

— Project Centerline

0 1 2 4 Miles



**IP Vicinity Map**  
**KMTEJAS – KMLP 24-INCH**  
**INTERCONNECT LATERAL PROJECT**  
**Kinder Morgan Tejas Pipeline, LLC**  
**Orange County, Texas and**  
**Cameron Parish, Louisiana**  
**SWG-2017-00398**

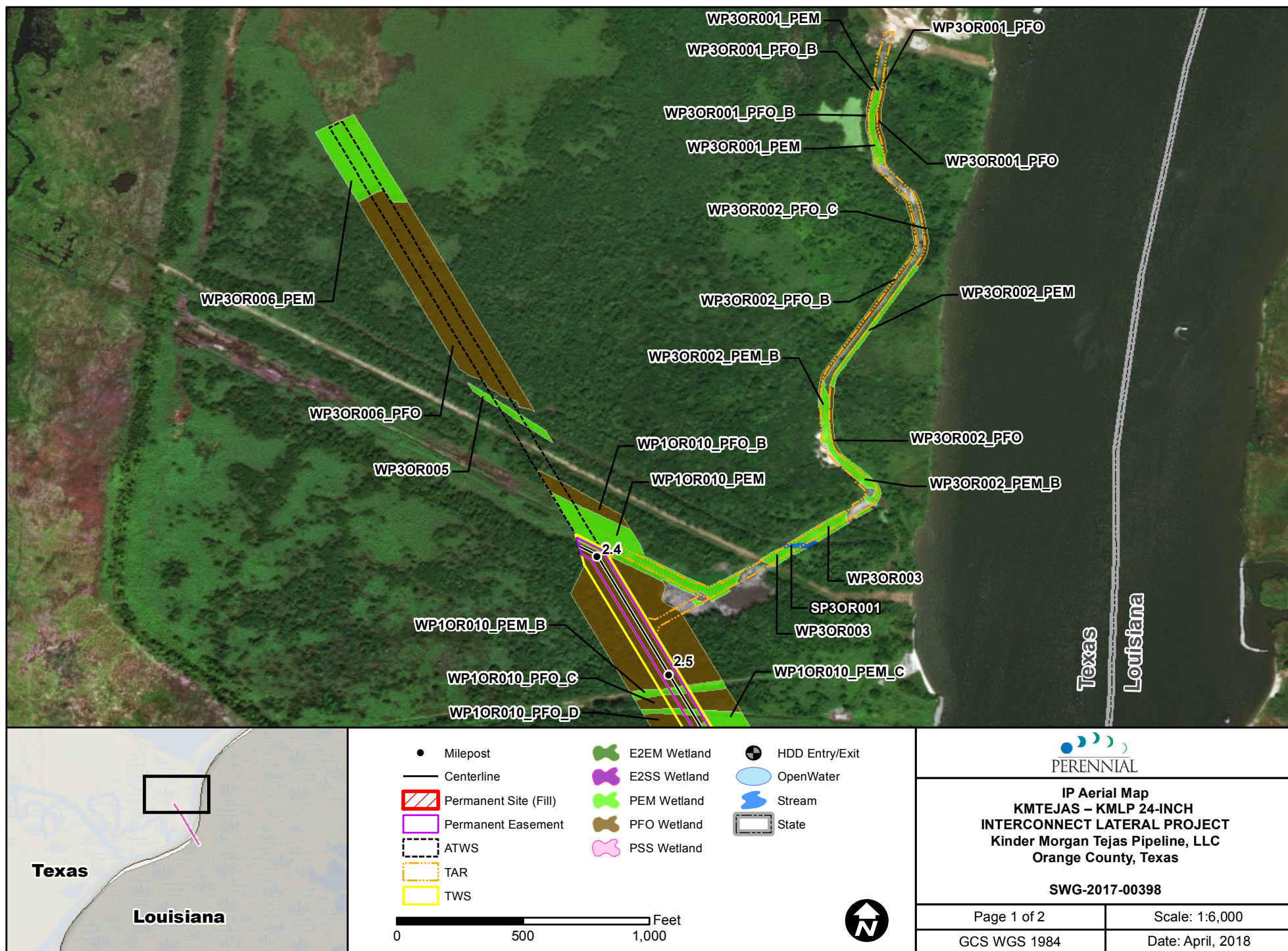
Page 1 of 1

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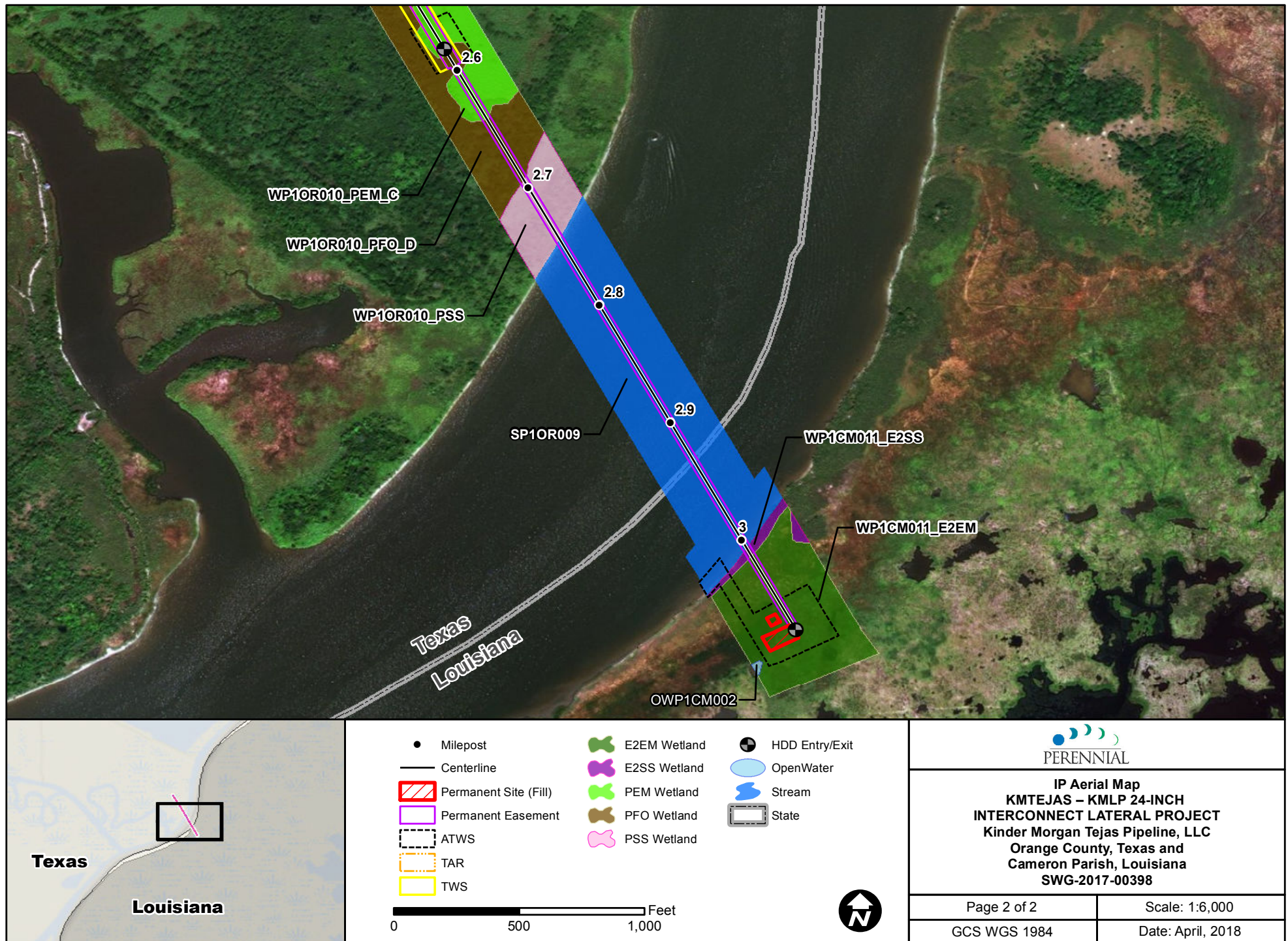
GCS WGS 1984

Date: May, 2018

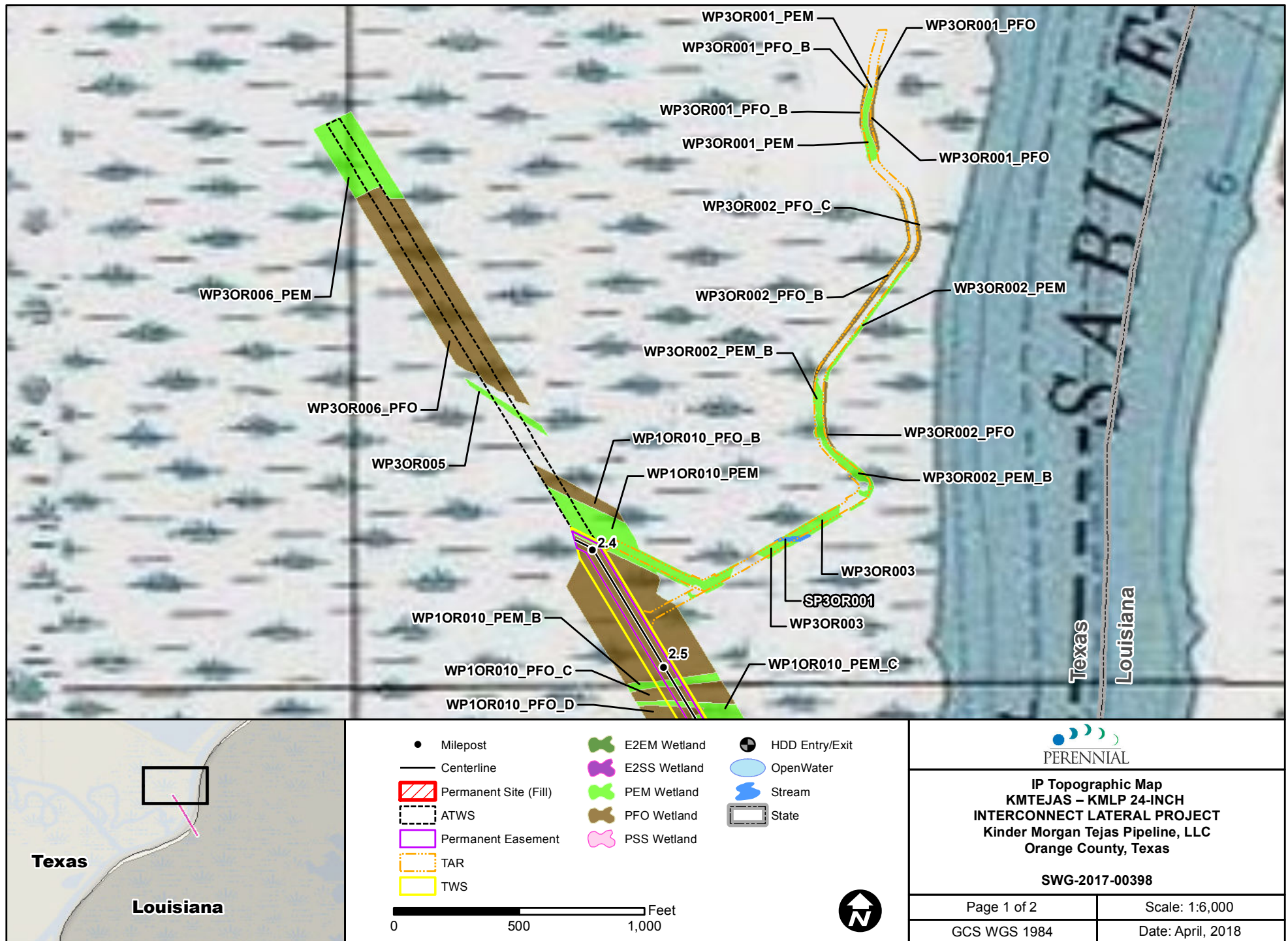




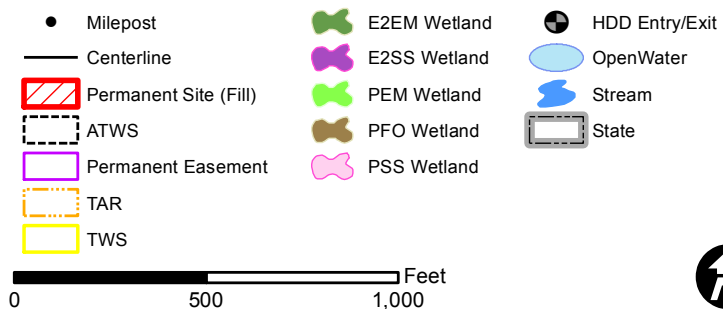
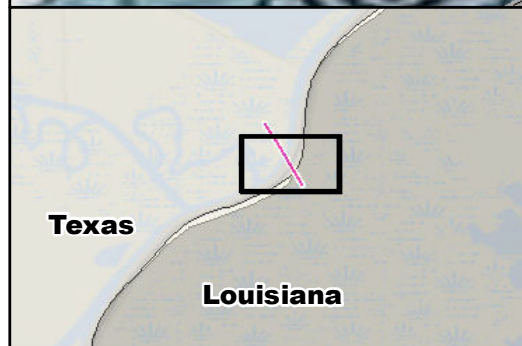
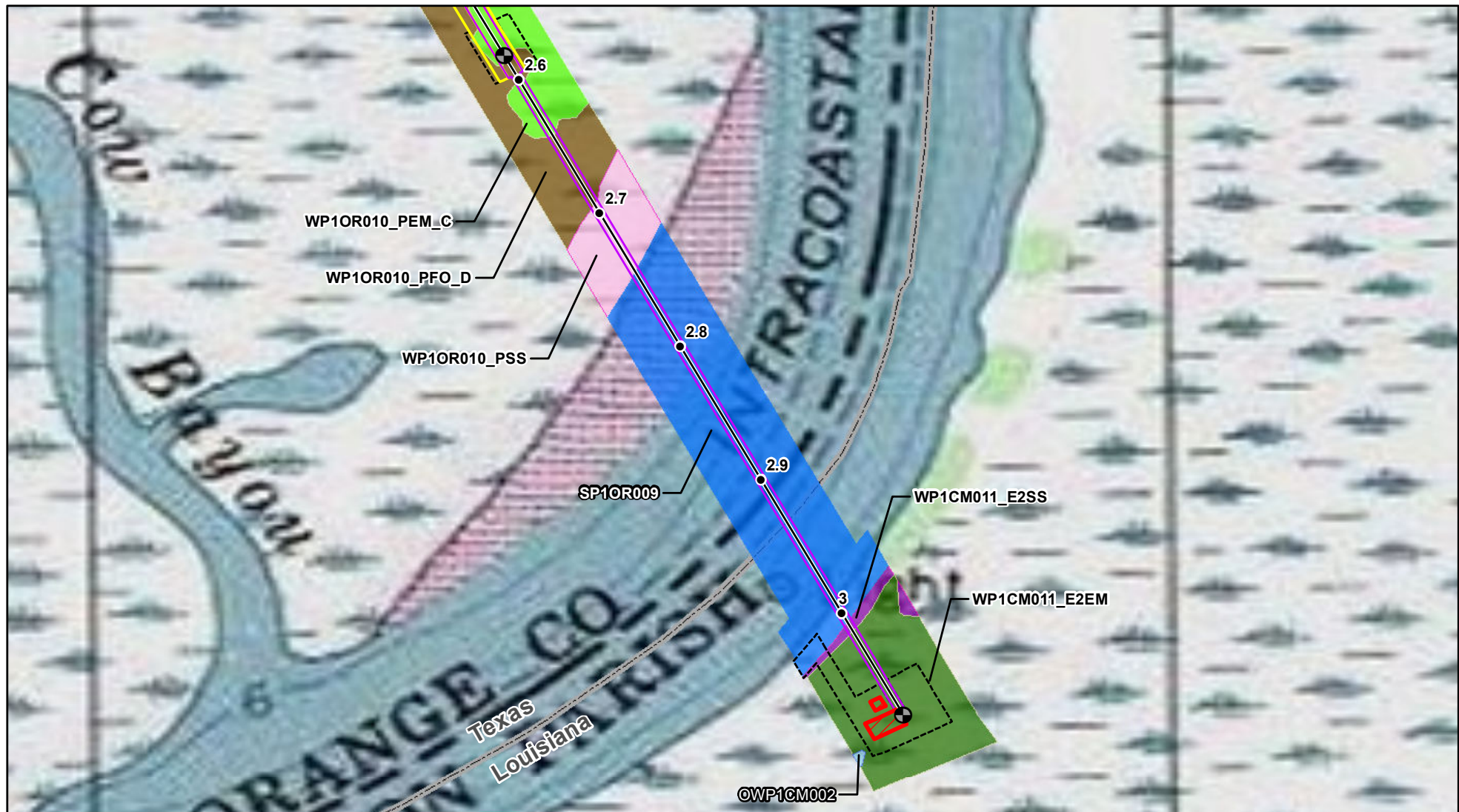












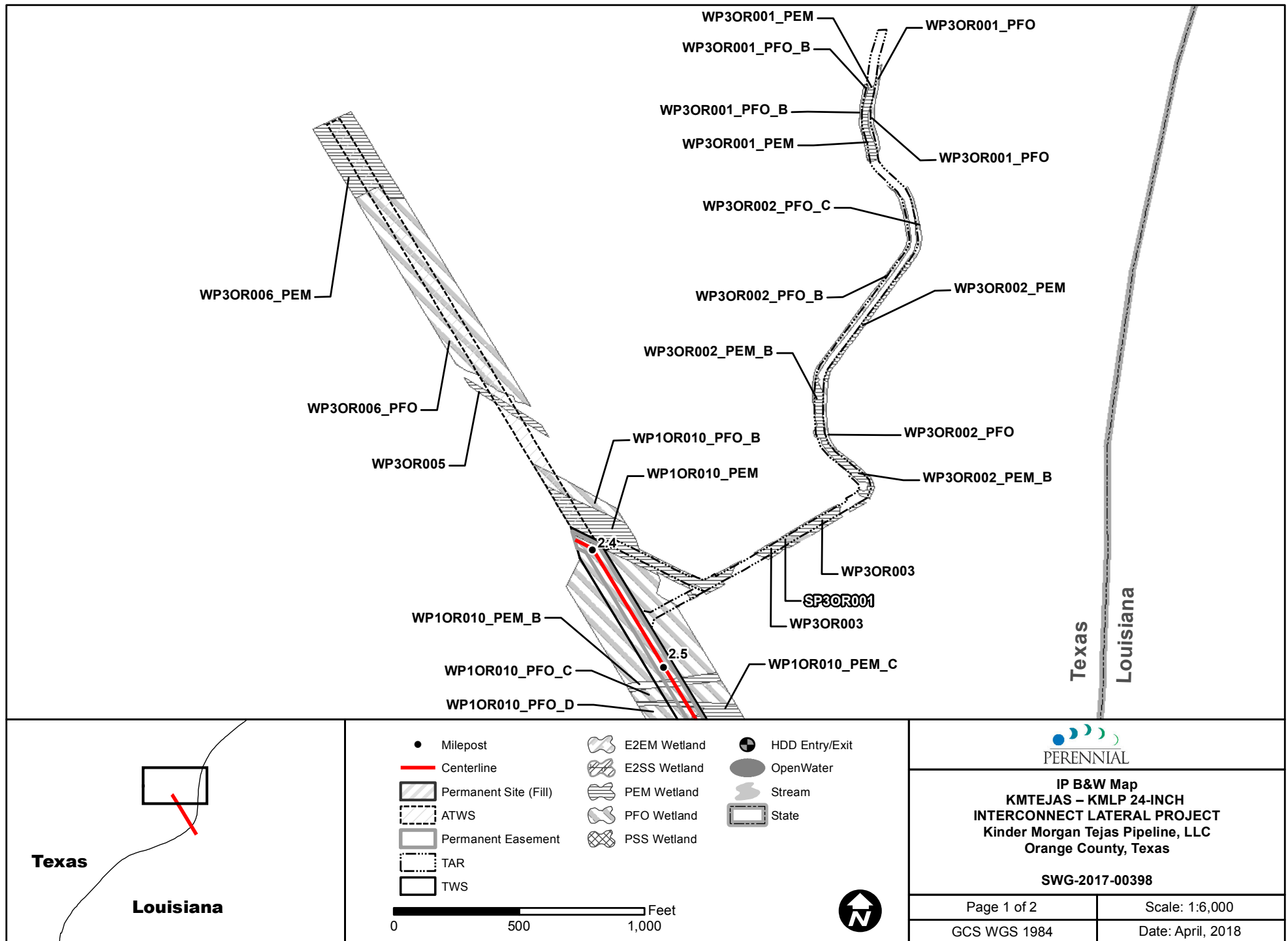
**IP Topographic Map**  
**KMTEJAS – KMLP 24-INCH**  
**INTERCONNECT LATERAL PROJECT**  
**Kinder Morgan Tejas Pipeline, LLC**  
**Orange County, Texas and**  
**Cameron Parish, Louisiana**  
**SWG-2017-00398**

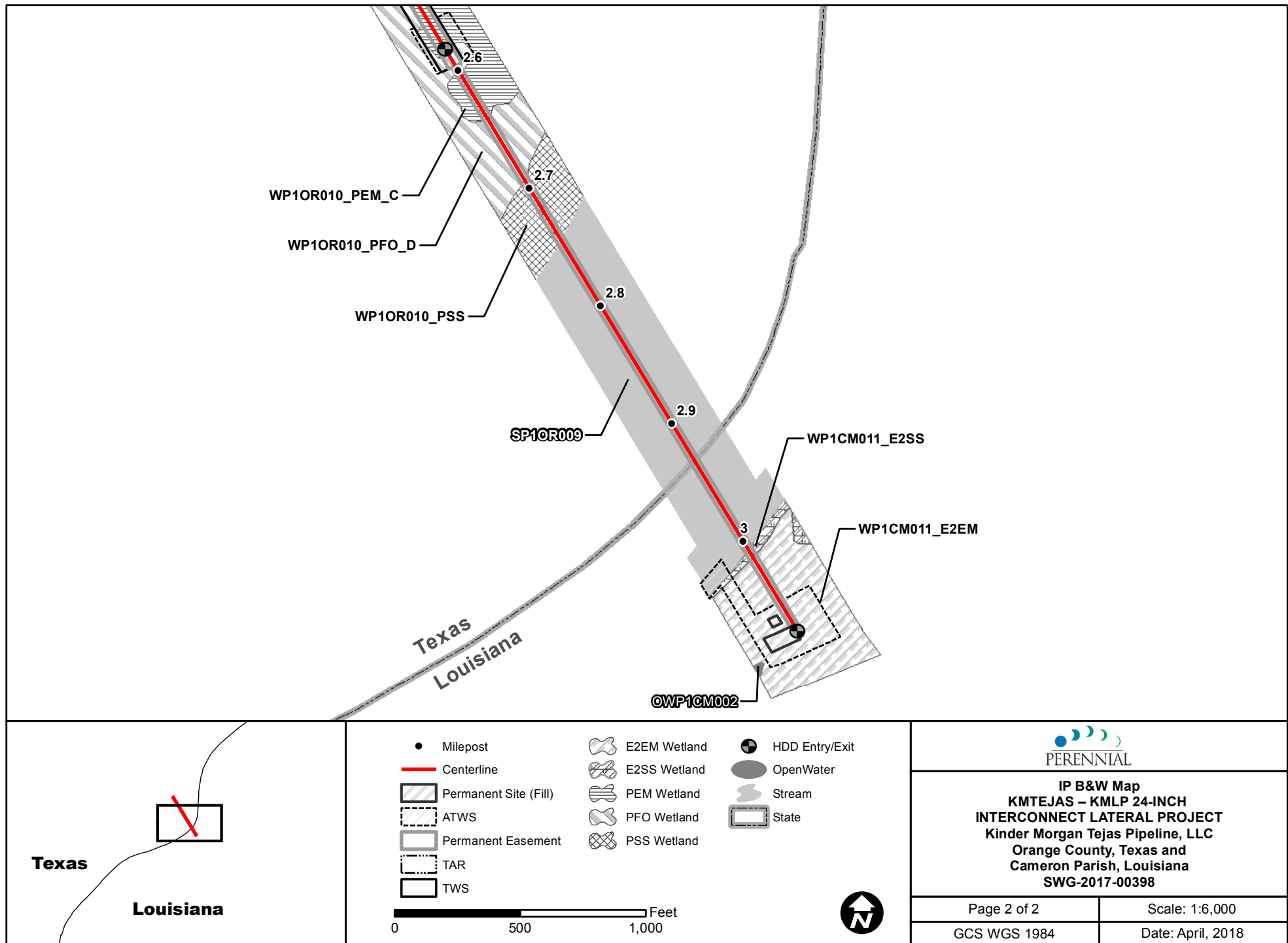
Page 2 of 2

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GCS WGS 1984

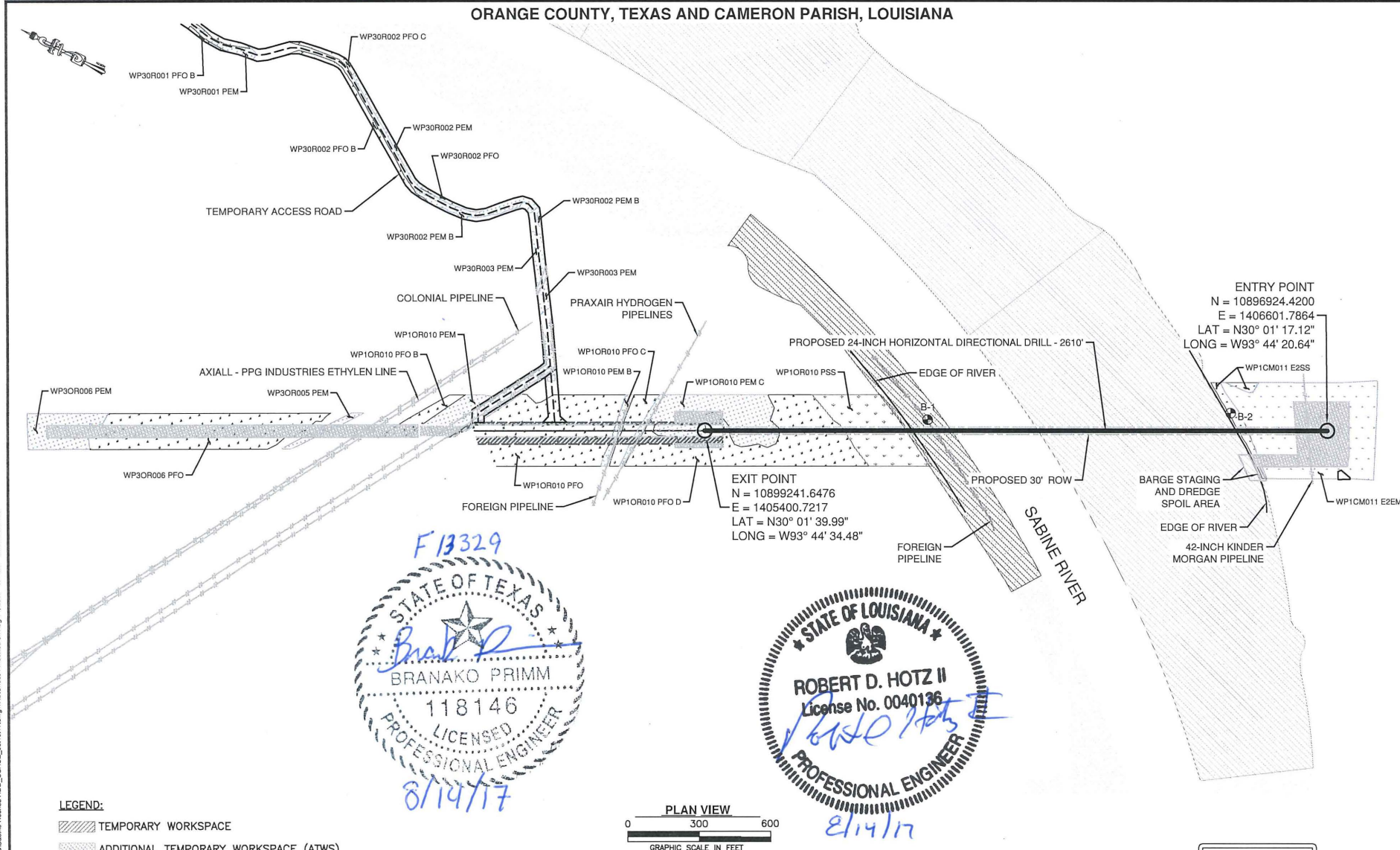
Date: April, 2018







## ORANGE COUNTY, TEXAS AND CAMERON PARISH, LOUISIANA



DRAWING COORDINATE SYSTEM				
HORIZONTAL DATUM: UTM ZONE 15, US FOOT AND GEOGRAPHIC NAD83				
VERTICAL DATUM: NAVD 88				
<b>KINDER MORGAN</b> <b>KMLP-KMTEJAS 24-IN</b> <b>INTERCONNECT PIPELINE PROJECT</b> ORANGE COUNTY AND CAMERON PARISH TX AND LA TITLE USACE INDIVIDUAL PERMIT SABINE RIVER HDD				
DESIGNED	DRAWN	CK'D	PROJECT NO.	REV.
KBP	BTL	KBP	10166	A
SCALE	DATE	DWG. NO.	SHT.	1 OF 1
AS NOTED	08/10/17			

THINK  
SAFETY  
FIRST

ISSUED FOR PERMIT

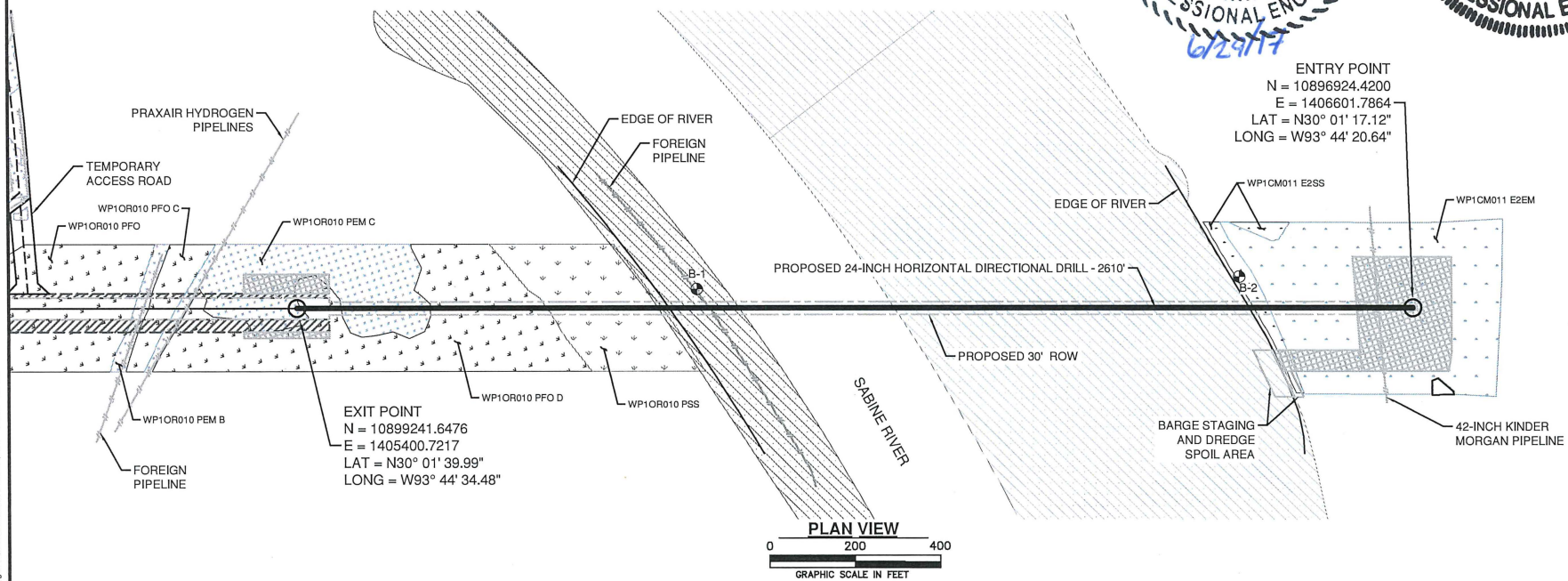
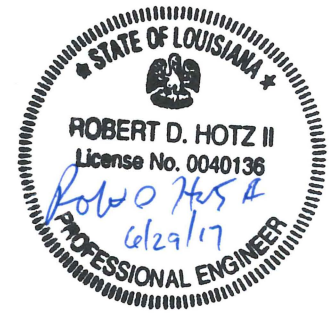
**laney**  
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## ORANGE COUNTY, TEXAS AND CAMERON PARISH, LOUISIANA



## LEGEND:

- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- WETLAND (E2SS)
- WETLAND (E2EM)
- WETLAND (PSS)
- WETLAND (PEM)
- WETLAND (PFO)
- LOW SETBACK ZONE
- HIGH SETBACK ZONE
- BORING LOCATION

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DRAWING COORDINATE SYSTEM				
HORIZONTAL DATUM: UTM ZONE 15, US FOOT AND GEOGRAPHIC NAD83				
VERTICAL DATUM: NAVD 88				
<div style="text-align: center;"> <b>KINDER MORGAN</b>  <b>KMLP - KMTEJAS 24-IN</b>  <b>INTERCONNECT PIPELINE PROJECT</b> </div>				
ORANGE COUNTY AND CAMERON PARISH TX AND LA				
<div style="text-align: center;"> <b>SABINE RIVER HDD</b>  <b>HORIZONTAL DIRECTIONAL DRILL</b> </div>				
DESIGNED	KBP	DRAWN	BTL	CK'D
DATE	06/05/17	DATE	06/05/17	DATE
SCALE	AS NOTED	SCALE	AS NOTED	SCALE
REV.	DATE	REVISION	APPVD.	DATE
B	06/29/17	ISSUED FOR PERMIT	KBP	
A	06/09/17	PLAN AND PROFILE	KBP	
REV.	DATE	REVISION	APPVD.	DATE

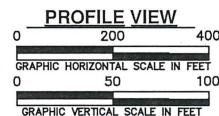
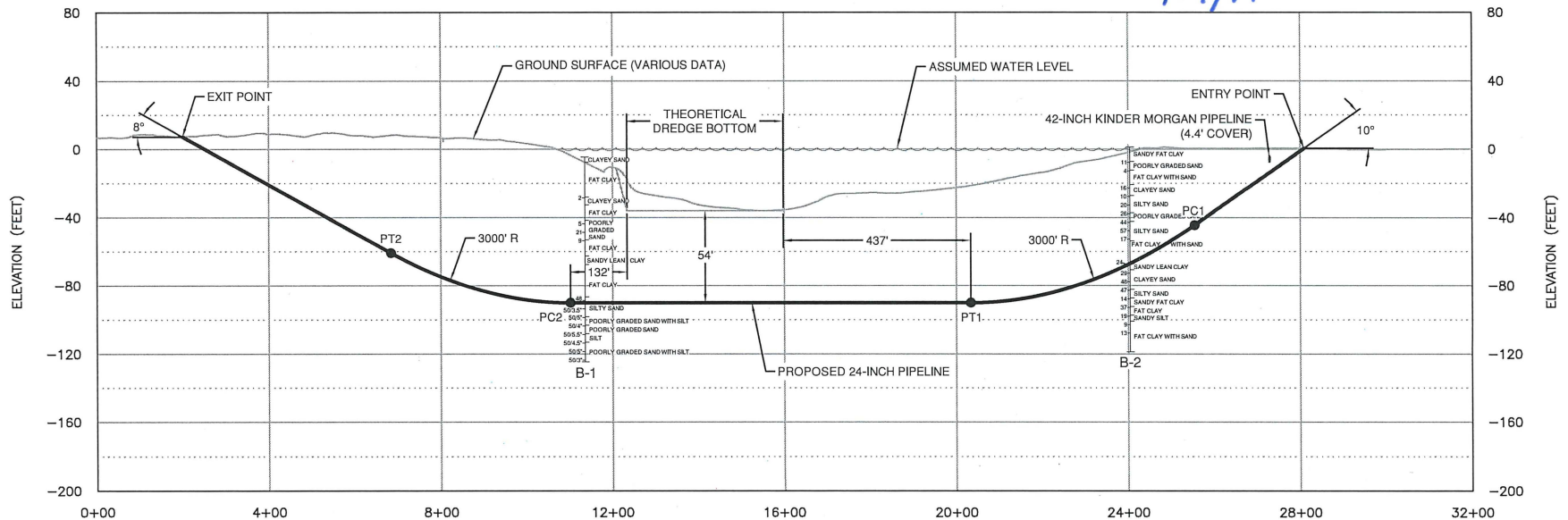
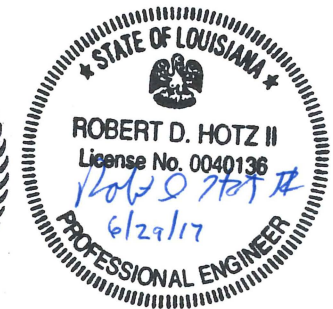
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HORIZONTAL DIRECTIONAL DRILL DATA TEJAS SABINE RIVER HDD		
DESCRIPTION	STATION (ft)	ELEVATION (ft)
ENTRY @ 10°	28+10.00	0.49
PC1 = 3000' RADIUS	25+55.27	-44.42
PT1 =	20+34.33	-90.00
PC2 = 3000' RADIUS	11+01.95	-90.00
PT2 =	6+84.44	-60.80
EXIT @ 8°	2+00.00	7.28
HORIZONTAL DISTANCE (ft) = 2810.00		
DIRECTIONAL DRILL PIPE LENGTH (ft) = 2822.70		

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DRAWING COORDINATE SYSTEM			
HORIZONTAL DATUM: UTM ZONE 15, US FOOT AND GEOGRAPHIC NAD83			
VERTICAL DATUM: NAVD 88			
<div style="text-align: center;"> <b>KINDER MORGAN</b>  <b>KMLP - KMTEJAS 24-IN</b>  <b>INTERCONNECT PIPELINE PROJECT</b> </div>			
ORANGE COUNTY AND CAMERON PARISH TX AND LA			
TITLE			
SABINE RIVER HDD HORIZONTAL DIRECTIONAL DRILL			
B	06/29/17	ISSUED FOR PERMIT	KBP
A	06/09/17	PLAN AND PROFILE	KBP
REV.	DATE	REVISION	APPVD.
SCALE AS NOTED		DATE 06/05/17	PROJECT NO. 10166
		DWG. NO. 1 SHT. 3 OF 3	REV. B

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FIRST

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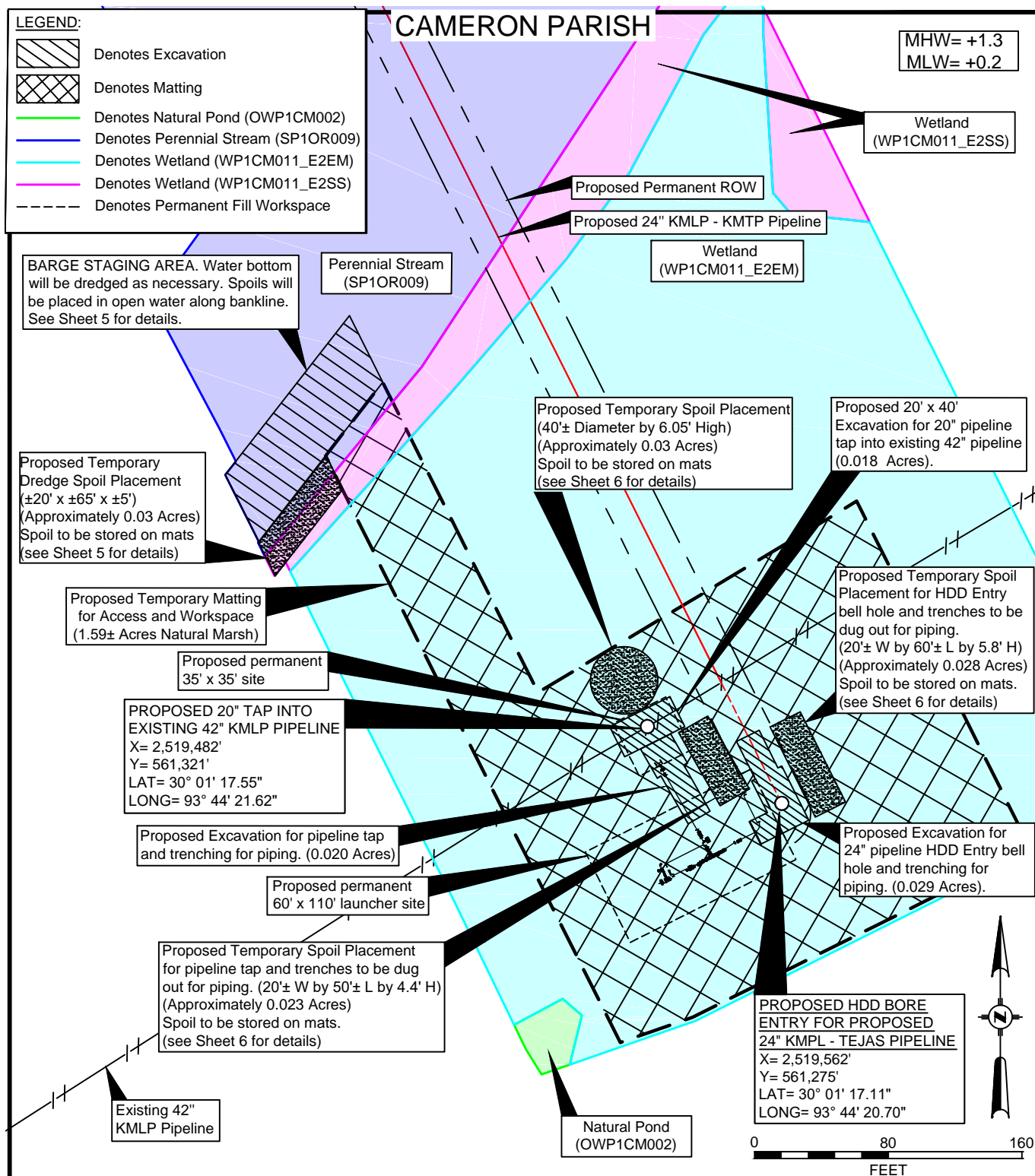
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These plats are to be used exclusively for the acquisition of regulatory permits.

The coordinates shown herein were established by NAD83, Louisiana State Plane South Zone. All distances shown herein are grid distances and are in U.S. Survey Feet.

REVISIONS	
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△	

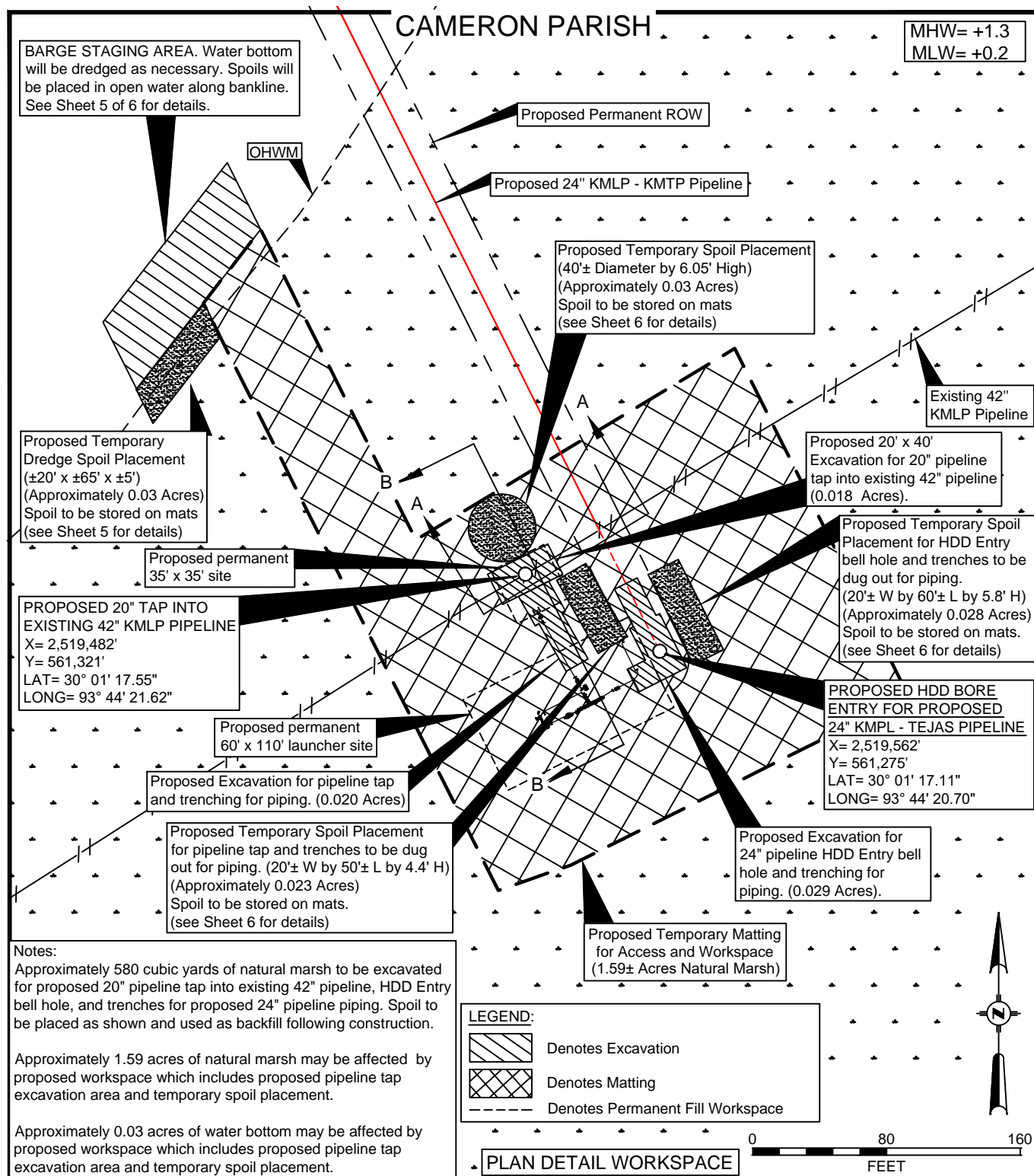
**KINDER MORGAN**

## PROPOSED 24" KMLP - TEJAS PIPELINE LOCATED IN SECTION 22, TOWNSHIP 12 SOUTH, RANGE 14 WEST CAMERON PARISH, LOUISIANA

SCALE: 1" = 80'	JMP	05/22/17	TPF	07/07/17
Sheet: 2 of 6		DRAWING NUMBER 002		REV. 6



L/W Survey Co.  
1602 W. Pinhook Rd.,  
Suite 101  
Lafayette, LA 70508  
(337) 210-8958  
www.lwsurvey.com




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REVISIONS	
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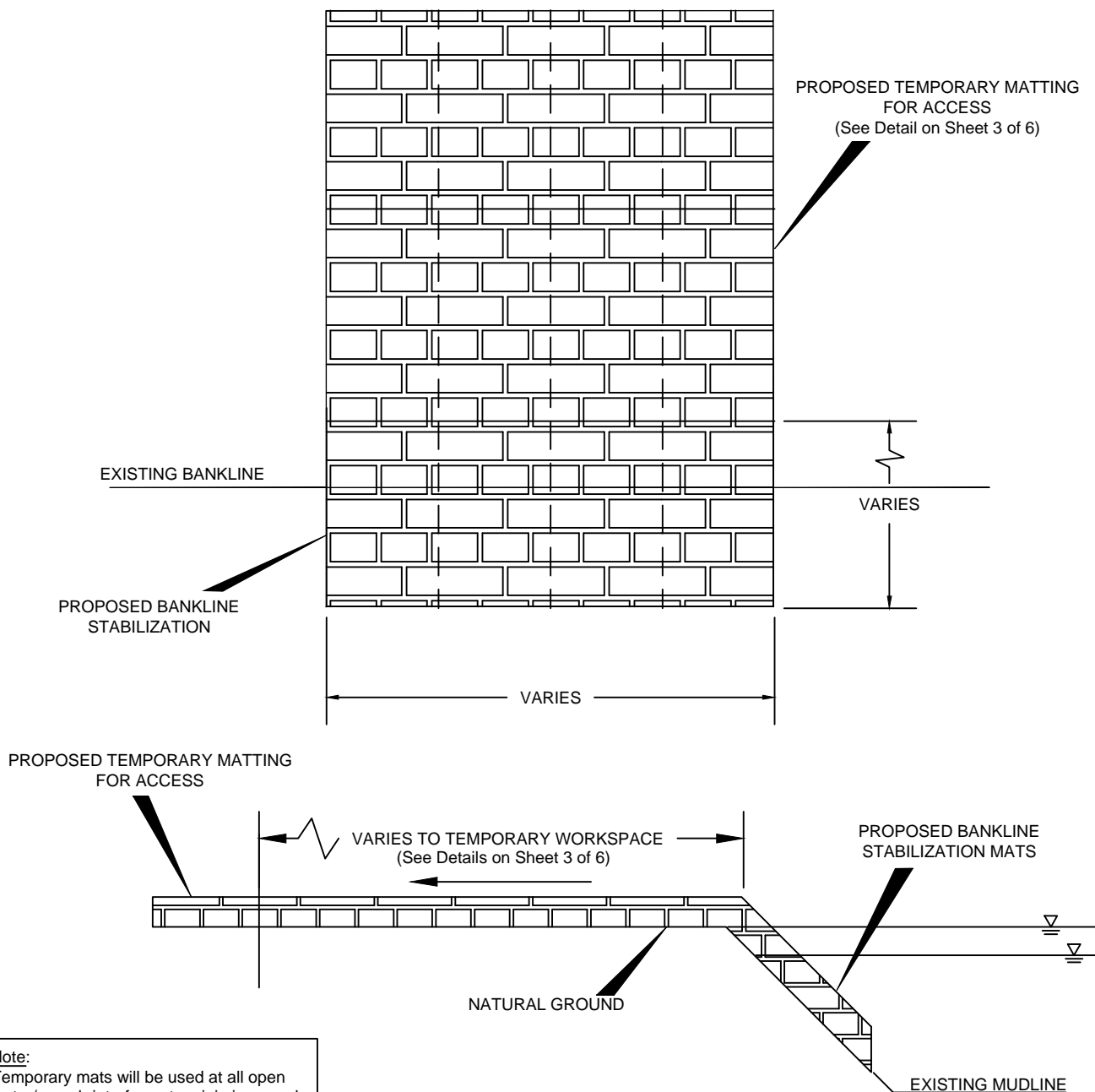
## PROPOSED 24" KMLP - TEJAS PIPELINE LOCATED IN SECTION 22, TOWNSHIP 12 SOUTH, RANGE 14 WEST CAMERON PARISH, LOUISIANA

SCALE: 1" = 80'	JMP	05/22/17		TPF	07/07/17
		L/W Survey Co. 1602 W. Pinhook Rd., Suite 101 Lafayette, LA 70508 (337) 210-8988 www.lwsurvey.com		DRAWING NUMBER	
Sheet: 3 of 6		003		REV. 6	



# BANKLINE STABILIZATION DETAIL MAT PLACEMENT

MHW= +1.3  
MLW= +0.2



## Note:

Temporary mats will be used at all open water/ marsh interfaces to minimize marsh equipment impacts to banklines. Temporary matting for access to be used as noted on plan sheet 3 of 6

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# KINDER MORGAN

## PROPOSED 24" KMLP - TEJAS PIPELINE LOCATED IN SECTION 22, TOWNSHIP 12 SOUTH, RANGE 14 WEST CAMERON PARISH, LOUISIANA

REVISIONS



SCALE: NOT TO SCALE

JMP

05/22/17

TPF

06/06/17



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Lafayette, LA 70508  
(337) 210-8958  
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Sheet: 4 of 6

DRAWING NUMBER

004

REV.

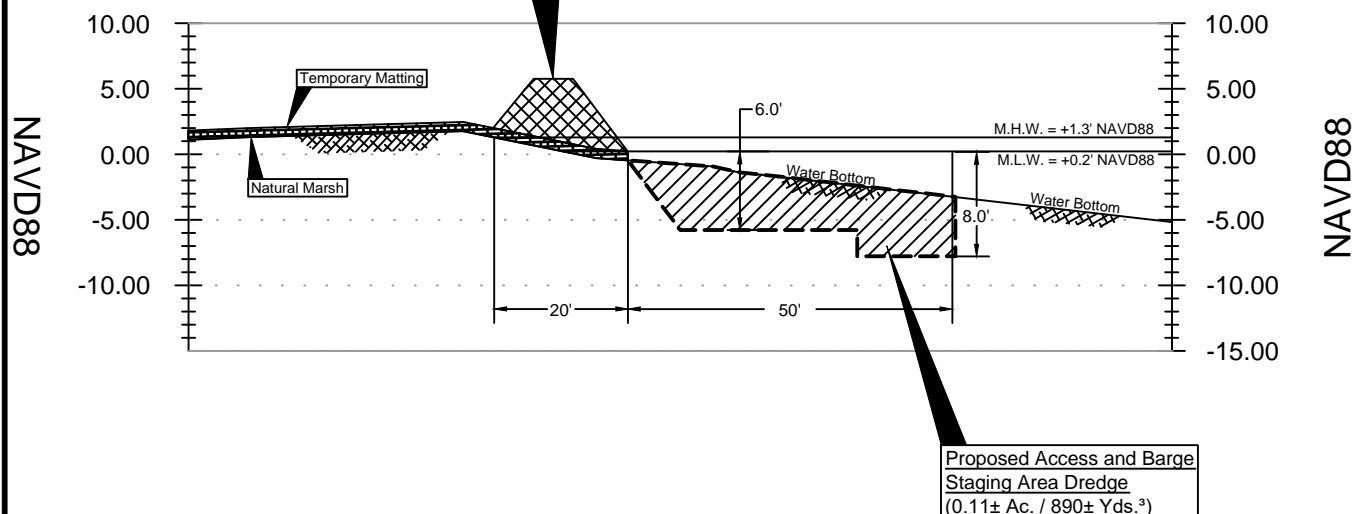
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## Proposed Typical Barge Staging Area Dredge Profile

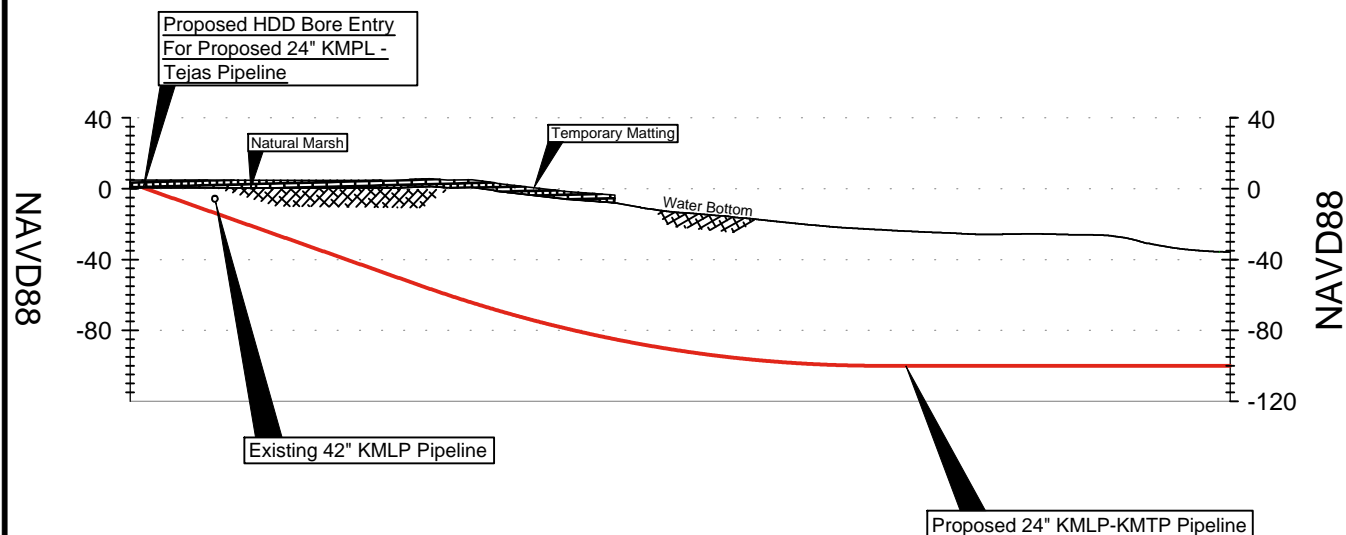
MHW= +1.3  
MLW= +0.2

### Proposed Temporary Dredge Spoil Placement

To remain following until project completion (0.03± Ac. / 890± Yds.<sup>3</sup>)  
Temporary dredge soil placement in this area will be put back/backfilled in the dredge area. All mattings and excess soils will be removed from the wetland and the site will be restored to pre-existing conditions/contours after completion of the project.



## Proposed Sabine River HDD Bore Profile



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# KINDER MORGAN

## PROPOSED 24" KMLP - TEJAS PIPELINE LOCATED IN SECTION 22, TOWNSHIP 12 SOUTH, RANGE 14 WEST CAMERON PARISH, LOUISIANA

### REVISIONS



SCALE: NOT TO SCALE

JMP

05/22/17

TPF

06/22/17



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(337) 210-8958  
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Sheet: 5 of 6

DRAWING NUMBER

005 - Typical barge staging area dredge

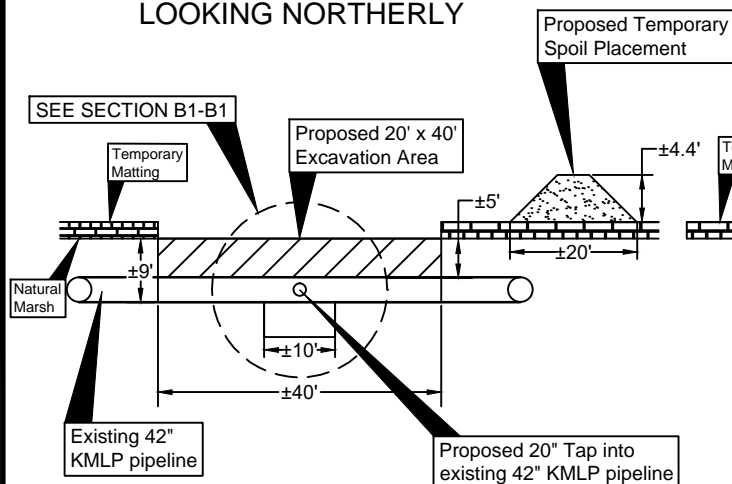
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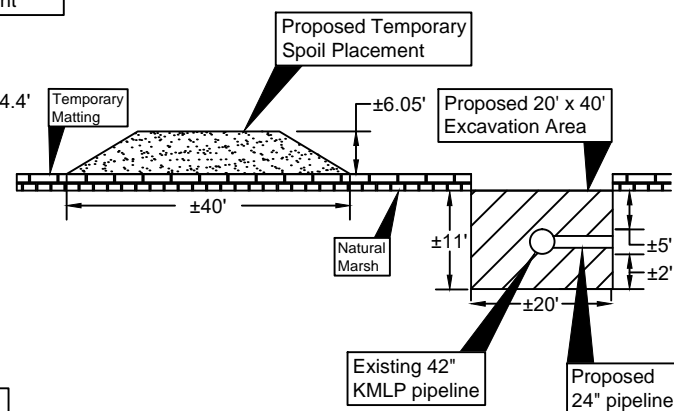


**SECTION A-A**

LOOKING NORTHERLY

**SECTION B1-B1**

LOOKING EASTERLY

**NOTES**

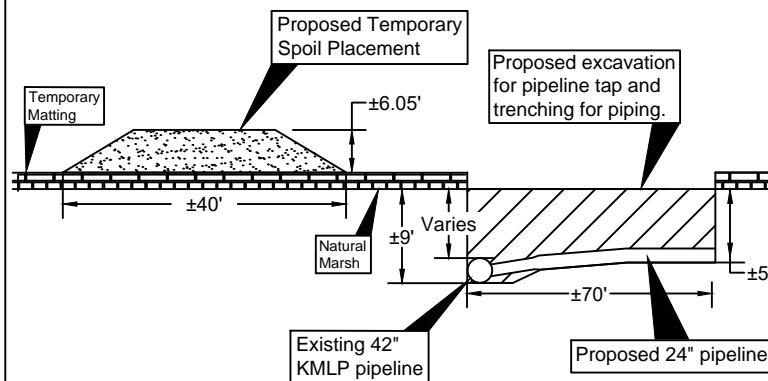
As-built drawings will be submitted within 30 days of completion of this project to the Louisiana Department of Natural Resources, Office of Conservation, Pipeline Division, P.O. Box 94275 Baton Rouge, LA 70804, and to the Louisiana Department of Natural Resources, Coastal Management Division, P.O. Box 44487, Baton Rouge, LA 70804-4487.

In order to ensure the safety of all parties, the permittee shall contact the Louisiana One Call System (1-800-272-3020) a minimum of 48 hours prior to the commencement of any excavation (digging, dredging, jetting, etc. ) or demolition activity.

All structures, facilities, well and pipelines/ flowlines occurring in open water areas or in oilfield canals or slips shall be removed within 120 days of abandonment or the facilities for the herein permitted use unless prior written approval to leave such structures in place is received from the Coastal Management Division. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required.

**SECTION B2-B2**

LOOKING EASTERLY

**(SECTIONS NOT TO SCALE)****Equipment**

Three(3) Barges (120'x40') - Draft 3'  
 Two(2) Tugs - Draft 5'  
 One (1) Crew Boat - Draft 4'  
 Marsh Buggy - Draft 4'

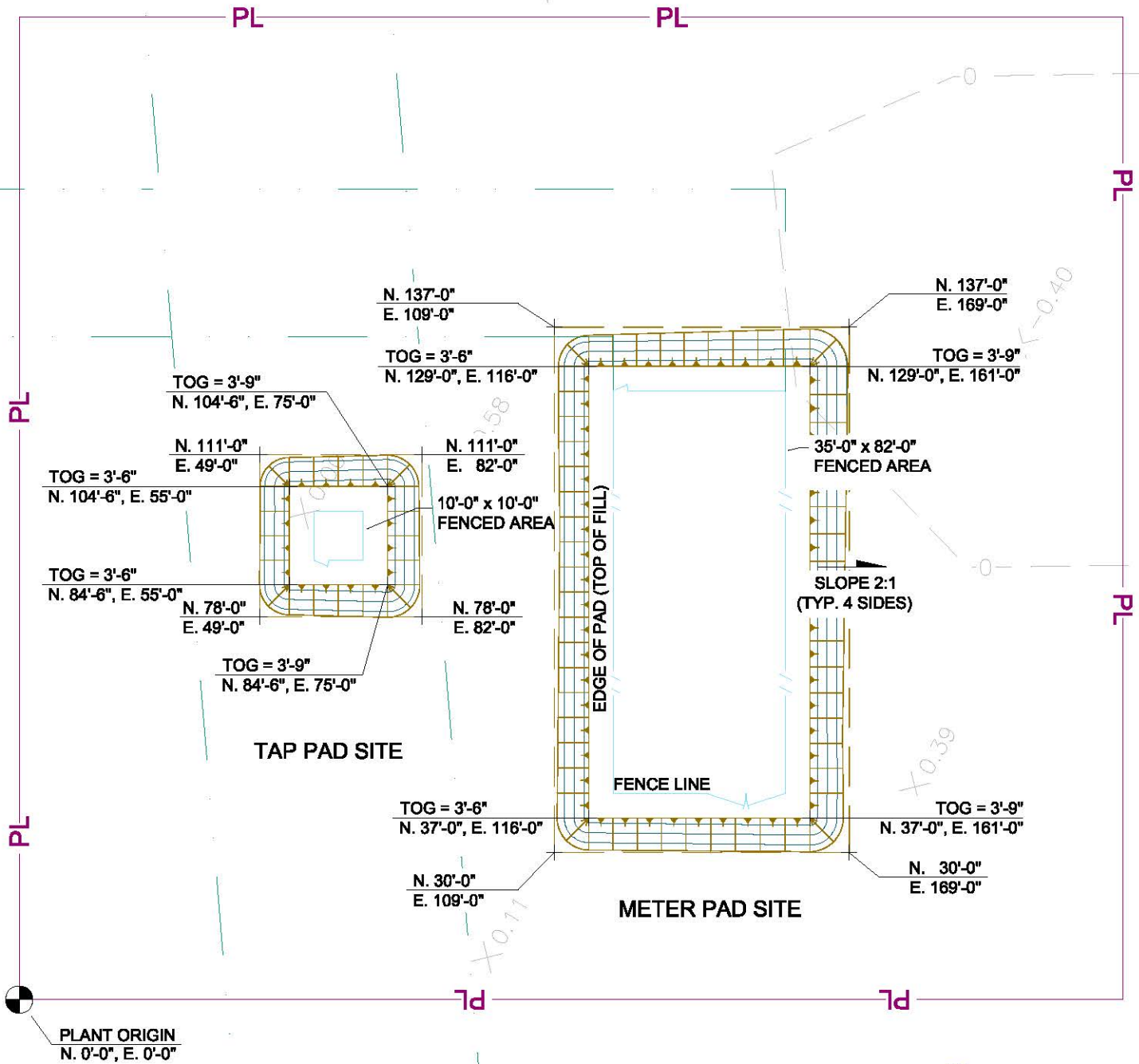
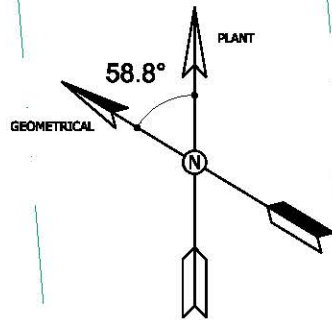
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REVISIONS	
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△	

**PROPOSED 24" KMLP - TEJAS PIPELINE**  
 LOCATED IN SECTION 22, TOWNSHIP 12 SOUTH, RANGE 14 WEST  
 CAMERON PARISH, LOUISIANA

SCALE: NOT TO SCALE	JMP	05/22/17	TPF	06/28/17
		Sheet: 6 of 6	DRAWING NUMBER 006	REV. 4



SCALE: 3/8" = 1'-0"

CAD FILE NAME:  
C-100-01A**KINDER MORGAN**

Prepared by



Houston, Texas

KMLP - KM TEJAS 24" INTERCONNECT PIPELINE  
GRADING PLAN - EXISTING AND FINAL GRADE

C-100-01A

0

NO.	REVISION DESCRIPTION	BY	DATE




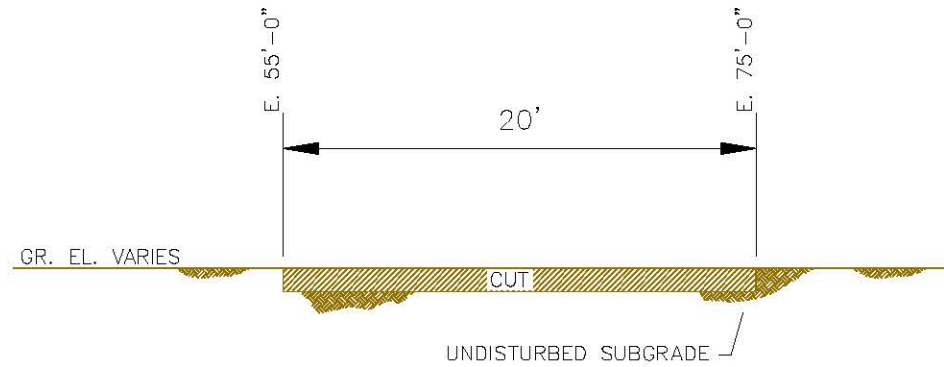
**NOTES:**

1. SITE ORIGIN (0,0) IS LOCATED SOUTHWEST PROPERTY FENCE CORNER. X=4,382,252.25; Y=10,033,356.62, NAD83 TEXAS STATE PLANE, CENTRAL ZONE, US FOOT.
2. SITE NORTH IS 58.8° EASTERLY OF THE TRUE NORTH.
3. STRIP THE TOP 12" FROM BOTH SITES, TO REMOVE TOPSOIL, MULCH, ROOTS, AND OTHER ORGANIC MATTER THAT COULD OTHERWISE BE DETRIMENTAL TO SUBSEQUENT CONSTRUCTION. EXCEPT ABOVE EXISTING PIPELINE. (CUT AND REMOVE 168.15 C.Y. TOTAL, 14.81 C.Y. FROM TAP SITE AND 153.33 C.Y. FROM METER SITE AREA.)
4. AFTER ACHIEVING FINISHED SUBGRADE ELEVATION, THE EXPOSED SUBGRADE SHOULD BE EVALUATED TO CONFIRM THAT ALL SOFT, YIELDING AND UNSUITABLE MATERIALS HAVE BEEN REMOVED. THE EXCAVATED SOIL THAT DOESN'T CONTAIN ANY ORGANIC MATTER IS SUITABLE FOR USE IN SITE GRADING. INSTALL A GEOTEXTILE FABRIC COMPOSED OF HIGH-TENACITY POLYPROPYLENE YARNS, MIRAFI 600X (OR EQ.), ON TOP OF EXPOSED SUBGRADE.
5. REPLACE THE REMOVED 12" TOPSOIL OF TOPSOIL WITH 12" OF 4"-6"Ø WELL GRADED STONE FILL BETWEEN FABRIC AND STRUCTURAL FILL.
6. THE FILL MATERIALS SHOULD BE PLACED IN LIFTS OF 6 TO 8 INCHES LOOSE MEASURE THEN BE UNIFORMLY COMPACTED TO 95% STANDARD PROCTOR.
7. CAP TOP OF PROPOSED PAD WITH 4" OF L&DOT APPROVED FLEXIBLE BASE (ROAD BASE) MATERIAL. INSTALL A GEOTEXTILE FABRIC COMPOSED OF HIGH-TENACITY POLYPROPYLENE YARNS, MIRAFI 600X (OR EQ.), BETWEEN THE CAP FILL MATERIAL AND THE STRUCTURAL FILL. GEOTEXTILE FABRIC TO BE INSTALLED PER MANUFACTURER'S INSTALLATION GUIDELINES. PROPOSED CONTOURS ARE FINISHED GRADE ELEVATIONS, INCLUDES 4" CAP FILL.
8. PROPOSED VOLUME PAD SITE :
 

FILL (4" CAP FILL):	57.52 Cu. Yd. (COMPACTED)
FILL (STRUCTURAL FILL):	646.81 Cu. Yd. (COMPACTED)
FILL STONE (4"-6"Ø):	168.15 Cu. Yd.
CUT / REMOVAL (12"):	168.15 Cu. Yd.
9. INSTALL DOUBLE-NET STRAW BLANKET, S150 FROM TENSAR, NORTH AMERICAN GREEN ON SLOPED AREA (EDGE OF PAD) PER MANUFACTURER'S INSTALLATION GUIDELINES.
10. CONTRACTOR IS RESPONSIBLE FOR CONTROL OF EROSION OF ALL AREAS OF CONSTRUCTION THROUGH THE USE OF SILT FENCE, STRAW BALE BARRIERS, GRAVEL STOCKS, ETC.
11. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM CONSTRUCTION RELATED DAMAGE.

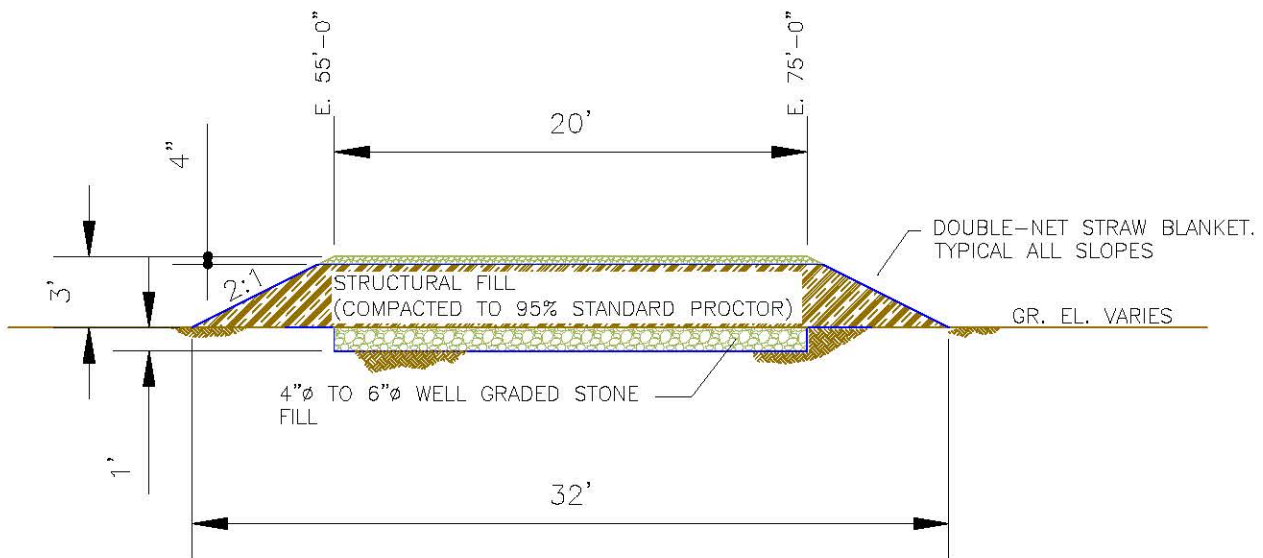
NO.	REVISION—DESCRIPTION	BY	DATE

CAD FILE NAME: C-100-01B	<h2 style="margin: 0;">KINDER MORGAN</h2>		
	<i>Prepared by</i>  <i>Houston, Texas</i>	KMLP - KM TEJAS 24" INTERCONNECT PIPELINE GRADING PLAN - NOTES	
	C-100-01B		0



### CUT

SCALE: 1" = 100"  
(REF. DWG. C-100-01)



### FILL

SCALE: 1" = 100"  
(REF. DWG. C-100-01)

CAD FILE NAME:  
C-100-02-A

## KINDER MORGAN

Prepared by



Houston, Texas

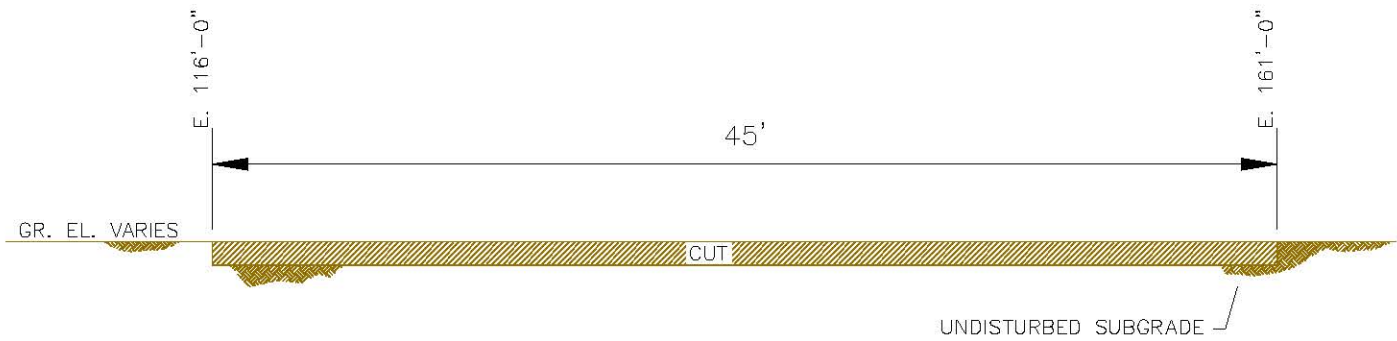
KMLP - KM TEJAS 24" INTERCONNECT PIPELINE  
CIVIL SECTIONS - TAP PAD SITE

C-100-02-A

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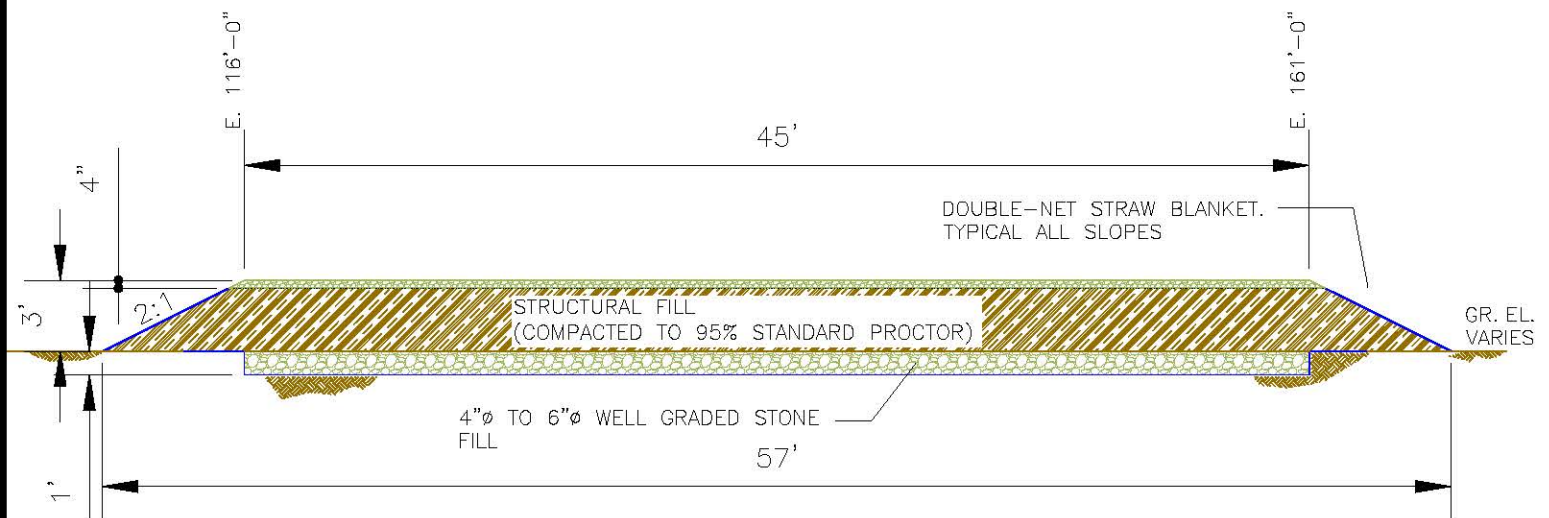
NO.	REVISION — DESCRIPTION	BY	DATE





### CUT

SCALE: 1" = 100"  
(REF. DWG. C-100-01)



### FILL

SCALE: 1" = 100"  
(REF. DWG. C-100-01)

CAD FILE NAME:  
C-100-02-B

## KINDER MORGAN

Prepared by



Houston, Texas

KMLP - KM TEJAS 24" INTERCONNECT PIPELINE  
CIVIL SECTIONS - LAUNCHER PAD SITE

C-100-02-B

0

NO.	REVISION — DESCRIPTION	BY	DATE