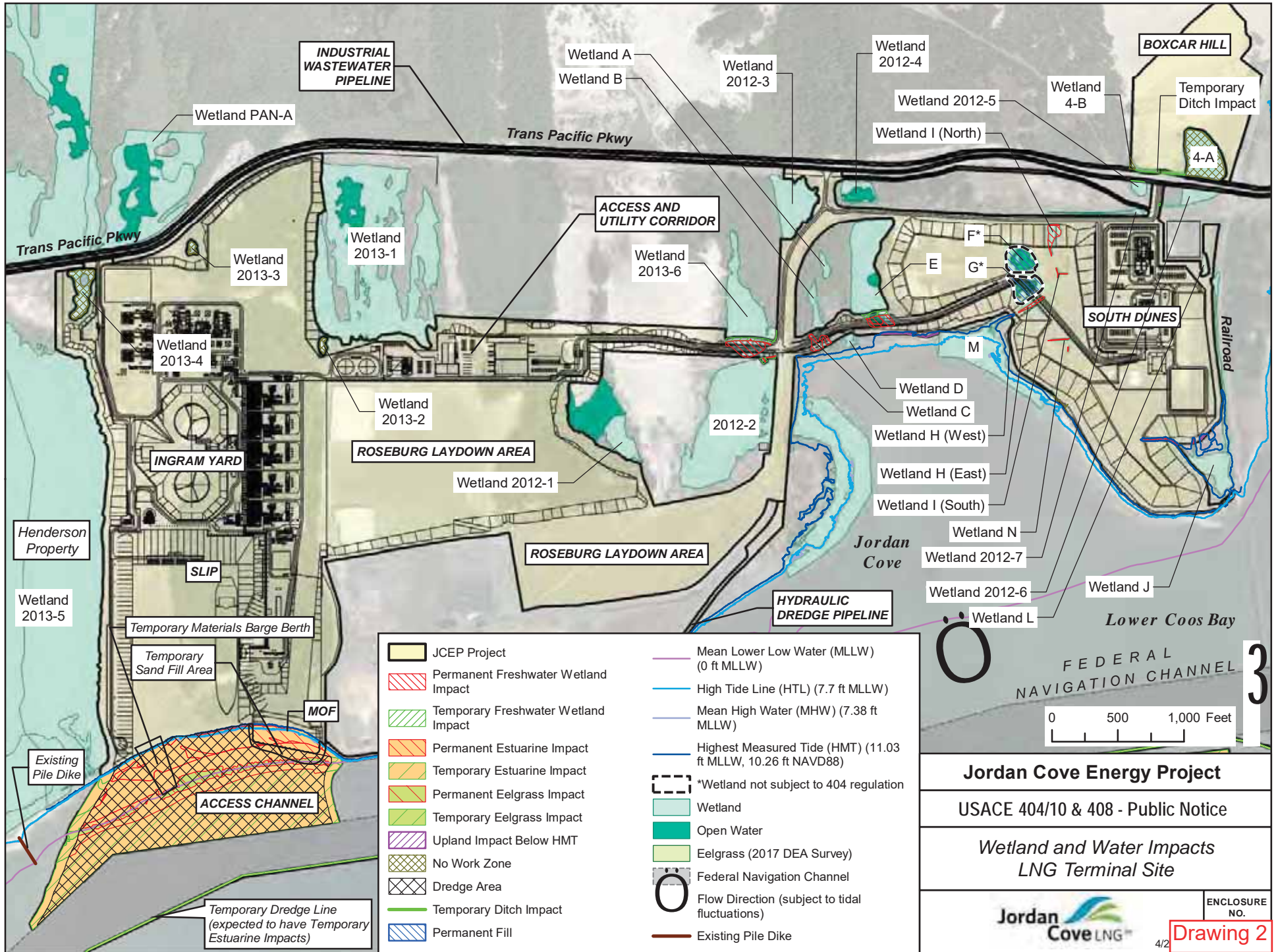


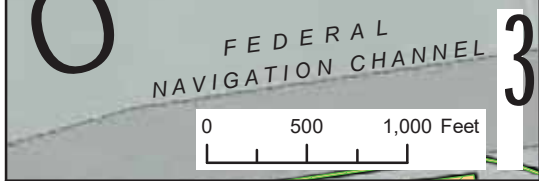
**Jordan Cove Energy Project**  
 USACE 404/10 & 408 - Public Notice

*Project Location*

	ENCLOSURE NO.
	Drawing 1



	JCEP Project		Mean Lower Low Water (MLLW) (0 ft MLLW)
	Permanent Freshwater Wetland Impact		High Tide Line (HTL) (7.7 ft MLLW)
	Temporary Freshwater Wetland Impact		Mean High Water (MHW) (7.38 ft MLLW)
	Permanent Estuarine Impact		Highest Measured Tide (HMT) (11.03 ft MLLW, 10.26 ft NAVD88)
	Temporary Estuarine Impact		*Wetland not subject to 404 regulation
	Permanent Eelgrass Impact		Wetland
	Temporary Eelgrass Impact		Open Water
	Upland Impact Below HMT		Eelgrass (2017 DEA Survey)
	No Work Zone		Federal Navigation Channel
	Dredge Area		Flow Direction (subject to tidal fluctuations)
	Temporary Ditch Impact		Existing Pile Dike
	Permanent Fill		



**Jordan Cove Energy Project**

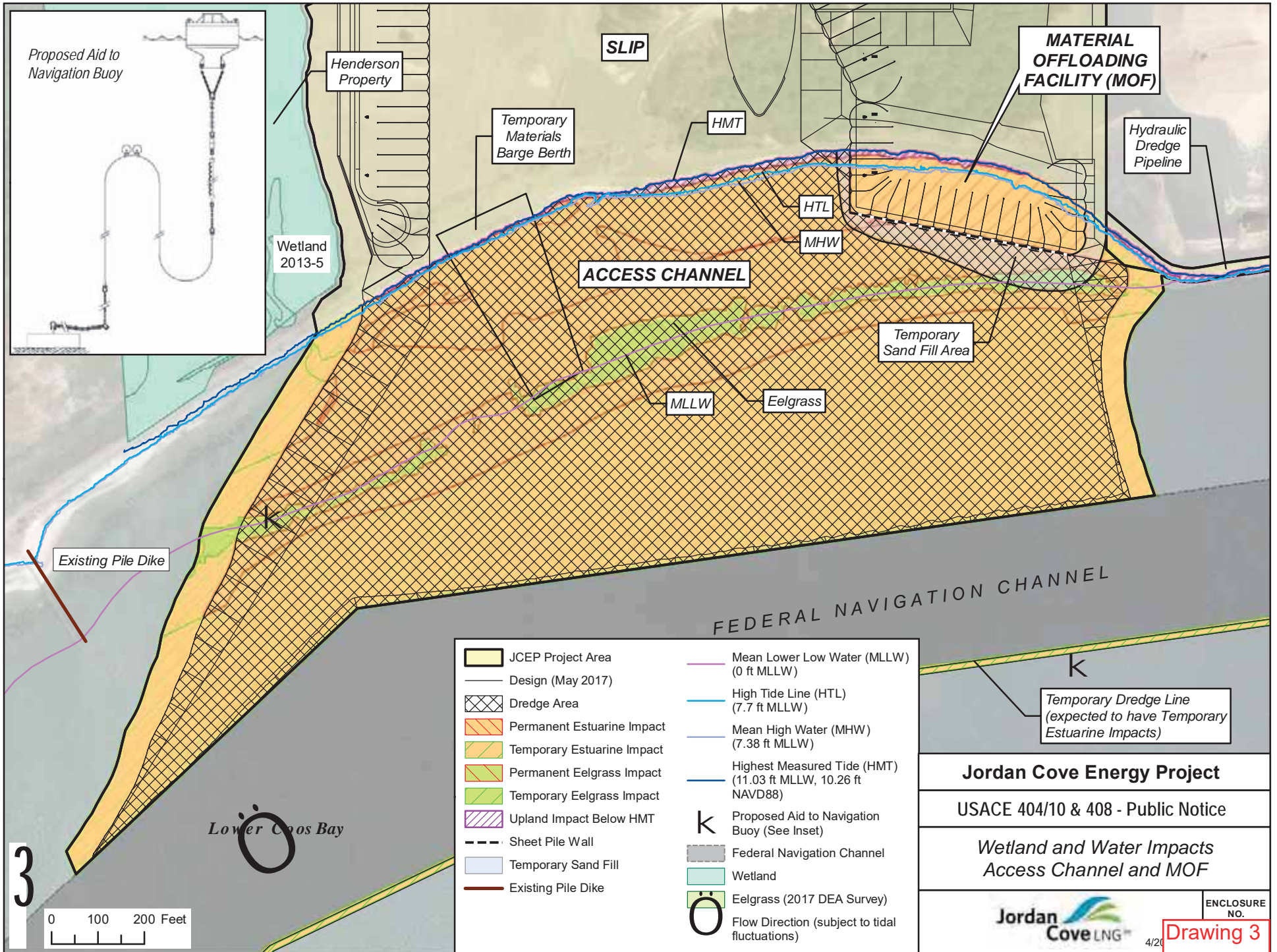
USACE 404/10 & 408 - Public Notice

Wetland and Water Impacts  
LNG Terminal Site

Jordan Cove LNG™

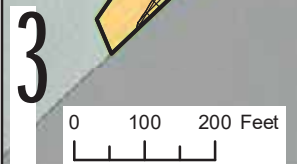
ENCLOSURE NO. **Drawing 2**





**Jordan Cove Energy Project**  
 USACE 404/10 & 408 - Public Notice  
 Wetland and Water Impacts  
 Access Channel and MOF

Jordan Cove LNG<sup>SM</sup> 4/20  
 ENCLOSURE NO. **Drawing 3**



NWP-2017-41

3

Enclosure

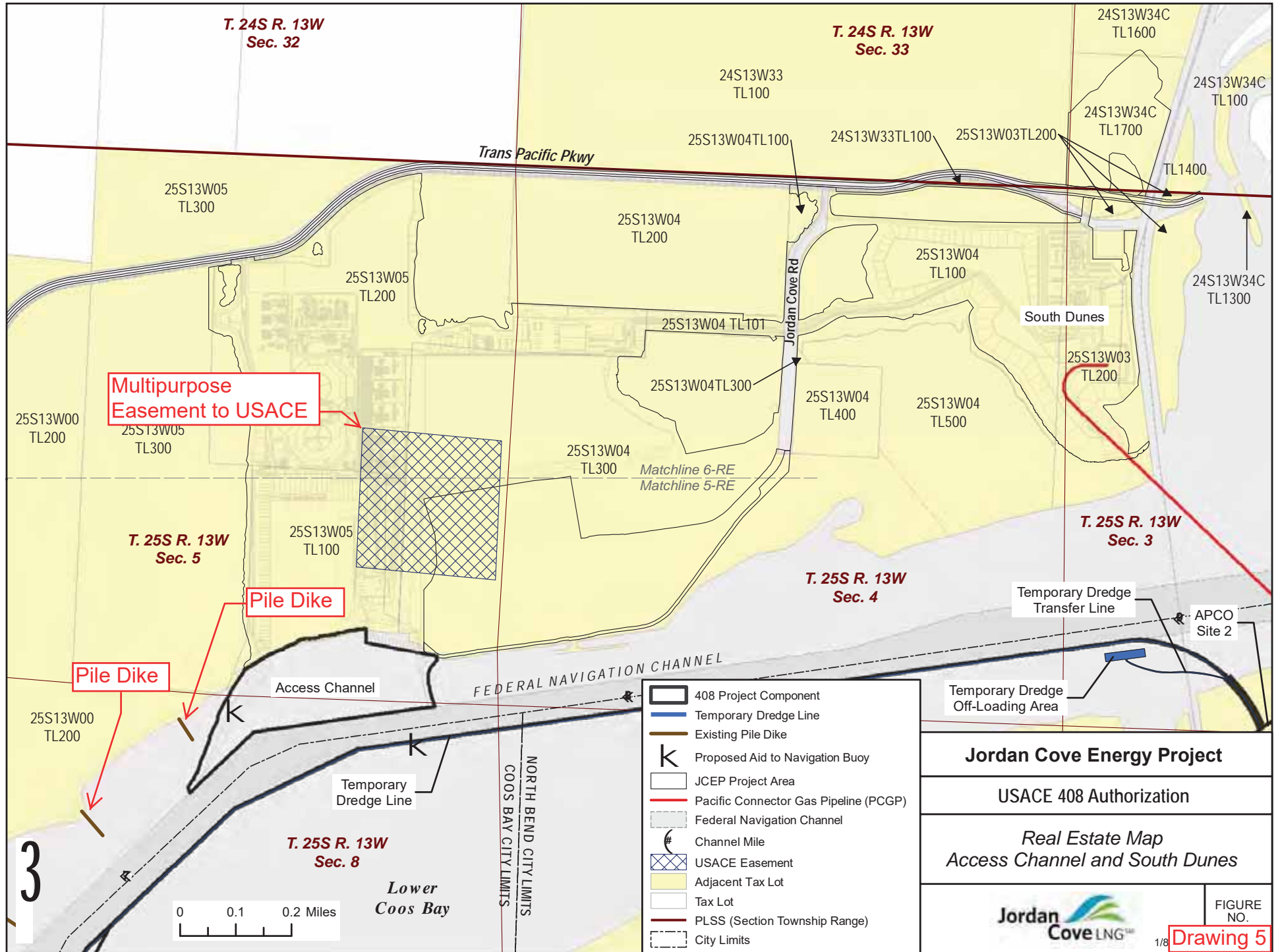


<b>408 Authorization Components</b>	<b>Other Mapped Features</b>
Access Channel	Proposed Aid to Navigation Buoy
Navigation Reliability Improvement (NRI) Areas	JCEP Project Area
Temporary Dredge Line	Channel Mile
Eelgrass Mitigation Site	Delineated Wetland
<b>USACE Facility</b>	Highest Measured Tide (HMT) (10.26 ft NAVD88)
Federal Navigation Channel	PLSS (Section Township Range)
Existing Pile Dike	0 0.25 Miles



3

<b>Jordan Cove Energy Project</b>	
USACE 408 Authorization	
Access Channel and Pile Dikes	
	FIGURE NO. <b>Drawing 4</b>
1/8/2018	Enclosure



**Jordan Cove Energy Project**

USACE 408 Authorization

Real Estate Map  
Access Channel and South Dunes

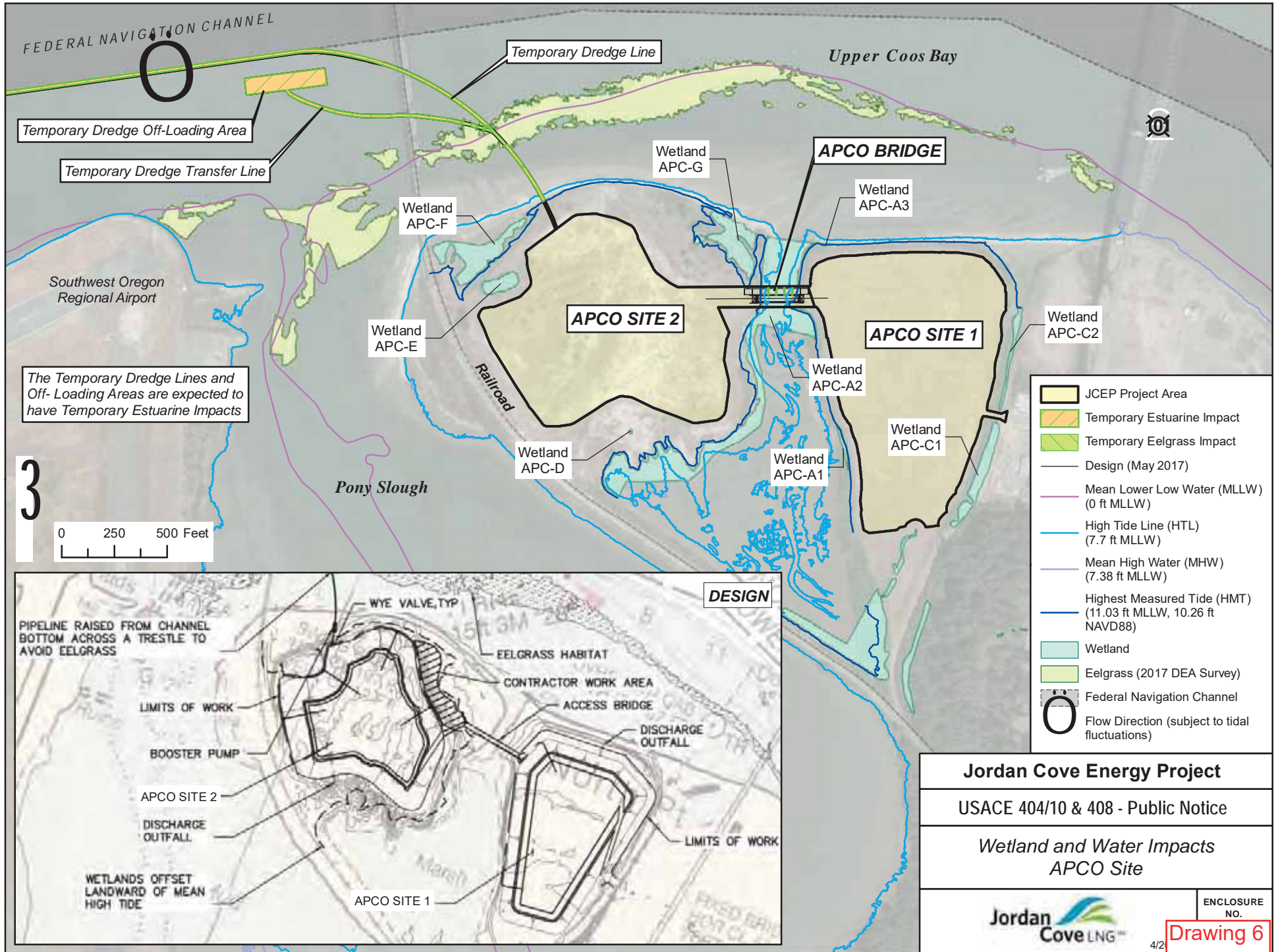


FIGURE NO.

1/8 **Drawing 5**

Enclosure





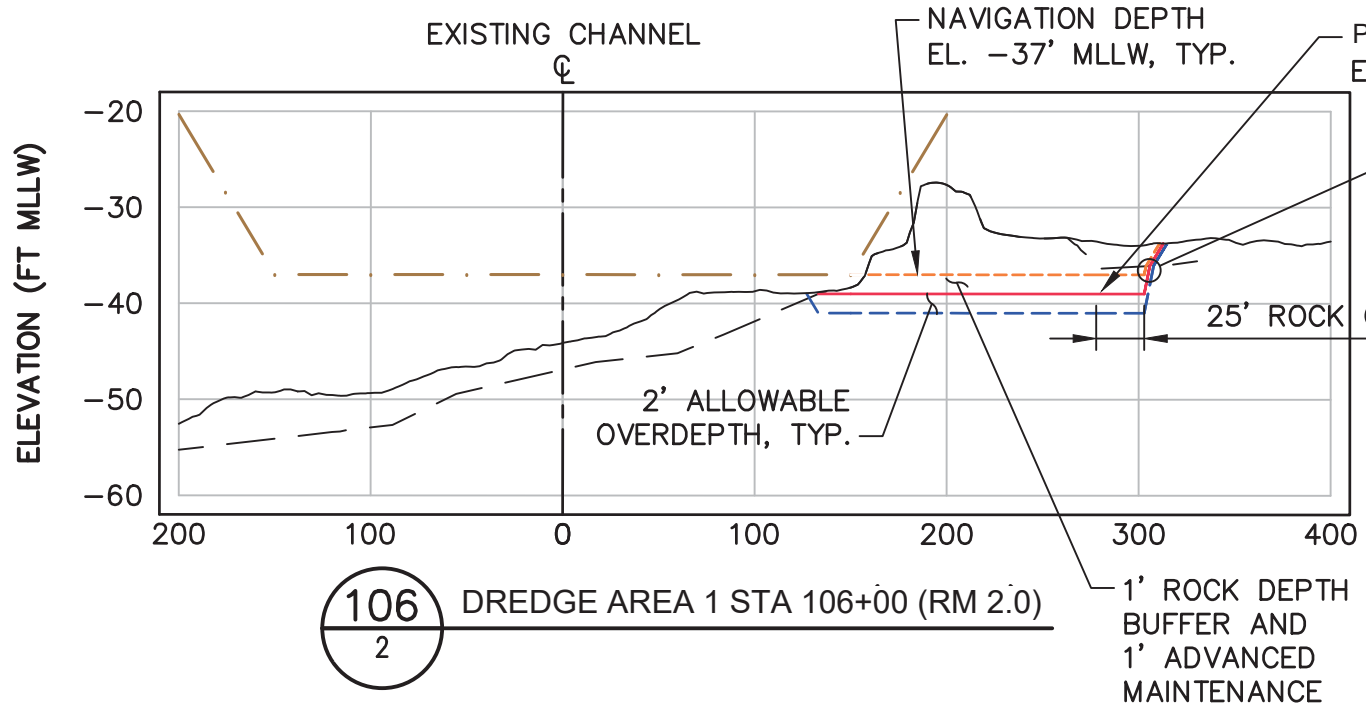
**Jordan Cove Energy Project**

USACE 404/10 & 408 - Public Notice

Wetland and Water Impacts  
APCO Site



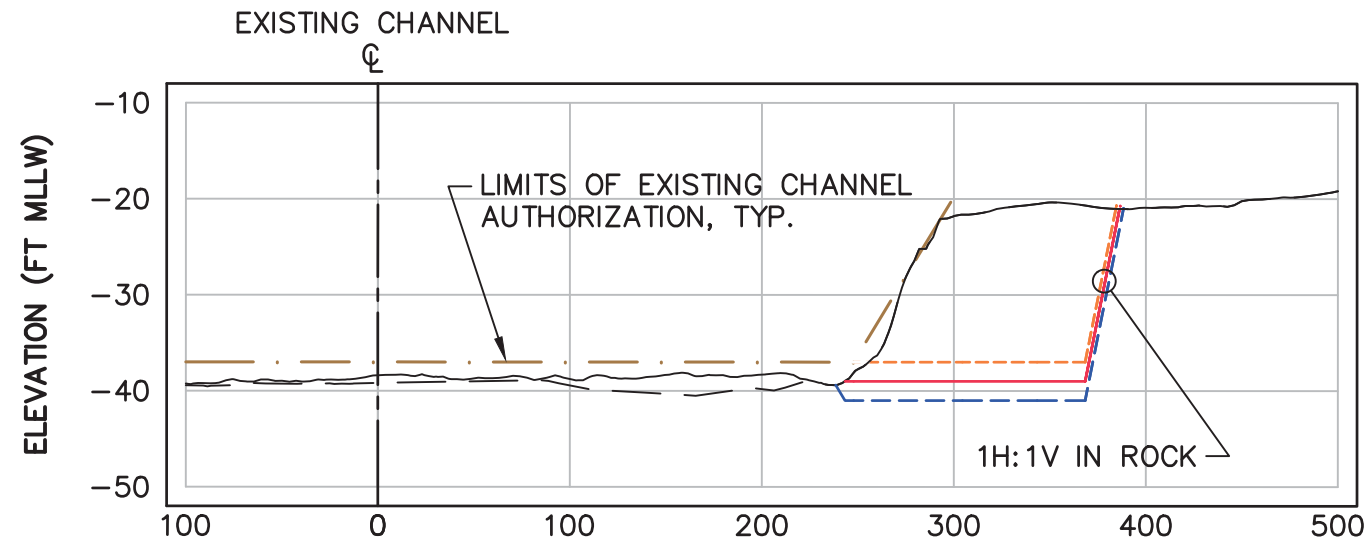
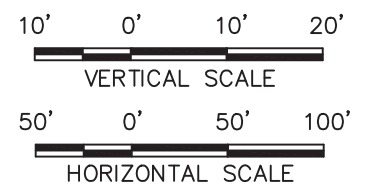
ENCLOSURE NO.  
**Drawing 6**



**106**  
2  
DREDGE AREA 1 STA 106+00 (RM 2.0)

- LEGEND**
- MUDLINE
  - TOP OF ROCK
  - EXISTING CHANNEL
  - NRI PROPOSED DREDGE DEPTH\* (-39' MLLW)
  - NRI NAVIGATION DEPTH (-37' MLLW)
  - NRI ALLOWABLE OVERDEPTH
- NRI = NAVIGATION RELIABILITY IMPROVEMENTS

\* DEPTH REQUIRED TO MEET PROJECT'S NEED OF 7.8 MTPA (MILLION TONNES PER ANNUM) FOR LNG TERMINAL

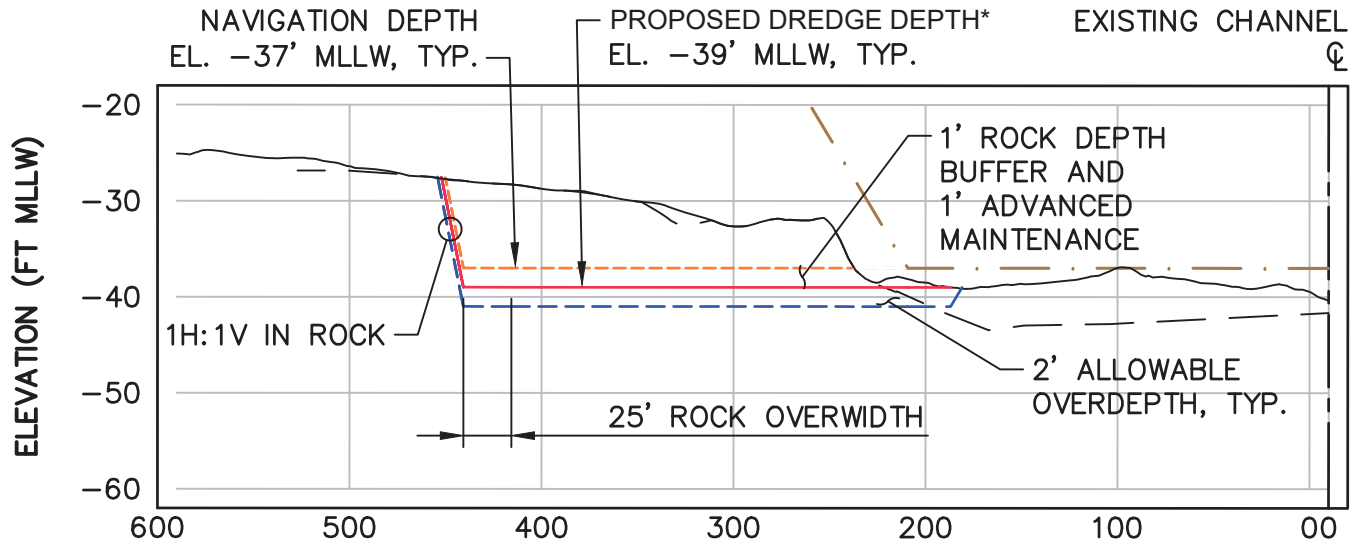


**128**  
3  
DREDGE AREA 1 STA 128+00 (RM 2.4)

USACE 404/10 & 408 - Public Notice

	NAVIGATION RELIABILITY IMPROVEMENTS
	Enclosure <b>Drawing 7</b>

P:\9248\CADD\MinorImprovements\_DMMP\_170831.dwg | By:Klendon | 9/4/201



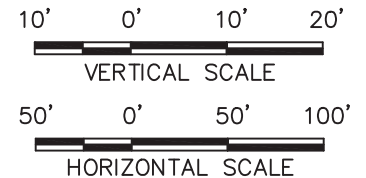
**228**  
4  
DREDGE AREA 2 STA 228+00 (RM 4.3)

**LEGEND**

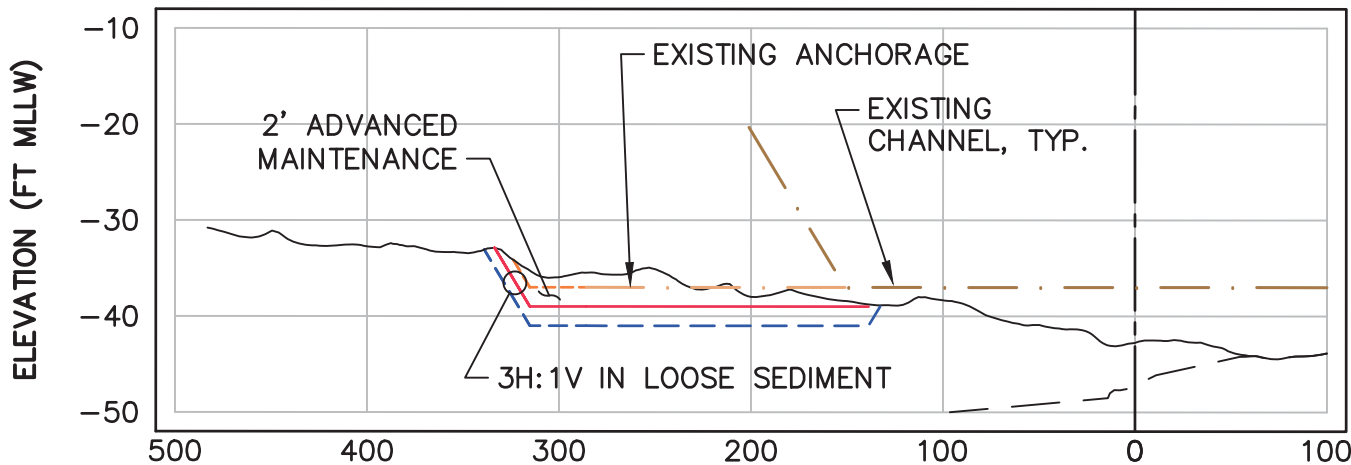
- MUDLINE
- TOP OF ROCK
- EXISTING CHANNEL
- NRI PROPOSED DREDGE DEPTH\* (-39' MLLW)
- NRI NAVIGATION DEPTH (-37' MLLW)
- NRI ALLOWABLE OVERDEPTH

NRI = NAVIGATION RELIABILITY IMPROVEMENTS

\* DEPTH REQUIRED TO MEET PROJECT'S NEED OF 7.8 MTPA (MILLION TONNES PER ANNUM) FOR LNG TERMINAL



EXISTING CHANNEL



**308**  
5  
DREDGE AREA 3 STA 308+00 (RM 5.8)

USACE 404/10 & 408 - Public Notice



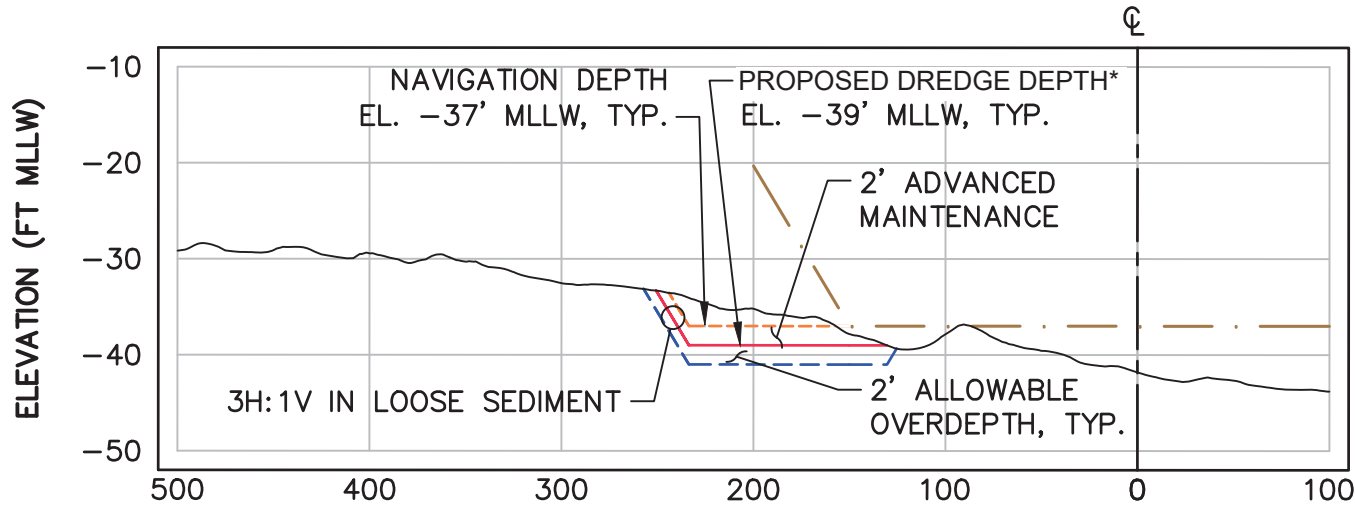
NAVIGATION RELIABILITY IMPROVEMENTS

SEATTLE, WASHINGTON

Enclosure **Drawing 8**



EXISTING CHANNEL



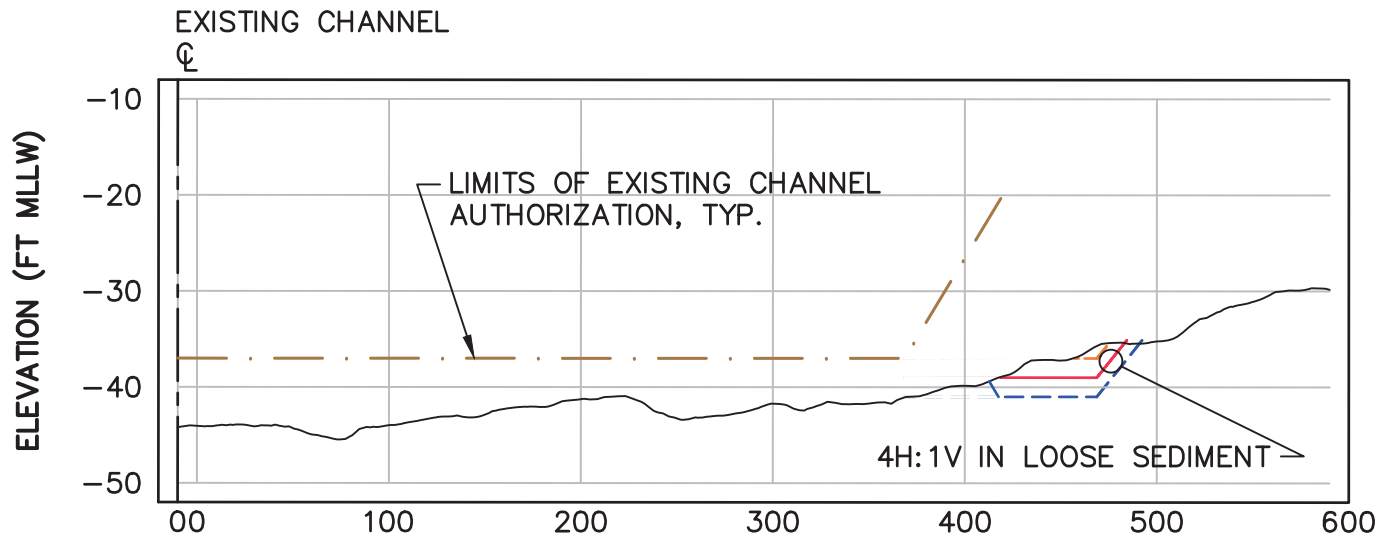
**315**  
5  
DREDGE AREA 3 STA 315+00 (RM 6.0)

**LEGEND**

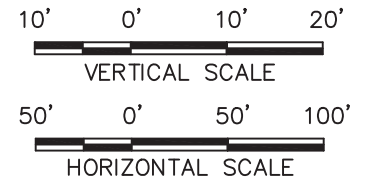
- MUDLINE
- EXISTING CHANNEL
- NRI PROPOSED DREDGE DEPTH\* (-39' MLLW)
- NRI NAVIGATION DEPTH (-37' MLLW)
- NRI ALLOWABLE OVERDEPTH

NRI = NAVIGATION RELIABILITY IMPROVEMENTS

\* DEPTH REQUIRED TO MEET PROJECT'S NEED OF 7.8 MTPA (MILLION TONNES PER ANNUM) FOR LNG TERMINAL



**357**  
6  
DREDGE AREA 4 STA 357+00 (RM 6.8)



USACE 404/10 & 408 - Public Notice

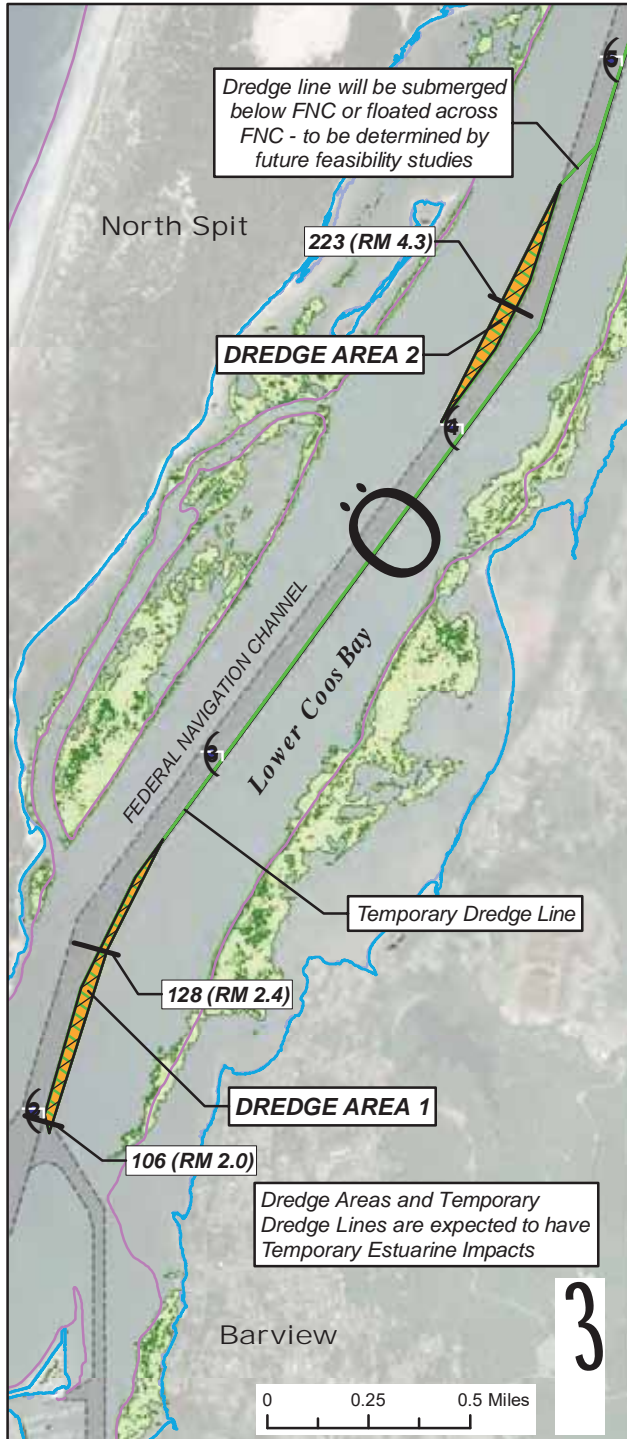


NAVIGATION RELIABILITY IMPROVEMENTS

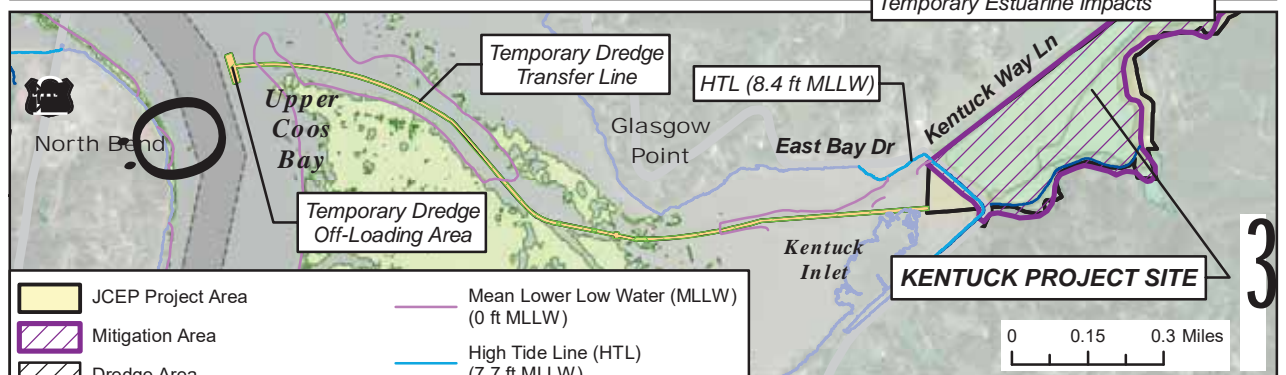
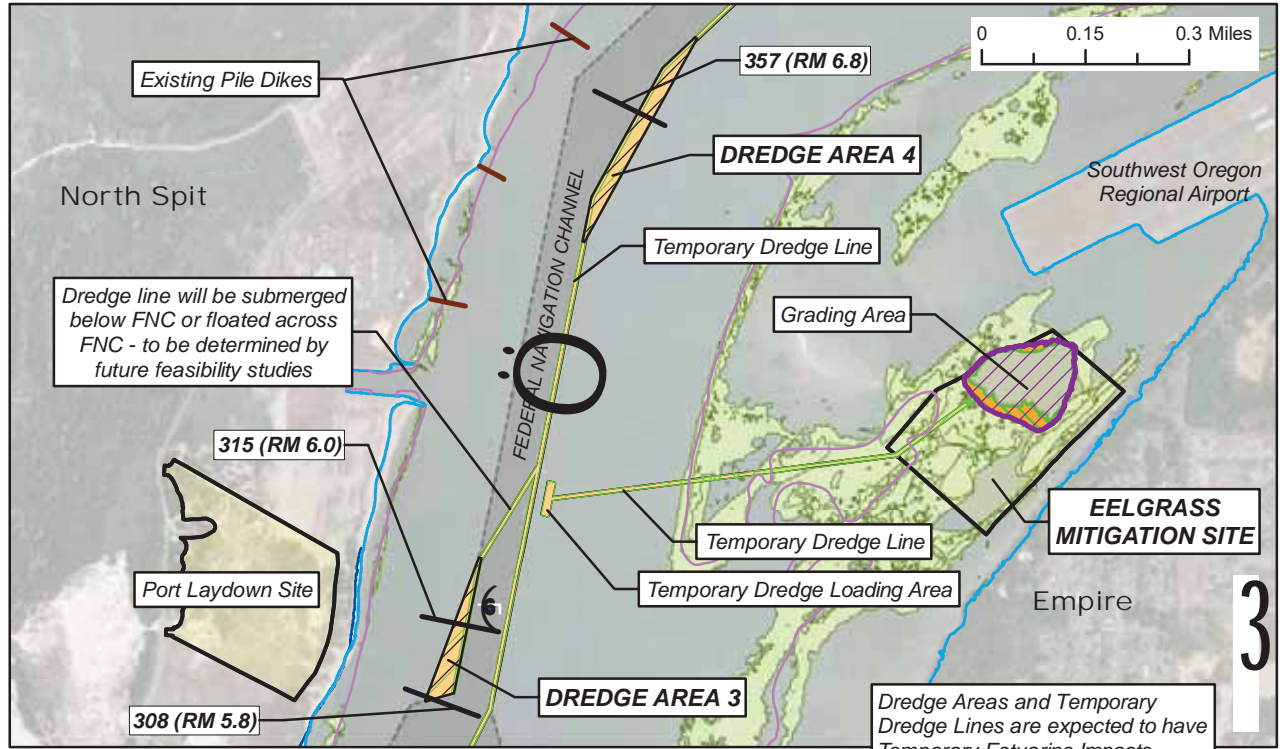
SEATTLE, WASHINGTON

Enclosure **Drawing 9**

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NWP-2017-41



JCEP Project Area	Mean Lower Low Water (MLLW) (0 ft MLLW)
Mitigation Area	High Tide Line (HTL) (7.7 ft MLLW)
Dredge Area	Mean High Water (MHW) (7.38 ft MLLW)
Temporary Estuarine Impact	Highest Measured Tide (HMT) (11.03 ft MLLW, 10.26 ft NAVD88)
Temporary Eelgrass Impact	Federal Navigation Channel (FNC)
Wetland	
Eelgrass*	
Flow Direction (subject to tidal fluctuations)	
Cross Section Location	
Existing Pile Dike	

\*NOTE: Eelgrass data shown from 2005 EPA Survey 2007, 2010, and 2014 DEA Surveys; and 2013 Ellis Ecological Survey. \*\* Cross Sections are shown on Enclosures 10-12. Section views face upstream.

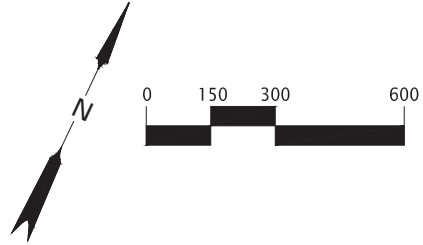
10

J1-000-RGL-TNT-DEA-00007-00 Rev. B

<b>Jordan Cove Energy Project</b>	
USACE 404/10 - Public Notice	
Wetland and Waters Impacts Various Areas	
	ENCLOSURE NO.
<b>Drawing 10</b>	

Enclosure





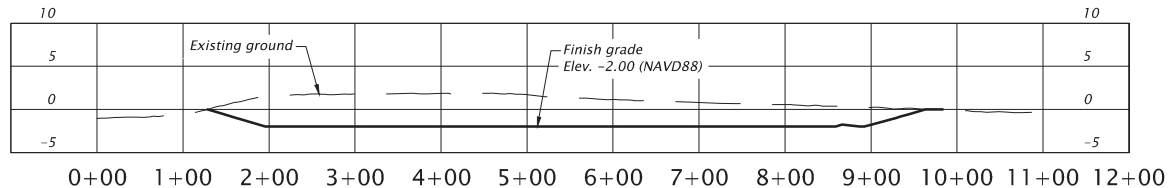
Wetland Mitigation Areas	Acres
Proposed easement area	20.47
Proposed grading area	9.34
Grading limits (area of eelgrass)	1.68

**LEGEND**

	Eelgrass beds (DEA 2010 and EPA 2005)
	Temporary eelgrass impact

**1 GRADING PLAN**  
 -- SCALE: 1"=300'

NOTE:  
 Design elevations and grading subject to minor revisions as part of final design.



**2 SECTION A-A**  
 -- SCALE: H:1"=150' V:1"=15'

**DAVID EVANS AND ASSOCIATES INC.**  
 2100 SW River Parkway  
 Portland Oregon 97201  
 Phone: 503.223.6663

---

**USACE 404/10 & 408 - Public Notice**  
 EELGRASS MITIGATION SITE

COOS COUNTY

---

Designer: E. Rosenthal	Review: G. Olen
Drafter: J. Culpepper	Checker: CHECKED_BY

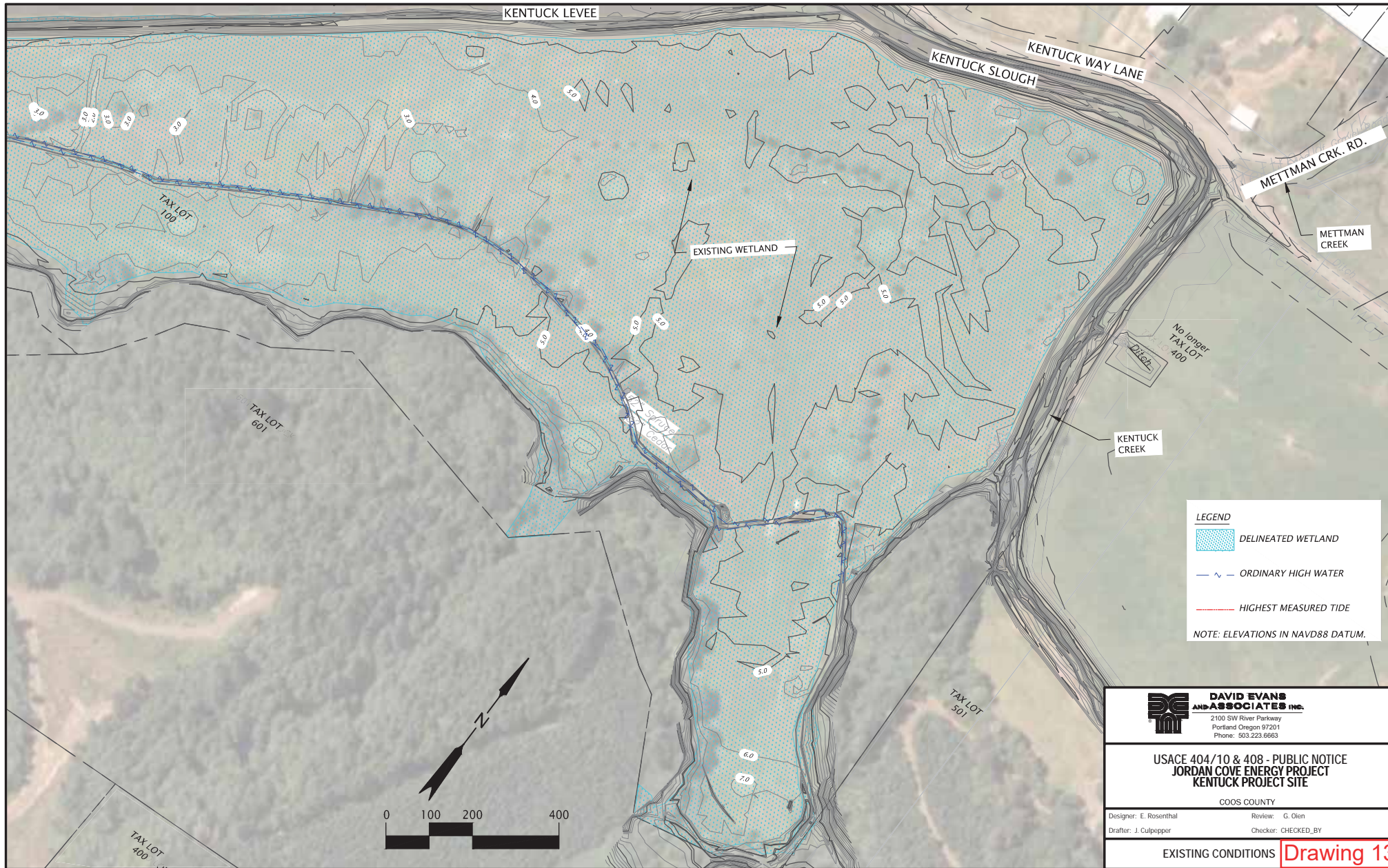
---

GRADING PLAN **Drawing 11**









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 2100 SW River Parkway  
 Portland Oregon 97201  
 Phone: 503.223.6663

**USACE 404/10 & 408 - PUBLIC NOTICE  
 JORDAN COVE ENERGY PROJECT  
 KENTUCKY PROJECT SITE**

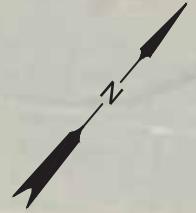
COOS COUNTY

Designer: E. Rosenthal      Review: G. Olen  
 Drafter: J. Culppepper      Checker: CHECKED\_BY

EXISTING CONDITIONS **Drawing 13**



NOTE:  
 1. WETLAND IMPACTS ARE MEASURED FROM THE 8.5' CONTOUR OF THE INTERIOR PROPOSED LEVEE AND ROAD FILL SLOPES AND WITH DELINEATED WETLAND BOUNDARIES.  
 2. TEMPORARY IMPACTS ONLY SHOWN FOR PROPOSAL CONSTRUCTION DETOUR. HOWEVER, TEMPORARY WETLAND IMPACTS WILL OCCUR ACROSS THE SITE AS A RESULT OF GRADING.  
 3. PERMANENT RESTORATION ARE AREAS WITHIN HISTORIC TIDAL FLOOD PLAIN ZONES BUT OUTSIDE CURRENT DELINEATED WETLANDS.



PERMANENT ESTUARINE IMPACT DUE TO ROADSIDE GRADING = 0.03 AC

PROPOSED LEVEE, PERMANENT WETLAND IMPACT = 4.30 AC

CONSTRUCTION DETOUR OF EAST BAY ROAD: TEMPORARY WETLAND IMPACT = 0.47 AC

TEMPORARY ESTUARINE IMPACT (DUE TO BRIDGE CONSTRUCTION) = 0.04 AC

PERMANENT ESTUARINE IMPACT DUE TO ROADSIDE GRADING = 0.04 AC

ROAD IMPROVEMENT, PERMANENT: WETLAND IMPACT = 0.14 AC

WELL AND DRAINFIELD PROTECTION, PERMANENT WETLAND IMPACT = 0.85 AC

ROAD IMPROVEMENT, PERMANENT WETLAND IMPACT = 0.04 AC

PROPOSED ENHANCEMENT

PROPOSED CHANNEL

LIMITS OF EXISTING WETLAND, TYP.

PROPOSED HABITAT POOL

PROPOSED RESTORATION

INCIDENTAL IMPACTS LEGEND & TOTAL IMPACTS

	PERMANENT IMPACT <sup>1</sup> - 5.47 AC
	TEMPORARY IMPACT <sup>2</sup> - 0.51 AC
	PERMANENT RESTORATION <sup>3</sup> - 5.56 AC
	PERMANENT ENHANCEMENT - 95.04 AC

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 2100 SW River Parkway  
 Portland Oregon 97201  
 Phone: 503.223.6663

---

**USACE 404/10 & 408 - Public Notice**  
 KENTUCK PROJECT SITE

COOS COUNTY

---

Designer: E. Rosenthal	Review: G. Olen
Drafter: J. Culpepper	Checker: CHECKED_BY

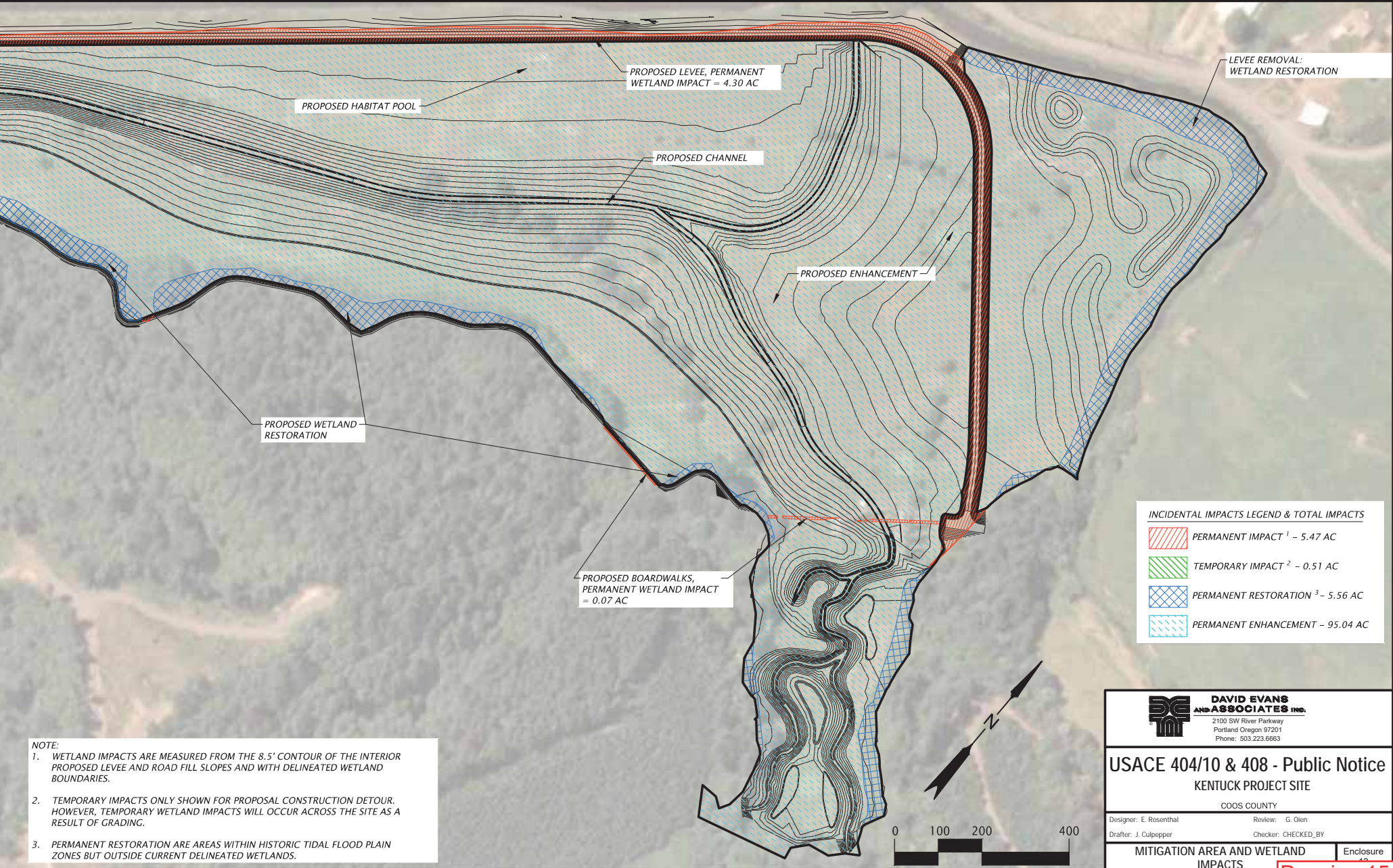
---

<b>MITIGATION AREA AND WETLAND IMPACTS</b>	Enclosure
--	-----------

Drawing 14







**NOTE:**

1. WETLAND IMPACTS ARE MEASURED FROM THE 8.5' CONTOUR OF THE INTERIOR PROPOSED LEVEE AND ROAD FILL SLOPES AND WITH DELINEATED WETLAND BOUNDARIES.
2. TEMPORARY IMPACTS ONLY SHOWN FOR PROPOSAL CONSTRUCTION DETOUR. HOWEVER, TEMPORARY WETLAND IMPACTS WILL OCCUR ACROSS THE SITE AS A RESULT OF GRADING.
3. PERMANENT RESTORATION ARE AREAS WITHIN HISTORIC TIDAL FLOOD PLAIN ZONES BUT OUTSIDE CURRENT DELINEATED WETLANDS.

**DAVID EVANS AND ASSOCIATES INC.**  
 2100 SW River Parkway  
 Portland Oregon 97201  
 Phone: 503.223.6663

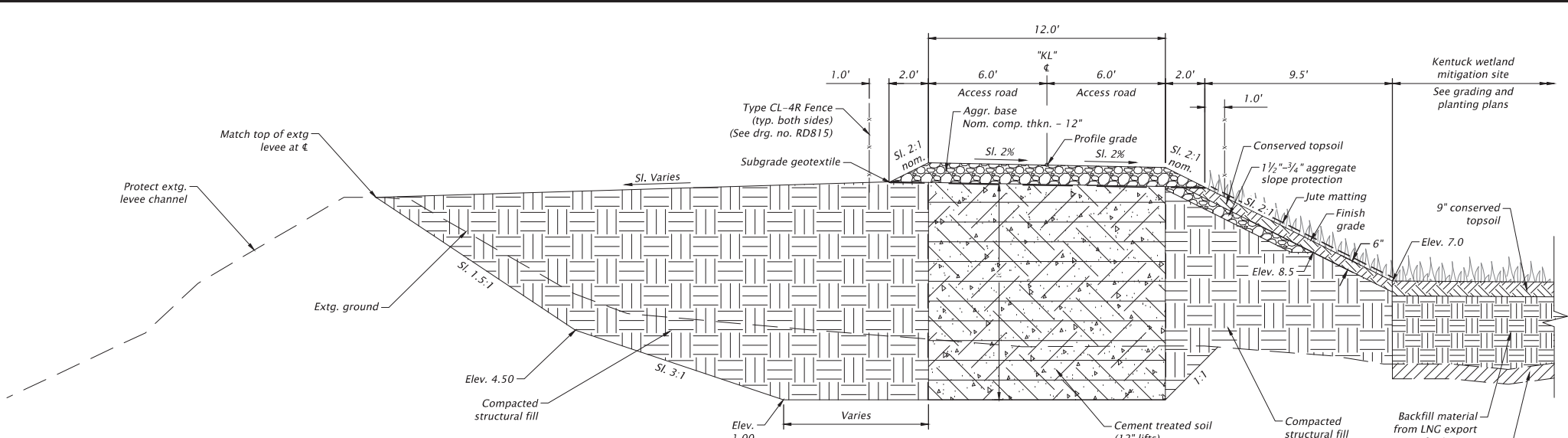
**USACE 404/10 & 408 - Public Notice**  
 KENTUCK PROJECT SITE

COOS COUNTY

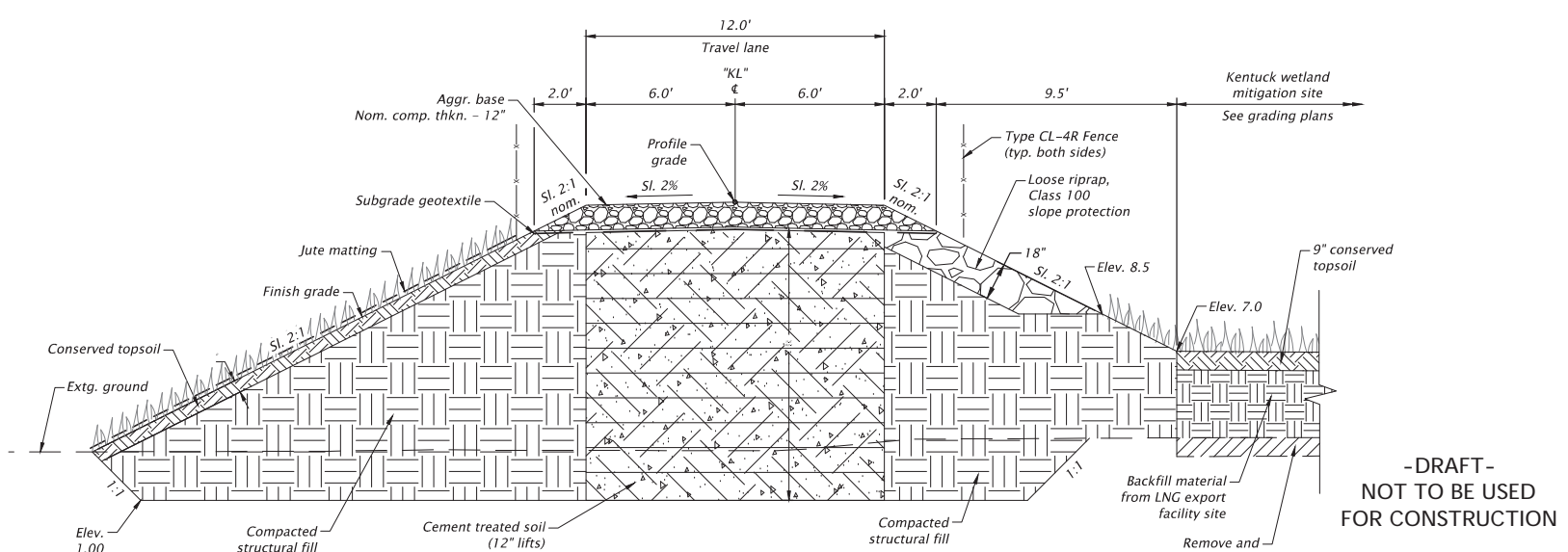
Designer: E. Rosenthal      Review: G. Olin  
 Drafter: J. Culpepper      Checker: CHECKED\_BY

MITIGATION AREA AND WETLAND IMPACTS      Enclosure 12

**Drawing 15**




**KENTUCKY LEVEE ADJACENT TO EXISTING LEVEE**



**KENTUCKY LEVEE RELOCATED**

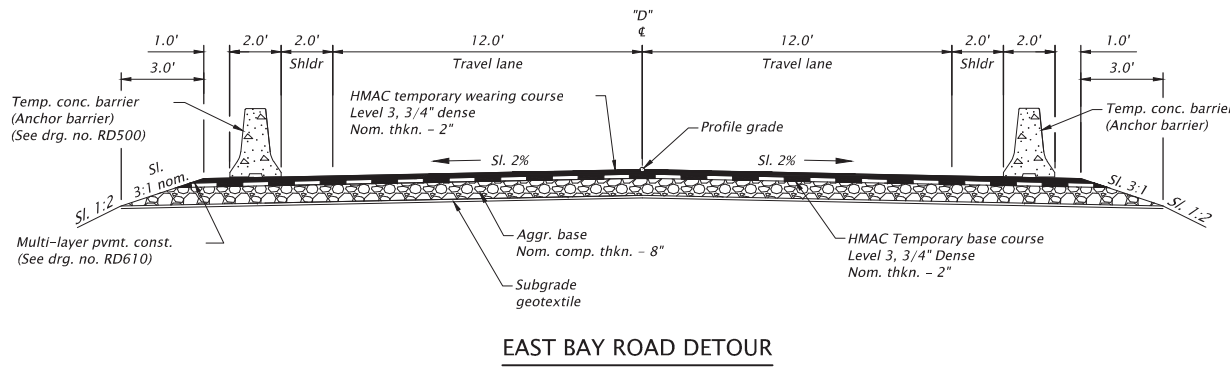
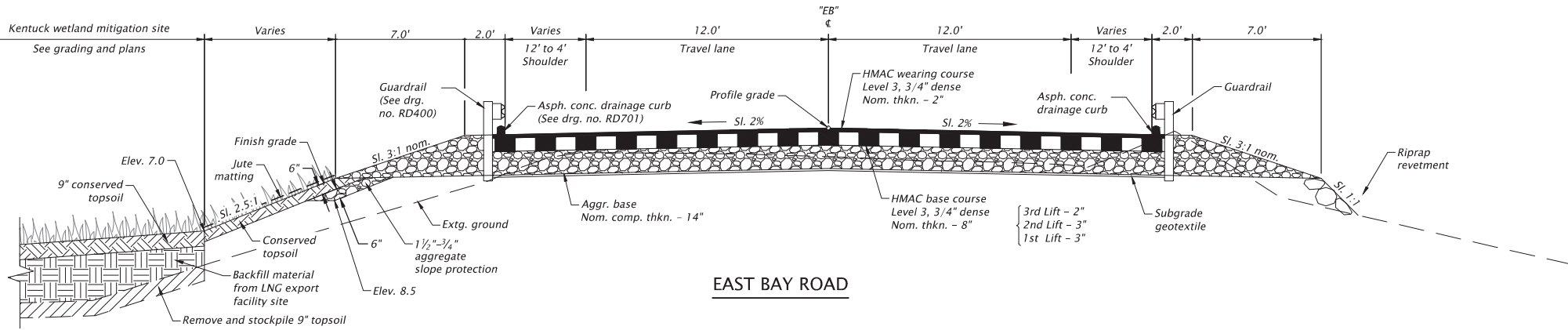
**Notes:**  
 -Final levee foundation design to be determined per additional geotechnical investigations  
 -Bioengineering approaches to improve habitat conditions along levee face and road embankments internal to Kentucky Project to be reviewed as part of final design (See Figure 1 OD for example concepts).

**-DRAFT-  
 NOT TO BE USED  
 FOR CONSTRUCTION**

 <p><b>DAVID EVANS AND ASSOCIATES INC.</b>                  2100 SW River Parkway                  Portland Oregon 97201                  Phone: 503.223.6663</p>	
<p><b>USACE 404/10 &amp; 408 - Public Notice</b>                  KENTUCKY PROJECT SITE</p>	
<p>COOS COUNTY</p>	
<p>Designer: D. Ilyin                  Drafter: J. Culpepper</p>	<p>Review: G. Olen                  Checker: CHECKED_BY</p>
<p>TYPICAL SECTIONS</p>	
<p>Enclosure</p>	


**Drawing 16**



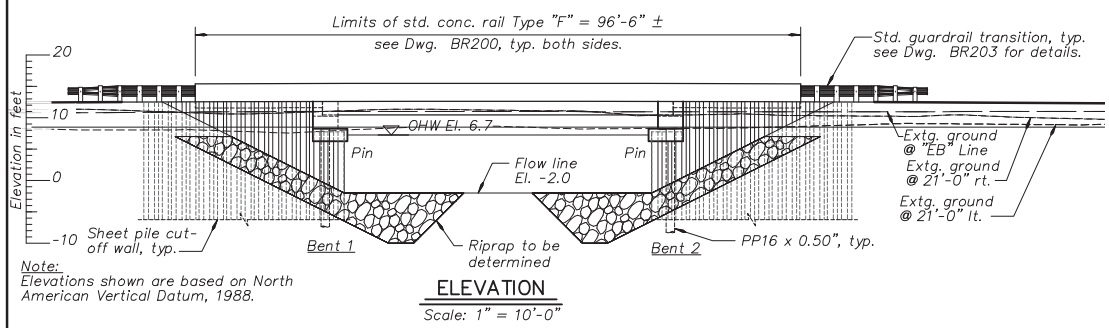
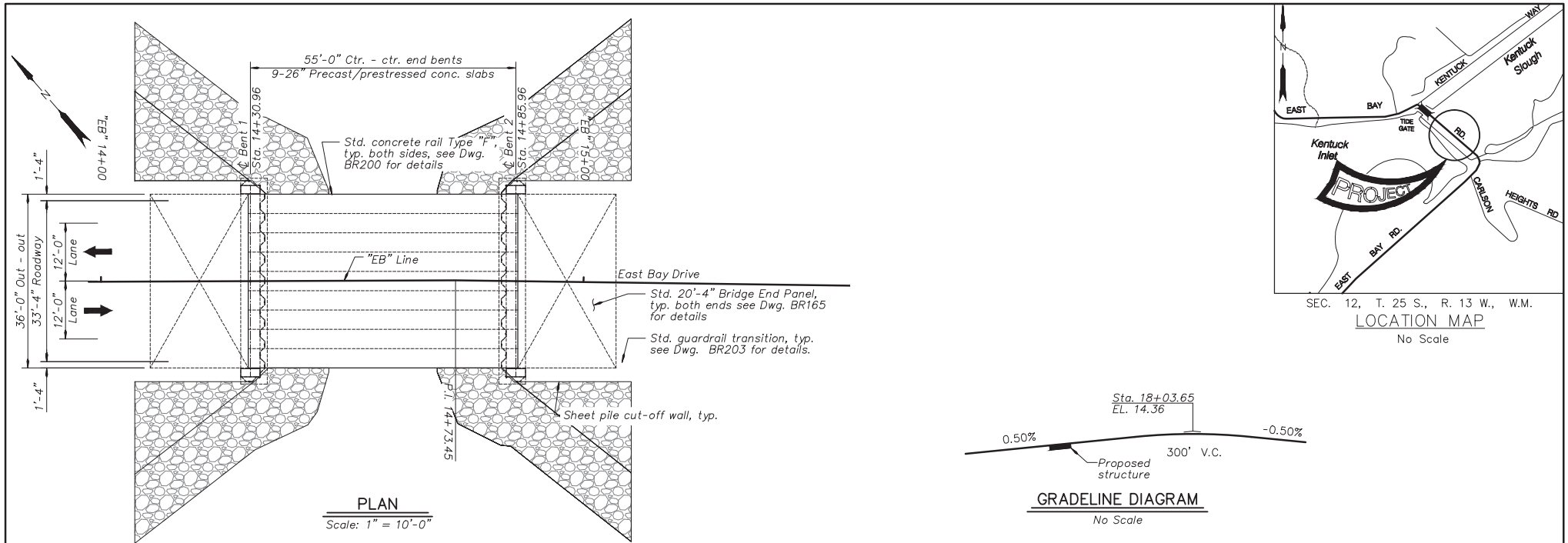


**Notes:**  
 -Bioengineering approaches to improve habitat conditions along levee face and road embankments internal to Kentuck Project to be reviewed as part of final design (See Figure 10D for example concepts).

-DRAFT-  
 NOT TO BE USED  
 FOR CONSTRUCTION

 <b>DAVID EVANS AND ASSOCIATES INC.</b> 2100 SW River Parkway Portland Oregon 97201 Phone: 503.223.6663	
<b>USACE 404/10 &amp; 408 - Public Notice</b> KENTUCK PROJECT SITE COOS COUNTY	
Designer: D. Ilyin	Review: G. Olen
Drafter: J. Culpepper	Checker: CHECKED_BY
TYPICAL SECTIONS	Enclosure

Drawing 17



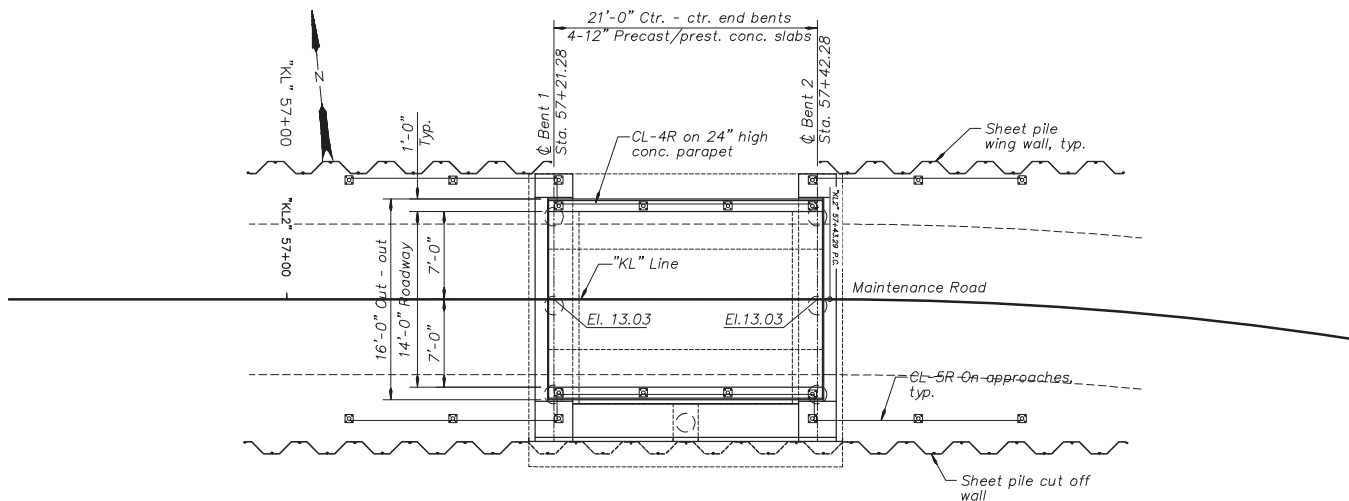
**NOT TO BE USED FOR CONSTRUCTION**

DATE	<b>REVIEW PLANS</b> Sep 26, 2017 DO NOT SCALE DO NOT USE FOR CONSTRUCTION	BY	Jim Culpepper	<b>USACE 404/10 &amp; 408 - Public Notice</b>  FOR REVIEW	STRUCTURE NO.	XXXXX	EAST BAY DRIVE BRIDGE JORDAN COVE ENERGY PROJECT KENTUCK MITIGATION SITE	Enclosure
		DRAFTER:	Laura Baughman		DATE	Month 2014		16
ACCOMPANIED BY DWGS. B702 - B706, BR165, BR200, BR203, BR420, BR445		CHECKER:	Anthony Calcagno	SCALE WARNING	CALC. BOOK		PROPOSED EAST BAY BRIDGE - PLAN AND ELEVATION	DRAWING NO.
		REVIEWER:	Terry Stones	If scale bar doesn't measure one inch, then drawing is not to scale				...B701...



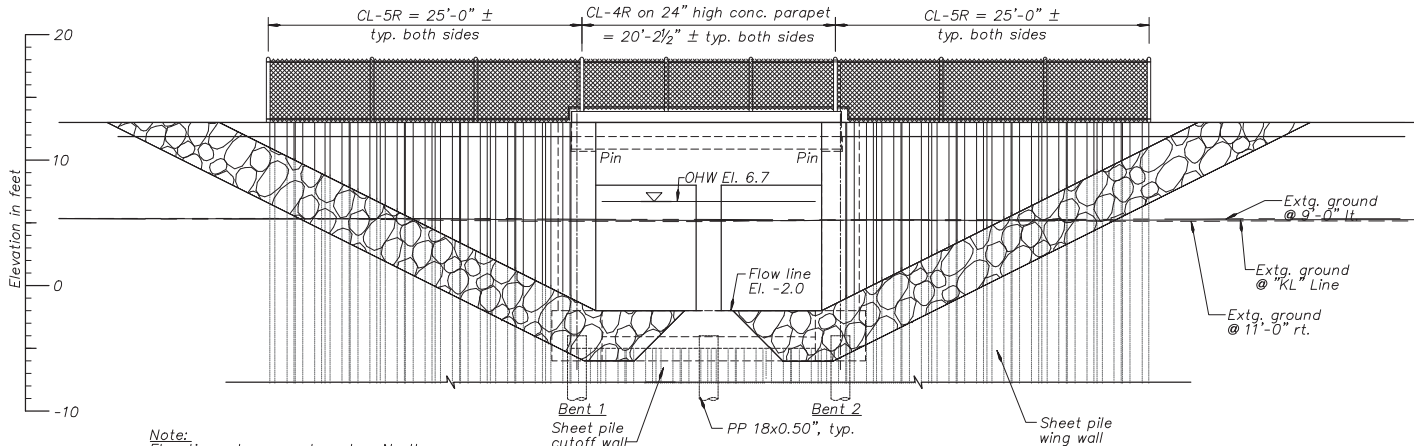
**Drawing 18**





**PLAN**

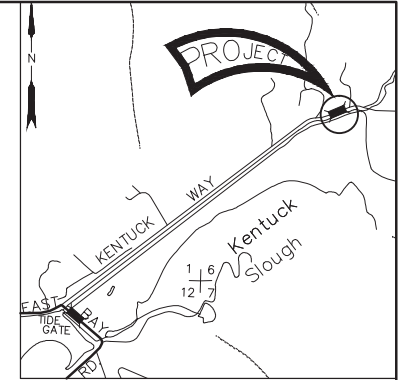
Scale: 1" = 5'-0"



**ELEVATION**

Scale: 1" = 5'-0"

Note:  
Elevations shown are based on North American Vertical Datum, 1988.



SEC. 1, T. 25 S., R. 13 W., W.M.

**LOCATION MAP**

No Scale

Sta. "KL" 11+25.91  
El. 13.00  
-0.00%

Sta. "KL" 74+98.13  
El. 13.00

Note:  
Gradeline is top of aggregate wearing surface at centerline maintenance road.

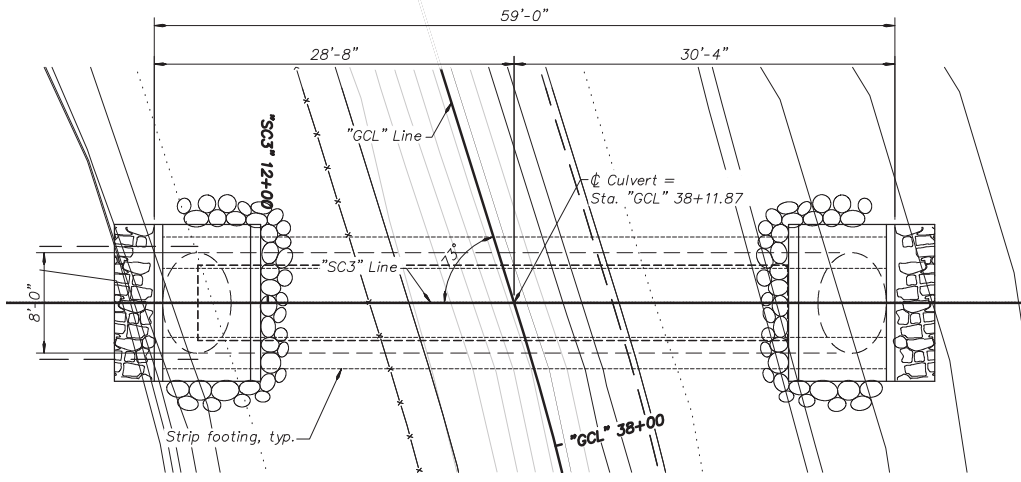
**GRADELINE DIAGRAM**

No Scale

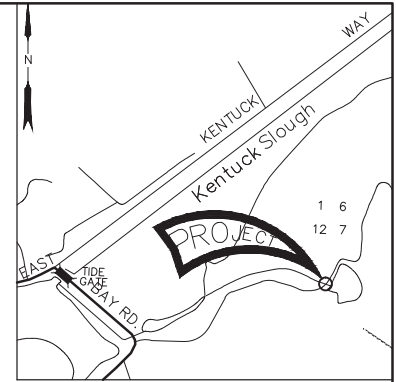
**NOT TO BE USED FOR CONSTRUCTION**

DATE	<b>REVIEW PLANS</b> Sep 26, 2017 DO NOT USE FOR CONSTRUCTION	BY: Jim Culpepper	<b>USACE 404/10 &amp; 408 - Public Notice</b>  FOR REVIEW	STRUCTURE NO. XXXXX	KENTUCKY SLOUGH DIKE BRIDGE JORDAN COVE ENERGY PROJECT KENTUCKY MITIGATION SITE	Enclosure 17
		DRAFTER: Jason Stroud		DATE: Month 2014		DRAWING NO. ...B801...
ACCOMPANIED BY DWGS. B802 - B805, BR240, BR400		CHECKER: Anthony Calcagno	SCALE WARNING If scale bar doesn't measure one inch, then drawing is not to scale	CALC. BOOK	PROPOSED BRIDGE AND MTR - PLAN AND ELEVATION	
		REVIEWER: Terry Stones	DAVID EVANS AND ASSOCIATES INC. 530 Center Street N.E., Suite 605 Salem Oregon 97301 Phone: 503.361.8635			

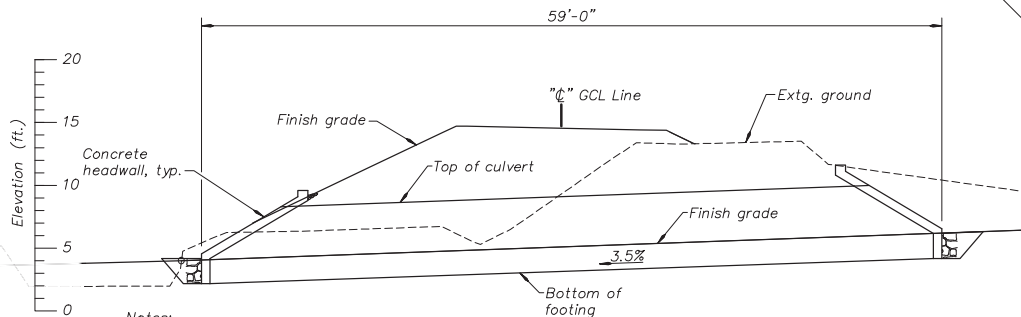
**Drawing 19**



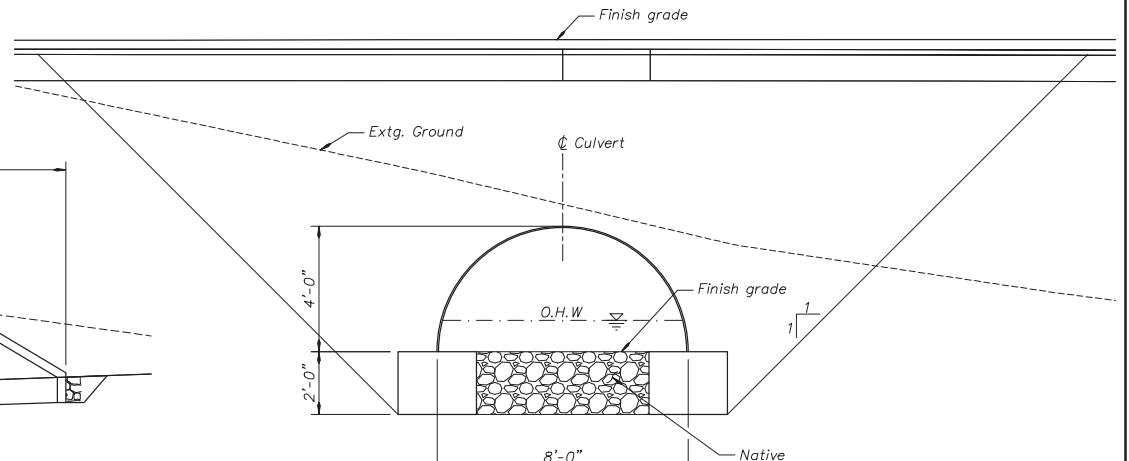
**PLAN**  
Scale: 1" = 5'-0"



SEC. 1, T. 25 S., R. 13 W., W.M.  
**LOCATION MAP**  
No Scale



**ELEVATION**  
Scale: 1" = 5'-0"



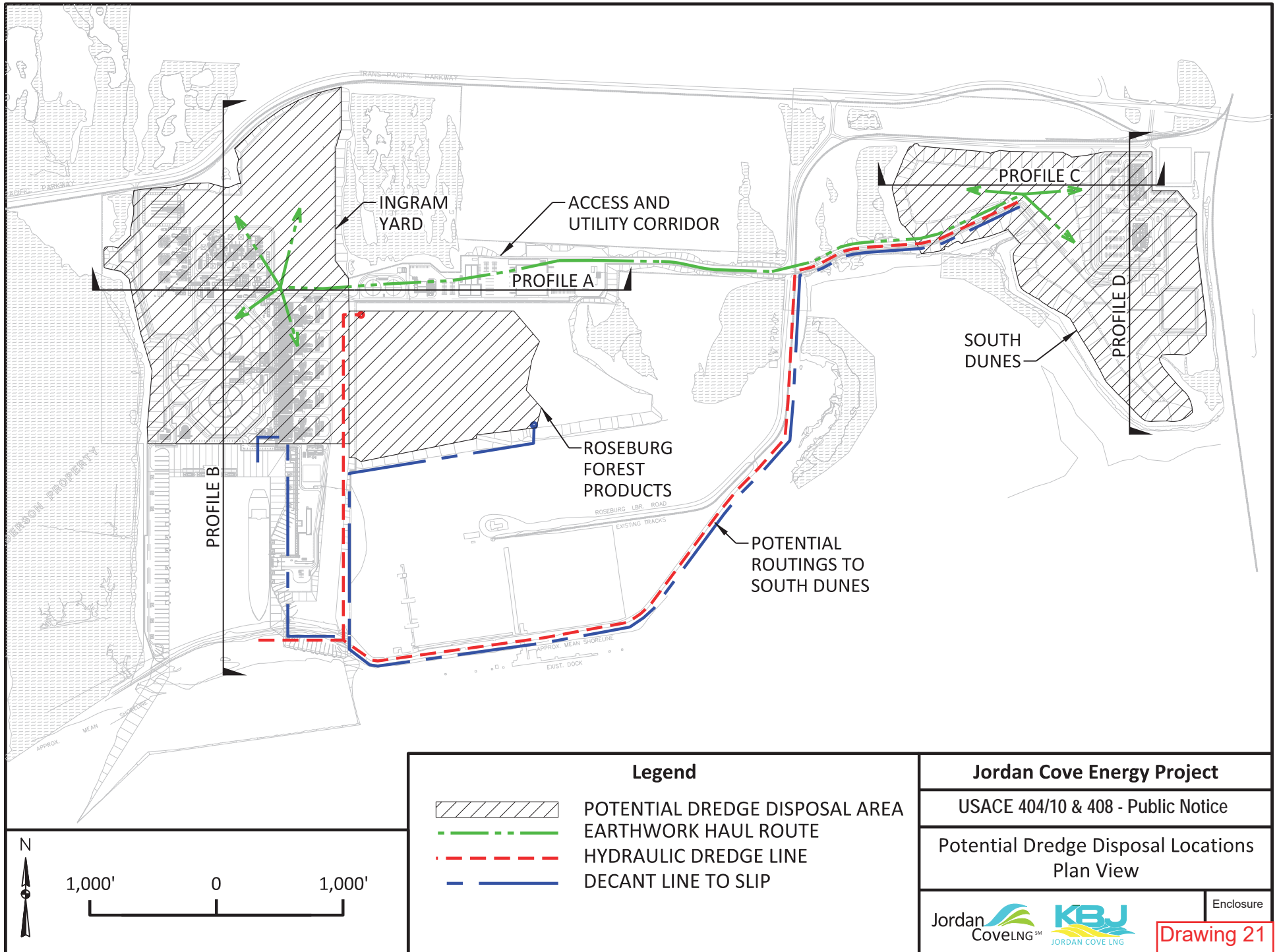
**TYPICAL SECTION**  
No Scale

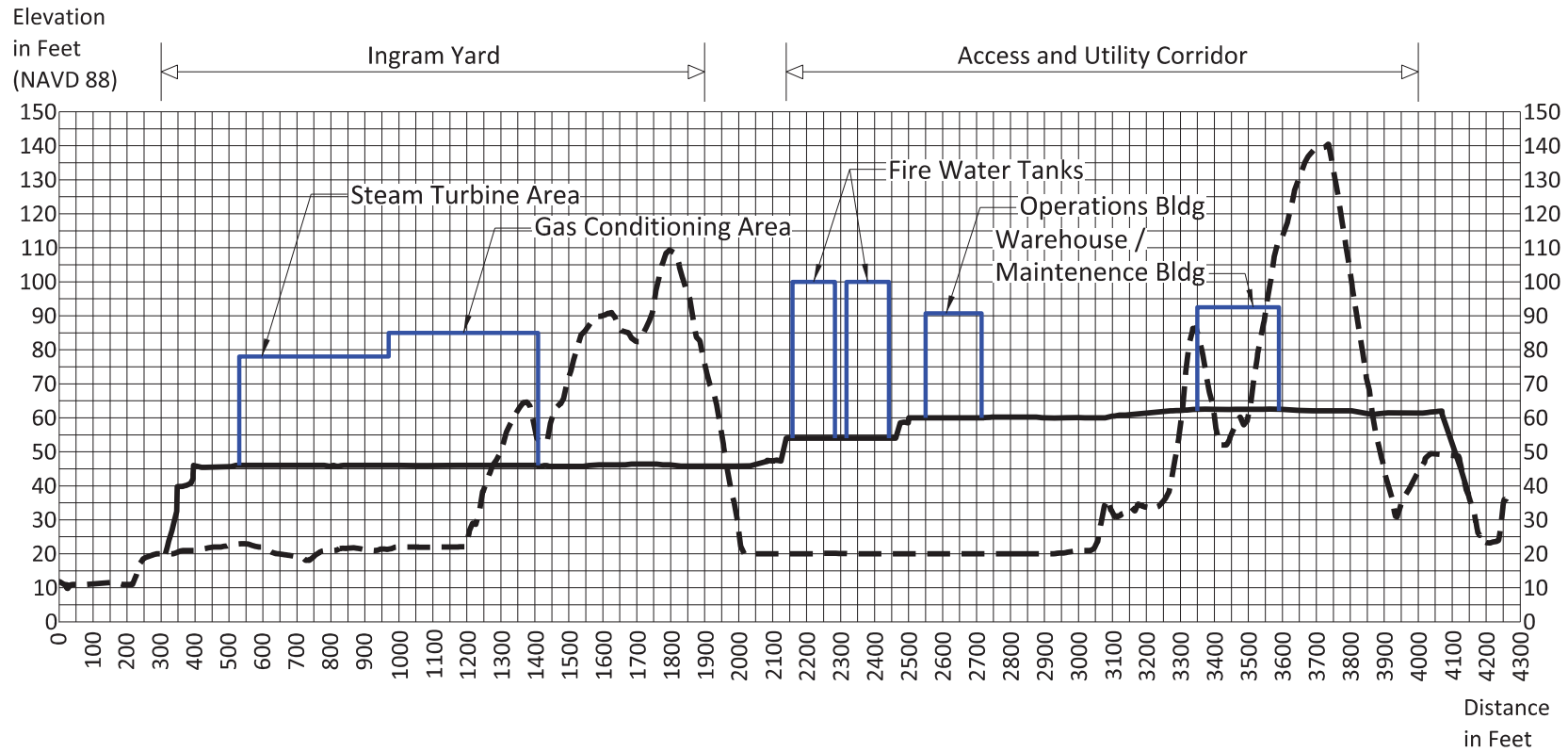
**NOT TO BE USED FOR CONSTRUCTION**

DATE	<b>REVIEW PLANS</b> Sep 26, 2017 DO NOT SCALE DO NOT USE FOR CONSTRUCTION	BY	DRAFTER: Jim Culpepper	FOR REVIEW	STRUCTURE NO. XXXXX	GOLF COURSE LANE CULVERT JORDAN COVE ENERGY PROJECT KENTUCK MITIGATION SITE	Enclosure 18
			DESIGNER: Laura Baughman				
ACCOMPANIED BY DWGS.	SEP 26 2017	CHECKER: Anthony Calcagno	REVIEWER: Jerry Stones	EXPIRES:	SCALE WARNING If scale bar doesn't measure one inch then drawing is not to scale	CALC. BOOK	PROPOSED BRIDGE AND MTR - PLAN AND ELEVATION

**Drawing 20**









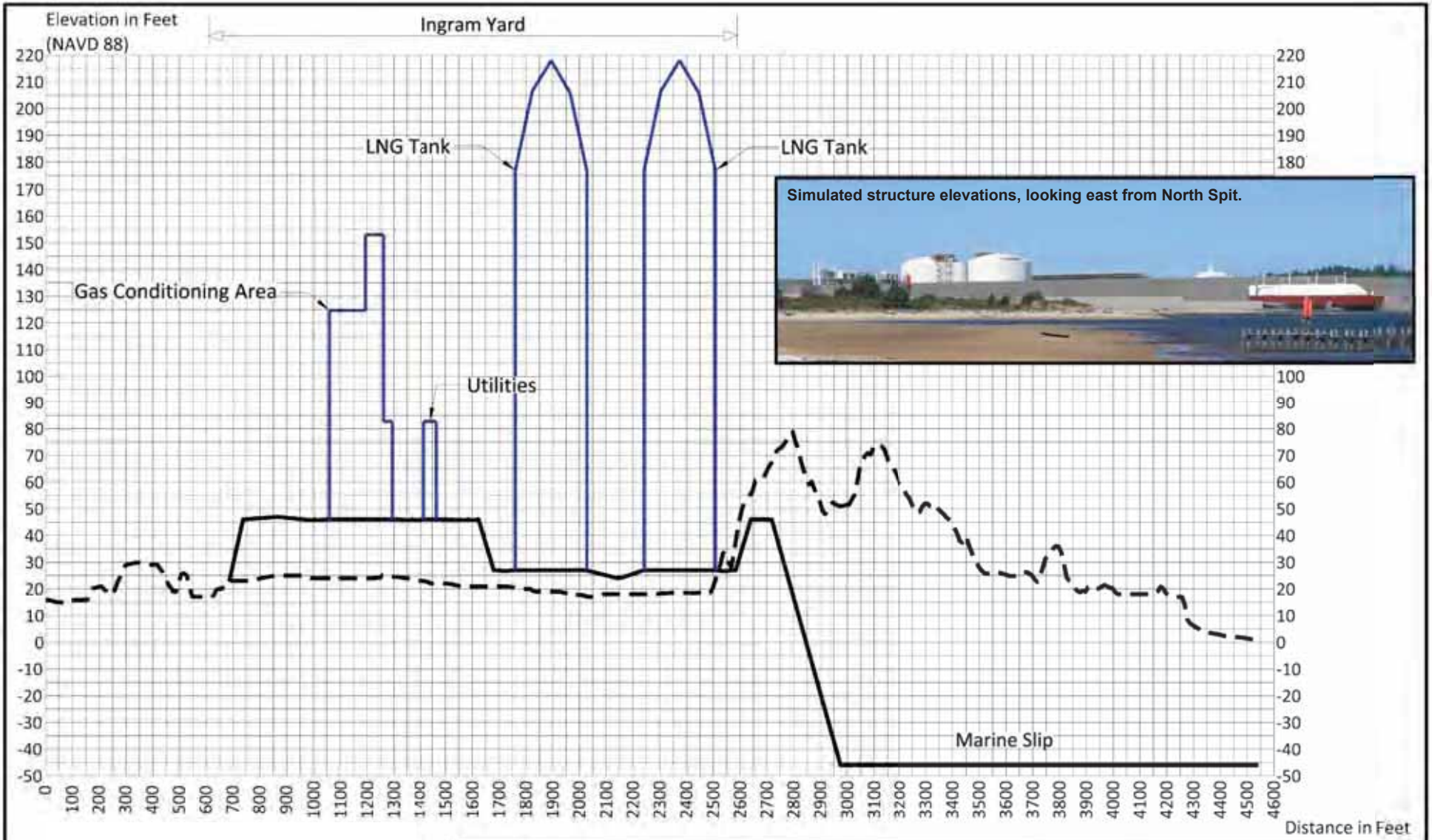
\*Structure heights are preliminary and subject to change.  
 \*The widths of structures appear compressed due to the scale.

**Profile Looking North**  
 See Plan View for Location

Legend	
	Finished Grade
	Existing Grade

<b>Jordan Cove Energy Project</b>	
USACE 404/10 & 408 - Public Notice	
Potential Dredge Disposal Locations Profile A - Ingram Yard	
 	Enclosure
<b>Drawing 22</b>	



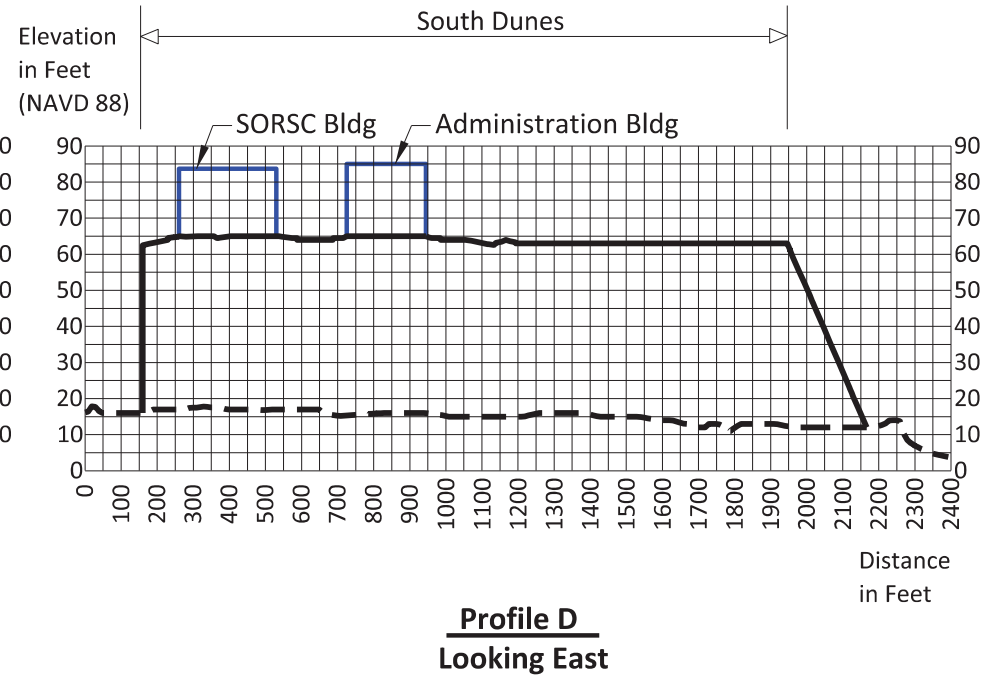
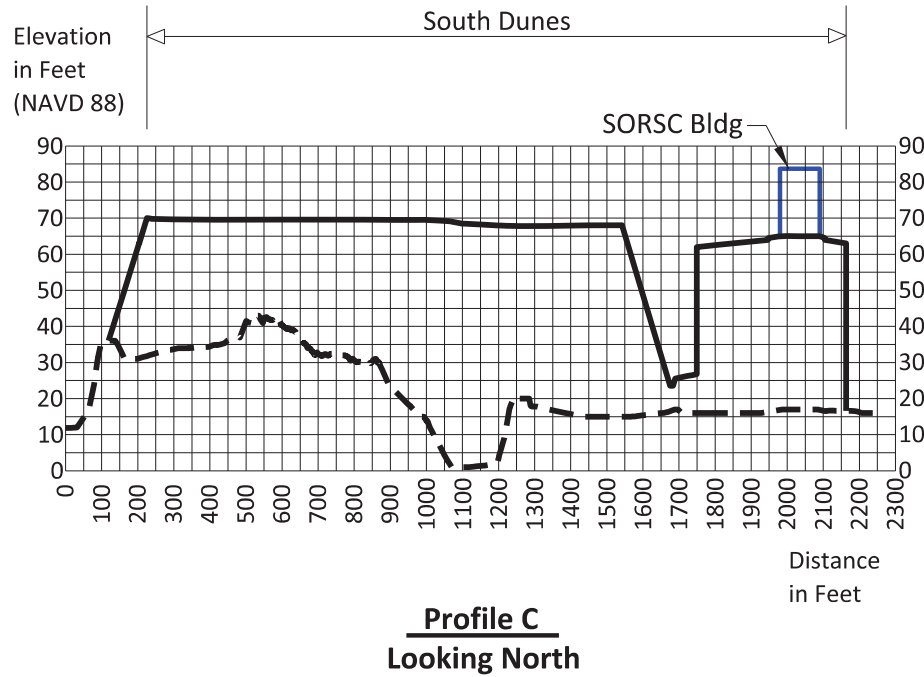


\*Structure heights are preliminary and subject to change.  
 \*The widths of structures appear compressed due to the scale.  
 \*See inset photo for simulated structure elevations.

Legend	
	Finished Grade
	Existing Grade



Jordan Cove Energy Project	
USACE 404/10 & 408 - Public Notice	
Potential Dredge Disposal Locations Profile B - Ingram Yard	
	Enclosure



**Drawing 23**



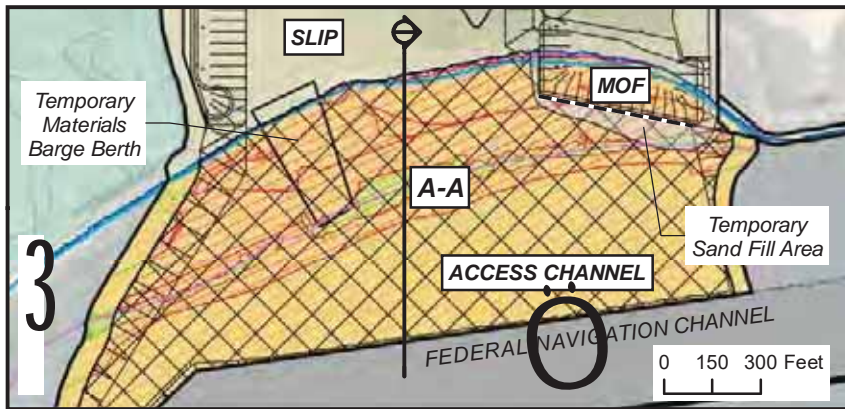
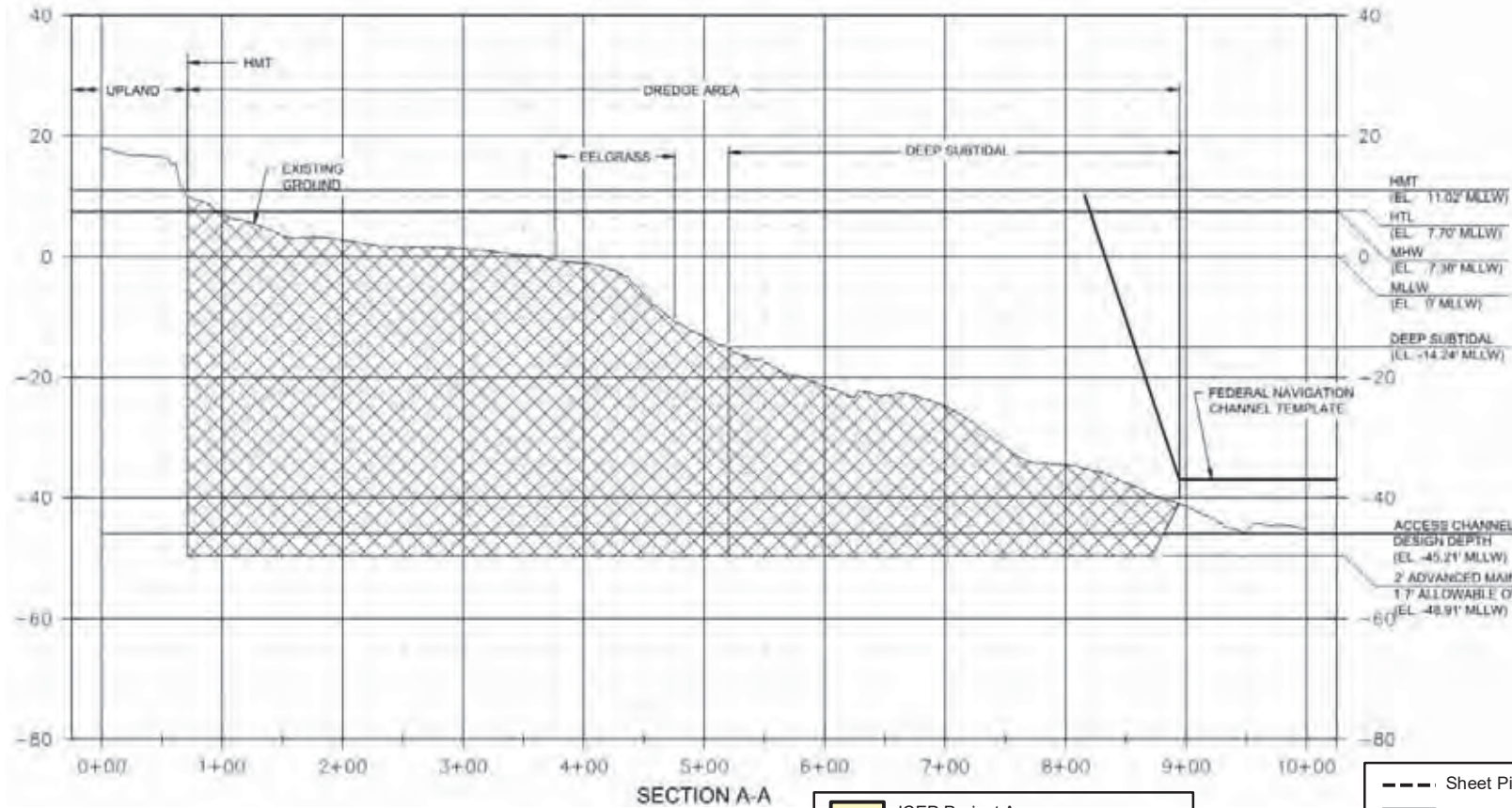
\*Structure heights are preliminary and subject to change.  
\*The widths of structures appear compressed due to the scale.

See Plan View for Locations

Legend	
	Finished Grade
	Existing Grade

<b>Jordan Cove Energy Project</b>	
USACE 404/10 & 408 - Public Notice	
Potential Dredge Disposal Locations Profiles C and D - South Dunes	
 	Enclosure
<b>Drawing 24</b>	





- JCEP Project Area
- Cross Section Location
- Design (May 2017)
- Permanent Estuarine Impact
- Temporary Estuarine Impact
- Permanent Eelgrass Impact
- Temporary Eelgrass Impact
- Upland Impact Below HMT
- Mean Lower Low Water (MLLW) (0 ft MLLW)
- High Tide Line (HTL) (7.7 ft MLLW)
- Mean High Water (MHW) (7.38 ft MLLW)
- Highest Measured Tide (HMT) (11.03 ft MLLW, 10.26 ft NAVD88)

- Sheet Pile Wall
- Temporary Sand Fill Area
- Federal Navigation Channel
- Flow Direction (subject to tidal fluctuations)
- Eelgrass (2017 DEA Survey)
- Dredge Area
- Wetland

**Jordan Cove Energy Project**

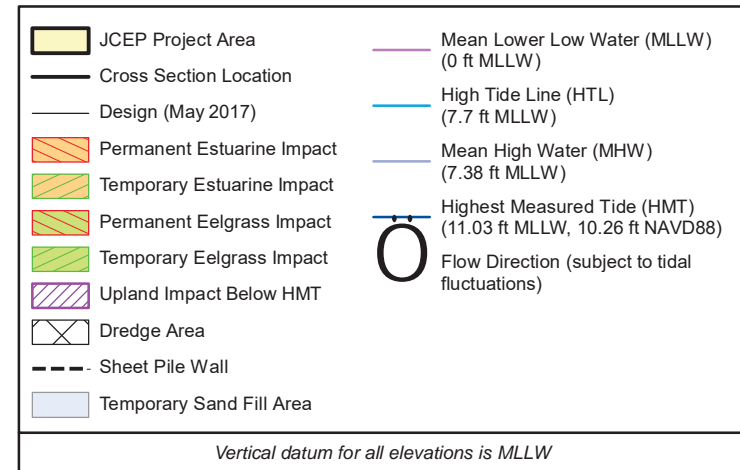
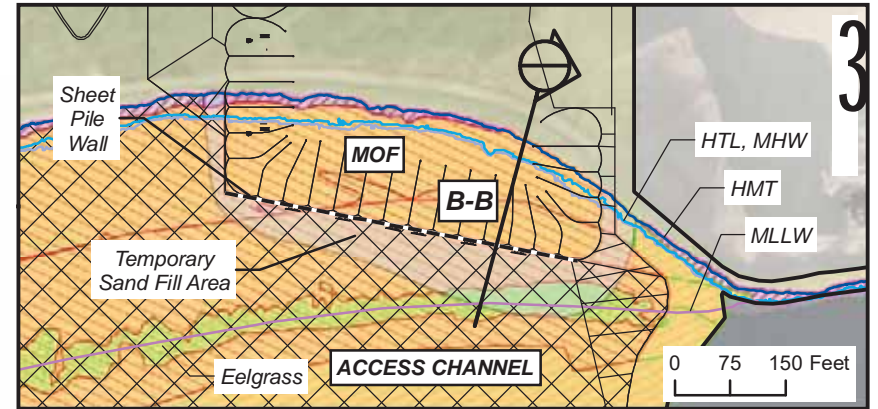
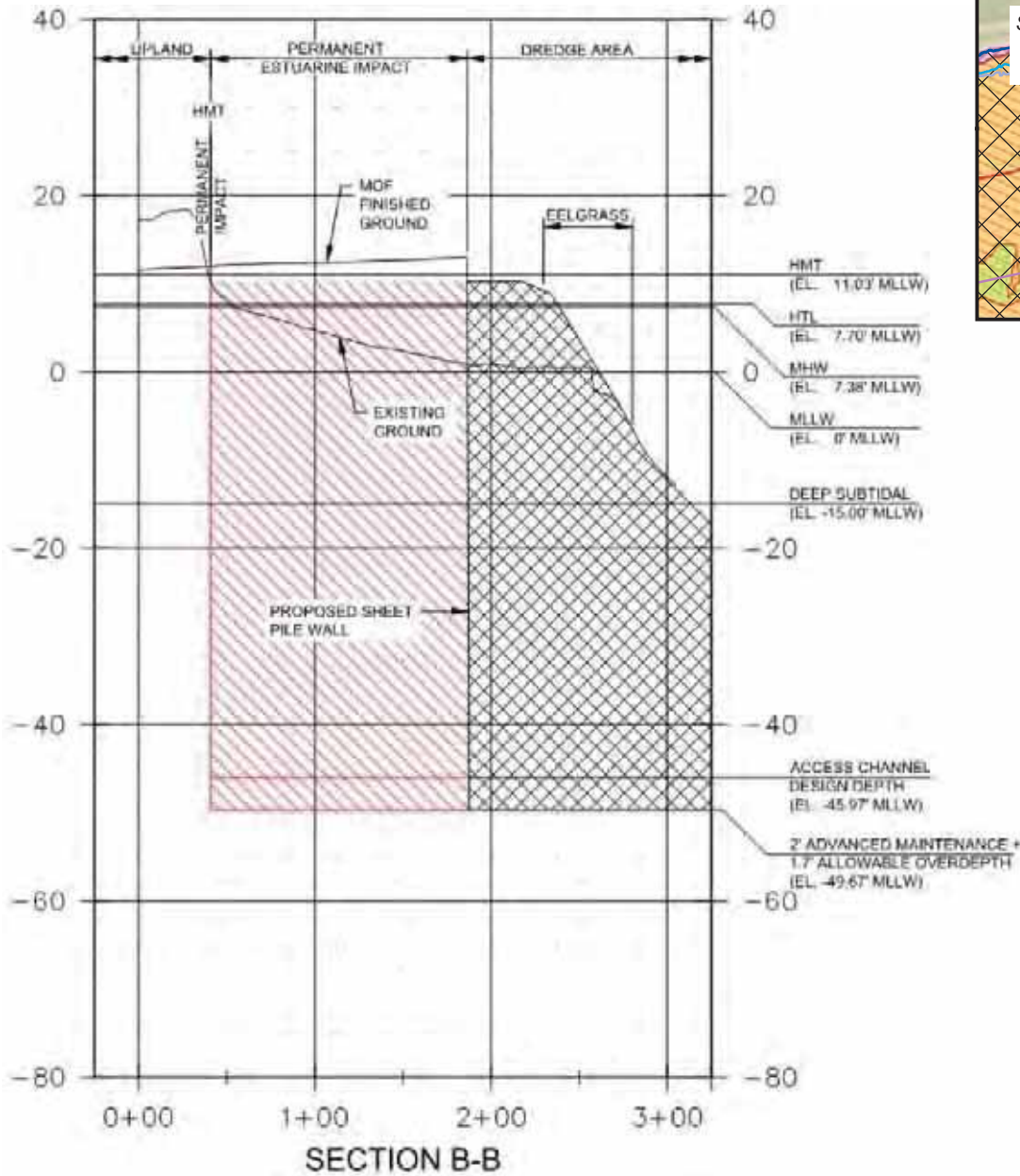
USACE 404/10 Public Notice

Cross Section A-A  
Access Channel



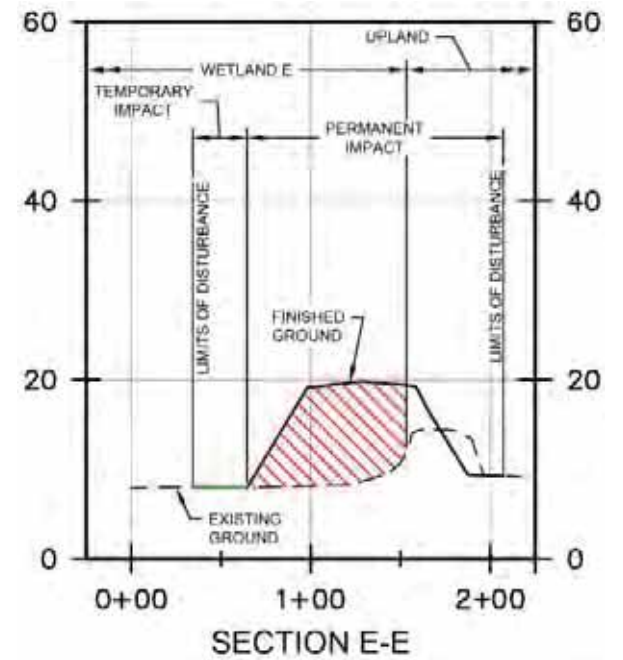
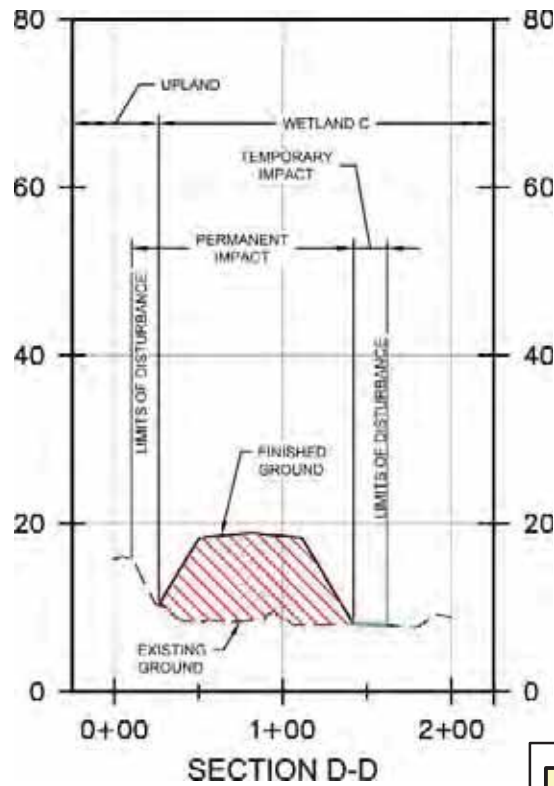
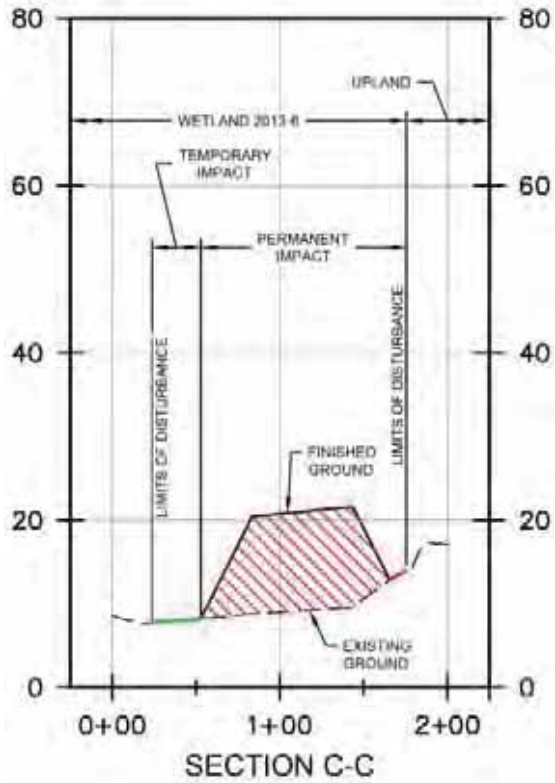
ENCLOSURE NO. **Drawing 25**

Vertical datum for all elevations is MLLW



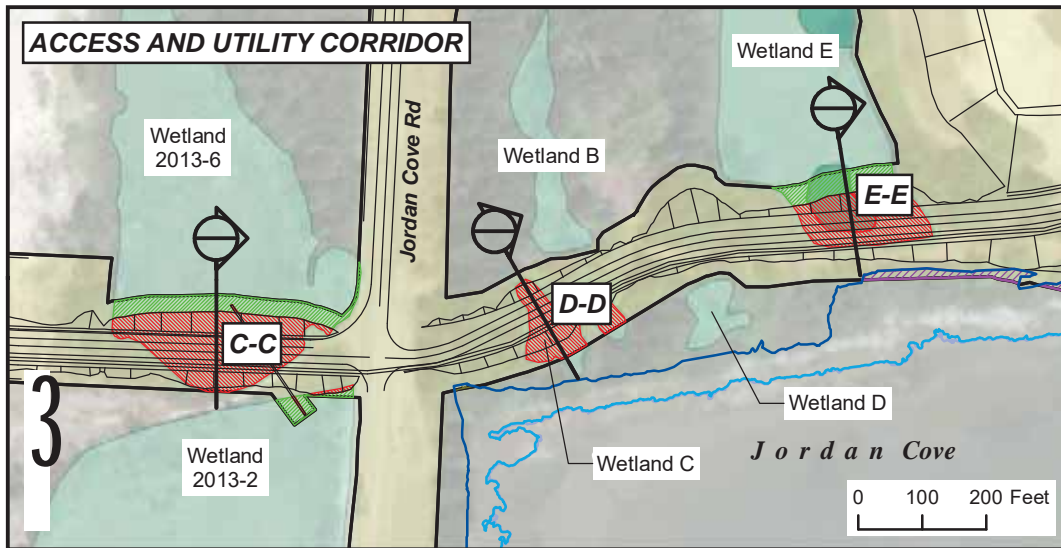
<b>Jordan Cove Energy Project</b>	
USACE 404/10 Public Notice	
Cross Section B-B Material Offloading Facility (MOF)	
	ENCLOSURE NO. 4/2 <b>Drawing 26</b>



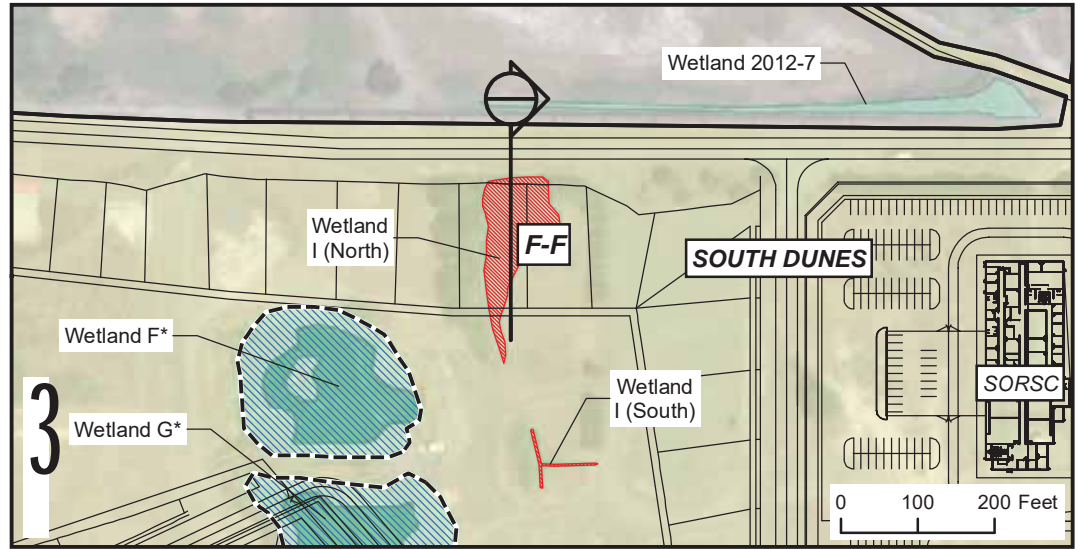
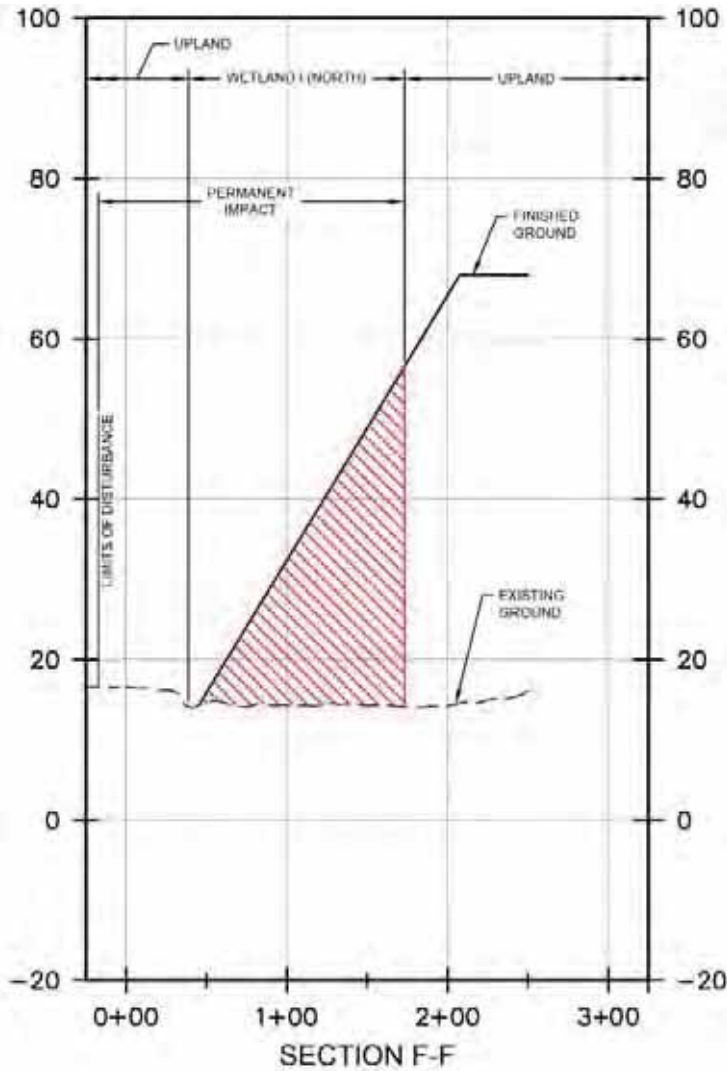


JCEP Project	Design (May 2017)
Cross Section Location	High Tide Line (HTL) (7.7 ft MLLW)
Permanent Freshwater Wetland Impact	Mean High Water (MHW) (7.38 ft MLLW)
Temporary Freshwater Wetland Impact	Highest Measured Tide (HMT) (11.03 ft MLLW, 10.26 ft NAVD88)
Upland Impact Below HMT	Wetland
No Work Zone	Open Water

Vertical datum for all elevations is MLLW



<b>Jordan Cove Energy Project</b>	
USACE 404/10 & 408 - Public Notice	
Cross Sections C-C, D-D, E-E Access & Utility Corridor	
	ENCLOSURE NO. <b>Drawing 27</b>

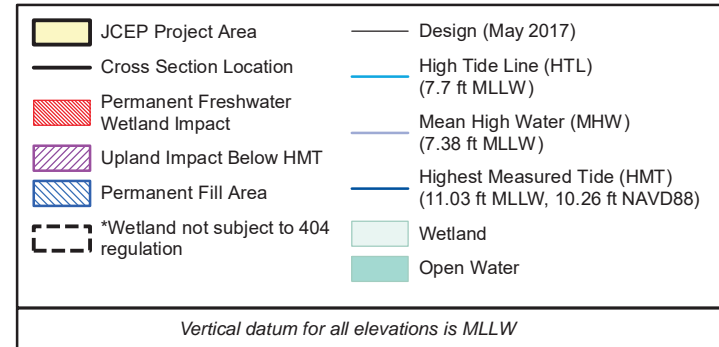
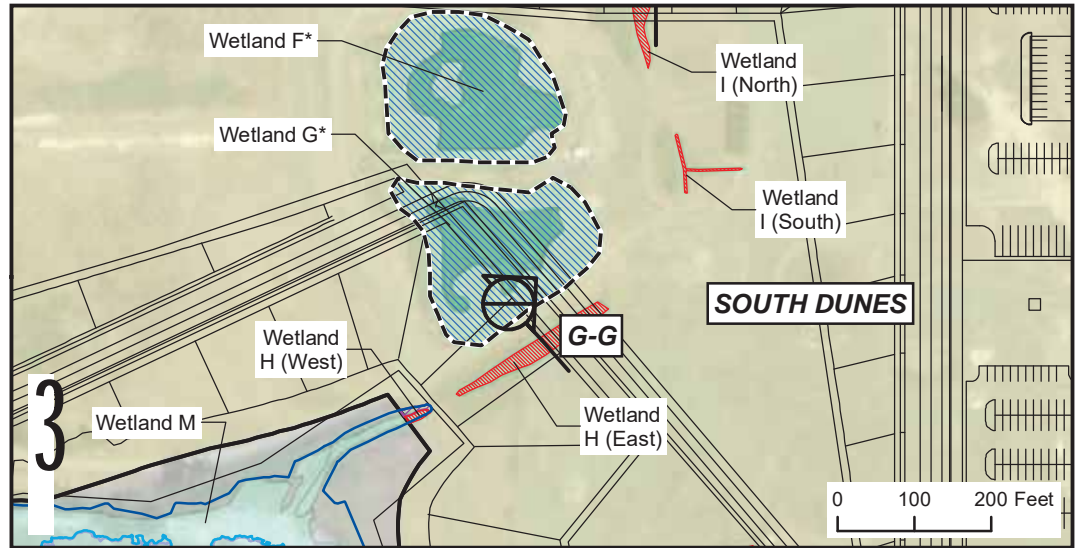
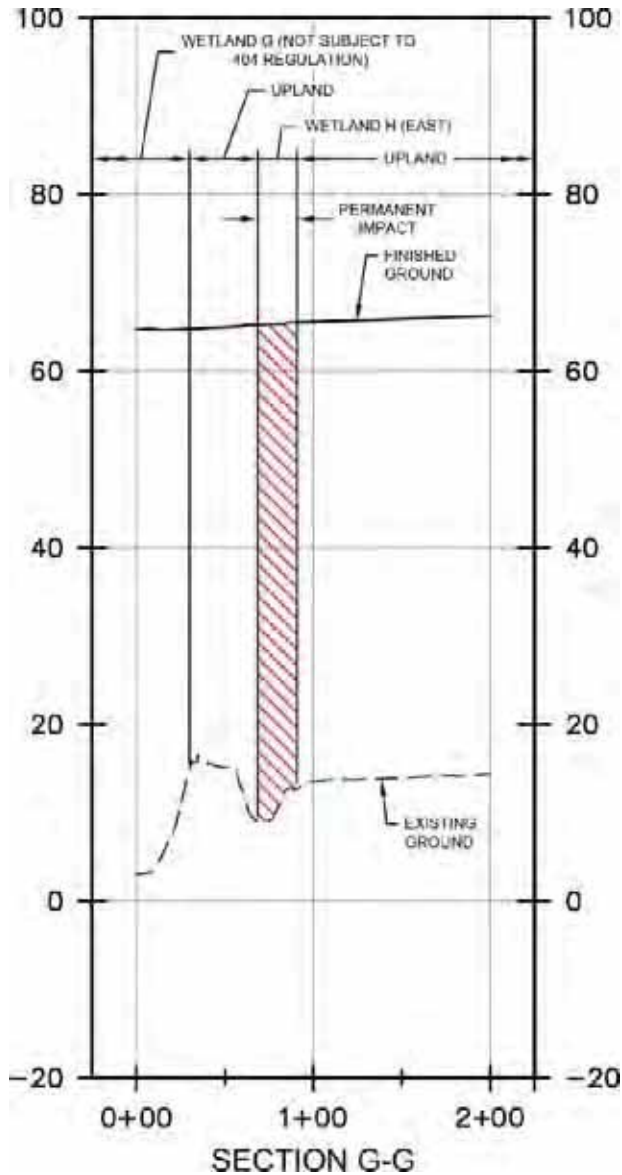


	JCEP Project
	Cross Section Location
	Permanent Freshwater Wetland Impact
	Permanent Fill
	*Wetland not subject to 404 regulation
	Design (May 2017)
	Wetland
	Open Water

*Vertical datum for all elevations is MLLW*

<b>Jordan Cove Energy Project</b>	
USACE 404/10 & 408 - Public Notice	
<i>Cross Section F-F                  South Dunes - Workforce                  Housing and Parking Area</i>	
	ENCLOSURE NO. <b>Drawing 28</b>





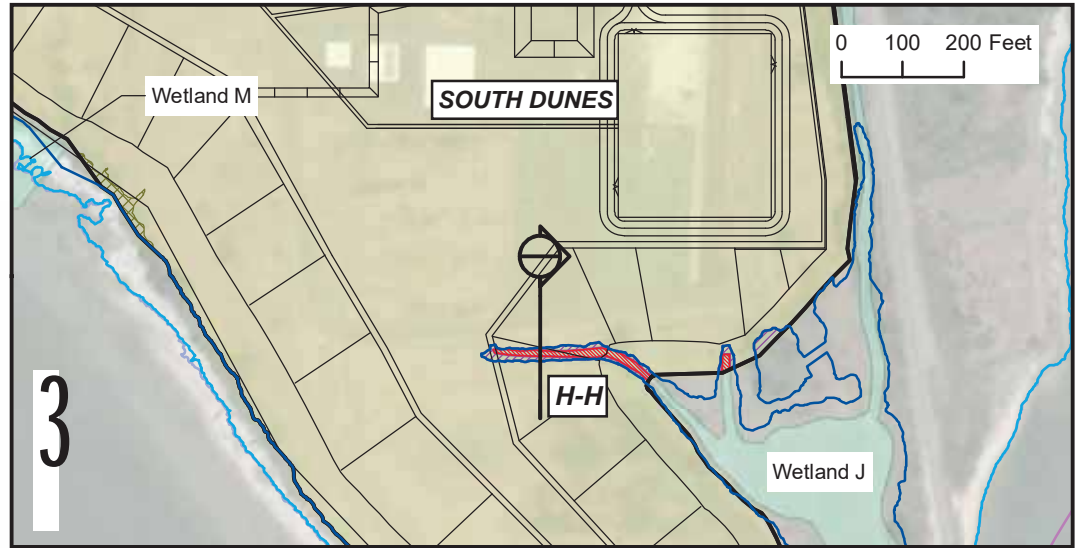
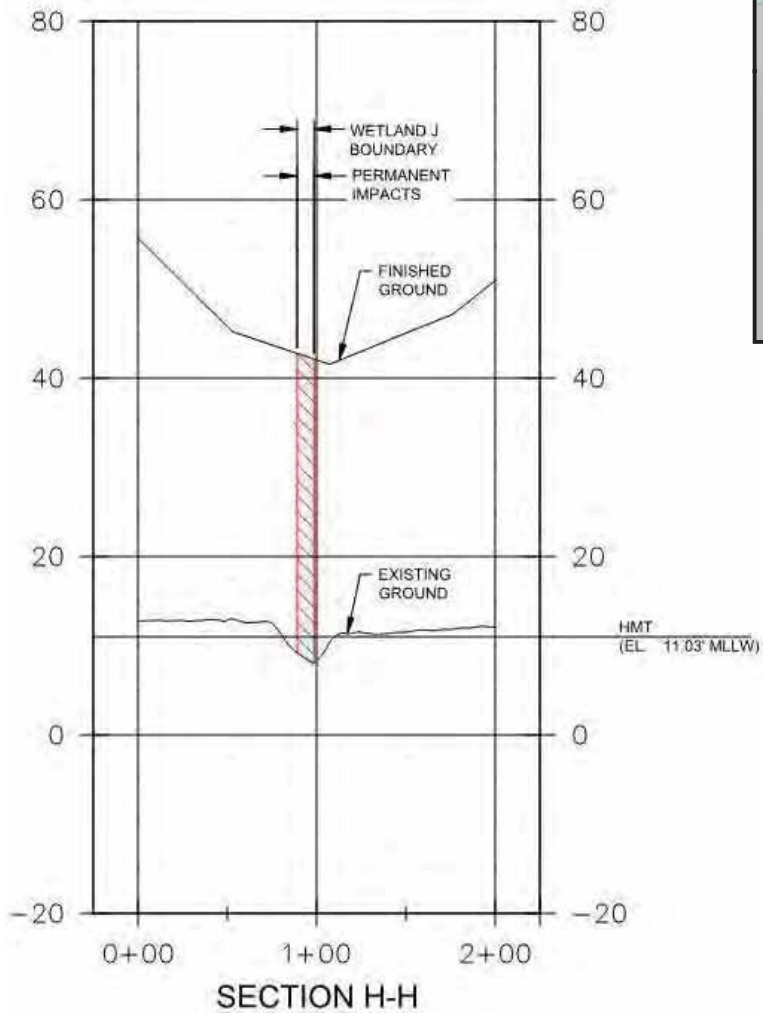
**Jordan Cove Energy Project**

USACE 404/10 & 408 - Public Notice

Cross Section G-G  
South Dunes - Workforce  
Housing and Parking Area

Jordan Cove LNG™

ENCLOSURE NO. 4/20 **Drawing 29**

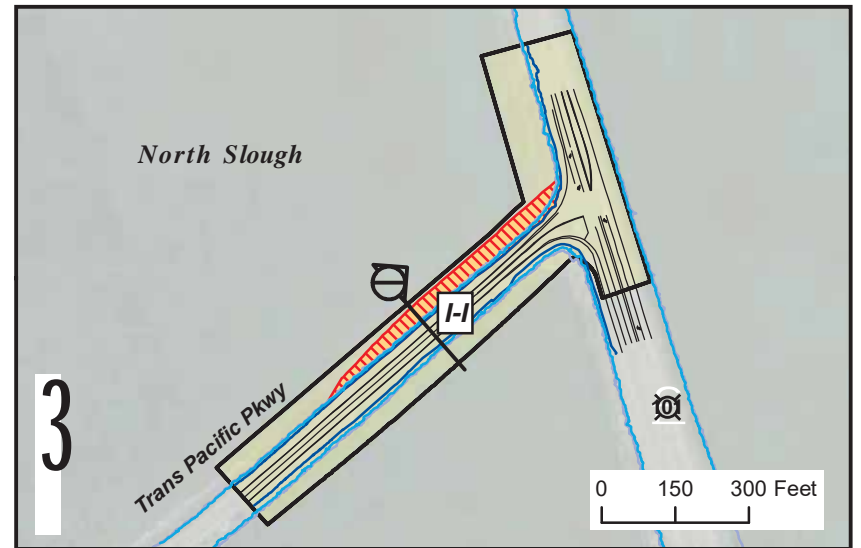
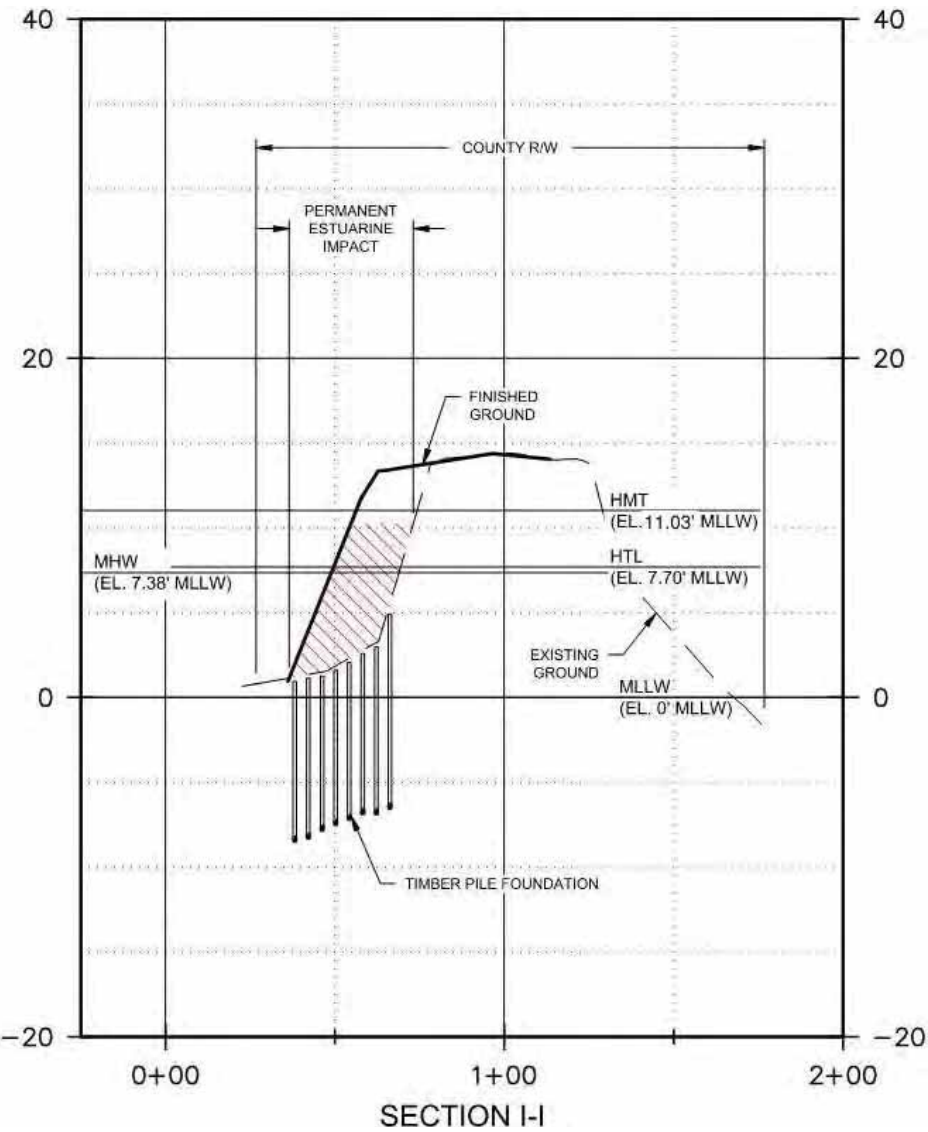


	JCEP Project Area
	Cross Section Location
	Permanent Freshwater Wetland Impact
	Upland Impact Below HMT
	No Work Zone
	Design (May 2017)
	Mean Lower Low Water (MLLW) (0 ft MLLW)
	High Tide Line (HTL) (7.7 ft MLLW)
	Mean High Water (MHW) (7.38 ft MLLW)
	Highest Measured Tide (HMT) (11.03 ft MLLW, 10.26 ft NAVD88)
	Wetland

Vertical datum for all elevations is MLLW

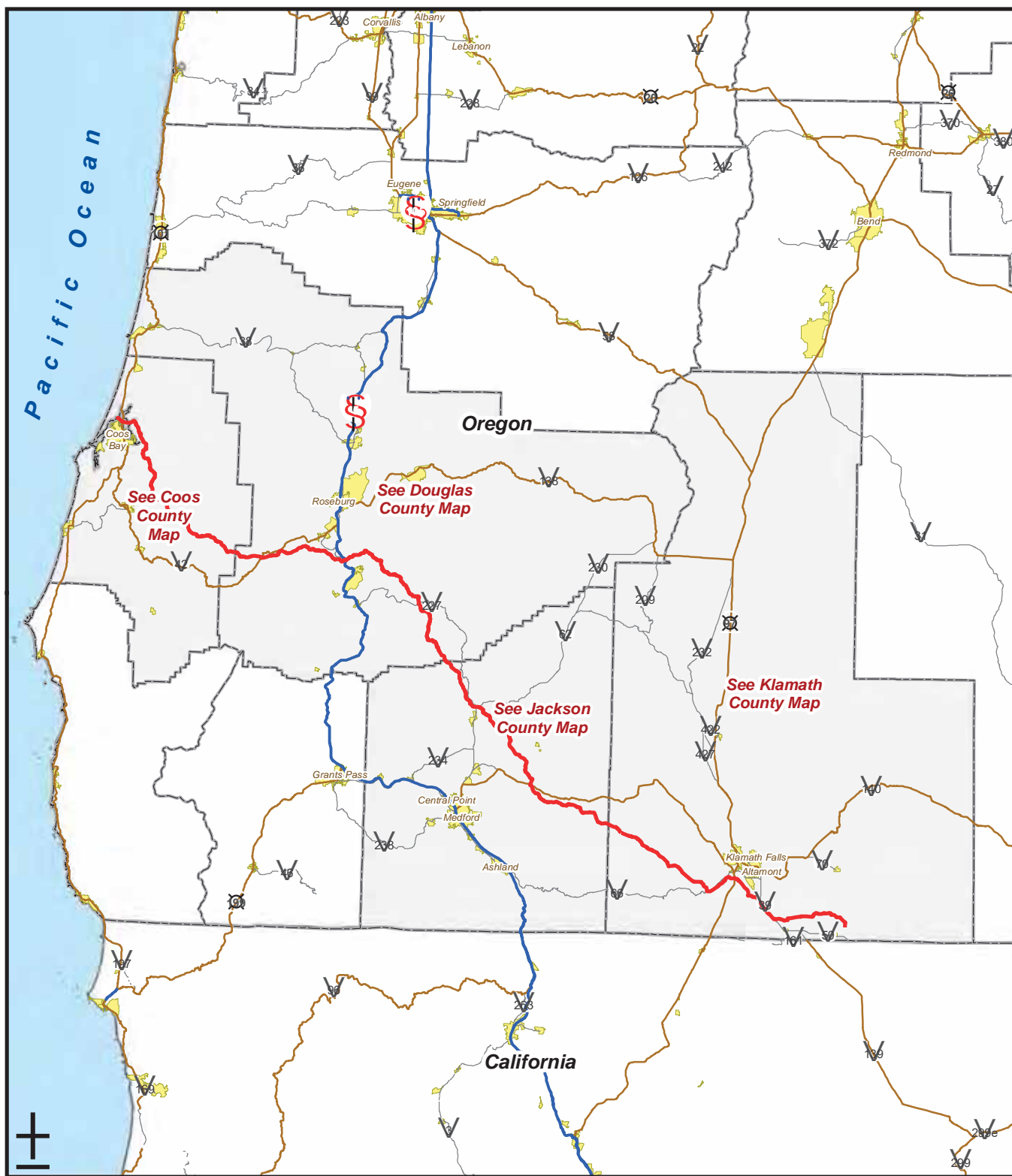
<b>Jordan Cove Energy Project</b>	
USACE 404/10 & 408 - Public Notice	
<i>Cross Section H-H South Dunes - Wetland J</i>	
	ENCLOSURE NO. <b>Drawing 30</b>





- JCEP Project Area
  - Cross Section Location
  - Permanent Estuarine Impact
  - Design (2017)
  - High Tide Line (HTL) (7.7 ft MLLW)
  - Mean High Water (MHW) (7.38 ft MLLW)
  - Highest Measured Tide (HMT) (11.03 ft MLLW, 10.26 ft NAVD88)
- Vertical datum for all elevations is MLLW

<b>Jordan Cove Energy Project</b>	
USACE 404/10 & 408 - Public Notice	
<i>Cross Section I-I Trans Pacific Parkway/US-101 Intersection Widening</i>	
	ENCLOSURE NO. <span style="border: 1px solid red; padding: 2px;"><b>Drawing 31</b></span>



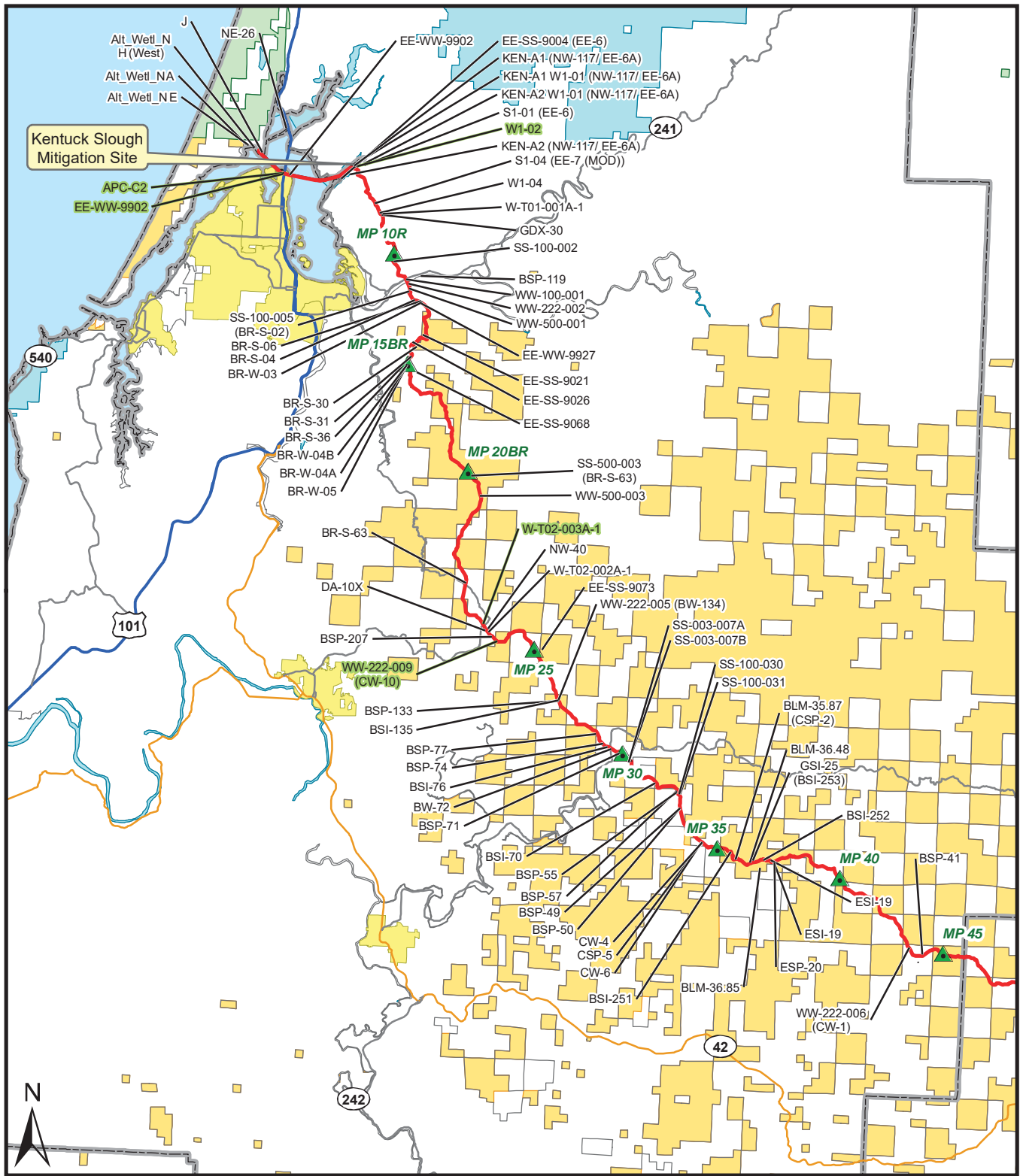
**Proposed PCGP Pipeline Location Map**

- Proposed PCGP Centerline
- Affected Counties

USACE 404/10 & 408 - Public Notice  
 Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

Reference: \_\_\_\_\_

Date: Drawing 32



Proposed PCGP Pipeline Wetland Impacts - Coos County

- Proposed PCGP Centerline
- ▲ Mileposts
- Wetlands with Permanent Conversion
- Surface Ownership
  - BLM
  - USFS
  - State
  - Private

**USACE 404/10 & 408 - Public Notice**

Reference: \_\_\_\_\_

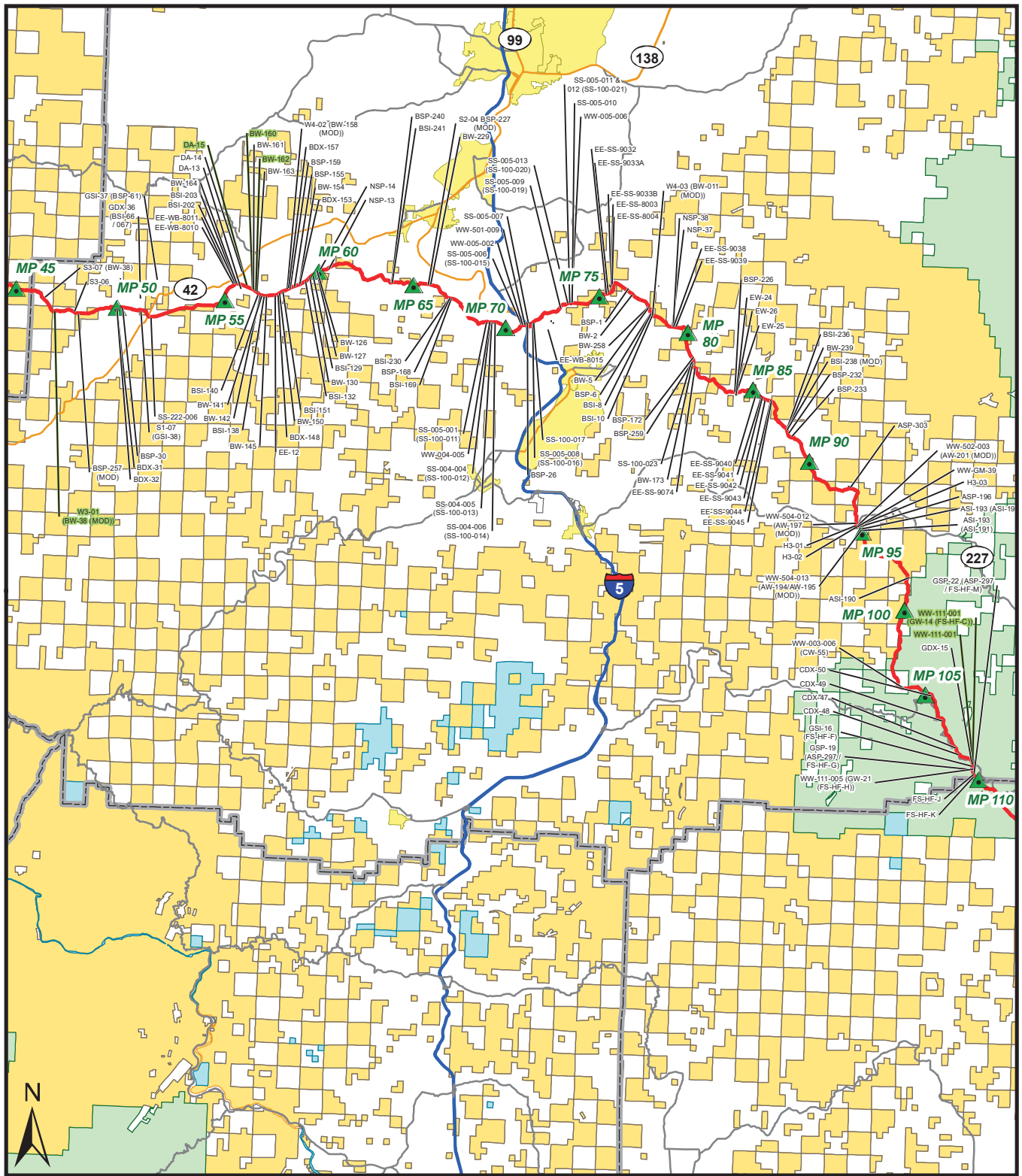
Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

NOTE:  
 Naming conventions correlate to potential waters of the U.S.

**Drawing 33**

Document Path: P:\PCGP\_J1-000-RGL-TNT-DEA-00007-00\Wetlands\CORPSMap\_2.5 - CORPS Counties.mxd





Proposed PCGP Pipeline Wetland Impacts - Douglas County

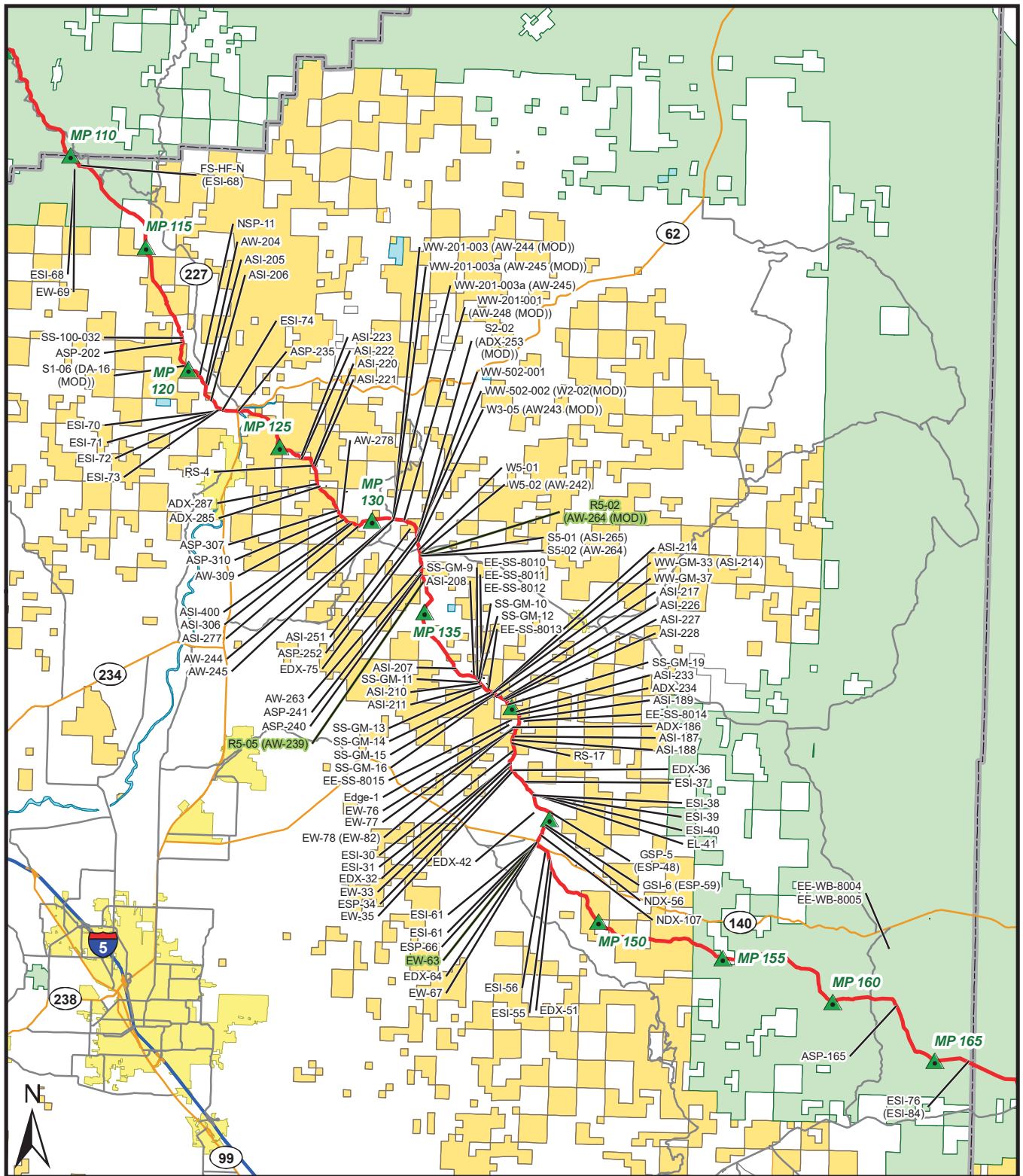
- |                                    |                   |
|------------------------------------|-------------------|
| Proposed PCGP Centerline           | Surface Ownership |
| Mileposts                          | BLM               |
| Wetlands with Permanent Conversion | USFS              |
|                                    | State             |
|                                    | Private           |

USACE 404/10 & 408 - Public Notice Reference: \_\_\_\_\_

Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

NOTE:  
 Naming conventions correlate to potential waters of the U.S.

**Drawing 34**



Proposed PCGP Pipeline Wetland Impacts - Jackson County

- |                                    |                   |
|------------------------------------|-------------------|
| Proposed PCGP Centerline           | Surface Ownership |
| Mileposts                          | BLM               |
| Wetlands with Permanent Conversion | USFS              |
|                                    | State             |
|                                    | Private           |

USACE 404/10 & 408 - Public Notice

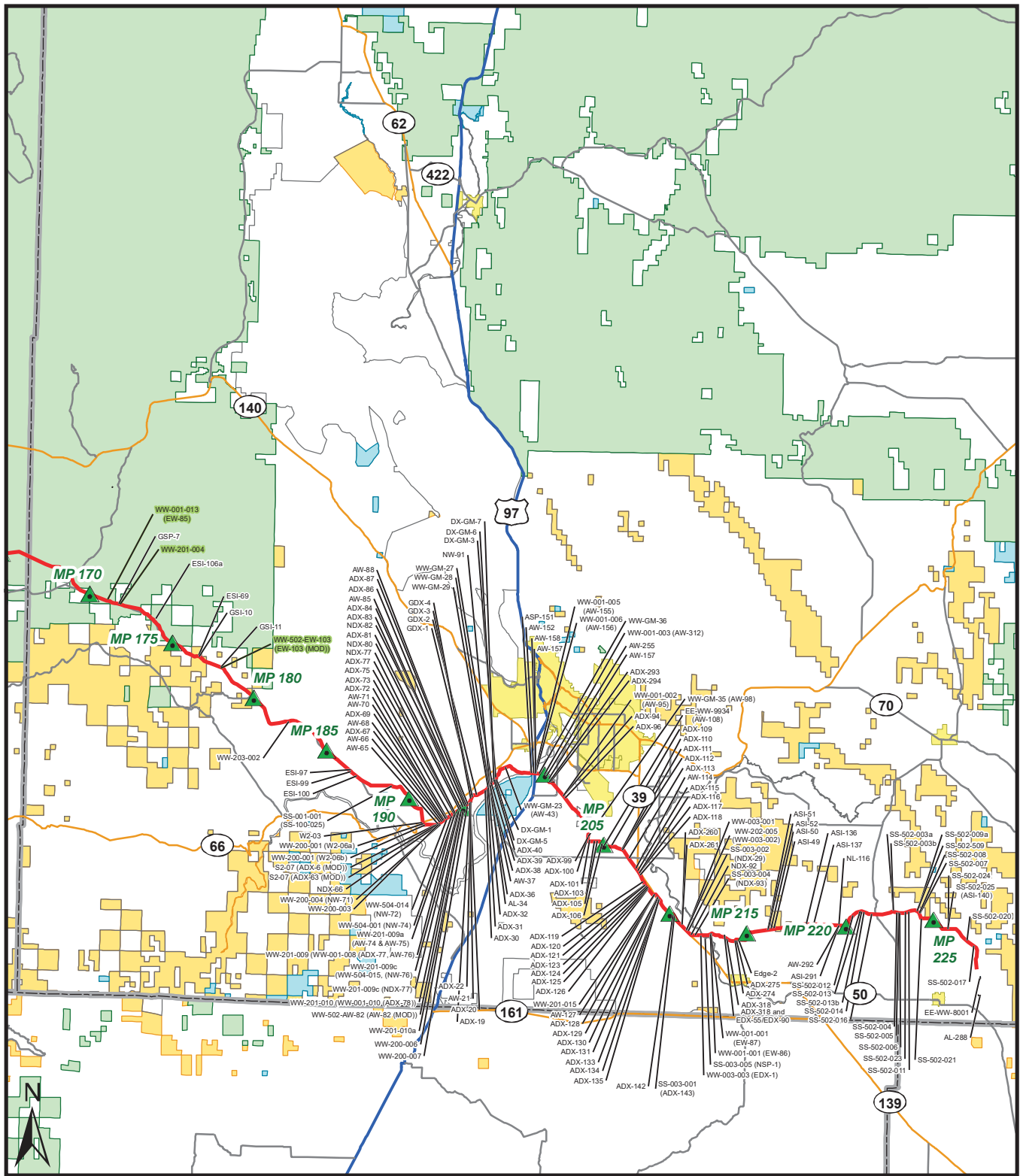
Reference: \_\_\_\_\_

Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

NOTE:  
 Naming conventions correlate to potential waters of the U.S.

**Drawing 35**

Document Path: P:\PCGP\_J1-000-RGL-TNT-DEA-00007-00\Wetlands\CORPSMap\_2.5 - CORPS Counties.mxd



Proposed PCGP Pipeline Wetland Impacts - Klamath County

Proposed PCGP Centerline	Surface Ownership
Mileposts	BLM
Wetlands with Permanent Conversion	USFS
	State
	Private

USACE 404/10 & 408 - Public Notice Reference: \_\_\_\_\_

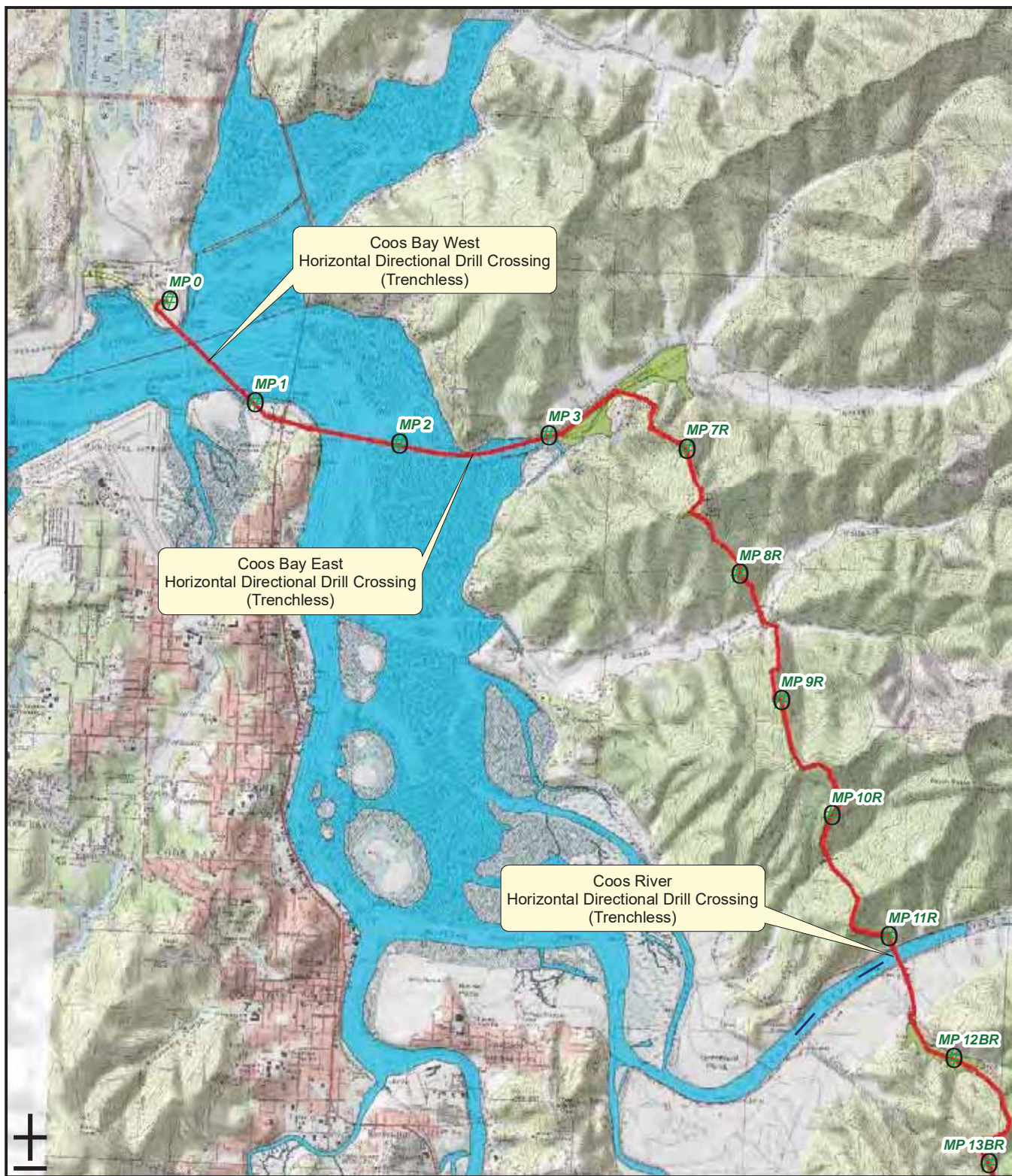
Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

NOTE:  
 Naming conventions correlate to potential waters of the U.S.

**Drawing 36**

Document Path: P:\PCGP\_JCI\NG\404\Wetlands\CORPS\Map\_2-5 - CORPS Counties.mxd





**Proposed PCGP Pipeline Horizontal Directional Drilling Crossings – Coos Bay**

Coos County - Haynes Inlet & Coos River

- Proposed PCGP Centerline
- Temporary Extra Work Space
- Waterbodies
- Wetlands
- Flow Direction

Scale: 1 inch = 5000 feet

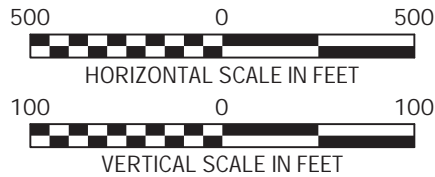
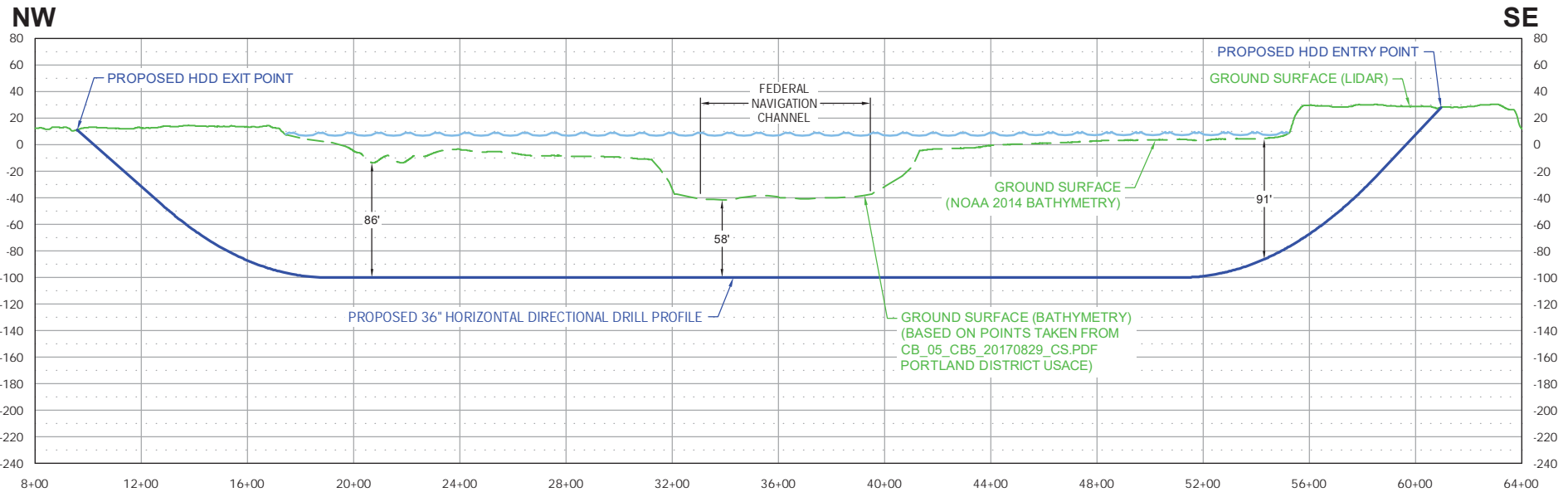
USACE 404/10 & 408 - Public Notice

Reference: \_\_\_\_\_

Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

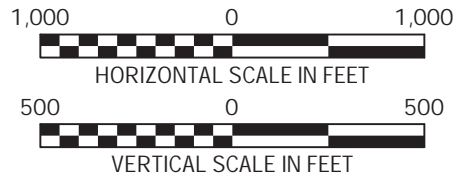
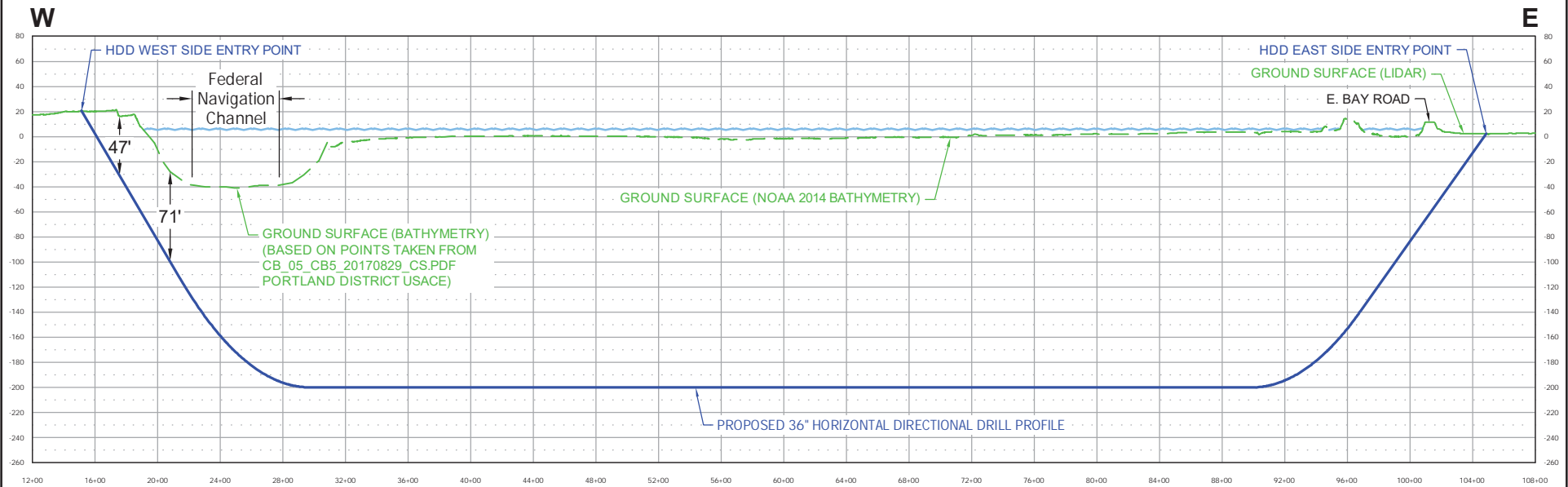
Date: Drawing 37

## COOS BAY WEST HDD PACIFIC CONNECTOR GAS PIPELINE PROJECT



USACE 404/10 & 408 - Public Notice	
<b>Proposed Coos Bay West HDD Profile</b>	
Coos Bay West HDD Coos County, Oregon	
	Drawing 38


## COOS BAY EAST HDD PACIFIC CONNECTOR GAS PIPELINE PROJECT



USACE 404/10 & 408 - Public Notice

### Proposed Coos Bay East HDD Profile

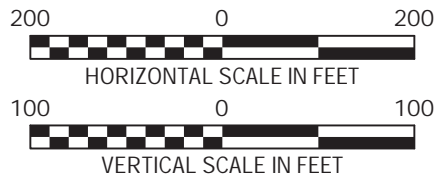
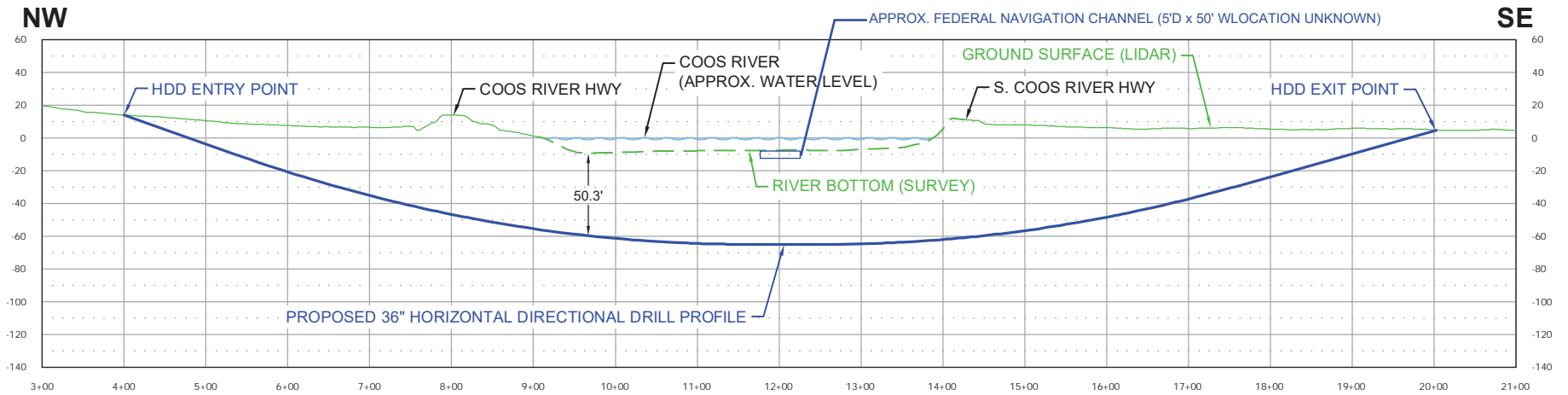
Coos Bay East HDD  
Coos County, Oregon

**GEOENGINEERS** 

Drawing 39



## COOS RIVER HDD PACIFIC CONNECTOR GAS PIPELINE PROJECT

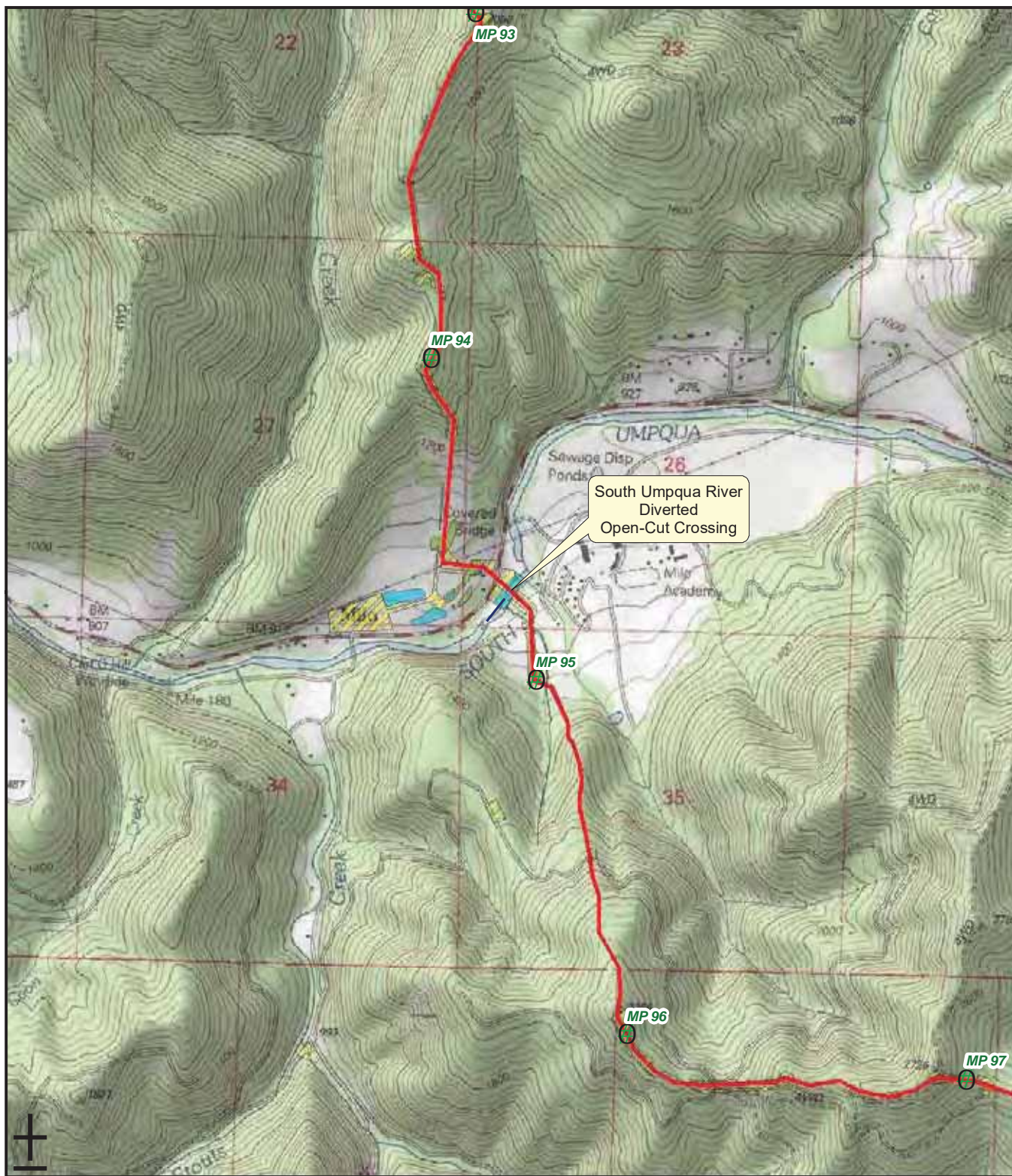


USACE 404/10 & 408 - Public Notice  
Proposed Coos River HDD Profile

Coos River HDD  
Coos County, Oregon



Drawing 40



**Proposed PCGP Pipeline Diverted Open-Cut Crossing - South Umpqua River**

Douglas County - South Umpqua River

- Proposed PCGP Centerline
- Temporary Extra Work Space
- Waterbodies
- Wetlands
- Flow Direction

Scale: 1 inch = 2000 feet

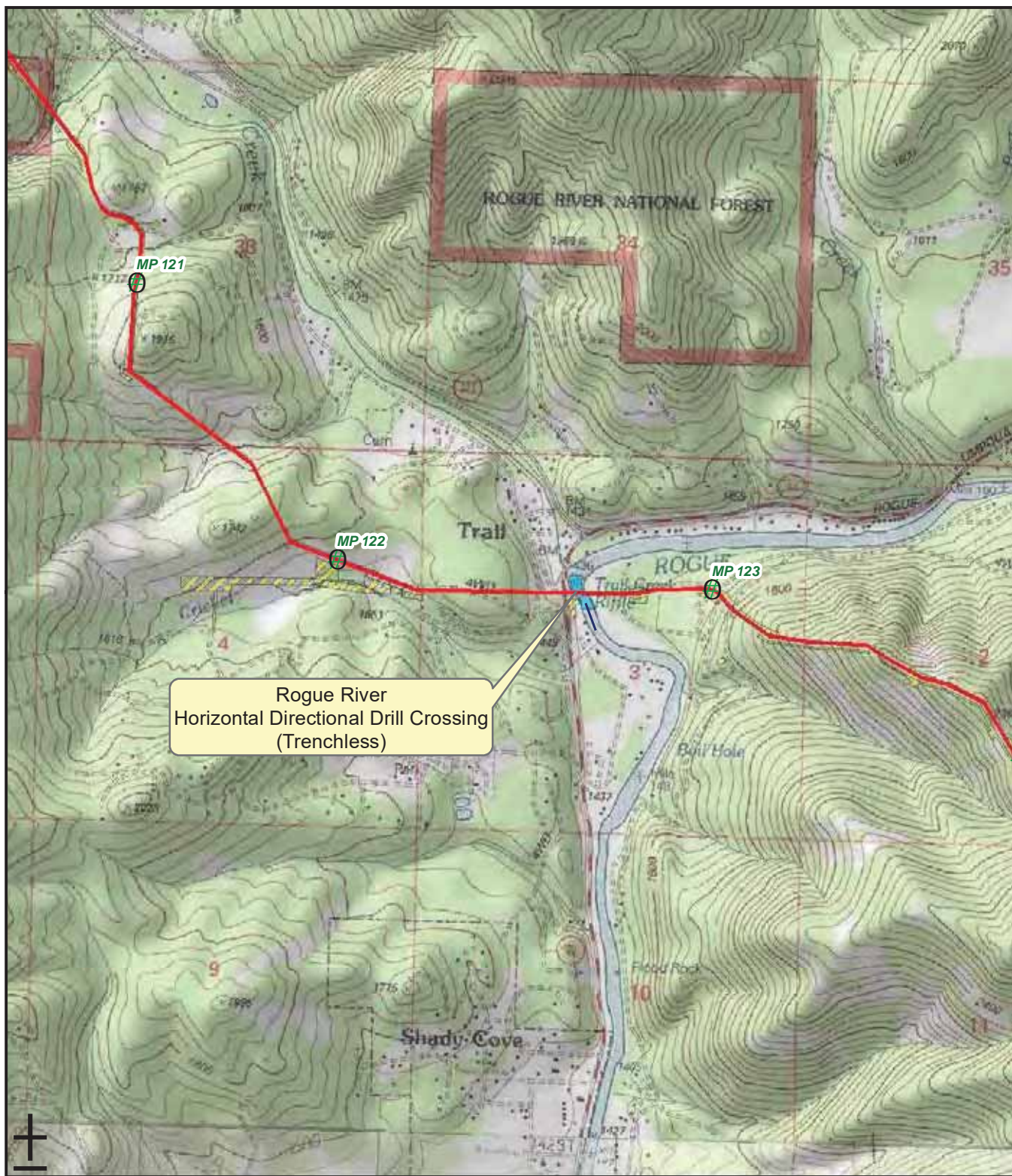
**USACE 404/10 & 408 - Public Notice**

Reference: \_\_\_\_\_

Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

Date Drawing 41





**Proposed PCGP Pipeline Horizontal Directional Drilling Crossing – Rogue River**

- Jackson County - Rogue River
- Proposed PCGP Centerline
  - Temporary Extra Work Space
  - Waterbodies
  - Wetlands
  - Flow Direction

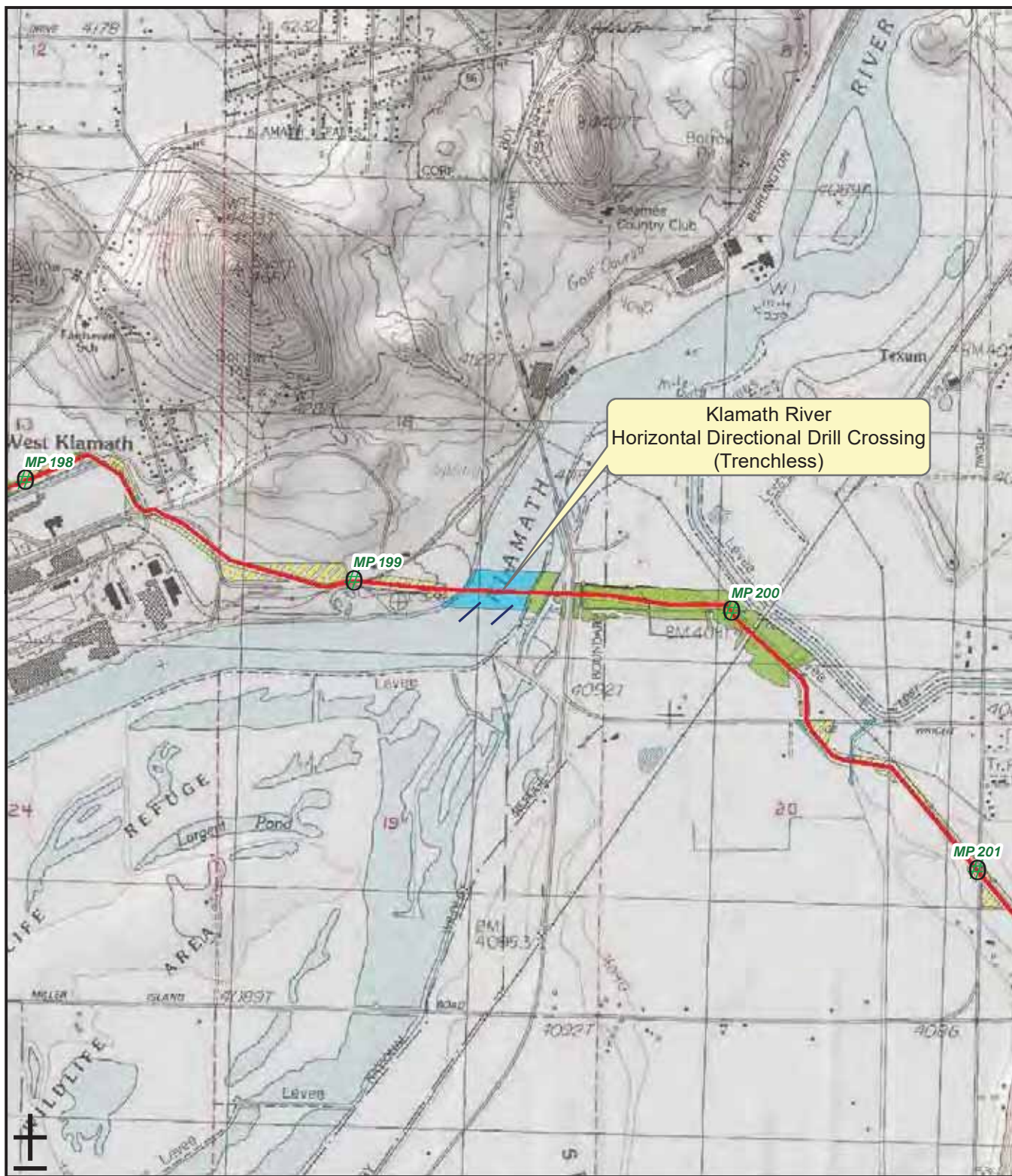
USACE 404/10 & 408 - Public Notice  
 Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

Reference: \_\_\_\_\_

Scale: 1 inch = 2000 feet

Date: Drawing 42





**Proposed PCGP Pipeline Horizontal Directional Drilling Crossing – Klamath River**

Klamath County - Klamath River

- Proposed PCGP Centerline
- Temporary Extra Work Space
- Waterbodies
- Wetlands
- Flow Direction

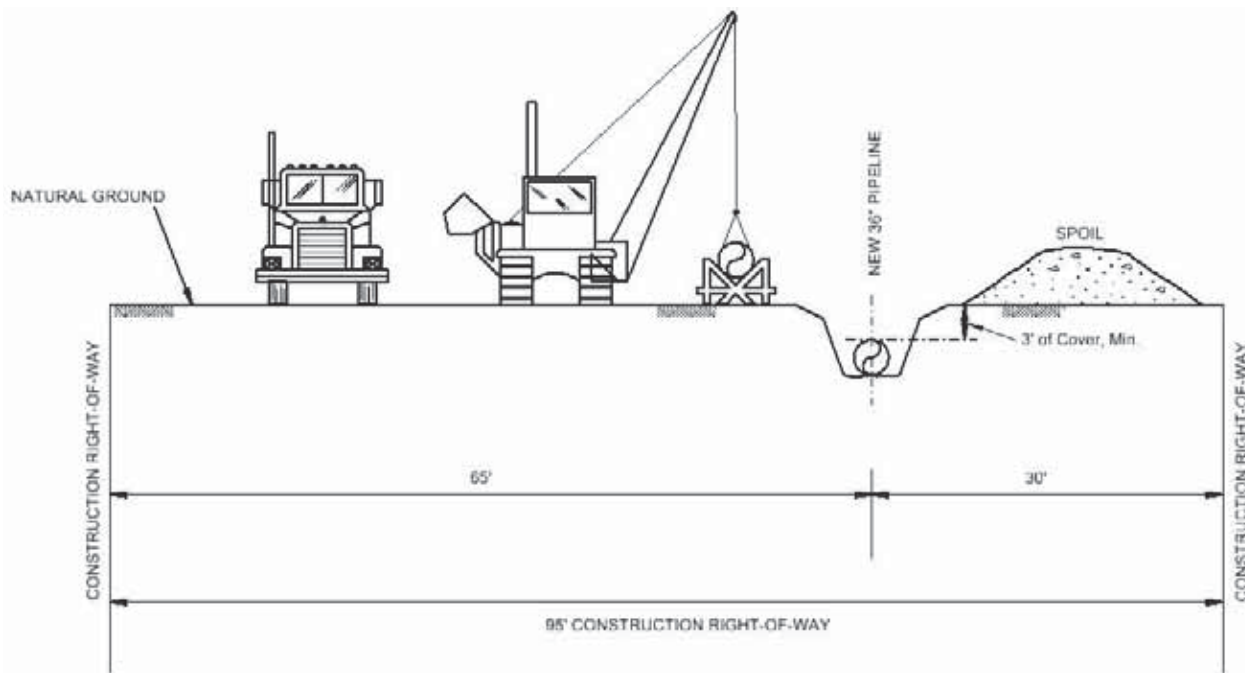
USACE 404/10 & 408 - Public Notice  
 Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

Reference: \_\_\_\_\_

Scale: 1 inch = 2000 feet

Date: Drawing 43

## Proposed PCGP Pipeline Construction Right-Of-Way Typical Cross Section



**NOTE:**

**95' CONSTRUCTION RIGHT-OF-WAY TYPICAL FOR LEVEL TERRAIN WITH NO CONSTRUCTION OBSTACLES.**

**WHERE FEASIBLE, THE CONSTRUCTION RIGHT-OF-WAY IN WETLANDS HAS BEEN NARROWED TO 75' IN WIDTH.**

**LOCATIONS REQUIRING ADDITIONAL WORK SPACE ARE**

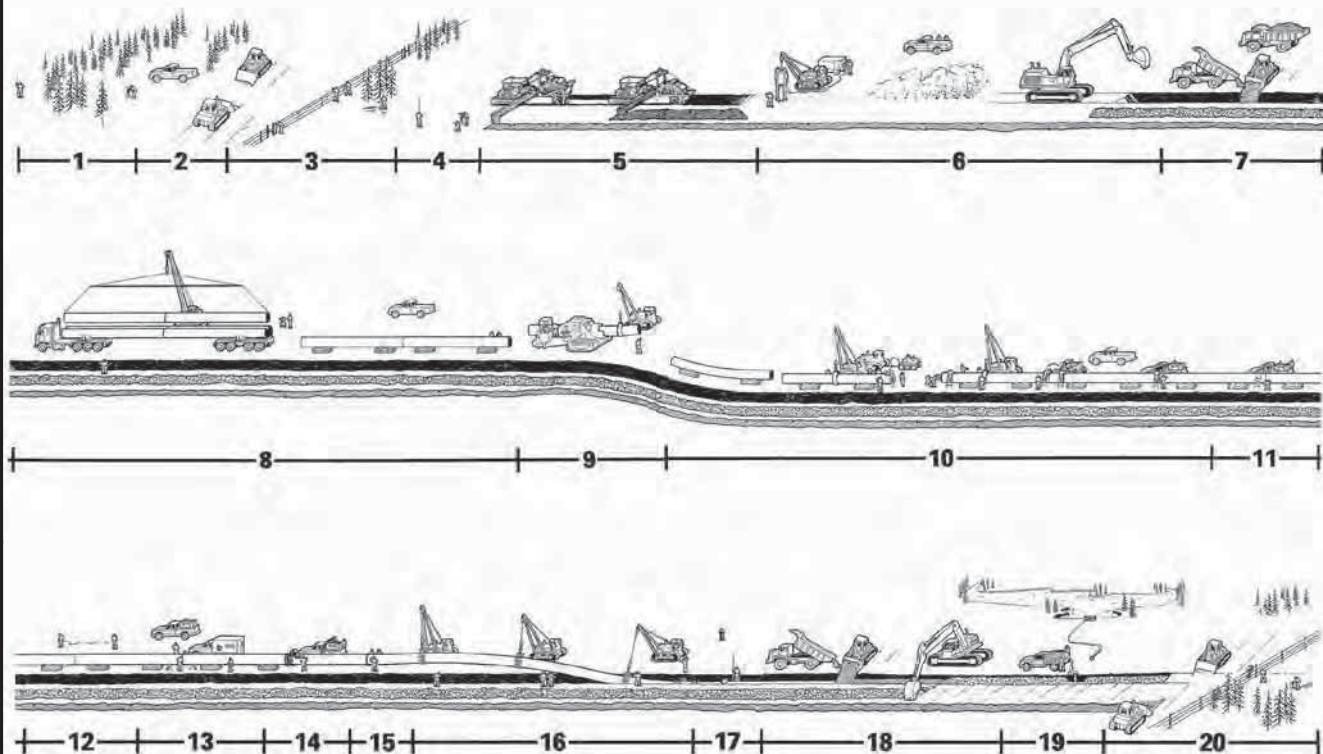
- \* TOPSOIL AREAS
- \* UNLEVEL TERRAIN
- \* ROAD AND STREAM CROSSINGS
- \* HORIZONTAL DRILLING

**USACE 404/10 & 408 - Public Notice**  
 Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

Reference: \_\_\_\_\_

Date: c Drawing 44

## Proposed PCGP Pipeline Construction Sequence



**LEGEND:**

- |   |  |   |
|---|--|---|
| 1 – Right-of-Way Acquisition and Survey | 7 – Padding Ditch Bottom                 | 14 – Coating Field and Factory Welds            |
| 2 – Clearing and Grading                | 8 – Stringing                            | 15 – Inspection (Jeeping) and Repair of Coating |
| 3 – Fencing                             | 9 – Bending                              | 16 – Lowering In and Tie-Ins                    |
| 4 – Centerline Survey of Ditch          | 10 – Line Up, Stringer Bead and Hot Pass | 17 – As-Built Survey                            |
| 5 – Ditching (Rock-Free)                | 11 – Fill and Cap Weld                   | 18 – Pad and Backfill                           |
| 6 – Ditching (Rock)                     | 12 – As-Built Footage                    | 19 – Test and Final Tie-In                      |
|   | 13 – X-Ray and Weld Repair               | 20 – Replace Topsoil and Cleanup                |

**USACE 404/10 & 408 - Public Notice**  
 Proposed: 36-Inch Natural Gas Pipeline  
 Purpose: Interstate Natural Gas Transmission  
 Applicant: Pacific Connector Gas Pipeline, LP

Reference: \_\_\_\_\_

Date: 0 Drawing 45