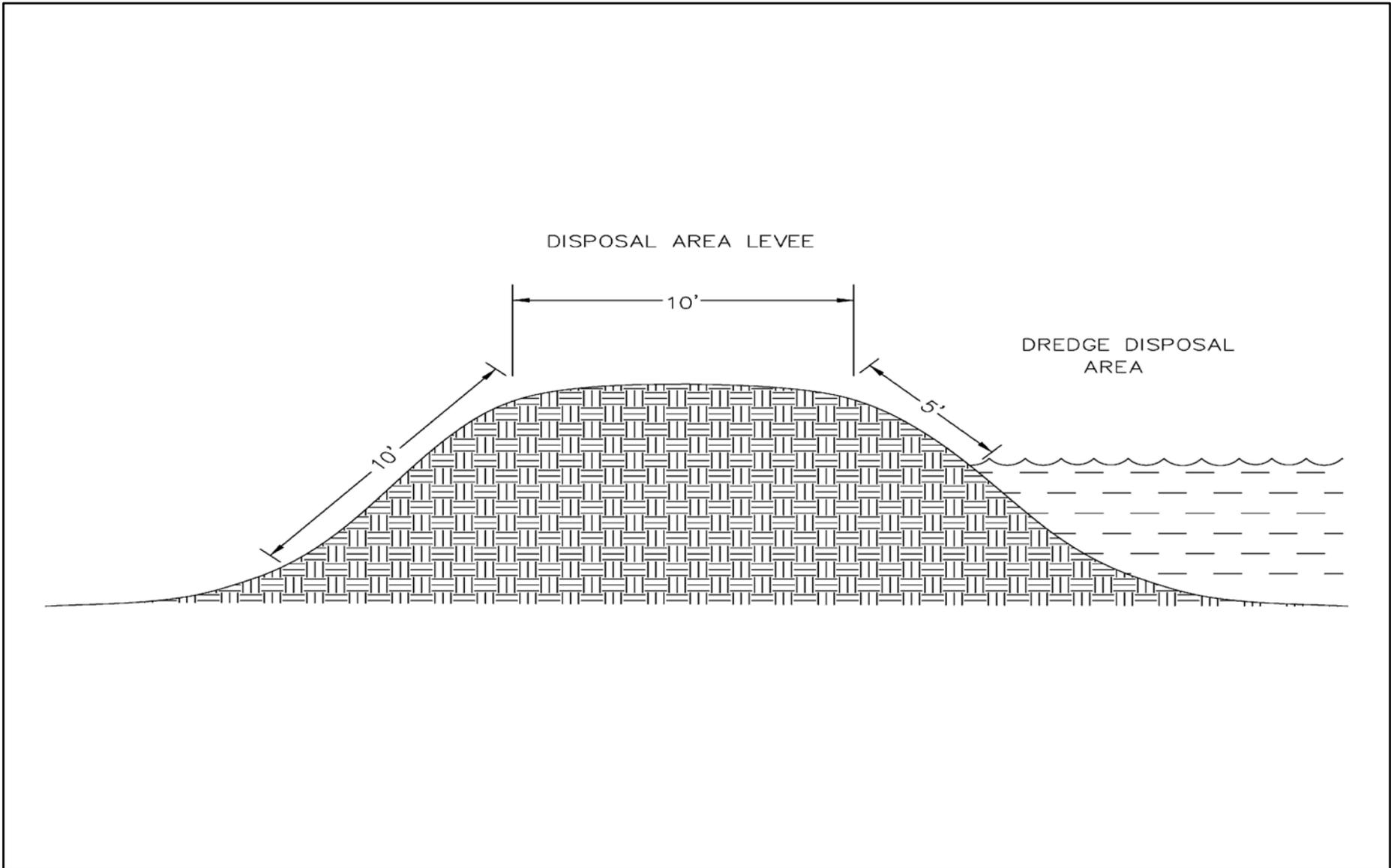
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Matagorda County, TX

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Figure 16



South Texas Project Units 3 & 4  
Matagorda County, TX

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Figure 17



View looking south on top of dredge disposal levee.



View looking north on top of the dredge disposal levee.



View looking north at the outside slope of the dredge disposal levee.



View looking north at access road along the dredge disposal levee.

**WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)**

Centerline Re-Route Access Road Warehouse Site Other: **Wetland ID No.:**

Date: 10/22/09 Client/Project Name & No.: STPNOC Point ID: Wetland Pt \_\_\_\_\_ Upland Pt X

Investigators: K Schlicht (AECOM) State/County/Municipality: TX / MATAGORDA

Logbook No.: \_\_\_\_\_ Logbook Page No.: \_\_\_\_\_ Picture No.: \_\_\_\_\_ Picture No.: \_\_\_\_\_ Milepost: \_\_\_\_\_

Wetland Quality: High Moderate Low			Wetland Type (circle one): PFO PEM PSS Other:				
DOMINANT PLANT SPECIES		Stratum	Indicator	NON-DOMINANT PLANT SPECIES		Stratum	Indicator
1.	<u>Populus deltoides</u>	<u>T</u>	<u>FAC</u>	1.			
2.	<u>Ambrosia trifida</u>	<u>S</u>	<u>FAC</u>	2.			
3.	<u>Solidago canadensis</u>	<u>S</u>	<u>FACU</u>	3.			
4.	<u>Dichanthium aristatum</u>	<u>H</u>	<u>NA</u>	4.			
5.	<u>Rubus trivialis</u>	<u>V</u>	<u>FACU</u>	5.			
6.	<u>Ampelopsis arborea</u>	<u>V</u>	<u>FAC</u>	6.			
7.	<u>Staphophyles sp</u>	<u>V</u>	<u>FACU</u>	7.			
8.				8.			

Per Cent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 43% > FAC Dominant

REMARKS: NO hydrophytic vegetation present

**HYDROLOGY**

Recorded Data? Describe: No Recorded Data?

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: 0 (in.)

Depth to Saturated Soil: 0 (in.)

Primary Wetland Indicators (circle those that apply):  
 Inundated \_\_\_\_\_ Sediment Deposits \_\_\_\_\_  
 Saturated in Upper 12 Inches \_\_\_\_\_ Water Marks \_\_\_\_\_  
 Drift Lines \_\_\_\_\_ Drainage Patterns in Wetlands \_\_\_\_\_

Secondary Wetland Indicators (2 or more required) (circle those that apply):  
 Oxidized Root Channels in Upper 12 \_\_\_\_\_ FAC-Neutral Test \_\_\_\_\_  
 Water-Stained Leaves \_\_\_\_\_ Other (Explain in Remarks) \_\_\_\_\_  
 Local Soil Survey Data \_\_\_\_\_

Remarks: NO Primary or Secondary Indicators Present

**SOILS**

Map Unit Name (Series and Phase): \_\_\_\_\_ Drainage Class: \_\_\_\_\_

Taxonomy (Subgroup): \_\_\_\_\_ Field Observations Confirm Mapped Type? \_\_\_\_\_

**Profile Description:**

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle (Abundance/Contrast)	Texture, Concretions, Structure, etc.
<u>0-20</u>		<u>10YR 5/3</u>	<u>NONE</u>	<u>SANDY - CLAY</u>

Circle those that Apply:

Histosol	Sulfidic Odor	Organic Streaking in Sandy Soils	Oxidized Rhizopheres	Concretions
Histic Epipedon	Aquic Moisture Regime	Organic Pans in Sandy Soils	Listed on Local Hydric Soils List	Gleyed Soil
High Organic Content	Other:			

REMARKS: NO indicators present

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present?	Yes <u>(NO)</u>	Is This Sampling Point Within a Wetland?	YES <u>(NO)</u>
Wetland Hydrology Present?	Yes <u>(NO)</u>	Is This An Isolated Wetland?	YES <u>(NO)</u>
Hydric Soils Present?	Yes <u>(NO)</u>		
Normal Circumstances?	<u>YES</u>	Significantly Disturbed:	<u>NO</u>
		Potential Problem Area?	<u>NO</u>

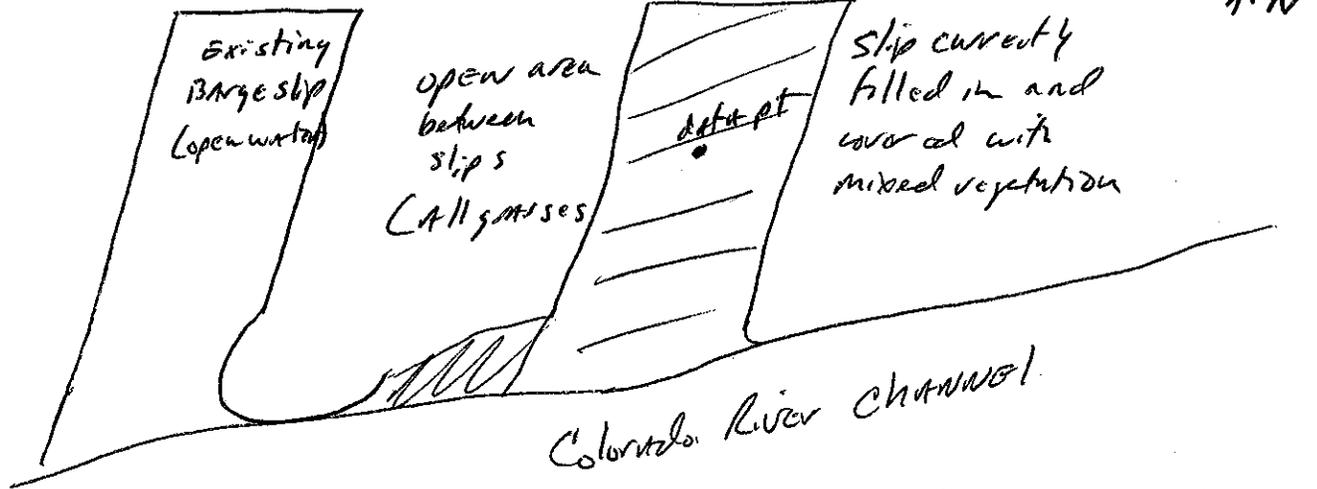
**WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)**

**Wetland ID No.:**

Date: <i>10/22/09</i>	Client/Project Name & No.: <i>STP NOC</i>	Point ID: Wetland Pt	Upland Pt <i>X</i>
		Milepost:	

**Drawing**

Please include: Directional & North Arrow, Centerline, Length of feature, Distances from Centerline, Photo Locations, and Survey corridor



Crossing Method (1,2, or 3): \_\_\_\_\_

**Description of Wetland (include overall characteristics and provide unique descriptors):**

*DATA point indicates that the area is not a wetland.*

**T/E Species/Suitable Habitat:**

*NONE*

**Comments (i.e., angle at pipeline crossing, construction constraints, erosion potential, existing disturbances, and meanders):**

**Crossing Methods and Wetland Quality Criteria:** (Circle the wetland quality characteristics observed)

**Method 1:** Wetland Method 1 can be used in wetlands where soils are dry enough at the time of construction to support equipment. This crossing method requires topsoil segregation, and requires no special stabilization techniques.  
**Wetland Method 2:** Conventional Wetland Construction will be used for crossing wetlands with saturated soils or soils otherwise unable to support mainline construction equipment. Because the soils are saturated, there is a need to stabilize the ROW during construction.  
**Wetland Method 3:** Push/Pull Wetland Construction will be used in large wetland areas where sufficient hydrology is present for floating the pipeline in the trench, and grade elevation over the length of the push/pull area will not require damming to maintain adequate water levels for floatation of the pipe.

**HIGH QUALITY WETLAND:** no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed  
**MODERATE QUALITY WETLAND:** mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed  
**LOW QUALITY WETLAND:** severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed



View of vegetative cover within the existing filled in barge slip area.



View of data point location for wetland determination.



View of soil test pit taken at data point.



View of vegetative cover within data point area.

**Table 1 - Summary of Project Impacts.**

**Culvert Impacts**

Culvert	Impact Type	JD Width of Stream (ft) <sup>1</sup>	Width of Proposed Culvert (ft) <sup>2</sup>	Existing Culvert Linear (ft) <sup>3</sup>	Total Stream Impact (sq ft) <sup>4</sup>	New Impact Linear (ft) <sup>5</sup>	New Stream Impact (sq ft) <sup>6</sup>	Amount of Dredge/Fill Material (cu yd) <sup>7</sup>
A	New	21	80	0	1,680	80	1,680	62
B	New	6	80	0	480	80	480	17
C	Replace	13	80	75	1,040	5	65	38
D	Replace	20	80	60	1,600	20	400	59
E	Replace	11	80	80	880	0	0	32
F	New	21	80	0	1,680	80	1,680	62
G	None	0	80	0	0	0	0	0
					<b>7,360</b> ~0.17 ac	<b>265</b>	<b>4,305</b> ~0.10 ac	

- <sup>1</sup> Width of Bed and Bank as measured in stream (jurisdictional width) - measured in field
- <sup>2</sup> All road beds expected to be 80 ft wide - engineering design
- <sup>3</sup> Linear ft of existing culverts (old impacts) - measured in field
- <sup>4</sup> Total stream area impacted by culverts (old and new)
- <sup>5</sup> Linear ft of new culverts in JD areas (new impacts)
- <sup>6</sup> Surface area of new culverts in JD areas (total new impacts)
- <sup>7</sup> Cubic yards based on a 1 ft excavation

**Barge Slip Impacts**

Existing Length (ft)	Existing Width (ft)	Additional Width (ft)	New Width (ft)	Total Barge Slip Area (sq ft)	Barge Slip New Impacts (sq ft)	Amount of Dredge/Fill Material (cu yd)
500	60	20	80	40,000	10,000	11,851
200	60	20	80	16,000	4,000	8,296
				<b>56,000</b> ~1.29 ac	<b>14,000</b> ~0.32 ac	