PUBLIC NOTICE

May 31, 2020

United States Army Corps of Engineers New Orleans District Attn: Regulatory Branch, ODR-E 7400 Leake Ave. New Orleans, Louisiana 70118-3651

Project Manager: James W. Little, Jr. (504) 862-1879 James.little@usace.army.mil Application #: MVN-2020-01262-WII

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the U.S. Army Corps of Engineers pursuant to: [X] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [X] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344).

CONSTRUCT THE EAST LATERAL XPRESS PIPELINE IN PLAQUEMINES, JEFFERSON, LAFOURCHE & ST. MARY PARISHES

NAME OF APPLICANT: Columbia Gulf Transmission, LLC, c/o Perennial Environmental Services, LLC, Attn: Ms. Virginia Steen, 13100 Northwest Freeway, Suite 150, Houston, Texas 77040.

LOCATION OF WORK: Approximately 8 miles of new 30-inch natural gas pipeline lateral (POB Lat. 29.32059, Long. -89.92623 and POE Lat. 29.43759, Long. -89.92514) in Barataria Bay, compressor station near Centerville, Louisiana (Lat. 29.73739, Long. -91.44385 and near Golden Meadow, Louisiana (Lat. 29.32717, Long. -90.24247), as shown within the attached drawings.

CHARACTER OF WORK: Clear, grade, excavate and deposit fill to construct two new compressor stations, one near Centerville, LA and one near Golden Meadow, LA. Construct and install approximately 8 miles of new 30-inch natural gas pipeline, to include a new meter station, new mainline valve, tie-in facility, launcher and receiver facilities and other auxiliary appurtenant facilities, The purpose of the proposed development is to supply firm transportation capacity in the Columbia Gulf Transmission LLC's interstate natural gas system for delivery to Venture Global Gator Express Pipeline. Project implementation would temporarily impact approximately 719.66 acres of jurisdictional wetlands and permanently impact approximately 3.10 acres. Fill operations will include the temporary excavation and side-casting of approximately 656,631 cubic yards of earthen fill, and backfill of approximately 669,852 cubic yards earthen fill for pipeline installation, approximately 13,691 cubic yards of crushed stone, approximately 21 cubic yards of concrete pilings, and approximately 3.31 cubic yards of steel piping, as foundation for roadways, compressor stations, meter platforms, and associated facilities. If a Department of the Army permit is warranted, the applicant has proposed to mitigate unavoidable wetlands impacts at an approved and acceptable mitigation bank within the N.O. District.

The comment period on the requested Department of the Army Permit will close <u>20 days</u> from the date of this public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit request, and must be submitted so as to be received before or by the last day of the comment period. Letters and/or comments concerning the subject permit application must reference the Applicant's Name and the Permit Application Number, and can be emailed to the Corps of Engineers project manager listed above, or forwarded to the Corps of Engineers at the address above, <u>ATTENTION: REGULATORY BRANCH, ODR-E, James W. Little, Jr.</u> Individuals or parties may also request an extension of time in which to comment on the proposed work by mail or by emailing the specified project manager listed above. Any request for an extension of time to comment must be specific and substantively supportive of the requested extension and received by this office prior to the end of the initial comment period. The Section Chief will review the request and the requestor will be promptly notified of the decision to grant or deny the request. If granted, the time extension will be continuous and inclusive of the initial comment period and will not exceed a total of 30 calendar days.

Corps of Engineers Permit Criteria

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may

damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. As necessary, copies of this public notice will be sent to the State Archeologist, State Historic Preservation Officer and federally listed tribes regarding potential impacts to cultural resources.

Our initial finding is that the proposed work would neither affect any species listed as endangered by the U.S. Departments of Interior or Commerce, nor affect any habitat designated as critical to the survival and recovery of any endangered species. Based on the Information Planning and Consultation (IPaC) tool for Endangered Species in Louisiana, as signed on January 27, 2020, between the U.S. Army Corps of Engineers, New Orleans and the U.S. Fish and Wildlife Service, it has been determined that the project would have no effect to the Gulf Sturgeon (*Acipenser oxyrinchus desotoi*) and would not likely to adversely affect the West Indian Manatee (*Trichechus manatus*). The USFWS concurred with this determination in two letters date May 8, 2020.

According to NMFS, the Blue Whale (*Balaenoptera musculus*), Fin Whale (*Balaenoptera physalus*), Sei Whale (*Balaenoptera borealis*), and Sperm Whale (*Physter macrocephalus*) have the potential to occur in the project vicinity. However, the project area does not contain suitable habitat for any of the whale species; therefore, the project will have no effect on any listed whale species. NMFS also identified the Green Sea Turtle (*Chelonia mydas*), Hawksbill Sea Turtle (*Eretmochelys imbricate*), Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Leatherback Sea Turtle (*Dermochelys coriacea*), and the Loggerhead Sea Turtle (*Caretta caretta*)as potentially occurring in the project area. It was determined that the project is not likely to adversely affect all listed sea turtle species. The NMFS concurred with this determination in a letter dated February 12, 2021.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal may result in the destruction, alteration, and/or disturbance of <u>720 acres</u> of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate applicable water quality standards will be required from the LA Department of Environmental Quality before a Department of the Army permit is issued.

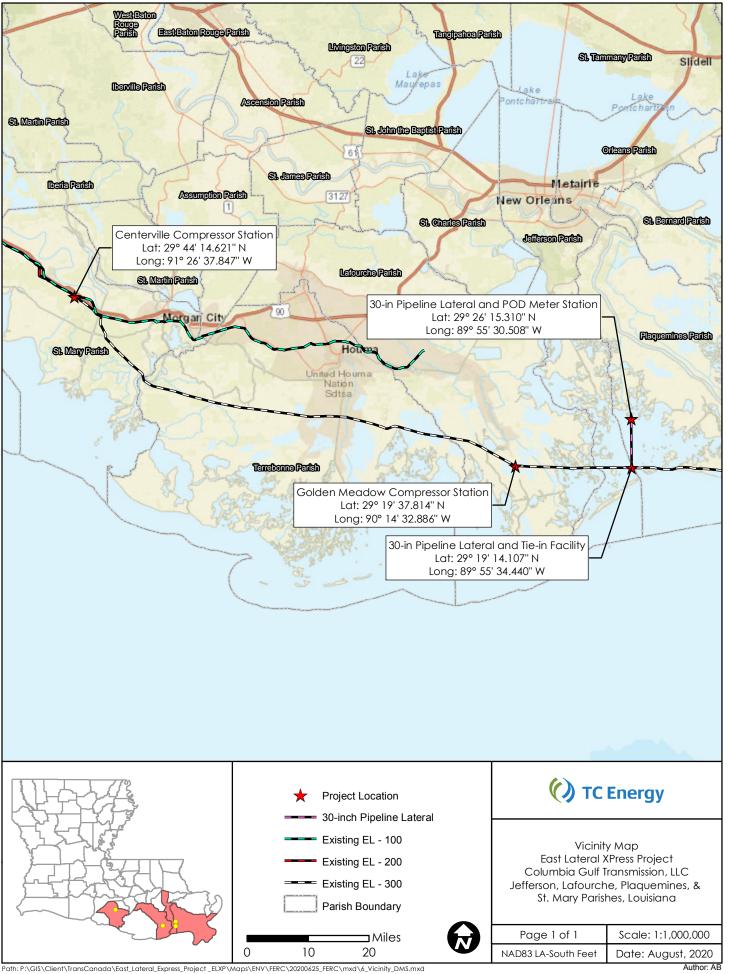
Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

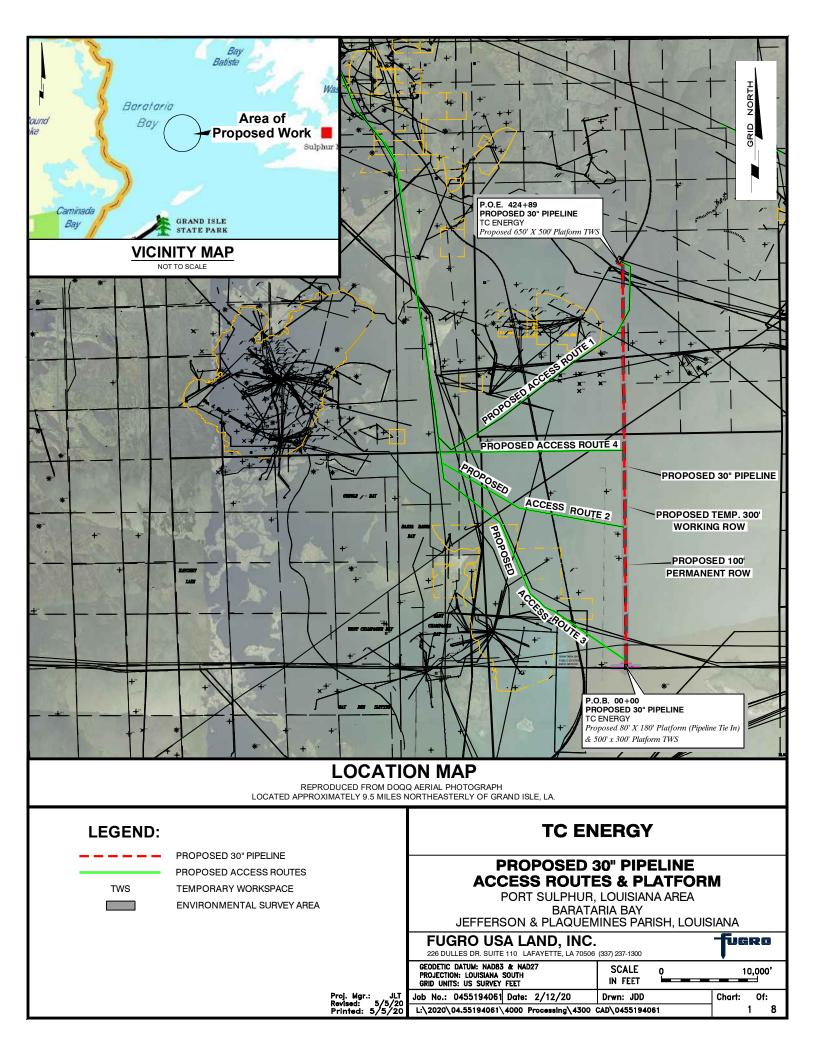
The applicant has certified that the proposed activity described in the application complies with and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. The Department of the Army permit will not be issued unless the applicant receives approval or a waiver of the Coastal Use Permit by the Department of Natural Resources.

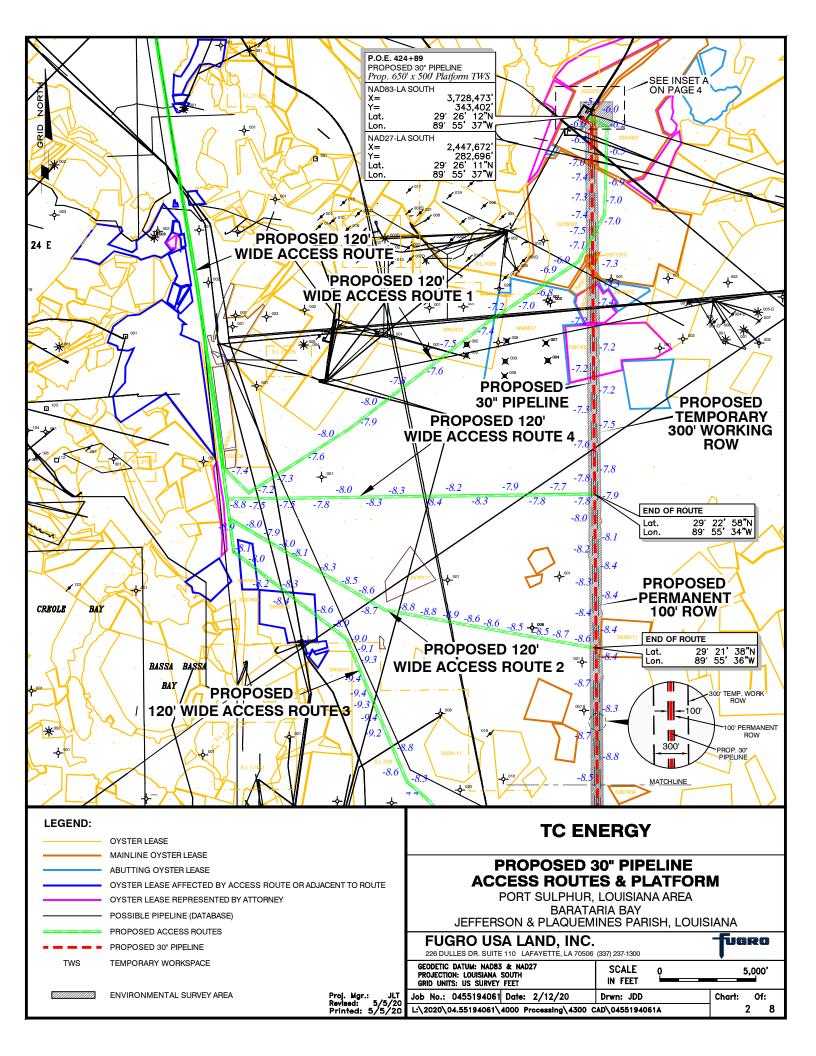
You are invited to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

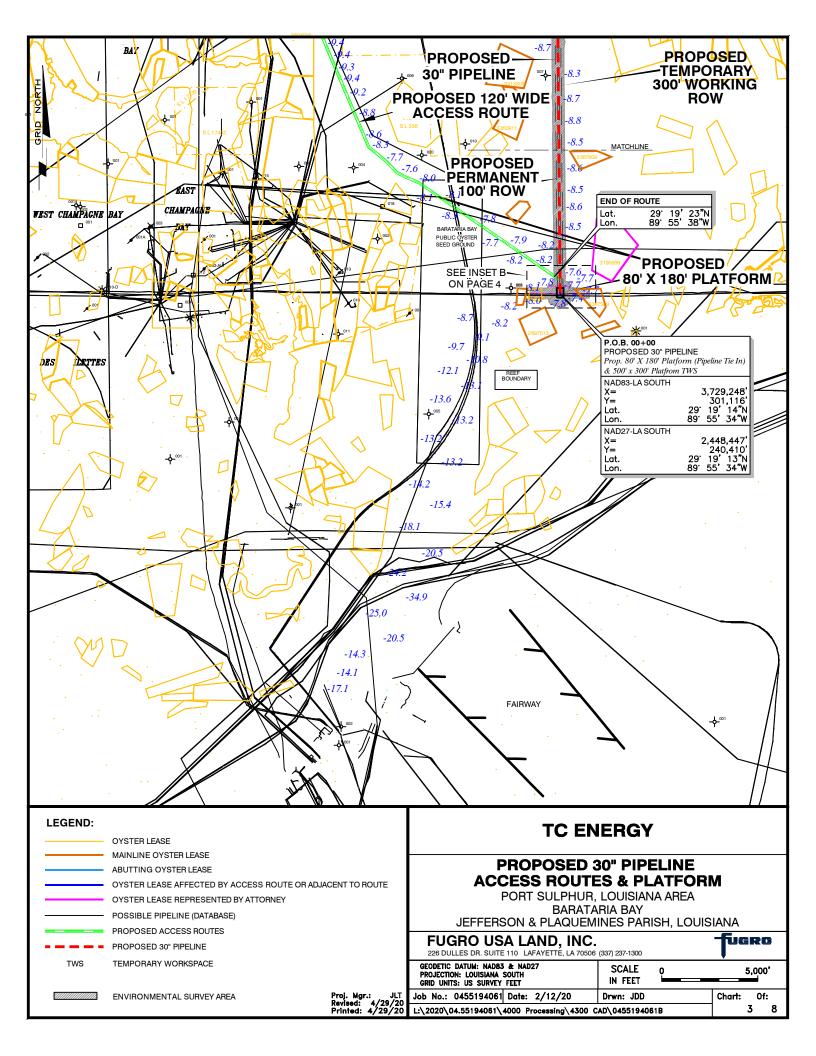
Michael V. Farabee Chief, Eastern Evaluation Section Regulatory Branch

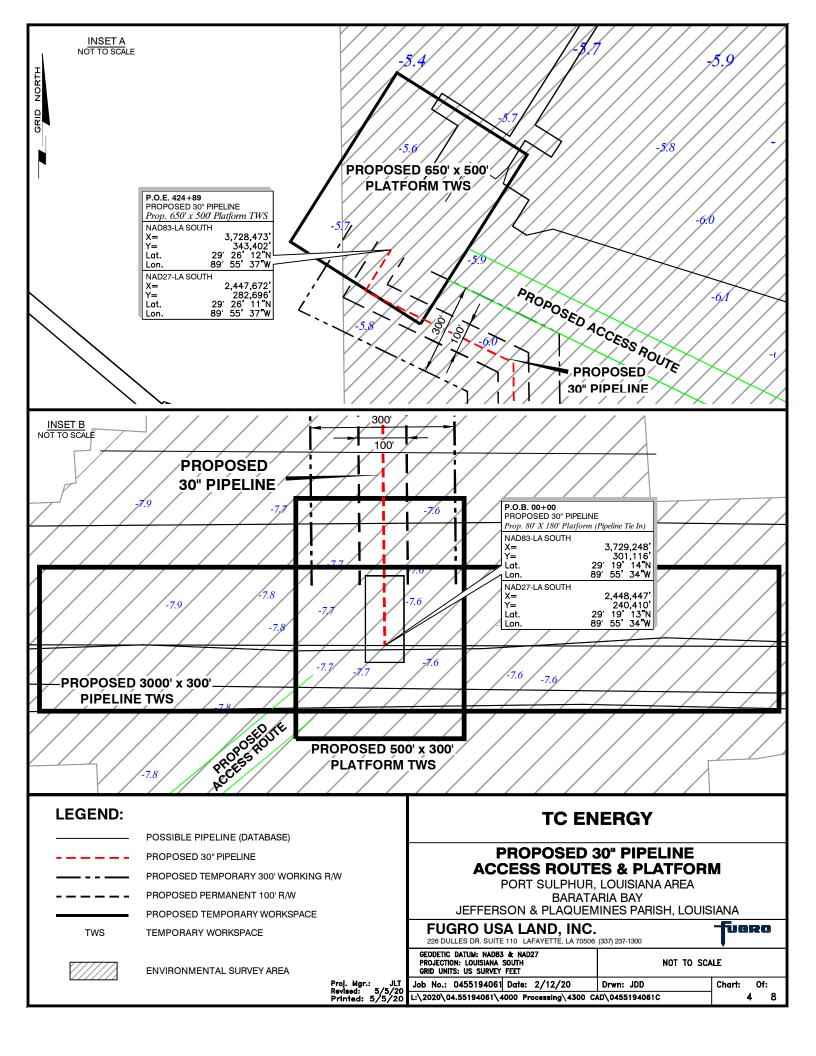
Enclosures

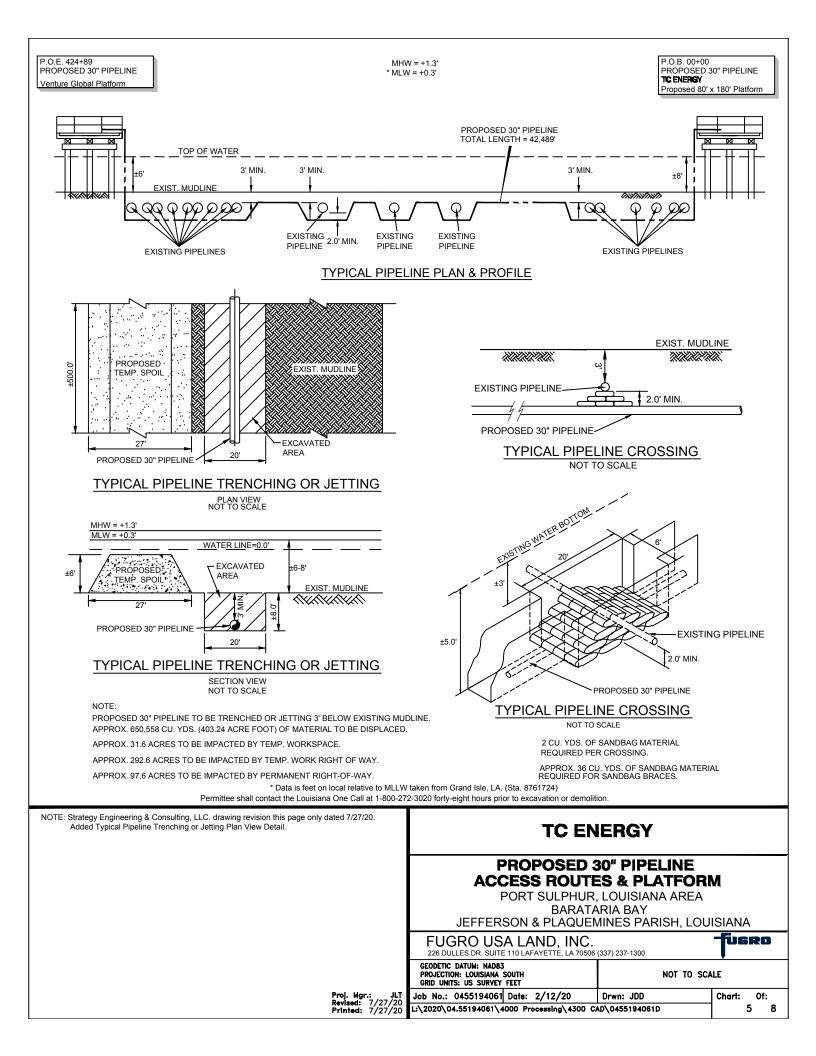


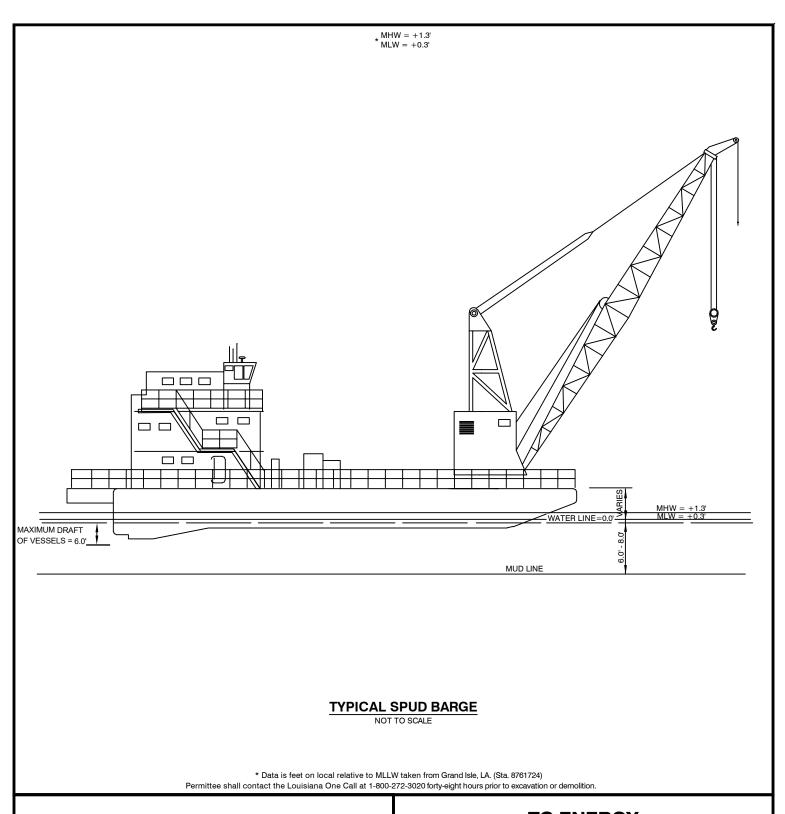












TC ENERGY

PROPOSED 30" PIPELINE ACCESS ROUTES & PLATFORM

PORT SULPHUR, LOUISIANA AREA **BARATARIA BAY** JEFFERSON & PLAQUEMINES PARISH, LOUISIANA

FUGRO USA LAND, INC. 226 DULLES DR. SUITE 110 LAFAYETTE, LA 70506 (337) 237-1300

Tuero

GEODETIC DATUM: NAD83 PROJECTION: LOUISIANA SOUTH GRID UNITS: US SURVEY FEET NOT TO SCALE

Proj. Mgr.: JLT Revised: 4/23/20 Printed: 4/23/20

Job No.: 0455194061 Date: 2/12/20 Drwn: JDD L:\2020\04.55194061\4000 Processing\4300 CAD\0455194061F Chart: Of: 7

Louisiana Department of Wildlife and Fisheries (LDWF) Fur and Refuge Division STANDARD CONDITIONS FOR OYSTER LEASING AREAS

Revised February 28, 2007

The following standard conditions are for activities in oyster leasing areas.

- 1. Applicant shall not discharge any drilling and/or workover effluent except for flocculated filtered water.
- 2. Applicant shall not discharge any human waste which does not meet or exceed the requirements of the Louisiana Department of Health and Hospitals.
- 3. Applicant shall not discharge any produced waters.
- 4. Applicant is subject to all applicable state laws related to damages which are demonstrated to have been caused by this proposed action.
- 5. Applicant shall use any dredged material beneficially to create/restore emergent wetlands or place the material in open water in such a manner not to decrease the water depth greater than six inches.
- 6. Applicant will provide to LDWF a water bottom assessment (unless waived by LDWF) that meets LDWF protocol prior to commencement of the activity. Applicant may be required, at the request of LDWF, to modify the project if the proposed location unnecessarily impacts an oyster reef.

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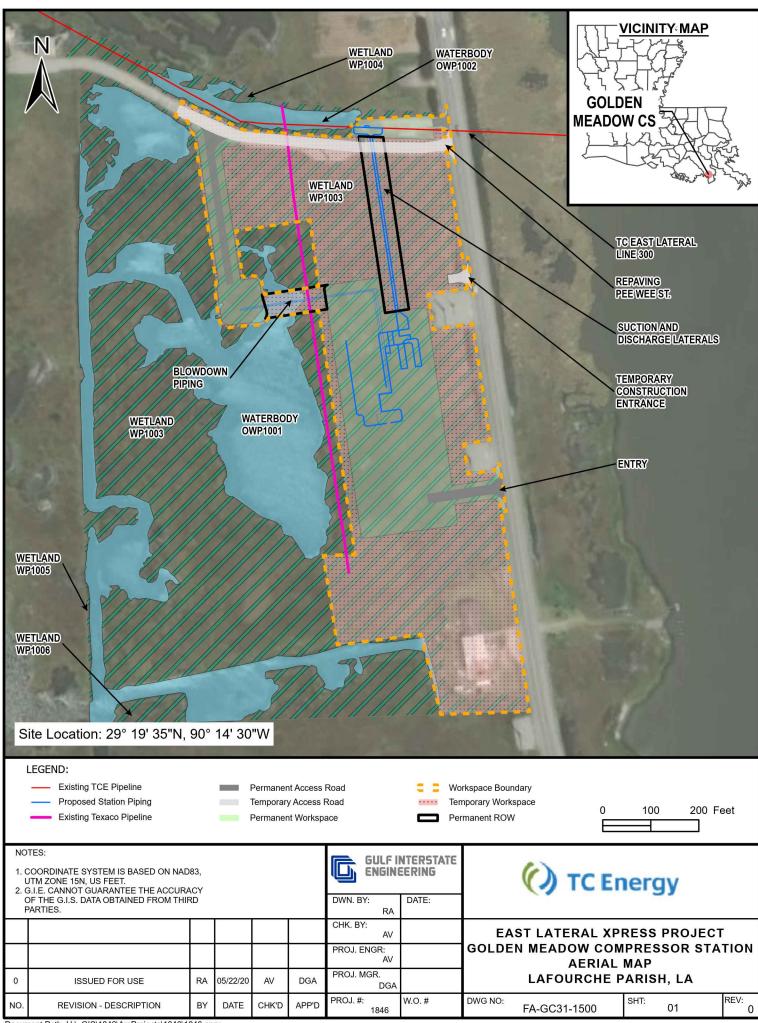
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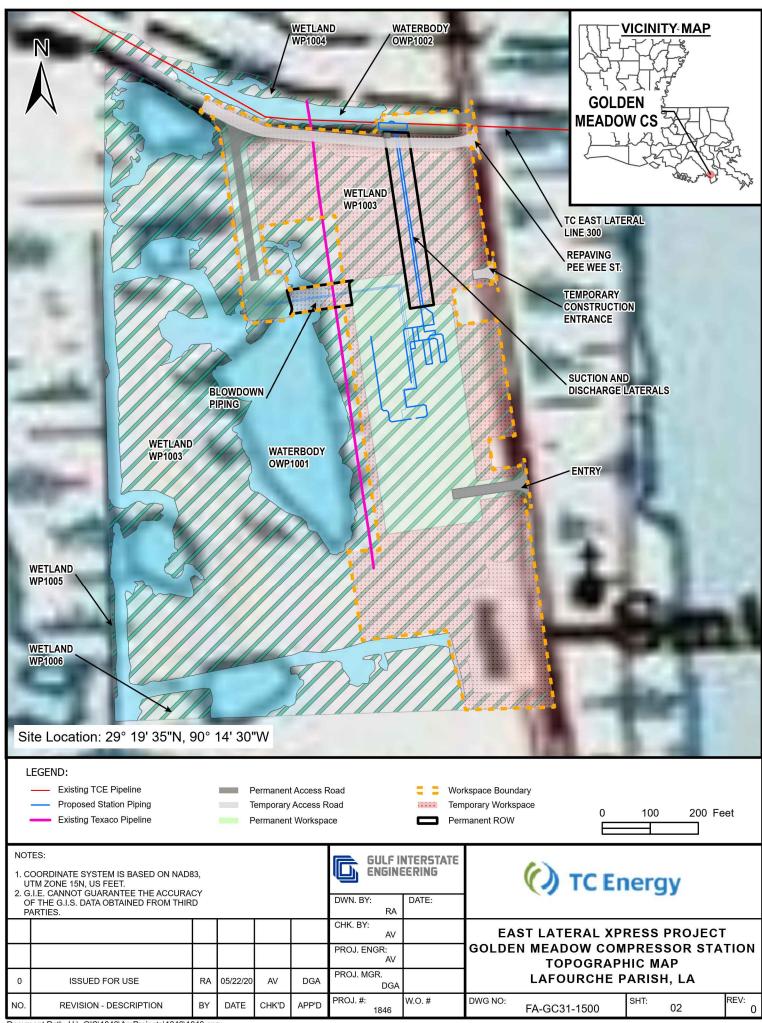
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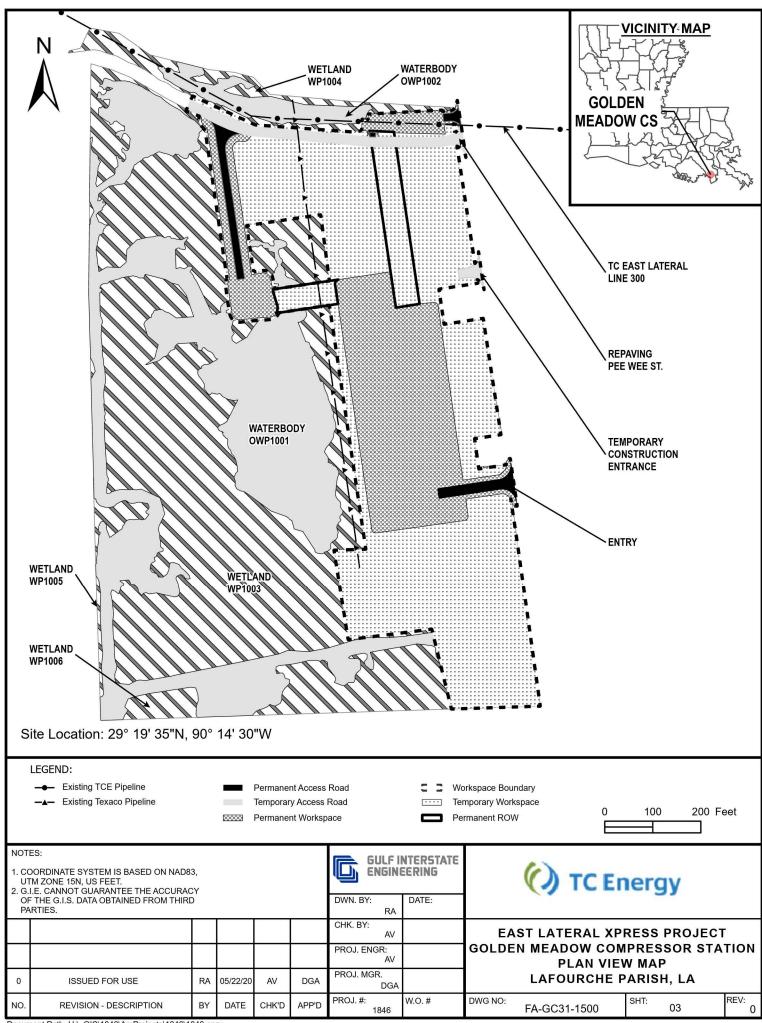
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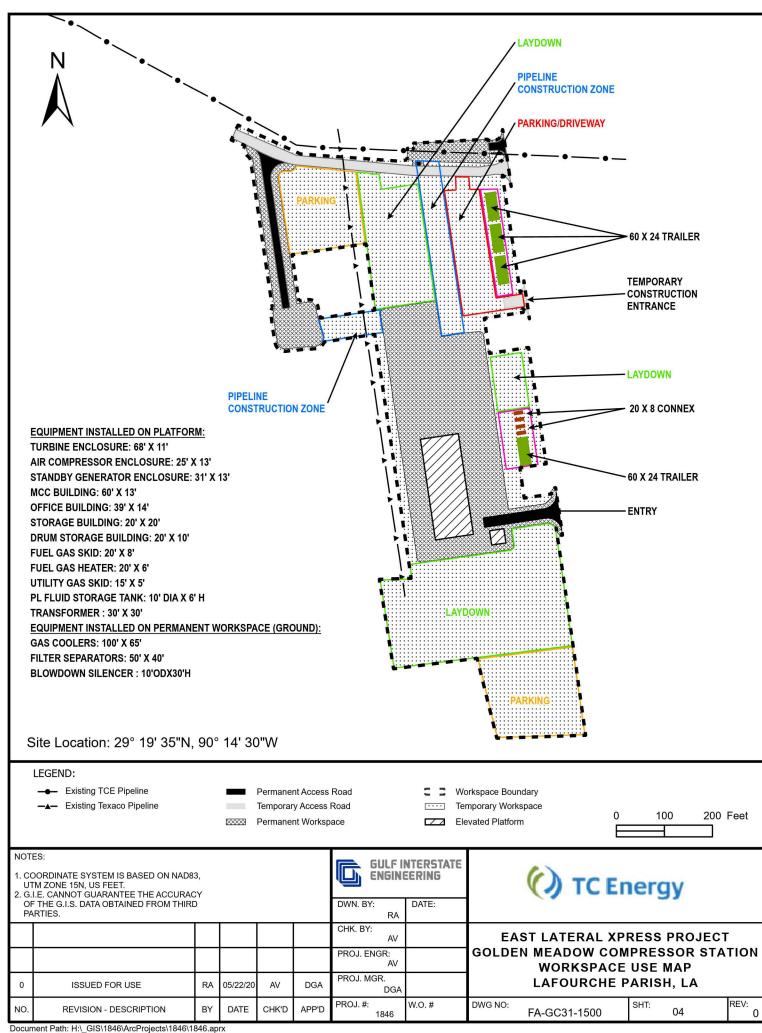
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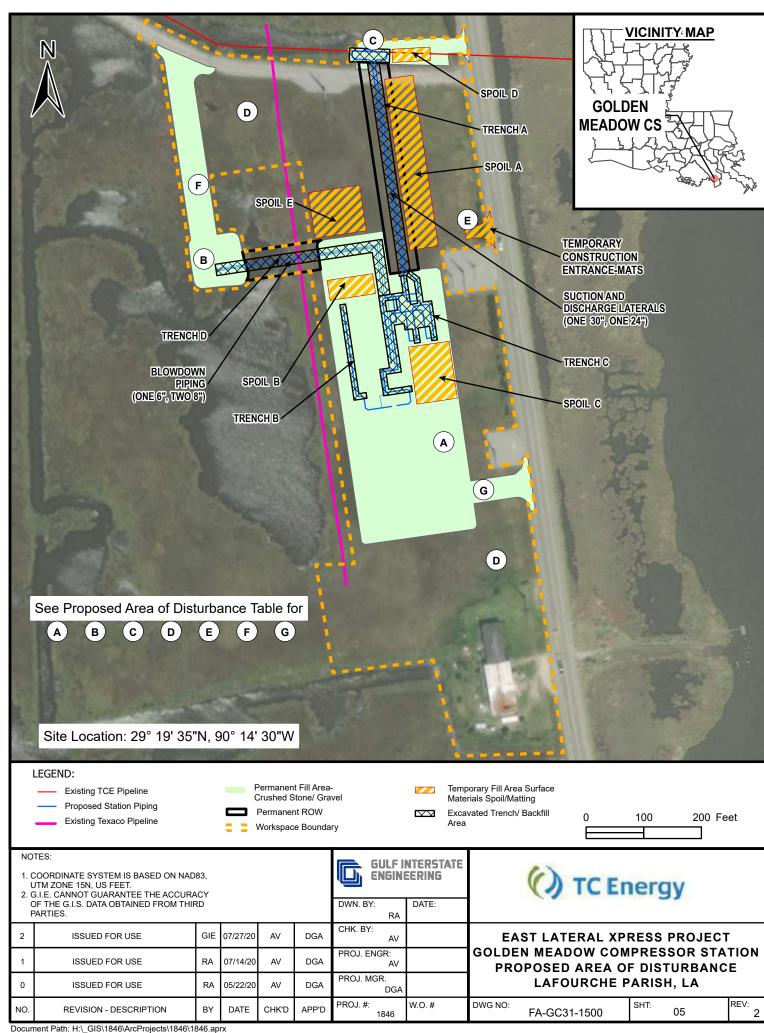
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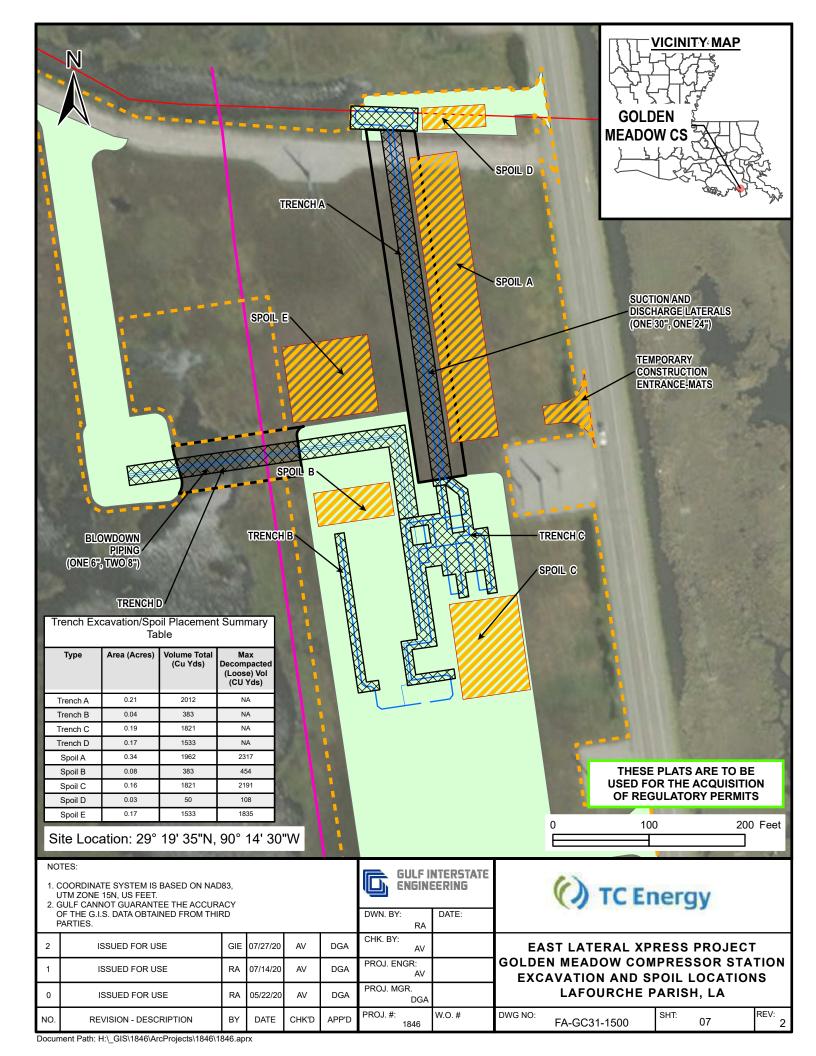


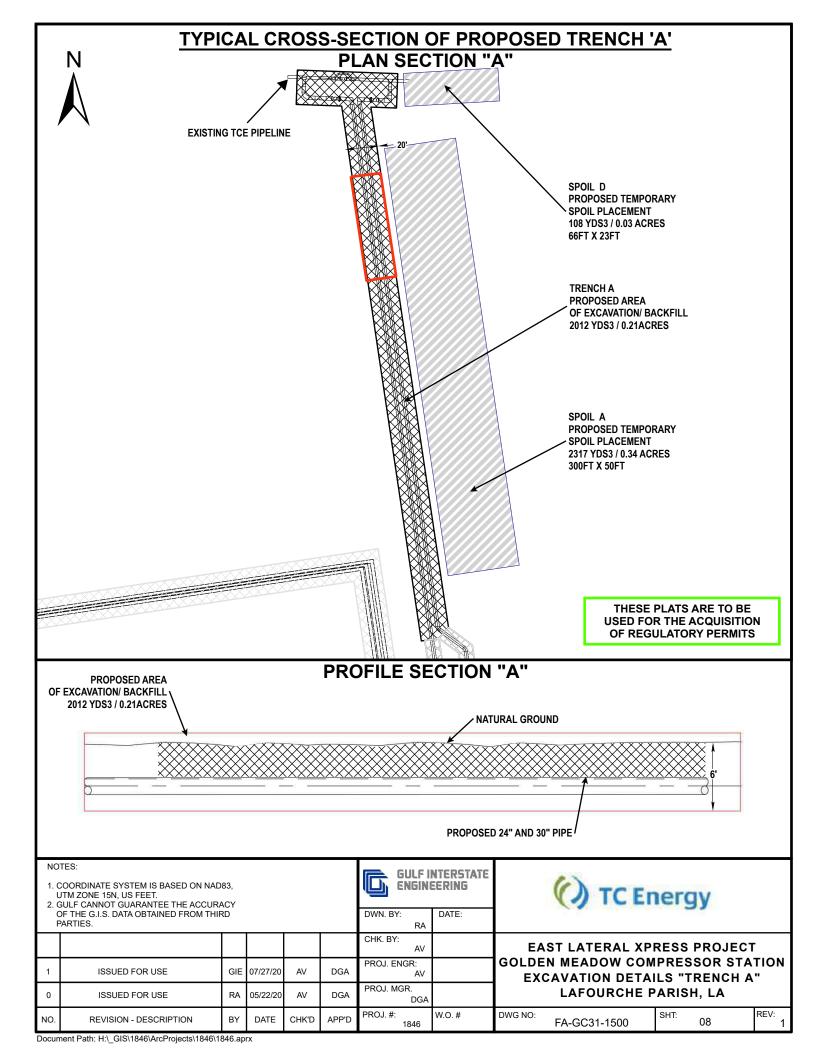
						Area Impact	Table								
Item	Impact Type		Siz	e	Sqft	Acreage	Comments								
Α	Permanent Odd Shape			nape	102,366	2.35	Platform Site and Permanent Work area								
В	Permanent	91	x	91	8,281	0.19	Blowdown area and permanent work area								
С	Permanent	Odd	S	nape	7,405	0.17	Tie In Area and Permanent Work Area								
D	Temporary	Odd Shape		nape	298,778	6.86	Contractor Stagging Yard (Board Matting used as Needed)								
Ε	Temporary	Odd	Odd Shape Odd Shape				-		Odd Shape		Odd Shape		1,385	0.03	Temporary Access (Board Matting used as Needed)
F	Permanent	Odd							5,958	0.14	Permanent Access Road-Blowdown area				
G	Permanent	Odd	S	nape	3,564	0.08	Asphalt - Permanent Access Road - Platform and work area								
Spoil A	Temporary	300	x	50	15,000	0.34	Board Matting used as needed								
Spoil B	Temporary	80	x	45	3,600	0.08	Board Matting used as needed								
Spoil C	Temporary	71	x	100	7,100	0.16	Board Matting used as needed								
Spoil D	Temporary	66	x	23	1,518	0.03	Board Matting used as needed								
Spoil E	Temporary	80	x	90	7,200	0.17	Board Matting used as needed								

Summary of Cut & Fill Volumes

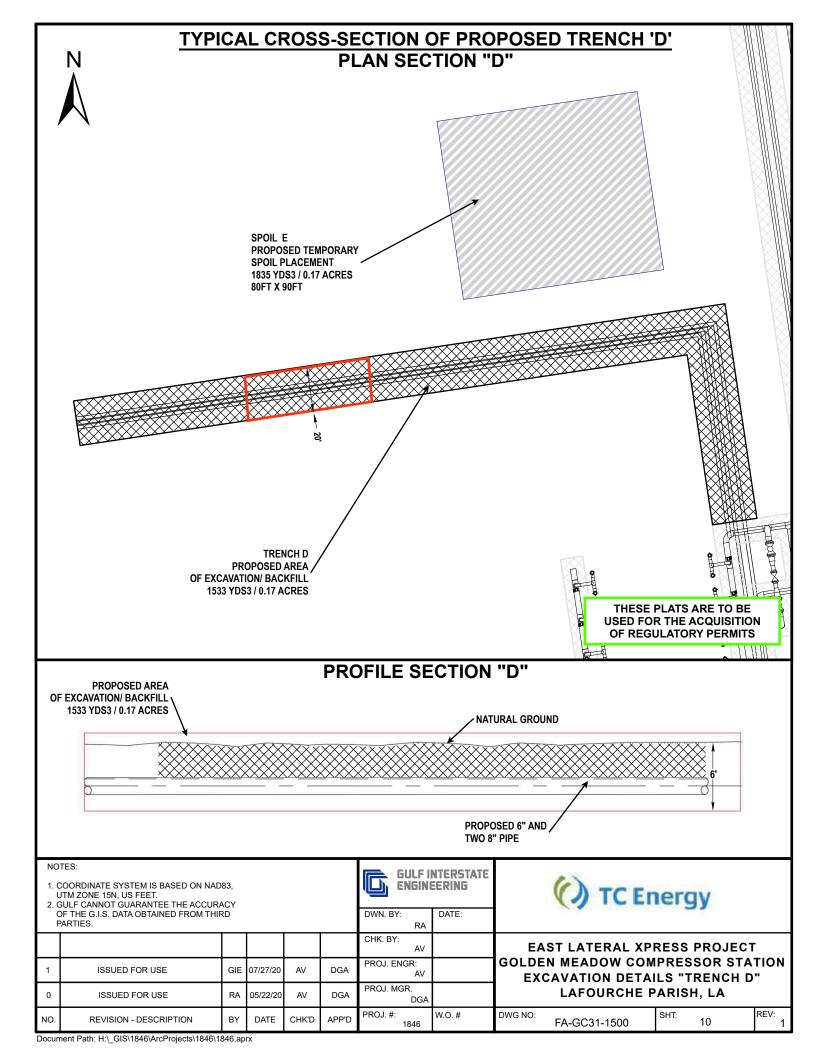
Item	Cut/Fill	Temporary /	Volume Fill/Cut	Max Decompacted	Comments
item	Cut/Fiii	Permanent	(Cu Yds)	(Loose) Vol. (Cu Yds)	Commencs
Spoil A	Fill	Temporary	1,962	2,317	For Spoil Storage
Spoil B	Fill	Temporary	383	454	For Spoil Storage
Spoil C	Fill	Temporary	1,821	2,191	For Spoil Storage
Spoil D	Fill	Temporary	50	108	For Spoil Storage
Spoil E	Fill	Temporary	1,533	1,835	For Spoil Storage
Trench A	Cut	Temporary	2,012	NA	For Suction/discharge pipeline installation
Trench B	Cut	Temporary	383	NA	For Suction/discharge pipeline installation
Trench C	Cut	Temporary	1,821	NA	For Suction/discharge pipeline installation
Trench D	Cut	Temporary	1,533	NA	For Blowdown pipeline installation
					Excavate 12" Inches of Surface Material (dispose offsite)
Α	Cut	Permanent	95		prior to placement of permanent fill for platform site and
				NA	permanent work area
Α	Fill	Permanent	11,967	NA	Crushed Stone (XXX)/ Gravel, platform site and permanent
В	Cut	Permanent	12	NA	Excavate 12 Inches of Surface Material (dispose offsite) prio to placement of permanent fill for Blowdown area
В	Fill	Permanent	677	NA	Crushed Stone/ Gravel, blowdown area
В	Cut	Permanent	1	NA	Excavate 48 Inches of Surface Material (dispose offsite) prio to placement of permanent fill for Blowdown area - Waterbody area
В	Fill	Permanent	21	NA	Crushed Stone/ Gravel, blowdown area - Waterbody area
С	Fill	Permanent	45	NA	Crushed Stone/ Gravel, Tie In Area
F	Cut	Permanent	146	NA	Excavate 12 Inches of Surface Material (dispose offsite) prior to placement of permanent fill for permanent access road Blowdown
F	Fill	Permanent	640	NA	Crushed Stone / Gravel
G	Cut	Permanent	70	NA :	Excavate 12 Inches of Surface Material (dispose offsite) prio to placement of permanent fill for permanent access road Main Area
G	Fill	Permanent	195	NA	Crushed Stone/ Gravel

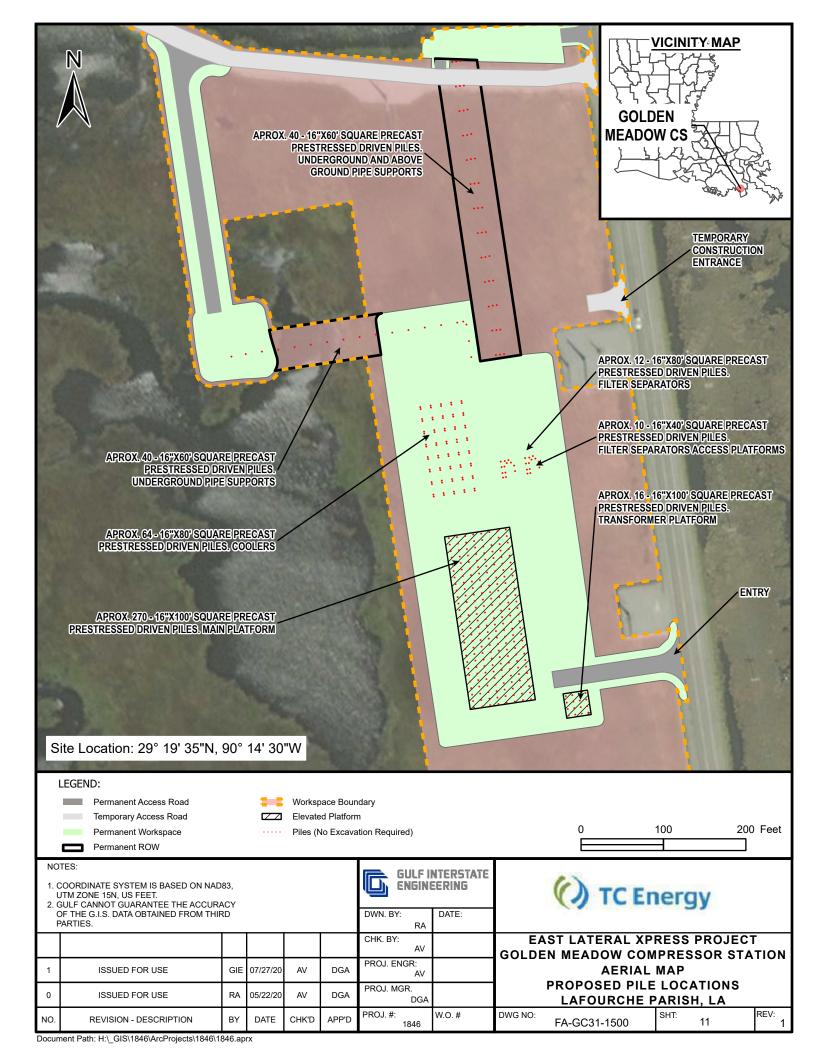
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1	ISSUED FOR USE	RA	07/14/20	AV	DGA	PROJ. ENGR: AV		GOLDEN MEADOW COMPRESSOR STATION PROPOSED AREA OF DISTURBANCE			
0	ISSUED FOR USE	RA	05/22/20	AV	DGA	PROJ. MGR. DGA		LAFOURCHE PARISH, LA			
NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D	PROJ. #: 1846	W.O. #	DWG NO: FA-GC31-1500 SHT: 06 REV: 2			

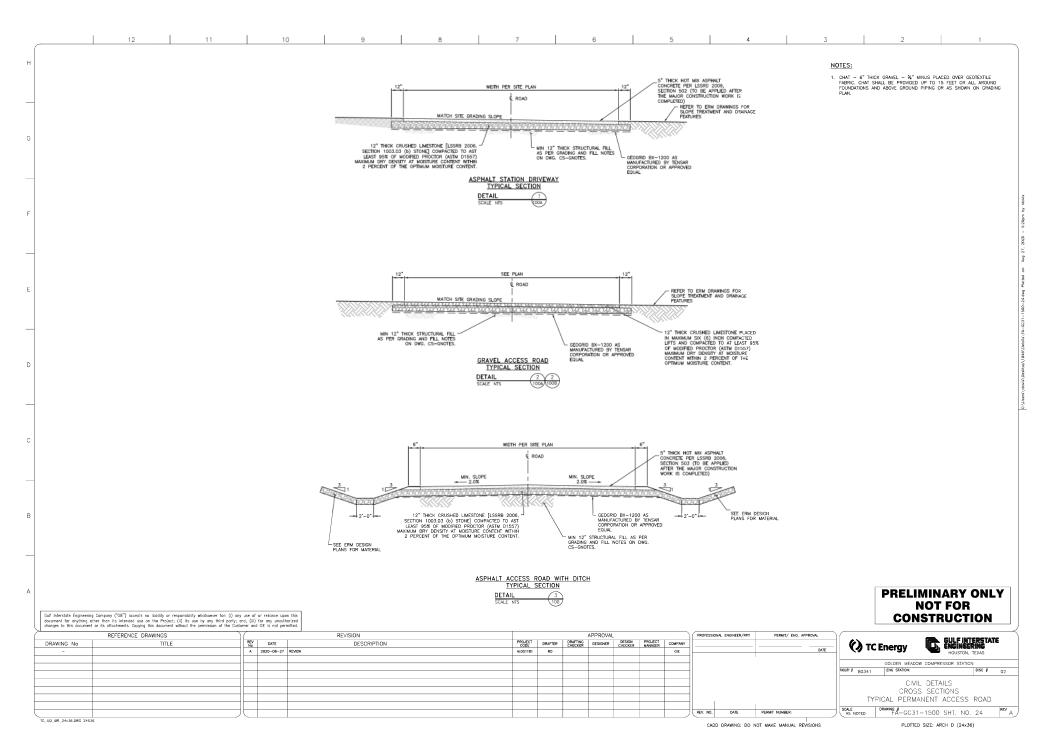


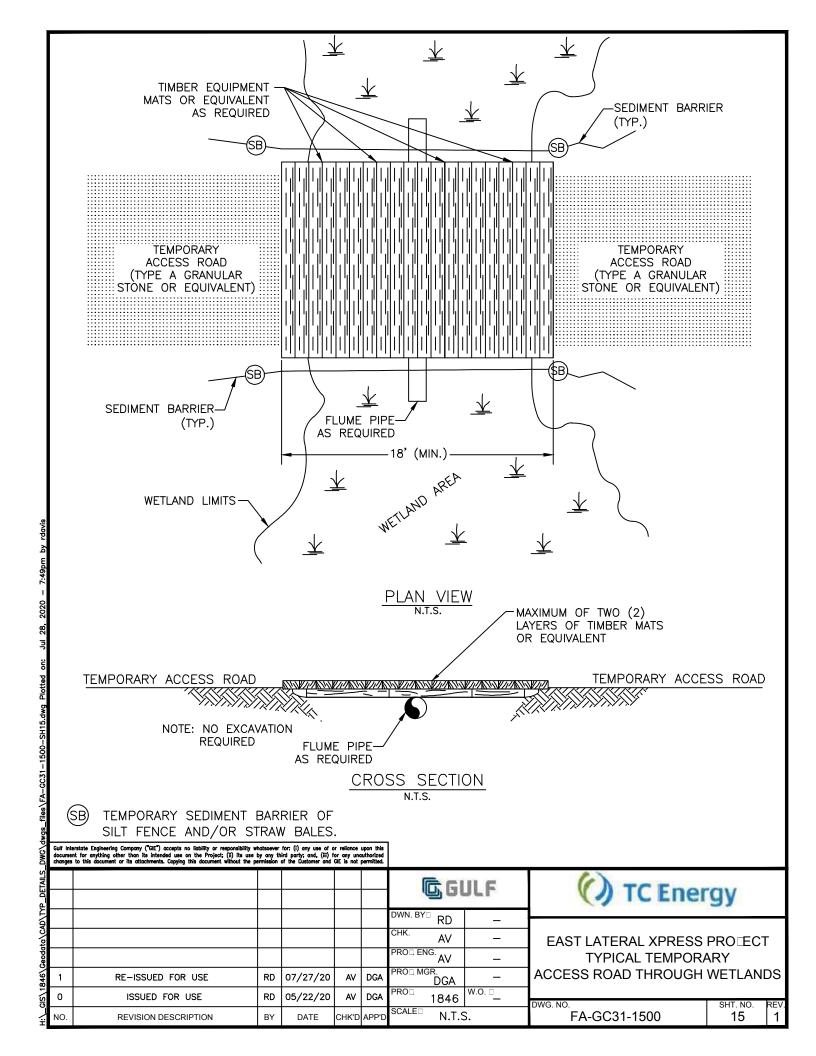


TYPICAL CROSS-SECTION OF PROPOSED TRENCH 'B AND C' PLAN SECTION "B AND C" TRENCH C PROPOSED AREA OF **EXCAVATION/ BACKFILL** 10' SPOIL B PROPOSED TEMPORARY SPOIL C SPOIL PLACEMENT PROPOSED TEMPORARY 454 YDS3 / 0.08 ACRES SPOIL PLACEMENT 80FT X 45FT 2191 YDS3 / 0.16 ACRES 100FT X 71FT TRENCH B PROPOSED AREA OF **EXCAVATION/ BACKFILL** THESE PLATS ARE TO BE **USED FOR THE ACQUISITION** OF REGULATORY PERMITS PROFILE SECTION "B & C" **NATURAL GROUND** TRENCH B PROPOSED AREA OF EXCAVATION/ BACKFILL 383 YDS3 / 0.04ACRES PROPOSED 24" PIPE NATURAL GROUND PROPOSED 30" PIPE TRENCH C PROPOSED AREA NATURAL GROUND OF EXCAVATION/ BACKFILL 1821 YDS3 / 0.19 ACRES PROPOSED 24" PIPE NOTES: **GULF INTERSTATE** 1. COORDINATE SYSTEM IS BASED ON NAD83, UTM ZONE 15N, US FEET. **ENGINEERING TC Energy** 2. GULF CANNOT GUARANTEE THE ACCURACY OF THE G.I.S. DATA OBTAINED FROM THIRD DWN BY DATE: PARTIES. RA CHK. BY: EAST LATERAL XPRESS PROJECT ΑV **GOLDEN MEADOW COMPRESSOR STATION** PROJ. ENGR: ISSUED FOR USE 07/27/20 DGA **GIE** ΑV ΑV **EXCAVATION DETAILS "TRENCH B & C"** PROJ. MGR. LAFOURCHE PARISH, LA 0 ISSUED FOR USE RΑ 05/22/20 ΑV DGA PROJ. #: W.O. # DWG NO: SHT: REV: **REVISION - DESCRIPTION** BY DATE CHK'D APP'D NO. FA-GC31-1500 09 1846 Document Path: H:_GIS\1846\ArcProjects\1846\1846.aprx







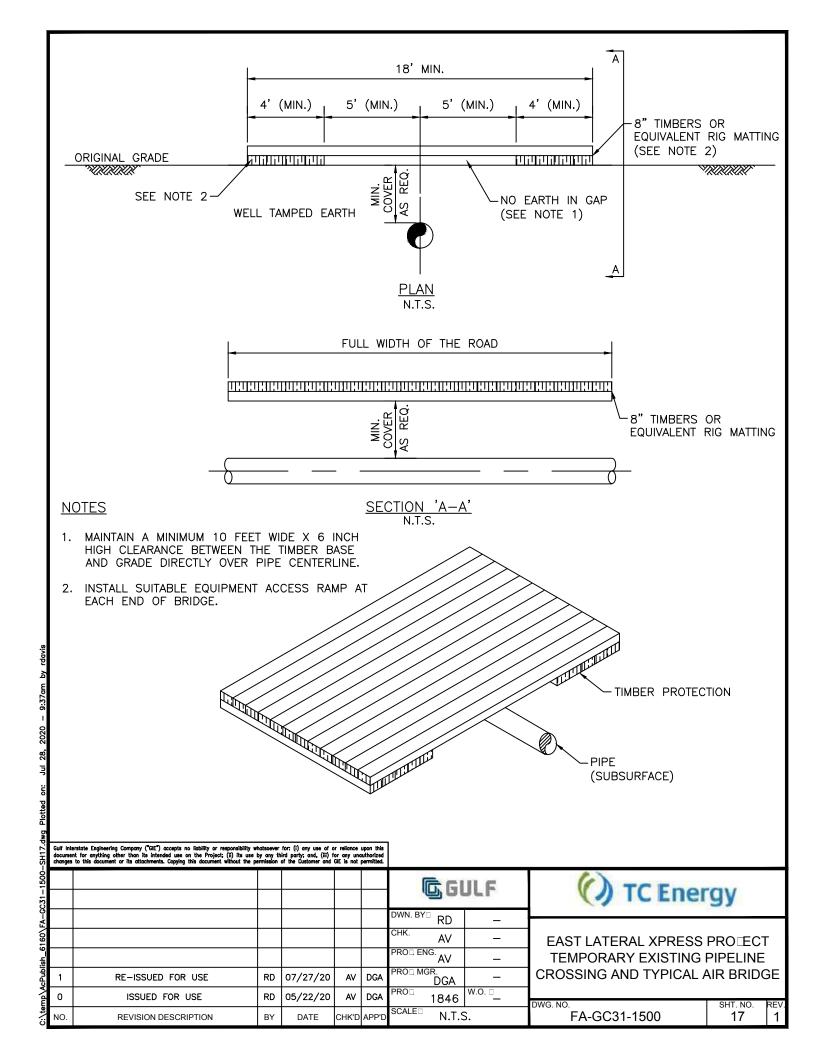


CROSS SECTION OF FOREIGN PIPELINE R.O.W.

NOTES:

- 1. PROPOSED PIPELINE MAY CROSS ABOVE FOREIGN PIPELINE(S), WHERE APPROVED BY FOREIGN OWNER IN WRITING, UNLESS REQUIREMENTS FOR MINIMUM DEPTH OF COVER CANNOT BE ACHIEVED, OR OWNING AUTHORITY REQUIRES CROSSING UNDER EXISTING FOREIGN LINE.
- 2. MAINTAIN AT LEAST 12 INCHES OF CLEARANCE FROM ANY UNDERGROUND STRUCTURE NOT ASSOCIATED WITH PIPELINE. MAINTAIN AT LEAST 24 INCHES OF CLEARANCE BETWEEN ANY FOREIGN PIPELINE AND PIPELINE.
- 3. BEFORE GRADING, DETERMINE FOREIGN PIPELINE LOCATIONS AND DEPTHS ELECTRONICALLY. DURING CONSTRUCTION CONFIRM LOCATIONS BY HYDROVACING OR MANUALLY SHOVELING.
- 4. NOTIFY FOREIGN PIPELINE OWNER AT LEAST 48 HOURS BEFORE EXCAVATING CROSSING.
- 5. INSTALL TEST LEAD STATION WHERE READILY ACCESSIBLE AT CROSSING POINT, NEAREST FENCE, HEDGE ROW OR FIELD EDGE.
- 6. MAINTAIN PIPELINE DEPTH FOR FULL ANGULAR WIDTH OF FOREIGN PIPELINE R.O.W.
- 7. NOTIFY 811 CALL BEFORE YOU DIG PROGRAM AT LEAST 48 HOURS PRIOR TO DIGGING.

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CONSTRUCTION PROCEDURES:

Jul 28,

- INSTALL TIMBER MATS/RIPRAP THROUGH ENTIRE WETLAND AREA. EQUIPMENT NECESSARY FOR RIGHT-OF-WAY CLEARING MAY MAKE ONE (1) PASS THROUGH THE WETLAND BEFORE MATS ARE INSTALLED.
- AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT DOWNSLOPE EDGE OF RIGHT-OF-WAY AND ALONG WETLAND EDGE AS REQUIRED.
- RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCHLINE AND DITCH SPOIL AREAS AND REMOVED FROM WETLAND FOR DISPOSAL.
- TOPSOIL STRIPPING SHALL NOT BE REQUIRED IN SATURATED SOIL CONDITIONS. LEAVE HARD PLUGS AT EDGE OF WETLAND UNTIL JUST PRIOR TO TRENCHING. 4.
- PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND AND ADJACENT TO ALIGNMENT, OR IN STAGING AREA 6. OUTSIDE THE WETLAND AND WALKED IN.
- LOWER-IN PIPE, INSTALL TRENCH PLUGS AT WETLAND EDGES AS REQUIRED AND BACKFILL IMMEDIATELY.
- 8. REMOVED TIMBER MATS OR PREFABRICATED MATS FROM WETLAND UPON COMPLETION.
- RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY AND INSTALL PERMANENT EROSION CONTROL.
- WORKSPACE IS CAN NARROW TO XX FEET MAXIMUM FOR WETLANDS IN SOME AREAS UNLESS THE LAND IS 10. CULTIVATED.
- ATWS MUST BE A MINIMUM OF 10 FEET BACK FROM THE WETLAND BOUNDARY UNLESS THE LAND IS CULTIVATED.

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1. TWS - TEMPORARY WORK SPACE

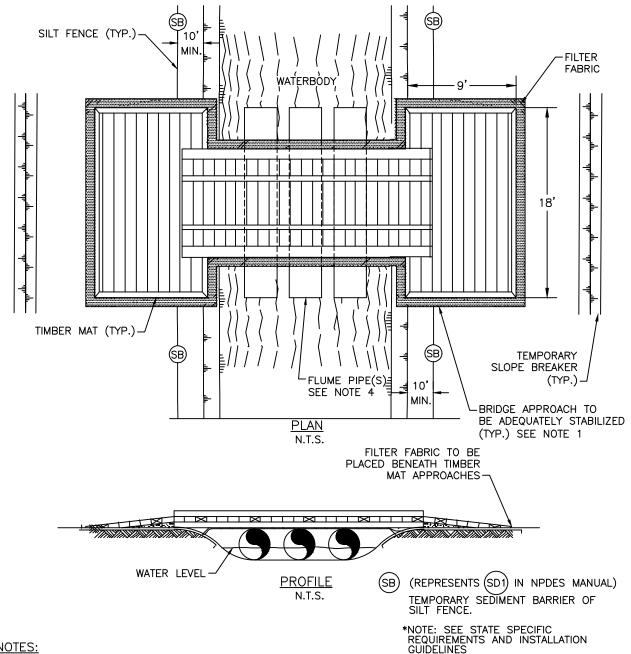
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EAST LATERAL XPRESS PROJECT TYPICAL CONSTRUCTION CORRIDOR SATURATED WETLAND AREA

VG. NO.	SHT. NO.	RE۱
FA-GC31-1500	19	1



- 1. TIMBER BRIDGES SHALL BE ADEQUATELY ANCHORED AT BOTH ENDS.
- PERIODICALLY CHECK BRIDGE INSTILLATION AND REMOVE BUILD—UP OF SEDIMENT OR DEBRIS ON BRIDGE.
- 3. MATERIALS PLACED ALONG WATERBODY SHALL BE COMPLETELY REMOVED DURING FINAL CLEAN—UP. REMOVAL OF THE STRUCTURE IS NOT CONTINGENT UPON ESTABLISHMENT OF PERMANENT VEGETATION.
- 4. FLUME PIPE USED IF ADDITIONAL SUPPORT IS REQUIRED AND/OR TO FACILITATE FISH MIGRATION.
- 5. BRIDGE TO BE INSTALLED SO AS TO SPAN BANK TO BANK.

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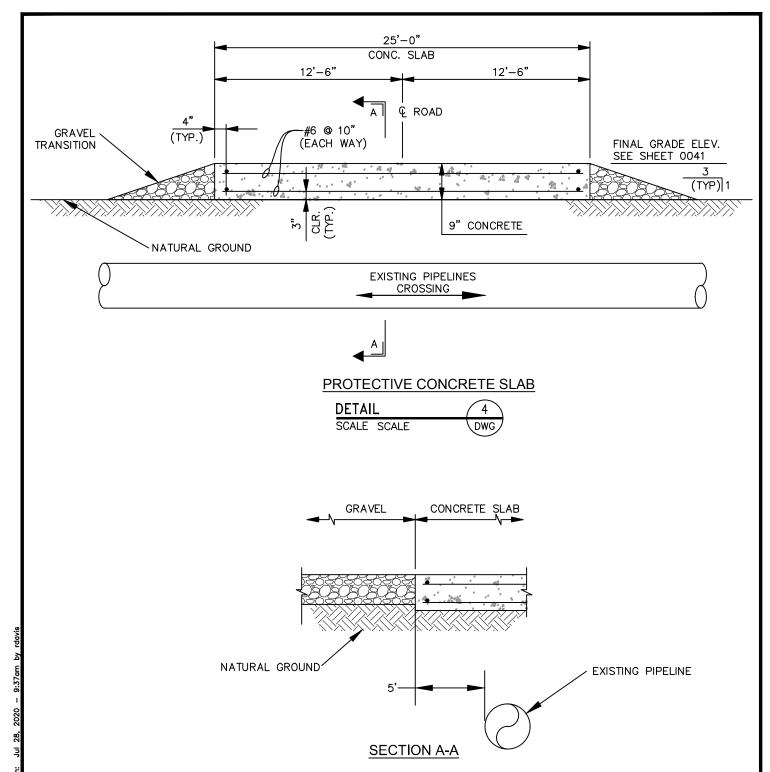
TC Energy

EAST LATERAL XPRESS PROŒCT TEMPORARY EQUIPMENT BRIDGE (EQUIPMENT PADS AND CULVERTS)

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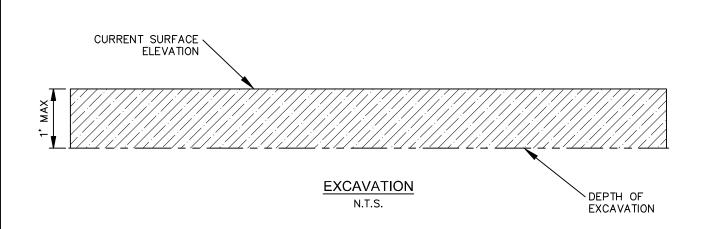
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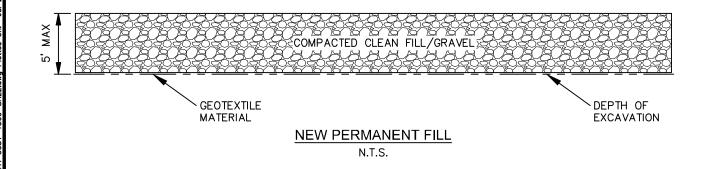
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1. CONCRETE SLAB TO BE PLACED ON NATURAL GROUND, CLEAR AND GRUB ONLY, DO NOT EXCAVATE.

7	Guif Inte documen changes	erstate Engineering Company ("GIE") accepts no liability or responsibility nt for anything other than its intended use on the Project; (ii) its use to this document or its attachments. Copying this document without the	whatsoever by any th permission	for: (i) any use of a nird party; and, (iii) of the Customer and	or reliance for any un GIE is not	upon this authorized permitted.						
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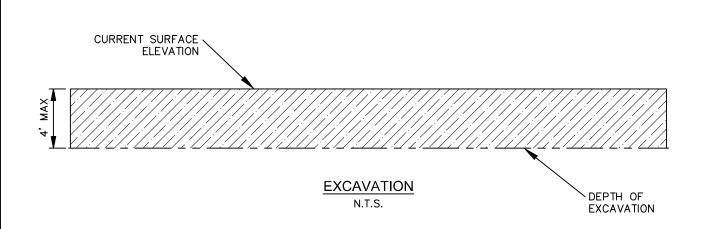
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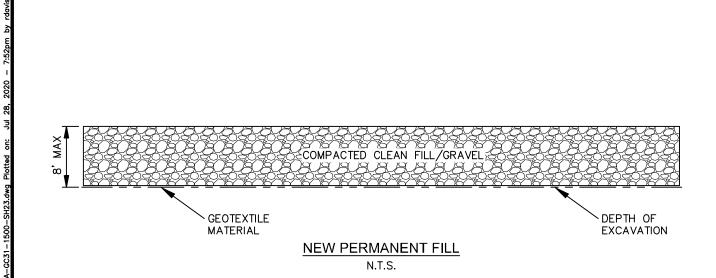
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EAST LATERAL XPRESS PRO ECT TYPICAL CROSS-SECTION OF A NEW PERMANENT WORK AREA

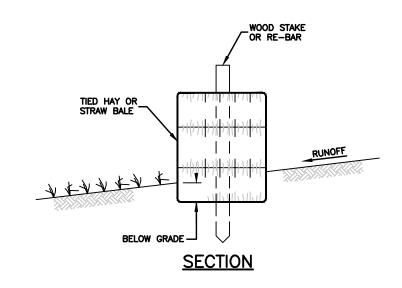
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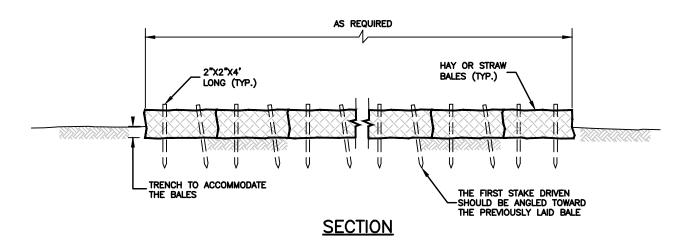




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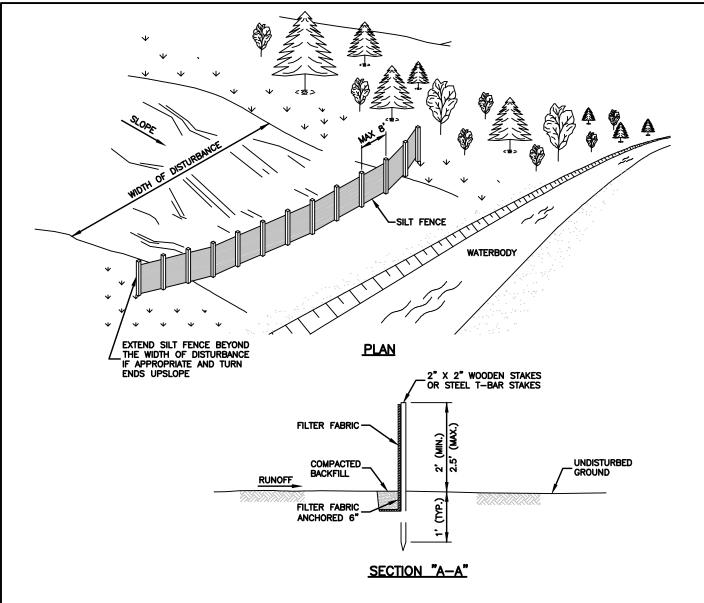


- 1) TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE STRAW BALE BARRIER SHOULD BE TURNED AND EXTENDED UPSLOPE.
- 2) EACH BALE SHOULD BE SECURED BY AT LEAST 2 STAKES. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. ANY GAPS CAN BE FILLED IN BY WEDGING LOOSE STRAW BETWEEN THE BALES. STAKES SHOULD BE DRIVEN. REBAR OR STANDARD "T" OR "U" STEEL POSTS CAN BE USED AS STAKES, BUT IT SHOULD BE NOTED THAT THEY MAY POSE A HAZARD TO EQUIPMENT IF THE BALES DISINTEGRATE.
- 3) COMPACT THE EXCAVATED SOIL AGAINST THE UPHILL SIDE OF THE BARRIER TO PREVENT PIPING.
- 4) INSTALLATION TO BE MODIFIED BY THE PROJECT AS NECESSARY TO SUIT ACTUAL SITE CONDITIONS.

TYPICAL STRAW OR HAY BALE BARRIER

FIGURE
NO. 9

ENVIRONMENTAL CONSTRUCTION STANDARDS



- MATERIAL SHOULD BE WOVEN GEOTEXTILE FABRIC SUCH AS EXXON GTF 180 OR MIRAFI 600X, OR AN APPROVED EQUIVALENT, SECONDARY REINFORCEMENT, SUCH AS A CONSTRUCTION BARRIER FENCE OR WIRE MESH CAN ALSO BE USED BEHIND THE FILTER FABRIC.
- 2) SILT FENCE TO BE REINFORCED WITH 2"X2" WOODEN STAKES OR STEEL T-BAR STAKES PLACED EVERY 8' OR CLOSER AS CONDITIONS REQUIRE.
- 3) ATTACH FILTER FABRIC AT EACH POST AT A MINIMUM OF 3 LOCATIONS.
- 4) THE FILTER FABRIC MINIMUM LENGTH OF 6" IS TO BE ANCHORED IN A TRENCH WITH WELL COMPACTED BACKFILL OVER THE FABRIC TO PREVENT UNDERMINING.
- 5) TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE SILT FENCE SHALL BE TURNED AND EXTENDED UPSLOPE.
- 6) INSTALLATION TO BE MODIFIED BY THE PROJECT AS NECESSARY TO SUIT ACTUAL SITE CONDITIONS.

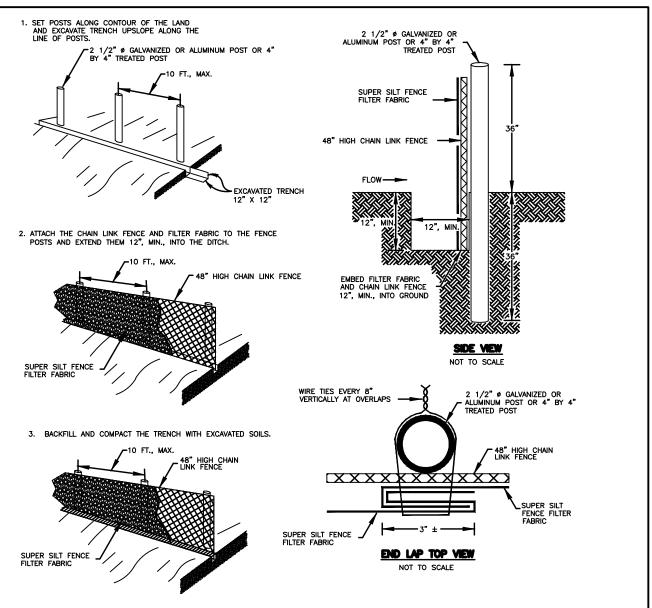
NOT TO SCALE



TYPICAL SILT FENCE BARRIER

FIGURE NO. 10

ENVIRONMENTAL CONSTRUCTION STANDARDS



SUPER SILT FENCE NOTES:

- 1. USE OF CHAIN LINK FENCING SHALL BE PROPERLY CONSTRUCTED AND FASTENED SECURELY TO THE POSTS WITH WIRE TIES OR STAPLES.
- 2. POSTS NEED NOT BE SET IN CONCRETE.
- 3. THE FILTER FABRIC SHALL BE FASTENED TO THE CHAIN LINK FENCE WITH TIES EVERY 24" AT THE TOP AND MID SECTION.
- 4. FABRIC AND FENCE SHALL BE EMBEDDED 12", MINIMUM, INTO THE GROUND.
- 5. A 6", MINIMUM, OVERLAP SHALL BE PROVIDED WHERE TWO SECTIONS OF FABRIC ADJOIN. THE OVERLAPPED FABRIC SHALL BE FOLDED TOGETHER AND ATTACHED TO THE CHAIN LINK FENCE.
- 6. 4" BY 4" PRESSURE TREATED POSTS MAY BE SUBSTITUTED FOR METAL FENCE POSTS WITH THE APPROVAL OF THE CHIEF INSPECTOR OR ENVIRONMENTAL INSPECTOR.
- 7. THE LENGTH OF SLOPE ABOVE THE FENCE SHALL NOT EXCEED 400 FEET IN STEEP TERRAIN. IN FLATTER AREAS THE LENGTH CAN BE EXTENDED WITH THE APPROVAL OF THE CHIEF INSPECTOR OR ENVIRONMENTAL INSPECTOR.

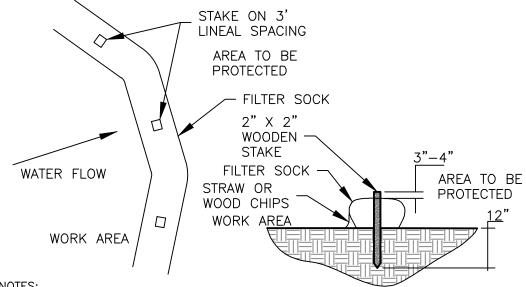
 NOT TO SCALE



SEDIMENT FILTER DEVICE SUPER SILT FENCE

FIGURE NO. 11

ENVIRONMENTAL CONSTRUCTION STANDARDS



- 1. COMPOST FILTER SOCK TO BE FILTREXX SILTSOXX OR APPROVED EQUIVALENT.
- 2. THE ADJOINING ENDS OF SECTIONS OF COMPOST FILTER SOCK SHOULD OVERLAP 1' AND BE STAKED.
- 3. 8", 12" 18" AND 24" COMPOST FILTER SOCK TO BE USED. SEE PLAN SHEET FOR SIZES AND LOCATIONS.
- 4. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE COMPOST FILTER SOCK.
- 5. COMPOST FILTER SOCK SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED COMPOST FILTER SOCK SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

FILTER SOCK SIZING CHART

SLOPE	8 IN (200 mm) SiltSoxx™	12 IN (300 mm) SiltSoxx™	18 IN (450 mm) SiltSoxx™	24 IN (600 mm) SiltSoxx™	32 IN (800 mm) SiltSoxx™
PERCENT	6.5 IN (160 mm)**	9.5 IN (240 mm)**	14.5 IN (360 mm)**	19 IN (480 mm)**	26 IN (650 mm)**
2 (OR LESS)	600 (180)	750 (225)	1000 (300)	1300 (400)	1650 (500)
5	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)
10	200 (120)	250 (75)	300 (90)	400 (120)	500 (150)
15	140 (40)	170 (50)	200 (60)	325 (100)	450 (140)
20	100 (30)	125 (38)	140 (42)	260 (80)	400 (120)
25	80 (24)	100 (30)	110 (33)	200 (60)	275 (85)
30	60 (18)	75 (23)	90 (27)	130 (40)	200 (60)
35	60 (18)	75 (23)	80 (24)	115 (35)	150 (45)
40	60 (18)	75 (23)	80 (24)	100 (30)	125 (38)
45	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)
50	40 (12)	50 (15)	55 (17)	65 (20)	75 (23)

BASED ON FAILURE POINT OF 36 IN $(0.9\ m)$ SUPER SILT FENCE (WIRE REINFORCED) AT 1000 FT. (303 m) OF SLOPE, WATERSHED WIDTH EQUIVALENT TO RECEIVING LENGTH OF SEDIMENT CONTROL DEVICE, 1 IN/24 hr (25 mm/24 hr) RAIN EVENT.

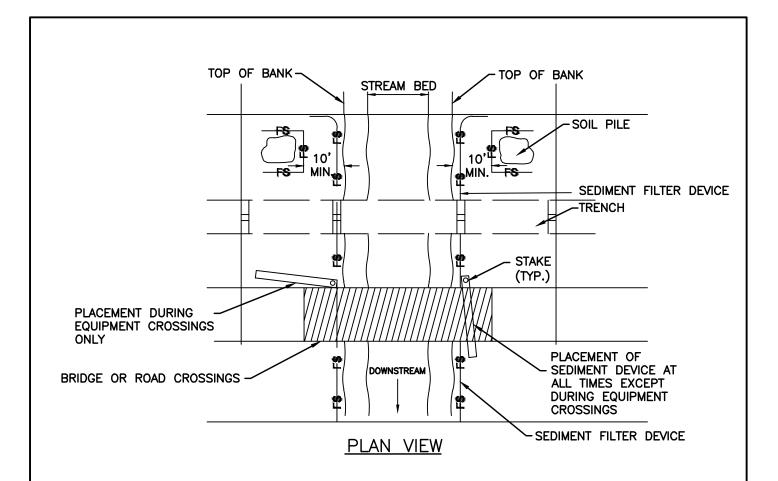
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TYPICAL COMPOST FILTER SOCK

FIGURE NO. 12

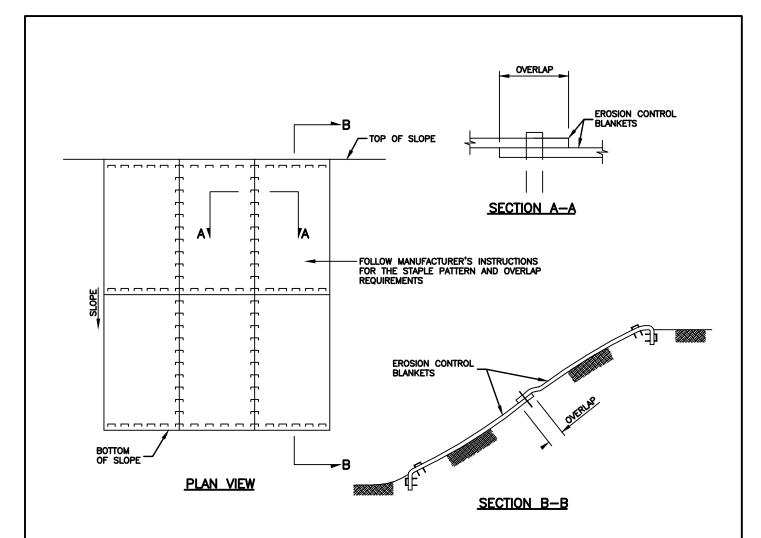
EFFECTIVE HEIGHT OF SIItSOXX MAFTER INSTALLATION AND WITH CONSTANT HEAD FROM RUNOFF AS DETERMINED BY OHIO STATE UNIVERSITY.



- 1. SEDIMENT FILTER DEVICE (COMPOST FILTER SOCK, SILT FENCE OR OTHER APPROVED EQUIVALENT.) SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SEDIMENT FILTER DEVICE SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- 2. SEDIMENT FILTER DEVICE AT ENTRANCES SHALL BE IN PLACE FROM START OF DAY. DURING CONSTRUCTION ACTIVITIES AND AT END OF DAY. SEDIMENT FILTER DEVICE MAY BE TEMPORARILY MOVED AS SHOWN ON THE LEFT DURING EQUIPMENT CROSSING ACTIVITIES BUT MUST BE REPLACED IMMEDIATELY UPON COMPLETION OF CROSSING.
- 3. COMPOST FILTER SOCK TO BE FILTREXX SILTSOXX OR APPROVED EQUIVALENT.

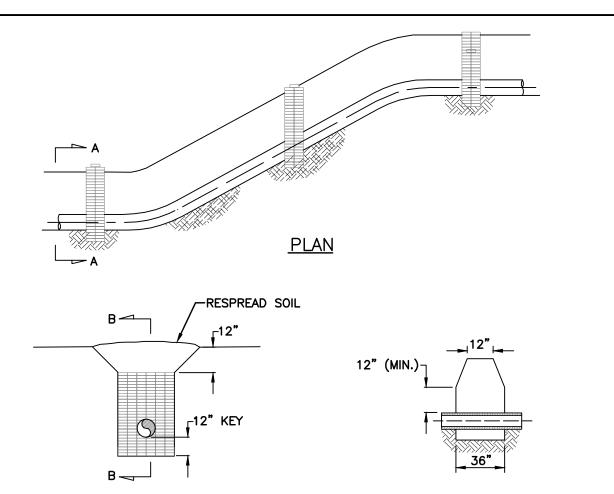
TYPICAL REMOVABLE SEDIMENT FILTER DEVICE FIGURE NO. 13

ENVIRONMENTAL CONSTRUCTION STANDARDS



- 1) INSTALL MATTING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 2) PREPARE SOIL BEFORE INSTALLING MATTING, INCLUDING GRADING, REMOVAL OF LARGE ROCKS AND DEBRIS. APPLY LIME, SEED AND FERTILIZER BEFORE MATTING IS INSTALLED.
- 3) EROSION CONTROL MATTING SHALL EXTEND COMPLETELY ACROSS DISTURBED AREAS TO PROTECT ERODIBLE SURFACES WHERE APPROPRIATE. MATTING MUST HAVE FULL CONTACT WITH GROUND SURFACE.
- 4) BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE MATTING IN A TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 5) ROLL THE MATTING DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW. ON SHORT STREAM BANKS (LESS THAN 10FT) EROSION CONTROL MATTING CAN BE PERPENDICULAR TO BANK SLOPE. EROSION CONTROL BLANKET MAY BE INSTALLED ON STEEP SLOPES OR ON THE BANKS OF STREAMS.
- 6) AS AN ALTERNATIVE TO STAPLES, WOODEN STAKES CAN BE USED.
- 7) ENSURE COMPLETE CONTACT BETWEEN THE MATTING AND THE SLOPE FACE, ADDITIONAL STAPLES CAN BE USED TO ELIMINATE GAPS.

TC Energy EROSION CONTROL MATTING INSTALLATION FIGURE NO. 14



- 1. TRENCH BREAKERS TO BE INSTALLED AS SHOWN ON THE CONSTRUCTION DRAWINGS, WHERE DESCRIBED IN THE PLAN, AND AS DIRECTED.
- 2. KEY EACH TRENCH BREAKER A MINIMUM OF ONE (1) FT. INTO BOTTOMS AND SIDES OF TRENCH.
- 3. FOAM TRENCH BREAKERS MAY BE USED IN LIEU OF SAND SACK TRENCH BREAKERS.

SECTION A-A

- 4. INSTALL JUST UPSLOPE OF EVERY SLOPE BREAKER PROMPTLY AS TRENCH IS COMPLETED.
- 5. INSTALLATION SPECIFICATIONS TO BE MODIFIED AS NECESSARY TO SUIT ACTUAL SITE CONDITIONS.
- 6. TRENCH BREAKER SHALL BE INSTALLED SUCH THAT THE TOP OF EACH DOWNSLOPE BREAKER IS AT OR ABOVE THE BOTTOM OF THE NEXT UPSLOPE BREAKER.
- 7. INSTALL TRENCH BREAKER AT THE BASE OF SLOPES GREATER THAN 5% WHERE THE BASE OF THE SLOPE IS LESS THAN 50' FROM A WATER BODY OR WETLAND AND WHERE NEEDED TO AVOID DRAINING A WATER BODY OR WETLAND.

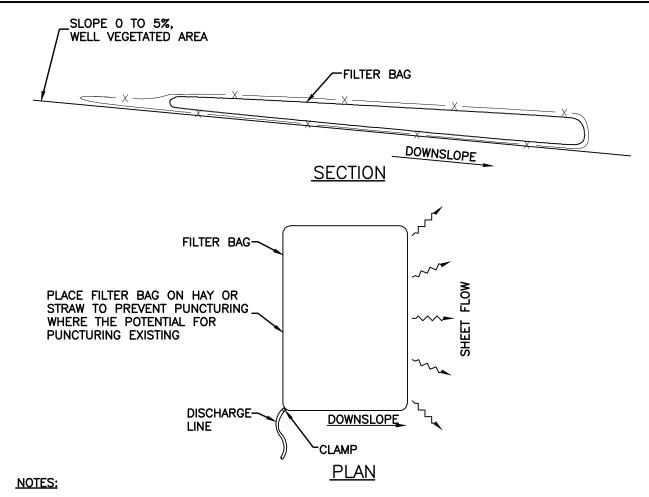
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SECTION B-B



TYPICAL PERMANENT TRENCH BREAKER

FIGURE NO. 16



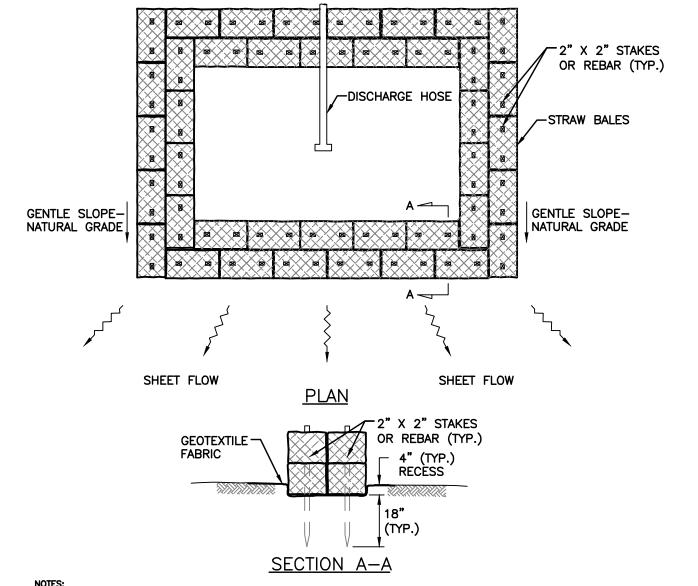
- 1. MANUFACTURED NON-WOVEN (FELT) FILTER BAGS ARE A SUITABLE ALTERNATIVE TO STRAW BALE STRUCTURES FOR TRENCH DEWATERING. FILTER BAGS SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER.
- 2. INSTALLATION SPECIFICATIONS TO BE MODIFIED AS NECESSARY TO SUIT ACTUAL SITE CONDITIONS.
- 3. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. ONLY ONE PUMP DISCHARGE HOSE SHOULD BE USED PER BAG UNLESS BAG IS SPECIFICALLY MANUFACTURED TO ACCEPT MORE THAN ONE.
- 4. DO NOT ALTER OR CUT BAGS.
- 5. BAGS CANNOT BE ACCESSED BY EQUIPMENT UNLESS IT CAN BE REACHED FROM WITHIN THE PERMITTED WORKSPACE.
- 6. BAGS WILL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT.
- 7. ADDITIONAL SEDIMENT AND EROSION CONTROLS MAY NEED TO BE INSTALLED AROUND THE FILTER BAG, AS APPROPRIATE, AND APPROVED BY THE ENVIRONMENTAL INSPECTOR.

NOT TO SCALE



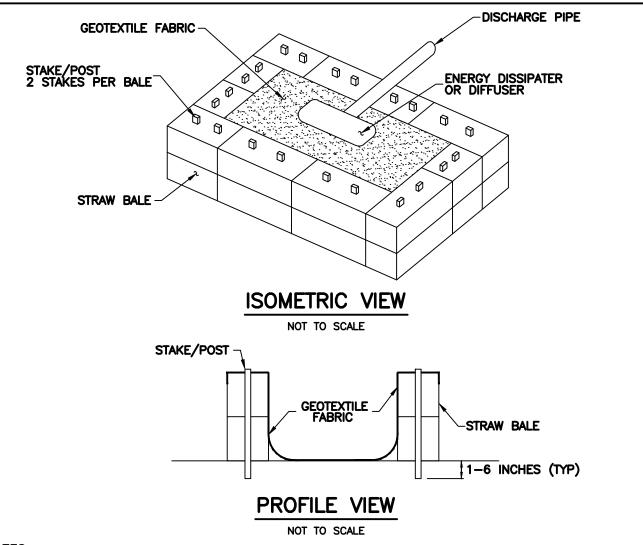
TYPICAL DEWATERING FILTER BAG

FIGURE NO. 17



- 1. INSTALL A STRAW BALE DEWATERING STRUCTURE WHENEVER IT IS NECESSARY AND AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR TO PREVENT THE FLOW OF SILT LADEN WATER INTO WATERBODIES OR WETLANDS.
- 2. DISCHARGE SITE SHOULD BE WELL VEGETATED AND LOCATED AWAY FROM ANY WATERBODY. THE TOPOGRAPHY OF THE SITE SHOULD BE SUCH THAT WATER WILL FLOW INTO THE DEWATERING STRUCTURE AND AWAY FROM ANY WORK AREAS. THE AREA DOWNSLOPE FROM THE DEWATERING SITE MUST BE REASONABLY FLAT OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
- 3. DISCHARGE RATES SHOULD BE SUCH THAT THE CAPACITY OF THE STRUCTURE WILL NOT BE EXCEEDED.
- 4. DISCHARGE WATER SHALL BE FORCED INTO SHEET FLOW IMMEDIATELY BEYOND THE SPILL PAD USING A COMBINATION OF STRAW BALES AND THE NATURAL TOPOGRAPHY. RECESS STRAW BALES. DRIVE TWO (2) STAKES OR REBAR INTO EACH BALE TO ANCHOR THEM IN PLACE.
- 5. A FILTER BAG MAY ALSO BE UTILIZED INSIDE THE DEWATERING STRUCTURE TO HELP FILTER THE DISCHARGE.
- 6. INSTALLATION SPECIFICATIONS TO BE MODIFIED AS NECESSARY TO SUIT ACTUAL SITE CONDITIONS.

NOT TO SCALE TC Energy TYPICAL STRAW BALE DEWATERING **FIGURE** STRUCTURE FOR TRENCH DEWATERING NO. 18 **ENVIRONMENTAL CONSTRUCTION STANDARDS**



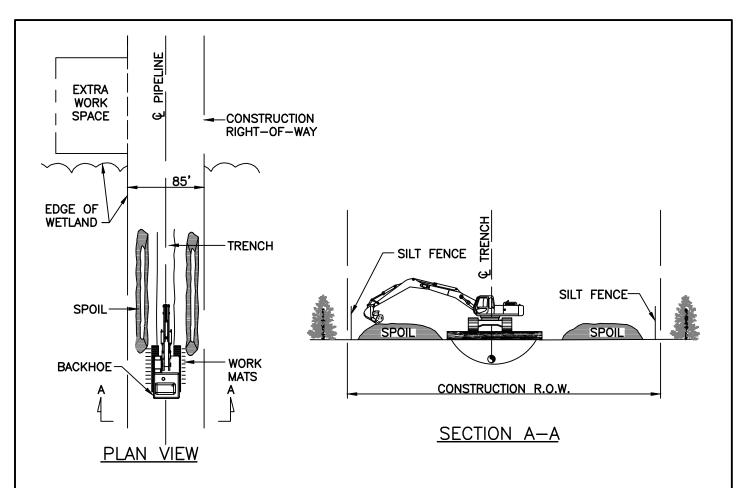
- 1. ALL DEWATERING ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH PERMIT CONDITIONS.
- 2. DISCHARGE SITE SHOULD BE WELL VEGETATED, WHERE POSSIBLE, AND LOCATED AT LEAST 50FT FROM ANY WATERBODY. THE TOPOGRAPHY OF THE SITE SHOULD BE SUCH THAT WATER WILL FLOW INTO THE DEWATERING STRUCTURE AND AWAY FROM ANY WORK AREAS.
- 3. DIRECT THE PUMPED WATER ONTO A STABLE SPILL PAD CONSTRUCTED OF STRAW BALES OR GEOTEXTILE FABRIC STAKED TO THE GROUND SURFACE.
- 4. DISCHARGE RATES SHOULD BE SUCH THAT THE STRUCTURE WILL NOT OVERFLOW.
- 5. DRIVE TWO STAKES OR POSTS INTO EACH BALE TO ANCHOR THEM IN PLACE.
- 6. FILTER BAGS ARE A SUITABLE ALTERNATIVE TO STRAW BALE STRUCTURES FOR TRENCH DEWATERING. STRAW BALES OR FILTER SOCK CAN BE ADDED AROUND THE FILTER BAG TO PROVIDE ADDITIONAL SEDIMENT CONTROL WHERE NEEDED.
- 7. STAKES OR POSTS SHOULD BE 2X2 WOOD OR SUITABLE ALTERNATIVE.
- 8. SIZE OF DEWATERING STRUCTURE WILL BE DETERMINED BASED ON VOLUME OF DISCHARGE.

NOT TO SCALE



HYDROSTATIC TEST DEWATERING PIT

FIGURE NO. 19



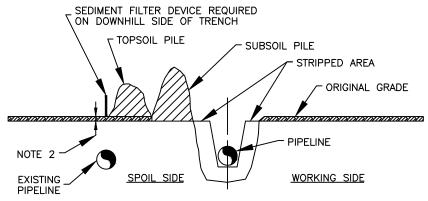
CONSTRUCTION PROCEDURES:

- 1. FLAG WETLAND BOUNDARIES PRIOR TO CLEARING.
- 2. NO REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POST APPROXIMATELY 100 FEET FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER THE PROJECTS SPILL PREVENTION PROCEDURES.
- 3. INSTALL TEMPORARY SLOPE BREAKER UPSLOPE WITHIN 100 FEET OF WETLAND BOUNDARY IF DIRECTED BY THE PROJECT.
- 4. RESTRICT ROOT GRUBBING TO ONLY THE AREA OVER THE DITCHLINE.
- 5. TOPSOIL STRIPPING SHALL NOT BE REQUIRED IN SATURATED SOIL CONDITIONS.
- 6. IF FABRICATED TIMBER MATS ARE USE FOR STABILIZATION, THE BACKHOE SHALL GRADUALLY MOVE ACROSS THE WETLAND BY MOVING THE MAT FROM IMMEDIATELY BEHIND TO IMMEDIATELY IN FRONT OF THE THE BACKHOES PATH. GEOTEXTILE FABRIC MAY BE INSTALLED UNDER MATS, WHERE REQUIRED.
- 7. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT DOWN SLOPE EDGE OF RIGHT-OF-WAY ALONG EDGE IF EVIDENT, OTHERWISE INSTALL BARRIER ON BOTH EDGES AS REQUIRED.
- 8. FABRICATE PIPE IN STAGING AREA OUTSIDE OF THE WETLAND IN THE EXTRA WORK SPACE AS INDICATED ON THE CONSTRUCTION DRAWINGS.
- 9. LEAVE HARD PLUGS AT EDGE OF WETLAND UNTIL JUST PRIOR TO TRENCHING.
- 10. FLOAT PIPE IN PLACE, LOWER-IN, INSTALL TRENCH PLUGS AT WETLAND EDGES WHERE REQUIRED AND BACKFILL IMMEDIATELY.
- 11. REMOVE TIMBER MATS OR PRE-FABRICATED MATES FROM WETLAND EDGES AS REQUIRED AND BACKFILL IMMEDIATELY.
- 12. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL IF SALVAGED AND INSTALL PERMANENT EROSION CONTROL.
- 13. THE CONSTRUCTION RIGHT-OF-WAY FOR THIS TYPE OF CONSTRUCTION SHALL BE 85 FEET.

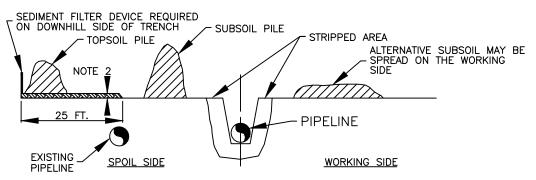
PUSH/PULL WETLAND CROSSING METHOD
FIGURE
NO. 25

NOT TO SCALE

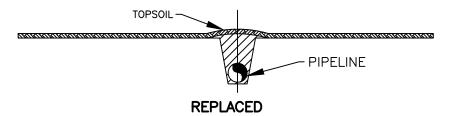




TRENCHLINE AND SPOIL SIDE METHOD



ENTIRE CONSTRUCTION ROW METHOD



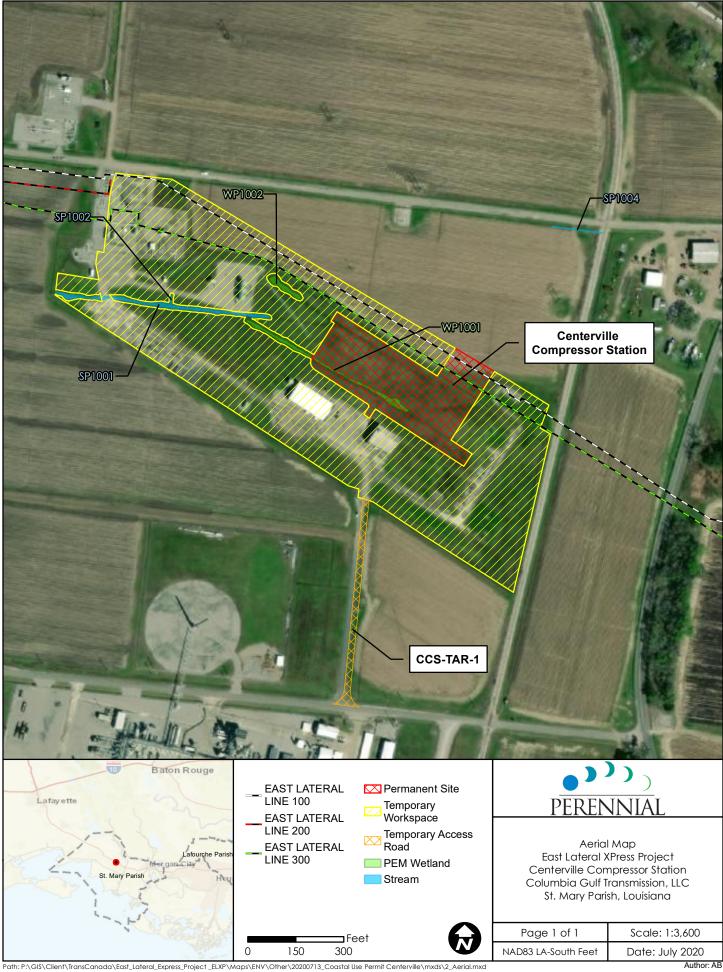
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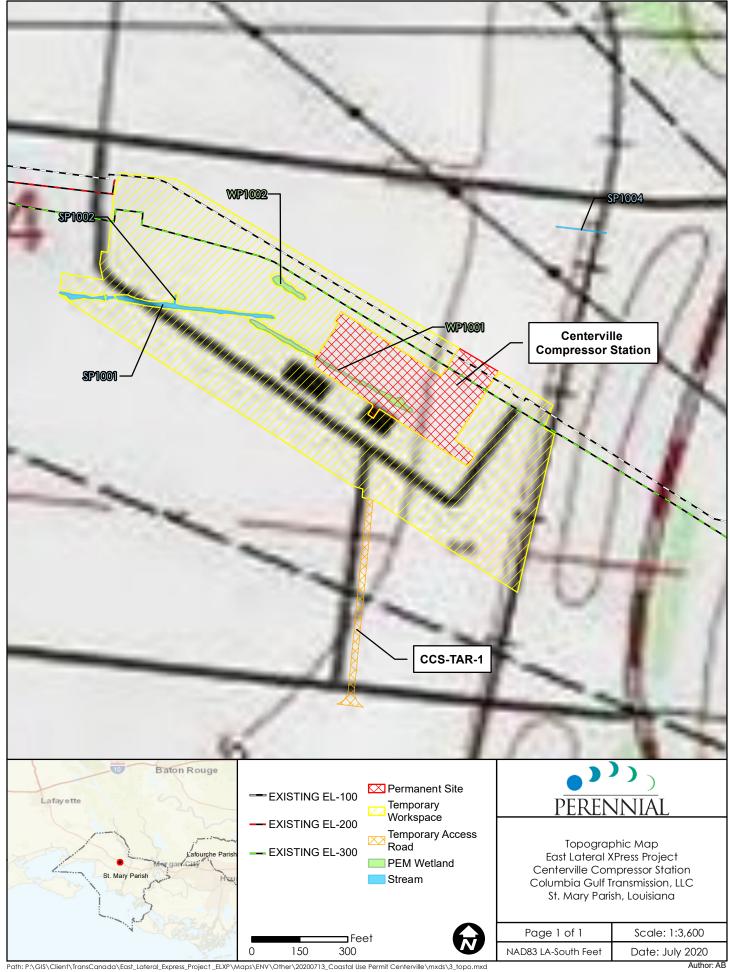
- 1. OTHER CONFIGURATIONS OF TOPSOIL AND SUBSOIL ARE ACCEPTABLE PROVIDED THEY ARE KEPT SEPARATE.
- 2. UP TO 12 INCHES OF TOPSOIL REMOVED.
- TOPSOIL AND SUBSOIL PILES WILL BE ADEQUATELY PROTECTED FROM EROSION AND SEDIMENTATION BY USE OF SEDIMENT FILTER DEVICE OR MULCH.

TYPICAL TOPSOIL CONSERVATION

FIGURE NO. 35

ENVIRONMENTAL CONSTRUCTION STANDARDS





COLUMBIA GULF TRANSMISSION

PL-300-30" EAST LATERAL

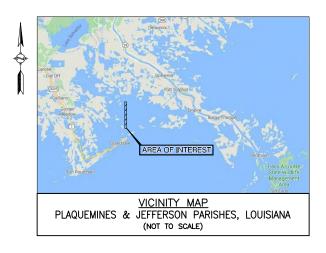
30" LATERAL NEAR CGT EL-300 M.P. 169

FACILITY IDENTIFICATION No.: 41506 PROJECT ID: M.001145

ENGINEERING FIRM: SEC F-11658

PLAQUEMINES & JEFFERSON PARISHES, LOUISIANA

SECTIONS: 015, 016, 021, 022, 027, 028 AND 034



DRAWING LIST								
DWG. No.	DWG. No. TITLE							
41506-00-LA-00-002	PROJECT COVER SHEET	D						
41506-03-LA-02-001	PIPELINE ALIGNMENT SHEET - 30" LATERAL	D						
41506-03-LA-02-002	PIPELINE ALIGNMENT SHEET - 30" LATERAL	С						
41506-03-LA-02-003	PIPELINE ALIGNMENT SHEET - 30" LATERAL	D						
41506-03-LA-02-004	PIPELINE ALIGNMENT SHEET - 30" LATERAL	C						

BASIS OF SURVEY: PERFORMED BY FUGRO, INC. DATE: FEBRUARY 2020

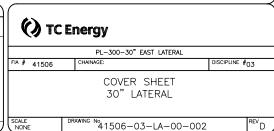
HORIZONTAL DATUM: NAD83 LOUISIANA STATE PLANES, SOUTH ZONE (US.FT.)

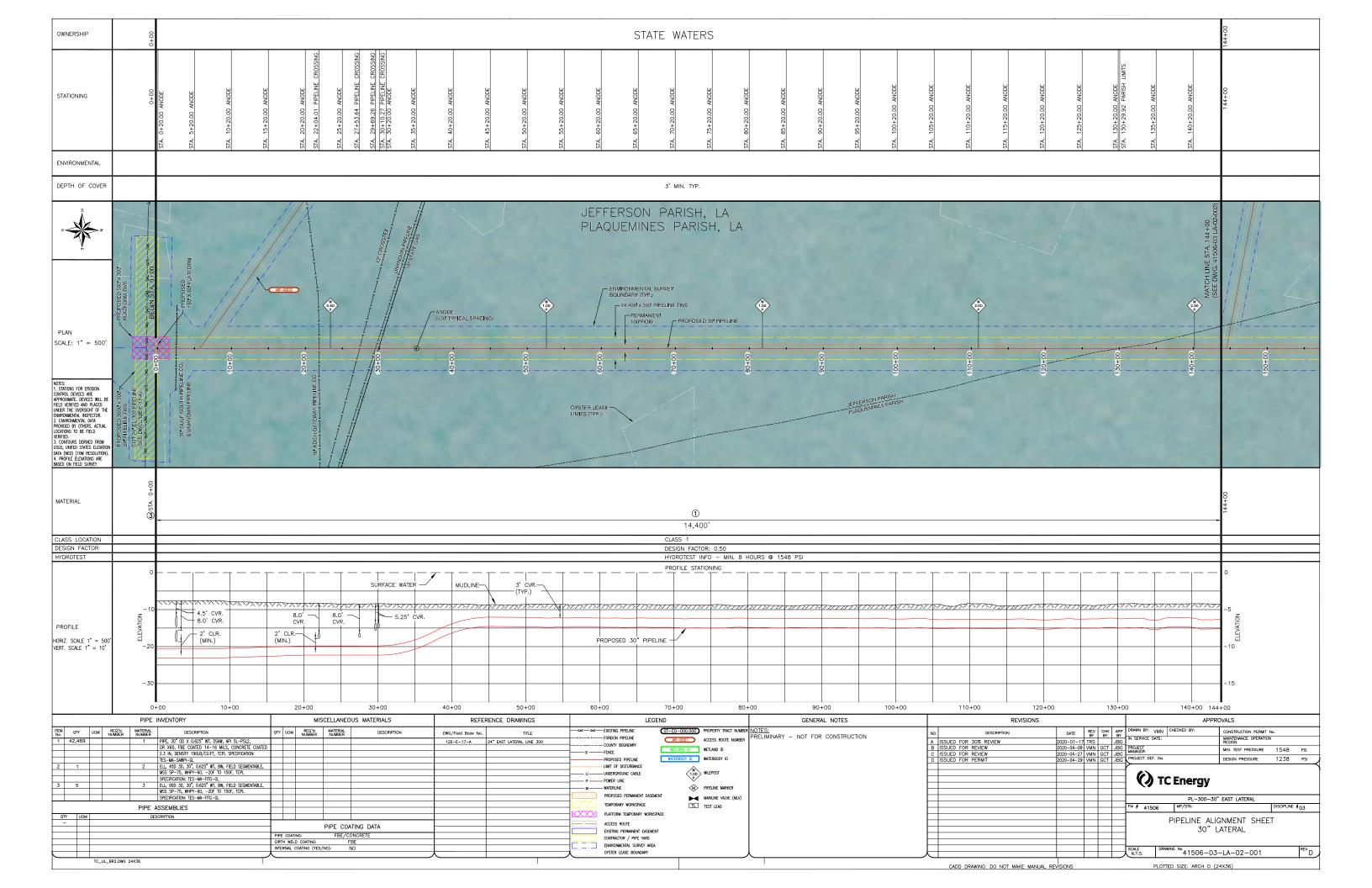
VERTICAL DATUM:

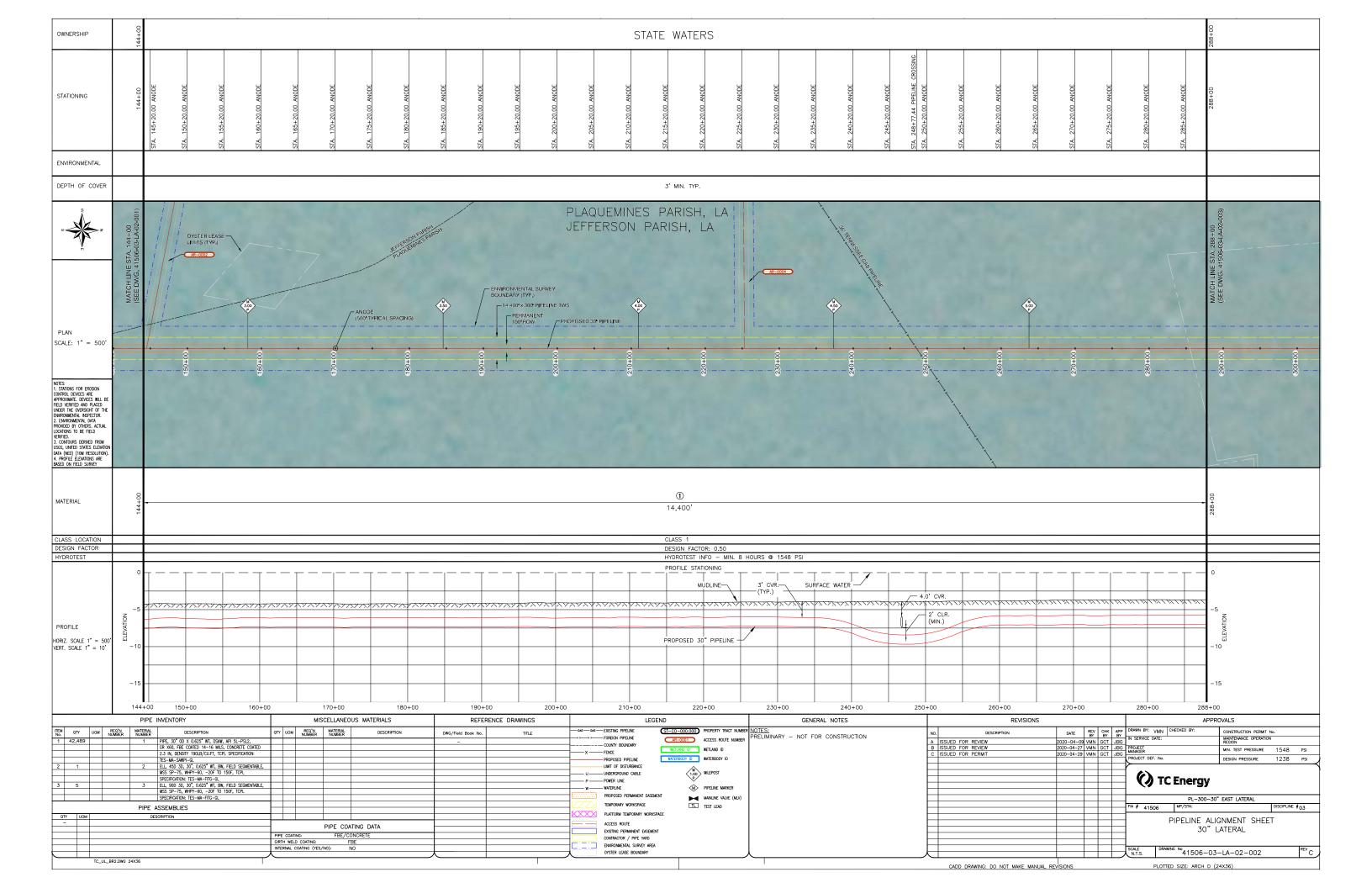
BASIS OF STATIONING:

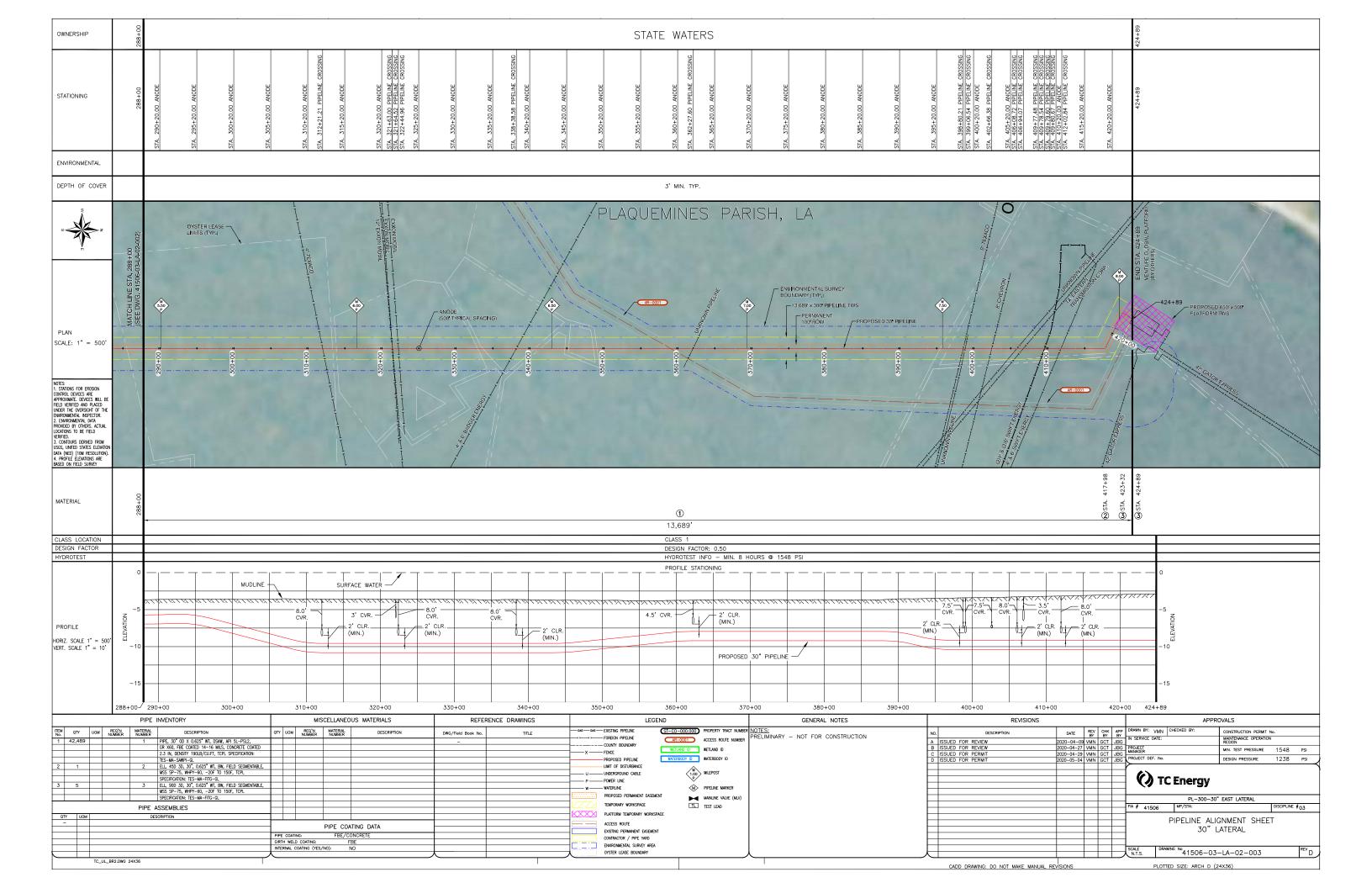
24" EAST LATERAL LINE 300 (STA. 8996+80 ALIGNMENT SHEET# 12E-2-17-B)

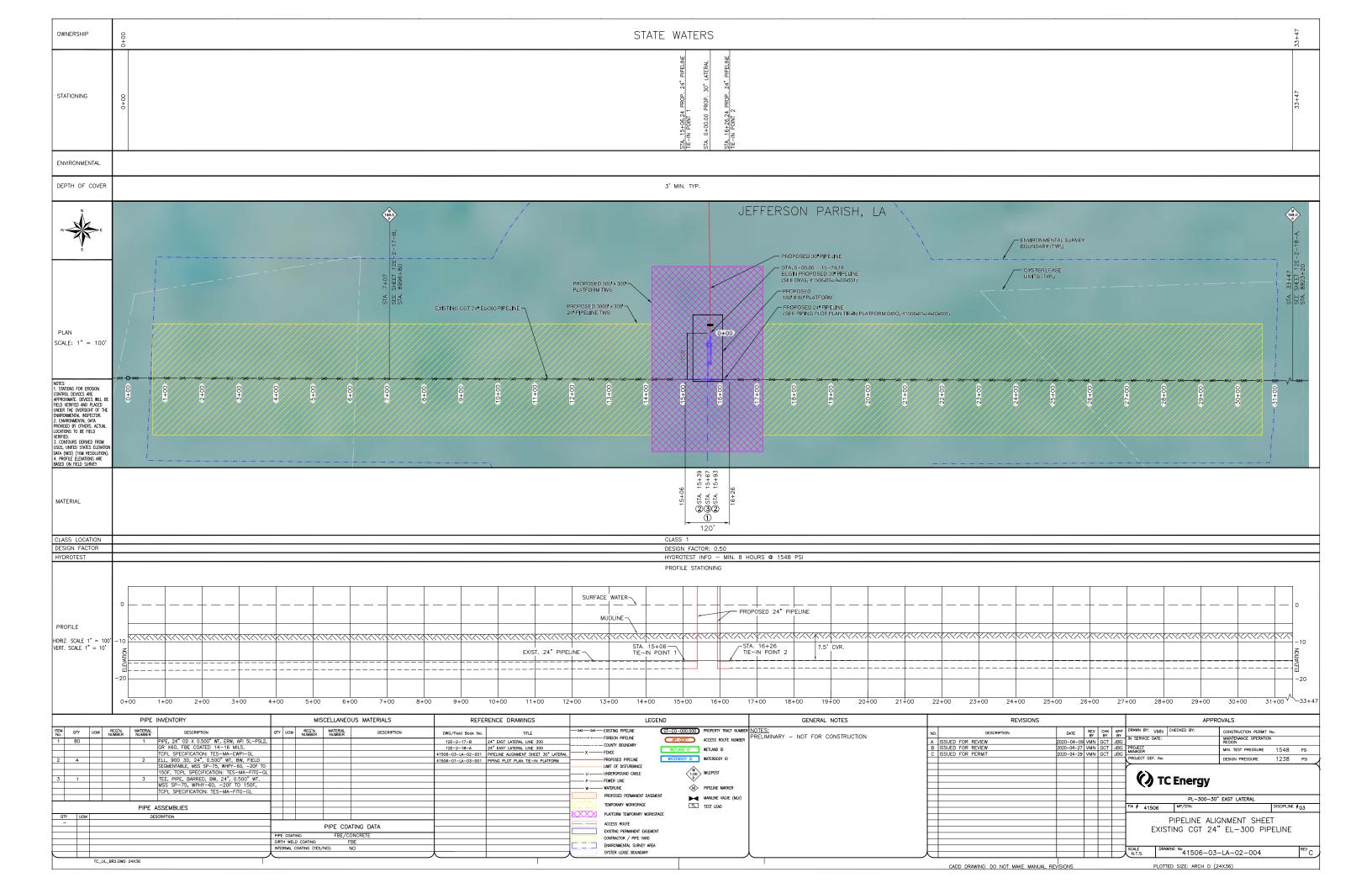
REFERENCE DRAWINGS)(REVISION			APPROVAL							PROFESSIONAL ENGINEER/RPT	PERMIT/ ENG. APPROV	
DRAWING No	TITLE	REV No	DATE	DESCRIPTION		PROJECT CODE	DRAFTER	DRAFTING CHECKER	DESIGNER	DESIGN CHECKER	PROJECT MANAGER	COMPANY			
-		A	2020-04-09 ISSUED FOR REVIE	w		M.001145	VMN	-	LAN	GCT	JBG	SEC			
		В	2020-04-27 ISSUED FOR REVIE	W		M.001145	VMN	-	LAN	GCT	JBG	SEC			l
		С	2020-04-29 ISSUED FOR PERM	NT		M.001145	VMN	-	LAN	GCT	JBG	SEC			
		D	2020-05-04 ISSUED FOR PERM	NT		M.001145	VMN	-	LAN	GCT	JBG	SEC			
															1
													REV. NO.	DATE	PERMIT NUMBER:

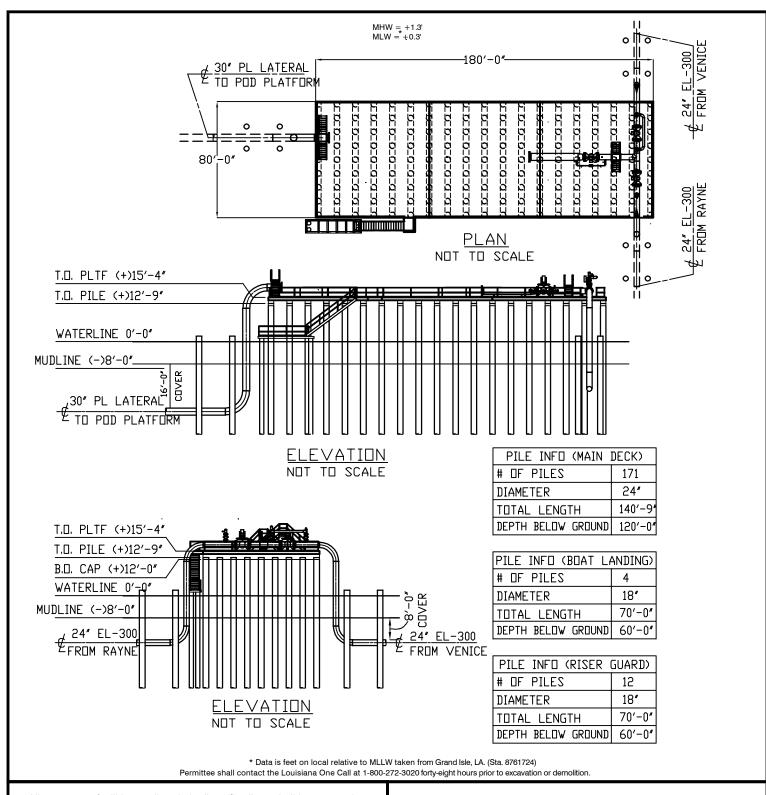












All structures, facilities, well and pipelines/flowlines shall be removed within 120 days of abandonment of the facilities for the herein permitted use. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for such removal activities. All structures will be marked in accordance with U.S. Coast Guard

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

TC ENERGY

PROPOSED 30" PIPELINE ACCESS ROUTES & PLATFORM

PORT SULPHUR, LOUISIANA AREA **BARATARIA BAY** JEFFERSON & PLAQUEMINES PARISH, LOUISIANA

FUGRO USA LAND. INC.

226 DULLES DR. SUITE 110 LAFAYETTE, LA 70506 (337) 237-1300

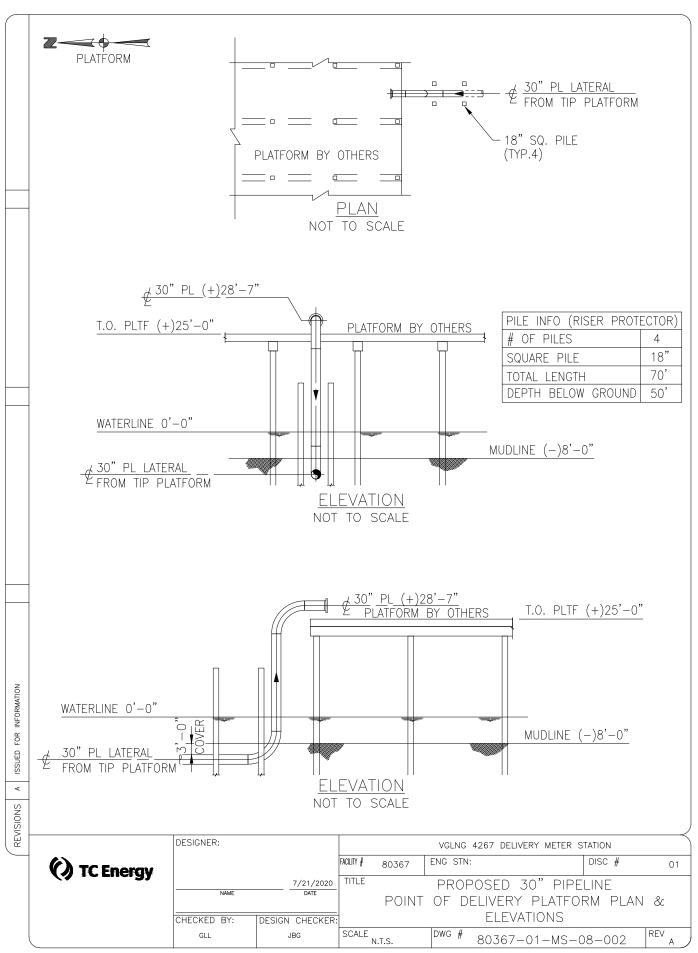
ioro

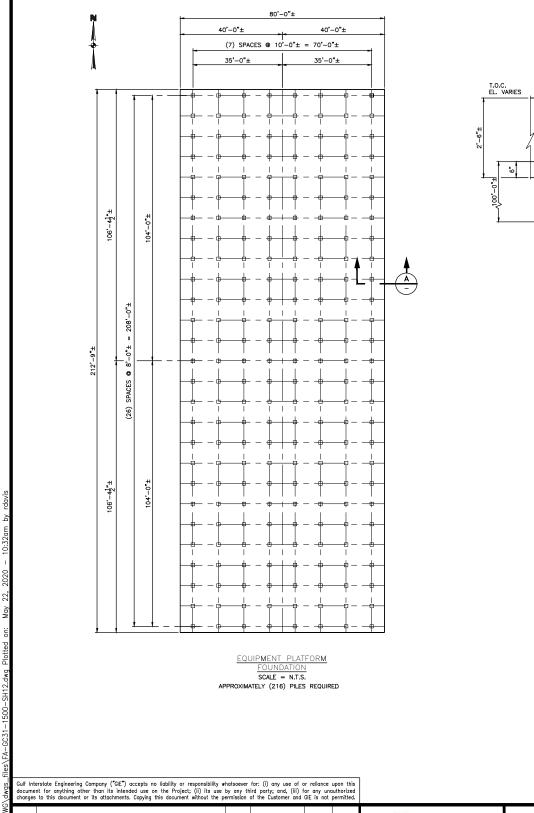
GEODETIC DATUM: NAD83 PROJECTION: LOUISIANA SOUTH GRID UNITS: US SURVEY FEET NOT TO SCALE Job No.: 0455194061 Date: 2/12/20 Drwn: JDD Chart: Of:

Proj. Mgr.: JLT Revised: 4/29/20 Printed: 4/29/20

L:\2020\04.55194061\4000 Processing\4300 CAD\0455194061E

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E PILE -16" SQ. PRECAST PRESTRESSED CONC. PILE (TYP.) SECTION SCALE N.T.S.

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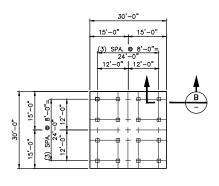
NLS_DWG						(G, GL	JLF	
TYP_DETAILS.						DWN. BY RD -		
(SAD)						CHK. AV	_	
846\Geodata\						PRO□ ENG. AV	_	
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GIS\18	ISSUED FOR USE	RD	05/22/20	AV	DGA	PRO 1846	W.O	
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE N.T.S	S.	



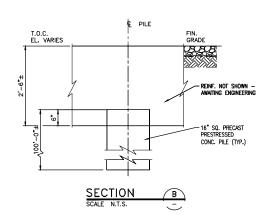
EAST LATERAL XPRESS PROŒCT PROPOSED PIPE CAP DETAILS

DWG. NO.	SHT. NO.	REV.
FA-GC31-1500	12	0

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TRANSFORMER
PLATFORM
FOUNDATION
SCALE: N.T.S.
APPROXIMATELY (16) PILES REQUIRED



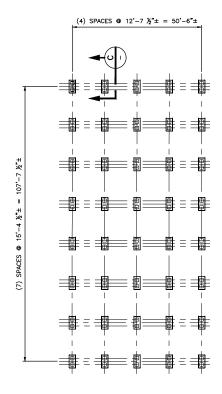
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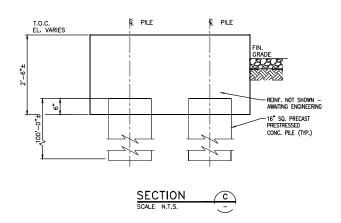


EAST LATERAL XPRESS PROJECT PROPOSED PIPE CAP DETAILS

DWG. NO. FA-GC31-1500	SHT. NO. 13	REV.



 $\frac{\text{GAS COOLERS}}{\text{FOUNDATION}}$ SCALE : N.T.S. APPROXIMATELY (80) PILES REQUIRED



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EAST LATERAL XPRESS PROJECT PROPOSED PIPE CAP DETAILS

DWG. NO. FA-GC31-1500	SHT. NO.	REV.
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