APPENDIX A

ADDITIONAL TABLES

Table 1.3-3

Landowner-Requested Route Adjustments

MP	Date	Landowner Comment	Length of Reroute and difference to the length of route (feet)	Qualitative Discussion of Impacts and Comment Resolution
19.55-19.65	10/26/2016	Wants to propose alternative route on border of property instead of directly through his timber farm	0	Land ownership has changed and current landowner of the affected tract has expressed positive feedback to the current alignment and therefore no changes to the route have been incorporated.
27.31-27.32	10/26/2016	Concern regarding privacy (route proposed to cross through wooded area of property); concerns related to creek on property line - erosion, drainage, flood control	0	Landowner's concerns are noted on the loss of vegetation screening and impacts on the riparian contours. However, by accommodating the landowner's request (re-route on the opposite side of the creek and off his property) this would add two pipeline crossings in a congested area (largely requiring deeper excavations) and shift two hot bends into forested wetland, requiring additional environmental impacts due to increasing the size and construction work space. DWPL highlights the proposed route takes advantage of existing cleared areas for the location of the construction temporary work, minimizing additional tree clearing and forested wetland impacts to the greatest extent possible.
29	10/26/2016	Owns family farm corporation; supports project, but concerned about small parcel along the route	0	Comments were generally positive. Landowner's concern was if pipeline was routed on one of his properties. It is not routed on any of his properties.
32.4	10/25/2016	Land used for agricultural production and livestock; concern due to previous restoration problems after previous pipeline construction and land use.	2,564 (-331 feet change to overall route length)	Property is near but not on the pipeline ROW. Construction temporary workspace will not be required on this property. Will restore to as-found condition. No long-term impacts are expected.
32.5	10/25/2016	Land used for agricultural production and livestock; concern due to previous restoration problems after previous pipeline construction and land use	Part of route change at MP 32.4	Pipeline re-route is on property. Will restore to as-found condition
42.5	10/25/2016	Need clarification regarding 25 foot buffer between pipeline ROWs; concern regarding "wasting the land" between two pipeline ROWs; request pipeline route to be moved closer to existing pipeline on the property	0	Will work with the landowner to minimize the impact of the construction activities
70.84-71.09	10/27/2016	Proposed line would run right through middle of land, affecting use and splitting 22 acres.	0	The current alignment transverses the property to CS-02 and MS-08. Alternatives were evaluated that attempted to be closer to the property boundaries. The result was that any movement to the south affected a larger area of forested wetland areas. An alignment shift to attempt to prevent bisecting the property results in bisect of the properties to the east. The property will be restored to pre-construction conditions.

Table 1.3-3

Landowner-Requested Route Adjustments

MP	Date	Landowner Comment	Length of Reroute and difference to the length of route (feet)	Qualitative Discussion of Impacts and Comment Resolution
76.6	10/27/2016	States that proposed area near another pipeline and waterway further south is hard to access and maintain; requests pipeline crosses at the railroad so landowners can access the area	0	Landowner's concerns are noted. The location of the railways crossing is remote and most likely is not in a location that the railroad commission will allow a special crossing. Access during construction will be along the ROW. Access for the maintenance activities, if required, will be determined at the time of the activity.
76.91-77.29	10/27/2016	States that pipeline is proposed near back of home where there are existing lines; requests that land be taken care of and returned back to condition	0	The Project will restore to original condition.
77.5	10/27/2016	Outlines condition of Boar's Bayou post pipeline construction along with requesting specific restoration and soil segregation process	0	The Project will restore property to original condition. Topsoil will be segregated for use after pipeline installation.
78	10/27/2016	Four existing pipelines on property; planned use for property affected by proposed pipeline; less building space	0	Property will not be affected as there are 3 existing ROWs between the Pipeline and property corner.
78	10/27/2016	Requests pipeline should be constructed as close to existing Kinder Morgan pipeline ROW as possible to avoid altering existing drainage.	0	Project is committed to restoring the land to original contours
79	10/27/2016	Meter Station 13 should be collocated with other aboveground facilities	0	The location of Meter Station 13 is adjacent to an existing road and connects with two existing pipelines. This location also is within cultivated fields. No changes have been implemented in response to this comment.
85	10/27/2016	No existing pipeline on property; route would be cutting into non-affected land; landowner requests pipeline take another route by following existing pipeline; meter station in fields where no meter station currently exists	0	Across street from CS-03 and next door to existing Transco compressor station. Pipeline or CS-03 will not be on the noted property
86.8	10/27/2016	Requesting that ROW be moved closer to the fence south of the proposed route so it does not cut pasture in half; has no issues with pipeline closer to road because of existing gravel	2,929 (+52 feet change to overall route length)	Pipeline re-routed closer to fence as to not to divide land.
93.41-93.48	10/27/2016	States that 4 pipelines already exist on property; proposed pipeline will cause landowner to lose 50 foot of ROW and lose 8 to 12 trees	2,545 (+566 feet change to overall route length)	Pipeline re-routed off property and affected trees.

Table 1.3-3

Landowner-Requested Route Adjustments

MP	Date	Landowner Comment	Length of Reroute and difference to the length of route (feet)	Qualitative Discussion of Impacts and Comment Resolution
93.5		Objects to another pipeline crossing the property. Already several lines and additional line will remove mature oak trees.		Pipeline route has been revised to avoid property.

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
Federal					
FERC	Section 3(a) and Section 7(c) – NGA	Kimberly D. Bose, Secretary 888 First Street, NE, Room 1A Washington, DC 20426 (202) 502-8325	March 2017	(January 2019)	Initiated consultation on May 5, 2016
DOE/FE	Section 3 Application – NGA	Amy Sweeney, Division of Natural Gas Regulation, Director 1000 Independence Avenue SW, Room 3E-052 Washington DC 20585 (202) 586-2627	July 2016	FTA Nations: February 28, 2017 (Non-FTA Nations: Q1 2019)	Initiated consultation on May 5, 2016
COE	Section 404	James W. Little, Jr. Regulatory New Orleans District (OD-S) P.O. Box 44487 Baton Rouge, LA 70804-4487 (225) 342-3099	March 31, 2017	(December 2018)	Project coordination meeting held on June 14, 2016; JEM meeting on November 15, 2016; consultations ongoing
	Section 408	India A. Sims Operations New Orleans District P.O. Box 60267 New Orleans, LA 70160 (804) 931-6505	March 31, 2017	Not Applicable, based on agency discussion	
	Section 10 (Rivers and Harbors Act)	James W. Little, Jr. Regulatory New Orleans District (OD-S) P.O. Box 44487 Baton Rouge, LA 70804-4487 (225) 342-3099	March 31, 2017	(December 2018)	

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
USCG	Letter of Intent and Preliminary Water Suitability Assessment	LT Dimitri Wiener Chief, Inspections Division MSU Lake Charles 127 West Broad Street, Suite 200 Lake Charles, LA 70601-5680 (337) 491-7810	May 10, 2016	June 21, 2016	Complete
	Follow-on Water Suitability Assessment and Letter of Response		January 2017; March 7, 2017	April 25, 2017	Complete
USFWS	Section 7 of Endangered Species Act Consultation	Amy Trahan, T&E Species and Coastal Restoration Biologist 646 Cajundome Blvd. Suite 400, Lafayette, LA 70506 (337) 2913126	June 24, 2016	September 19, 2017	Complete
NOAA Fisheries	Section 7 of Endangered Species Act Consultation	Richard Hartman, Habitat Conservation Division Military Science Building, Room 266 South Stadium Drive Baton Rouge, LA 70803 (225) 389-0508	October 16, 2017	February 14, 2018	Complete
	Magnuson-Stevens Fishery Management and Conservation Act Essential Fish Habitat Consultation		August 21, 2018; August 25, 2017; September 13, 2017; September 25, 2017	October 3, 2017	Complete
	Marine Mammal Protection Act Consultation		August 21, 2018; August 25, 2017; September 13, 2017; September 25, 2017	(February 2018)	Complete
U.S. Federal Aviation Administration	Notification of Proposed Construction	Kevin L. Solco, Southwest Regional Administrator 10101 Hillwood Parkway Fort Worth TX 76177-1524 (817) 222-5001	May 5 2017; February 6, 2018/, February 23, 2018	June 27, 2017 (39 cases approved); March 7, 2018 (4 cases approved)	Complete
	Possibly Affecting Navigable Air Space		May 2017	June 27, 2017 (39 cases) November 6, 2017	Complete
FEMA	Permit for Floodplain Development	Tony Robinson, Regional Administrator, Region 6 FRC 800 North Loop 288 Denton, TX 76209-3698 (940) 898-5399	N/A	N/A	Initiated correspondence on May 4, 2016; No permit to be obtained from FEMA; directed to coordinate floodplain permitting review with parish floodplain administrator

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
USDOT	RR 11 and 13 approvals	Stacy Cummings, Interim Executive Director East Building, 1200 New Jersey Avenue, SE Washington, D.C. 20590	March 31, 2017	December 11, 2017 (letter of no objection)	Complete
PHMSA	RR 11 and 13 approvals	M. "Buddy" Secor, Jr. PE, Engineering Supervisor 1200 New Jersey Avenue, SE, E22-209 Washington, DC 20590 (202) 493-0452	March 2017	December 11, 2017 (letter of no objection)	Complete
United States Department of Agriculture – Natural Resources Conservation Service	Wetlands Reserve Program easements and Prime Farmland	Dr. Mike Lindsey, Soil Scientist 3737 Government Street Alexandria, LA 71302	October 19,2016	Received clearance on Prime farmland exemption 1/17/17, WRP easement exemption received May 2, 2017	Complete
State					
LDNR – Coastal Management Division	Coastal Use Permit and Coastal Zone Consistency Permit, Joint permit with COE	Ontario James, Office of Coastal Management P.O. Box 44487 Baton Rouge, LA 70804 (225) 342-7358	March 31, 2017	May 29, 2018	Complete
LDEQ – Air Quality Division	Air Permit for LNG Terminal	Yanfu Zhao, Administrator Air Permits Division P.O. Box 4301 Baton Rouge, LA 70821-4301 (225) 219-3613	March 29, 2017	July 10, 2018	Complete
	Air Permit for CS-01		March 29, 2017	October 2, 2017	Complete
	Air Permit for CS-02		(Q1 2019)	(Q4 2019)	Consultations ongoing
	Air Permit for CS-03		(Q4 2019)	(Q2 2021)	Consultations ongoing
Louisiana Department of Health	Sanitary System/Septic Tank/Mechanical Treatment Systems	Office of Public Health	(Q1 2019)	(Q4 2019)	Authorized in conjunction with the LPDES permit
LDEQ – Water Quality Division	Hydrostatic Test Water Discharge General Permit	Scott Guillams Administrator Water Permits Division P.O. Box 4313 Baton Rouge, LA 70821-4313	(Q2 2019)	(Q2 2019)	Notification to Regional Offices concurrent with construction schedule
	Industrial Discharge Permit		(Dec 2019)	(Dec 2020)	Consultations ongoing
	Industrial Stormwater (Operation) Discharge Permit		N/A - Exempt	N/A	
	Water Quality Certification		March 2017	(December 2018)	

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
	General Construction Stormwater Permit		N/A - Exempt	N/A	
LDWF and the Louisiana Natural Heritage Program	Threatened and Endangered Species Consultation	Dave Butler, Permits Coordinator P.O. Box 98000 Baton Rouge, LA 70898 (225) 763-3595	June 2016	(December 2018)	Consultations ongoing
	State Natural and Scenic Rivers	Chris Davis, Biologist P.O. Box 98000 Baton Rouge, LA 70898 (225) 765-2642	(Q1 2019)	(Q2 2019)	Consultations ongoing
Louisiana SHPO	Section 106 Consultation	Phil Boggan, Acting SHPO 1051 North Third Street P.O. Box 44247 Baton Rouge, LA 70804 (225) 342-8200	Submitted Cultural Survey Report (LNG Facility) on June 9, 2016	Concurrence received June 29, 2016	
			Submitted Cultural Survey Report (Pipeline) on October 31, 2016	Concurrence received November 22, 2016	
			Submitted Addendum Report in March 2017	Concurrence received April 13, 2017	
LADOTD	ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	Roger Moses P.O. Box 1430 Lake Charles, LA 70602 800-762-1852	(Q1 2019)	(Q4 2019)	Initiated correspondence on May 4, 2016
Parish					
Calcasieu Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement, Building and Construction Permit	Dana Watkins, Permit Coordinator 902 Lakeshore Dr. Lake Charles, LA 70602 (337) 721-3600	(Q4 2018)	(February 2019)	Initiated correspondence
Jefferson Davis Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	P.O. Box 1409 Jennings, LA 70546 (337) 824-4792	(Q4 2018)	(February 2019)	None

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
Acadia Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	Elaine Credeur, Permit Clerk 1029 Capitol Ave Crowley, LA 70526 (337) 788-4999	(Q4 2018)	(February 2019)	None
Evangeline Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	Rachel West, Permit Secretary/ Receptionist 1008 W. LaSalle St. Ville Platte, LA 70586 (337) 363-5651	(Q4 2018)	(February 2019)	None

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
0.9	scaa026	V.B.2.a	ATWS less than 50 feet from waterbody (50'x103')	Roadside ditch with road crossing and house	Approved
1.1	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.2	wcaa010s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.2	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.2	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x108' and 75'x310')	Extensive wetland crossing and no ability to relocate out of wetland; road crossing and large waterbody crossing requiring extra spoil storage	Approved
1.3	wcaa010s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.3	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x184')	Extensive wetland crossing and no ability to relocate out of wetland; road crossing requiring extra spoil storage	Approved
1.4	scaa027	V.B.2.a	ATWS less than 50 feet from waterbody (50'x184')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
1.4	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.5	wcaa011s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.5	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.6	wcaa011s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x363')	Extensive wetland crossing and no ability to relocate out of wetland; multiple pipeline crossings requiring extra workspace and extra spoil storage for boring	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
1.6	wcaa011s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.7	wcaa011s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (0.33 ac, 10'x292', and 50'x558')	Extensive wetland crossing and no ability to relocate out of wetland; multiple points of inflection requiring extra workspace and extra spoil storage; extra space needed for road bore of Hwy 27; meter station construction	Approved
1.7	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.9	scaa029	V.B.2.a	ATWS less than 50 feet from waterbody (50'x558')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
1.9	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.9	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
2.7	wcaa013e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x150')	Extensive wetland crossing with road crossing and waterbody crossing requiring extra spoil storage	Approved
2.8	wcaa013e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
2.8	scaa031	V.B.2.a	ATWS less than 50 feet from waterbody (50'x157')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
2.9	wcaa012e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x157')	Extensive wetland crossing with road crossing and waterbody crossing requiring extra spoil storage	Approved
5.0	NWI_106	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	No survey was available to NWI data was used; wetland appears to be mapped in the wrong location	No variance required here; incorrect wetland location	Approved
5.8	wcae014f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (50'x122', 50'x269', and50'x150')	Extensive wetland crossing with multiple road and waterbody crossings requiring extra spoil storage	Approved
6.1	wcae015f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
6.1	wcae015e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x1240')	Workspace for HDD pullback string needed	Approved
6.2	wcae015s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x150')	Extensive wetland crossing with road crossing and waterbody crossing requiring extra spoil storage	Approved
7.1	scae021	V.B.2.a	ATWS less than 50 feet from waterbody (0.71 ac)	Roadside ditch with road crossing at HDD entry	Approved
7.1	scae021	V.B.2.a	ATWS less than 50 feet from waterbody (0.56 ac)	Roadside ditch with road crossing at HDD entry	Approved
7.8	scae016	V.B.2.a	ATWS less than 50 feet from waterbody (50'x316')	Roadside ditch with road crossing and major waterbody crossing; nowhere else to store spoil	Approved
8.4	wcae010f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
8.4	wcae010f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
8.5	wcae010f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Two ATWS in wetland (20'x300' and 130'x300')	HDD exit workspace required but unable to avoid wetland due to presence of structures and other wetlands	Approved
9.0	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
9.1	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
9.1	wcaa016f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetlands (0.89 ac and 50'x500')	Extra workspace associated with HDD entry, multiple points of inflection, and large amounts of spoil in extensive wetland that cannot be avoided	Approved
9.3	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
9.7	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.1	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.1	wcaa016f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x813' and 1.08 ac)	HDD entry location and point of inflection that require large workspace and spoil storage in an extensive wetland	Approved
10.1	wcag007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.2	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.3	wcaa016f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.5	wcac001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.6	wcac001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Two ATWS in wetland (130'x300' and 20'x300')	HDD exit workspace required but located in extensive wetland with no ability to relocate outside wetland	Approved
10.7	wcac001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.1	wcac001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.2	wcac001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (130'x300')	Extensive wetland requiring extra workspace for mats for wetland crossings and turnaround for equipment in extensive wetland	Approved
11.5	wcac001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.7	scac007	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Roadside ditch with road crossing in extensive wetland; highway crossing with extra workspace needed for bore	Approved
11.7	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x959')	Extensive wetland with multiple points of inflection requiring extra spoil storage; no ability to relocate out of wetland	Approved
11.9	wcac005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.9	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.9	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.9	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x353')	Extra workspace needed for road crossing and waterbody crossings in extensive wetland	Approved
12.1	scaa035	V.B.2.a	ATWS less than 50 feet from waterbody	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
12.1	scaa034	V.B.2.a	ATWS less than 50 feet from waterbody	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
12.1	wcaa014f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
12.1	wcaa014e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
12.2	wcaa014e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (0.53 ac)	Extra workspace needed for spoil and equipment storage for road crossing in extensive wetland	Approved
12.2	wcaa014f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x318')	Extra workspace needed for spoil storage and construction equipment at multiple points of inflection in extensive wetland	Approved
12.2	wcaa015f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x682' and 150'x200')	Extra workspace needed for spoil and equipment storage for multiple road and waterbody crossings in extensive wetland	Approved
12.5	wcac004e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
12.5	scaa037	V.B.2.a	ATWS less than 50 feet from (150'x200')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
12.5	scac006	V.B.2.a	ATWS less than 50 feet from waterbody (50'x150')	Roadside ditch with road crossing and residential land with no relocation option	Approved
12.6	wcac004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x331' and 200'x202')	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing	Approved
13.0	NWI_05	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	ATWS in wetland (200'x198')	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing	Approved
13.0	NWI_04	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.1	NWI_04	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.2	scac003	V.B.2.a	ATWS less than 50 feet from waterbody (50'x209')	Multiple pipeline crossings with limited space for spoil storage	Approved
13.2	NHD_16	V.B.2.a	ATWS less than 50 feet from waterbody	Multiple pipeline crossings with limited space for spoil storage	Approved
13.2	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.2	wcac002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.4	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.5	wcac002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.6	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.6	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.7	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (1.13 ac)	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing	Approved
13.8	wcaa008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (0.42 ac, 1.11 ac, and 50'x150')	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing; truck turnaround	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Five ATWS in wetland (50'x154', 50'x396', 50'x168', 50'x243', and 50'x386')	Extra space needed for waterbody crossings, foreign pipeline crossings, and points of inflection in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (1.52 ac and 90'x200')	HDD entry location and point of inflection that require large workspace and spoil storage in an extensive wetland	Approved
15.2	wcaa009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.2	wcaa001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.4	wcaa001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.5	wcaa001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.9	wcae001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
16.0	wcae001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
16.7	wcae001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
16.8	wcae002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x150')	Extensive wetland with waterbody crossings and road crossings requiring extra spoil and equipment storage	Approved
16.9	scae006	V.B.2.a	ATWS less than 50 feet from waterbody (50'x150')	Extensive wetland with waterbody crossing requiring extra workspace for spoil and equipment storage for crossing	Approved
17.0	wcae003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x272')	Extensive wetland with extra spoil storage needs due to numerous points of inflection and road crossing	Approved
17.2	wcae003e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
17.2	wcae003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x162' and 50'x162')	Extensive wetland with waterbody crossing requiring extra workspace for spoil and equipment storage for crossing	Approved
17.4	wcaa002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
17.4	wcaa002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (200'x200', 50'x79', and90'x198')	Workspace needed for HDD exit in extensive wetland	Approved
17.7	NWI_06	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
17.9	wcae004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (90'x200' and 200'x200')	Workspace needed for HDD entry in extensive wetland	Approved
		VI.B.1.a	ATWS in wetland (50'x352')	Foreign pipeline crossing in extensive wetland and extra spoil storage needed for boring pipeline	Approved
		VI.B.1.a	Two ATWS in wetland (50'x151' and 50'x151')	Extra workspace needed for spoil storage at waterbody crossing in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x151')	Extra workspace needed for spoil storage at waterbody crossing in extensive wetland	Approved
		VI.B.1.a	ATWS in wetland (50'x181')	Extra spoil and equipment storage for road crossing in extensive wetland	Approved
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.8	wcae011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (1.33 ac)	Extra workspace needed partially in wetland for multiple road crossings and points of inflection	Approved
18.8	wcae011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (0.28 ac)	Extra workspace needed n wetland for multiple road crossings and points of inflection	Approved
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.9	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x159')	Extra workspace needed in extensive wetland for road crossing extra spoil and equipment storage	Approved
18.9	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.9	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x198' and 50'x182')	Extra workspace needed in extensive wetland for waterbody crossing extra spoil and equipment storage	Approved
19.1	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
19.2	wcae005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
19.2	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
19.5	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Twp ATWS in wetland (50'x159' and 50'x268')	Extra workspace needed in extensive wetland for waterbody crossing extra spoil and equipment storage	Approved
19.7	wcae006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x154' and 50'x153')	Extra workspace needed in extensive wetland for waterbody crossing extra spoil and equipment storage	Approved
19.9	wcae007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
19.9	wcae007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.1	wcae007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.1	wcae007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.2	wcae007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (150'x439' and 150'x385')	Equipment and mat storage area in extensive wetland	Approved
20.3	wcae008e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.3	wcae008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.4	wcae008e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (150'x296')	Equipment and mat storage area in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (0.52 ac and 0.52 ac)	Extra workspace needed for spoil and equipment storage at railroad and foreign pipeline crossings in extensive wetland	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
20.6	wcae008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.6	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.6	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.6	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.7	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.8	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.8	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.3	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x275')	Extra workspace needed for spoil and equipment storage in extensive wetland due to multiple points of inflection	Approved
21.5	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.5	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.6	scaa015	V.B.2.a	ATWS less than 50 feet from waterbody (0.21 ac)	Roadside ditch with road crossing in extensive wetlands	Approved
21.6	scaa014	V.B.2.a	ATWS less than 50 feet from waterbody (50'x276')	Roadside ditch with road crossing in extensive wetland	Approved
21.6	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.6	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
21.6	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.8	scaa017	V.B.2.a	ATWS less than 50 feet from waterbody (50'x180')	Presence of multiple streams and wetlands makes siting more than 50feet impossible	Approved
21.8	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x309')	Extra workspace needed in extensive wetland for waterbody crossing and points of inflection extra spoil and equipment storage	Approved
		VI.B.1.a	Four ATWS in wetland	Extra workspace needed in extensive wetland for extra spoil and equipment storage	Approved
22.5	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
22.6	NWI_07	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
22.8	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x477')	Extra workspace needed in extensive wetland for waterbody crossing and points of inflection extra spoil and equipment storage	Approved
23.2	wcaa003s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x211')	Extra workspace needed in extensive wetland for points of inflection extra spoil and equipment storage	Approved
23.2	wcaa003s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.2	wcaa003s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.3	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.5	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Two ATWS in wetland (75'x300' and 0.49 ac)	HDD entry workspace needed in extensive wetland	Approved
23.6	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.7	wcaa005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.8	scaa013	V.B.2.a	ATWS less than 50 feet from waterbody (50'x50')	Narrow space needed to obtain hydrostatic test water. Limited disturbance.	Approved
23.8	wcag006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.8	wcag006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.9	NWI_11	VI.B.1.a	ATWS in wetland	Hydrostatic test water access for HDD in extensive wetland. Width will be limited to vehicle width.	Approved
24.0	NWI_11	VI.B.1.a	ATWS in wetland	Hydrostatic test water access for HDD in extensive wetland. Width will be limited to vehicle width.	Approved
24.5	NWI_12	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x3037')	HDD pullback string must cross wetland	Approved
24.8	NHD_109	V.B.2.a	ATWS less than 50 feet from waterbody	HDD pullback string must cross waterbody	Approved
25.5	NWI_13	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
25.5	NWI_14	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x173')	Extra spoil and equipment storage for road crossing in extensive wetland	Approved
25.7	wcag004e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
25.8	NWI_15	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
25.9	NWI_16	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
26.2	wcag002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
26.3	wcag002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x943')	Extra spoil and equipment storage in extensive wetland needed for multiple points of inflection and foreign pipeline crossings	Approved
27.4	wcaf007s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS less than 50 feet from wetland (0.78 ac)	Extra workspace needed adjacent to ROW for multiple points of inflection and wetland crossing spoil storage	Approved
		VI.B.1.a	ATWS in wetland (0.42 ac)	Extra workspace needed in wetland for multiple points of inflection and wetland crossing spoil storage	Approved
27.6	wcaf007s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
27.6	scaf020	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Roadside ditch with road crossing. Residential area with limited workspace.	Approved
27.6	scaf019	V.B.2.a	ATWS less than 50 feet from waterbody (50'x142')	Roadside ditch with road crossing. Residential area with limited workspace.	Approved
27.7	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x152')	Extra spoil and equipment storage needed for waterbody crossings in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (50'x353' and 50'x155')	Extra spoil and equipment storage needed for waterbody crossing and foreign pipeline bore in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x150')	Extra spoil and equipment storage needed for waterbody crossing in extensive wetland	Approved
27.7	scaf018	V.B.2.a	ATWS less than 50 feet from waterbody (50'x353')	Waterbody crossing in extensive wetland	Approved
27.8	scaf014	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Waterbody crossing in extensive wetland	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
28.3	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x165')	Extra spoil and equipment storage needed for road crossing in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (50'x168' and 50'x168')	Extra spoil and equipment storage needed for waterbody crossing in extensive wetland	Approved
28.5	scaf012	V.B.2.a	Two ATWS less than 50 feet from waterbody(50'x168' and 50'x168')	Waterbody crossing in extensive wetland	Approved
28.9	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
28.9	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x265')	Extra spoil and equipment storage needed for foreign pipeline crossing in wetland	Approved
29.0	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x289')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing and point of inflection	Approved
29.1	wcaf003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x223')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing	Approved
		VI.B.1.a	ATWS in wetland (50'x150')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing	Approved
29.2	wcaf002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x150')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing	Approved
29.2	scaf011	V.B.2.a	ATWS less than 50 feet from waterbody (50'x150')	Roadside ditch with road crossing in extensive wetland	Approved
29.3	wcaf002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
29.3	wcaf002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
29.3	wcaf002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
29.3	wcaf002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x519')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to foreign pipeline crossing and points of inflection	Approved
		VI.B.1.a	Two ATWS in wetland (50'x159' and 50'x159')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to waterbody crossing	Approved
		VI.B.1.a	Three ATWS in wetland (50'x153', 50'x329', and 50'x155')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to two waterbody crossings	Approved
29.6	scaf007	V.B.2.a	ATWS less than 50 feet from waterbody (50'x159' and50'159')	Ditch crossing in extensive wetland	Approved
30.2	NWI_107	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
30.2	scaf006	V.B.2.a	ATWS less than 50 feet from waterbody (50'x153' and50'x329')	Waterbody crossing in extensive wetland	Approved
30.3	scaf005	V.B.2.a	ATWS less than 50 feet from waterbody (50'x329' and50'x155')	Waterbody crossing in extensive wetland	Approved
30.8	wcaf001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
30.8	scaf004	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Pipeline crossing in residential area with limited workspace	Approved
30.9	wcaf001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x155')	Extra workspace needed in wetland for extra spoil and equipment storage due to foreign pipeline crossing	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
30.9	wcaf001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x151' and 50'x330')	Extra workspace needed in wetland for extra spoil and equipment storage due to waterbody crossing and point of inflection	Approved
31.1	wcaf001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x222')	Extra workspace needed in wetland for extra spoil and equipment storage due to point of inflection	Approved
31.2	wcab002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x150')	Extra workspace needed in wetland for extra spoil and equipment storage due highway crossing	Approved
31.6	wcab002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
31.9	wcab002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x150' and 50'x150')	Extra workspace needed in wetland for extra spoil and equipment storage due to waterbody crossing	Approved
32.1	wcab002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
32.9	wcab004e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
32.9	wcab004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x153' and 50'x155')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to waterbody crossing	Approved
33.8	wcab004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x368')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to foreign pipeline crossing	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
34.1	NWI_17	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
36.7	NWI_18	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
37.3	NWI_19	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x66')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to waterbody crossing	Approved
37.4	wjeb009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved [a]
37.4	NWI_20	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved [a]
		VI.B.1.a	ATWS in wetland (60'x200')	Extra workspace in extensive wetland needed for HDD exit workspace equipment and spoil storage	Not Approved [a]
37.4	NWI_20	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved [a]
		VI.B.1.a	ATWS in wetland (60'x200')	Extra workspace in extensive wetland needed for HDD exit workspace equipment and spoil storage	Not Approved [a]
37.6	wjeb009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved [a]
		VI.B.1.a	ATWS in wetland (10'x779')	Limited ATWS needed in extensive wetland for withdrawal of hydrostatic test water. Limited to width of vehicle.	Approved[a]
38.0	wjeb009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
38.1	wjeb009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x300' and 50'x530')	Extra workspace in extensive wetland needed for HDD entry workspace equipment and spoil storage	Approved
		VI.B.1.a	ATWS partially in wetland (50'x859')	Extra workspace in extensive wetland needed spoil and equipment storage due to foreign pipeline crossing and point of inflection	Approved
		VI.B.1.a	ATWS partially in wetland (50'x350')	Extra workspace in extensive wetland needed for spoil and equipment storage due to foreign pipeline crossing	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
38.3	NWI_21	VI.B.1.a	ATWS partially in wetland (50'x262')	Extra workspace in extensive wetland needed spoil and equipment storage due to waterbody crossings	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS less than 50' from wetland (50'x201')	Extra workspace needed close to extensive wetland for spoil and equipment storage due to wetland crossing and points of inflection	Approved
38.8	NWI_21	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
38.9	NWI_21	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
39.7	wjeb009s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.1	NWI_22	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.3	wjeb008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.6	sjeb027	V.B.2.a	ATWS less than 50 feet from waterbody (50'x160')	Waterbody crossing in extensive wetland	Approved
40.6	wjeb008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Four ATWS in wetland (50'x160', 50'x459', 50'x367', and 50'x158')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple waterbody crossings	Approved
		VI.B.1.a	ATWS in wetland (50'x347')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple points of inflection	Approved
40.6	NWI_108	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.7	sjeb028	V.B.2.a	ATWS less than 50 feet from waterbody (50'x367')	Waterbody crossing in extensive wetland	Approved
40.8	sjeb025	V.B.2.a	ATWS less than 50 feet from waterbody (50'x367')	Waterbody crossing in extensive wetland	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
40.8	sjeb026	V.B.2.a	ATWS less than 50 feet from waterbody (50'x367')	Waterbody crossing in extensive wetland	Approved
40.9	Wjeb008	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x375')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple points of inflection	Approved
41.4	wjeb007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
41.4	wjeb007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
41.9	wjeb006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x318' and 50'x178')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
43.0	wjeb005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x179')	Extra workspace in wetland needed for spoil and equipment storage due to highway crossing bore	Approved
43.1	sjeb020	V.B.2.a	ATWS less than 50 feet from waterbody	Roadside ditch with road crossing in extensive wetland	Approved
43.1	sjef001	V.B.2.a	ATWS less than 50 feet from waterbody	Roadside ditch with road crossing in extensive wetland	Approved
43.1	wjef001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x175')	Extra workspace in wetland needed for spoil and equipment storage due to highway crossing bore	Approved
43.2	wjef001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
43.3	wjef001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x177')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
43.7	wjef002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (50'x265', 50'x221', and 50'x279')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing and point of inflection	Approved
45.0	wjez005s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
45.8	wjez006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x188')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing	Approved
45.8	wjez006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
46.8	wjez008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
46.9	wjez008e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.0	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Five ATWS in wetland (50'x301', 50'x75', 50'x288', 50'x217', and 50'x183')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple waterbody crossings	Approved
47.1	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.1	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
47.2	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.3	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (200'x200')	Extra workspace in extensive wetland needed for storage of mats and equipment and for truck turnaround	Approved
47.4	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.4	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.7	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.8	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.0	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.0	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x206')	Extra workspace in extensive wetland needed for spoil and equipment storage due to point of inflection	Approved
48.1	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
48.7	wjey006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.0	wjey006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.0	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.0	wjey006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.1	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.4	wjey003e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.8	wjey001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.8	wjey001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.8	wjey001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x154' and 50'x160')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossings	Approved
49.9	wjey001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
51.6	wjez002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
52.0	wjez003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
52.0	wjez004s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
53.2	wjeh007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
53.2	wjeh006e	VI.B.1.a	ATWS in wetland (50'x155')	Extra workspace in extensive wetland needed for spoil and equipment storage due to canal crossing	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x153')	Extra workspace in extensive wetland needed for spoil and equipment storage due to canal crossing	Approved
53.2	wjeh006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x152')	Extra workspace in extensive wetland needed for spoil and equipment storage due to highway crossing	Approved
54.5	wjeb002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
54.5	sjeb008	V.B.2.a	ATWS less than 50 feet from waterbody (50'x154')	Roadside ditch with road crossing in extensive wetland	Approved
55.1	wjeb002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x155')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
55.8	wjeb002e	VI.B.1.a	ATWS in wetland (90'x300')	Extra workspace in extensive wetland needed for equipment staging for HDD exit	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
55.8	wjeb002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (20'x400')	Extra workspace in extensive wetland needed for equipment staging for HDD entry	Approved
		VI.B.1.a	ATWS in wetland (130'x400')	Extra workspace in extensive wetland needed for equipment staging for HDD entry	Approved
56.3	wjeb001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
56.3	wjeb001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
64.7	wjeb003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
64.7	wjeb003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
64.8	wjeb003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
66.6	NWI_26	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.2	NWI_26	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (25'x300' and 70'x300')	Extra workspace in extensive wetland needed for equipment staging for HDD entry	Approved
67.3	NWI_27	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.4	NWI_26	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.4	NWI_27	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.5	wacb007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.5	wacb007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.7	wacb004s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS less than 50 feet from wetland (25'x300'and 0.47 ac)	Extra workspace in extensive wetland needed for equipment staging for HDD exit	Approved
67.9	wacb006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.0	wacb005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
68.0	wacb005s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.0	wacb005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.0	wacb006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.1	wacb006s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x138')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
68.3	wacb002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.3	wacb002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.3	wacb002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x139' and 50'x118')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
68.5	sacb009	V.B.2.a	ATWS less than 50 feet from waterbody (50'x139' and50'x118')	Waterbody crossing in extensive wetland	Approved
68.6	wacb002s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
70.0	wacb001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
70.6	NWI_28	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x181')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing	Approved
71.6	sacb015	V.B.2.a	ATWS less than 50 feet from waterbody	Within Compressor Station 02 site	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
71.6	sacb016	V.B.2.a	ATWS less than 50 feet from waterbody	Within Compressor Station 02 site	Approved
71.9	wacc002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x335' and 50'x170')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing and points of inflection	Approved
72.1	wacc002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
72.2	wacc002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS partially in wetland (50'x526')	Extra workspace in wetland needed for spoil and equipment storage due to multiple points of inflection	Approved
74.2	waca001e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands of 573 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
		VI.B.1.a	ATWS in wetland (50'x149' and 50'x123')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing and road crossing	Approved
75.1	NWI_29	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
75.1	wevc001f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
75.9	wevc004f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
76.1	wevc003f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
		VI.B.1.a	Two ATWS in wetland (50'x153' and 50'x145')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing	Approved
		VI.B.1.a	ATWS in wetland (0.86 ac)	Extra workspace in wetland needed for spoil and equipment storage due to large railroad crossing	Approved
76.6	NWI_30	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	ATWS in wetland (200'x200')	Extra workspace needed for equipment staging because equipment may not pass over railroad tracks and will need to be staged to move around	Approved
		VI.B.1.a	ATWS less than 50' from wetland (50'x389')	Extra workspace needed for spoil storage due to multiple points of inflection	Approved
76.9	NWI_30	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
80.5	weva009f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.3	wevb013e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
		VI.B.1.a	Two ATWS in wetland (50'x164' and 50'x162')	Extra workspace in wetland needed for spoil and equipment storage due to road crossing	Approved
82.4	wevb013e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
84.5	sevb050	V.B.2.a	ATWS less than 50 feet from waterbody	Within Compressor Station 03 site	Approved
87.2	wevb004e	VI.B.1.a	ATWS in wetland (50'x111')	Extra workspace in wetland needed for spoil and equipment storage due to road crossing	Approved
87.9	wevb006e	VI.B.1.a	ATWS in wetland (2.33 ac)	Extra workspace in wetland needed for equipment siting for HDD entry	Approved
91.3	weva007e	VI.B.1.a	ATWS less than 50 feet from wetland (50'x171')	Extra workspace needed for soil and equipment storage for road crossing	Approved
92.8	weva003e	VI.B.1.a	ATWS less than 50 feet from wetland (50'x217')	Extra workspace needed for soil and equipment storage for road crossing	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
93.5	weva001e	VI.B.1.a	Two ATWS in wetland (50'x45' and 50'x200')	Extra workspace needed for soil and equipment storage residential construction limitations nearby	Approved
93.7	weva001e	VI.B.1.a	Two ATWS in wetland (5'x244' and 70'x169')	Extra workspace needed for soil and equipment storage for waterbody crossing	Approved

[a] See our recommendation in section 4.4.2.2.

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
Temporary Access Roads									
1.2	TAR-1.0	Calcasieu	Gravel	20	268.8	gravel repair and maintain as needed	0.17	0.0	Construction Access
2.3	TAR-1.1	Calcasieu	Gravel	20	494.7	gravel repair and maintain as needed	0.24	0.0	Construction Access at Borrow Pit
6.8	TAR-1.2	Calcasieu	Gravel	20	341.7	gravel repair and maintain as needed	0.17	0.0	Construction Access for Bore
7.6	TAR-2.0	Calcasieu	Greenfield	20	234.8	cut/fill, drainage, gravel or select, mats as needed, maintain	2.20	0.0	Construction Access around Pond
8.1	TAR-2.1	Calcasieu	Greenfield	20	1554.3	gravel repair and maintain as needed (may widen)	1.61	0.0	Construction Access around Pond
8.7	TAR-3.0	Calcasieu	Asphalt/ gravel	20	2780.3	gravel/asphalt repair and maintain existing and cut/fill, drainage, gravel or select, for new section (mats as required)	0.35	0.0	Construction Access
8.8	TAR-4.0	Calcasieu	Dirt	20	456.6	grade, drainage, gravel or select or mats as required, maintain	0.20	0.0	Construction Access
9.7	TAR-5.1	Calcasieu	Dirt	20	650.3	grade, drainage, gravel or select or mats as required, maintain	0.37	0.0	Construction Access
10.1	TAR-5.0	Calcasieu	Dirt	20	5048.6	grade, drainage, gravel or select or mats as required, maintain	0.26	0.0	Construction Access
11.4	TAR-6.0	Calcasieu	Greenfield	20	544.9	grade, drainage, gravel or select or mats as required, maintain	0.14	0.0	Construction Access

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
13.1	TAR-7.0	Calcasieu	Gravel/dirt	20	497.7	grade, drainage, gravel or select or mats as required, maintain	3.40	0.0	Construction Access
13.7	TAR-8.0	Calcasieu	Gravel/dirt	20	2320.4	gravel repair and maintain as needed	0.93	0.0	Construction Access
14.0	TAR-9.0	Calcasieu	Greenfield	20	4561.8	cut/fill, drainage, gravel or select, mats as needed, maintain	1.46	0.0	Construction Access
15.0	TAR-10.0	Calcasieu	Dirt	20	4656.9	cut/fill, drainage, gravel or select, mats as needed, maintain	0.49	0.0	Construction Access
15.1	TAR-10.1	Calcasieu	Dirt	20	3516.5	gravel repair and maintain existing and cut/fill, drainage, gravel or select, for new section (mats as required)	1.00	0.0	Construction Access
17.4	TAR-11.0	Calcasieu	Gravel/dirt	20	684.6	gravel repair and maintain existing and cut/fill, drainage, gravel or select, for new section (mats as required)	0.22	0.0	Construction Access
18.6	TAR-11.1	Calcasieu	Greenfield	20	350.7	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	1.35	0.0	Construction Access
19.2	TAR-12.0	Calcasieu	Greenfield	20	766.5	cut/fill, drainage, gravel or select, mats as needed, maintain	0.29	0.0	Construction Access
19.8	TAR-13.0	Calcasieu	Greenfield	20	388.3	cut/fill, drainage, gravel or select, mats as needed, maintain	0.12	0.0	Construction Access

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
20.3	TAR-13.1	Calcasieu	Dirt	20	264.4	grade, drainage, gravel or select or mats as required, maintain	2.27	0.0	Construction Access
20.4	TAR-14.0	Calcasieu	Dirt	20	7345.7	grade, drainage, gravel or select or mats as required, maintain	0.22	0.0	Construction Access
20.8	TAR-14.2	Calcasieu	Dirt	20	1972.1	grade, drainage, gravel or select or mats as required, maintain	0.07	0.0	Construction Access
22.8	TAR-15.0	Calcasieu	Dirt	20	3136.0	grade, drainage, gravel or select or mats as required, maintain	0.11	0.0	Construction Access
22.8	TAR-15.1	Calcasieu	Dirt	20	993.1	grade, drainage, gravel or select or mats as required, maintain	0.75	0.0	Construction Access
23.5	TAR-16.0	Calcasieu	Dirt	20	2232.4	gravel repair and maintain entrance and cut/fill, drainage, gravel or select, for balance section (mats as required)	0.32	0.0	Construction Access
24.4	TAR-17.0	Calcasieu	Greenfield	20	450.4	grade, drainage, gravel or select or mats as required, maintain	0.09	0.0	Construction Access
25.3	TAR-18.0	Calcasieu	Dirt	20	2902.5	grade, drainage, gravel or select or mats as required, maintain	1.69	0.0	Construction Access
25.5	TAR-18.1	Calcasieu	Dirt	20	607.2	grade, drainage, gravel or select or mats as required, maintain	0.86	0.0	Contractor Yard 1
25.8	TAR-18.2	Calcasieu	Gravel	20	242.5	grade, drainage, gravel or select or mats as required, maintain	2.93	0.0	Construction Access

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
28.3	TAR-19.0	Calcasieu	Dirt	20	4943.6	grade, drainage, gravel or select or mats as required, maintain	1.83	0.0	Construction Access
29.1	TAR-19.1	Calcasieu	Dirt	20	466.9	grade, drainage, gravel or select or mats as required, maintain	0.07	0.0	Construction Access
30.6	TAR-19.2	Calcasieu	Dirt	20	153.1	grade, drainage, gravel or select or mats as required, maintain	0.01	0.0	Work Around
30.8	TAR-20.0	Calcasieu	Dirt	20	674.0	grade, drainage, gravel or select or mats as required, maintain	2.11	0.0	Construction Access
31.2	TAR-21.0	Calcasieu	Greenfield	20	162.6	grade, drainage, gravel or select or mats as required, maintain	0.25	0.0	Construction Access
33.7	TAR-22.0	Calcasieu	Dirt	20	3655.6	cut/fill, drainage, gravel or select, mats as needed, maintain	6.67	0.0	Construction Access
34.9	TAR-23.0	Calcasieu	Dirt	20	1871.5	cut/fill, drainage, gravel or select, mats as needed, maintain	0.40	0.0	Construction Access
37.1	TAR-24.0	Jefferson Davis and Calcasieu	Dirt	20	6387.9	cut/fill, drainage, gravel or select, mats as needed, maintain	0.41	0.0	Construction Access
39.0	TAR-24.1	Calcasieu	Dirt	20	3976.6	cut/fill, drainage, gravel or select, mats as needed, maintain	4.14	0.0	Construction Access
39.8	TAR-25.0	Jefferson Davis	Dirt	20	142.9	grade, drainage, gravel or select or mats as required, maintain	1.30	0.0	Construction Access

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
39.8	TAR-25.2	Jefferson Davis	Dirt	20	28.3	grade, drainage, gravel or select or mats as required, maintain	7.59	0.0	Construction Access
41.9	TAR-26.0	Jefferson Davis	Dirt	20	4562.7	grade, drainage, gravel or select or mats as required, maintain	4.52	0.0	Construction Access
43.3	TAR-27.0	Jefferson Davis	Dirt	20	502.4	grade, drainage, gravel or select or mats as required, maintain	1.58	0.0	Construction Access
43.4	TAR-32.1	Jefferson Davis	Dirt	20	73.9	grade, drainage, gravel or select or mats as required, maintain	0.03	0.0	Construction Access
44.3	TAR-28.2	Jefferson Davis	Gravel	20	853.4	grade, drainage, gravel or select or mats as required, maintain	3.42	0.0	Construction Access
44.9	TAR-28.4	Jefferson Davis	Gravel	20	882.5	grade, drainage, gravel or select or mats as required, maintain	0.11	0.0	Construction Access
45.6	TAR-28.0	Jefferson Davis	Gravel	20	14559.1	grade, widen, drainage, gravel or select or mats as required, maintain	0.19	0.0	Construction Access
46.3	TAR-28.6	Jefferson Davis	Gravel	20	9007.0	grade, widen, drainage, gravel or select or mats as required, maintain	0.27	0.0	Construction Access
47.4	TAR-30.0	Jefferson Davis and Allen	Gravel	20	16683.1	grade, drainage, gravel or select or mats as required, maintain	0.38	0.0	Construction Access
48.7	TAR-31.0	Jefferson Davis and Allen	Gravel	20	9799.0	grade, drainage, gravel or select or mats as required, maintain	2.04	0.0	Construction Access

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
49.3	TAR-31.2	Jefferson Davis	Gravel	20	3371.9	grade, drainage, gravel or select or mats as required, maintain	0.27	0.0	Construction Access
55.4	TAR-35.0	Jefferson Davis	Dirt	20	7327.3	clear, cut/fill, widen, drainage, gravel or select, mats as needed, maintain	0.27	0.0	Construction Access
58.6	TAR-36.0	Jefferson Davis	Greenfield	20	230.2	cut/fill, drainage, gravel or select, mats as needed, maintain	2.29	0.0	Construction Access
59.1	TAR-37.0	Jefferson Davis	Dirt	20	388.6	grade, drainage, gravel or select or mats as required, maintain	3.18	0.0	Construction Access
60.8	TAR-37.1	Jefferson Davis	Dirt	20	546.5	grade, drainage, gravel or select or mats as required, maintain	0.25	0.0	Construction Access
60.8	TAR-37.2	Jefferson Davis	Dirt	20	831.8	grade, drainage, gravel or select or mats as required, maintain	0.37	0.0	Construction Access
61.2	TAR-37.3	Jefferson Davis	Dirt	20	4373.4	grade, drainage, gravel or select or mats as required, maintain	0.07	0.0	Construction Access
63.2	TAR-37.4	Jefferson Davis	Dirt	20	553.9	grade, drainage, gravel or select or mats as required, maintain	0.56	0.0	Construction Access
65.4	TAR-37.6	Jefferson Davis	Dirt	20	582.4	grade, drainage, gravel, maintain	1.19	0.0	Construction Access
67.0	TAR-37.7	Jefferson Davis	Dirt	20	5003.1	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	0.54	0.0	Construction Access

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
67.8	TAR-37.8	Acadia	Dirt	20	6923.4	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	0.77	0.0	Construction Access
70.2	TAR-37.9	Acadia	Dirt	20	535.2	grade, drainage, gravel or select or mats as required, maintain	0.23	0.0	Work around
72.2	TAR-38.0	Acadia	Gravel	20	769.4	grade, drainage, gravel or select or mats as required, maintain	0.33	0.0	Construction Access
74.2	TAR-38.1	Acadia	Greenfield	20	110.4	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	0.72	0.0	Construction Access
75.6	TAR-39.0	Evangeline	Dirt	20	1191.9	grade, drainage, gravel or select or mats as required, maintain	2.32	0.0	Construction Access
77.0	TAR-39.1	Evangeline	Dirt	20	2552.6	grade, drainage, gravel or select or mats as required, maintain	0.30	0.0	Construction Access
81.8	TAR-39.2	Evangeline	Dirt	20	1172.8	cut/fill, drainage, gravel or select, mats as needed, maintain	0.25	0.0	Construction Access
83.2	TAR-39.3	Evangeline	Dirt	20	1670.6	grade, drainage, gravel or select or mats as required, maintain	0.23	0.0	Construction Access
88.1	TAR-40.0	Evangeline	Gravel/ dirt	20	727.7	grade, drainage, gravel or select or mats as required, maintain	1.07	0.0	Construction Access
88.1	TAR-40.1	Evangeline	Gravel/dirt	20	1558.2	grade, widen, drainage, gravel or select or mats as required, maintain	2.11	0.0	Construction Access

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
Permanent Access Roads									
0.1	PAR-1.0	Calcasieu	Gravel	20	1062.7	cut/fill, drainage, select compacted fill and gravel, maintain (may use mats temporarily as needed during construction)	0.07	0.07	MS 01 (PDS) & MS 03
0.0	PAR-1.2c	Calcasieu	Greenfield	20	273.7	cut/fill, drainage, select compacted fill and gravel, maintain (may use mats temporarily as needed during construction)	0.00	0.00	Kinder Morgan Interconnect
1.9	PAR-2.0	Calcasieu	Greenfield	20	26.0	cut/fill, drainage, select compacted fill and gravel, maintain (may use mats temporarily as needed during construction)	0.03	0.03	MS 02
7.8	PAR-3.0	Calcasieu	Greenfield	20	318.8	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.15	0.15	MLV 02
7.8	PAR-3.1	Calcasieu	Dirt	20	92.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.06	0.06	MS 04

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
7.8	PAR-3.2	Calcasieu	Greenfield	20	119.3	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.05	0.05	MLV 02 and Cameron Interconnect
15.6	PAR-4.0	Calcasieu	Greenfield	20	2265.0	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	1.06	1.06	MLV 03
23.2	PAR-5.0	Calcasieu	Dirt	20	387.0	grade, drainage, select compacted fill and gravel , maintain (existing private drive)	0.19	0.19	MLV 04
31.2	PAR-6.0	Calcasieu	Greenfield	20	131.1	grade, drainage, select compacted fill and gravel ,transition to paved road, maintain	0.06	0.06	MLV 05
36.5	PAR-7.0	Jefferson Davis and Calcasieu	Dirt	20	17912.3	grade, drainage, select compacted fill and gravel ,transition to paved road, maintain	8.24	8.24	MS 05

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
39.8	PAR-7.9	Jefferson Davis and Calcasieu	Greenfield	20	118.8	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.05	0.05	Tetco Interconnect
39.9	PAR-8.0	Jefferson Davis and Calcasieu	Greenfield	20	21.3	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.01	0.01	MS 06
40.0	PAR-8.1	Jefferson Davis and Calcasieu	Greenfield	20	19.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.01	0.01	CS 01 & MLV 06
50.8	PAR-9.0	Jefferson Davis	Greenfield	20	726.2	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.35	0.35	MS 07
50.8	PAR-9.1	Jefferson Davis	Greenfield	20	2584.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	1.19	1.19	TGP-Kinder Interconnect

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
57.6	PAR-10.0	Jefferson Davis	Greenfield	20	66.5	grade, drainage, select compacted fill and gravel, transition to paved road, maintain	0.03	0.03	MLV 07
71.8	PAR-11.0	Acadia	Dirt	20	1292.2	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.61	0.61	CS 02 & MS 08
71.8	PAR-11.1	Acadia	Greenfield	20	49.9	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.02	0.02	Egan Interconnect
72.3	PAR-11.9	Acadia	Greenfield	20	159.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.07	0.07	Texas Gas Interconnect
72.4	PAR-12.0	Acadia	Greenfield	20	23.7	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.03	0.03	MS 09

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
72.9	PAR-12.9	Acadia	Greenfield	20	159.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.15	0.15	FGT Interconnect
73.0	PAR-13.0	Acadia	Gravel	20	954.0	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.43	0.43	MS 10 & MS 11
73.8	PAR-14.0	Acadia	Greenfield	20	1900.4	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.87	0.87	MS 12 & MLV 09
74.0	PAR-14.1	Acadia	Greenfield	20	275.6	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.13	0.13	ANR Interconnect
79.2	PAR-15.0	Evangeline	Greenfield	20	14.5	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.01	0.01	MS 13

Table 2.2-3
Access Roads

Milepost	Access Road Name	Parish	Existing Road Type	Width (feet)[a]	Length (feet)	Proposed Modification	Temporary Requirements (acres)[b]	Permanent Requirements (acres)[b]	Purpose
84.5	PAR-16.0	Evangeline	Greenfield	20	24.5	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.02	0.02	CS 03 & MLV 10
84.7	PAR-16.1	Evangeline	Greenfield	20	36.7	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.02	0.02	MS 14
95.9	PAR-17	Evangeline	Gravel	20	650.9	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.31	0.31	MS 15

[a] Note 20 feet wide access roads are sufficient for construction vehicles, but ATWS have been added in a few instances to allow for sufficient vehicle navigation
[b] Acreages are rounded and include all acreages outside the Facility site, whether or not they overlap with Pipeline ROW workspaces.
[c] Acreages for PAR-1.2 are accounted for within the Facility footprint

Table 4.3-3
Waterbodies Crossed or Otherwise Affected by the LNG Facility

Feature ID	Waterbody Name	Feature Type	Flow Regime	State Water Quality Classification [a]	Fishery Type[b]	Crossing Length at OHWM (feet)	Crossing Method [c]	Permanent Fill/Loss (acres)
Lower Calcasieu (HUC 08080206)								
Facility Boundary								
S1ACA003	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.07
S1ACA004	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.01
S1ACA005	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.01
S1ACA006	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.14
S1ACA007	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.03
S1ACA008	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.16
S1ACA009	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.15
S1ACA010	Unnamed	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.28
S1ACA011	Unnamed	Drainage Ditch	Perennial	PCR, SCR, FWP	Warmwater	15	Fill	0.46
S1ACA012	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	4	Fill	0.04
S1ACA013	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	4	Fill	0.04
S1ACA015	Unnamed tributary to Bayou Choupique	Open Water	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	9.71
S1ACA001	Unnamed	Pond	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.28
S1ACA002	Unnamed	Pond	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.14
S1ACA016	Unnamed	Man-made lake	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	55.00
S1CCA001	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	10	Fill	0.16
S1CCA002	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	10	Fill	0.28

Table 4.3-3
Waterbodies Crossed or Otherwise Affected by the LNG Facility

Feature ID	Waterbody Name	Feature Type	Flow Regime	State Water Quality Classification [a]	Fishery Type[b]	Crossing Length at OHWM (feet)	Crossing Method [c]	Permanent Fill/Loss (acres)
S1CCA003	Unnamed	Pond	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.10
S1CCA004	Unnamed	Pond	N/A [e]	PCR, SCR, FWP	Warmwater	N/A [f]	Fill	0.05
S1CCA005	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	20	Fill	0.38
S1CCA006	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	10	Fill	0.15
S1CCA007	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	9	Fill	0.03
NHD_80 [d]	Calcasieu River	River	Perennial	PCR, SCR, FWP, OYS	Warmwater	N/A	Dredge	2.54
NHD_81 [d]	Calcasieu River Ship Channel	Canal	Perennial	PCR, SCR, FWP, OYS	Warmwater	N/A	Dredge	29.10
NHD_82 [d]	Intracoastal Waterway	Canal	Perennial	PCR, SCR, FWP	Warmwater	N/A	Dredge	2.50
Upper Calcasieu (HUC 08080203)								
Temporary Offsite Construction Areas								
NHD_119 [d]	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP (N-Hg), AGR	Warmwater	9	Culvert	0.01

Table 4.3-3
Waterbodies Crossed or Otherwise Affected by the LNG Facility

Feature ID	Waterbody Name	Feature Type	Flow Regime	State Water Quality Classification [a]	Fishery Type[b]	Crossing Length at OHWM (feet)	Crossing Method [c]	Permanent Fill/Loss (acres)

N/A = not applicable

[a] **State Water Quality Designated Use Description Classifications:**

PCR = Primary Contact Recreation (swimming)
SCR = Secondary Contact Recreation (boating)
FWP = Fish and Wildlife Propagation (fishing)
DWS = Drinking Water Supply
ONR = Outstanding Natural Resource OYS = Oyster Propagation
GC =General Criteria
AGR = Agriculture
None =No 305b Assessment by LDEQ

[b] Based on correspondence with LDWF (Reed, 2017).

[c] All impacts within the Facility are considered permanent.

[d] Feature delineated utilizing a desktop analysis.

[e] Feature is open water and does not have a flow regime.

[f] Feature is open water and does not have an ordinary high water mark.

Use Support Codes for Designated Uses:

N = Not supporting designated use

Suspected Impairment Cause:

Mercury (Hg)

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
Lower Calcasieu (HUC 08080206)										
Pipeline										
scaa026	Ditch	Road Ditch	Ephemeral	0.89	PCR, SCR, FWP	1	Open-cut	0.001	0.00/0.00	0.001
ocaa003	Lake	Lake	N/A [e]	1.11	PCR, SCR, FWP	209 [f]	Open-cut	0.24	0.00/0.00	0.24
scaa027	Ditch	Road Ditch	Perennial	1.37	PCR, SCR, FWP	3	Open-cut	0.004	0.00/0.00	0.004
scaa028	Ditch	Road Ditch	Perennial	1.38	PCR, SCR, FWP	4	Open-cut	0.01	0.00/0.00	0.01
scaa029	Ditch	Road Ditch	Perennial	1.86	PCR, SCR, FWP	4	Open-cut	0.005	0.00/0.00	0.005
scaa030	Ditch	Road Ditch	Ephemeral	1.87	PCR, SCR, FWP	4	Open-cut	0.005	0.00/0.00	0.005
NHD_01 [a]	Unnamed	Ditch	Intermittent	2.36	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_02 [a]	Unnamed	Ditch	Ephemeral	2.53	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scaa033	Ditch	Ditch	Perennial	2.76	PCR, SCR, FWP	8	Open-cut	0.04	0.00/0.00	0.04
scaa032	Ditch	Ditch	Intermittent	2.82	PCR, SCR, FWP	3	Open-cut	0.004	0.00/0.00	0.004
scaa031	Ditch	Ditch	Intermittent	2.83	PCR, SCR, FWP	3	Open-cut	0.004	0.00/0.00	0.004
NHD_03 [a]	Unnamed	Ditch	Intermittent	3.11	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_120 [a]	Unnamed	Ditch	Ephemeral	3.29	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_04 [a]	Unnamed	Ditch	Intermittent	3.48	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_05 [a]	Unnamed	Ditch	Perennial	3.76	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_06 [a]	Unnamed	Ditch	Intermittent	4.05	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_07 [a]	Unnamed	Ditch	Ephemeral	4.15	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_08 [a]	Unnamed	Stream or River	Intermittent	4.31	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_09 [a]	Unnamed	Ditch	Perennial	4.35	PCR, SCR, FWP	2	Open-cut	0.004	0.00/0.00	0.004
NHD_10 [a]	Unnamed	Ditch	Perennial	4.37	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_11 [a]	Unnamed	Ditch	Ephemeral	4.69	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_12 [a]	Unnamed	Stream or River	Perennial	5.03	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scae022	Ditch	Road Ditch	Perennial	5.81	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scae023	Ditch	Ditch	Intermittent	6.30	PCR, SCR, FWP	7	Open-cut	0.02	0.00/0.00	0.02
scae021	Ditch	Ditch	Perennial	7.05	PCR, SCR, FWP	2	Workspace Only	0.002	0.00/0.00	0.002
scae021	Ditch	Ditch	Perennial	7.07	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scae020	Unnamed Tributary to Bayou Choupique	Stream	Perennial	7.54	PCR, SCR, FWP	5	Open-cut	0.02	0.00/0.00	0.02
ocae005	Pond	Stock Pond	N/A [e]	7.64	PCR, SCR, FWP	604 [f]	Open-cut	1.01	0.00/0.00	1.01
scae017	Ditch	Ditch	Intermittent	7.82	PCR, SCR, FWP	2	Workspace Only	0.01	0.00/0.00	0.01
scae018	Ditch	Road Ditch	Intermittent	7.82	PCR, SCR, FWP	4	Open-cut	0.002	0.00/0.00	0.002
scae016	Ditch	Road Ditch	Intermittent	7.84	PCR, SCR, FWP	2	Open-cut	0.002	0.00/0.00	0.002
ocae004	Pond	Stock Pond	N/A [e]	7.91	PCR, SCR, FWP	243 [f]	Open-cut	0.53	0.00/0.00	0.53
scae015	Ditch	Ditch	Perennial	8.35	PCR, SCR, FWP	5	Open-cut	0.01	0.00/0.00	0.01
ocae003	Pond	Stock Pond	N/A [e]	8.48	PCR, SCR, FWP	0 [f]	Workspace Only	0.02	0.00/0.00	0.02
NHD_100 [a]	Canal	Canal	Perennial	8.62	PCR, SCR, FWP	54	HDD	0.00	0.00/0.00	0.00
NHD_101 [a]	Canal	Canal	Perennial	8.78	PCR, SCR, FWP	60	HDD	0.00	0.00/0.00	0.00
scac001	Ditch	Road Ditch	Intermittent	11.64	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Open-cut	0.005	0.00/0.00	0.005
scac007	Ditch	Road Ditch	Intermittent	11.66	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	3	Open-cut	0.004	0.00/0.00	0.004

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaa035	Ditch	Road Ditch	Perennial	12.07	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Open-cut	0.005	0.00/0.00	0.005
scaa034	Ditch	Road Ditch	Perennial	12.08	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Open-cut	0.005	0.00/0.00	0.005
scaa036	Ditch	Road Ditch	Perennial	12.20	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	5	Open-cut	0.01	0.00/0.00	0.01
scaa037	Ditch	Road Ditch	Perennial	12.50	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	6	Open-cut	0.01	0.00/0.00	0.01
scac006	Ditch	Road Ditch	Perennial	12.51	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	9	Open-cut	0.01	0.00/0.00	0.01
scac005	Unnamed Tributary to Bayou d'Inde	Stream	Perennial	12.98	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	6	Open-cut	0.02	0.00/0.00	0.02
NHD_15 [a]	Unnamed (leg of Houston River Canal)	Canal	Perennial	13.04	PCR, SCR, FWP, DWS (N-color), AGR	88	Bore	0.10	0.00/0.00	0.10
scac003	Bayou d'Inde	Ditch	Perennial	13.17	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	10	Open-cut	0.03	0.00/0.00	0.03
NHD_16 [a]	Bayou d'Inde	Stream or River	Perennial	13.17	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	1	Open-cut	0.001	0.00/0.00	0.001

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scac002	Unnamed (leg of Houston River Canal)	Canal	Perennial	13.74	PCR, SCR, FWP, DWS (N-color), AGR	91	Bore	0.11	0.00/0.00	0.11
NHD_17 [a]	Unnamed	Stream or River	Intermittent	14.94	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	10	Workspace Only	0.003	0.00/0.00	0.003
scaa001	Houston River Canal	Canal	Perennial	15.20	PCR, SCR, FWP, DWS (N-color), AGR	130	HDD	0.00	0.00/0.00	0.00
scaa002	Unnamed	Stream	Ephemeral	15.23	PCR, SCR, FWP, DWS (N-color), AGR	8	HDD	0.00	0.00/0.00	0.00
scaa003	Unnamed	Stream	Ephemeral	15.47	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
scaa005	Ditch	Road Ditch	Ephemeral	15.92	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.005	0.00/0.00	0.005
scaa006	Ditch	Road Ditch	Ephemeral	15.92	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.005	0.00/0.00	0.005
scae003	Unnamed Tributary to Houston River	Stream	Intermittent	16.73	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
NHD_18 [a]	Unnamed	Stream or River	Perennial	PAR-4.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	2	Culvert	0.00	0.001/0.81	0.001
scaa029	Ditch	Road Ditch	Perennial	PAR-2.0	PCR, SCR, FWP	4	Culvert	0.00	0.003/2.42	0.003
scae018	Ditch	Road Ditch	Intermittent	PAR-3.0	PCR, SCR, FWP	4	Culvert	0.00	0.004/3.23	0.004
NHD_01 [a]	Unnamed	Stream or River/Ditch	Intermittent	TAR-1.1	PCR, SCR, FWP	2	Culvert	0.001	0.00/0.00	0.001
scay003	Unnamed	Ditch	Perennial	TAR-10.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	2	Culvert	0.003	0.00/0.00	0.003

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scay001	Unnamed	Stream	Perennial	TAR-10.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Culvert	0.02	0.00/0.00	0.02
scay001	Unnamed	Stream	Perennial	TAR-10.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Culvert	0.01	0.00/0.00	0.01
scae020	Unnamed Tributary to Bayou Choupique	Stream	Perennial	TAR-2.0	PCR, SCR, FWP	6	Culvert	0.003	0.00/0.00	0.003
scag005	Ditch	Ditch	Perennial	TAR-5.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	8	Culvert	0.005	0.00/0.00	0.005
NHD_13 [a]	Unnamed	Stream or River	Perennial	TAR-5.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	2	Culvert	0.001	0.00/0.00	0.001
NHD_14 [a]	Unnamed	Canal/Ditch	Ephemeral	TAR-5.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	50	Culvert	0.02	0.00/0.00	0.02
scag007	Ditch	Ditch	Perennial	TAR-5.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	26	Culvert	0.01	0.00/0.00	0.01
scag009	Ditch	Ditch	Ephemeral	TAR-5.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	2	Culvert	0.001	0.00/0.00	0.001
scae003	Unnamed Tributary to Houston River	Stream	Intermittent	16.73	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scae004	Unnamed Tributary to Houston River	Stream	Intermittent	16.75	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	10	Open-cut	0.03	0.00/0.00	0.03
scae006	Unnamed Tributary to Houston River	Stream	Intermittent	16.78	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scae007	Unnamed Tributary to Houston River	Stream	Perennial	17.04	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	8	Open-cut	0.04	0.00/0.00	0.04
scaa012	Unnamed Tributary to Houston River	Stream	Perennial	17.37	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	18	Open-cut	0.06	0.00/0.00	0.06
scaa009a	Ditch	Ditch	Ephemeral	17.48	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	1	Open-cut	0.003	0.00/0.00	0.003
scaa100	Houston River	Stream	Perennial	17.68	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	88	HDD	0.00	0.00/0.00	0.00
scae008	Unnamed Tributary to Houston River	Stream	Perennial	18.49	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	8	Open-cut	0.03	0.00/0.00	0.03
scae009	Unnamed Tributary to Houston River	Stream	Perennial	18.94	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	5	Open-cut	0.04	0.00/0.00	0.04
scae010	Unnamed Tributary to Houston River	Stream	Perennial	19.53	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	3	Open-cut	0.01	0.00/0.00	0.01
scae011	Unnamed Tributary to Houston River	Stream	Intermittent	19.71	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaa015	Ditch	Road Ditch	Perennial	21.59	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002
scaa014	Ditch	Road Ditch	Perennial	21.60	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	3	Open-cut	0.003	0.00/0.00	0.003

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaa017	Ditch	Ditch	Intermittent	21.75	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaa018	Unnamed Tributary to Houston River	Stream	Perennial	21.81	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	12	Open-cut	0.08	0.00/0.00	0.08
scaa018	Unnamed Tributary to Houston River	Stream	Perennial	22.14	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	12	Open-cut	0.04	0.00/0.00	0.04
scaa013	West Fork Calcasieu River	River	Perennial	23.72	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	183	HDD	0.00	0.00/0.00	0.00
scaa013	West Fork Calcasieu River	River	Perennial	23.76	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	183	Workspace Only	0.001	0.00/0.00	0.001
scag004	Ditch	Road Ditch	Ephemeral	24.29	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	HDD	0.00	0.00/0.00	0.00
NHD_21 [a]	Unnamed	Canal/ Ditch	Intermittent	24.53	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_22 [a]	Unnamed	Stream or River	Ephemeral	24.55	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
NHD_23 [a]	Unnamed	Canal/ Ditch	Ephemeral	24.59	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
NHD_109 [a]	Unnamed	Stream	Ephemeral	24.83	PCR, SCR, FWP(N-CL, DO, Hg, SO4, TDS) AGR	2	Open-cut	0.01	0.00/0.00	0.01
scag003	Ditch	Road Ditch	Perennial	25.71	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	3	Open-cut	0.001	0.00/0.00	0.001
scag003	Ditch	Road Ditch	Perennial	25.74	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	3	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scag002	Ditch	Ditch	Intermittent	26.17	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	1	Open-cut	0.003	0.00/0.00	0.003
scag001	Ditch	Ditch	Perennial	26.46	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.004	0.00/0.00	0.004
ocag001	Pond	Stock Pond	N/A [e]	26.57	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	87 [f]	Open-cut	0.26	0.00/0.00	0.26
scaf024	Unnamed Tributary to Indian Bayou	Stream	Ephemeral	26.95	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	5	Open-cut	0.02	0.00/0.00	0.02
scaf023	Ditch	Road Ditch	Intermittent	27.05	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.003	0.00/0.00	0.003
scaf022	Ditch	Road Ditch	Intermittent	27.06	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.002	0.00/0.00	0.002
NHD_24 [a]	Unnamed	Stream or River	Intermittent	27.40	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scaf020	Ditch	Road Ditch	Ephemeral	27.58	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.004	0.00/0.00	0.004
scaf019	Ditch	Road Ditch	Ephemeral	27.59	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.002	0.00/0.00	0.002
scaf018	Indian Bayou	Stream	Perennial	27.69	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	18	Open-cut	0.05	0.00/0.00	0.05
scaf014	Ditch	Road Ditch	Perennial	27.84	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaf015	Unnamed Tributary to Indian Bayou	Stream	Perennial	27.92	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaf017	Ditch	Ditch	Ephemeral	27.93	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	5	Workspace Only	0.02	0.00/0.00	0.02
scaf016	Ditch	Ditch	Perennial	27.95	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.04	0.00/0.00	0.04
scaf013	Ditch	Ditch	Perennial	28.31	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Workspace Only	0.07	0.00/0.00	0.07
scaf012	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	28.49	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaf011	Ditch	Ditch	Intermittent	29.21	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scaf009	Ditch	Ditch	Intermittent	29.22	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.005	0.00/0.00	0.005
scaf010	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	29.23	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	5	Open-cut	0.01	0.00/0.00	0.01
scaf007	Ditch	Ditch	Perennial	29.57	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	6	Open-cut	0.02	0.00/0.00	0.02
NHD_26 [a]	Unnamed	Stream or River	Intermittent	30.22	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.001	0.00/0.00	0.001
scaf006	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	30.23	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	6	Open-cut	0.01	0.00/0.00	0.01
scaf005	Ditch	Ditch	Perennial	30.29	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	**Waterbody Name**	**Feature Type**	**Flow Regime**	**Approximate Milepost**	**Water Quality Classification [g]**	**Crossing Length at OHWM (feet)**	**Crossing Method**	**Temporary Impacts (acres)**	**Permanent Impacts (fill) (acres/cubic yards)**	**Total Impacts (acres)**
ocaf001	Pond	Stock Pond	N/A [e]	30.59	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	86 [f]	Open-cut	0.20	0.00/0.00	0.20
scaf004	Ditch	Ditch	Intermittent	30.81	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	6	Open-cut	0.01	0.00/0.00	0.01
scaf002	Little Indian Bayou	Stream	Perennial	30.93	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	17	Open-cut	0.04	0.00/0.00	0.04
scaf001	Ditch	Ditch	Perennial	31.21	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	8	Open-cut	0.004	0.00/0.00	0.004
scab007	Ditch	Ditch	Ephemeral	31.24	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.002	0.00/0.00	0.002
scab004	Unnamed Tributary to Little Indian Bayou	Stream	Ephemeral	31.58	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.01	0.00/0.00	0.01
scab003	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	31.87	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	10	Open-cut	0.03	0.00/0.00	0.03
scab002	Unnamed Tributary to Little Indian Bayou	Stream	Ephemeral	32.21	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scab005	Ditch	Ditch	Ephemeral	32.37	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.003	0.00/0.00	0.003
NHD_115 [a]	Ditch	Ditch	Ephemeral	32.37	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Workspace	0.01	0.00/0.00	0.01
scab010	Ditch	Ditch	Ephemeral	32.38	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.003	0.00/0.00	0.003

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_27 [a]	Unnamed	Ag Ditch	Intermittent	32.63	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scab008	Unnamed Tributary to Birdsnest Gully	Stream	Ephemeral	33.15	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Open-cut	0.01	0.00/0.00	0.01
NHD_116 [a]	Unnamed	Stream	Ephemeral	33.15	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Workspace Only	0.001	0.00/0.00	0.001
NHD_28 [a]	Unnamed	Ag Ditch	Ephemeral	33.65	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Workspace Only	0.001	0.00/0.00	0.001
Access Roads										
scaf001	Ditch	Ditch	Perennial	PAR-6.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	8	Culvert	0.00	0.01/8.07	0.01
scaa009b	Ditch	Ditch	Ephemeral	TAR-11.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	1	Culvert	0.002	0.00/0.00	0.002
scaa010	Ditch	Ditch	Ephemeral	TAR-11.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	1	Culvert	0.001	0.00/0.00	0.001
scaa010	Ditch	Ditch	Ephemeral	TAR-11.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	1	Culvert	0.001	0.00/0.00	0.001
NHD_113 [a]	Unknown	Unknown	Ephemeral	TAR-19.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Culvert	0.001	0.00/0.00	0.001
NHD_114 [a]	Unknown	Unknown	Intermittent	TAR-19.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Culvert	0.003	0.00/0.00	0.003
NHD_111 [a]	Ditch	Ditch	Ephemeral	TAR-19.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Culvert	0.001	0.00/0.00	0.001
scaf009	Ditch	Ditch	Intermittent	TAR-19.1	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Culvert	0.004	0.00/0.00	0.004

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaf004	Ditch	Ditch	Intermittent	TAR-20.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Culvert	0.002	0.00/0.00	0.002
scaf001	Ditch	Ditch	Perennial	TAR-21.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	8	Culvert	0.01	0.00/0.00	0.01
Upper Calcasieu (HUC 08080203)										
Pipeline										
NHD_29 [a]	Unnamed	Ag Ditch	Ephemeral	33.95	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.004	0.00/0.00	0.004
NHD_30 [a]	Unnamed	Ag Ditch	Ephemeral	34.43	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_31 [a]	Unnamed	Ag Ditch	Ephemeral	34.45	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_31 [a]	Unnamed	Ag Ditch	Ephemeral	34.51	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
NHD_35 [a]	Unnamed	Ag Ditch	Intermittent	34.90	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_37 [a]	Unnamed	Ag Ditch	Intermittent	35.52	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_38 [a]	Unnamed	Ag Ditch	Intermittent	35.53	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	28	Open-cut	0.01	0.00/0.00	0.01
NHD_39 [a]	Unnamed	Ag Ditch	Perennial	36.02	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_40 [a]	Unnamed	Ag Ditch	Intermittent	36.20	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_41 [a]	Blackman Bayou	Stream or River	Perennial	36.45	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_42 [a]	Unnamed	Stream or River	Intermittent	36.79	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_42 [a]	Unnamed	Stream or River	Intermittent	36.90	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.03	0.00/0.00	0.03

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_42 [a]	Unnamed	Stream or River	Intermittent	37.33	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Workspace Only	0.002	0.00/0.00	0.002
NHD_44 [a, i]	Unnamed	Ag Ditch	Intermittent	37.34	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scab100 [i]	Calcasieu River	River	Perennial	37.56	PCR, SCR, FWP (N-Pb, Hg, TDS), ONR (N-Turb), AGR	77	HDD	0.00	0.00/0.00	0.00
scab100 [i]	Calcasieu River	River	Perennial	37.61	PCR, SCR, FWP (N-Pb, Hg, TDS), ONR (N-Turb), AGR	213	HDD	0.00	0.00/0.00	0.00
NHD_45 [a, i]	Unnamed	Stream or River	Intermittent	38.58	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.003	0.00/0.00	0.003
sjeb034 [i]	Ditch	Road Ditch	Ephemeral	39.54	PCR, SCR, FWP (N-, Hg), AGR	1	Workspace Only	0.001	0.00/0.00	0.001
sjeb031	Unnamed Tributary to Calcasieu River	Stream	Perennial	39.79	PCR, SCR, FWP (N-Hg), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sjeb027	Unnamed Tributary to Calcasieu River	Stream	Intermittent	40.58	PCR, SCR, FWP (N-Hg), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjeb028	Unnamed Tributary to Calcasieu River	Stream	Ephemeral	40.67	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb030	Ditch	Ditch	Ephemeral	40.67	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.02	0.00/0.00	0.02
sjeb029	Unnamed Tributary to Calcasieu River	Stream	Ephemeral	40.68	PCR, SCR, FWP (N-Hg), AGR	4	Open-cut	0.004	0.00/0.00	0.004
sjeb025	Ditch	Ditch	Ephemeral	40.81	PCR, SCR, FWP (N-Hg), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sjeb026	Ditch	Ditch	Ephemeral	40.81	PCR, SCR, FWP (N-Hg), AGR	4	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjeb024	Unnamed Tributary to Calcasieu River	Stream	Intermittent	41.44	PCR, SCR, FWP (N-Hg), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sjeb023	Ditch	Ditch	Intermittent	41.90	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb021	Unnamed Tributary to Calcasieu River	Stream	Intermittent	42.00	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb022	Ditch	Ditch	Ephemeral	42.02	PCR, SCR, FWP (N-Hg), AGR	1	Open-cut	0.004	0.00/0.00	0.004
NHD_49 [a]	Unnamed	Ditch	Intermittent	42.86	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb020	Ditch	Road Ditch	Ephemeral	43.09	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.003	0.00/0.00	0.003
sjef001	Ditch	Road Ditch	Ephemeral	43.11	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sjef002	Thompson Gully	Stream	Intermittent	43.13	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	9	Open-cut	0.02	0.00/0.00	0.02
sjef003	Unnamed Tributary to Thompson Gully	Stream	Intermittent	43.29	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.03	0.00/0.00	0.03
sjef004	Unnamed Tributary to Thompson Gully	Stream	Perennial	43.93	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.05	0.00/0.00	0.05
sjez012	Canal	Ag Ditch	Perennial	44.15	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	15	Open-cut	0.06	0.00/0.00	0.06
sjez005	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	45.21	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjez006	Unnamed Tributary to Bayou Serpent	Stream	Perennial	45.42	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	22	Open-cut	0.06	0.00/0.00	0.06
ojez001	Pond	Stock Pond	N/A [e]	45.61	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	35 [f]	Open-cut	0.08	0.00/0.00	0.08
ojez002	Pond	Impoundment	N/A [e]	45.74	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	60 [f]	Open-cut	0.10	0.00/0.00	0.10
sjez007	Unnamed Tributary to Bayou Serpent	Ditch	Perennial	45.76	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	38	Workspace Only	0.03	0.00/0.00	0.03
sjez008	Bayou Serpent	Stream	Perennial	45.88	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	100	Open-cut	0.31	0.00/0.00	0.31
sjez009	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	46.56	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjez010	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	46.71	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjez011	Bayou Serpent	Stream	Perennial	46.96	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	79	Open-cut	0.25	0.00/0.00	0.25
sjey009	Unnamed Tributary to Bayou Serpent	Stream	Perennial	47.05	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.01	0.00/0.00	0.01
sjey009	Unnamed Tributary to Bayou Serpent	Stream	Perennial	47.10	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.09	0.00/0.00	0.09
sjey010	Unnamed Tributary to Bayou Serpent	Stream	Perennial	47.30	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	16	Open-cut	0.08	0.00/0.00	0.08

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
ojey001	Pond	Stock Pond	N/A [e]	49.44	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	417 [f]	Open-cut	1.22	0.00/0.00	1.22
sjey006	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	49.53	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	30	Open-cut	0.09	0.00/0.00	0.09
sjey005	Unnamed	Road Ditch	Intermittent	49.76	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sjey004	Unnamed	Road Ditch	Intermittent	49.77	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sjey002	Unnamed	Ag Ditch	Perennial	49.97	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.03	0.00/0.00	0.03
sjey001	Unnamed	Ag Ditch	Intermittent	50.04	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.14	0.00/0.00	0.14
sjey001	Unnamed	Ag Ditch	Intermittent	50.28	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.03	0.00/0.00	0.03
NHD_57 [a]	Unnamed	Road Ditch	Ephemeral	50.64	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjez015	Unnamed Tributary to Gum Bayou	Ag Ditch	Perennial	50.98	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	17	Open-cut	0.05	0.00/0.00	0.05
sjez015	Unnamed Tributary to Gum Bayou	Ag Ditch	Perennial	50.98	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	17	Workspace Only	0.01	0.00/0.00	0.01
sjez001	Unnamed Tributary to Gum Bayou	Stream	Ephemeral	51.51	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.07	0.00/0.00	0.07
sjez002	Gum Bayou	Stream	Perennial	51.59	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	27	Open-cut	0.12	0.00/0.00	0.12
sjez003	Unnamed Tributary to Gum Bayou	Stream	Perennial	51.70	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.03	0.00/0.00	0.03
sjez003	Unnamed Tributary to Gum Bayou	Stream	Perennial	51.78	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.06	0.00/0.00	0.06

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_92 [a]	Unnamed	Ditch	Intermittent	53.2	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.001	0.00/0.00	
sjea021	Ditch	Road Ditch	Perennial	53.43	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	20	Open-cut	0.02	0.00/0.00	0.02
sjea022	Ditch	Road Ditch	Perennial	53.44	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	19	Open-cut	0.02	0.00/0.00	0.02
sjeb009	Ditch	Ag Ditch	Intermittent	54.29	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjeb007	Ditch	Road Ditch	Ephemeral	54.46	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb008	Ditch	Road Ditch	Ephemeral	54.47	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjeb006	Unnamed Tributary to Bayou Serpent	Stream or River	Perennial	55.41	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	18	HDD	0.00	0.00/0.00	0.00
sjeb004	Bayou Serpent	Stream or River	Perennial	56.27	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	26	HDD	0.00	0.00/0.00	0.00
sjeb005	Ditch	Road Ditch	Ephemeral	56.51	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	HDD	0.00	0.00/0.00	0.00
sjeb014	Ditch	Road Ditch	Ephemeral	56.51	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	HDD	0.00	0.00/0.00	0.00
sjeb013	Ditch	Road Ditch	Ephemeral	57.55	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sjeb012	Ditch	Road Ditch	Ephemeral	57.56	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sjeb011	Ditch	Ag Ditch	Ephemeral	58.58	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.02	0.00/0.00	0.02
sjeb010	Unnamed Tributary to Bayou Alligator	Stream	Perennial	59.12	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	12	Open-cut	0.04	0.00/0.00	0.04
sjed019	Ditch	Road Ditch	Ephemeral	59.62	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjed020	Ditch	Road Ditch	Ephemeral	59.62	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed017	Ditch	Road Ditch	Ephemeral	60.64	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjed018	Ditch	Road Ditch	Ephemeral	60.64	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Open-cut	0.001	0.00/0.00	0.001
ojeb001	Pond	Pond	N/A [e]	60.71	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	0 [f]	Workspace Only	0.31	0.00/0.00	0.31
Access Road										
sjeb012	Ditch	Road Ditch	Ephemeral	PAR-10.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Culvert	0.00	0.01/8.07	0.01
NHD_32 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.002/1.16	0.002
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.001/0.81	0.001
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.003/2.42	0.003
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.001/0.81	0.001
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.004/3.23	0.004
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.05/40.33	0.05
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.003/2.42	0.003
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_33 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.02/16.13	0.02

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_34 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_34 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.05/40.33	0.05
NHD_34 [a]	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.02/16.13	0.02
NHD_41 [a]	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.02/16.13	0.02
NHD_41 [a]	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Culvert	0.00	0.01/8.07	0.01
NHD_41 [a]	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Culvert	0.00	0.02/16.13	0.02
NHD_41 [a]	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Culvert	0.00	0.02/16.13	0.02
sjeb031	Unnamed Tributary to Calcasieu River	Stream	Perennial	PAR-8.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	6	Culvert	0.00	0.003/2.42	0.003
sjez015	Unnamed Tributary to Gum Bayou	Ag Ditch	Perennial	PAR-9.1	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	17	Culvert	0.00	0.01/8.07	0.01
sjeb031	Unnamed Tributary to Calcasieu River	Stream	Perennial	TAR-25.2	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	6	Culvert	0.003	0.00/0.00	0.003
NHD_36 [a]	Blackman Bayou	Stream or River	Perennial	TAR-23.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_42 [a]	Unnamed	Stream or River	Intermittent	TAR-24.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_43 [a]	Unnamed	Stream or River	Ephemeral	TAR-24.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_46 [a]	Unnamed	Stream or River	Ephemeral	TAR-24.1	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_47 [a]	Unnamed	Stream or River	Ephemeral	TAR-24.1	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaq001	Unnamed Tributary to Thompson Gully	Ditch	Intermittent	TAR-27.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Culvert	0.004	0.00/0.00	0.004
sjex002	Unnamed Tributary to Bayou Serpent	Stream	Perennial	TAR-28.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Culvert	0.002	0.00/0.00	0.002
sjex003	Unnamed Tributary to Bayou Serpent	Stream	Perennial	TAR-28.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	33	Culvert	0.02	0.00/0.00	0.02
NHD_50 [a]	Unnamed	Canal/ Ditch	Ephemeral	TAR-28.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.01	0.00/0.00	0.01
NHD_51 [a]	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_51 [a]	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_52 [a]	Cow Bayou	Stream or River	Perennial	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_53 [a]	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_54 [a]	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_55 [a]	Unnamed	Stream or River	Intermittent	TAR-31.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_56 [a]	Unnamed	Stream or River	Intermittent	TAR-31.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.03	0.00/0.00	0.03
sjey015	Ditch	Ditch	Ephemeral	TAR-36.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	3	Culvert	0.003	0.00/0.00	0.003
ojeb001	Pond	Pond	N/A [e]	TAR-37.1	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	0 [f]	Culvert	0.002	0.00/0.00	0.002
sjed017	Ditch	Road Ditch	Ephemeral	TAR-37.1	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Culvert	0.002	0.00/0.00	0.002

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjey012	Ditch	Ditch	Ephemeral	TAR-37.2	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	3	Culvert	0.003	0.00/0.00	0.003
sjey013	Ditch	Ditch	Ephemeral	TAR-37.3	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.003	0.00/0.00	0.003
Contractor/Pipe Yards										
sjeh008	Unnamed	Stream or River	Perennial	Pipe Yard	PCR, SCR, FWP (N-Pb, DO, TDS), AGR	25	Open-cut	0.43	0.00/0.00	0.43
sjeh019	Unnamed	Stream or River	Perennial	Pipe Yard	PCR, SCR, FWP (N – Pb, DO, TDS), AGR	9	Open-cut	0.02	0.00/0.00	0.02
Mermentau Headwaters (HUC 08080202)										
Pipeline										
sjed016	Ditch	Road Ditch	Ephemeral	61.73	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed015	Ditch	Road Ditch	Ephemeral	61.74	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	3	Open-cut	0.003	0.00/0.00	0.003
sjed013	Ditch	Road Ditch	Ephemeral	62.75	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed012	Ditch	Ag Ditch	Ephemeral	62.76	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	2	Open-cut	0.002	0.00/0.00	0.002
Mermentau Headwaters (HUC 08080201)										
Pipeline										
sjed011	Ditch	Ag Ditch	Ephemeral	63.35	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjed010	Ditch	Road Ditch	Ephemeral	63.78	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.003	0.00/0.00	0.003
sjed009	Ditch	Road Ditch	Ephemeral	63.79	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.003	0.00/0.00	0.003

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjed007	Ditch	Ag Ditch	Ephemeral	64.06	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Workspace Only	0.004	0.00/0.00	0.004
sjed008	Ditch	Road Ditch	Ephemeral	64.11	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.02	0.00/0.00	0.02
sjed006	Ditch	Ag Ditch	Ephemeral	64.12	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed005	Ditch	Ag Ditch	Ephemeral	64.13	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjeb016	Rogers Gully	Stream or River	Perennial	64.70	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	34	Open-cut	0.11	0.00/0.00	0.11
sjeb015	Unnamed Tributary to Rogers Gully	Stream	Intermittent	64.76	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjed003	Ditch	Road Ditch	Ephemeral	64.90	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjed004	Ditch	Road Ditch	Ephemeral	64.90	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjed002	Ditch	Road Ditch	Ephemeral	65.41	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjed001	Ditch	Road Ditch	Ephemeral	65.42	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb001	Ditch	Ditch	Ephemeral	65.96	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb002	Ditch	Road Ditch	Ephemeral	65.96	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb003	Ditch	Ag Ditch	Ephemeral	65.96	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Workspace Only	0.002	0.00/0.00	0.002
NHD_65 [a]	Unnamed	Stream or River	Intermittent	66.61	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sacb028	Unnamed Tributary to Bayou Nezpique	Stream or River	Perennial	67.48	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	87	HDD	0.00	0.00/0.00	0.00
sacb020	Unnamed Tributary to Bayou Nezpique	Stream	Ephemeral	67.95	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sacb022	Unnamed Tributary to Bayou Nezpique	Stream	Ephemeral	68.01	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.004	0.00/0.00	0.004
sacb025	Unnamed Tributary to Bayou Nezpique	Stream	Intermittent	68.19	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	**Waterbody Name**	**Feature Type**	**Flow Regime**	**Approximate Milepost**	**Water Quality Classification [g]**	**Crossing Length at OHWM (feet)**	**Crossing Method**	**Temporary Impacts (acres)**	**Permanent Impacts (fill) (acres/cubic yards)**	**Total Impacts (acres)**
sacb024	Unnamed Tributary to Bayou Nezpique	Stream	Intermittent	68.21	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.02	0.00/0.00	0.02
sacb026	Unnamed Tributary to Bayou Nezpique	Stream	Ephemeral	68.25	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
sacb009	Ditch	Road Ditch	Ephemeral	68.54	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.005	0.00/0.00	0.005
sacb009	Ditch	Road Ditch	Ephemeral	68.63	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Workspace Only	0.01	0.00/0.00	0.01
sacb011	Ditch	Road Ditch	Ephemeral	68.94	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sacb010	Ditch	Road Ditch	Ephemeral	68.94	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Workspace Only	0.03	0.00/0.00	0.03
sacb010	Ditch	Road Ditch	Ephemeral	69.04	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.01	0.00/0.00	0.01
sacb008	Ditch	Road Ditch	Ephemeral	69.05	PCR, SCR, FWP (N- Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb007	Ditch	Road Ditch	Ephemeral	69.06	PCR, SCR, FWP (N- Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb006	Isolated Stream	Stream	Intermittent	69.07	PCR, SCR, FWP (N- Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sacb005	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.07	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Workspace Only	0.02	0.00/0.00	0.02
sacb005	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.15	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Open-cut	0.02	0.00/0.00	0.02
sacb004	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.60	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	7	Open-cut	0.02	0.00/0.00	0.02
sacb003	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.63	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sacb001	Ditch	Road Ditch	Ephemeral	70.07	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO,TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb029	Ditch	Road Ditch	Ephemeral	70.08	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
oacb001	Pond	Stock Pond	N/A [e]	70.18	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	0 [f]	Workspace Only	0.19	0.00/0.00	0.19
NHD_70 [a]	Unnamed	Stream or River	Intermittent	70.54	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_71 [a]	Bayou Barwick	Stream or River	Perennial	70.70	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sacb019	Ditch	Road Ditch	Ephemeral	71.10	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb017	Ditch	Road Ditch	Ephemeral	71.35	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sacb018	Ditch	Road Ditch	Ephemeral	71.36	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
sacb015	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.61	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.002	0.00/0.00	0.002
sacb016	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.62	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	4	Open-cut	0.002	0.00/0.00	0.002
sacc005	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.87	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sacc004	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	71.95	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sacc002	Ditch	Ag Ditch	Intermittent	72.56	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
saca006	Ditch	Ag Ditch	Perennial	74.19	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	5	Open-cut	0.02	0.00/0.00	0.02
NHD_72 [a]	Unnamed	Stream or River	Intermittent	75.13	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.003	0.00/0.00	0.003
sevc018	Tiger Point Gully	Stream	Perennial	76.08	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	18	Open-cut	0.13	0.00/0.00	0.13
sevc011	Ditch	Road Ditch	Intermittent	77.58	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	8	Open-cut	0.01	0.00/0.00	0.01
sevc017	Ditch	Road Ditch	Intermittent	77.60	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.005	0.00/0.00	0.005

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevc014	Ditch	Road Ditch	Intermittent	77.72	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.004	0.00/0.00	0.004
sevc015	Ditch	Road Ditch	Intermittent	77.72	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb048	Ditch	Road Ditch	Ephemeral	78.36	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb047	Ditch	Road Ditch	Ephemeral	78.37	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb046	Ditch	Road Ditch	Ephemeral	78.61	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb045	Ditch	Ditch	Intermittent	79.03	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	11	Open-cut	0.04	0.00/0.00	0.04
sevb044	Ditch	Road Ditch	Ephemeral	79.12	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sevb043	Ditch	Ag Ditch	Ephemeral	79.61	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	5	Open-cut	0.03	0.00/0.00	0.03
sevb042	Ditch	Road Ditch	Ephemeral	79.83	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva039	Ditch	Road Ditch	Ephemeral	79.84	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva037	Ditch	Road Ditch	Ephemeral	80.06	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva038	Ditch	Road Ditch	Intermittent	80.07	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva035	Unnamed Tributary to Bayou des Cannes	Stream	Perennial	80.48	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	8	Open-cut	0.02	0.00/0.00	0.02
seva036	Ditch	Ditch	Perennial	80.49	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	8	Open-cut	0.01	0.00/0.00	0.01
sevb041	Ditch	Road Ditch	Ephemeral	80.77	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb040	Ditch	Road Ditch	Ephemeral	80.78	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.004	0.00/0.00	0.004
sevc009	Ditch	Ag Ditch	Intermittent	81.26	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sevc010	Ditch	Ag Ditch	Intermittent	81.27	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sevb038	Ditch	Road Ditch	Ephemeral	81.71	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb039	Ditch	Road Ditch	Ephemeral	81.71	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb034	Isolated Stream	Stream	Perennial	81.73	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	8	Open-cut	0.02	0.00/0.00	0.02

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevb036	Ditch	Ditch	Ephemeral	81.75	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.005	0.00/0.00	0.005
sevb033	Isolated Stream	Stream	Perennial	82.51	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	10	Open-cut	0.03	0.00/0.00	0.03
sevb031	Ditch	Road Ditch	Ephemeral	82.70	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb032	Ditch	Road Ditch	Ephemeral	82.70	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb029	Ditch	Ag Ditch	Ephemeral	82.97	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sevb030	Ditch	Ag Ditch	Ephemeral	83.20	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sevb028	Ditch	Ag Ditch	Ephemeral	83.63	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sevb027	Ditch	Ag Ditch	Intermittent	83.73	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	20	Open-cut	0.06	0.00/0.00	0.06
sevb026	Ditch	Ag Ditch	Ephemeral	83.82	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevb020	Ditch	Road Ditch	Ephemeral	84.11	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb021	Ditch	Road Ditch	Ephemeral	84.11	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb049	Ditch	Road Ditch	Ephemeral	84.52	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb050	Ditch	Road Ditch	Ephemeral	84.53	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb051	Coulee Valentine	Stream	Intermittent	85.34	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	7	Open-cut	0.03	0.00/0.00	0.03
sevb053	Ditch	Road Ditch	Ephemeral	85.59	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb052	Ditch	Road Ditch	Ephemeral	85.60	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb014	Ditch	Road Ditch	Ephemeral	86.08	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb015	Ditch	Road Ditch	Ephemeral	86.08	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb012	Ditch	Ag Ditch	Ephemeral	86.30	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevb011	Ditch	Road Ditch	Ephemeral	86.65	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Open-cut	0.003	0.00/0.00	0.003
sevb010	Ditch	Ag Ditch	Perennial	86.88	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	10	Open-cut	0.02	0.00/0.00	0.02
sevb007	Ditch	Ag Ditch	Ephemeral	87.15	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sevb008	Ditch	Road Ditch	Ephemeral	87.18	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Open-cut	0.004	0.00/0.00	0.004
sevb009	Ditch	Road Ditch	Ephemeral	87.18	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb007	Ditch	Ag Ditch	Ephemeral	87.18	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Workspace Only	0.01	0.00/0.00	0.01
sevb004	Ditch	Ag Ditch	Perennial	87.52	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	14	Open-cut	0.10	0.00/0.00	0.10
sevb003	Unnamed Tributary to Bayou des Cannes	Stream	Perennial	87.66	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sevb001	Bayou des Cannes	Stream	Perennial	88.20	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	56	HDD	0.00	0.00/0.00	0.00
seva034	Ditch	Road Ditch	Ephemeral	88.49	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	7	HDD	0.00	0.00/0.00	0.00
seva031	Ditch	Road Ditch	Ephemeral	89.33	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva032	Ditch	Road Ditch	Ephemeral	89.33	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevy003	Ditch	Road Ditch	Ephemeral	90.15	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sevy004	Ditch	Road Ditch	Intermittent	90.16	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
seva033	Ditch	Road Ditch	Ephemeral	90.96	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
seva026	Ditch	Road Ditch	Ephemeral	91.33	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
seva023	Ditch	Road Ditch	Ephemeral	91.71	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
seva024	Ditch	Road Ditch	Ephemeral	91.71	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
seva021	Ditch	Road Ditch	Ephemeral	92.14	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	14	Open-cut	0.02	0.00/0.00	0.02
seva022	Ditch	Road Ditch	Ephemeral	92.15	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
seva019	Ditch	Ag Ditch	Ephemeral	92.74	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
oeva003	Pond	Stock Pond	N/A [e]	92.83	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	0 [f]	Workspace Only	0.02	0.00/0.00	0.02
seva018	Ditch	Ag Ditch	Ephemeral	92.83	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	8	Open-cut	0.001	0.00/0.00	0.001

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva018	Ditch	Ag Ditch	Ephemeral	92.83	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	8	Open-cut	0.01	0.00/0.00	0.01
seva020	Ditch	Ag Ditch	Ephemeral	92.90	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
seva015	Ditch	Road Ditch	Ephemeral	93.06	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva016	Ditch	Road Ditch	Ephemeral	93.06	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevy001	Unnamed Tributary to Bayou Marron	Road Ditch	Intermittent	93.42	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01
sevy002	Unnamed Tributary to Bayou Marron	Road Ditch	Ephemeral	93.43	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
oeva001	Pond	Impoundment	N/A [e]	93.77	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	0 [f]	Workspace Only	0.002	0.00/0.00	0.002
seva011	Unnamed Tributary to Bayou Marron	Stream	Intermittent	93.79	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	19	Open-cut	0.06	0.00/0.00	0.06
seva041	Ditch	Ag Ditch	Perennial	93.98	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	9	Open-cut	0.02	0.00/0.00	0.02
seva042	Ditch	Ag Ditch	Intermittent	94.10	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
seva043	Ditch	Ag Ditch	Intermittent	94.11	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
seva010	Ditch	Road Ditch	Perennial	94.31	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva009	Ditch	Road Ditch	Perennial	94.33	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01
seva005	Unnamed Tributary to Bayou Marron	Stream	Perennial	94.55	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.004	0.00/0.00	0.004
seva004	Ditch	Road Ditch	Ephemeral	95.43	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva003	Ditch	Road Ditch	Intermittent	95.44	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
Access Roads										
sacb012	Ditch	Ditch	Ephemeral	PAR-11.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	3	Culvert	0.00	0.003/2.42	0.003
sacb013	Ditch	Ditch	Ephemeral	PAR-11.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	1	Culvert	0.00	0.003/2.42	0.003
sace002	Ditch	Ag Ditch	Ephemeral	PAR-12.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Culvert	0.00	0.003/2.42	0.003
sach001	Ditch	Ag Ditch	Ephemeral	PAR-13.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	4	Culvert	0.00	0.003/2.42	0.003
sevb044	Ditch	Road Ditch	Ephemeral	PAR-15.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Culvert	0.00	0.002/1.61	0.002
sevb050	Ditch	Road Ditch	Ephemeral	PAR-16.0	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.00	0.002/1.61	0.002
sevy005	Ditch	Ditch	Intermittent	PAR-17.0	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Culvert	0.00	0.004/3.23	0.004

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjey011	Ditch	Ditch	Intermittent	TAR-37.4	PCR (N- Fecal), SCR, FWP (N- Pb, PO4, NO3, NO2, DO, Hg, Turb), AGR	2	Culvert	0.003	0.00/0.00	0.003
NHD_64 [a]	Unnamed	Stream or River	Intermittent	TAR-37.7	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_66 [a]	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_67 [a]	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_68 [a]	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_69 [a]	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
sevy006	Ditch	Ditch	Intermittent	TAR-39.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	6	Culvert	0.01	0.00/0.00	0.01
NHD_118	Unnamed	Ditch	Ephemeral	TAR-39.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	3	Culvert	0.003	0.00/0.00	0.003
NHD_74 [a]	Unnamed	Stream or River	Perennial	TAR-39.3	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_75 [a]	Unnamed	Stream or River	Intermittent	TAR-39.3	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.002	0.00/0.00	0.002
NHD_76 [a]	Unnamed	Stream or River	Intermittent	TAR-40.1	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
Contractor/Pipe Yards										
NHD_63 [a]	Unnamed	Stream or River	Intermittent	Contractor Yard 3	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Workspace Only	0.02	0.00/0.00	0.02
Aboveground Facilities										
sacb015	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.51	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	3	N/A [d]	0.01	0.00/0.00	0.01
sacb015 [j]	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.51	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	3	N/A [d]	0.07	0.00/0.00	0.07
sacb016	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.52	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	4	N/A [d]	0.01	0.00/0.00	0.01
sacb016 [j]	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.52	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	4	N/A [d]	0.02	0.00/0.00	0.02

N/A = not applicable

[a] Feature delineated utilizing a desktop analysis. For desktop features in which a clear channel is not evident based on aerial imager, a waterbody width of 2 feet was assumed.

[b] Feature is crossed by an access road or contractor yard, but is not crossed by the pipeline centerline.

[c] Feature is located within the Project workspace, but is not crossed by the pipeline centerline.

[d] Feature is located within the footprint of an aboveground facility, but is not crossed by the pipeline centerline.

[e] Feature is open water and does not have a flow regime.

[f] Feature is open water and does not have an ordinary high water mark.

[g] **State Water Quality Designated Use Description Classifications:**

PCR = Primary Contact Recreation (swimming)

SCR = Secondary Contact Recreate (boating)

FWP = Fish and Wildlife Propagation (fishing)

DWS = Drinking Water Supply

ONR = Outstanding Natural Resource

OYS = Oyster Propagation

AGR = Agriculture

None = No 305b Assessment by LDEQ

[h] Based on correspondence with LDWF (Reed, 2017).

[i] Waterbody is crossed by the 3.4-mile lateral in addition to the main pipeline route.

[j] Waterbody is located within the permanent footprint of the CS 02 (Basile Station); however, all impacts to the waterbody will be temporary as it will be returned to pre-construction contours upon completion of construction.

Use Support Codes for Designated Uses:

N = Not supporting designated use

I = Insufficient data to make reliable determination

X = No data

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification [g]	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)

Note: Waterbody crossing assessments based upon LDEQ 2016c.

<u>Suspected Impairment Cause:</u>

Fecal Coliforms (Fecal)	Nitrite (NO2)
Total Dissolved Solids (TDS)	Nitrate (NO3)
Mercury (Hg)	Phosphorous (PO4)
Dissolved Oxygen (DO)	Polychlorinated biphenyls (PCB)
Sulfates (SO4)	Tetrachloroethane (TCE)
Color Chlorides (Cl)	Bromoform (Br)
Lead (Pb)	Hexachlorobenzene (HCBz)
Turbidity (Turb)	Hexachlorbutadiene (HCBu)

Table 4.14-2

Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Approximate Size of Project [c] (Acres)	Cumulative Impact Association: Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Cumulative Impact Association: Land Use, Recreation, and Visual Resources	Cumulative Impact Association: Cultural Resources	Cumulative Impact Association: Noise
Cameron LNG Project (Cameron LNG Holdings, LLC) (1) (FERC 2014) (1)	Industrial Projects	Cameron and Calcasieu F: 2.0 miles south of the Facility. P: 4.5 miles south of Pipeline.	Construction: Present Operation: 2019	Expansion of the existing LNG facility to include 3 additional liquefaction trains, 1 additional storage tank, and a new 21-mile, 42-inch-diameter pipeline.	Construction: 7,045 (peak) Operation: 130	823.6		F		
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	Industrial Projects	Calcasieu F: 1.4 miles east of Facility. P: 2.4 miles east of Pipeline.	Construction: 2016 Operation: 45 month construction period (Train 1); 3-month intervals after completion of first train (Trains 2, 3, and 4)	New LNG facility.	Construction: 542 jobs (peak) Operation: 190	129	F, P	F		
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	Industrial Projects	Calcasieu, and Jefferson Davis F: 2.6 miles east of Facility. P: Crosses the proposed Pipeline at approx. MP 47.9.	Construction: Present Operation 2019	Expansion of LNG facility, addition of one new compressor station, one new meter station, 11.4 miles of new 42-inch-diameter pipeline, 6.5 miles of new 24-inch-diameter pipeline, and replacement of 5,577 feet of existing pipeline.	Liquefaction Facility - Construction: 5,600 (peak) Operation: 176. Non-Liquefaction Facilities – Construction: 90 (Compressor Stations); 260 (Pipelines) Operation: 8	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	F, P	P	P	
Monkey Island LNG Project (formerly SCT&E LNG Project) (SCT&E LNG) (5)	Industrial Projects	Cameron F: 20.7 miles south of Facility. P: 22.1 miles south of Pipeline.	Construction: Information Unavailable Operation: 2022	New LNG facility	Construction: 2,000 Operation: 200	246	F			
Commonwealth LNG Project (formerly Waller LNG)(Commonwealth LNG, LLC) (6) (Commonwealth LNG, LLC. 2017)	Industrial Project	Cameron F: 21.9 miles south of Facility. P: 23.2 miles south of Pipeline.	Construction: 2019 Operation: 2022	New LNG facility	Construction: 700 Operation: 100-200	132.6	F			
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Industrial Projects	Cameron F: 20.3 miles south of Facility. P: 21.7 miles south of Pipeline.	Construction: 2018 Operation: 2020	New LNG facility and 42.7-mile pipeline	Construction: 1,810 (peak) Operation: 130	Calcasieu Pass Terminal and TransCameron Pipeline Project: 1,181.9 [f]	F			
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project(Lotte Corporation / Axiall Corporation) (9)	Industrial Projects	Calcasieu F: 8.1 miles northeast of Facility. P: 5.5 miles east of Pipeline.	Construction: Present Operation: 2019	Construction of chemical facility to produce ethylene and a new ethane cracker for ethylene production	Construction: 2,000 (peak) Operation: 215	250	P			
Entergy Louisiana (11)	Industrial Projects	Calcasieu F: 3.8 miles north. P: 3.2 miles east	Const: 2016. Operation: 2018	Build 2 new substations. Expand 2 existing substation. Add 25 miles of high voltage transmission lines.	Information Unavailable	Substations: --. T-Lines: 303.0 [d]	F, P			

Table 4.14-2

Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Approximate Size of Project [c] (Acres)	Cumulative Impact Association: Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Cumulative Impact Association: Land Use, Recreation, and Visual Resources	Cumulative Impact Association: Cultural Resources	Cumulative Impact Association: Noise
Golden Nugget (12)	Industrial Projects	Calcasieu F: 8 miles northeast. P: 7.6 miles east	Construction: Present Operation: 2017	Casino Resort Expansion	Construction: Information Unavailable Operation: 100	1	F			
Indorama Ventures (13)	Industrial Projects	Calcasieu F: 5.6 miles north. P: 3.7 miles east	Construction: Present Operation: 2017	Ethane cracker facility production of ethylene and propylene (refurbish)	Construction: 600 (peak) Operation: 125	250	F, P			
York Capital (formerly Juniper GTL)(14)	Industrial Projects	Calcasieu F: 9.8 miles northeast. P: 5.2 miles south	Construction: Present Operation: 2018	Natural gas to liquids plant (refurbish)	Construction: 125 Operation: 29	Information Unavailable	F			
Lake Charles Memorial Health System (15)	Industrial Projects	Calcasieu F: 10.5 miles northeast. P: 8.9 miles southeast	Construction: Present; Operation: New ICU currently in operation	Health system facility – expand emergency services, renovate and add new intensive care unit, add new medical office building	Information Unavailable	Information Unavailable	F			
McNeese State University (18)	Industrial Projects	Calcasieu F: 8.6 miles. P: 9.6 miles	Construction: Various projects complete or deferred	University – construction and renovations	Information Unavailable	Information Unavailable	F, P			
Port of Lake Charles Calcasieu Ship Channel (19)	Industrial Projects	Calcasieu F: 8.9 miles northeast of Facility. P: 6.8 miles south of Pipeline.	Construction: Present Operation: 2019	Port – rebuild wharf and storage facility, new administrative building, and other capital improvements	Information Unavailable	Information Unavailable	F			
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	Industrial Projects	Calcasieu F: 10.3 miles northeast of Facility. P: 3.4 miles southeast of Pipeline.	Construction: 2015 (Ethane Cracker Complex); 2016 (GTL) Operation: 2017 (Ethane Cracker Complex); 2020 (GTL)	Construction of a petrochemical complex with ethane cracker and six chemical manufacturing plants as well as a Gas to Liquids Facility (GTL).	Construction: 7,000 Operation: 1,200	3,034	F			
Sowela Technical Community College (21)	Industrial Projects	Calcasieu F: 12.6 miles northeast Facility. P: 9.8 miles southeast Pipeline.	Regional Training Facility complete. New Sycamore Student Center time frame for construction is unknown	Community College – new Regional Training Facility, new Sycamore Student Center	Information Unavailable	Information Unavailable	F			
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016)	Pipeline Projects	Acadia, Calcasieu, and Jefferson Davis F: 2.91 miles northeast of the Facility. P: 3.66 miles east of the Pipeline.	Construction: March 2017 Operation: 3Q 2017	Approximately 163 miles of new 24-inch diameter crude oil pipeline	Construction: 2,500 Operation: 12	2,016.68	F, P			
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	Pipeline Projects	Calcasieu and Jefferson Davis F: 1.08 mile south of the Facility. P: 2.44 miles south of the Pipeline	Construction: November 2015 Operation: March 2018	Approximately 34 miles of new 30-inch and 36-inch natural gas transmission pipeline.	Construction: 200 Operation: 3	560.1	F	F		
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	Pipeline Projects	Cameron, Acadia, Evangeline F: 53.5 miles northeast of the Facility. P: 120 feet southeast of the Pipeline centerline (workspace overlaps)	Construction: April 2018 Operation: April 2019	Modification to existing interconnects; construction of a new interconnect, a total of 7,600 feet of 36-inch- diameter pipeline, and 700 feet of 24-inch- diameter pipeline; and addition of 15,900 hp at a previously authorized but not yet constructed compressor station (CS 760).	Construction: 250 Operation: 2	81.03	P	P	P	

Table 4.14-2

Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Approximate Size of Project [c] (Acres)	Cumulative Impact Association: Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Cumulative Impact Association: Land Use, Recreation, and Visual Resources	Cumulative Impact Association: Cultural Resources	Cumulative Impact Association: Noise
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	Pipeline Projects	Calcasieu, Evangeline F: 3.4 miles west of the Facility. P: Potentially collocated at various locations between MP 5.6 and 16.2.	Const: Q1 2020 Operation: Q3 2022	Approximately 135 miles of new 42-inch diameter natural gas pipeline, one new compressor station, and interconnect facilities in east Texas and west Louisiana.	Construction: 820 Operation: 20	1,980	F, P	P	P	
Belle Savanne (31) (USACE 2013c)	Housing Developments	Calcasieu F: 7.2 miles north of Facility. P: 1.1 miles east of Pipeline	Construction: Spring 2017 (Phase II)	Homes and commercial spaces	Information Unavailable	200	P	P		
Berdon – Campbell Building Lofts (32)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles southeast of Pipeline	Information Unavailable	Loft community in formerly vacant building	Information Unavailable	Approx. 0.5 [e]	F			
Bridalwoods Country Estates (33)	Housing Developments	Calcasieu F: 21.8 miles northeast of Facility. P: 1.2 miles north of Pipeline	Information Unavailable	Development of residential homes	Information Unavailable	Information Unavailable	P			
Charleston Point (34)	Housing Developments	Calcasieu F: 10.6 miles northeast of Facility. P: 7.1 miles northwest of Pipeline	Construction: Present Operation: Information Unavailable	Townhome development in Downtown Lake Charles	Information Unavailable	1.9	F			
Chateau Ridge Subdivision (35)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 0.6 miles northeast of Pipeline	Construction: Present Operation: Information Unavailable	38 lot family residential development	Information Unavailable	Information Unavailable	P	P		
Coffey Pines (36)	Housing Developments	Calcasieu F: 17.4 miles northeast of Facility. P: 1.0-mile northwest of Pipeline	Construction: 2011 (Phase I); 2009 (Phase II) Operation: 2014 (Phase I); 2016 (Phase II)	Residential development	Information Unavailable	37.5	P	P		
Dreamview Estate Phase III (37) (FERC 2015b)	Housing Developments	Calcasieu F: 18.4 miles northeast of Facility. P: 0.2-mile north of Pipeline	Construction: 2016 Operation: Information Unavailable	33 lot subdivision	Information Unavailable	12.3	P	P		
Ella Lane Subdivision (38)	Housing Developments	Calcasieu F: 16 miles northeast of Facility. P: 2.5 miles northwest of Pipeline	Information Unavailable	Commercial and residential zoned property	Information Unavailable	3.67	P			
Elm Street Apartment Complex (39)	Housing Developments	Calcasieu F: 9.9 miles northeast of Facility. P: 7.7 miles northwest of Pipeline	Construction: Complete	Residential complex	Information Unavailable	Approx. 1.2	F			
La Bordeaux Subdivision (40)	Housing Developments	Calcasieu F: 15.2 miles southwest of Facility. P: 3.9 miles west of Pipeline	Information Unavailable	14 unit subdivision	Information Unavailable	5.3	P			
Mcmillin Place Subdivision (42)	Housing Developments	Calcasieu F: 16.2 miles southwest of Facility. P: 1.5 miles west of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	Information Unavailable	P			
Oak Creek Village Subdivision (43) (USACE 2016b)	Housing Developments	Calcasieu F: 6.9 miles southeast of Facility. P: 1.9 miles west of Pipeline	Construction: Present Operation: Information Unavailable	120 lot subdivision	Information Unavailable	36	P			
Pentangeli Row Subdivision (44)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 1.3 miles north of Pipeline	Information Unavailable	48 lot subdivision for single family residential use	Unknown	14.3	P			
River Trace Phase II Subdivision (45)	Housing Developments	Calcasieu F: 14.0 miles southwest of Facility. P: 2.0 miles northwest of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	8.6	P			

Table 4.14-2

Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Approximate Size of Project [c] (Acres)	Cumulative Impact Association			
							Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Land Use, Recreation, and Visual Resources	Cultural Resources	Noise
Sears Building/New Downtown District Facility (46)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles Southeast of Pipeline	Construction: Estimated December 2016 Operation: Estimated 15 Months from Construction Date	Former retail site to be converted into downtown district (residential units and commercial properties)	Information Unavailable	3.5	F			
Shady Oaks Subdivision (47)	Housing Developments	Calcasieu F: 14.2 miles north of Facility. P: 0.9 miles north of Pipeline	Information Unavailable	Residential development	Information Unavailable	Information Unavailable	P	P		
Shadows at Bayou Oaks (48)	Housing Developments	Calcasieu F: 6.7 miles northwest of Facility. P: 1.9 miles West	Information Unavailable	Residential development	Information Unavailable	55 [e]	F, P			
Sutherland Subdivision (50)	Housing Developments	Calcasieu F: 15.1 miles northeast Facility. P: 1.7 miles east of Pipeline	Information Unavailable	3 Phase residential development	Information Unavailable	31	P			
Taylor Estates Subdivision (51)	Housing Developments	Calcasieu F: 5.8 miles northwest of Facility. P: 0.3 miles east Pipeline	Information Unavailable	33 lot residential development	Information Unavailable	16.46	F, P	P		
Terre Sainte (52)	Housing Developments	Calcasieu F: 9.1 miles northeast of Facility. P: 7.3 miles southeast of Pipeline	Information Unavailable	92 lot residential development	Information Unavailable	27.33 [e]	F			
The Isles (53)	Housing Developments	Calcasieu F: 6.0 miles northeast of Facility. P: 7.6 miles east of Pipeline	Information Unavailable	64 duplex homes	Information Unavailable	Information Unavailable	F, P			
Walnut Grove Development (54)	Housing Developments	Calcasieu F: 9.0 miles northeast of Facility. P: 8.8 miles east of Pipeline	Construction: November 2013 Operation: 2020	60 acre commercial and residential development	Information Unavailable	60	F			
West End (55)	Housing Developments	Calcasieu F: 13.9 miles northwest of Facility. P: 1.9 miles west of Pipeline	Information Unavailable	105 units residential development	Information Unavailable	120	P		F, P	
Willow Brook (56)	Housing Developments	Calcasieu F: 4.7 miles northeast of Facility. P: 4.8 miles northeast of Pipeline	Information Unavailable	Residential development 138 single family homes	Information Unavailable	30	F, P			
Morgan Field (60)	Commercial Developments	Calcasieu F: 11.5 miles northeast of Facility. P: 11.9 miles southeast of Pipeline	Construction: Present Operation: Information Unavailable	Master Planned Community – Residential (700 lots) and retail commercial development	Information Unavailable	277.4	F			
Louisiana 384 (61)	Infrastructure Developments	Calcasieu F: 2.9 miles northeast of Facility. P: 3.9 miles northeast of Pipeline	August 2016 – February 2017	Closed lane	Information Unavailable	24.2 [d, e]	F, P			
U.S. 171 (b) (63)	Infrastructure Developments	Calcasieu F: 21.1 miles northeast of Facility. P: 2.7 miles north of Pipeline	2016-2017	Traffic flow improvements	Information Unavailable	6.8 [d]	P			
U.S. 165 (64)	Infrastructure Developments	Jefferson Davis F: 27.8 miles northeast of Facility. P: 5.9 miles southeast of Pipeline	2016-2018	New location/replacement bridge	Information Unavailable	87.4 [d]	P			
Interstate 10 (65)	Infrastructure Developments	Calcasieu F: 10.4 miles northeast of Facility. P: 5.6 miles southeast of Pipeline	2016	Bridge reconditioning	Information Unavailable	75.2 [d]	F			

Table 4.14-2

Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Approximate Size of Project [c] (Acres)	Cumulative Impact Association: Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Cumulative Impact Association: Land Use, Recreation, and Visual Resources	Cumulative Impact Association: Cultural Resources	Cumulative Impact Association: Noise
Williams Pipeline Relocation (66)	FERC-jurisdictional Projects	Calcasieu F: Within the Facility Site. P: Collocated within the Facility Site	2018	Relocate approximately 7,000 feet of existing 6-inch diameter hydrocarbon pipeline.	Information Unavailable	6.2	F, P	F, P	F, P	F, P
Entergy Facility Transmission Line (67)	Other Energy Projects	Calcasieu F: Partially located within the Facility Site. P: Collocated within the Facility Site	2021	Addition of one new substation and approximately 22 miles of new 230 kv electric transmission line.	Information Unavailable	Approx. 333	F, P	F, P	F, P	F, P
Bollinger Shipyard Access Road (68)	Transportation, Port, and Road Improvements	Calcasieu F: Within the Facility Site. P: 0.1 mile southeast of the Pipeline	2018	Extend the existing Burton Shipyard Road approximately 700 feet to provide access to the Bollinger Shipyard.	Information Unavailable	0.8	F, P	F, P	F	F, P
Highway 27 Improvements (69)	Transportation, Port, and Road Improvements	Calcasieu F: Varies. P: Varies.	2018	Widening of Highway 27 and/or improvement of intersections between Interstate 10 and Burton Shipyard Road.	Information Unavailable	Information Unavailable	F, P	F, P		F, P
Burton Shipyard Road Improvements (70)	Transportation, Port, and Road Improvements	Calcasieu F: Located immediately north of the Facility Site. P: Collocated within the Facility Site	2018	Widen, upgrade, and resurface Burton Shipyard Road	Information Unavailable	Information Unavailable	F, P	F, P		F, P
Stine Road Extension (71)	Transportation, Port, and Road Improvements	Calcasieu F: 1.0 miles north of Facility. P: 0.5 miles northeast of Pipeline	2018	Additional 0.16 mile to extend Stine Road to provide direct access to Hwy 27 for residents of the Driftwood community.	Information Unavailable	1.0	F, P	F, P		P
Chenault (AAR) (8)	Industrial Projects	Calcasieu F: 13.1 miles northeast of Facility. P: 9.8 miles southeast of Pipeline	Information Unavailable	Maintenance, Repair and Overhaul (MRO) facility	Construction: Unknown Operation: 250 with a possible additional 500 in 2017	2.7	F			

[a] Only those resources where the Project may contribute to cumulative impacts, as described in the following sections are indicated in this column. 'None' indicates where the Project has no impact for any resource within the geographic scope, based on a review of potential Project impacts and mitigation, and therefore the Project would not cumulatively interact with a project. Distance is measured from the nearest portion of the Facility boundary and/or the Pipeline workspace from the identified project's location.

[b] Based upon readily available public information.

[c] Estimated acreage is based information provided in publicly available project information.

[d] Estimated acreage is based on an assumed 100-foot-wide construction corridor.

[e] Estimated acreage based on information provided in publicly available project mapping.

[f] Project size is inclusive of the total facility site, offsite construction support facilities (at the former Liberty Services/DeHyCo Services/Martin Midstream Services Facility), and the TransCameron Pipeline.

Table 4.14-3

Resources Affected by Other Projects in the HUC-12 Watersheds Crossed by the Project Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Approximate Size of Project [a] (Acres)	Impacts on Forest (acres)	Impacts on Wetlands (acres)	Impacts on Waterbodies (number crossed)
Bayou Arceneaux				
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	314.7 [b]	253.3 [b]	120 [b]
U.S. 165 (64)	87.4 [d]	NA	NA	NA
Bayou Choupique				
Entergy Louisiana (11)	Substations: --. T-Lines: 303.0 [d]	NA	NA	NA
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
Shadows at Bayou Oaks (48)	55 [e]	NA	NA	NA
Taylor Estates Subdivision (51)	16.46	NA	NA	NA
Williams Pipeline Relocation (66)	6.2	0.0 [c]	0.0 [c]	0.0 [c]
Entergy Facility Transmission Line (67)	Approx. 333	NA	NA	NA
Highway 27 Improvements (69)	NA	NA	NA	NA
Burton Shipyard Road Improvements (70)	NA	NA	NA	NA
Bayou Duralde-Bayou Nezpique				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
Bayou Marron-Bayou Des Cannes				
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	81.03	0.0	0.2 [b]	12 [b]
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
Bayou Verdine-Calcasieu River				
Golden Nugget (12)	1	NA	NA	NA
York Capital (formerly Juniper GTL)(14)	NA	NA	NA	NA
McNeese State University (18)	NA	NA	NA	NA
Port of Lake Charles Calcasieu Ship Channel (19)	NA	NA	NA	NA
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	3,034	NA	743.3	NA
Berdon – Campbell Building Lofts (32)	Approx. 0.5 [e]	NA	NA	NA
Charleston Point (34)	1.9	NA	NA	NA
Elm Street Apartment Complex (39)	Approx. 1.2	NA	NA	NA
Sears Building/New Downtown District Facility (46)	3.5	NA	NA	NA
Terre Sainte (52)	27.33 [e]	NA	NA	NA
Walnut Grove Development (54)	60	NA	NA	NA
Interstate 10 (65)	75.2 [d]	NA	NA	NA
Calcasieu Lake- Calcasieu Pass				
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	560.1	9.7	63.8	102
SCT&E LNG Project (SCT&E LNG) (5)	246	NA	NA	NA
Commonwealth LNG Project (6) (Commonwealth LNG, LLC. 2017)	132.6	NA	109.7	NA
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Calcasieu Pass Terminal and TransCameron Pipeline Project: 1,181.9 [f]	0.0	332.2	76
Calcasieu River- Prien Lake				
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016) (USACE 2016)	2,016.68	NA	454	NA
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	129	34.0	15.0	10
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	314.7 [b]	253.3 [b]	120 [b]
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 [d]	NA	NA	NA
Indorama Ventures (13)	250	NA	NA	NA
The Isles (53)	NA	NA	NA	NA
Willow Brook (56)	30	NA	NA	NA
Louisiana 384 (61)	24.2 [d, e]	NA	NA	NA
Williams Pipeline Relocation (66)	6.2	0.0 [c]	0.0 [c]	0.0 [c]
Bollinger Shipyard Access Road (68)	0.8	NA	NA	NA
Highway 27 Improvements (69)	NA	NA	NA	NA
Stine Road Extension (71)	1.0	NA	NA	NA
Dry Slough-Bayou Nezpique				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
Houston River Canal				
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 [d]	NA	NA	NA
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
West End (55)	120	NA	NA	NA
Indian Bayou				
Chateau Ridge Subdivision (35)	NA	NA	NA	NA
Ella Lane Subdivision (38)	3.67	NA	NA	NA
Mcmillin Place Subdivision (42)	NA	NA	NA	NA
Sutherland Subdivision (50)	31	NA	NA	NA
Kayouche Coulee				
Chenault (AAR) (8)	2.7	NA	NA	NA
Lake Charles Memorial Health System (15)	NA	NA	NA	NA
Sowela Technical Community College (21)	NA	NA	NA	NA
Morgan Field (60)	277.4	NA	NA	NA
Little Indian Bayou				
Bridalwoods Country Estates (33)	NA	NA	NA	NA
Coffey Pines (36)	37.5	NA	NA	NA
Dreamview Estate Phase III (37) (FERC 2015b)	12.3	NA	2.6	NA

Table 4.14-3

Resources Affected by Other Projects in the HUC-12 Watersheds Crossed by the Project Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Approximate Size of Project [a] (Acres)	Impacts on Forest (acres)	Impacts on Wetlands (acres)	Impacts on Waterbodies (number crossed)
Pentangeli Row Subdivision (44)	14.3	NA	NA	NA
U.S. 171 (b) (63)	6.8 [d]	NA	NA	NA
Little River				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
Shady Oaks Subdivision (47)	NA	NA	NA	NA
Lower Bayou Serpent				
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	314.7 [b]	253.3 [b]	120 [b]
U.S. 165 (64)	87.4 [d]	NA	NA	NA
Maple Fork- Bayou D'Inde				
Highway 27 Improvements (69)	NA	NA	NA	NA
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 [d]	NA	NA	NA
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project(Lotte Corporation / Axiall Corporation) (9)	250	NA	NA	NA
Belle Savanne (31) (USACE 2013c)	200	NA	17.6	NA
Oak Creek Village Subdivision (43) (USACE 2016b)	36	NA	20.9	NA
Moss Gully-West Fork Calcasieu River				
La Bordeaux Subdivision (40)	5.3	NA	NA	NA
River Trace Phase II Subdivision (45)	8.6	NA	NA	NA
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	81.03	0.0	0.2 [b]	12 [b]
Richards Lake-Houston River				
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 [d]	NA	NA	NA
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
Wing Gully- Bayou Choupique				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	1,980	328.2 [b]	636.2 [b]	144 [b]
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 [d]	NA	NA	NA
Entergy Facility Transmission Line (67)	Approx. 333	NA	NA	NA
Total Cumulative Impact	**11,979.0**	**686.6**	**2,648.8**	**464.0**

[a] Estimated acreage is based on an assumed 100-foot-wide construction corridor.

[b] Publicly available information did not analyze project impacts by watershed, so the total project impact on this resource is shown in the entry for each watershed but included only once in the Total Cumulative Impact.

[c] Project is within the LNG Facility Site; impacts would not contribute to cumulative impacts.

[d] Estimated acreage is based on an assumed 100-foot-wide construction corridor.

[e] Estimated acreage based on information provided in publicly available project mapping.

[f] Project size is inclusive of the total facility site, offsite construction support facilities (at the former Liberty Services/DeHyCo Services/Martin Midstream Services Facility), and the TransCameron Pipeline.

NA Information was not publicly available.

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Cameron LNG Project (Cameron LNG Holdings, LLC) (1) (FERC 2014)	Industrial Projects	Cameron and Calcasieu F: 2.0 miles south of the Facility. P: 4.5 miles south of Pipeline	Construction: Present Operation: 2019	Expansion of the existing LNG facility to include 3 additional liquefaction trains, 1 additional storage tank, and a new 21-mile, 42-inch-diameter pipeline.	Construction: 7045 (peak) Operation: 130	F, P
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	Industrial Projects	Calcasieu F: 1.4 miles east of Facility. P: 2.4 miles east of Pipeline	Construction: 2016 Operation: 45 month construction period (Train 1); 3-month intervals after completion of first train (Trains 2, 3, and 4)	New LNG facility	Construction: 542 jobs (peak) Operation: 190	F, P
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	Industrial Projects	Calcasieu, and Jefferson Davis F: 2.6 miles east of Facility. P: Crosses the proposed Pipeline at approx. MP 47.9	Construction: Present Operation 2019	Expansion of LNG facility, addition of one new compressor station, one new meter station, 11.4 miles of new 42-inch-diameter pipeline, 6.5 miles of new 24-inch-diameter pipeline, and replacement of 5,577 feet of existing pipeline.	Liquefaction Facility - Construction: 5,600 (peak) Operation: 176	F, P
Monkey Island LNG Project (formerly SCT&E LNG Project) (SCT&E LNG) (5)	Industrial Projects	Cameron F: 20.7 miles south of Facility. P: 22.1 miles south of Pipeline	Construction: Information Unavailable Operation: 2022	New LNG facility	Construction: 2,000 Operation: 200	F, P
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Industrial Projects	Cameron F: 20.3 miles south of Facility. P: 21.7 miles south of Pipeline	Construction: 2018 Operation: 2020	New LNG facility and 42.7-mile pipeline	Construction: 1,810 (peak) Operation: 130	
Chenault (AAR) (8)	Industrial Projects	Calcasieu F: 13.1 miles northeast of Facility. P: 9.8 miles southeast of Pipeline	Information Unavailable	Maintenance, Repair and Overhaul (MRO) facility	Construction: Unknown Operation: 250 with a possible additional 500 in 2017	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project(Lotte Corporation / Axiall Corporation) (9)	Industrial Projects	Calcasieu F: 8.1 miles northeast of Facility. P: 5.5 miles east of Pipeline	Construction: Present Operation: 2019	Construction of chemical facility to produce ethylene and a new ethane cracker for ethylene production	Construction: 2,000 (peak) Operation: 215	F, P
Dongsung FineTec (Dongsung FineTec Co. Ltd.) (10)	Industrial Projects	Calcasieu F: 13 miles northeast of the Facility. P: 10.0 miles south of Pipeline	Construction: 2017 Operation: 2020	Cryogenic insulation production facility	Construction: 20 Operation: 200	F, P
Entergy Louisiana (11)	Industrial Projects	Calcasieu F: 3.8 miles north. P: 3.2 miles east	Const: 2016. Operation: 2018	Build 2 new substations. Expand 2 existing substation. Add 25 miles of high voltage transmission lines.	Information Unavailable	F, P
Golden Nugget (12)	Industrial Projects	Calcasieu F: 8 miles northeast. P: 7.6 miles east	Construction: Present Operation: 2017	Casino Resort Expansion	Construction: Information Unavailable Operation: 100	F, P
Indorama Ventures (13)	Industrial Projects	Calcasieu F: 5.6 miles north. P: 3.7 miles east	Construction: Present Operation: 2017	Ethane cracker facility production of ethylene and propylene (refurbish)	Construction: 600 (peak) Operation: 125	F, P
York Capital (formerly Juniper GTL) (14)	Industrial Projects	Calcasieu F: 9.8 miles northeast. P: 5.2 miles south	Construction: Present Operation: 2018	Natural gas to liquids plant (refurbish)	Construction: 125 Operation: 29	F, P
Lake Charles Memorial Health System (15)	Industrial Projects	Calcasieu F: 10.5 miles northeast. P: 8.9 miles southeast	Construction: Present; Operation: New ICU currently in operation	Health system facility – expand emergency services, renovate and add new intensive care unit, add new medical office building	Information Unavailable	F, P
Lake Charles Memorial Health System (16)	Industrial Projects	Calcasieu F: 5.6 miles northeast. P: 6.9 miles northeast	Construction: 2016 (Phase 1); Information Unavailable (Phase 2 & 3) Operation: 2017 (Phase 1); Information Unavailable (Phase 2 & 3)	Behavioral health hospital. Construction will consist of three phases.	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Lake Charles Regional Airport (17)	Industrial Projects	Calcasieu F: 6.7 miles east. P: 8 miles east	Construction: Present Operation: expected to be complete in 90 days.	Airport – runway rehabilitation	Information Unavailable	F, P
McNeese State University (18)	Industrial Projects	Calcasieu F: 8.6 miles. P: 9.6 miles	Construction: Various projects complete or deferred	University – construction and renovations	Information Unavailable	F, P
Port of Lake Charles Calcasieu Ship Channel (19)	Industrial Projects	Calcasieu F: 8.9 miles northeast of Facility.	Construction: Present Operation: 2019	Port – rebuild wharf and storage facility, new administrative building, and other capital improvements	Information Unavailable	F, P
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	Industrial Projects	Calcasieu F: 10.3 miles northeast of Facility. P: 3.4 miles southeast of Pipeline	Construction: 2015 (Ethane Cracker Complex); 2016 (GTL) Operation: 2017 (Ethane Cracker Complex); 2020 (GTL)	Construction of a petrochemical complex with ethane cracker and six chemical manufacturing plants as well as a Gas to Liquids Facility (GTL).	Construction: 7,000 Operation: 1,200	F, P
Sowela Technical Community College (21)	Industrial Projects	Calcasieu F: 12.6 miles northeast Facility. P: 9.8 miles southeast Pipeline	Regional Training Facility complete. New Sycamore Student Center time frame for construction is unknown	Community College – new Regional Training Facility, new Sycamore Student Center	Information Unavailable	F, P
Crowley-Rayne Industrial Park (22)	Industrial Projects	Acadia F: 61.9 miles east of Facility. P: 20.4 miles southeast of Pipeline	Currently in operation. Acreage still to be developed	Land for both commercial and industrial developments. Located off of Hwy. 90 just west of Rayne	Information Unavailable	P
Freeland Site (23)	Industrial Projects	Acadia F: 54.8 miles east of Facility. P: 16.4 miles southeast of Pipeline	Information Unavailable	536 acre state certified development ready site	Information Unavailable	P
Evangeline Ward 1 Industrial Park Expansion (24)	Industrial Projects	Evangeline F: 76.3 miles northeast of Facility. P: 6.8 miles north of Pipeline	Construction: Present Operation: Information Unavailable	96.5 acre state certified site located north of Ville Plat, houses Ville Platt Iron Works and Cameron Valves (Cameron Ironworks – merger, company focused on production of oil and gas tools and machinery)	Information Unavailable	P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016)	Pipeline Projects	Acadia, Calcasieu, and Jefferson Davis F: 2.91 miles northeast of the facility. P: 3.66 miles east of the Pipeline.	Construction: March 2017 Operation: 3Q 2017	Approximately 163 miles of new 24-inch diameter crude oil pipeline	Construction: 2,500 Operation: 12	F, P
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	Pipeline Projects	Calcasieu and Jefferson Davis F: 1.08 mile south of the facility. P: 2.44 miles south of the Pipeline	Construction: November 2015 Operation: March 2018	Approximately 34 miles of new 30-inch and 36-inch natural gas transmission pipeline.	Construction: 200 Operation: 3	F, P
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	Pipeline Projects	Cameron, Acadia, Evangeline F: 53.5 miles northeast of the facility. P: 120 feet southeast of the Pipeline centerline (workspace overlaps)	Construction: April 2018 Operation: April 2019	Modification to existing interconnects; construction of a new interconnect, a total of 7,600 feet of 36-inch-diameter pipeline, and 700 feet of 24-inch-diameter pipeline; and addition of 15,900 hp at a previously authorized but not yet constructed compressor station (CS 760).	Construction: 250 Operation: 2	P
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	Pipeline Projects	Calcasieu, Evangeline F: 3.4 miles west of the facility. P: Potentially collocated at various locations between MP 82.0 and 95.9	Const: Q1 2020 Operation: Q3 2022	Approximately 135 miles of new 42-inch diameter natural gas pipeline, one new compressor station, and interconnect facilities in east Texas and west Louisiana.	Construction: 820 Operation: 20	F, P
Audubon Trace Subdivision (29)	Housing Developments	Calcasieu F: 17.0 miles northeast of Facility. P: 3.6 miles south of Pipeline	Information Unavailable	182 single-family residential development	Information Unavailable	F, P
Beau Blanc Subdivision (30)	Housing Developments	Calcasieu F: 9.2 miles northeast of Facility. P: 11.0 miles southeast of Pipeline	Present (lots available)	Community in Lake Charles, 238 lots	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Belle Savanne (31) (USACE 2013c)	Housing Developments	Calcasieu F: 7.2 miles north of Facility. P: 1.1 miles east of Pipeline	Construction: Spring 2017 (Phase II)	Homes and commercial spaces	Information Unavailable	F, P
Berdon – Campbell Building Lofts (32)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles southeast of Pipeline	Information Unavailable	Loft community in formerly vacant building	Information Unavailable	F, P
Bridalwoods Country Estates (33)	Housing Developments	Calcasieu F: 21.8 miles northeast of Facility. P: 1.2 miles north of Pipeline	Information Unavailable	Development of residential homes	Information Unavailable	F, P
Charleston Point (34)	Housing Developments	Calcasieu F: 10.6 miles northeast of Facility. P: 7.1 miles northwest of Pipeline	Construction: Present Operation: Information Unavailable	Townhome development in Downtown Lake Charles	Information Unavailable	F, P
Chateau Ridge Subdivision (35)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 0.6 miles northeast of Pipeline	Construction: Present Operation: Information Unavailable	38 lot family residential development	Information Unavailable	F, P
Coffey Pines (36)	Housing Developments	Calcasieu F: 17.4 miles northeast of Facility. P: 1.0-mile northwest of Pipeline	Construction: 2011 (Phase I); 2009 (Phase II) Operation: 2014 (Phase I); 2016 (Phase II)	Residential development	Information Unavailable	F, P
Dreamview Estate Phase III (37) (FERC 2015b)	Housing Developments	Calcasieu F: 18.4 miles northeast of Facility. P: 0.2-mile north of Pipeline	Construction: 2016 Operation: Information Unavailable	33 lot subdivision	Information Unavailable	F, P
Ella Lane Subdivision (38)	Housing Developments	Calcasieu F: 16 miles northeast of Facility. P: 2.5 miles northwest of Pipeline	Information Unavailable	Commercial and residential zoned property	Information Unavailable	F, P
Elm Street Apartment Complex (39)	Housing Developments	Calcasieu F: 9.9 miles northeast of Facility. P: 7.7 miles northwest of Pipeline	Construction: Complete	Residential complex	Information Unavailable	F, P
La Bordeaux Subdivision (40)	Housing Developments	Calcasieu F: 15.2 miles southwest of Facility. P: 3.9 miles west of Pipeline	Information Unavailable	14 unit subdivision	Information Unavailable	F, P
LAC Development (41)	Housing Developments	Calcasieu F: 17.1 miles northeast of Facility. P: 3.5 miles northwest of Pipeline	Information Unavailable	Located within Audubon Trace development, will contain 17 units	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Mcmillin Place Subdivision (42)	Housing Developments	Calcasieu F: 16.2 miles southwest of Facility. P: 1.5 miles west of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	F, P
Oak Creek Village Subdivision (43) (USACE 2016b)	Housing Developments	Calcasieu F: 6.9 miles southeast of Facility. P: 1.9 miles west of Pipeline	Construction: Present Operation: Information Unavailable	120 lot subdivision	Information Unavailable	F, P
Pentangeli Row Subdivision (44)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 1.3 miles north of Pipeline	Information Unavailable	48 lot subdivision for single family residential use	Unknown	F, P
River Trace Phase II Subdivision (45)	Housing Developments	Calcasieu F: 14.0 miles southwest of Facility. P: 2.0 miles northwest of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	F, P
Sears Building/New Downtown District Facility (46)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles Southeast of Pipeline	Construction: Estimated December 2016 Operation: Estimated 15 Months from Construction Date	Former retail site to be converted into downtown district (residential units and commercial properties)	Information Unavailable	F, P
Shady Oaks Subdivision (47)	Housing Developments	Calcasieu F: 14.2 miles north of Facility. P: 0.9 miles north of Pipeline	Information Unavailable	Residential development	Information Unavailable	F, P
Shadows at Bayou Oaks (48)	Housing Developments	Calcasieu F: 6.7 miles northwest of Facility. P: 1.9 miles West	Information Unavailable	Residential development	Information Unavailable	F, P
Sugarcane Subdivision (49)	Housing Developments	Calcasieu F: 19.3 miles northeast of Facility. P: 9.2 miles south of Pipeline	Information Unavailable	179 acres residential development with over 600 single family and multifamily homes	Information Unavailable	F, P
Sutherland Subdivision (50)	Housing Developments	Calcasieu F: 15.1 miles northeast Facility. P: 1.7 miles east of Pipeline	Information Unavailable	3 Phase residential development	Information Unavailable	F, P
Taylor Estates Subdivision (51)	Housing Developments	Calcasieu F: 5.8 miles northwest of Facility. P: 0.3 miles east Pipeline	Information Unavailable	33 lot residential development	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Terre Sainte (52)	Housing Developments	Calcasieu F: 9.1 miles northeast of Facility. P: 7.3 miles southeast of Pipeline	Information Unavailable	92 lot residential development	Information Unavailable	F, P
The Isles (53)	Housing Developments	Calcasieu F: 6.0 miles northeast of Facility. P: 7.6 miles east of Pipeline	Information Unavailable	64 duplex homes	Information Unavailable	F, P
Walnut Grove Development (54)	Housing Developments	Calcasieu F: 9.0 miles northeast of Facility. P: 8.8 miles east of Pipeline	Construction: November 2013 Operation: 2020	60 acre commercial and residential development	Information Unavailable	F, P
West End (55)	Housing Developments	Calcasieu F: 13.9 miles northwest of Facility. P: 1.9 miles west of Pipeline	Information Unavailable	105 units residential development	Information Unavailable	F, P
Willow Brook (56)	Housing Developments	Calcasieu F: 4.7 miles northeast of Facility. P: 4.8 miles northeast of Pipeline	Information Unavailable	Residential development 138 single family homes	Information Unavailable	F, P
Wisteria Vine, Phase 3 Subdivision (57)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 3.1 miles north of Pipeline	Information Unavailable	63 lots for residential homes	Information Unavailable	F, P
Grand View (Derrick Development) (59)	Commercial Developments	Acadia F: 58.2 miles northeast of Facility. P: 17.9 miles southeast of Pipeline	Construction: April 2017	80 acre multi-use development. Frontage road (service road) to be constructed along interstate and through property	Information Unavailable	P
Morgan Field (60)	Commercial Developments	Calcasieu F: 11.5 miles northeast of Facility. P: 11.9 miles southeast of Pipeline	Construction: Present Operation: Information Unavailable	Master Planned Community – Residential (700 lots) and retail commercial development	Information Unavailable	F, P
Louisiana 384(61)	Infrastructure Developments	Calcasieu F: 2.9 miles northeast of Facility. P: 3.9 miles northeast of Pipeline	August 2016 – February 2017	Closed lane	Information Unavailable	F, P
U.S. 171 (a)(62)	Infrastructure Developments	Calcasieu F: 16.5 miles northeast of Facility. P: 3.3 miles south of Pipeline	2016-2017	Traffic flow improvements	Information Unavailable	F, P
U.S. 171 (b)(63)	Infrastructure Developments	Calcasieu F: 21.1 miles northeast of Facility. P: 2.7 miles north of Pipeline	2016-2017	Traffic flow improvements	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
U.S. 165 (64)	Infrastructure Developments	Jefferson Davis F: 27.8 miles northeast of Facility. P: 5.9 miles southeast of Pipeline	2016-2018	New location/replacement bridge	Information Unavailable	P
Interstate 10 (65)	Infrastructure Developments	Calcasieu F: 10.4 miles northeast of Facility. P: 5.6 miles southeast of Pipeline	2016	Bridge reconditioning	Information Unavailable	F, P
Williams Pipeline Relocation (66)	FERC-jurisdictional Projects	Calcasieu F: Within the Facility Site. P: Collocated within the Facility Site	2018	Relocate approximately 7,000 feet of existing 6-inch diameter hydrocarbon pipeline.	Information Unavailable	F, P
Entergy Facility Transmission Line (67)	Other Energy Projects	Calcasieu F: Partially located within the Facility Site. P: Collocated within the Facility Site	2021	Addition of one new substation and approximately 22 miles of new 230 kv electric transmission line.	Information Unavailable	P
Bollinger Shipyard Access Road (68)	Transportation, Port, and Road Improvements	Calcasieu F: Within the Facility Site. P: 0.1 mile southeast of the Pipeline	2018	Extend the existing Burton Shipyard Road approximately 700 feet to provide access to the Bollinger Shipyard.	Information Unavailable	F, P
Highway 27 Improvements (69)	Transportation, Port, and Road Improvements	Calcasieu F: Varies. P: Varies	2018	Widening of Highway 27 and/or improvement of intersections between Interstate 10 and Burton Shipyard Road.	Information Unavailable	F, P
Burton Shipyard Road Improvements (70)	Transportation, Port, and Road Improvements	Calcasieu F: Located immediately north of the Facility Site. P: Collocated within the Facility Site	2018	Widen, upgrade, and resurface Burton Shipyard Road	Information Unavailable	F, P
Stine Road Extension (71)	Transportation, Port, and Road Improvements	Calcasieu F: 0.96 miles north of Facility. P: 0.49 miles northeast of Pipeline	2018	Additional 0.16 mile to extend Stine Road to provide direct access to Hwy 27 for residents of the Driftwood community.	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)

[a] Only those resources where the Project may contribute to cumulative impacts, as described in the following sections are indicated in this column. 'None' indicates where the Project has no impact for any resource within the geographic scope, based on a review of potential Project impacts and mitigation, and therefore the Project would not cumulatively interact with a project. Distance is measured from the nearest portion of the Facility boundary and/or the Pipeline workspace from the identified project's location.

[b] Based upon readily available public information.

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Cameron LNG Project (Cameron LNG Holdings, LLC) (1) (FERC 2014)	Industrial Projects	Cameron and Calcasieu F: 2.0 miles south of the Facility. P: 4.5 miles south of Pipeline	Construction: Present Operation: 2019	Expansion of the existing LNG facility to include 3 additional liquefaction trains, 1 additional storage tank, and a new 21-mile, 42-inch-diameter pipeline.	F, P
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	Industrial Projects	Calcasieu F: 1.4 miles east of Facility. P: 2.4 miles east of Pipeline	Construction: 2016 Operation: 45 month construction period (Train 1); 3-month intervals after completion of first train (Trains 2, 3, and 4)	New LNG facility	F, P
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	Industrial Projects	Calcasieu, and Jefferson Davis F: 2.6 miles east of Facility. P: Crosses the proposed Pipeline at approx. MP 47.9	Construction: Present Operation 2019	Expansion of LNG facility, addition of one new compressor station, one new meter station, 11.4 miles of new 42-inch-diameter pipeline, 6.5 miles of new 24-inch-diameter pipeline, and replacement of 5,577 feet of existing pipeline.	F, P
Monkey Island LNG Project (formerly SCT&E LNG Project) (SCT&E LNG) (5)	Industrial Projects	Cameron F: 20.7 miles south of Facility. P: 22.1 miles south of Pipeline	Construction: Information Unavailable Operation: 2022	New LNG facility	F
Commonwealth LNG Project (formerly Waller LNG)(Commonwealth LNG, LLC) (6) (Commonwealth LNG, LLC. 2017)	Industrial Projects	Cameron F: 21.9 miles south of Facility. P: 23.2 miles south of Pipeline	Construction: 2019 Operation: 2022	New LNG facility	F
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Industrial Projects	Cameron F: 20.3 miles south of Facility. P: 21.7 miles south of Pipeline	Construction: 2018 Operation: 2020	New LNG facility and 42.7-mile pipeline	F

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Chenault (AAR) (8)	Industrial Projects	Calcasieu F: 13.1 miles northeast of Facility. P: 9.8 miles southeast of Pipeline	Information Unavailable	Maintenance, Repair and Overhaul (MRO) facility	F, P
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project(Lotte Corporation / Axiall Corporation) (9)	Industrial Projects	Calcasieu F: 8.1 miles northeast of Facility. P: 5.5 miles east of Pipeline	Construction: Present Operation: 2019	Construction of chemical facility to produce ethylene and a new ethane cracker for ethylene production	F, P
Dongsung FineTec (Dongsung FineTec Co. Ltd.) (10)	Industrial Projects	Calcasieu F: 13 miles northeast of the Facility. P: 10.0 miles south of Pipeline	Construction: 2017 Operation: 2020	Cryogenic insulation production facility	F, P
Entergy Louisiana (11)	Industrial Projects	Calcasieu F: 3.8 miles north. P: 3.2 miles east	Construction: 2016. Operation: 2018	Build 2 new substations. Expand 2 existing substation. Add 25 miles of high voltage transmission lines.	F, P
Indorama Ventures (13)	Industrial Projects	Calcasieu F: 5.6 miles north. P: 3.7 miles east	Construction: Present Operation: 2017	Ethane cracker facility production of ethylene and propylene (refurbish)	F, P
York Capital (formerly Juniper GTL) (14)	Industrial Projects	Calcasieu F: 9.8 miles northeast. P: 5.2 miles south	Construction: Present Operation: 2018	Natural gas to liquids plant (refurbish)	F, P
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	Industrial Projects	Calcasieu F: 10.3 miles northeast of Facility. P: 3.4 miles southeast of Pipeline	Construction: 2015 (Ethane Cracker Complex); 2016 (GTL) Operation: 2017 (Ethane Cracker Complex); 2020 (GTL)	Construction of a petrochemical complex with ethane cracker and six chemical manufacturing plants as well as a Gas to Liquids Facility (GTL).	F, P

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Evangeline Ward 1 Industrial Park Expansion (24)	Industrial Projects	Evangeline F: 76.3 miles northeast of Facility. P: 6.8 miles north of Pipeline	Construction: Present Operation: Information Unavailable	96.5 acre state certified site located north of Ville Plat, houses Ville Platt Iron Works and Cameron Valves (Cameron Ironworks – merger, company focused on production of oil and gas tools and machinery)	P
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016)	Pipeline Projects	Acadia, Calcasieu, and Jefferson Davis F: 2.91 miles northeast of the facility. P: 3.66 miles east of the Pipeline.	Construction: March 2017 Operation: 3Q 2017	Approximately 163 miles of new 24-inch diameter crude oil pipeline	F, P
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	Pipeline Projects	Calcasieu and Jefferson Davis F: 1.08 mile south of the facility. P: 2.44 miles south of the Pipeline	Construction: November 2015 Operation: March 2018	Approximately 34 miles of new 30-inch and 36-inch natural gas transmission pipeline.	F, P
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	Pipeline Projects	Cameron, Acadia, Evangeline F: 53.5 miles northeast of the facility. P: 120 feet southeast of the Pipeline centerline (workspace overlaps)	Construction: April 2018 Operation: April 2019	Modification to existing interconnects; construction of a new interconnect, a total of 7,600 feet of 36-inch-diameter pipeline, and 700 feet of 24-inch-diameter pipeline; and addition of 15,900 hp at a previously authorized but not yet constructed compressor station (CS 760).	P
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	Pipeline Projects	Calcasieu, Evangeline F: 3.4 miles west of the facility. P: Potentially collocated at various locations between MP 82.0 and 95.9	Const: Q1 2020 Operation: Q3 2022	Approximately 135 miles of new 42-inch diameter natural gas pipeline, one new compressor station, and interconnect facilities in east Texas and west Louisiana.	F, P
Dreamview Estate Phase III (37) (FERC 2015b)	Housing Developments	Calcasieu F: 18.4 miles northeast of Facility. P: 0.2-mile north of Pipeline	Construction: 2016 Operation: Information Unavailable	33 lot subdivision	P

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) [a] (miles)	Anticipated Construction Date	Description [b]	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Taylor Estates Subdivision (51)	Housing Developments	Calcasieu F: 5.8 miles northwest of Facility. P: 0.3 miles east Pipeline	Information Unavailable	33 lot residential development	P
Williams Pipeline Relocation (66)	FERC-jurisdictional Projects	Calcasieu F: Within the Facility Site. P: Collocated within the Facility Site	2018	Relocate approximately 7,000 feet of existing 6-inch diameter hydrocarbon pipeline.	F, P [c]
Entergy Facility Transmission Line (67)	Other Energy Projects	Calcasieu F: Partially located within the Facility Site. P: Collocated within the Facility Site	2021	Addition of one new substation and approximately 22 miles of new 230 kv electric transmission line.	F, P [c]
Bollinger Shipyard Access Road (68)	Transportation, Port, and Road Improvements	Calcasieu F: Within the Facility Site. P: 0.1 mile southeast of the Pipeline	2018	Extend the existing Burton Shipyard Road approximately 700 feet to provide access to the Bollinger Shipyard.	F, P [c]
Highway 27 Improvements (69)	Transportation, Port, and Road Improvements	Calcasieu F: Varies. P: Varies	2018	Widening of Highway 27 and/or improvement of intersections between Interstate 10 and Burton Shipyard Road.	P [c]
Burton Shipyard Road Improvements (70)	Transportation, Port, and Road Improvements	Calcasieu F: Located immediately north of the Facility Site. P: Collocated within the Facility Site	2018	Widen, upgrade, and resurface Burton Shipyard Road	F, P [c]

[a] Only those resources where the Project may contribute to cumulative impacts, as described in the following sections are indicated in this column. 'None' indicates where the Project has no impact for any resource within the geographic scope, based on a review of potential Project impacts and mitigation, and therefore the Project would not cumulatively interact with a project. Distance is measured from the nearest portion of the Facility boundary and/or the Pipeline workspace from the identified project's location.

[b] Based upon readily available public information.

[c] Project is within the LNG Facility Site; impacts would not contribute to cumulative impacts.

APPENDIX B

DISTRIBUTION LIST

APPENDIX B
DISTRIBUTION LIST

Federal Government Agencies

Advisory Council on Historic Preservation (ACHP), John Eddins , DC

Army Corps of Engineers, Planning and Policy Division , John Furry, DC

Bureau of Indian Affairs, DOI, Pamela Snyder-Osmun, VA

Bureau of Indian Affairs, DOI, Terry L McClung, DC

Bureau of Land Management, DOI, Kerry Rogers, DC

Bureau of Ocean Energy Management, DOI, Dr. Jill Lewandowski, VA

Bureau of Oceans & International Environmental & Scientific Affairs, DOS , Alexander Yuan, DC

Bureau of Safety and Environmental Enforcement, DOI, David Fish, VA

Conservation and Environmental Program Division, FSA, USDA, Nell Fuller, DC

Council on Environmental Quality, Edward Boling, DC

Council on Environmental Quality, Manisha Patel, DC

Department of Wildlife and Fisheries, Zachary Chain, LA

Dept. of Health and Human Services, Edward Pfister, DC

Environment and Natural Resources Division, DOJ, DC

Environmental Protection Agency, Cynthia Giles, DC

Environmental Protection Agency, Jerome Blackman, DC

Environmental Protection Agency, Karin Leff, DC

Environmental Protection Agency, Susan E Bromm, DC

Federal Emergency Management Agency (FEMA), Tony Robinson, TX

Federal Energy Regulatory Commission, Alisa Lykens , DC

Federal Energy Regulatory Commission, Kelley Munoz, DC

Federal Energy Regulatory Commission, Rich McGuire , DC

Federal Energy Regulatory Commission, Robert Kopka , DC

Federal Energy Regulatory Commission, Terry Turpin , DC

National Center for Environmental Health, CDC, HHS, Sharunda Buchanan, GA

National Oceanic and Atmospheric Administration and Fisheries Service (NOAA Fisheries), David Bernhart , FL

National Oceanic and Atmospheric Administration and Fisheries Service (NOAA Fisheries), Richard Hartman, LA

National Oceanic and Atmospheric Administration and Fisheries Service (NOAA Fisheries), Roy E. Crabtree, FL

National Park Service, DOI, Patrick Walsh, CO

Natural Resources Conservation Service, USDA, Andree DuVarney, DC

NOAA National Marine Fisheries Service, Dept. of Commerce, MD

Office of Assistant Secretary for Transportation Policy, USDOT, Camille Mittelholtz, DC

Office of Assistant Secretary for Transportation Policy, USDOT, Helen Serassio, DC

Office of Environment and Energy, HUD, Danielle Schopp, DC

Office of Environmental Management, DOE , Mark Whitney, DC

<u>Federal Government Agencies (cont'd)</u>

Office of Federal Programs, Advisory Council on Historic Preservation, Charlene D Vaughn, DC

Office of NEPA Policy and Compliance, DOE, Carol M. Borgstrom, DC

Office of Pipeline Safety USDOT PHMSA, Bryn Karaus , DC

Office of Pipeline Safety USDOT PHMSA, Kenneth Y Lee, DC

Pipeline & Hazardous Materials Safety Administration USDOT, Magdy El-Sibaie, DC

Pipeline & Hazardous Materials Safety Administration, Office of Pipeline Safety, USDOT , Karen Lynch, DC

Pipeline & Hazardous Materials Safety Administration, USDOT, Jeffrey Wiese, DC

Pipeline & Hazardous Materials Safety Administration, USDOT, Sherri Pappas, DC

Pipeline and Hazardous Materials Safety Division, Kenneth Y. Lee, DC

Senate Energy and Natural Resources Committee, Lisa Murkowski, DC

Surface Transportation Board, USDOT , Victoria Rutson, DC

U.S. Fish and Wildlife Service, Brad Rieck, LA

U.S. Fish and Wildlife Service, Debbie Fuller, LA

U.S. Fish and Wildlife Service, Stephen R Spencer, NM

U.S. Army Corps of Engineers, Amy Ostringer , LA

U.S. Army Corps of Engineers, Amy Powell , LA

U.S. Army Corps of Engineers, Darrell Barbara, LA

U.S. Army Corps of Engineers, Edward Creef, LA

U.S. Army Corps of Engineers, India Sims, LA

U.S. Army Corps of Engineers, James Little, LA

U.S. Army Corps of Engineers, Jeff Corbino, LA

U.S. Army Corps of Engineers, Martin Mayer , LA

U.S. Army Corps of Engineers, Rick Broussard, LA

U.S. Army Corps of Engineers, Robert Swayze, LA

U.S. Army Corps of Engineers, Tracy Falk, LA

U.S. Army Corps of Engineers, Yojna Calix, LA

U.S. Coast Guard, Dallas Smith, TX

U.S. Coast Guard, Jason Smith, TX

U.S. Coast Guard, Nathaniel Robinson, NH

U.S. Coast Guard, R.S. Ogrydziak, TX

U.S. Coast Guard Academy, Dan Cost, CT

U.S. Coast Guard, Lake Charles, Dimitri Wiener, LA

U.S. Coast Guard, Lake Charles, Lindsey Flanagan, LA

U.S. Coast Guard, Lake Charles, Michael Oyler, LA

U.S. Coast Guard, Lake Charles, Samuel Rodriguez-Gonzalez, LA

U.S. Department of Energy, Brian Lavoie, DC

U.S. Department of Energy, Office of Fossil Energy (DOE), Amy Sweeney, DC

U.S. Department of Interior, Amy Trahan, LA

U.S. Department of Interior, Angela Trahan, LA

U.S. Department of Interior, John Nelson, NM

U.S. Department of Interior, Stephen Spencer, NM

U.S. Department of Transportation, Buddy Secor, DC

Federal Government Agencies (cont'd)

U.S. Department of Transportation, Stacy Cummings , DC

U.S. Department of Transportation, Wayne Lemoi, GA

U.S. Department of Transportation, Federal Aviation Administration, Kevin Solco, TX

U.S. Environmental Protection Agency (EPA), Ron Curry , TX

U.S. Environmental Protection Agency Region 6, Kimeka Price, TX

U.S. Environmental Protection Agency Region 6, Robert Houston, TX

U.S. Fish and Wildlife Service, Joshua Marceaux, LA

US Customs and Border Protection Dept. of Homeland Security, Christopher Oh, DC

US Department of Energy, John Anderson, DC

US Department of Energy, Office of Fossil Energy, Office of Regulation and International Engagement, Division of Natural Gas Regulation, Kyle W. Moorman, DC

US Department of Homeland Security, FEMA Retion 6, Mayra G. Diaz, TX

US Geological Survey, Esther Eng, VA

USDA Forest Service-Ecosystem Management Coordination, Joe Carbone, DC

Federal Senators and Representatives

Office of U.S. Senator Bill Cassidy, David A Cavell, LA

U.S. Congress, Garret Graves, DC

U.S. Congress, Mike Johnson, DC

U.S. Congress, Ralph Abraham, DC

U.S. Congress, Steve Scalise, DC

U.S. House of Representatives, Clay Higgins, LA

U.S. House of Representatives, Garrett Graves, LA

U.S. House of Representatives, Mike Johnson, LA

U.S. House of Representatives, Ralph Abraham, LA

U.S. Senate, Bill Cassidy, LA

U.S. Senate, John Neely Kennedy, DC

U.S. Senate, John Neely Kennedy, LA

State Senators and Representatives

Governor of the State of Louisiana, John Bel Edwards, LA

Lt. Governor of the State of Louisiana, Billy Nungesser, LA

Office of Representative A.B. Franklin, Athena Woods, LA

Office of Representative Dorothy Sue Hill, Linda Willis, LA

Office of Representative H. Bernard LeBas, Rhonda Reed, LA

Office of Representative John Guinn, Mary Tietje, LA

Office of Representative Mark Abraham, Ginger Gomez, LA

Office of Representative Michael Danahay, Karen Gothreaux, LA

Office of Representative Phillip R. DeVillier, Rebel S. Manuel, LA

Office of Representative Stephen Dwight, Cynthia Haman, LA

Office of Senator Dan Morrish, Jennifer Boudreaux, LA

Office of Senator John Smith, Willie Boswell, LA

Office of Senator Ronnie Johns, Alexis Jackson, LA

State Senators and Representatives (cont'd)

State House of Representatives, A.B. Franklin, LA

State House of Representatives, Craig "Bob" Hensgens, LA

State House of Representatives, Dorothy Sue Hill, LA

State House of Representatives, H. Bernard LeBas, LA

State House of Representatives, John E. Guinn, LA

State House of Representatives, Mark Abraham, LA

State House of Representatives, Michael Danahay, LA

State House of Representatives, Phillip DeVillier, LA

State House of Representatives, Stephen Dwight, LA

State Senator , Dan "Blade" Morrish, LA

State Senator , Eric LaFleur, LA

State Senator , John Smith, LA

State Senator , Ronnie Johns, LA

State Government Agencies

Jefferson Davis Parish, Sherwin LeFranc, LA

Louisiana Department of Environmental Quality (LDEQ), Bruce Fielding , LA

Louisiana Department of Environmental Quality (LDEQ), Donald Trahan, LA

Louisiana Department of Environmental Quality (LDEQ), Jamie Phillippe , LA

Louisiana Department of Environmental Quality (LDEQ), Scott Guilliams, LA

Louisiana Department of Environmental Quality (LDEQ), Tegan Treadaway, LA

Louisiana Department of Natural Resources (LDNR), Christine Charrier, LA

Louisiana Department of Natural Resources (LDNR), Jessica Bickham, LA

Louisiana Department of Natural Resources (LDNR), Joseph S. Ball Jr., LA

Louisiana Department of Natural Resources (LDNR), Karl Morgan , LA

Louisiana Department of Natural Resources (LDNR), Nicole Dandourand, LA

Louisiana Department of Natural Resources (LDNR), Ontario James, LA

Louisiana Department of Transportation and Development, Jared Chaumont, LA

Louisiana Department of Transportation and Development, Joy Johnson, LA

Louisiana Department of Transportation and Development, Shawn Wilson, LA

Louisiana Department of Wildlife and Fisheries (LDWF), Amity Bass, LA

Louisiana Department of Wildlife and Fisheries (LDWF), Dave Butler, LA

Louisiana Department of Wildlife and Fisheries (LDWF), Nicole Lorenz, LA

Louisiana Division of Archaeology (LDA), Charles Chip McGimsey, LA

Louisiana Natural Heritage Program, Carolyn Michon, LA

Louisiana State Historic Preservation Office, Phil Boggan, LA

River Pilots' Association - Lake Charles Pilots, Brett Palmer, LA

Local Government Agencies

Acadia Parish, AJ Broussard, LA

Acadia Parish, Elaine Credeur, LA

Acadia Parish, Laura Faul, LA

Acadia Parish, Lee Hebert, LA

Acadia Parish, Michael Schexnider, LA

Local Government Agencies (cont'd)

Acadia Parish Police Jury , Chuck Broussard, LA

Acadia Parish Police Jury , David Savoy, LA

Acadia Parish Police Jury , Gloria Herbert, LA

Acadia Parish Police Jury , Jimmie Pellerin, LA

Acadia Parish Police Jury , Kerry Kilgrore, LA

Acadia Parish Police Jury , Richard Faul, LA

Acadia Parish Police Jury , Robert J. Guidry, LA

Acadia Parish Police Jury , Ronnie Fabacher, LA

Allen Parish, Richard Earl, LA

Allen Parish Police Jury, Colleen Sonnier, LA

Allen Parish Police Jury, Creig Vizena, LA

Allen Parish Police Jury, Matthew Fontenot, LA

Allen Parish Sheriff's Office, Doug Hebert, LA

Beauregard Parish Police Jury, Carlos Archield, LA

Beauregard Parish Police Jury, Elvin "Doc" Holliday, LA

Beauregard Parish Police Jury, Gerald "Mike" McLeod, LA

Beauregard Parish Police Jury, Jerry Shirley, LA

Beauregard Parish Police Jury, John Stebbins, LA

Beauregard Parish Police Jury, Mike Harper, LA

Beauregard Parish Police Jury, N.R. "Rusty" Williamson, LA

Beauregard Parish Police Jury, Ronnie Jackson, LA

Beauregard Parish Police Jury, Ronnie Libick, LA

Beauregard Parish Police Jury, S.E. Teddy Welch, LA

Beauregard Parish Police Jury, Tayra Dehoven, LA

Beauregard Parish Sheriff, Ricky Moses, LA

Calcasieu Parish, Alice Webb, LA

Calcasieu Parish, Allen Wainwright, LA

Calcasieu Parish, Dana Watkins, LA

Calcasieu Parish, Jay Picard, LA

Calcasieu Parish, Jennifer Wallace, LA

Calcasieu Parish, Timothy Mark Conner, LA

Calcasieu Parish, Wesley Crain, LA

Calcasieu Parish Police Jury, Bryan Beam, LA

Calcasieu Parish Police Jury, Chris Landry, LA

Calcasieu Parish Police Jury, Hal McMillin, LA

Calcasieu Parish Police Jury, Kathy Smith, LA

Calcasieu Parish Police Jury, Les Farnum, LA

Calcasieu Parish Police Jury, Tammy Bufkin, LA

Calcasieu Parish Sheriff, Tony Mancuso, LA

Cameron Parish , Danny Lavergne , LA

Cameron Parish , Kara Bonsall , LA

Cameron Parish , Myles Hebert , LA

City of Eunice, Germaine Simpson, LA

City of Eunice, Ginny Moody, LA

City of Eunice, Harry Summerlin, LA

City of Eunice, Heather Lanclos, LA

City of Eunice, I. Jackson Burson, LA

City of Eunice, Jason Bertrand, LA

City of Eunice, Marion Sattler, LA

City of Eunice, Scott Fontenot, LA

City of Lake Charles , Nic Hunter, LA

City of Sulphur, Arlene Blanchard, LA

Local Government Agencies (cont'd)

City of Sulphur, Christopher Duncan, LA

City of Sulphur, Dennis Bergeron, LA

City of Sulphur, Dru Ellender, LA

City of Sulphur, Kaitln Gallegos, LA

City of Sulphur, Melinda Hardy, LA

City of Sulphur, Randy Favre, LA

City of Sulphur, Stuart Moss, LA

City of Ville Platte, Bryant Riggs, LA

City of Ville Platte, C.J. Dardeau, LA

City of Ville Platte, Donald Sam, LA

City of Ville Platte, Freddie Jack, LA

City of Ville Platte, Jennifer Vidrine, LA

City of Ville Platte, Jerry Joseph, LA

City of Ville Platte, Mike Perron, LA

City of Westlake, Angie McBride, LA

City of Westlake, Bob Hardey, LA

City of Westlake, David Doucette, LA

City of Westlake, Della Hoffpauir, LA

City of Westlake, James Cormier, LA

City of Westlake, Pat Ellender, LA

City of Westlake, Rachel Collins, LA

City of Westlake, Terri Hawes, LA

Evangeline Parish, Liz Hill, LA

Evangeline Parish, Rachel West, LA

Evangeline Parish Police Jury, Bryan Vidrine, LA

Evangeline Parish Police Jury, Chester Granger, LA

Evangeline Parish Police Jury, Daniel Arvie, LA

Evangeline Parish Police Jury, Donald Bergeron, LA

Evangeline Parish Police Jury, Eric Soileau, LA

Evangeline Parish Police Jury, Kevin Veillon, LA

Evangeline Parish Police Jury, Lamar Johnson, LA

Evangeline Parish Police Jury, Mindy LaLonde, LA

Evangeline Parish Police Jury, Rocky Rider, LA

Evangeline Parish Police Jury, Ryan Ardoin, LA

Evangeline Parish Police Jury, Ryan Williams, LA

Evangeline Parish Police Jury, Sidney Fontenot, LA

Evangeline Parish Sheriff, Eddie Soileau, LA

Jefferson Davis Parish, Bill Wild, LA

Jefferson Davis Parish, Bradley Eastman, LA

Jefferson Davis Parish, Byron Buller, LA

Jefferson Davis Parish, Curt Guillory, LA

Jefferson Davis Parish, Donald Woods, LA

Jefferson Davis Parish, Ivy Woods, LA

Jefferson Davis Parish, John P. Marceaux, LA

Jefferson Davis Parish, Leonard Dupuis, LA

Jefferson Davis Parish, Linda Skrantz, LA

Jefferson Davis Parish, Mark Pousson, LA

Jefferson Davis Parish, Melvin Adams, LA

Jefferson Davis Parish, Ricky Arcemeaux, LA

Jefferson Davis Parish, Steve Eastman, LA

Jefferson Davis Parish, Tom Kilpatrick, LA

Jefferson Davis Parish, Wayne Fruge, LA

St. Landry Parish, Alvin Stelly, LA

St. Landry Parish, Bobby J. Guidroz, LA

St. Landry Parish, Coby R. Clavier, LA

St. Landry Parish, Dexter Brown, LA

St. Landry Parish, Easton Shelvin, LA

Local Government Agencies (cont'd)

St. Landry Parish, Harold L. Taylor, LA

St. Landry Parish, Jerry Red, LA

St. Landry Parish, Jimmie Edwards, LA

St. Landry Parish, Kenneth Marks, LA

St. Landry Parish, Mildred Thierry, LA

St. Landry Parish, Nancy A. Carriere, LA

St. Landry Parish, Russell Schexnayder, LA

St. Landry Parish, Timmy LeJeune, LA

St. Landry Parish, Vallie Theriot, LA

St. Landry Parish, Vivian Olivier, LA

St. Landry Parish, W.K. Bill Fontenot, LA

St. Landry Parish, Wayne Ardoin, LA

Town of Iowa, Brad BeBee, LA

Town of Iowa, Carol Ponthieux, LA

Town of Iowa, Errol B. Marshall, LA

Town of Iowa, Gerald Guidry, LA

Town of Iowa, Julie Fontenot, LA

Town of Iowa, Larry Hardy, LA

Town of Iowa, Sandra Turley, LA

Town of Iowa, Tommy Talbot, LA

Town of Kinder, Angie Van Norman, LA

Town of Kinder, C. J. Fontenot, LA

Town of Kinder, Christopher Fontenot, LA

Town of Kinder, Maria DeWees, LA

Town of Kinder, Sylvester Popillion, LA

Town of Kinder, Traci Fontenot, LA

Town of Kinder, Wayland LaFargue , LA

Village of Fenton, Clifford LeDay, LA

Village of Fenton, Curtis Deville, LA

Village of Fenton, Eddie Alfred, Jr., LA

Village of Fenton, Krisi Boese, LA

Village of Fenton, Larnell Dickens, LA

Village of Fenton, Mary Jones, LA

Village of Fenton, Mike Holmes, LA

Village of Fenton, Paul South, LA

Native American Groups

Alabama Coushatta Tribe of TX, Bryant Celestine, TX

Alabama Coushatta Tribe of TX, Clayton Sylestine, TX

Alabama Coushatta Tribe of TX, Ronie Thomas, TX

Chitmacha Tribe of Louisiana, John Paul Darden, LA

Chitmacha Tribe of Louisiana, Kimberly Walden, LA

Choctaw Nation of Oklahoma, Gary Batton, OK

Choctaw Nation of Oklahoma, Ian Thompson, OK

Choctaw Nation of Oklahoma, Lindsey Bilyeu, OK

Coushatta Tribe of Louisiana, Linda Langley, LA

Coushatta Tribe of Louisiana, Lovelin Poncho, LA

Jena Band of Choctaw Indians, Alina Shively, LA

Jena Band of Choctaw Indians, B. Cheryl Smith, LA

Jena Band of Choctaw Indians, Dana Masters, LA

Mississppi Band of Choctaw Indians, Kenneth Carleton, MS

Mississppi Band of Choctaw Indians, Phylis Anderson, MS

Tunia-Biloxi Indians of Louisiana, Earl J. Barbry Sr., LA

Native American Groups (cont'd)

Tunia-Biloxi Indians of Louisiana, Marshall Pierite, LA

Libraries

Acadia Parish Library, Ted Landry, LA

Allen Parish Library, Agnes Guillory, LA

Basile Branch Library, Sherry Bergeron, LA

Beauregard Parish Library, Erin Chesnutt, LA

Calcasieu Parish Public Library, Anthony Zauncbrecher, LA

Hackberry Public Library, LA

Jefferson Davis Parish Library, Linda LeBert-Corbello, LA

Mamou Branch Library, Angela Henry, LA

Opelousas-Eunice Public Library, Doris Lively, LA

Sulphur Regional Library, LA

Ville Platte Library, Mary Foster-Galasso, LA

Companies and Organizations

Acadia Evangeline Fire Protection District, Greg Savoy, LA

Air Products & Chemicals Inc, Leticia Prevost, TX

Alfred Palma LLC, Alfred Palma, LA

Alfred Palma LLC, James Palma, LA

Allen Parish Ambulance Service, Mark Lyons, LA

Allen Parish Fire District 5, Robbie Evans, LA

Allen Parish Fire Protection District 4, Walter Lafargue, LA

Allen Parish Wd 3 Fire Department 2, , LA

Alliance for Affordable Energy, Casey DeMoss, LA

Aluminum Services, John Leggett, LA

America's WETLAND Foundation, Val Marmillion, FL

ANR Pipeline Co, Andy Armstrong, TX

ANR Pipeline Co, Denny Skinner, MI

Arabie Law, Brian Arabie, LA

Audubon Louisiana, Douglas J. Meffert, LA

Banners at McNeese, Patricia Pludhemme, LA

Basden Agency, Alan Basden, LA

Basile Police Department, Allen Ivory, Jr., LA

Beauregard Parish Fire District 2, J.C. Phillips, LA

Big Brothers Big Sisters of Southwest Louisiana, Erin Davidson, LA

Blacklake Group, Eric Johnson, TX

Boardwalk Louisiana Midstream, LLC; Texas Gas; Gulf South Pipeline, Jeffrey McMaine, KY

Brosset Architect, David Brossett, LA

Buckeye Development & Logistics, Llc, Claudia Pankowski, PA

c/o Lennie J. Boulet, Allen Parish Ambulance Service, LA

Calcasieu Parish, Robert Daughdril, LA

Calcasieu Parish Sheriff's Office, Matt Vezinot, LA

Calcasieu Parish Sheriff's Office, Will Scheufens, LA

Cameron Interstate Pipeline, Hugh Berglund, LA

Carlyss Fire Department, James Stanley, LA

Central Crude, Steve Jordan, LA

Chair Environmental Group, Michael Dever, LA

Chaney Truck Inc., Eric Chaney, LA

Chennault International Airport, Randy Robb, LA

Companies and Organizations (cont'd)

CITGO Pipeline Co, Mark Smith, TX

City of Lake Charles Police Department, Kirk Carroll, LA

Coalition to Restore Coastal Louisiana, Kimberly Davis Reyher, LA

Coastal Conservation Association, Ben Stein, LA

Coastal Crew Change, Kay & Larry Woodcock, LA

Coastal Crew Change, Tom & Kay Kussman, LA

Colonial Pipeline Co, Dona Harrington-Burns, GA

Colton Logistics, Wendy Harper , LA

Columbia Gulf, Joshua Gibbon, TX

Columbia Gulf Transmission, LLC, Deborah Matthews, WV

Creole Trails, E.W. (Whit) Scott, TX

CRX Lands, Brian Jones, LA

CSRS, Inc, James Geihsler , LA

CSRS, Inc., James Geihsler, LA

Cypress Engineering Group, John Lowery, LA

Cypress Interstate Pipeline LLC, Bob Cote, TX

Denbury Gulf Coast Pipelines, LLC, TX

Devall Towing, Joe Devall , LA

Dixie Pipeline Company, Daniel Rodriguez, LA

Dixie Pipeline Company LLC, Mike McLaughlin, TX

Dow Pipeline Co - Cayuse; Ucar Pipeline, Roger Smith, TX

Ducks Unlimited, Cassidy Lejeune, LA

Ducks Unlimited, Jay Owen, LA

Ducks Unlimited, Mark Callais, LA

Dynamic Industries, J.D. Touchet , LA

Eagle Us 2 LLC, Jessie Casey, LA

Egan Hub Storage, Llc (Spectra Energy Partners, Lp), Dwayne Teschendorf, TX

Energy Transfer, Jeffrey K Brightwell , TX

Energy Transfer, Steve Couch, TX

Enlink Lig, LLC, Bill Worley, TX

Enlink NGL Pipeline, LP, Kristin Coats, TX

Entergy Louisiana, Phillip R. May, LA

Environmental Defense Fund, Fred Krupp, NY

Equistar Chemicals, L.P., Matthew Cesarz, TX

Eunice Chamber of Commerce, Kelly Pitre, LA

Evangeline Securities Co., Robert Eastin, LA

Fenstermaker, Rene Escuriex , LA

Five S, Andre Smith, LA

Five S, Trey Cline, LA

Five S Industrial, Danielle Hosch, LA

Florida Gas, Mike Bryant, TX

Gulf Restoration Network, Cyn Sarthou, LA

HGA, Ernest Broussard , LA

Home Builders Association of Southwest Louisiana , Liz Trahan, LA

Houston River Volunteer Fire Department, LA

Hunt Guillot & Associates, Ernest Broussard, LA

Hunt Guillot & Associates, Jim Hughes, TX

Imperial Calcasieu Regional Planning & Development Commission (IMCAL), Jerry W. Jones, LA

Institutional Advancement and SOWELA Foundation, Marianne P. White, LA

International Crane Foundation, Liz Smith, WI

J&P Land Development, LW Sellers, LA

Companies and Organizations (cont'd)

Jeff Davis Economic Development & Tourist Commission, Marion Fox, LA

Jefferson Davis Electric Cooperative, Michael Heinen, LA

Jerry Haynes Construction, Jerry Haynes, LA

Joh H. Carter Company, Inc., Lori Manuel, LA

Kinder Chamber of Commerce , Jennifer Duphlichan, LA

Kinder Morgan , Donette Bisett, TX

Kinder Morgan Louisiana Pipeline, Frank Strong, IL

Kinder Police Department, Charles Welch, LA

Kinetica Energy Express LLC, Susie Richmond, TX

LA Tank/Central Crude, Devin Palomino, LA

Lake Area Industry Alliance, Larry DeRoussel, LA

Lake Charles Southwest Louisiana Convention and Visitors Bureau, Shelley Johnson, LA

Laughlin Surveying, Inc., John Laughlin, LA

LED, William Day, LA

Lemoine Interests, Adam Lemoine , LA

Lifeline-West Calcasieu, LA

LNG Project, Maury Hudson, TX

LNG TSI Inc., James Lormand, LA

Local 692, Ellis Quave, LA

Louisiana Bucket Brigade, Anne Rolfes, LA

Louisiana Economic Development (LED), Michael Pernici, LA

Louisiana Environmental Action Network, Marylee Orr, LA

Louisiana Pigment, Gil Broussard, LA

Louisiana State Police, John Porter, LA

Louisiana Wildlife Federation , Rebecca Triche, LA

LSU Ag Center, Kevin Savoie , LA

Mamou Fire District 2, Gary Reed, LA

Mamou Police Department, Brett Zackery, LA

McNeese State University, Nikos Kiritsis, LA

Moran Shipping Agencies, Inc., Alan Courmier, LA

National Bio-Care, Neil Clark , LA

National Inspection Service, Ed Manuel, LA

Occidental Chemical Corp, Cathleen Yeager, TX

P & I Supply, Chris Minior , TX

Paa Natural Gas Storage, LLC, John Waldeck, TX

Phillips 66, Dustin Alegre, TX

Phillips 66 Pipeline Llc, Ed Hetsko, TX

Pine Prairie Volunteer Fire Department - Lake Cove Fire Department, LA

Port of Lake Charles, Barbara M. McManus, LA

Port of Lake Charles, Bill Rase, LA

Port of Lake Charles, Channing Hayden, Jr., LA

Port of Lake Charles, Dan Loughney, LA

Port of Lake Charles, Donald Brinkman, LA

Port of Lake Charles, R. Regan Brown, LA

Port of Lake Charles, Todd Henderson, LA

Port of Lake Charles, William J. Rase, III, LA

Praxair, Inc, John Maitino, NY

Primoris James Construction, Josh Cooper, LA

S&S Sprinkler/CPLEPC, Mason Lindsay, LA

Seabulk Towing, Aaron Andrus, LA

Shell Pipeline Co., L.P., Pratik Bhakta, TX

Ship to Shore Co., Sheron Faulk, LA

Companies and Organizations (cont'd)

Sierra Club – Delta Chapter , Woody Martin, LA

Southwest Louisiana Association of Realtors, Inc., Lisa Verrette, LA

Southwest Louisiana Community Foundation, Jon Manns, LA

Southwest Louisiana Socio-econ Alliance, Avon Knowlton, LA

Southwest Louisiana Socio-econ Alliance, RB Smith, LA

SOWELA Technical Commuinity College, Neil Aspinwall, LA

St. Landry Parish, Lisa Vidrine, LA

Sulphur Fire Department, Danny Dupre, LA

SWLA Economic Development Alliance, George Swift, LA

T. Baker Smith, Brady Trahan, LA

T. Baker Smith, Jonathan Bostick, LA

Targa NGL Pipe Line Co, Tim Huffer, TX

Tennessee Gas, Stuart Neck, TX

Tennessee Gas Pipeline Company, Gary Taylor, TX

Terracon, Eric McClanahan, LA

Texas Eastern & Egan Hub Partners, Kimberly Stroup, TX

Texas Gas (Boardwalk Pipeline Partners), Jill H. Edwards, TX

The Mitigation Group, Jay Fear, LA

The Mitigation Group, Jay Fear , LA

The Pauley Corporation, Pete Panly, LA

Thompson Shipping Agency, LLC, David Thompson , LA

Town of Iowa, Keith Vincent, LA

Town of Iowa, Sandi Miller, LA

Transco, Ross Conatser, TX

Transcontinental Gas Pipe Line Company, Bryan Ferguson, TX

TRC, Doree DuFresne, CO

TRC, Keith Suderman, GA

Trunkline, John Reid, TX

Trunkline Gas Co, Nathan Hlavaty, TX

United Office Supply, Carolyn Chitty, LA

Varibus Corp, Chuck Fontenot, TX

Village of Fenton, Luther Alfred , LA

Ville Platte Fire Department, LA

Ville Platte Police Department, Neal Lartigue, LA

Ward Six Fire Protection District 1, LA

West Cal. Cam. Hospital, Randy Farve, LA

West Calcasieu Association of Commerce, Jody Barrilleaux, LA

West Calcasieu Association of Commerce, Lena McArthur, LA

West Calcasieu Chamber of Commerce, Lena McArthur, LA

West Calcasieu Port, John Hohensee, LA

West Calcasieu Port, Lynn Hohensee, LA

West Calcasieu Port & Port of Vinton, Lynn Hohensee, LA

West Cameron Port, Harbor & Terminal District, Clair Hebert, LA

Westlake Petrochemicals Llc, George Slover, LA

Westlake Police Department, Chris Wilrye, LA

Individuals

4-T Investments, Inc., LA

A. Kent Seale, LA

Abear-Nunez Farms, LLC, LA

Abraham Parnell, et al., LA

Acadia Parish School Board, LA

Adam Daigle, et al., LA

Adam T. Read c/o James Aguillard, LA

Albert David Hooper, et al., LA

Albert Duwane Holden, et al., LA

Alford Clooney Savoie, LA

Alfred Clayton Gintz, et al., LA

Allen Courville , LA

Allen J. Lejeune, LA

Allen Parish School Board, LA

Allied Development, Inc., Eric L. Fontenot, LA

Allied Development, Inc., LA

Alton Dudley LeDoux c/o Crystal Capili Ledoux,

Alton Joseph Manuel, LA

Amar Ronald Johnson, et al., LA

AMC, LP c/o William Chapman, TX

American Sulphur and Oil Company c/o Doug Cook, LA

Amy Denise David Fuselier, et al., LA

Andeleah Fogleman Dronett, et al., LA

Andre Land & Cattle, LLC, LA

Andree H. Macaluso, LA

Andrew J. Fontenot, et al., LA

Andrew Sutton Antonetz, LA

Andy Edwards, et al., LA

Angela Marie Broussard, LA

Angela S. Longoria, LA

Anita Joyce Young, LA

Anne Coleman-Reinauer, et al., LA

Anne Corin Mitchell Liscum, LA

Anne Hawsey, LA

Anne Marie Ribbeck Phillips, LA

Annette Renee Westlund Sheumaker, LA

Annie Burgess Pomeroy Trust, et al., CA

ANR Pipeline Company c/o Property Tax Department, TX

Anthony Jackson Hebert, LA

Anthony Marek, TX

Anthony Todd Mathews, et al., LA

Arlin Levy, LA

Arlin Wayne Levy, et al., LA

Arnold Adrian Flower, LA

Arthur Hollins, III, et al., LA

Arthur L. Greene, et al., LA

Arthur Rene Guidry, LA

Ashley Allen Hughes, LA

ASW Properties, LLC, et al., TX

August Leonards, III, LA

Autry James Thibodeaux, LA

Ava Jerome Johnson, Jr., CA

B H Timber, Inc., LA

B. Paul LeJeune c/o Wedna K. LeJeune, LA

Baggett Enterprises, LLC c/o Horace Baggett, LA

Baldwin Paul LeJeune, et al., LA

Barbara Benoit Johnson, et al., LA

Barbara Ellen Oakley, LA

Barbara Jean Manuel Vidrine, LA

Barry N. Tietje, LA

Beatrice B. Guillot Estate c/o Marcel Guillot, LA

Bel Commercial, LLC c/o John A. Bel, LA

Belarbor Timber, LLC, LA

Belinda F. Chretien, LA

Benjamin Joseph Guilbeau, Jr., LA

Bennett Oil Corporation, et al. c/o Weber Building, LA

Bercy C. LaFluer, LA

Bernice Vidrine Klumpp c/o Diane K. Bandel, TX

Bert Chapman, CO

Betty Ann Ardoin Abshire, LA

Betty Ann Campbell, LA

Betty Avery, LA

Betty Jo Putnam-Aguillard, LA

Beverly Jane Moss Scholtens, LA

Beverly Scholter, LA

Bill & Mary LeBlanc, LA

Bill Terry, LA

Billie J. Lyles, et al., LA

Billie Joe Cole, LA

Billy Almanza, GA

Billy Ray Moses, et al., LA

Individuals (cont'd)

Blaine Kerrmy, LA

Blake A. Guidry c/o Joyce Quebodeaux, LA

Blake Brothers, LLC c/o Walker Louisiana Prop, LA

Blanchard Louise Casteel, LA

Bob Manuel, LA

Bobby Burt, LA

Bobby Lewis Potter, LA

Bollinger Calcasieu, LLC, LA

Bonnie Faye Rivers Drumwright, LA

Boyd Dale Smith, LA

Brad Fontenot, LA

Bradley S. Vincent, LA

Brady Saltzman, LA

Brandon T. Wix, LA

Brant Allan Parish, et al., LA

Brenda Landreneau Johnston, LA

Brennon H. Miller, LA

Brent Joseph Hoffpauir, LA

Brently J. Young, LA

Brian Alan Guillory, et al., LA

Brian Michael Simon, et al., LA

Brian Seymore, TX

Brock Braune, LA

Brown & Rozas Farms, Ltd., LA

Brown Family Farms, LLC, LA

Browning-Ferris, Inc. c/o Republic Services, Inc., Property Tax Department, AZ

Bruce & Gladys Guillory Farms, LA

Bruce P. Hebert, et al., LA

Bruchhaus Timberland, LLC, LA

Bryan Adam Reed, LA

Bryan K. Fontenot, LA

Buford Douglas Terro, LA

Buford John Vidrine, LA

Burkman P. Fruge, Jr., et al., LA

Burlington Resources Oil & Gas Company, LP , OK

Byng Hall Corporation, TX

C. Perry, LA

Calcasieu Land & Minerals, LLC c/o Joe Cooper, LA

Calcasieu Maine Bank Trustee c/o Helene H. K. Garbarino, LA

Calcasieu Parish Waterworks c/o District #7 Ward 6, LA

Calcasieu Police Jury, LA

Caleb Darbonne, LA

Callie A. Martin, TX

Calvin J. Ortego, Jr., et al., LA

Cameron LNG, LLC, TX

Camile Fontenot Soileau, et al., LA

Camile Fontenot Soileau, LA

Camp Pearl Ministries, LA

Carl Bryan Aguillard, TX

Carl Patrick Forrest, LA

Carla Shari Juneau, et al., LA

Carla Sue Haugen Fontenot, LA

Carmouche Family Properties, LLC, et al., LA

Carol Ann Dougherty, LA

Carol Duhon Mack, LA

Carol Sue Fuselier Richard, LA

Carolyn Corley Chafin, et al., LA

Carolyn Green Stanfield, LA

Carolyn Jackson Gifford, et al., LA

Carolyn Mareaulet,

Carrie M. Iles, MS

Cary Ross McKee, LA

Cathy Dennison Seale, LA

CDM Max, LLC, TX

Chad Dearien, LA

Chad J. Wright, et al., LA

Chad Pottmeyer, LA

Charlene Brady Hicks, LA

Charlene Johnson, et al., LA

Charles A. Ardoin, LA

Charles A. McDaniel, et al., LA

Charles Alan Thibodeaux, LA

Charles Atherton, LA

Charles Cobbs, et al., TX

Charles D. Vezinat, et al. c/o Beverly Vezinat, LA

Charles Douglas Blocker, et al., LA

Charles E. Martin, et al., TX

Charles H. Lovett Jr., LA

Charles Howell Atherton, et al., LA

Charles Istre , LA

Charles K. Bult, LA

Charles L. Daugereaux, et al., LA

Charles Lee Reed, et al., LA

Charles O. Daggett, Sr., et al., LA

Individuals (cont'd)

Charles R. Houssiere, III, et al., LA

Charlotte Gibson LaBarbera, LA

Charlotte Hanks, LA

Charlotte K. Skinner, et al. c/o Whitney Joubert, LA

Charmaine LeMaire, LA

Chase Felix McDaniel, LA

Chateau De Bon Reve, LLC, LA

Chenee Brown, LA

Cheniere Pipeline Company, TX

Cheryl Clostio, LA

Chester J. Fruge, Jr., LA

Chris J. Fontenot, LA

Christian Granger, et al., LA

Christina Ann Summerlin, et al., LA

Christina Eve Duplechain, LA

Christina Suzanne Landry Bergeron, LA

Christopher Daniel McElhaney, et al., LA

Christopher R. Hine, et al., LA

Christopher Reeves, LA

Christopher Scott Cruze, LA

Christopher Wayne Spell, et al., LA

Cindy Gillard, TX

Cindy Mae Corbello Corbello, LA

Cindy Stovall Qualls, LA

Citgo Petroleum Corporation c/o Property Tax, TX

CKX Lands, Inc., et al., LA

CKX Lands, Inc., LA

Clarence Joseph Landry, LA

Clarence Shirley, LA

Claude E. Guilbeau, et al., LA

Claude Rozas Farms, Inc., LA

Cleco Power, LLC, LA

Clements Lejeune, Jr., LA

Cleveland H. Vincent, LA

Clifford Botley, LA

Coby Perry, LA

Cody James Landry, LA

Cody James McGee, LA

Cody Wayne Goodner, LA

Coffey Farms, LLC, c/o Kenneth Nichols, LA

Cole Enterprises, LLC, LA

Como and LeFleur Concrete Works, Inc., LA

Conoco, Inc., AZ

Corbello Investors, LP, LA

Corey James Doucet, LA

Corey Lalonde, LA

Corinne Elkins Barnes, et al. c/o Gary Mark Barnes, LA

Corwin Ortego, LA

Costanza Bothers Partnership, LA

Courtney Kounter, LA

Craig Allen Guidry, LA

Craig Daniel Cudd, et al., LA

Craig Thibadeaux, LA

Creel Memorial Gardens Association, Inc., LA

Crest Natural Resources, LLC c/o David Grassi, LA

Crooked Creek Land, LLC, et al., LA

Cross Diversified Development Corporation, et al., LA

Crosstex Processing Services, LLC c/o K. E. Andrews & Company, TX

Crown Pine Reality 4, Inc. , LA

Crystal Dronet Guidry, LA

CTC Financial Investments, LLC c/o Thomas G. Henning, LA

CTJ Investments, LLC, LA

Curley Joseph Godeaux, Jr., LA

Cynthia Perry Gillard, TX

Cyprien Charles Johnson, LA

Daamon Coy Ball, LA

Dale K. Barbour, et al., LA

Damian B. Sonnier, et al., LA

Damian C. Zaunbrecher, et al., LA

Danda Godwin, LA

Daniel Bruchhaus, LA

Daniel Dale Doucet, et al., LA

Daniel Edward Rogers, Jr., LA

Daniel Joseph Goodman, Jr., et al., TX

Danielle Nicole McGee, LA

Dann M. Thomasson, FL

Danny Ray Dickerson, et al., LA

Darrell Dean Miller, LA

Darrell Glinn Corbello, LA

Darrell Lee Boudreaux, LA

Darrell Wayne Attales, et al., LA

Darren L. Redlich, LA

Darrin James Hoke, et al., LA

Individuals (cont'd)

Darryl J. Feucht, LA

Dassell Richard Wildberger, et al., LA

David & Lee Ann Bush, LA

David Backland, LA

David Chad West, LA

David E. Guillory, LA

David Edmund Rose, et al., LA

David Fontenot, LA

David Keith Faul, et al., LA

David Ledarl, LA

David Lee Miller c/o David Earl Miller, TX

David Lynn Cudd, LA

David M. Airhart, LA

David Reinauer, LA

David Ryan Daigle, et al., LA

David Victor Currie, LA

David Wayne Qualls, LA

David William Sittig, et al., LA

Davie Lou M. McGee, MS

Dawn Ismerie Herrington, TX

Dean Lee Manning, et al., LA

Deanna Darbonne Habetz, LA

Deborah Fontenot Norris, LA

Deborah Leigh Herrmann Stutes, LA

Deborah Lynn B. McDaniel, LA

Debra Jenean Leslie Castle, LA

Debra Westlund Vaughan, LA

Del-Gwen Enterprises c/o Gwen Aguillard, LA

Delores Ann Burns Boyd Westlund, TX

Delta Investments Land, Timber & Minerals, LA

Dennis Glinn Corbello, LA

Department of Public Works, et al. c/o Mr. Edwards, LA

Derek Gammage, LA

Derouen Farms, Inc., LA

Derrick A. Tassin, et al., LA

Devall Enterprises, LLC, LA

Devena Ann Johnson Watson, et al., TX

Dewey Conrad Pearson, Jr., et al., TX

Diana Hubert Vincent, LA

Diane Ortego Brown, et al., LA

Dixon Family Timber, LLC, et al., LA

Don J. Phillips, Jr., LA

Don L. Murphy, LA

Donald A. Young, et al., LA

Donald C. Putnam, LA

Donald Joseph Elkins, LA

Donald Lee Lapoint, et al., LA

Donald Lee Lapoint, et al., LA

Donald R. Johnson, et al., LA

Donna E. Cormier, TX

Donna Kaye Frazier, LA

Donna McCormick, LA

Donnie & Jamie Elliot, LA

Donovan Lee Elliott, LA

Doreston J. Johnson, LA

Dorothy Lawton, LA

Dorothy S. Brooke, et al., NY

Dorothy Trahan Benoit, LA

Dorothy V. Clemons Family Revocable Trust, et al. c/o Dorothy V. Hames, CA

Dosite Samuel Perkins, II, et al., TX

Double T Farms, LLC, LA

Doug D'Aguill, TX

Douglas Luke LeJeune, LA

Douglas Wayne Britnell, et al., LA

Doyle Baccigalope, LA

Dr. Charles E. Dupre, LA

Dr. Richard J. Chafin, et al., LA

Driftwood LNG, LLC, et al., TX

Dubea Investments Wildhorse, LP, TX

Duckley Properties Inc, LA

Duke Parker, et al., LA

Dulance Reed, LA

Duplechain Family Partnership, LLC c/o Sandra Vidrine, LA

Dustin Keith Willis, et al., LA

Dutch Cove Cemetery, LA

Dwan LeBlanc, et al., LA

Dyrell Keith Stokes, LA

Earl Kenneth Duhon, LA

Eden Broussard, LA

Edmond Trahan, et al., LA

Edward Eugene Sumpter, LA

Edward Follett Bass, LA

Edward Lee Richard, LA

Edward M. Nichols, Jr., LA

Edward W. Elder, FL

Edwin Lafayette Rush c/o John Allee, LA

Individuals (cont'd)

EIP Calcasieu, LLC c/o Cushman & Wakefield, CA

Elizabeth A. Dunn Nigro, et al., LA

Elizabeth Ann Fontenot-Olivier, et al. c/o Paul Chamberlain, LA

Elizabeth Ann Ford, et al., LA

Elizabeth P. Goldsmith, et al., LA

Ellis P. Nealy Living Trust, NC

Eloi & Winnie Ortego Family Trust c/o Elliot Ortego, LA

Eltie Marie Johnson, et al., LA

Elvin Floyd Vidrine, LA

Elward Kent Ardoin, LA

Elzie LeJeune c/o Keith D. Boone, LA

Emery A. Doguet, LA

Emma Lillian Plauche, et al., GA

Emmer Florene Ritchey Young, LA

Erbby James Perkins, Jr., LA

Erbon W. Wise, et al., LA

Eric J. Manuel, et al., KY

Eric Savant , LA

Ernest A. Houssiere, Jr., et al., LA

Estate of August Botley c/o Evain Guillory, LA

Eugene Gervis Perkins, LA

Eugene Pago, LA

Eugenia Gibson Dougherty, LA

Eva B Abate, LA

F. Miller & Sons, LLC, LA

First National Farms, Inc., LA

Fletcher LaLande, LA

Floyd Beard, Jr., et al., LA

Floyd Mitchell Lacombe, et al., LA

Floyd Williams Stains, Jr., et al., LA

Fontenot Brothers Farm, LLC, LA

Four T Management, LLC, LA

Fournerat Farms, LLC, LA

Frances Jane Nelson, LA

Frank A. LaBarbera, Jr., LA

Frank Gladney, et al., LA

Frankie Leslie Brown c/o Tommy Brown, LA

Freeman A. Fontenot, CA

G & J Cattle Co., Inc., LA

G.G. Co, Gerald Gilbert, LA

Gary A. Miller, LA

Gary B. Ardoin, LA

Gary Dean Gehrig, et al., LA

Gary Lee Campbell, LA

Gary Mark Barnes, et al., LA

Gary R. Clevenger, LA

Gavin Taylor Fontenot, LA

Gaye Stoker, LA

Gene Michael Karam, LA

Geneva LeJeune Bellon, et al., LA

George Glinn Corbello, Jr., LA

George Hardy Vincent, et al., LA

George L. Walton, Jr., et al., LA

George Mabry Anderson, LA

George R. Scalia, LA

George Thomas Mendoza, III, et al., LA

Gerald E. Moore, et al., LA

Gerald Layne Landry, LA

Gerald P. Doega, et al., LA

Gerald Ray Hand, et al., LA

Gerald Wayne Hollier, et al., LA

Gilbert Wayne Hebert, et al., LA

Giles Glen Brown, LA

Gladyce Pleasant, LA

Glen D. Trouille, LA

Glen Howard Hetzel, et al., LA

Glenda Jo Bell Whatley, LA

Glenn & Pam Trouille, LA

Glenn John Cormier, et al., LA

Glenn Joseph Weidner, LA

Glenn Scott Seaford, et al., LA

Global Industries, Ltd., LA

Globe-Texas Company, et al. c/o Walker LA Properties, LA

Gloria Opel D. Thomas, LA

Goldsmith Farms, LLC , LA

Goosport Graveyard Endowment, LA

Gordon Dupre, et al., TX

Gordon Reed & Associates, Inc. c/o Gordon Reed, LA

Great Western Investment Company, Inc., LA

Green Oak Cemetary Association, Inc., LA

Greenbriar Realty Corporation, MA

Individuals (cont'd)

Gregory A. Wolfe, et al., LA

Gregory Allen Tyler, et al., CA

Gregory Lee Gros, III, LA

Gregory P. Manuel, LA

Gregory Proctor, TX

Gregory Proctor, TX

Gregory T. Jackson, TX

Guzzino Land, LLC, et al., LA

Gwen Scougale Brink, et al. c/o Richard A. Smith, LA

Gwendolyn Blake Armistead, LA

H. C. Drew Estate, LA

H. Holland, LA

Haiko Enterprises, LLC, LA

Halter-Calcasieu, LLC, MS

Hancock Timberland XI, Inc. c/o Hancock Forest Mgt. and Brian Schreckenghaust, NC

Harloss & Karen Hollak, LA

Harold A. Fuselier, Jr., et al., LA

Harold Francis Hermann, LA

Harold Guidry, Sr., LA

Harold Herman, LA

Harold J. Fall, et al., LA

Harold L. Charlie, LA

Harry Chamberlain, LA

Haudry Douget c/o Katina D. Fontenot, LA

Hector A. Towes, LA

Heinen Farms, Inc. c/o Janet Martel, LA

Helen R. Cooper, et al. c/o Shirley Fruge Read, LA

Henry Tripp Sheumaker, LA

Herbert and Lula Marie Fuselier Revocable Trust, et al., LA

Herbert Rigmaiden, LA

Herman E. McFatter and/or Era M. McFatter Revocable Living Trust, et al., LA

Herman J. Manuel, LA

HHW Evangeline, LLC, LA

Highland Storage, LLC, LA

Hill Songs, LLC, LA

His Heirs, LLC, LA

Holcombe Properties, LLC, et al., LA

Holton Dale Vincent, et al., LA

Home Rehab & Remodel of SWLA, LLC, LA

Hope Kounter, LA

Horace Curtis Vincent, III, et al., LA

Horace Joel Airhart, LA

Hosea M. Deshotels, Jr., LA

Howard Austin McClelland, et al., KY

Hugh Cart, et al. c/o Anita C. Reed, LA

Industrial Development of the City of West Calcasieu Port Harbor and Terminal District, LA

Irma Elaine Abshire Huck, LA

Irvin & Phyllis Carbalan, LA

Irvin M. Carbalan, Jr., et al., LA

Irvine E. Clark, LA

Ivan D. Smith, et al., LA

J & P Land Development, LLC, et al. c/o Jeff Pitre, LA

J. D. Fontenot & Sons c/o John D. Fontenot, LA

J. Earl Toups Farms, LLC, LA

J. Edwin Dawdy, LA

J. F., LA

J. Lawton Company, LLC, LA

J.A.T.K.Y. LP, LA

J.D. Fontenot, LA

Jack Clifford Lalanne, III, et al., LA

Jack E. Lawton, Jr. (Jack Sr. DECEASED), LA

Jack Glenn Ortego, et al., MO

Jacob Seaford, LA

Jacquelyn Annette Thacker Thibodeaux, LA

Jacques & Monica Joubert, LA

James Allen Bonvillian, LA

James Alton Jackson, LA

James Brown, LA

James Charles McGehee, LA

James Craig Vizinat, LA

James Craig West, et al., LA

James Darold Moody, LA

James David Lyles, LA

James Donald Elder, FL

James Douglas Guzman, LA

James E. Hebert, et al., LA

James Howard Daigle, Jr., LA

James Joey Bergeron, LA

James K. Peirrottie, et al., LA

James Keith Ellender, LA

James Kent Fruge, LA

James Kyle Long, LA

James Larry Lafleur, LA

James Monroe Stark, Jr., LA

Individuals (cont'd)

James Murphy Duplechain, LA

James Oliver White, LA

James Owen Hebert, LA

James P. Lormand, LA

James Pierre Thibodeaux, LA

James R. Crooks, et al., LA

James Scott Reeves, AR

James T. Williams, LA

James V. Miller, et al., LA

James Victor Fontenot, LA

James W. Duke, CA

Jamie Prejean, LA

Janet Allen, LA

Janet Dowden, LA

Janet Fruge Gass Allen, LA

Janice Cormier Cole, LA

Janice Hardage, MS

Janice Law, et al., LA

Janina Sitnik Spell, et al., OH

Jardin Properties, Inc., et al., LA

Jared Broussard, LA

Jared H. Broussard, LA

Jason Brian Fuqua, et al., LA

Jason L. Young, LA

Jay Dale Sonnier, LA

Jay Forest Coker, LA

Jeanette Mathis, LA

Jeanette Rogers Benoit, LA

Jeffery Allen Corbello, LA

Jeffery Earle Landry, LA

Jeffery J. Derouen, LA

Jeffery Lee Ralston, et al., LA

Jeffery Wayne Totten, LA

Jenifer Lynette Dugas Anderson, et al., LA

Jennifer Culp Warren, TN

Jennifer Elaine Westlund Hoffpauir, LA

Jennifer Johnette Mathews, LA

Jennifer Lynette Istre Benton, LA

Jeremy Dugas, et al., LA

Jeremy J. Landreneau, et al., LA

Jerrit George, TX

Jerry Dwayne Helms, LA

Jerry Dwayne Robinson, et al., LA

Jerry Griffin Snell, LA

Jerry Lynn Bratcher, et al., LA

Jerry Lynn Key, LA

Jerry W. Fontenot, LA

Jesse V. McMorris, et al., LA

Jessica Granger, et al., LA

Jessica Lynn Trahan Buck, LA

Jessie C. Fontenot, LA

Jesus Is Lord Ministeries, Inc. c/o Terry LaFleur, President, LA

Jill Richard, LA

Jill Suzanne Longenbaugh Fills, LA

Jimmie & Elisha Coruts, LA

Jimmie Ann Meaux McLean c/o John B. Meaux, LA

Jimmie Wayne Abshire, et al., LA

Jimmy Gonzales, LA

Joan Marie Ribbeck Caldwell, et al. c/o Mary Ann Ribbeck Hultquist, TN

Joanna Marie Bertran Guilbeau c/o Louise Mary Bertrand, LA

Joanna Marie Davis-Roofner, LA

Jodi Carol Bourgeois, LA

Jody & Rhonda Kyle, LA

Jody Lynn Vincent, LA

Joe Road Miller Partners, LLC, c/o Jeffery Wayne Pitre, LA

Joel Edward Langford, et al., LA

Joey & Chris Bergeron, LA

Joey & Kaila Broussard, LA

Joey & Kaila Broussard, LA

John A. Trouille, et al. c/o Alan Trouille, LA

John Alton Currie, LA

John Austin Young, et al., LA

John Bennett Vidrine, et al., LA

John Benny Vidrine, LA

John Benoit, LA

John Brent Meaux, LA

John Carl Thomson, et al., LA

John Carl Thomson, LA

John David Landreneau, et al., LA

John E. Landry, LA

John F. Davis Trust, IA

John Fontenot, et al., LA

John H. Buller, LA

John Hancock Life Insurance Company (USA) c/o Hancock Forest Mgt. and Brian Schreckenghaust, LA

John Harold Lovejoy, LA

Individuals (cont'd)

John Houston Pleasant, LA

John I. Briscoe, et al., LA

John I. Fowler c/o Mary M. Tocquigny, TX

John Lee Durousseau, Jr., LA

John O. Sneve, GA

John Paul Good, Jr., VA

John Paul Lenhart, LA

John Randall Allee, LA

John Richard Drumwright, LA

John Sebastian Trares, Jr., LA

John Sherman Fallis, et al., LA

Johnnie Pleasant, LA

Johnny Dean Strickland, Sr., LA

Johnson Family Farm, LLC, et al., LA

Johnson Family Trust c/o Thomas Amil Johnson, Trustee, VA

Jolene Lynete Logue Sonnier, LA

Joseph Anthony Reed, et al., LA

Joseph Aric Reed, LA

Joseph Bruce Fontenot, LA

Joseph C. Jaubert, LA

Joseph Chad Smith, LA

Joseph Eaglin, LA

Joseph Frank Haiko, LA

Joseph Isreal Coleman, et al., LA

Joseph Leroy Soileau, et al., LA

Joseph Raymond Burnett, et al., LA

Joseph Ricky Bergeron, LA

Joseph Ronald West, LA

Joseph Timothy Tate, LA

Josh Herman, LA

Joshua David Herman, et al., LA

Joshua John Wooten, et al., LA

Joshua Ray Lozada, et al., LA

Josua Ryan Domaingue, LA

Joyce Quebodeaux, LA

JP-8, LLC, LA

JRV Investments Limited, LA

Juan Carlos Vaughn, LA

Juanita Savoy Ardoin, LA

Judith Ann McClelland, LA

Judith Frances Killian-Portie, LA

Judith Rougeau c/o Paul Wilson Rougeau, LA

Judy R. Castle, et al., LA

Judy Verle Landry, LA

Julie Elizabeth Field Domaingue, LA

Julius Thomas Johnson, LA

June Bugs, Inc. c/o Greg Manuel, LA

Justin Cade Thibodeaux, LA

Justin James Pearson, LA

Justin Lee Jensen, et al., LA

Justin Vaughan, LA

Justin William Greek, LA

Katherine Elizabeth Johnson Jackson, TX

Katherine Krause Blake, et al., LA

Kathleen Jackson Bosley, et al., LA

Kathleen Mcmurry Stone, LA

Kathleen Pleasant Wright, LA

Kathleen Rose Bosley-Jackson, et al., LA

Kathryn Jean Beatty-House, et al., LA

Kathy Lynn McBride Woodard, LA

Keisha Lashawn Guillory, LA

Keith A. Heinen, LA

Keith N. Stafford, et al., LA

Kelly Annette Dugas-Keers, et al., LA

Kelly Marie Fuqua, et al., LA

Kenneth D. Cole, LA

Kenneth Gerald Merchant, et al., LA

Kenneth Guidry, LA

Kenneth Howard Nichols, LA

Kenneth James Reed c/o Edward F. Reed, LA

Kenneth James, LA

Kenneth Karl Strother, LA

Kenneth Paul Lyons, et al. c/o Lyons Real Estate, LA

Kenneth Paul Sonnier, LA

Kenneth Paul Sonnier, LA

Kenneth R. Parker, LA

Kenneth W. McCown, et al., LA

Kenneth Wayne Thornton, et al., LA

Kent Moss, LA

Kerry Arthur House, LA

Kevin Fills, LA

Kevin James Comeaux, LA

Kevin Michael Fills, LA

Kevin Paul Fontenot, LA

Kevin Wayne Mangrum, LA

Individuals (cont'd)

Kim Human, LA

Kimberly Dawn Cole Herman, LA

Kinder Canal Company, LA

Kinder Morgan Louisiana Pipeline, LLC c/o Property Tax Deptartment, TX

Kinder Sand Company, Inc., LA

Kirby Hebert, LA

Kleat, LLC c/o Brian Manuel, LA

Klein & Miller, LLC, LA

KPLC, LLC, AL

Krause & Managan Lumber Company, LA

Krielow Farms, Inc., LA

Kristie Ann Bullington Mangrum, LA

Kristin Monique Farr-Broussard, MS

Krystal Renee Thompson, LA

Kyle Dale Enicke, et al., LA

L & B Family, LLC, et al., LA

L B & J Prather Family, LLC, LA

L&H Partnership, LA

L. C. Melancon, LA

Lake Charles Harbor & Terminal District, LA

Lake Charles Naval Stores Company, LA

Lana Potter Davis, LA

Langley Properties, LLC c/o Jerome Langley, LA

Larmat, LLC, LA

Larry Charles Fournerat, et al., LA

Larry D. Williams, TX

Larry Hunt Wise, et al., LA

Larry Melvin Reed, et al., LA

Larry Paul LeJeune, et al., LA

Larry R. Wittge, et al., LA

Lashawnda Guillory, LA

Laura Dixon, LA

Laverne Clostio, LA

Ledoux Farms, Inc., LA

Lee Bruce McGee, et al. c/o S. McGee Revocable Living Trust, LA

Lelia M. Fontenot, LA

Lena Argin Baber Henning, LA

Leo Halverson, LA

Leon Lawrence Currie, II, LA

Leonard Eaglin, LA

Leonard James Manuel, LA

Leroy Joseph Miller, et al., LA

Les Hanson, LA

Lesa Ann Kathleen LaGrane, TX

Level 3 Communications, LLC, CO

Levi Derek Rodriguez, LA

Lillian F. Fontenot, et al., LA

Linda Ann Stroder, et al., LA

Linda G. Davis, NC

Linda Larson, LA

Lindsey Aucoin Family Trust, Cynthia Aucoin Capron, TX

Lindsey J. Aucoin, et al., LA

Lionel Joseph Mestayer, Jr., LA

Little Indian Bayou, LLC, et al. c/o Wallace Nichols, LA

LLC Telcom Properties, LA

Llewellyn Edward Kyle, et al., LA

Lloyd E. Oakley, LA

Lloyd Fisher Reeves c/o Lloyd and Donna Reeves, LA

Lloyd Onkla, LA

Lonnie Harper, LA

Lonnie Soileux, LA

Lorena Cachin Darbonne, LA

Loretta Fladley, LA

Loretta Marie Benoit Findley, LA

Lori Gardner, LA

Lorraine LeJeune Bertrand, LA

Louisiana Farm and Livestock Company, Inc., LA

Louisiana Pacific Land & Water Conservancy, LA

LTP Partnership, LP, LA

Lucas Troy West, LA

Lucille M. Duhon, et al., LA

Luis Enrique Carriaga, LA

Luke Gerard LeBlanc, LA

Luther W. Dickerson, et al., LA

M & G Farms, LLC, LA

M. G. Christian, LA

M. P. Erwin Estate, et al., LA

M. P. Lafosse, LA

Madeline Johnson Villarrubia, LA

Madylene Philen Gregory, FL

Magnus McGee, LA

Malcolm Lyle Testamentary Trust for Kale Crain, LA

Individuals (cont'd)

Malcolm Lyle Testamentary Trust for Rachel Crain, LA

Mamou Seed Rice Company, LA

Marc Kenneth Savoy, LA

Margaret Bourque Black, et al., LA

Margaret Ceasar, LA

Margaret Ealin F. Borden, LA

Margaret Helen Clevenger, LA

Margaret Helen Lovejoy, LA

Margaret Theresa P. Johnson, et al., LA

Maria Rene Sepulveda, LA

Marianne Herman Reider Espinosa, LA

Marie Edna Gaspard, LA

Marie Teres Gillard Johnson, LA

Marilyn G. Lipton Revocable Trust U/A Dated December 5, 1986, et al., MO

Marilyn Jean Valentine Hankins, LA

Marilyn Jean Valentine Testamentary Trust, LA

Marilyn Ruth Vallee Dawdy, LA

Marion Gayle Thibodeaux, LA

Mark A. And Mary A. Bonnin Lyons Revocable Living Trust, LA

Mark Anthony Broussard, et al., LA

Mark Rougeau, LA

Marla Chin, TX

Marlene Manuel, LA

Mars Investment, LLC, LA

Marshall Cody Smith, et al., LA

Marshall Cody Smith, LA

Martha L. Gillman, et al. c/o Donald Ledoux, Sr., LA

Mary Ann Hebert Daigle, et al., LA

Mary Ann Ribbeck, TX

Mary Catherine Daniels, LA

Mary Earline Leonard, LA

Mary Elizabeth Lovejoy, LA

Mary Elizabeth Olsen Duke, CA

Mary G. Feucht, LA

Mary Ida Ancelet Terro, LA

Mary Magdalyn Lalonde Vidrine, LA

Mary Magdeline Deshotel, LA

Mary Matt Fruge, LA

Mary Nell Miller Fontenot, LA

Mary Patricia P. Ortego, LA

Mary Ruth Corbello, LA

Mary T. Leblanc, LA

Mary Theresa Netherland Manuel, LA

Matt Scott Cormier, LA

Matthew James Sonnier, LA

Matthew L. Vincent, LA

Matthew Linton Vincent, et al. c/o George Hardy and Nina Vincent, LA

Matthew Odom, LA

Matthew Ramsey Vincent, et al., LA

Maxie Langley, LA

Maxwell John Duplechin, LA

McClelland Farm Properties, LLC, LA

McCown Investors, LP c/o Kenneth McCown, LA

McManus Construction, Inc., LA

Medora Duplechin Johnson c/o Geneva Bellon, LA

Meghan Kimberly Reece Lyons, NC

Meguel Deshotel, et al., LA

Melba Lynette Fisher, LA

Melinda LeJeune c/o Wedna K. LeJeune, LA

Melissa Darden, LA

Melissa Marie Darden, LA

Melissa Roberts Long (DECEASED), LA

Melissa Smith, LA

Merry Fruge Mott, LA

Michael George Davis, et al., LA

Michael Gregory Hicks, LA

Michael J. Tezeno, et al., LA

Michael Joseph Ange, LA

Michael L. Vidrine, LA

Michael Pickett, et al., LA

Michael R. Cagle, et al., LA

Michael Scott Manuel, LA

Michael Shane Fontenot, TX

Michael Stockholm, et al., LA

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Michael Tritico, LA

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MPIC, LLC, et al., LA

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Nealy Living Trust of 1992 c/o Dr. Barry Nealy, NC

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North Sulphur Building Association, Inc. c/o Donald Joseph Cubbage, LA

Obed Claude Pleasant, LA

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Olivia Katherine Pruett, LA

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Omega Energy USA, LLC, FL

One Grasso Plaza, LLC c/o Greenberg Development Company, Edward Kohn, MO

O'Neal J. LeBlanc, Jr., LA

Opelousas St. Landry Realty Company, LA

Orleans Run, LLC c/o Clifton D. Guidry, LA

Ouida Louise Williams, LA

Palermo Land Company, Inc., LA

Palvest, Inc., LA

Pamela Gail McClelland Thibodeaux, LA

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Pamela Haynes, LA

Pamela Jean Large Constance, LA

Pamela Louise Lebert Mulvey, LA

Parker Lee Marsh, et al., LA

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Patricia Ann Easley Reed, LA

Patricia Ann Renard Fusilier, LA

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Paul Wayne Stewart, et al., LA

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PBA Properties, LLC, et al. c/o Walker Louisiana Properties, LLC, LA

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Percy Guillory, Jr., LA

Perkins Living Trust For 1995, LA

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Peter Clayton Daigle, LA

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Philip Wesley Quinn, et al., LA

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Phyllis Carbalan, LA

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Raggio Family Farms, Inc., LA

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Raymond Ray Klumpp, et al., LA

Raymond Rigmaiden, et al. c/o Herman Ridmaiden, LA

Raymond Roy Owens, LA

Raymond Wallace Knapp, TX

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Rayonier Louisiana Timberlands, LLC c/o Rayonier Tax Services, AL

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Renella Watson, LA

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Richard John Lightfoot, et al., LA

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Richard LeDoux, LA

Richard Michael Manuel, LA

Richard Scott Dowden, LA

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Robert Constance, LA

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Robert Dean Landry, LA

Robert Eastin, Jr., LA

Robert Floyd Bruce, LA

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Ronald Michael Craiger, Jr., LA

Ronald Phillip Bae, LA

Ronald Roy Helmer, et al., LA

Ronald Sonnier, et al., LA

Ronald Vaughn, LA

Ronald Wade Vaughan, LA

Ronnie Doucet, LA

Ronny Lane Wagnon, et al., LA

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Russell Joseph Stutes, Jr., LA

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Russell Lee Miller, LA

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Ryan Lee Johnson, LA

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S&P Farms, LLC c/o Pamela B. Berzas, LA

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Samuel Fontenot, LA

Samuel Leo Olsen, II, LA

Samuel Roy Miller, LA

Sanctuary of Lake Charles, LA

Sandia Estates, LLC c/o Henry Charles Misse, LA

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Sandy Lake, LLC, LA

Sara N. Doucet, LA

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Schumacher Briscoe Farm, LA

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Shane D. Zaunbrecher, et al., LA

Shannon Blake Richard, et al., LA

Sharon Gayle Bennett Stutes, LA

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Sherman T. Fontenot, et al., LA

Sherril Doega, LA

Sherrill Louise Lynch, LA

Shirley F. Read, et al. c/o Ethelyn Duplechain, LA

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Stephen J. Roger, et al., LA

Stephen Kent Vallette, LA

Stephen Mark McMurry, LA

Stephen Thomas Buster, et al., LA

Stephen W. Manuel, LA

Steven Roger Huck, et al., LA

Stream Family LP, LA

Stream Family Trust, LLC, LA

Sulphur Group, LLC, LA

Susan Kathleen Ferriss, LA

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Tara W. Sullivan, LA

TechnipFMC (fna Global Industries, Ltd.), TX

Teddy J. Bolton, et al., LA

Terrance Wade Boudoin, LA

Terrell Brent Manuel, AL

Terry D. Ardizzone, LA

Terry Eugene Jones, et al., LA

Terry Lynn White, LA

Tessie Manuel, LA

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Texas Gas Transmission, LLC, KY

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The Doty Trust, et al., WA

The Johnson Living Trust, et al., LA

The Pomeroy Trust, LLC, CA

The Wanda Geraldine Cole Cunningham Special Needs Trust c/o Trina Watson, LA

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Thomas Mayes , LA

Thomas William Cassia, LA

Tiffany K. Basco, LA

Tillman Sylvester, TX

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Todd Kevin Gaspard, et al., LA

Todd Stein, LA

Tony Theriot , LA

Tony Wade Thibodeaux, LA

Toups Dries, LLC, LA

Tower Land Company, LLC, et al., LA

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Turk P. Stein, LA

Ty Bourgeois, LA

Tyler Pederson, LA

Tyler Wayne Broussard, LA

U. S. Fish & Wildlife Service c/o Department of the Interior, CO

United States of America, in Trunt for Coushatta Tribe of Louisiana c/o Bureau Indian Affairs, VA

USA c/o Bureau of Land Management, DC

Valley Vidrine, Jr., et al., LA

Valley Vidrine, Jr., LA

Verna Jean Welch Istre, LA

Vernon Jack Tanner, LA

Verona Courville, LA

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Vicki Lynn Fontenot Buller, LA

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Virginia Susan Ellender Williams, LA

Vito Anthony Tramonte, LA

Vivian Ann Savoy Elkins, LA

Vivian Carol Holman May, LA

Von Paul Guilbeau, et al., LA

W J Gayle and Sons, Inc., LA

W. E. Heinen Farms, Inc. c/o Debra Courville, LA

W. S. Kingrey, Inc., LA

Wallace Howard Nichols, et al., LA

Wallace J. Gros, Jr., LA

Wallace J. Gros, Sr., LA

Walter H. Tietje & Sons, Inc. c/o Robert W. Tietje, LA

Warren Frey, LA

Warren W. Hoag, III c/o Warren Custodian, LA

Wedna Vidrine, et al., LA

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Whitney Boudreaux, LA

Wilba Vezina Farm Trust, LA

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Wilbert McClinton, III, et al., LA

Wilda Rose Klumpp Fontenot, LA

Will Fediw, LA

Willard W. A. Fuselier, LA

William Alan Basden, et al., LA

William B. Lawton Family LP, et al., LA

William Bruce Mulvey, LA

William Carl Nabours, LA

William Doherty, Jr., LA

William E. Lenhart, III, LA

William J. McInnis, et al., WV

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William Taylor Lyles, LA

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William Verdice Jackson, et al., LA

Windy Ona Olsen, LA

Winnie Joyce Richard Perkins, LA

Winston J. Frey, LA

WKT Properties, LA

Woodbrook, Inc., LA

Wynema Kay Robinson, et al., TX

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APPENDIX C

DRIFTWOOD PLAN AND PROCEDURES

Driftwood LNG LLC and Driftwood Pipeline LLC
Docket No. CP17-__-000
Docket No. CP17-__-000

Appendix 1D-1
Project Specific Plan and Procedures

EROSION CONTROL, REVEGETATION, MAINTENANCE and WETLAND-WATERBODY MITIGATION PROCEDURES

DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC

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REV	DATE	REASON FOR REVISION	BY	CHECK	APPR	PEM

BECHTEL	EROSION CONTROL, REVEGETATION, MAINTENANCE and WETLAND-WATERBODY MITIGATION PROCEDURES	JOB NO.	26101-000
		26101-000-G65-GER-00003	REV.
		BECHTEL DOC. NO.	000

NOTE: Where any proposed modifications or deviations to the FERC May 2013 Plan and Procedures exist, DWLNG and DWPL have inserted text boxes and necessary information to note exceptions or deviations. Some sections are not applicable to either the LNG facility and/or the pipeline, but those sections have not been specifically called out as exceptions.

DWLNG and DWPL Project Upland Erosion Control, Revegetation, and Maintenance Plan

I. APPLICABILITY

A. The intent of this Plan is to assist project sponsors by identifying baseline mitigation measures for minimizing erosion and enhancing revegetation. Project sponsors shall specify in their applications for a new FERC authorization and in prior notice and advance notice filings, any individual measures in this Plan they consider unnecessary, technically infeasible, or unsuitable due to local conditions and fully describe any alternative measures they would use. Project sponsors shall also explain how those alternative measures would achieve a comparable level of mitigation.

Once a project is authorized, project sponsors can request further changes as variances to the measures in this Plan (or the applicant's approved plan). The Director of the Office of Energy Projects (Director) will consider approval of variances upon the project sponsor's written request, if the Director agrees that a variance:

1. provides equal or better environmental protection;

2. is necessary because a portion of this Plan is infeasible or unworkable based on project-specific conditions; or

3. is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

Sponsors of projects planned for construction under the automatic authorization provisions in the FERC's regulations must receive written approval for any variances in advance of construction.

Project-related impacts on wetland and waterbody systems are addressed in the staff's Wetland and Waterbody Construction and Mitigation Procedures (Procedures).

II. SUPERVISION AND INSPECTION

A. ENVIRONMENTAL INSPECTION

1. At least one Environmental Inspector is required for each construction spread during construction and restoration (as defined by section V). The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.

2. Environmental Inspectors shall have peer status with all other activity inspectors.

3. Environmental Inspectors shall have the authority to stop activities that violate the environmental conditions of the FERC's Orders, stipulations of other environmental permits or approvals, or landowner easement agreements; and to order appropriate corrective action.

B. RESPONSIBILITIES OF ENVIRONMENTAL INSPECTORS

At a minimum, the Environmental Inspector(s) shall be responsible for:

1. Inspecting construction activities for compliance with the requirements of this Plan, the Procedures, the environmental conditions of the FERC's Orders, the mitigation measures proposed by the project sponsor (as approved and/or modified by the Order), other environmental permits and approvals, and environmental requirements in landowner easement agreements.

2. Identifying, documenting, and overseeing corrective actions, as necessary to bring an activity back into compliance;

3. Verifying that the limits of authorized construction work areas and locations of access roads are visibly marked before clearing, and maintained throughout construction;

4. Verifying the location of signs and highly visible flagging marking the boundaries of sensitive resource areas, waterbodies, wetlands, or areas with special requirements along the construction work area;

5. Identifying erosion/sediment control and soil stabilization needs in all areas;

6. Ensuring that the design of slope breakers will not cause erosion or direct water into sensitive environmental resource areas, including cultural resource sites, wetlands, waterbodies, and sensitive species habitats;

7. Verifying that dewatering activities are properly monitored and do not result in the deposition of sand, silt, and/or sediment into sensitive environmental resource

areas, including wetlands, waterbodies, cultural resource sites, and sensitive species habitats; stopping dewatering activities if such deposition is occurring and ensuring the design of the discharge is changed to prevent reoccurrence; and verifying that dewatering structures are removed after completion of dewatering activities;

8. Ensuring that subsoil and topsoil are tested in agricultural and residential areas to measure compaction and determine the need for corrective action;

9. Advising the Chief Construction Inspector when environmental conditions (such as wet weather or frozen soils) make it advisable to restrict or delay construction activities to avoid topsoil mixing or excessive compaction;

10. Ensuring restoration of contours and topsoil;

11. Verifying that the soils imported for agricultural or residential use are certified as free of noxious weeds and soil pests, unless otherwise approved by the landowner;

12. Ensuring that erosion control devices are properly installed to prevent sediment flow into sensitive environmental resource areas (e.g., wetlands, waterbodies, cultural resource sites, and sensitive species habitats) and onto roads, and determining the need for additional erosion control devices;

13. Inspecting and ensuring the maintenance of temporary erosion control measures at least:

    a. on a daily basis in areas of active construction or equipment operation;

    b. on a weekly basis in areas with no construction or equipment operation; and

    c. within 24 hours of each 0.5 inch of rainfall;

14. Ensuring the repair of all ineffective temporary erosion control measures within 24 hours of identification, or as soon as conditions allow if compliance with this time frame would result in greater environmental impacts;

15. Keeping records of compliance with the environmental conditions of the FERC's Orders, and the mitigation measures proposed by the project sponsor in the application submitted to the FERC, and other federal or state environmental permits during active construction and restoration;

16. Identifying areas that should be given special attention to ensure stabilization and restoration after the construction phase; and

17. Verifying that locations for any disposal of excess construction materials for beneficial reuse comply with section III.E.

III. PRECONSTRUCTION PLANNING

The project sponsor shall do the following before construction:

A. CONSTRUCTION WORK AREAS

1. Identify all construction work areas (e.g., construction right-of-way, extra work space areas, pipe storage and contractor yards, borrow and disposal areas, access roads) that would be needed for safe construction. The project sponsor must ensure that appropriate cultural resources and biological surveys are conducted, as determined necessary by the appropriate federal and state agencies.

2. Project sponsors are encouraged to consider expanding any required cultural resources and endangered species surveys in anticipation of the need for activities outside of authorized work areas.

3. Plan construction sequencing to limit the amount and duration of open trench sections, as necessary, to prevent excessive erosion or sediment flow into sensitive environmental resource areas.

B. DRAIN TILE AND IRRIGATION SYSTEMS

1. Attempt to locate existing drain tiles and irrigation systems.

2. Contact landowners and local soil conservation authorities to determine the locations of future drain tiles that are likely to be installed within 3 years of the authorized construction.

3. Develop procedures for constructing through drain-tiled areas, maintaining irrigation systems during construction, and repairing drain tiles and irrigation systems after construction.

4. Engage qualified drain tile specialists, as needed to conduct or monitor repairs to drain tile systems affected by construction. Use drain tile specialists from the project area, if available.

C. GRAZING DEFERMENT

Develop grazing deferment plans with willing landowners, grazing permittees, and land management agencies to minimize grazing disturbance of revegetation efforts.

D. ROAD CROSSINGS AND ACCESS POINTS

Plan for safe and accessible conditions at all roadway crossings and access points during construction and restoration.

E. DISPOSAL PLANNING

Determine methods and locations for the regular collection, containment, and disposal of excess construction materials and debris (e.g., timber, slash, mats, garbage, drill cuttings and fluids, excess rock) throughout the construction process. Disposal of materials for beneficial reuse must not result in adverse environmental impact and is subject to compliance with all applicable survey, landowner or land management agency approval, and permit requirements.

F. AGENCY COORDINATION

The project sponsor must coordinate with the appropriate local, state, and federal agencies as outlined in this Plan and/or required by the FERC's Orders.

1. Obtain written recommendations from the local soil conservation authorities or land management agencies regarding permanent erosion control and revegetation specifications.

2. Develop specific procedures in coordination with the appropriate agencies to prevent the introduction or spread of invasive species, noxious weeds, and soil pests resulting from construction and restoration activities.

3. Develop specific procedures in coordination with the appropriate agencies and landowners, as necessary, to allow for livestock and wildlife movement and protection during construction.

4. Develop specific blasting procedures in coordination with the appropriate agencies that address pre- and post-blast inspections; advanced public notification; and mitigation measures for building foundations, groundwater wells, and springs. Use appropriate methods (e.g., blasting mats) to prevent damage to nearby structures and to prevent debris from entering sensitive environmental resource areas.

G. SPILL PREVENTION AND RESPONSE PROCEDURES

The project sponsor shall develop project-specific Spill Prevention and Response Procedures, as specified in section IV of the staff's Procedures. A copy must be filed with the Secretary of the FERC (Secretary) prior to construction and made available in the field on each construction spread. The filing requirement does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

H. RESIDENTIAL CONSTRUCTION

For all properties with residences located within 50 feet of construction work areas, project sponsors shall: avoid removal of mature trees and landscaping within the construction work area unless necessary for safe operation of construction equipment, or as specified in landowner agreements; fence the edge of the construction work area for a distance of 100 feet on either side of the residence; and restore all lawn areas and landscaping immediately following clean-up operations, or as specified in landowner agreements. If seasonal or other weather conditions prevent compliance with these time frames, maintain and monitor temporary erosion controls (sediment barriers and mulch) until conditions allow completion of restoration.

I. WINTER CONSTRUCTION PLANS

If construction is planned to occur during winter weather conditions, project sponsors shall develop and file a project-specific winter construction plan with the FERC application. This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

The plan shall address:

1. winter construction procedures (e.g., snow handling and removal, access road construction and maintenance, soil handling under saturated or frozen conditions, topsoil stripping);

2. stabilization and monitoring procedures if ground conditions will delay restoration until the following spring (e.g., mulching and erosion controls, inspection and reporting, stormwater control during spring thaw conditions); and

3. final restoration procedures (e.g., subsidence and compaction repair, topsoil replacement, seeding).

IV. INSTALLATION

A. APPROVED AREAS OF DISTURBANCE

1. Project-related ground disturbance shall be limited to the construction right-of-way, extra work space areas, pipe storage yards, borrow and disposal areas, access roads, and other areas approved in the FERC's Orders. Any project-related ground disturbing activities outside these areas will require prior Director approval. This requirement does not apply to activities needed to comply with the Plan and Procedures (i.e., slope breakers, energy-dissipating devices, dewatering structures, drain tile system repairs) or minor field realignments and workspace shifts per landowner needs and requirements that do not affect other landowners or sensitive environmental resource areas. All construction or restoration activities outside of authorized areas are subject to all applicable survey and permit requirements, and landowner easement agreements.

2. The construction right-of-way width for a project shall not exceed 75 feet or that described in the FERC application unless otherwise modified by a FERC Order. However, in limited, non-wetland areas, this construction right-of-way width may be expanded by up to 25 feet without Director approval to accommodate full construction right-of-way topsoil segregation and to ensure safe construction where topographic conditions (e.g., side-slopes) or soil limitations require it. Twenty-five feet of extra construction right-of-way width may also be used in limited, non-wetland or non-forested areas for truck turn-arounds where no reasonable alternative access exists.

Pipeline: Construction ROW widths along the Pipeline route range from 110 feet to 150 feet. This deviation is to support the installation of large-diameter pipe which requires sufficient space to safely maneuver construction equipment, while consolidating to challenging work environment conditions (e.g. soil types and conditions, proximity to waterbodies and river crossings, additional buoyancy needs, ditch dimensions and depth, methods of construction (e.g. boring or open-cut construction), vehicle turn-arounds, work crew interface, travel lane needs, existing pipeline and utilities, ATWS setback, and public proximity).

Project use of these additional limited areas is subject to landowner or land management agency approval and compliance with all applicable survey and permit requirements. When additional areas are used, each one shall be identified and the need explained in the weekly or biweekly construction reports to the FERC, if required. The following material shall be included in the reports:

a. the location of each additional area by station number and reference to previously filed alignment sheets, or updated alignment sheets showing the additional areas;

b. identification of the filing at FERC containing evidence that the additional areas were previously surveyed; and

c. a statement that landowner approval has been obtained and is available in project files.

Prior written approval of the Director is required when the authorized construction right-of-way width would be expanded by more than 25 feet.

B. TOPSOIL SEGREGATION

1. Unless the landowner or land management agency specifically approves otherwise, prevent the mixing of topsoil with subsoil by stripping topsoil from either the full work area or from the trench and subsoil storage area (ditch plus spoil side method) in:

   a. cultivated or rotated croplands, and managed pastures;
   Insert deviation for saturated agricultural fields – same deviation as below

   b. residential areas;

   c. hayfields; and

   d. other areas at the landowner's or land managing agency's request.

2. In residential areas, importation of topsoil is an acceptable alternative to topsoil segregation.

3. Where topsoil segregation is required, the project sponsor must:

   a. segregate at least 12 inches of topsoil in deep soils (more than 12 inches of topsoil); and

   b. make every effort to segregate the entire topsoil layer in soils with less than 12 inches of topsoil.

4. Maintain separation of salvaged topsoil and subsoil throughout all construction activities.

5. Segregated topsoil may not be used for padding the pipe, constructing temporary slope breakers or trench plugs, improving or maintaining roads, or as a fill material.

6. Stabilize topsoil piles and minimize loss due to wind and water erosion with use of sediment barriers, mulch, temporary seeding, tackifiers, or functional equivalents, where necessary.

C. DRAIN TILES

1. Mark locations of drain tiles damaged during construction.

2. Probe all drainage tile systems within the area of disturbance to check for damage.

3. Repair damaged drain tiles to their original or better condition. Do not use filter- covered drain tiles unless the local soil conservation authorities and the landowner agree. Use qualified specialists for testing and repairs.

4. For new pipelines in areas where drain tiles exist or are planned, ensure that the depth of cover over the pipeline is sufficient to avoid interference with drain tile systems. For adjacent pipeline loops in agricultural areas, install the new pipeline with at least the same depth of cover as the existing pipeline(s).

D. IRRIGATION

Maintain water flow in crop irrigation systems, unless shutoff is coordinated with affected parties.

E. ROAD CROSSINGS AND ACCESS POINTS

1. Maintain safe and accessible conditions at all road crossings and access points during construction.

2. If crushed stone access pads are used in residential or agricultural areas, place the stone on synthetic fabric to facilitate removal.

3. Minimize the use of tracked equipment on public roadways. Remove any soil or gravel spilled or tracked onto roadways daily or more frequent as necessary to maintain safe road conditions. Repair any damages to roadway surfaces,

shoulders, and bar ditches.

F. TEMPORARY EROSION CONTROL

Install temporary erosion controls immediately after initial disturbance of the soil. Temporary erosion controls must be properly maintained throughout construction (on a daily basis) and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration is complete.

1. Temporary Slope Breakers

a. Temporary slope breakers are intended to reduce runoff velocity and divert water off the construction right-of-way. Temporary slope breakers may be constructed of materials such as soil, silt fence, staked hay or straw bales, or sandbags.

b. Install temporary slope breakers on all disturbed areas, as necessary to avoid excessive erosion. Temporary slope breakers must be installed on slopes greater than 5 percent where the base of the slope is less than 50 feet from waterbody, wetland, and road crossings at the following spacing (closer spacing shall be used if necessary):

Slope (%)	**Spacing (feet)**
5 – 15	300
>15 – 30	200
>30	100

c. Direct the outfall of each temporary slope breaker to a stable, well vegetated area or construct an energy-dissipating device at the end of the slope breaker and off the construction right-of-way.

d. Position the outfall of each temporary slope breaker to prevent sediment discharge into wetlands, waterbodies, or other sensitive environmental resource areas.

2. Temporary Trench Plugs

Temporary trench plugs are intended to segment a continuous open trench prior to backfill.

a. Temporary trench plugs may consist of unexcavated portions of the trench, compacted subsoil, sandbags, or some functional equivalent.

b. Position temporary trench plugs, as necessary, to reduce trenchline erosion and minimize the volume and velocity of trench water flow at the base of slopes.

3. Sediment Barriers

Sediment barriers are intended to stop the flow of sediments and to prevent the deposition of sediments beyond approved workspaces or into sensitive resources.

a. Sediment barriers may be constructed of materials such as silt fence, staked hay or straw bales, compacted earth (e.g., driveable berms across travelways), sand bags, or other appropriate materials.

b. At a minimum, install and maintain temporary sediment barriers across the entire construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from a waterbody, wetland, or road crossing until revegetation is successful as defined in this Plan. Leave adequate room between the base of the slope and the sediment barrier to accommodate ponding of water and sediment deposition.

c. Where wetlands or waterbodies are adjacent to and downslope of construction work areas, install sediment barriers along the edge of these areas, as necessary to prevent sediment flow into the wetland or waterbody.

4. Mulch

a. Apply mulch on all slopes (except in cultivated cropland) concurrent with or immediately after seeding, where necessary to stabilize the soil surface and to reduce wind and water erosion. Spread mulch uniformly over the area to cover at least 75 percent of the ground surface at a rate of 2 tons/acre of straw or its equivalent, unless the local soil conservation authority, landowner, or land managing agency approves otherwise in writing.

b. Mulch can consist of weed-free straw or hay, wood fiber hydromulch, erosion control fabric, or some functional equivalent.

c. Mulch all disturbed upland areas (except cultivated cropland) before seeding if:

(1) final grading and installation of permanent erosion control measures will not be completed in an area within 20 days after the trench in that area is backfilled (10 days in residential areas), as required in section V.A.1; or

(2) construction or restoration activity is interrupted for extended periods, such as when seeding cannot be completed due to seeding period restrictions.

d. If mulching before seeding, increase mulch application on all slopes within 100 feet of waterbodies and wetlands to a rate of 3 tons/acre of straw or equivalent.

e. If wood chips are used as mulch, do not use more than 1 ton/acre and add the equivalent of 11 lbs/acre available nitrogen (at least 50 percent of which is slow release).

f. Ensure that mulch is adequately anchored to minimize loss due to wind and water.

g. When anchoring with liquid mulch binders, use rates recommended by the manufacturer. Do not use liquid mulch binders within 100 feet of wetlands or waterbodies, except where the product is certified environmentally non-toxic by the appropriate state or federal agency or independent standards-setting organization.

h. Do not use synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat, unless the product is specifically designed to minimize harm to wildlife. Anchor erosion control fabric with staples or other appropriate devices.

V. RESTORATION

A. CLEANUP

1. Commence cleanup operations immediately following backfill operations. Complete final grading, topsoil replacement, and installation of permanent erosion control structures within 20 days after backfilling the trench (10 days in residential areas). If seasonal or other weather conditions prevent compliance with these time frames, maintain temporary erosion controls (i.e., temporary slope breakers, sediment barriers, and mulch) until conditions allow completion of cleanup.

Pipeline: Commencement of cleanup operations within the specified timeframes (including residential areas) may not occur when access to the ROW and/or direct access to the pipeline is required for any of the following construction activities: • Hydrostatic testing • Pigging to dry • Caliper pig anomaly • Cathodic protection installation • Fiberoptic installation and testing • Parallel or lateral pipelines • Tie- in connections Environmental and safety mitigation measures will remain, be routinely inspected and maintained. Where access is required, mats will remain in place until such time when access is no longer required. In order to mitigate impacts, the CONTRACTOR will maintain erosion and sediment control mitigation measures and Residential Plan.

   If construction or restoration unexpectedly continues into the winter season when conditions could delay successful decompaction, topsoil replacement, or seeding until the following spring, file with the Secretary for the review and written approval of the Director, a winter construction plan (as specified in section III.I). This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

2. A travel lane may be left open temporarily to allow access by construction traffic if the temporary erosion control structures are installed as specified in section
   IV.F. and inspected and maintained as specified in sections II.B.12 through 14. When access is no longer required the travel lane must be removed and the right- of-way restored.

3. Rock excavated from the trench may be used to backfill the trench only to the top of the existing bedrock profile. Rock that is not returned to the trench shall be considered construction debris, unless approved for use as mulch or

for some other use on the construction work areas by the landowner or land managing agency.

4. Remove excess rock from at least the top 12 inches of soil in all cultivated or rotated cropland, managed pastures, hayfields, and residential areas, as well as other areas at the landowner's request. The size, density, and distribution of rock on the construction work area shall be similar to adjacent areas not disturbed by construction. The landowner or land management agency may approve other provisions in writing.

5. Grade the construction right-of-way to restore pre-construction contours and leave the soil in the proper condition for planting.

6. Remove construction debris from all construction work areas unless the landowner or land managing agency approves leaving materials onsite for beneficial reuse, stabilization, or habitat restoration.

7. Remove temporary sediment barriers when replaced by permanent erosion control measures or when revegetation is successful.

B. PERMANENT EROSION CONTROL DEVICES

1. Trench Breakers

   a. Trench breakers are intended to slow the flow of subsurface water along the trench. Trench breakers may be constructed of materials such as sand bags or polyurethane foam. Do not use topsoil in trench breakers.

   b. An engineer or similarly qualified professional shall determine the need for and spacing of trench breakers. Otherwise, trench breakers shall be installed at the same spacing as and upslope of permanent slope breakers.

   c. In agricultural fields and residential areas where slope breakers are not typically required, install trench breakers at the same spacing as if permanent slope breakers were required.

   d. At a minimum, install a trench breaker at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from a waterbody or wetland and where needed to avoid draining a waterbody
   or wetland. Install trench breakers at wetland boundaries, as specified in the Procedures. Do not install trench breakers within a wetland.

2. Permanent Slope Breakers

   a. Permanent slope breakers are intended to reduce runoff velocity, divert water off the construction right-of-way, and prevent sediment deposition into sensitive resources. Permanent slope breakers may be constructed of materials such as soil, stone, or some functional equivalent.

b. Construct and maintain permanent slope breakers in all areas, except cultivated areas and lawns, unless requested by the landowner, using spacing recommendations obtained from the local soil conservation authority or land managing agency.

In the absence of written recommendations, use the following spacing unless closer spacing is necessary to avoid excessive erosion on the construction right-of-way:

Slope (%)	**Spacing (feet)**
5 – 15	300
>15 – 30	200
>30	100

c. Construct slope breakers to divert surface flow to a stable area without causing water to pool or erode behind the breaker. In the absence of a stable area, construct appropriate energy-dissipating devices at the end of the breaker.

d. Slope breakers may extend slightly (about 4 feet) beyond the edge of the construction right-of-way to effectively drain water off the disturbed area. Where slope breakers extend beyond the edge of the construction right-of-way, they are subject to compliance with all applicable survey requirements.

C. SOIL COMPACTION MITIGATION

1. Test topsoil and subsoil for compaction at regular intervals in agricultural and residential areas disturbed by construction activities. Conduct tests on the same soil type under similar moisture conditions in undisturbed areas to approximate preconstruction conditions. Use penetrometers or other appropriate devices to conduct tests.

2. Plow severely compacted agricultural areas with a paraplow or other deep tillage implement. In areas where topsoil has been segregated, plow the subsoil before replacing the segregated topsoil.

   If subsequent construction and cleanup activities result in further compaction, conduct additional tilling.

3. Perform appropriate soil compaction mitigation in severely compacted residential areas.

D. REVEGETATION

1. General
    a. The project sponsor is responsible for ensuring successful revegetation of soils disturbed by project-related activities, except as noted in section V.D.1.b.

    b. Restore all turf, ornamental shrubs, and specialized landscaping in accordance with the landowner's request, or compensate the landowner. Restoration work must be performed by personnel familiar with local horticultural and turf establishment practices.

2. Soil Additives

    Fertilize and add soil pH modifiers in accordance with written recommendations obtained from the local soil conservation authority, land management agencies, or landowner. Incorporate recommended soil pH modifier and fertilizer into the top 2 inches of soil as soon as practicable after application.

3. Seeding Requirements

    a. Prepare a seedbed in disturbed areas to a depth of 3 to 4 inches using appropriate equipment to provide a firm seedbed. When hydroseeding, scarify the seedbed to facilitate lodging and germination of seed.

    b. Seed disturbed areas in accordance with written recommendations for seed mixes, rates, and dates obtained from the local soil conservation authority or the request of the landowner or land management agency. Seeding is not required in cultivated croplands unless requested by the landowner.

    c. Perform seeding of permanent vegetation within the recommended seeding dates. If seeding cannot be done within those dates, use appropriate temporary erosion control measures discussed in section IV.F and perform seeding of permanent vegetation at the beginning of the next recommended seeding season. Dormant seeding or temporary seeding of annual species may also be used, if necessary, to establish cover, as approved by the Environmental Inspector. Lawns may be seeded on a schedule established with the landowner.

    d. In the absence of written recommendations from the local soil conservation authorities, seed all disturbed soils within 6 working days of final grading, weather and soil conditions permitting, subject to the specifications in section V.D.3.a through V.D.3.c.

e. Base seeding rates on Pure Live Seed. Use seed within 12 months of seed testing.

f. Treat legume seed with an inoculant specific to the species using the manufacturer's recommended rate of inoculant appropriate for the seeding method (broadcast, drill, or hydro).

g. In the absence of written recommendations from the local soil conservation authorities, landowner, or land managing agency to the contrary, a seed drill equipped with a cultipacker is preferred for seed application.

   Broadcast or hydroseeding can be used in lieu of drilling at double the recommended seeding rates. Where seed is broadcast, firm the seedbed with a cultipacker or roller after seeding. In rocky soils or where site conditions may limit the effectiveness of this equipment, other alternatives may be appropriate (e.g., use of a chain drag) to lightly cover seed after application, as approved by the Environmental Inspector.

VI. OFF-ROAD VEHICLE CONTROL

To each owner or manager of forested lands, offer to install and maintain measures to control unauthorized vehicle access to the right-of-way. These measures may include:

A. signs;
B. fences with locking gates;
C. slash and timber barriers, pipe barriers, or a line of boulders across the right-of-way; and
D. conifers or other appropriate trees or shrubs across the right-of-way.

VII. POST-CONSTRUCTION ACTIVITIES AND REPORTING

A. MONITORING AND MAINTENANCE

1. Conduct follow-up inspections of all disturbed areas, as necessary, to determine the success of revegetation and address landowner concerns. At a minimum, conduct inspections after the first and second growing seasons.

2. Revegetation in non-agricultural areas shall be considered successful if upon visual survey the density and cover of non-nuisance vegetation are similar in density and cover to adjacent undisturbed lands. In agricultural areas, revegetation shall be considered successful when upon visual survey, crop growth and vigor are similar to adjacent undisturbed portions of the same field, unless the easement agreement specifies otherwise.

   Continue revegetation efforts until revegetation is successful.

3. Monitor and correct problems with drainage and irrigation systems resulting from pipeline construction in agricultural areas until restoration is successful.

4. Restoration shall be considered successful if the right-of-way surface condition is similar to adjacent undisturbed lands, construction debris is removed (unless otherwise approved by the landowner or land managing agency per section V.A.6), revegetation is successful, and proper drainage has been restored.

5. Routine vegetation mowing or clearing over the full width of the permanent right-of-way in uplands shall not be done more frequently than every 3 years. However, to facilitate periodic corrosion/leak surveys, a corridor not exceeding 10 feet in width centered on the pipeline may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In no case shall routine vegetation mowing or clearing occur during the migratory bird nesting season between April 15 and August 1 of any year unless specifically approved in writing by the responsible land management agency or the U.S. Fish and Wildlife Service.

6. Efforts to control unauthorized off-road vehicle use, in cooperation with the landowner, shall continue throughout the life of the project. Maintain signs, gates, and permanent access roads as necessary.

B. REPORTING

1. The project sponsor shall maintain records that identify by milepost:

   a. method of application, application rate, and type of fertilizer, pH modifying agent, seed, and mulch used;

   b. acreage treated;

   c. dates of backfilling and seeding;

   d. names of landowners requesting special seeding treatment and a description of the follow-up actions;

   e. the location of any subsurface drainage repairs or improvements made during restoration; and

   f. any problem areas and how they were addressed.

2. The project sponsor shall file with the Secretary quarterly activity reports documenting the results of follow-up inspections required by section VII.A.1; any problem areas, including those identified by the landowner; and corrective actions taken for at least 2 years following construction.

   The requirement to file quarterly activity reports with the Secretary does not apply to projects constructed under the automatic authorization, prior notice, or advanced notice provisions in the FERC's regulations.

DWLNG and DWPL Project Wetland & Waterbody Construction and Mitigation Procedures

I. APPLICABILITY

A. The intent of these Procedures is to assist project sponsors by identifying baseline mitigation measures for minimizing the extent and duration of project-related disturbance on wetlands and waterbodies. Project sponsors shall specify in their applications for a new FERC authorization, and in prior notice and advance notice filings, any individual measures in these Procedures they consider unnecessary, technically infeasible, or unsuitable due to local conditions and fully describe any alternative measures they would use. Project sponsors shall also explain how those alternative measures would achieve a comparable level of mitigation.

Once a project is authorized, project sponsors can request further changes as variances to the measures in these Procedures (or the applicant's approved procedures). The Director of the Office of Energy Projects (Director) will consider approval of variances upon the project sponsor's written request, if the Director agrees that a variance:

1. provides equal or better environmental protection;

2. is necessary because a portion of these Procedures is infeasible or unworkable based on project-specific conditions; or

3. is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

Sponsors of projects planned for construction under the automatic authorization provisions in the FERC's regulations must receive written approval for any variances in advance of construction.

Project-related impacts on non-wetland areas are addressed in the staff's Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

B. DEFINITIONS

1. "Waterbody" includes any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as ponds and lakes:

Exception: “ditches” are described in Resource Report 2 as being primarily man-made drainage features that include agricultural ditches and canals in fields and pastures and roadside drainage ditches. For construction purposes, ditches are not considered as significant waterbodies, not part of stream systems mapped in the USGS hydrographic database, and are not intermittent or perennial stream systems or channelized portions of these stream systems. As such, they typically do not fall under the jurisdiction of the U.S. Army Corps of Engineers (COE). Ditches are temporary in nature and are used to facilitate agriculture and drainage practices.

a. “minor waterbody” includes all waterbodies less than or equal to 10 feet wide at the water’s edge at the time of crossing;

b. “intermediate waterbody” includes all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water’s edge at the time of crossing; and

c. “major waterbody” includes all waterbodies greater than 100 feet wide at the water’s edge at the time of crossing.

2. “Wetland” includes any area that is not in actively cultivated or rotated cropland and that satisfies the requirements of the current federal methodology for identifying and delineating wetlands.

Pipeline: DWPL does not consider cultivated tree-farms (identified in the Wetland Delineation Report – Pipeline, appendix to Resource Report 2) as wetland, and these areas can be further defined with “saturated” and “non-saturated” conditions.

II. PRECONSTRUCTION FILING

A. The following information must be filed with the Secretary of the FERC (Secretary) prior to the beginning of construction, for the review and written approval by the Director:

1. site-specific justifications for extra work areas that would be closer than 50 feet from a waterbody or wetland; and

2. site-specific justifications for the use of a construction right-of-way greater than 75-feet-wide in wetlands.

Pipeline: The standard construction ROW width of 110 feet within wetland-determined areas (which includes saturated and non-saturated conditions) as outlined in the project-specific alignment sheets. This deviation is to support the installation of large-diameter pipe which requires sufficient space to safely maneuver construction equipment, while consolidating to challenging work environment conditions (e.g. soil types and conditions, proximity to waterbodies and river crossings, additional buoyancy needs, ditch dimensions and depth, methods of construction (e.g. boring or open-cut construction), vehicle turn-arounds, work crew interface, travel lane needs, existing pipeline and utilities, ATWS setback, and public proximity).

B. The following information must be filed with the Secretary prior to the beginning of construction. These filing requirements do not apply to projects constructed under the automatic authorization provisions in the FERC's regulations:

1. Spill Prevention and Response Procedures specified in section IV.A;

2. a schedule identifying when trenching or blasting will occur within each waterbody greater than 10 feet wide, within any designated coldwater fishery, and within any waterbody identified as habitat for federally-listed threatened or endangered species. The project sponsor will revise the schedule as necessary to provide FERC staff at least 14 days advance notice. Changes within this last 14-day period must provide for at least 48 hours advance notice;

3. plans for horizontal directional drills (HDD) under wetlands or waterbodies, specified in section V.B.6.d;

4. site-specific plans for major waterbody crossings, described in section V.B.9;

5. a wetland delineation report as described in section VI.A.1, if applicable; and

6. the hydrostatic testing information specified in section VII.B.3.

III. ENVIRONMENTAL INSPECTORS

A. At least one Environmental Inspector having knowledge of the wetland and waterbody conditions in the project area is required for each construction spread. The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.

B. The Environmental Inspector's responsibilities are outlined in the Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

IV. PRECONSTRUCTION PLANNING

A. The project sponsor shall develop project-specific Spill Prevention and Response Procedures that meet applicable requirements of state and federal agencies. A copy must be filed with the Secretary prior to construction and made available in the field on each construction spread. This filing requirement does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

Pipeline: The CONTRACTOR will require a fuel truck to transport and unload fuel into heavy construction equipment (e.g. HDD machinery, excavator, haul trucks, graders) on access roads and along the ROW travel lane and within wetland areas, some of which extend for miles. The tracking of equipment in and out of the wetland areas on a twice daily basis is considered a higher risk for accidents resulting in unanticipated spills and leaks than a single fuel truck refueling the construction equipment in an appropriately controlled area. The area will have secondary containment (i.e., drip trays, etc.) appropriate spill prevention materials, be inspected and approved by EI and the refueling and equipment operator will be trained in refueling activities. Fuel trucks will not be parked/stored overnight within 100 feet of a wetland or waterbody. Bulk fuel will not be stored overnight within 100 feet of waterbodies or wetlands. LNG Facility: There will be construction within and adjacent to waterbodies. Large equipment, specifically cranes for offloading barged materials, will remain staged at the MOF, or on barges for an extended period of time. This equipment cannot be easily moved away from the water's edge for refueling or storage. The CONTRACTOR will verify that fuel tanks associated with equipment staged at the MOF or marine berth will have the necessary secondary containment to prevent leaked product from entering waters of the U.S. Refueling of this equipment shall follow the Project SPCC plan..

1. It shall be the responsibility of the project sponsor and its contractors to structure their operations in a manner that reduces the risk of spills or the accidental exposure of fuels or hazardous materials to waterbodies or wetlands. The project sponsor and its contractors must, at a minimum, ensure that:

   a. all employees handling fuels and other hazardous materials are properly trained;

   b. all equipment is in good operating order and inspected on a regular basis;

   c. fuel trucks transporting fuel to on-site equipment travel only on approved access roads;

   d. all equipment is parked overnight and/or fueled at least 100 feet from a waterbody or in an upland area at least 100 feet from a wetland boundary. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and the project sponsor and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;

   e. hazardous materials, including chemicals, fuels, and lubricating oils, are not stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas;

   f. concrete coating activities are not performed within 100 feet of a wetland or waterbody boundary, unless the location is an existing industrial site designated for such use. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and the project sponsor and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;

   g. pumps operating within 100 feet of a waterbody or wetland boundary utilize appropriate secondary containment systems to prevent spills; and

   h. bulk storage of hazardous materials, including chemicals, fuels, and lubricating oils have appropriate secondary containment systems to prevent spills.

2. The project sponsor and its contractors must structure their operations in a manner that provides for the prompt and effective cleanup of spills of fuel and other hazardous materials. At a minimum, the project sponsor and its contractors must:

a. ensure that each construction crew (including cleanup crews) has on hand sufficient supplies of absorbent and barrier materials to allow the rapid containment and recovery of spilled materials and knows the procedure for reporting spills and unanticipated discoveries of contamination;

b. ensure that each construction crew has on hand sufficient tools and material to stop leaks;

c. know the contact names and telephone numbers for all local, state, and federal agencies (including, if necessary, the U. S. Coast Guard and the National Response Center) that must be notified of a spill; and

d. follow the requirements of those agencies in cleaning up the spill, in excavating and disposing of soils or other materials contaminated by a spill, and in collecting and disposing of waste generated during spill cleanup.

B. AGENCY COORDINATION

The project sponsor must coordinate with the appropriate local, state, and federal agencies as outlined in these Procedures and in the FERC's Orders.

V. WATERBODY CROSSINGS

A. NOTIFICATION PROCEDURES AND PERMITS

1. Apply to the U.S. Army Corps of Engineers (COE), or its delegated agency, for the appropriate wetland and waterbody crossing permits.

2. Provide written notification to authorities responsible for potable surface water supply intakes located within 3 miles downstream of the crossing at least 1 week before beginning work in the waterbody, or as otherwise specified by that authority.

3. Apply for state-issued waterbody crossing permits and obtain individual or generic section 401 water quality certification or waiver.

4. Notify appropriate federal and state authorities at least 48 hours before beginning trenching or blasting within the waterbody, or as specified in applicable permits.

B. INSTALLATION

1. Time Window for Construction

   Unless expressly permitted or further restricted by the appropriate federal or state agency in writing on a site-specific basis, instream work, except that required to install or remove equipment bridges, must occur during the following time windows:

   a. coldwater fisheries - June 1 through September 30; and

   b. coolwater and warmwater fisheries - June 1 through November 30.

2. Extra Work Areas

   a. Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.

   b. The project sponsor shall file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from the water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification must specify the conditions that will not permit a 50-foot setback and measures to ensure the waterbody is adequately protected.

Pipeline: to the extent practicable, the CONTRACTOR will locate extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge. Workspace areas which cannot achieve a 50-foot setback will be identified and filed with the Secretary for review and written approval prior to the beginning of construction. The CONTRACTOR will implement the applicable best management practices in the appropriate locations, to minimize soil erosion and sedimentation from these ATWS locations during and after construction. Typical best management practices include control measures such as silt fencing, mulching, rock armoring, and drainage conveyances.

Additionally, the following mitigation measures will also be implemented:

1. Reduce construction vehicle residence time at wetland and waterbody areas by reducing the distance required to move the excavated materials;
2. Reduce the volume of equipment in the area by having the least amount of only-necessary equipment being used; and
3. Reduce the hazardous material in the area to reduce the risk of a spill in waterbodies and in wetland areas.

Deviations from the 50-foot setback requirement are identified in Resource Report 8, Appendix 8B – Temporary Workspaces and Staging Areas.

c. Limit the size of extra workspace areas to the minimum needed to construct the waterbody crossing.

3. General Crossing Procedures

LNG Facility: Crossing procedures will not be required for LNG Facility construction.

a. Comply with the COE, or its delegated agency, permit terms and conditions.

b. Construct crossings as close to perpendicular to the axis of the waterbody channel as engineering and routing conditions permit.

c. Where pipelines parallel a waterbody, maintain at least 15 feet of undisturbed vegetation between the waterbody (and any adjacent wetland) and the construction right-of-way, except where maintaining this offset will result in greater environmental impact.

d. Where waterbodies meander or have multiple channels, route the pipeline to minimize the number of waterbody crossings.

e. Maintain adequate waterbody flow rates to protect aquatic life, and prevent the interruption of existing downstream uses.

f. Waterbody buffers (e.g., extra work area setbacks, refueling restrictions) must be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

g. Crossing of waterbodies when they are dry or frozen and not flowing may proceed using standard upland construction techniques in accordance with the Plan, provided that the Environmental Inspector verifies that water is unlikely to flow between initial disturbance and final stabilization of the feature. In the event of perceptible flow, the project sponsor must comply with all applicable Procedure requirements for "waterbodies" as defined in section I.B.1.

4. Spoil Pile Placement and Control

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

a. All spoil from minor and intermediate waterbody crossings, and upland spoil from major waterbody crossings, must be placed in the construction right-of-way at least 10 feet from the water's edge or in additional extra work areas as described in section V.B.2.

b. Use sediment barriers to prevent the flow of spoil or silt-laden water into any waterbody.

5. Equipment Bridges

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

a. Only clearing equipment and equipment necessary for installation of equipment bridges may cross waterbodies prior to bridge installation. Limit the number of such crossings of each waterbody to one per piece of clearing equipment.

b. Construct and maintain equipment bridges to allow unrestricted flow and to prevent soil from entering the waterbody. Examples of such bridges include:

(1) equipment pads and culvert(s);
(2) equipment pads or railroad car bridges without culverts;
(3) clean rock fill and culvert(s); and
(4) flexi-float or portable bridges.

Additional options for equipment bridges may be utilized that achieve the performance objectives noted above. Do not use soil to construct or stabilize equipment bridges.

c. Design and maintain each equipment bridge to withstand and pass the highest flow expected to occur while the bridge is in place. Align culverts to prevent bank erosion or streambed scour. If necessary, install energy dissipating devices downstream of the culverts.

d. Design and maintain equipment bridges to prevent soil from entering the waterbody.

e. Remove temporary equipment bridges as soon as practicable after permanent seeding.

f. If there will be more than 1 month between final cleanup and the beginning of permanent seeding and reasonable alternative access to the right-of-way is available, remove temporary equipment bridges as soon as practicable after final cleanup.

g. Obtain any necessary approval from the COE, or the appropriate state agency for permanent bridges.

6. Dry-Ditch Crossing Methods

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

a. Unless approved otherwise by the appropriate federal or state agency, install the pipeline using one of the dry-ditch methods outlined below for crossings of waterbodies up to 30 feet wide (at the water's edge at the time of construction) that are state-designated as either coldwater or significant coolwater or warmwater fisheries, or federally-designated as critical habitat.

b. Dam and Pump

(1) The dam-and-pump method may be used without prior approval for crossings of waterbodies where pumps can adequately transfer streamflow volumes around the work area, and there are no concerns about sensitive species passage.

(2) Implementation of the dam-and-pump crossing method must meet the following performance criteria:

(i) use sufficient pumps, including on-site backup pumps, to maintain downstream flows;
(ii) construct dams with materials that prevent sediment and other pollutants from entering the waterbody (e.g., sandbags or clean gravel with plastic liner);
(iii) screen pump intakes to minimize entrainment of fish;
(iv) prevent streambed scour at pump discharge; and
(v) continuously monitor the dam and pumps to ensure proper operation throughout the waterbody crossing.

c. Flume Crossing

The flume crossing method requires implementation of the following steps:

(1) install flume pipe after blasting (if necessary), but before any trenching;

(2) use sand bag or sand bag and plastic sheeting diversion structure or equivalent to develop an effective seal and to divert stream flow through the flume pipe (some modifications to the stream bottom may be required to achieve an effective seal);

(3) properly align flume pipe(s) to prevent bank erosion and streambed scour;

(4) do not remove flume pipe during trenching, pipelaying, or backfilling activities, or initial streambed restoration efforts; and

(5) remove all flume pipes and dams that are not also part of the equipment bridge as soon as final cleanup of the stream bed and bank is complete.

d. Horizontal Directional Drill

For each waterbody or wetland that would be crossed using the HDD method, file with the Secretary for the review and written approval by the Director, a plan that includes:

(1) site-specific construction diagrams that show the location of mud pits, pipe assembly areas, and all areas to be disturbed or cleared for construction;

(2) justification that disturbed areas are limited to the minimum needed to construct the crossing;
(3) identification of any aboveground disturbance or clearing between the HDD entry and exit workspaces during construction;
(4) a description of how an inadvertent release of drilling mud would be contained and cleaned up; and
(5) a contingency plan for crossing the waterbody or wetland in the event the HDD is unsuccessful and how the abandoned drill hole would be sealed, if necessary.

The requirement to file HDD plans does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

7. Crossings of Minor Waterbodies

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Where a dry-ditch crossing is not required, minor waterbodies may be crossed using the open-cut crossing method, with the following restrictions:

a. except for blasting and other rock breaking measures, complete instream construction activities (including trenching, pipe installation, backfill, and restoration of the streambed contours) within 24 hours. Streambanks and unconsolidated streambeds may require additional restoration after this period;

b. limit use of equipment operating in the waterbody to that needed to construct the crossing; and

c. equipment bridges are not required at minor waterbodies that do not have a state-designated fishery classification or protected status (e.g., agricultural or intermittent drainage ditches). However, if an equipment bridge is used it must be constructed as described in section V.B.5.

8. Crossings of Intermediate Waterbodies

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Where a dry-ditch crossing is not required, intermediate waterbodies may be crossed using the open-cut crossing method, with the following restrictions:

a. complete instream construction activities (not including blasting and other rock breaking measures) within 48 hours, unless site-specific conditions make completion within 48 hours infeasible;

b. limit use of equipment operating in the waterbody to that needed to construct the crossing; and

c. all other construction equipment must cross on an equipment bridge as specified in section V.B.5.

9. Crossings of Major Waterbodies

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Before construction, the project sponsor shall file with the Secretary for the review and written approval by the Director a detailed, site-specific construction plan and scaled drawings identifying all areas to be disturbed by construction for each major waterbody crossing (the scaled drawings are not required for any offshore portions of pipeline projects).

This plan must be developed in consultation with the appropriate state and federal agencies and shall include extra work areas, spoil storage areas, sediment control structures, etc., as well as mitigation for navigational issues. The requirement to file major waterbody crossing plans does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.
The Environmental Inspector may adjust the final placement of the erosion and sediment control structures in the field to maximize effectiveness.

10. Temporary Erosion and Sediment Control

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Install sediment barriers (as defined in section IV.F.3.a of the Plan) immediately after initial disturbance of the waterbody or adjacent upland. Sediment barriers must be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan; however, the following specific measures must be implemented at stream crossings:

a. install sediment barriers across the entire construction right-of-way at all waterbody crossings, where necessary to prevent the flow of sediments into the waterbody. Removable sediment barriers (or driveable berms) must be installed across the travel lane. These removable sediment barriers can be removed during the construction day, but must be re-installed after construction has stopped for the day and/or when heavy precipitation is imminent;

b. where waterbodies are adjacent to the construction right-of-way and the right-of-way slopes toward the waterbody, install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the waterbody; and

c. use temporary trench plugs at all waterbody crossings, as necessary, to prevent diversion of water into upland portions of the pipeline trench and to keep any accumulated trench water out of the waterbody.

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

11. Trench Dewatering

Dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any waterbody. Remove the dewatering structures as soon as practicable after the completion of dewatering activities.

C. RESTORATION

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

1. Use clean gravel or native cobbles for the upper 1 foot of trench backfill in all waterbodies that contain coldwater fisheries.

2. For open-cut crossings, stabilize waterbody banks and install temporary sediment barriers within 24 hours of completing instream construction activities. For dry-ditch crossings, complete streambed and bank stabilization before returning flow to the waterbody channel.

3. Return all waterbody banks to pre-construction contours or to a stable angle of repose as approved by the Environmental Inspector.

4. Install erosion control fabric or a functional equivalent on waterbody banks at the time of final bank re-contouring. Do not use synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat unless the product is specifically designed to minimize harm to wildlife. Anchor erosion control fabric with staples or other appropriate devices.

5. Application of riprap for bank stabilization must comply with COE, or its delegated agency, permit terms and conditions.

6. Unless otherwise specified by state permit, limit the use of riprap to areas where flow conditions preclude effective vegetative stabilization techniques such as seeding and erosion control fabric.

7. Revegetate disturbed riparian areas with native species of conservation grasses, legumes, and woody species, similar in density to adjacent undisturbed lands.

8. Install a permanent slope breaker across the construction right-of-way at the base of slopes greater than 5 percent that are less than 50 feet from the waterbody, or as needed to prevent sediment transport into the waterbody. In addition, install sediment barriers as outlined in the Plan.

   In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the waterbody.

9. Sections V.C.3 through V.C.7 above also apply to those perennial or intermittent streams not flowing at the time of construction.

D. POST-CONSTRUCTION MAINTENANCE

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.

1. Limit routine vegetation mowing or clearing adjacent to waterbodies to allow a riparian strip at least 25 feet wide, as measured from the waterbody's mean high water mark, to permanently revegetate with native plant species across the entire construction right-of-way. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees that are located within 15 feet of the pipeline that have roots that could compromise the integrity of the pipeline coating may be cut and removed from the permanent right-of-way. Do not conduct any routine vegetation mowing or clearing in riparian areas that are between HDD entry and exit points.

2. Do not use herbicides or pesticides in or within 100 feet of a waterbody except as allowed by the appropriate land management or state agency.

3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of riparian areas.

VI. WETLAND CROSSINGS

LNG Facility: Impacts to wetlands at the LNG Facility will be appropriately permitted and mitigated as regulatorily approved. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.

A. GENERAL

1. The project sponsor shall conduct a wetland delineation using the current federal methodology and file a wetland delineation report with the Secretary before construction. The requirement to file a wetland delineation report does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

   This report shall identify:

   a. by milepost all wetlands that would be affected;

b. the National Wetlands Inventory (NWI) classification for each wetland;

c. the crossing length of each wetland in feet; and

d. the area of permanent and temporary disturbance that would occur in each wetland by NWI classification type.

The requirements outlined in this section do not apply to wetlands in actively cultivated or rotated cropland. Standard upland protective measures, including workspace and top soiling requirements, apply to these agricultural wetlands.

2. Route the pipeline to avoid wetland areas to the maximum extent possible. If a wetland cannot be avoided or crossed by following an existing right-of-way, route the new pipeline in a manner that minimizes disturbance to wetlands. Where looping an existing pipeline, overlap the existing pipeline right-of-way with the new construction right-of-way. In addition, locate the loop line no more than 25 feet away from the existing pipeline unless site-specific constraints would adversely affect the stability of the existing pipeline.

3. Limit the width of the construction right-of-way to 75 feet or less. Prior written approval of the Director is required where topographic conditions or soil limitations require that the construction right-of-way width within the boundaries of a federally delineated wetland be expanded beyond 75 feet. Early in the planning process the project sponsor is encouraged to identify site-specific areas where excessively wide trenches could occur and/or where spoil piles could be difficult to maintain because existing soils lack adequate unconfined compressive strength.

Pipeline: The construction ROW width in wetlands is proposed to be 110 feet within wetland-determined areas (which includes saturated and non-saturated conditions, and/or actively-cultivated tree-farms). This deviation is to support the installation of large- diameter pipe which requires sufficient space to safely maneuver construction equipment, while consolidating to challenging work environment conditions (e.g. soil types and conditions, proximity to waterbodies and river crossings, additional buoyancy needs, ditch dimensions and depth, methods of construction (e.g. boring or open-cut construction), vehicle turn-arounds, work crew interface, travel lane needs, existing pipeline and utilities, ATWS setback, and public proximity).

4. Wetland boundaries and buffers must be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

5. Implement the measures of sections V and VI in the event a waterbody crossing is located within or adjacent to a wetland crossing. If all measures of sections V and VI cannot be met, the project sponsor must file with the Secretary a site-specific crossing plan for review and written approval by the Director before construction. This crossing plan shall address at a minimum:

    a. spoil control;

    b. equipment bridges;

    c. restoration of waterbody banks and wetland hydrology;

    d. timing of the waterbody crossing;

    e. method of crossing; and

    f. size and location of all extra work areas.

6. Do not locate aboveground facilities in any wetland, except where the location of such facilities outside of wetlands would prohibit compliance with U.S. Department of Transportation regulations.

B. INSTALLATION

1. Extra Work Areas and Access Roads

    a. Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from wetland boundaries, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.

Pipeline: To the extent practicable, the CONTRACTOR will locate extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge. Workspace areas which cannot achieve a 50-foot setback will be identified and filed with the Secretary for review and written approval prior to the beginning of construction. The CONTRACTOR will implement the applicable best management practices (which includes control measures like silt fencing, mulching , drainage) in the appropriate locations, so to minimize soil erosion and sedimentation from these ATWS locations during and after construction.

Additionally, the following mitigation measures will also be implemented:

1. Reduce construction vehicle residence time wetland and waterbody areas by reducing the distance required to move the excavated materials;

2. Reduce the volume of equipment in the area by having the least amount of only-necessary equipment being used; and

3. Reduce the hazardous material in the area to reduce the risk of a spill in waterbodies and in wetland areas.

Deviations from the 50-foot setback requirement are identified in Resource Report 8, Appendix 8B – Temporary Workspaces and Staging Areas.

b. The project sponsor shall file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from wetland boundaries, except where adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification must specify the site-specific conditions that will not permit a 50-foot setback and measures to ensure the wetland is adequately protected.

c. The construction right-of-way may be used for access when the wetland soil is firm enough to avoid rutting or the construction right-of-way has been appropriately stabilized to avoid rutting (e.g., with timber riprap, prefabricated equipment mats, or terra mats).

In wetlands that cannot be appropriately stabilized, all construction equipment other than that needed to install the wetland crossing shall use access roads located in upland areas. Where access roads in upland areas do not provide reasonable access, limit all other construction equipment to one pass through the wetland using the construction right-of-way.

d. The only access roads, other than the construction right-of-way, that can be used in wetlands are those existing roads that can be used with no modifications or improvements, other than routine repair, and no impact on the wetland.

2. Crossing Procedures

LNG Facility. These requirements regarding waterbody crossing procedures do not apply. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.

a. Comply with COE, or its delegated agency, permit terms and conditions.

b. Assemble the pipeline in an upland area unless the wetland is dry enough to adequately support skids and pipe.

c. Use “push-pull” or “float” techniques to place the pipe in the trench where water and other site conditions allow.

d. Minimize the length of time that topsoil is segregated and the trench is open. Do not trench the wetland until the pipeline is assembled and ready for lowering in.

e. Limit construction equipment operating in wetland areas to that needed to clear the construction right-of-way, dig the trench, fabricate and install the pipeline, backfill the trench, and restore the construction right-of-way.

f. Cut vegetation just above ground level, leaving existing root systems in place, and remove it from the wetland for disposal.

The project sponsor can burn woody debris in wetlands, if approved by the COE and in accordance with state and local regulations, ensuring that all remaining woody debris is removed for disposal.

g. Limit pulling of tree stumps and grading activities to directly over the trenchline. Do not grade or remove stumps or root systems from the rest of the construction right-of-way in wetlands unless the Chief Inspector and Environmental Inspector determine that safety-related construction constraints require grading or the removal of tree stumps from under the working side of the construction right-of-way.

h. Segregate the top 1 foot of topsoil from the area disturbed by trenching, except in areas where standing water is present or soils are saturated. Immediately after backfilling is complete, restore the segregated topsoil to its original location.

i. Do not use rock, soil imported from outside the wetland, tree stumps, or brush riprap to support equipment on the construction right-of-way.

j. If standing water or saturated soils are present, or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands, use low-ground-weight construction equipment, or operate normal equipment on timber riprap, prefabricated equipment mats, or terra mats.

k. Remove all project-related material used to support equipment on the construction right-of-way upon completion of construction.

3. Temporary Sediment Control

A project specific Erosion and Sediment Control Plan has been developed for the LNG Facility construction site.

Install sediment barriers (as defined in section IV.F.3.a of the Plan) immediately after initial disturbance of the wetland or adjacent upland. Sediment barriers must be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench). Except as noted below in section VI.B.3.c, maintain sediment barriers until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan.

a. Install sediment barriers across the entire construction right-of-way immediately upslope of the wetland boundary at all wetland crossings where necessary to prevent sediment flow into the wetland.

b. Where wetlands are adjacent to the construction right-of-way and the right-of-way slopes toward the wetland, install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the wetland.

c. Install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way through wetlands. Remove these sediment barriers during right-of-way cleanup.

4. Trench Dewatering

Dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any wetland. Remove the dewatering structures as soon as practicable after the completion of dewatering activities.

C. RESTORATION

LNG Facility: This land use will be converted to an operating industrial facility. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.

1. Where the pipeline trench may drain a wetland, construct trench breakers at the wetland boundaries and/or seal the trench bottom as necessary to maintain the original wetland hydrology.

2. Restore pre-construction wetland contours to maintain the original wetland hydrology.

3. For each wetland crossed, install a trench breaker at the base of slopes near the boundary between the wetland and adjacent upland areas. Install a permanent slope breaker across the construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from the wetland, or as needed to prevent sediment transport into the wetland. In addition, install sediment barriers as outlined in the Plan. In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the wetland.

4. Do not use fertilizer, lime, or mulch unless required in writing by the appropriate federal or state agency.

5. Consult with the appropriate federal or state agencies to develop a project-specific wetland restoration plan. The restoration plan shall include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of invasive species and noxious weeds (e.g., purple loosestrife and phragmites), and monitoring the success of the revegetation and weed control efforts. Provide this plan to the FERC staff upon request.

6. Until a project-specific wetland restoration plan is developed and/or implemented, temporarily revegetate the construction right-of-way with annual ryegrass at a rate of 40 pounds/acre (unless standing water is present).

7. Ensure that all disturbed areas successfully revegetate with wetland herbaceous and/or woody plant species.

8. Remove temporary sediment barriers located at the boundary between wetland and adjacent upland areas after revegetation and stabilization of adjacent upland areas are judged to be successful as specified in section VII.A.4 of the Plan.

D. POST-CONSTRUCTION MAINTENANCE AND REPORTING

LNG Facility: This land use will be converted to an operating industrial facility. DWLNG will be responsible for the upkeep of landscaped areas and non-developed areas of the property. The schedule and frequency of maintenance mowing will be as per facility operating and maintenance procedures. LNG Facility site restoration reporting will be independent of the Pipeline restoration reports.

1. Do not conduct routine vegetation mowing or clearing over the full width of the permanent right-of-way in wetlands. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees within 15 feet of the pipeline with roots that could compromise the integrity of pipeline coating may be selectively cut and removed from the permanent right-of-way. Do not conduct any routine vegetation mowing or clearing in wetlands that are between HDD entry and exit points.

2. Do not use herbicides or pesticides in or within 100 feet of a wetland, except as allowed by the appropriate federal or state agency.

3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of wetland areas.

4. Monitor and record the success of wetland revegetation annually until wetland revegetation is successful.

5. Wetland revegetation shall be considered successful if all of the following criteria are satisfied:

    a. the affected wetland satisfies the current federal definition for a wetland (i.e., soils, hydrology, and vegetation);

    b. vegetation is at least 80 percent of either the cover documented for the wetland prior to construction, or at least 80 percent of the cover in adjacent wetland areas that were not disturbed by construction;

c. if natural rather than active revegetation was used, the plant species composition is consistent with early successional wetland plant communities in the affected ecoregion; and

d. invasive species and noxious weeds are absent, unless they are abundant in adjacent areas that were not disturbed by construction.

6. Within 3 years after construction, file a report with the Secretary identifying the status of the wetland revegetation efforts and documenting success as defined in section VI.D.5, above. The requirement to file wetland restoration reports with the Secretary does not apply to projects constructed under the automatic authorization, prior notice, or advance notice provisions in the FERC's regulations.

   For any wetland where revegetation is not successful at the end of 3 years after construction, develop and implement (in consultation with a professional wetland ecologist) a remedial revegetation plan to actively revegetate wetlands. Continue revegetation efforts and file a report annually documenting progress in these wetlands until wetland revegetation is successful.

VII. HYDROSTATIC TESTING

A. NOTIFICATION PROCEDURES AND PERMITS

1. Apply for state-issued water withdrawal permits, as required.

2. Apply for National Pollutant Discharge Elimination System (NPDES) or state-issued discharge permits, as required.

3. Notify appropriate state agencies of intent to use specific sources at least 48 hours before testing activities unless they waive this requirement in writing.

B. GENERAL

1. Perform 100 percent radiographic inspection of all pipeline section welds or hydrotest the pipeline sections, before installation under waterbodies or wetlands.

2. If pumps used for hydrostatic testing are within 100 feet of any waterbody or wetland, address secondary containment and refueling of these pumps in the project's Spill Prevention and Response Procedures.

3. The project sponsor shall file with the Secretary before construction a list identifying the location of all waterbodies proposed for use as a hydrostatic test water source or discharge location. This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

C. INTAKE SOURCE AND RATE

1. Screen the intake hose to minimize the potential for entrainment of fish.

2. Do not use state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and/or local permitting agencies grant written permission.

3. Maintain adequate flow rates to protect aquatic life, provide for all waterbody uses, and provide for downstream withdrawals of water by existing users.

4. Locate hydrostatic test manifolds outside wetlands and riparian areas to the maximum extent practicable.

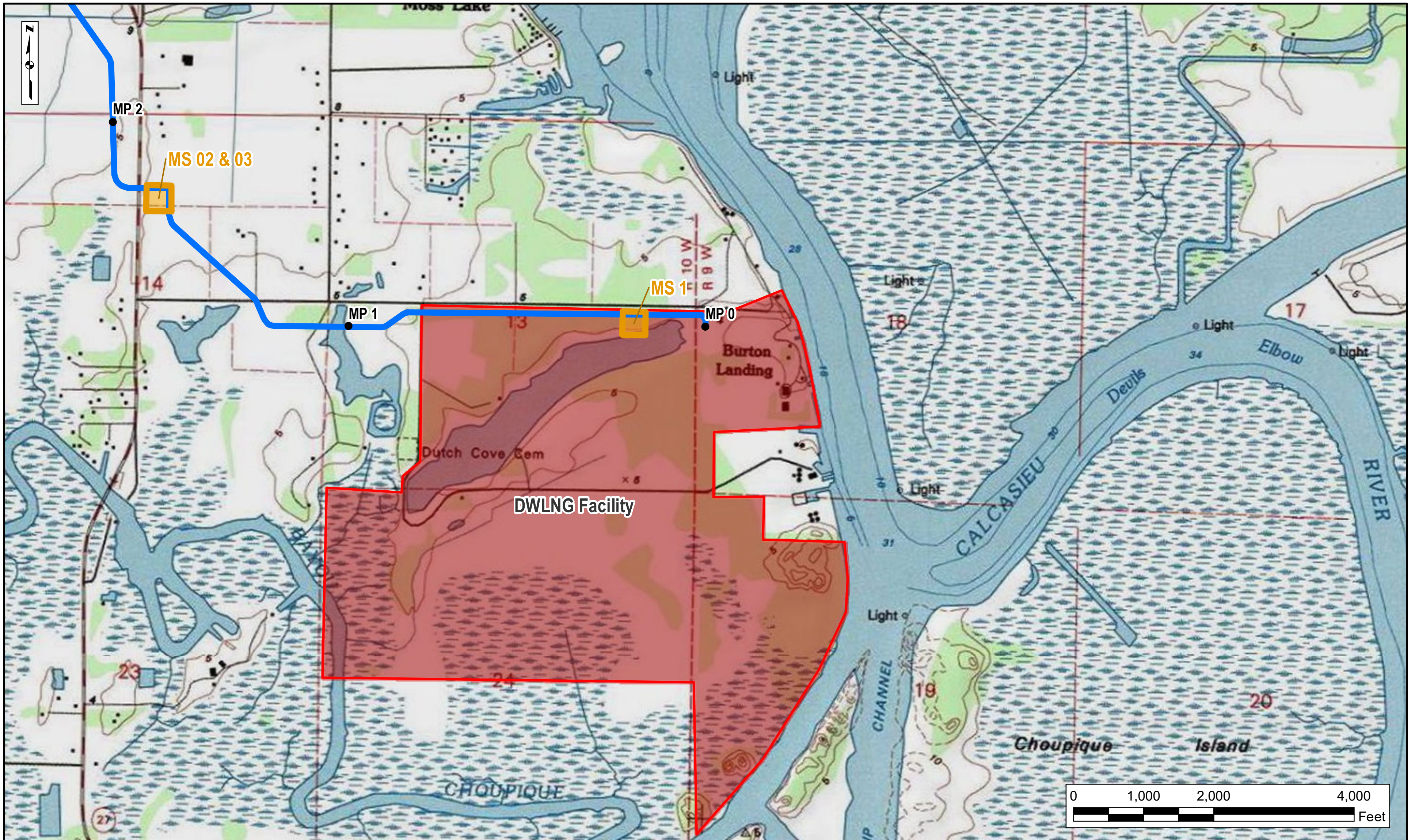
D. DISCHARGE LOCATION, METHOD, AND RATE

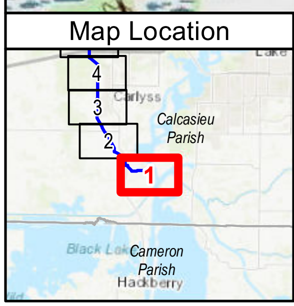
1. Regulate discharge rate, use energy dissipation device(s), and install sediment barriers, as necessary, to prevent erosion, streambed scour, suspension of sediments, or excessive streamflow.

2. Do not discharge into state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and local permitting agencies grant written permission.

APPENDIX D

FIGURES





Legend

- Milepost
- Proposed Pipeline Route
- DWLNG Facility
- Meter Station
- Parish Boundary

Figure 2.1-1a: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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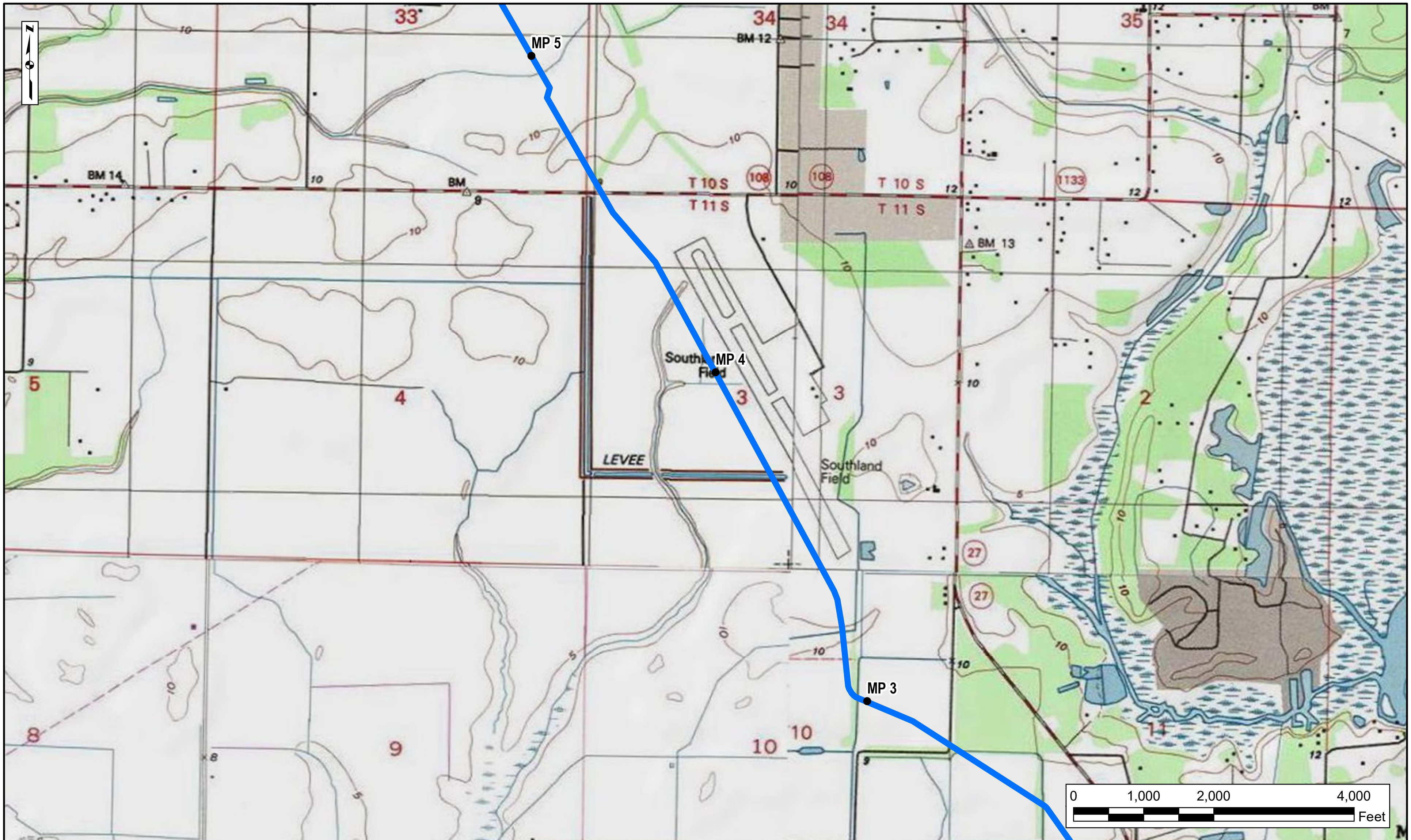

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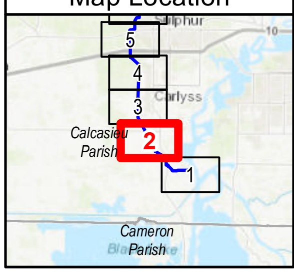

Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1b: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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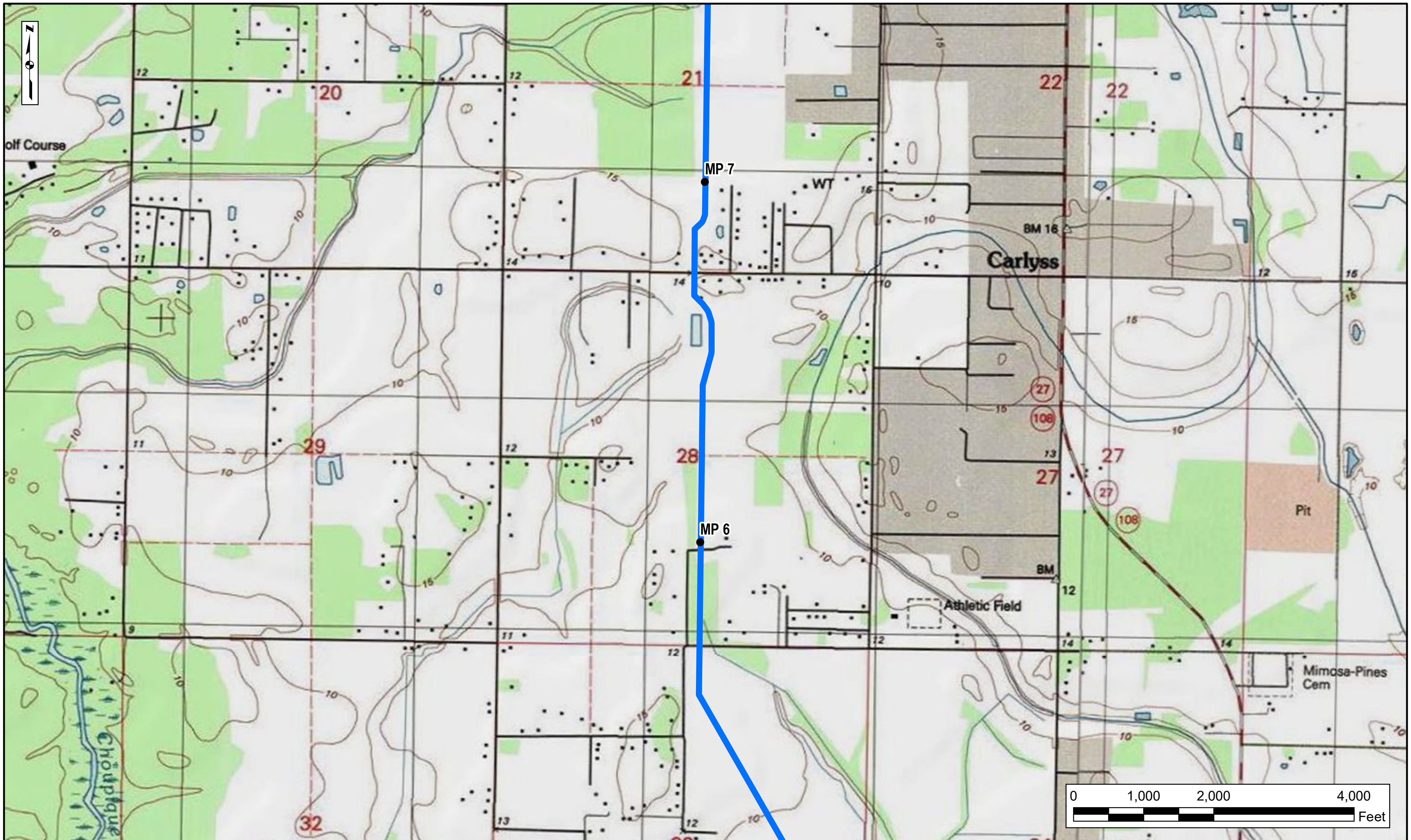

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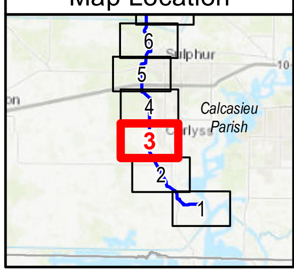

Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1c: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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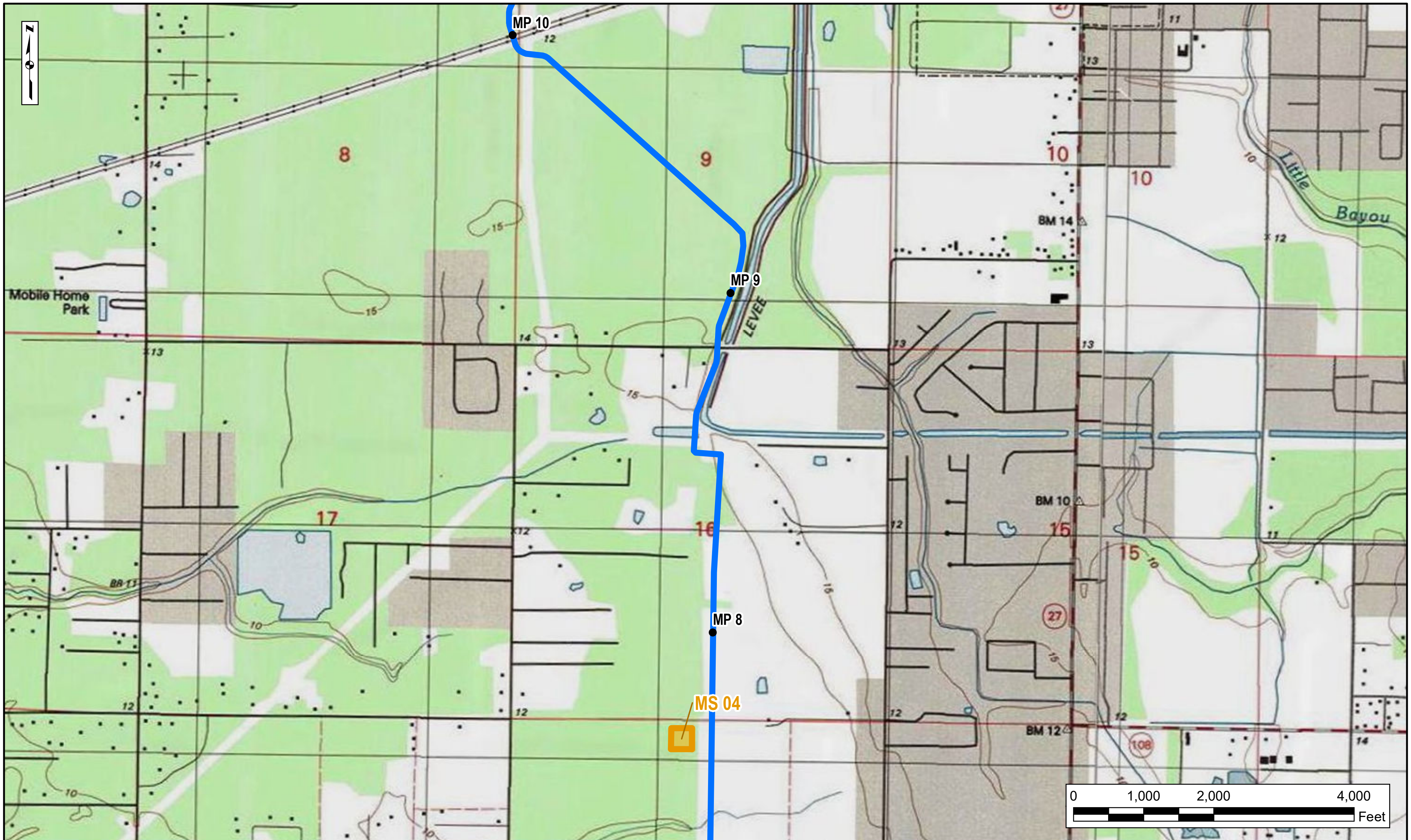

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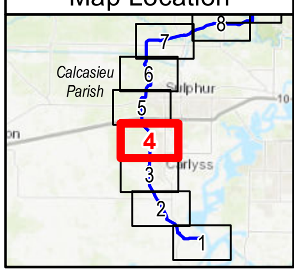

Legend

- Milepost
- Proposed Pipeline Route
- Meter Station
- Parish Boundary

Figure 2.1-1d: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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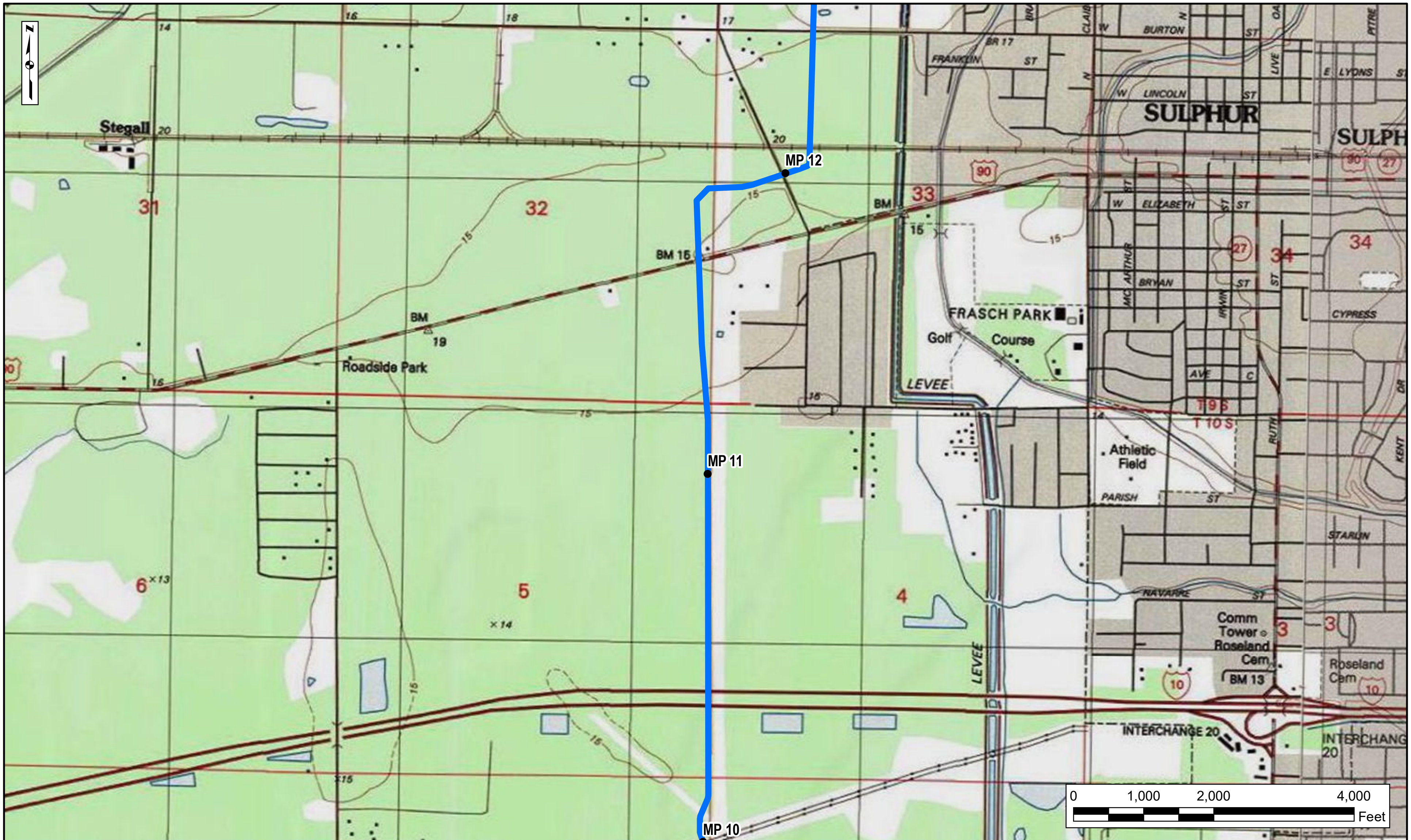

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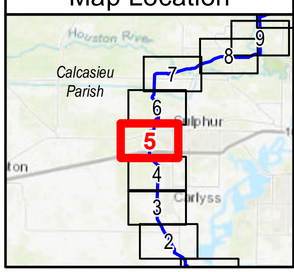

Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1e: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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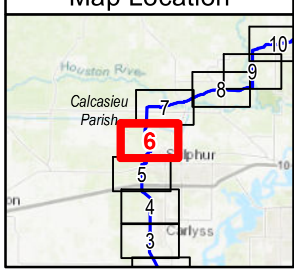
Map Location



Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1f: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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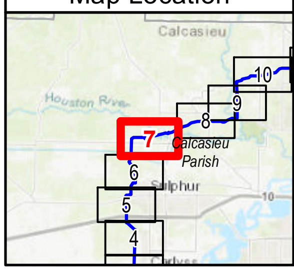


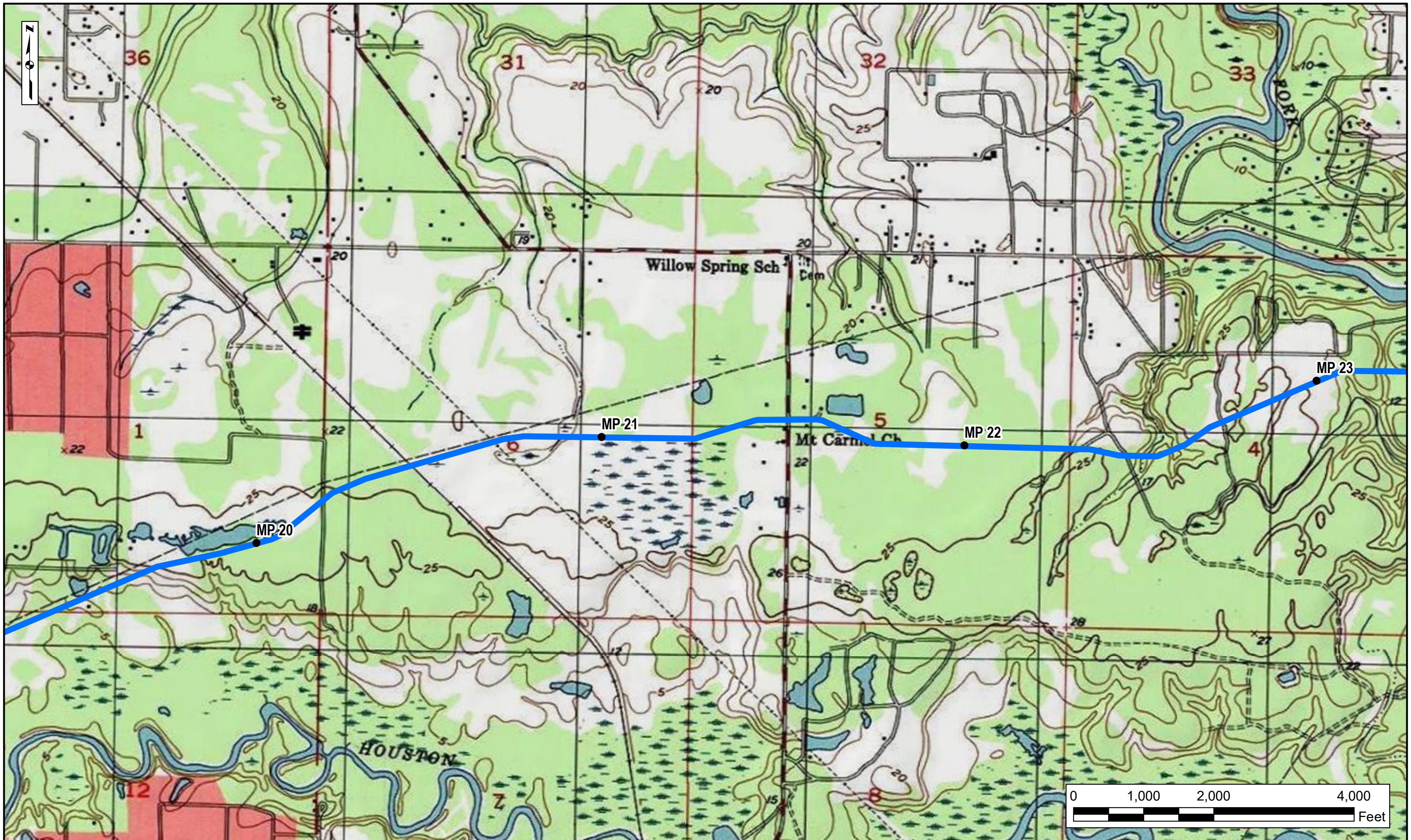
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1g: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



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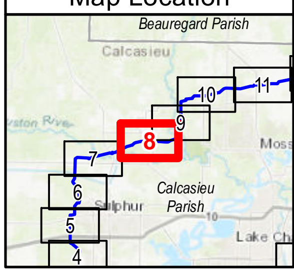


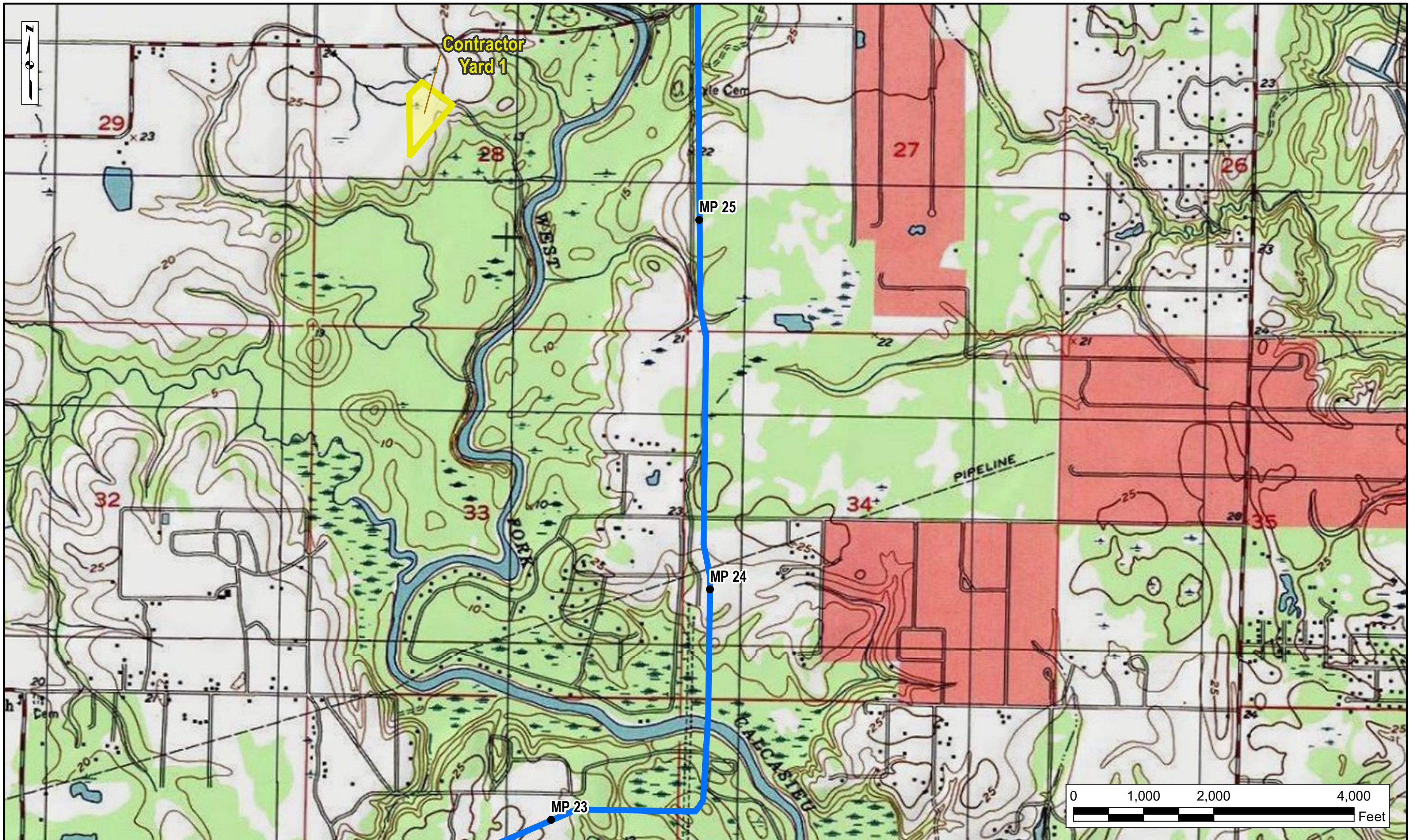
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1h: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



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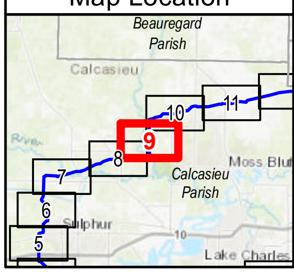


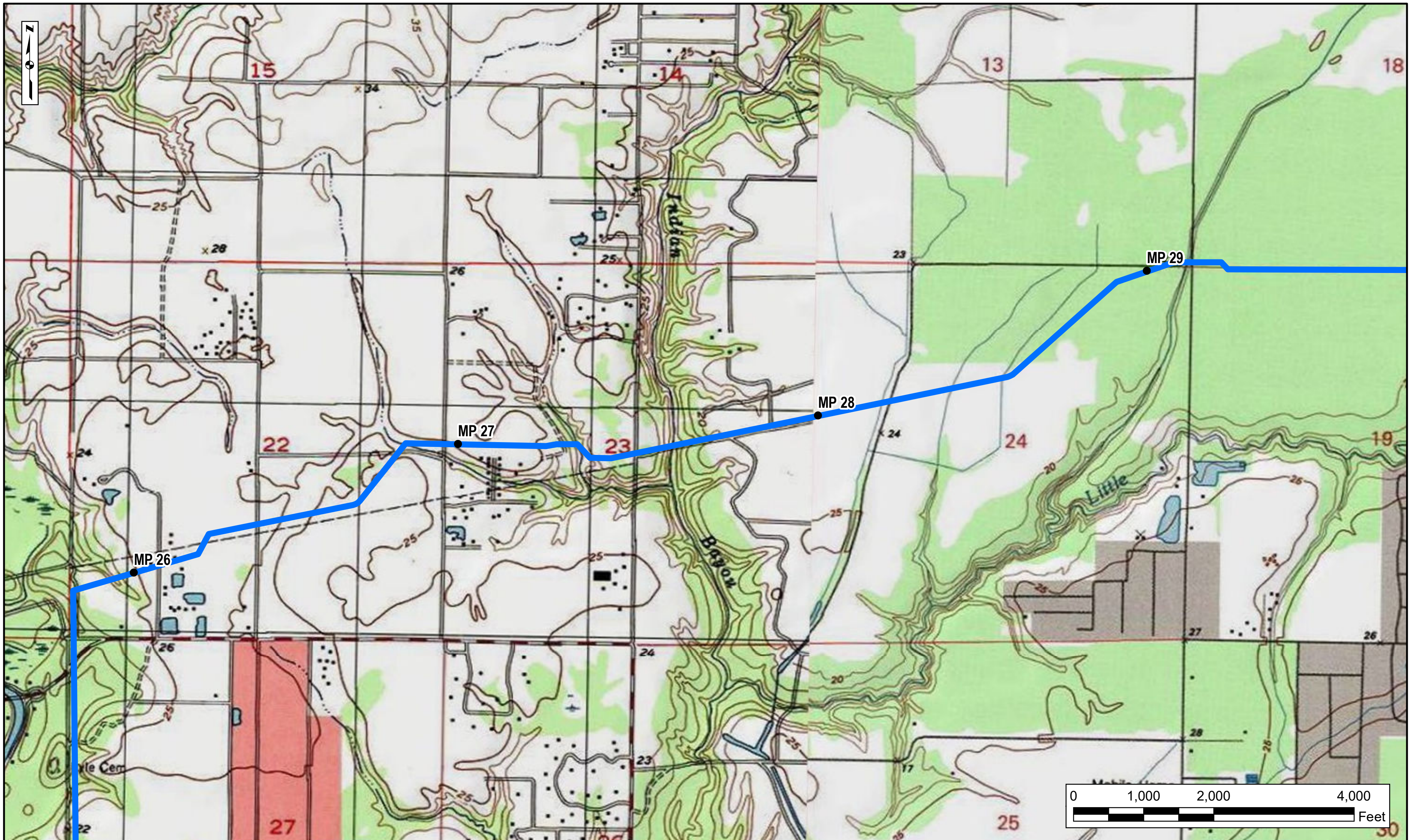
Legend

- Milepost
- Proposed Pipeline Route
- Contractor Yard
- Parish Boundary

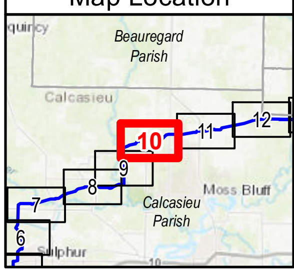
Figure 2.1-1i: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



Map Location



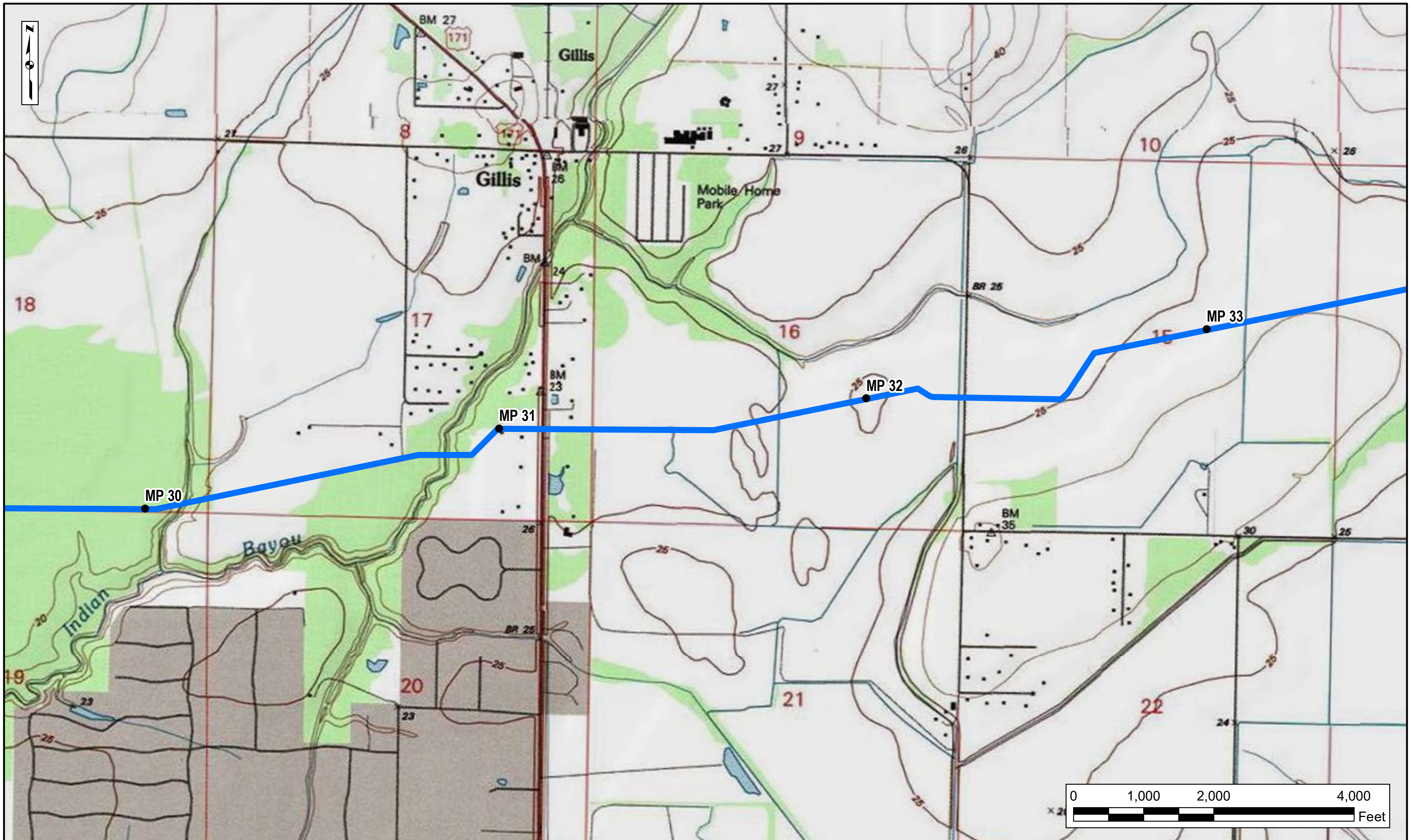
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1j: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



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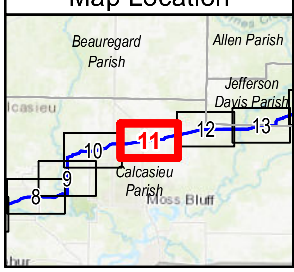

Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1k: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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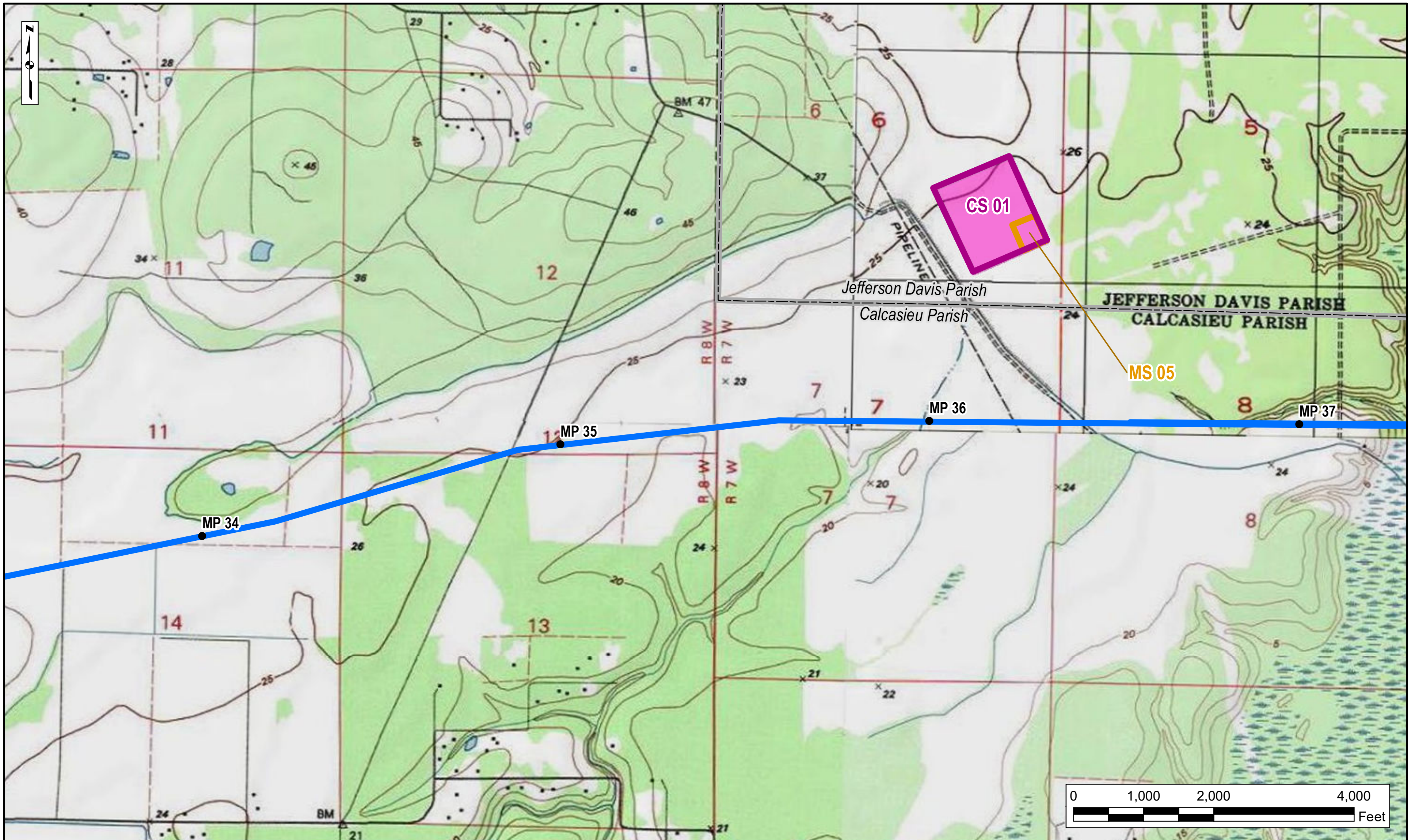

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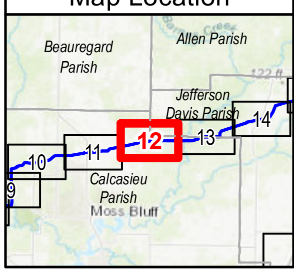


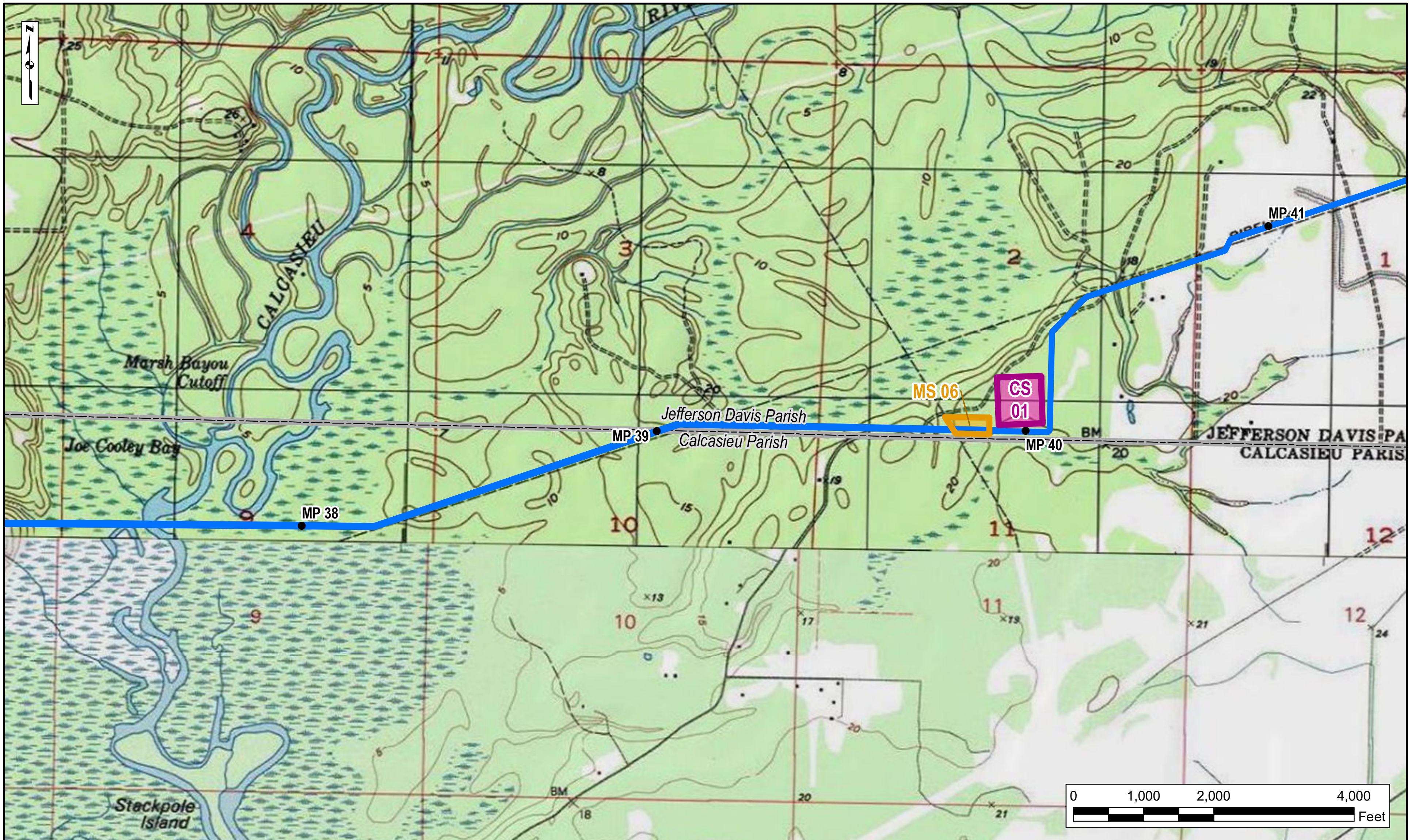
Legend

- Milepost
- Proposed Pipeline Route
- Compressor Station
- Meter Station
- Parish Boundary

Figure 2.1-1l: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



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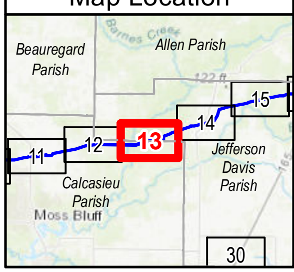

Legend

- Milepost
- Proposed Pipeline Route
- Compressor Station
- Meter Station
- Parish Boundary

Figure 2.1-1m: Driftwood Project Topgraphic Maps

Driftwood Project

Calcasieu and Jefferson Davis Parish, Louisiana

NOTES:

Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Image Source: Esri Online "USA Topo Maps" Service Layer.

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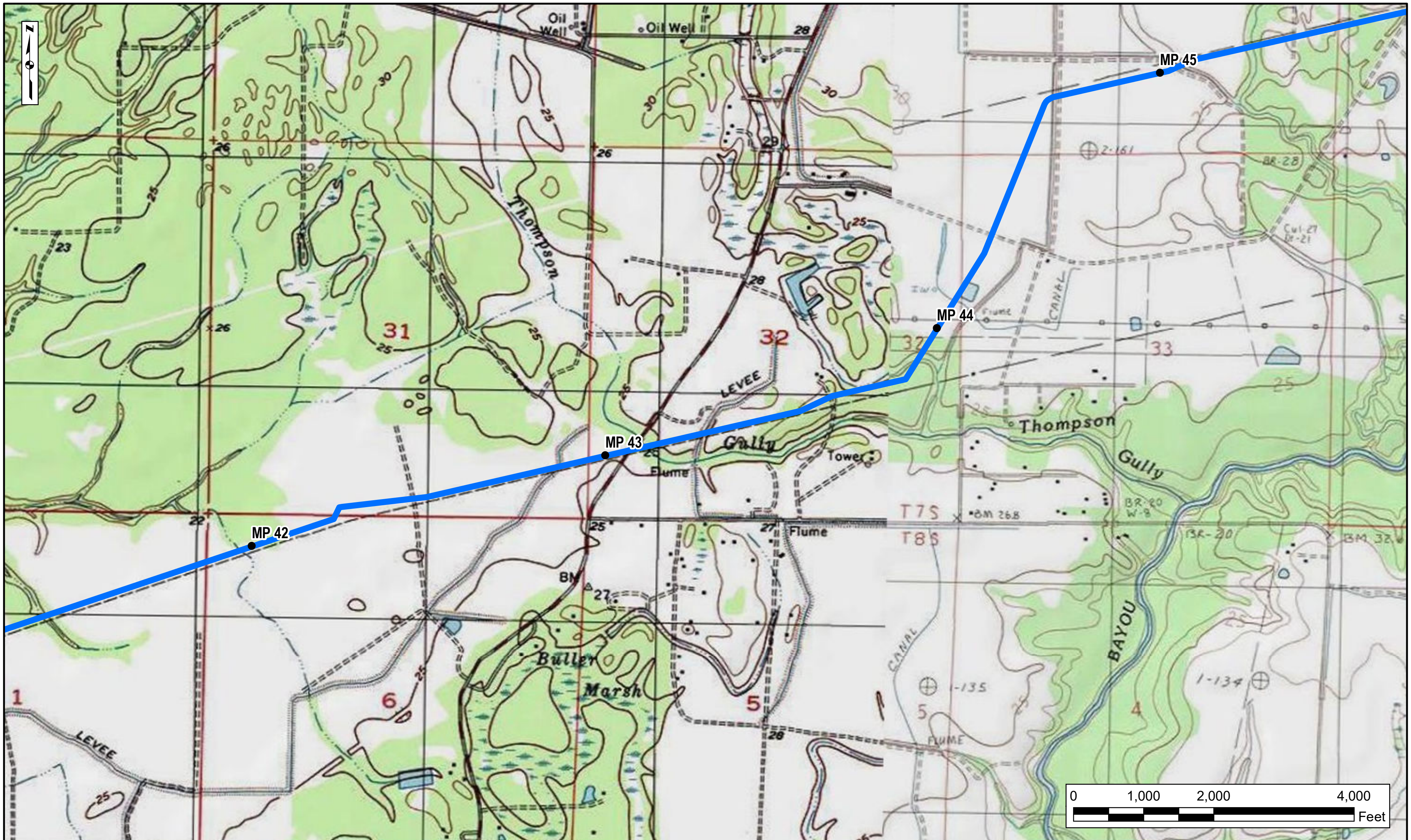

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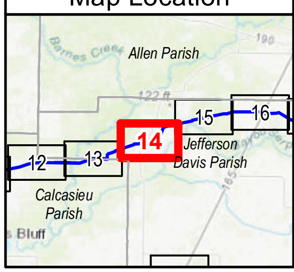


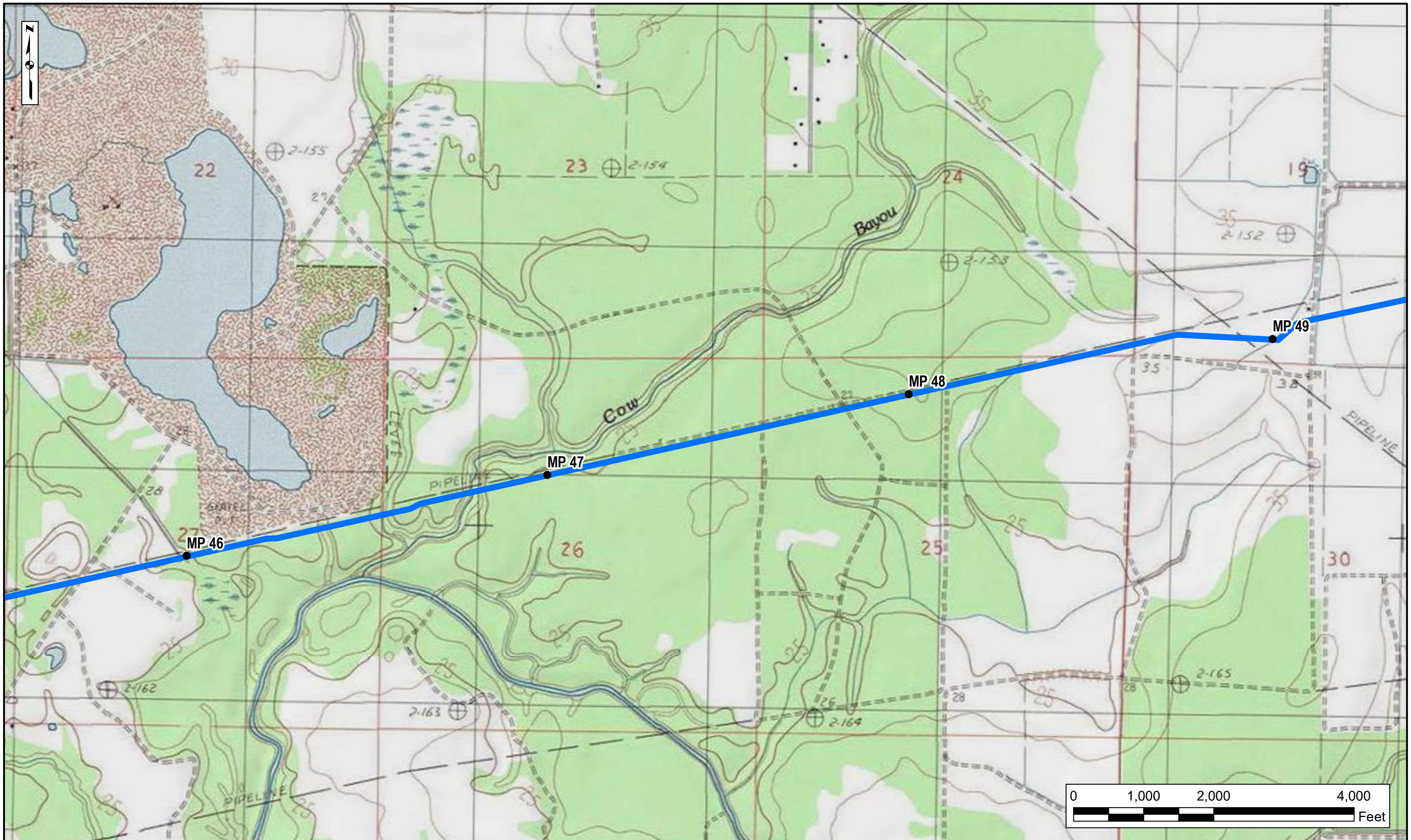
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1n: Driftwood Project Topgraphic Maps
Driftwood Project
Jefferson Davis Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



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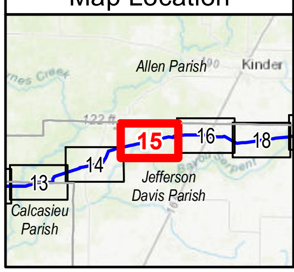


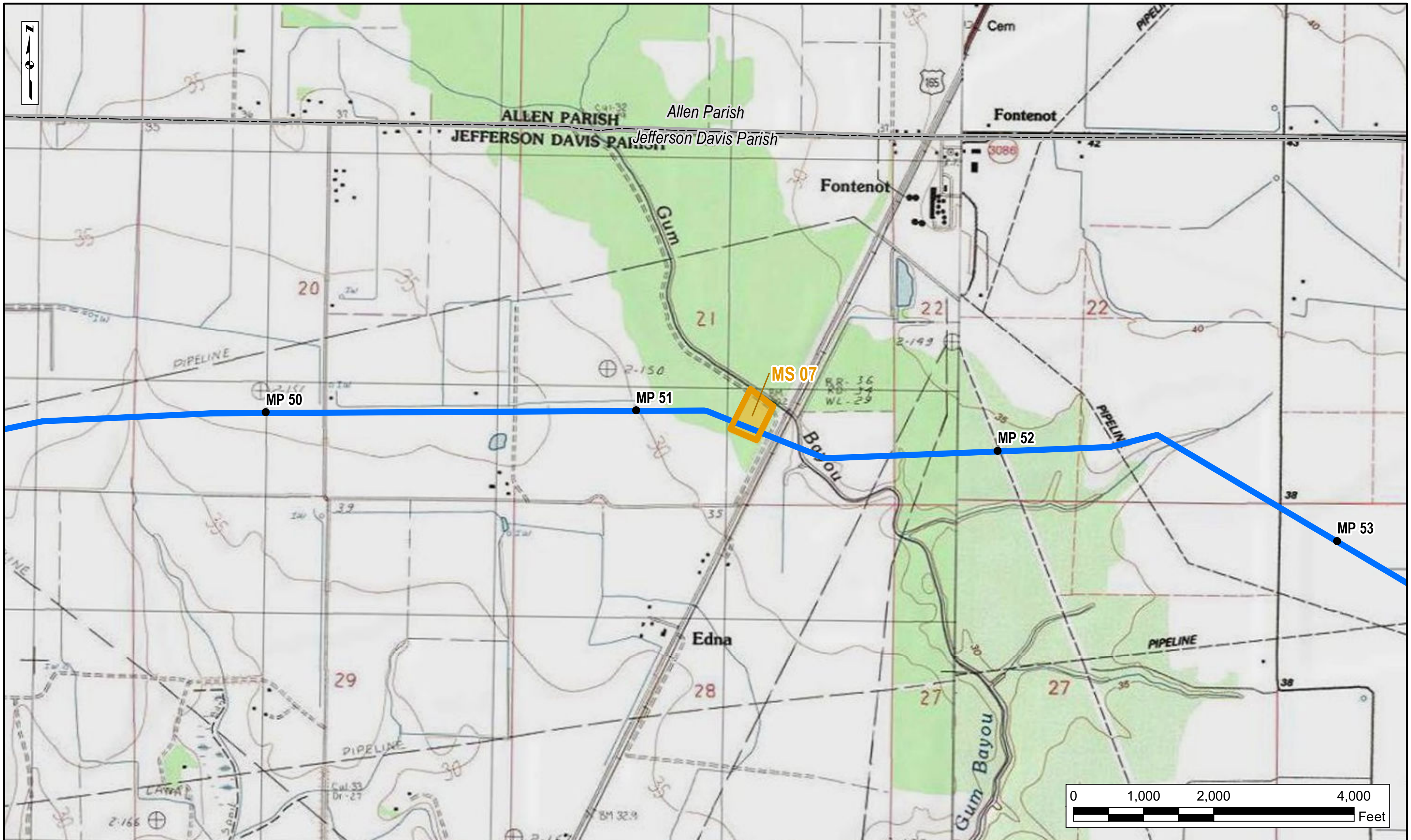
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1o: Driftwood Project Topgraphic Maps
Driftwood Project
Jefferson Davis Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



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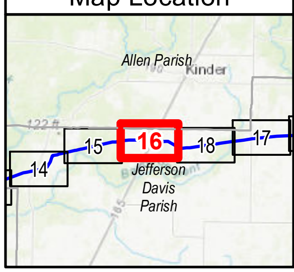

Legend

- Milepost
- Proposed Pipeline Route
- Meter Station
- Parish Boundary

Figure 2.1-1p: Driftwood Project Topgraphic Maps
Driftwood Project
Jefferson Davis Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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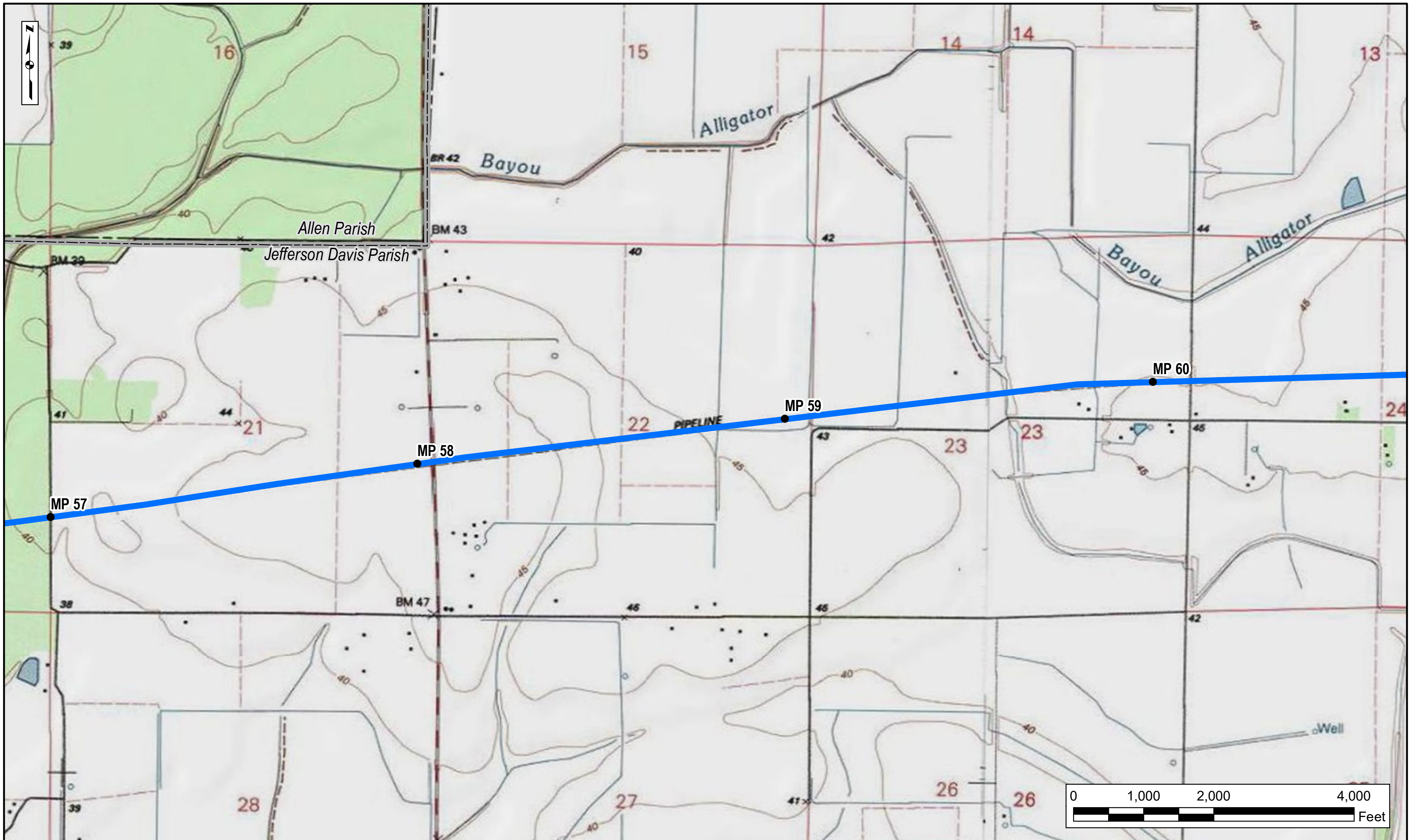

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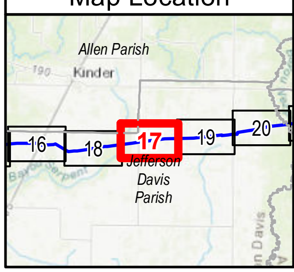


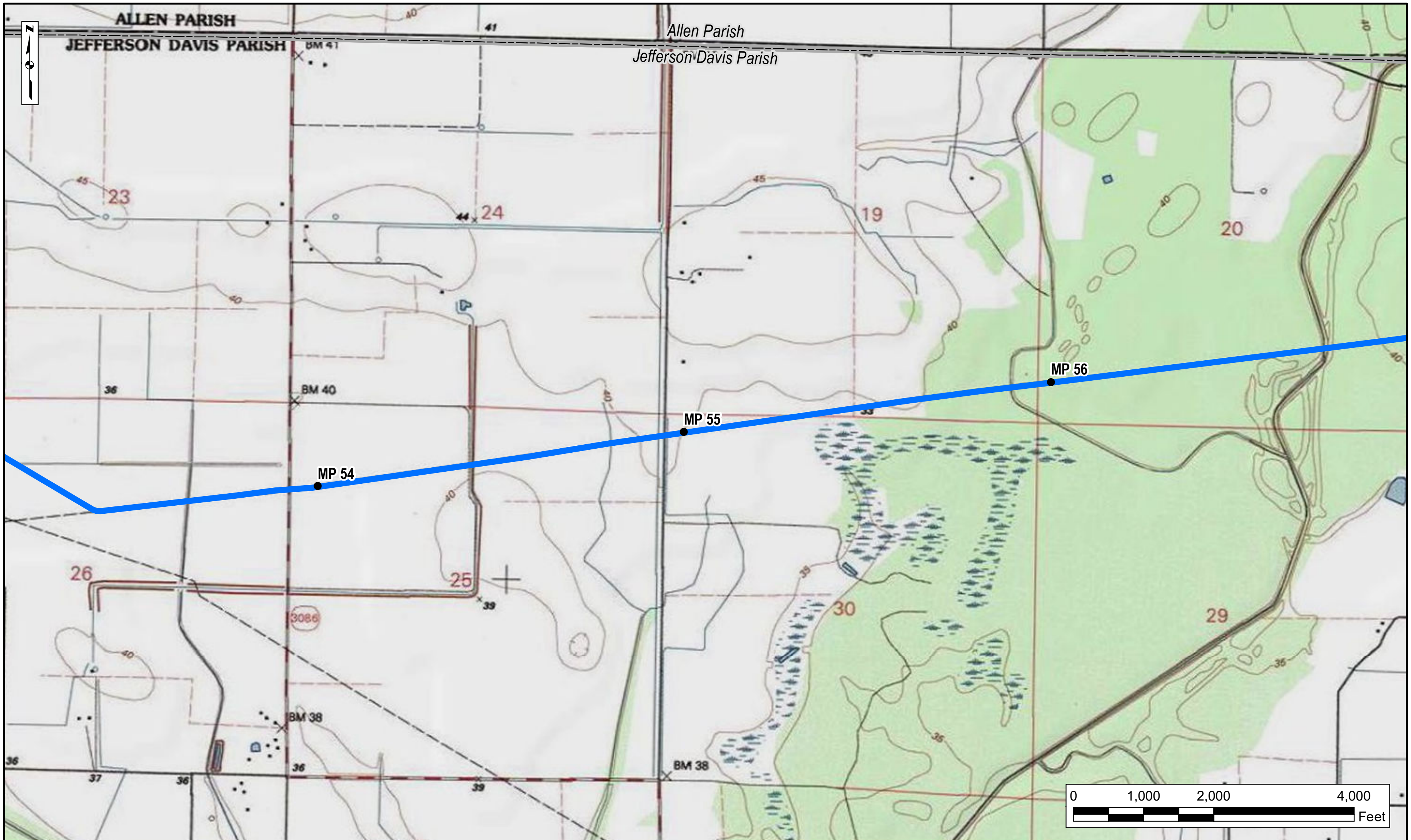
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1q: Driftwood Project Topgraphic Maps
Driftwood Project
Jefferson Davis Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



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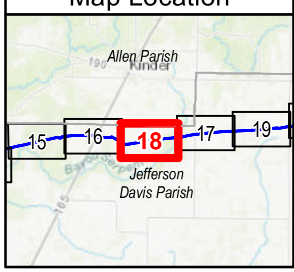


Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1r: Driftwood Project Topgraphic Maps

Driftwood Project

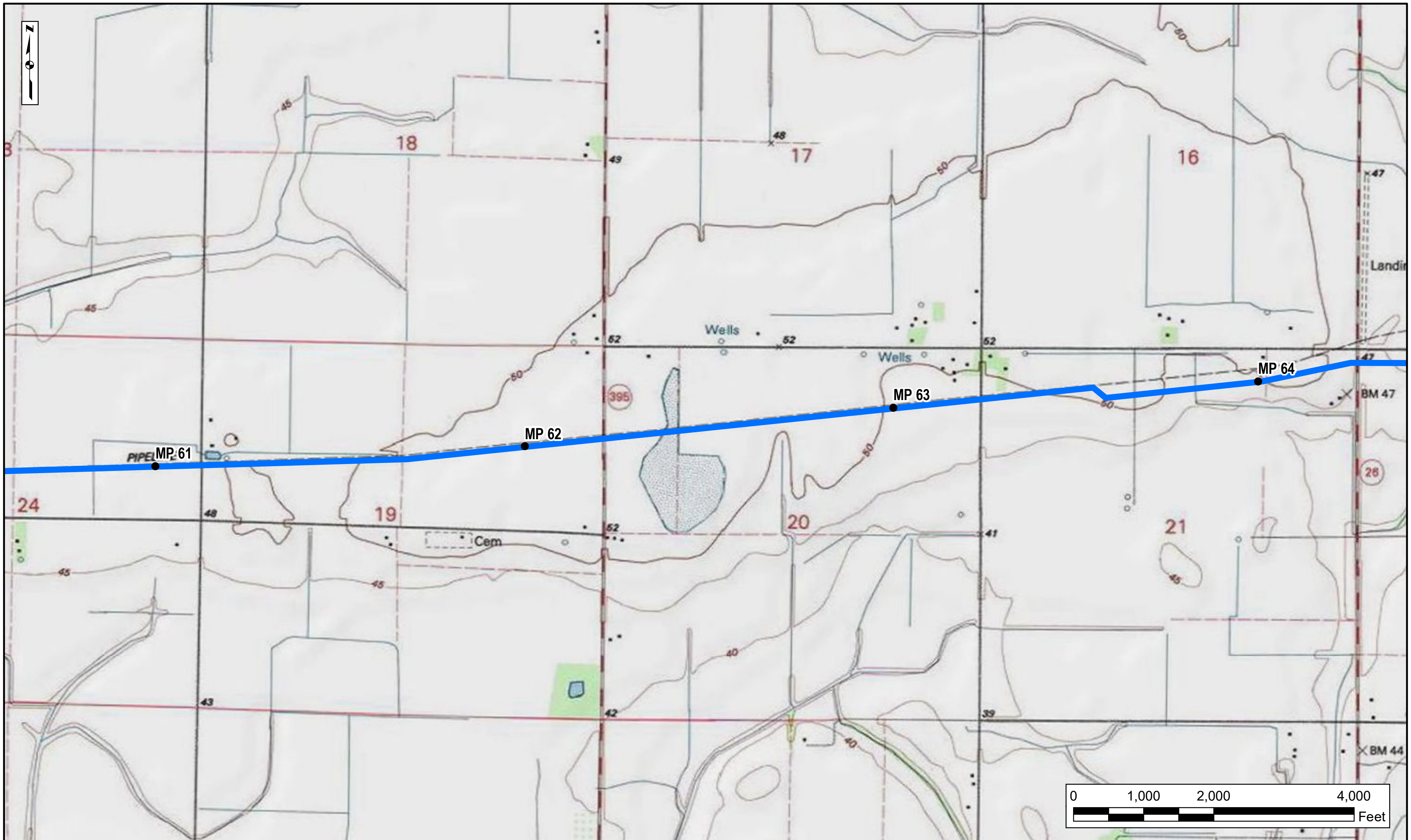
Jefferson Davis Parish, Louisiana

NOTES:

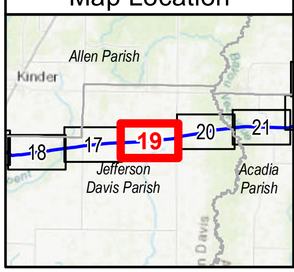
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



Map Location



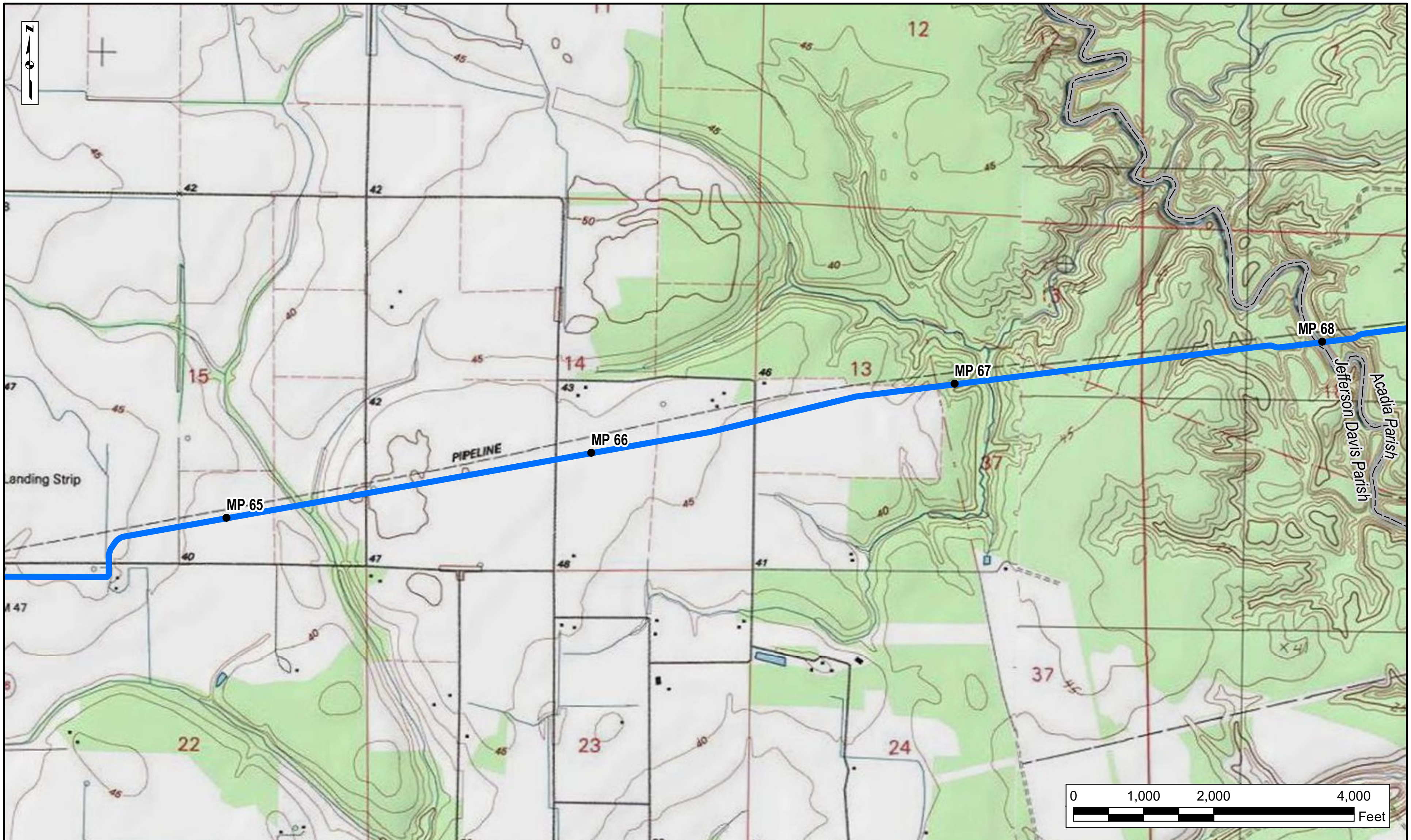
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

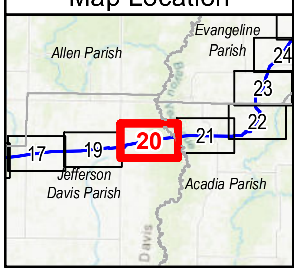
Figure 2.1-1s: Driftwood Project Topgraphic Maps
Driftwood Project
Jefferson Davis Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



Map Location



Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1t: Driftwood Project Topgraphic Maps
Driftwood Project
Jefferson Davis Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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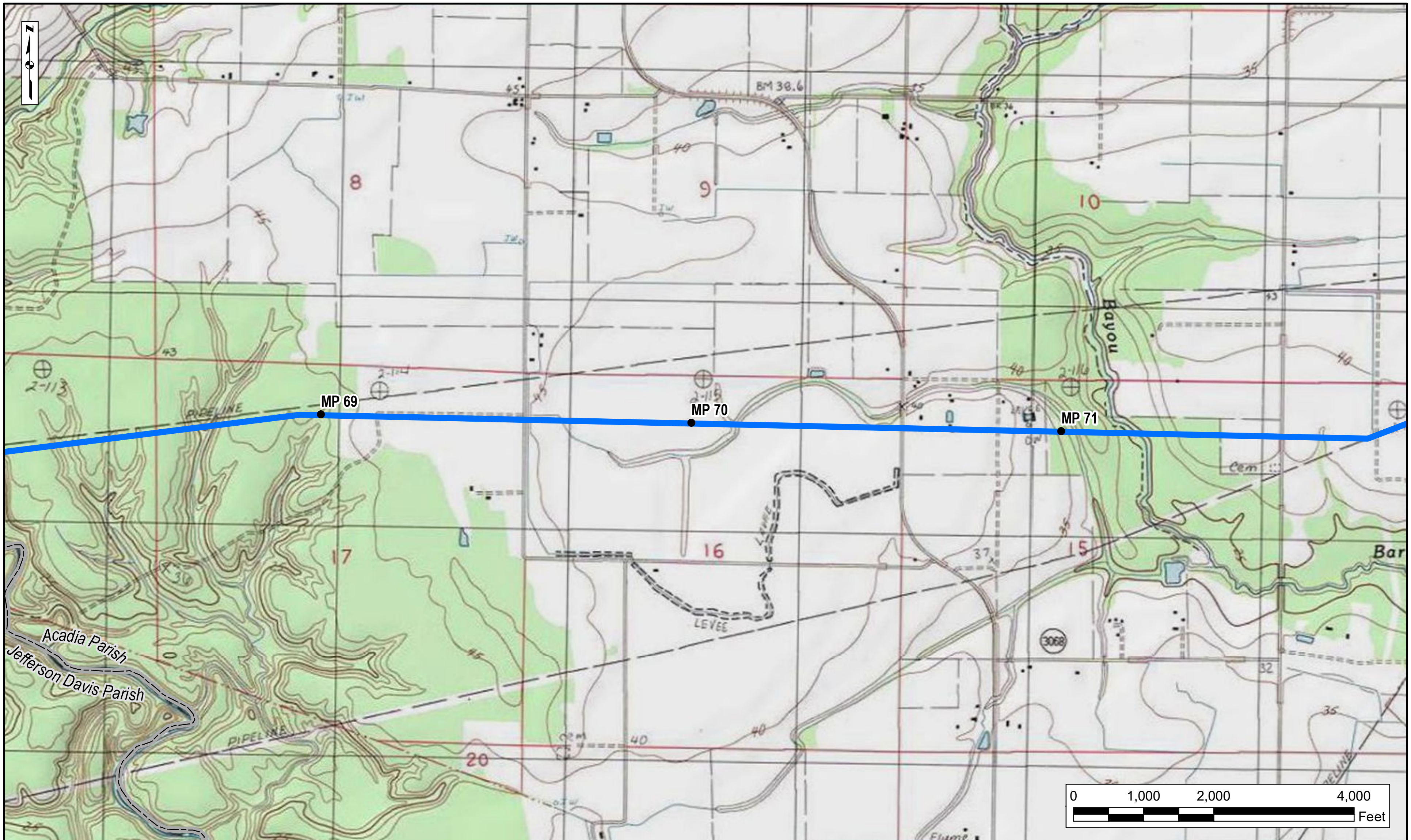
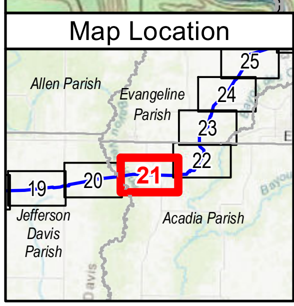




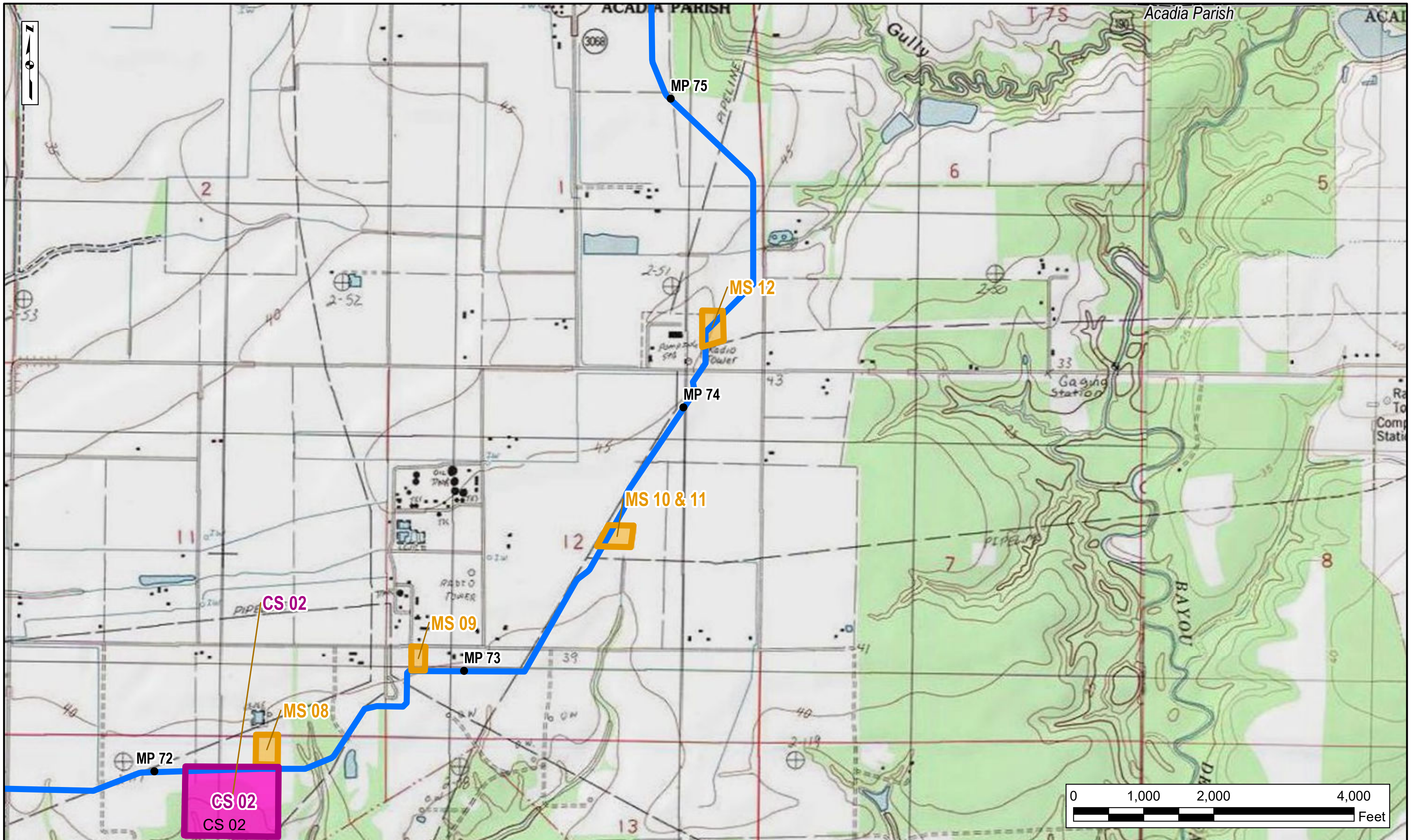
Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

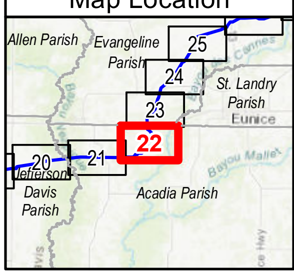
Figure 2.1-1u: Driftwood Project Topgraphic Maps
Driftwood Project
Acadia Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



Map Location



Legend

- Milepost
- Proposed Pipeline Route
- Compressor Station
- Compressor Station
- Meter Station
- Parish Boundary

Figure 2.1-1v: Driftwood Project Topgraphic Maps
Driftwood Project
Acadia Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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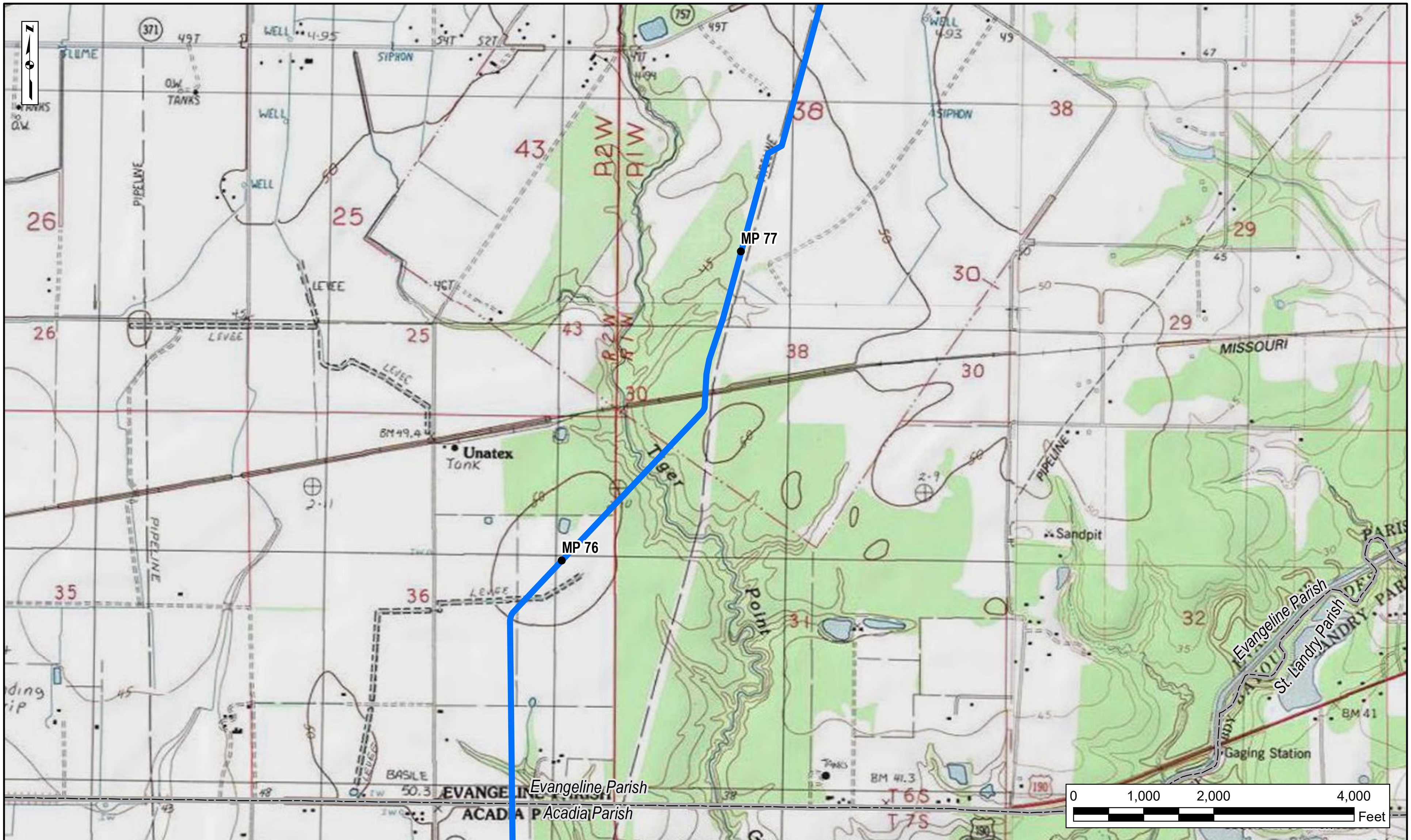
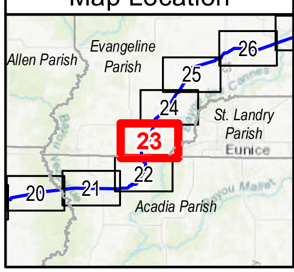


Map Location



Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1w: Driftwood Project Topgraphic Maps

Driftwood Project

Evangeline Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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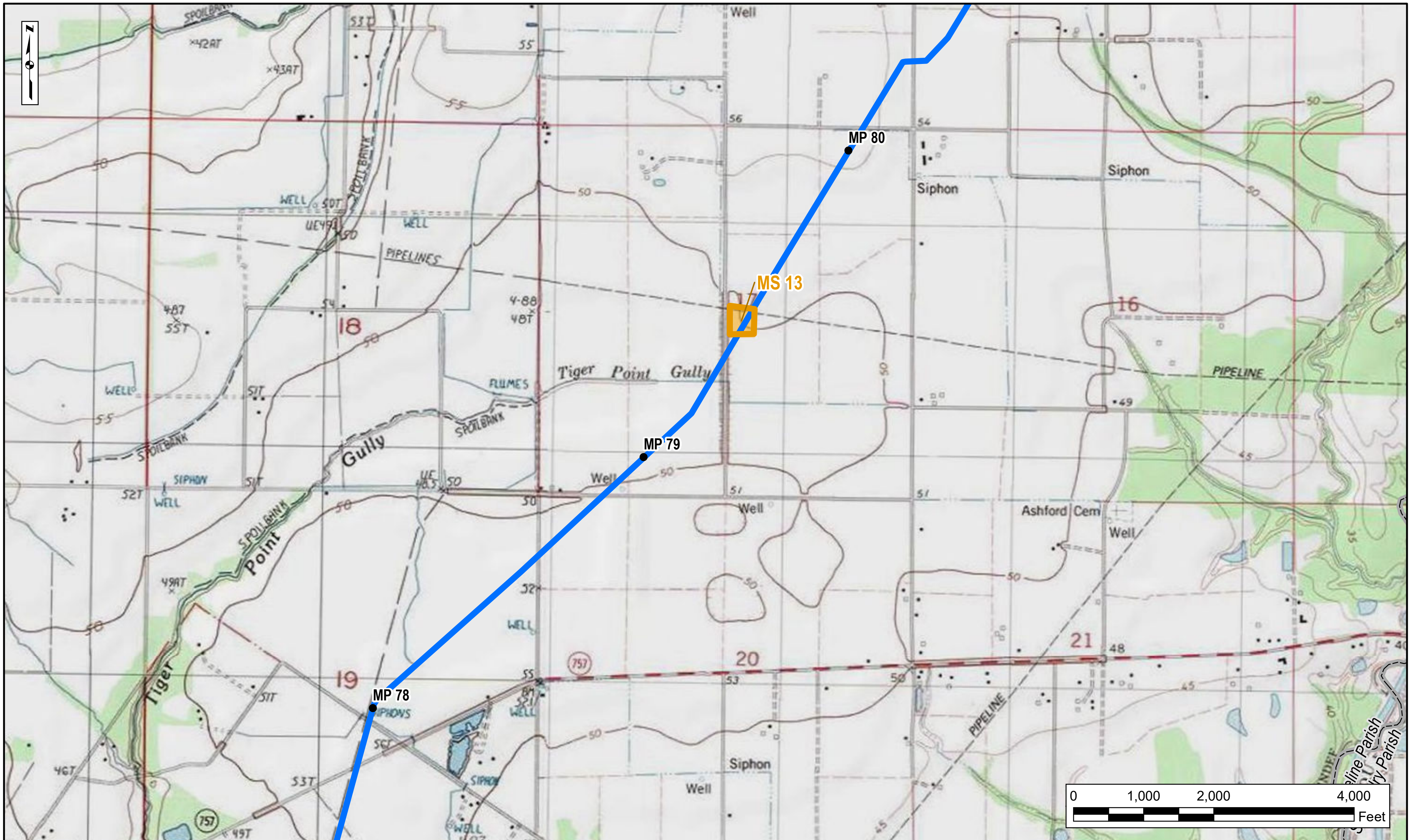
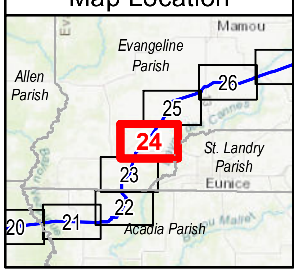


Map Location



Legend

- Milepost
- Proposed Pipeline Route
- Meter Station
- Parish Boundary

Figure 2.1-1x: Driftwood Project Topgraphic Maps

Driftwood Project

Evangeline Parish, Louisiana

NOTES:

Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Image Source: Esri Online "USA Topo Maps" Service Layer.

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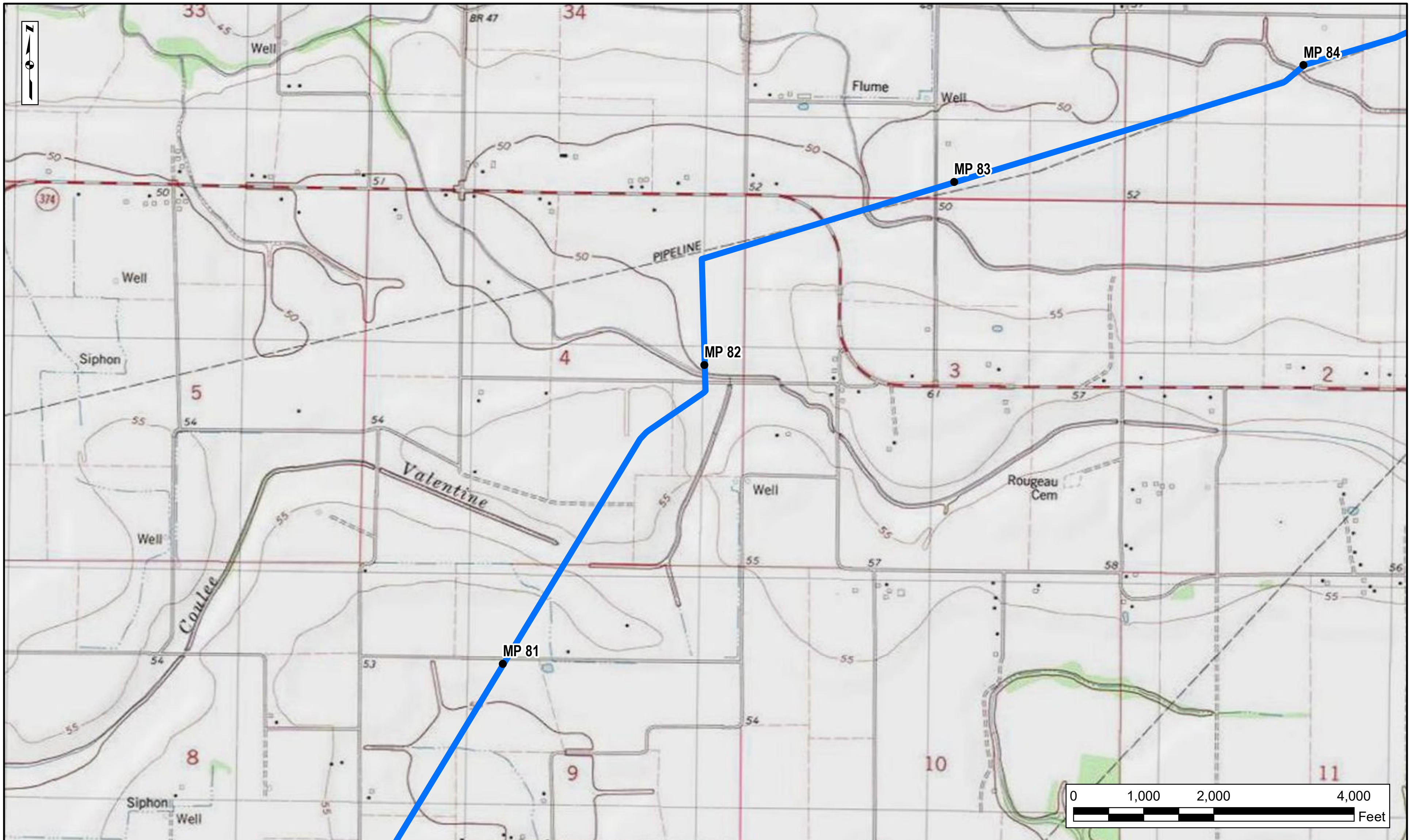
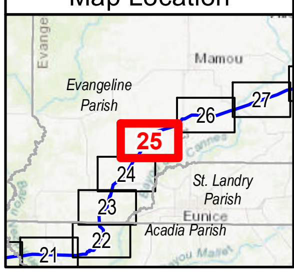


Map Location



Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1y: Driftwood Project Topgraphic Maps
Driftwood Project
Evangeline Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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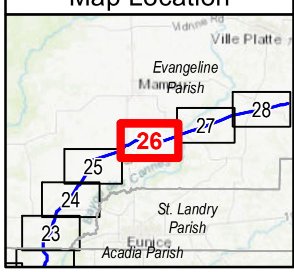
Map Location



Legend

- Milepost
- Proposed Pipeline Route
- Compressor Station
- Compressor Station
- Meter Station
- Parish Boundary

Figure 2.1-1z: Driftwood Project Topgraphic Maps

Driftwood Project

Evangeline Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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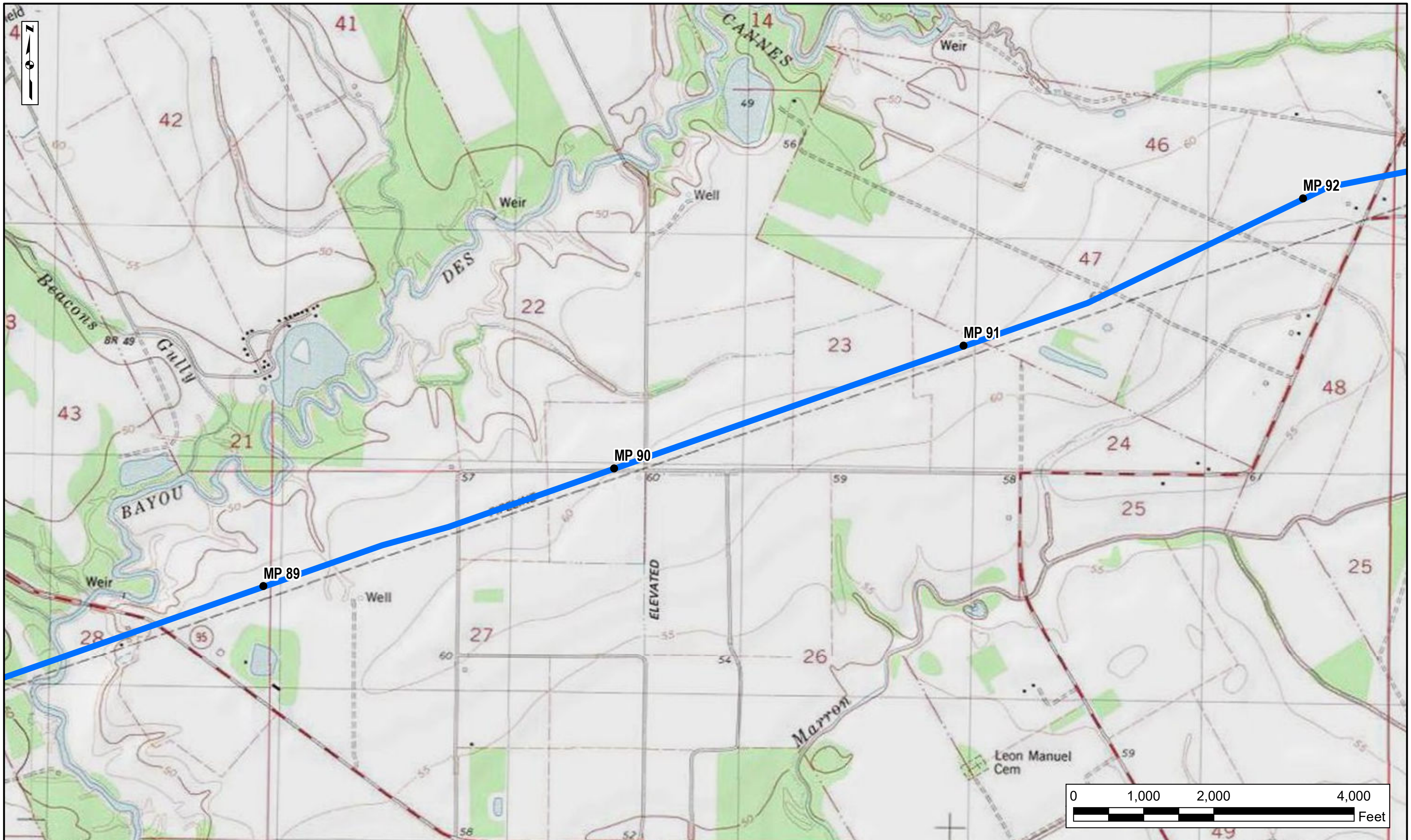

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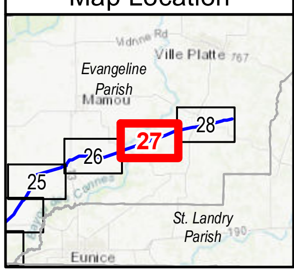

Legend

- Milepost
- Proposed Pipeline Route
- Parish Boundary

Figure 2.1-1aa: Driftwood Project Topgraphic Maps
Driftwood Project
Evangeline Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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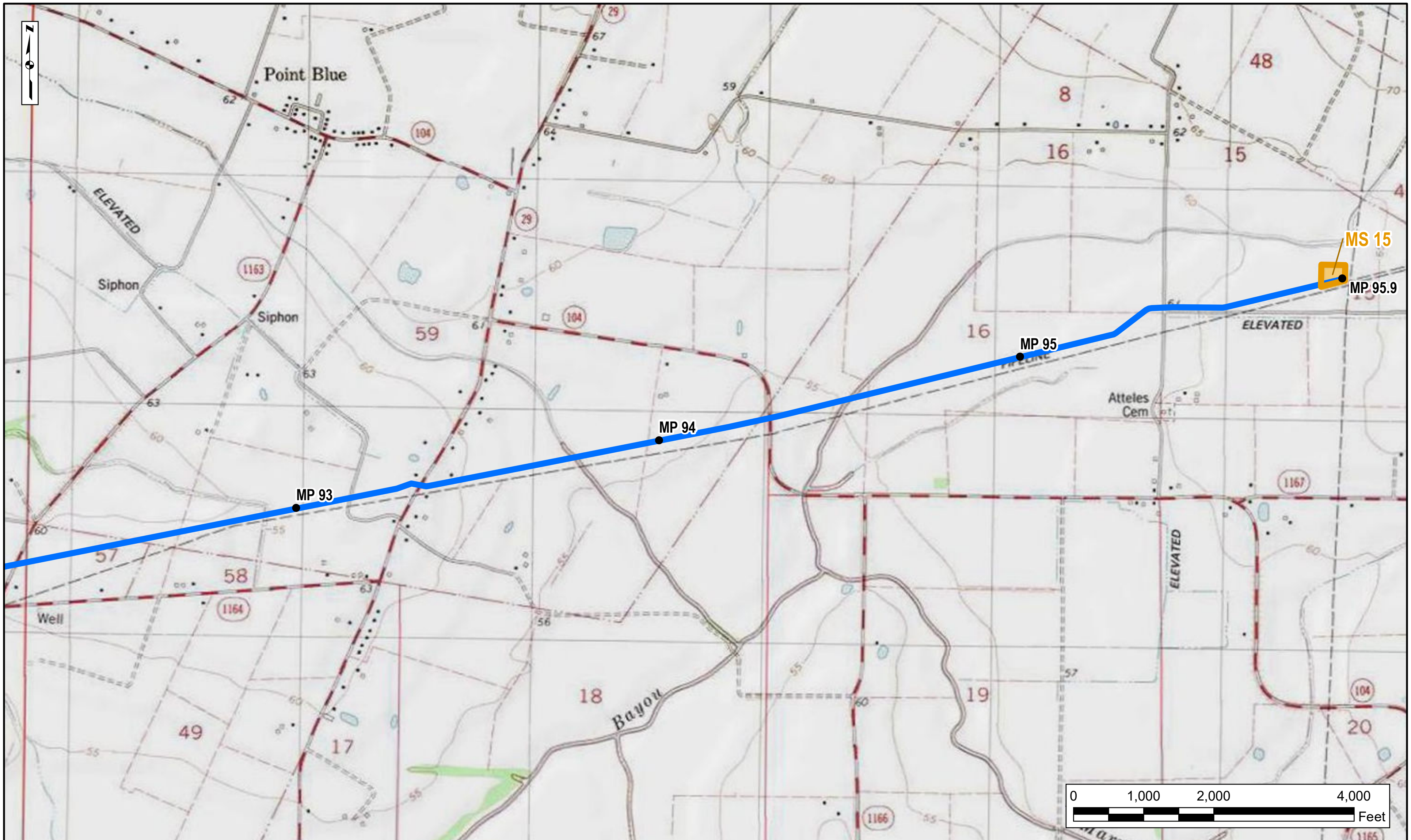

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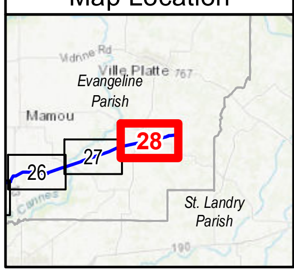

Legend

- Milepost
- Proposed Pipeline Route
- Meter Station
- Parish Boundary

Figure 2.1-1bb: Driftwood Project Topgraphic Maps

Driftwood Project

Evangeline Parish, Louisiana

NOTES:

Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Image Source: Esri Online "USA Topo Maps" Service Layer.

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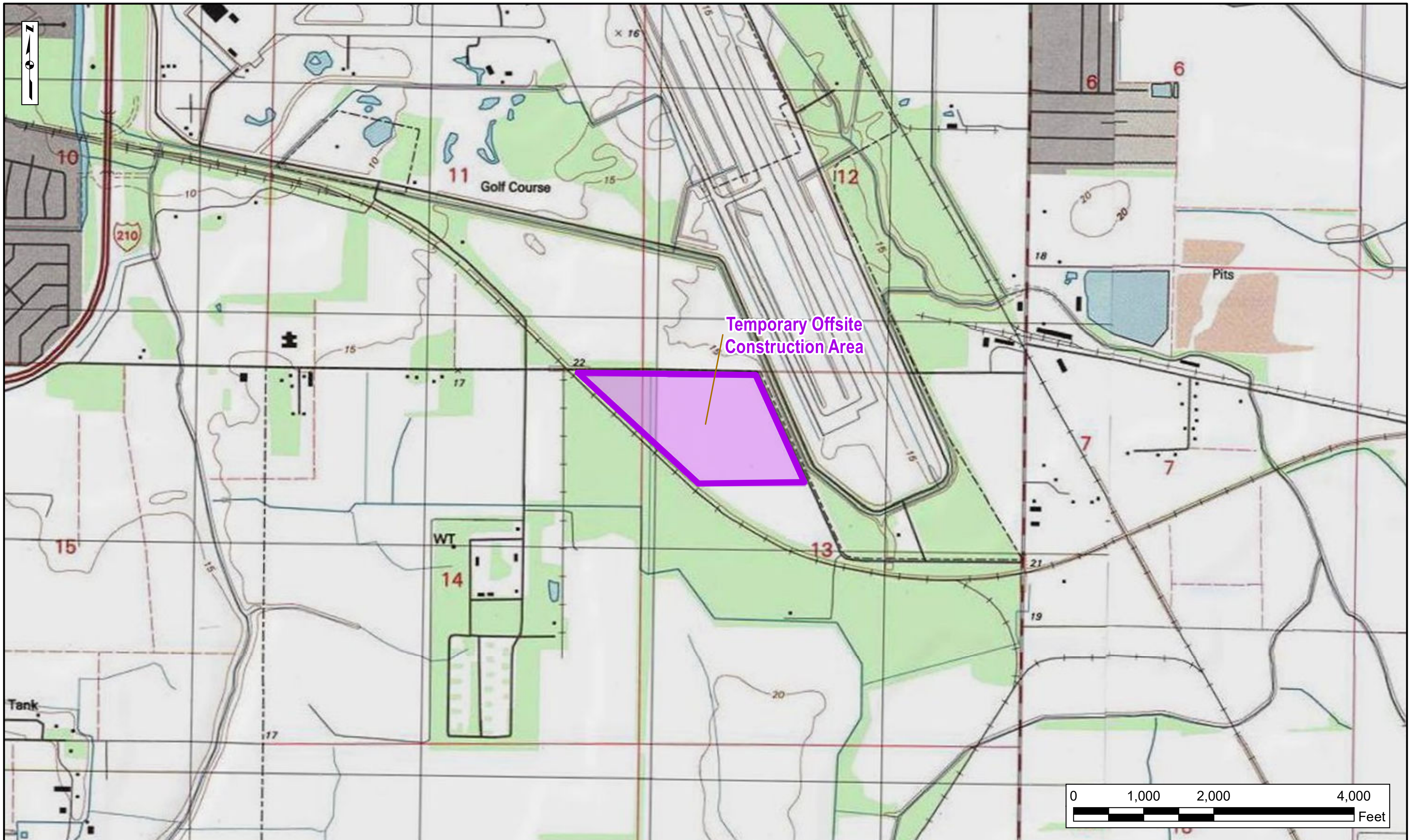

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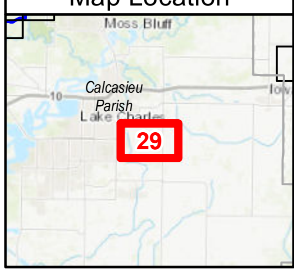

Legend

Temporary Offsite Construction Area

Parish Boundary

Figure 2.1-1cc: Driftwood Project Topgraphic Maps
Driftwood Project
Calcasieu Parish, Louisiana

NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

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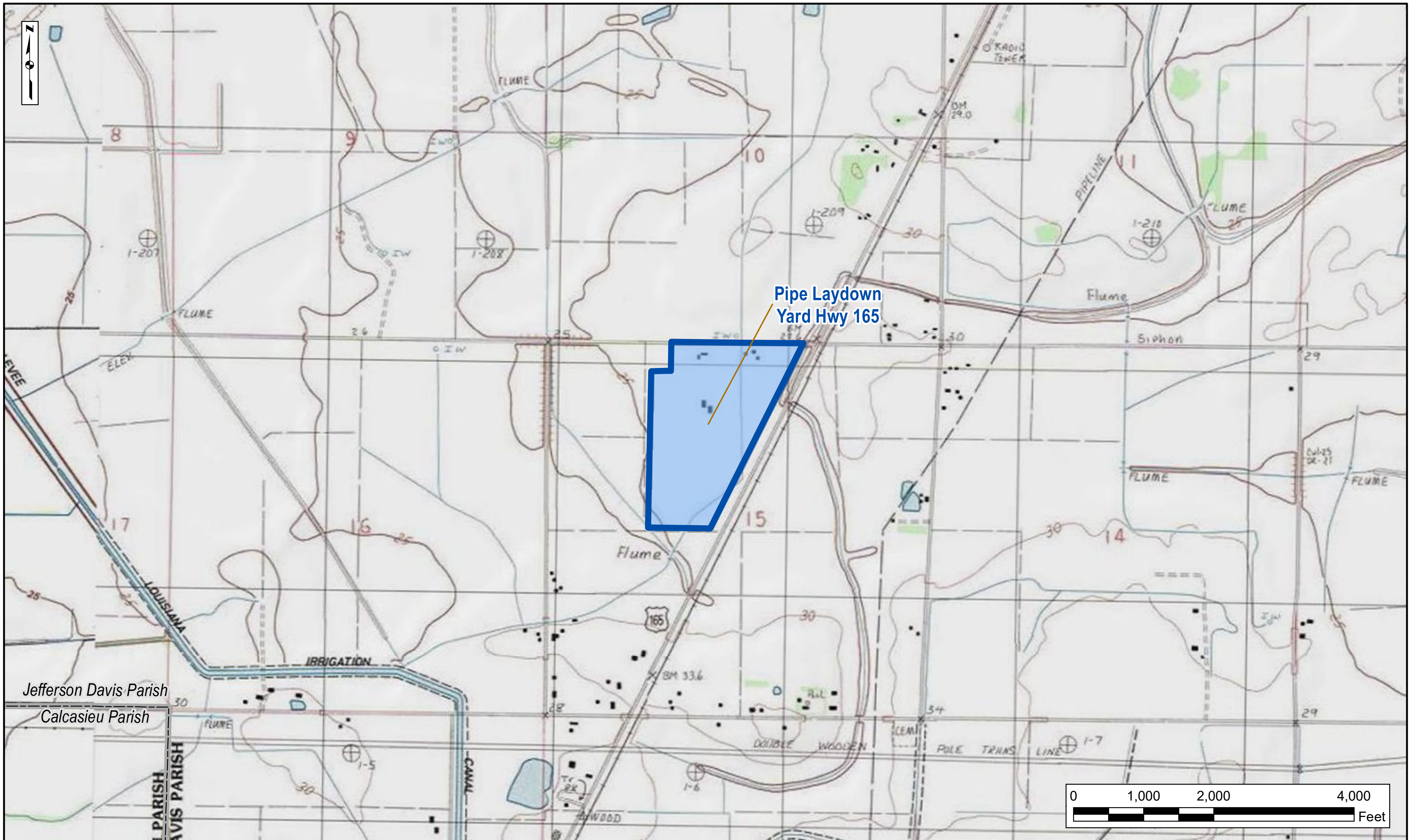

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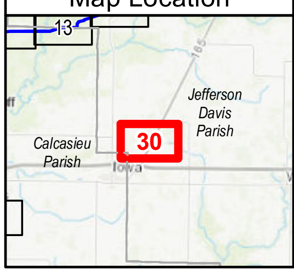


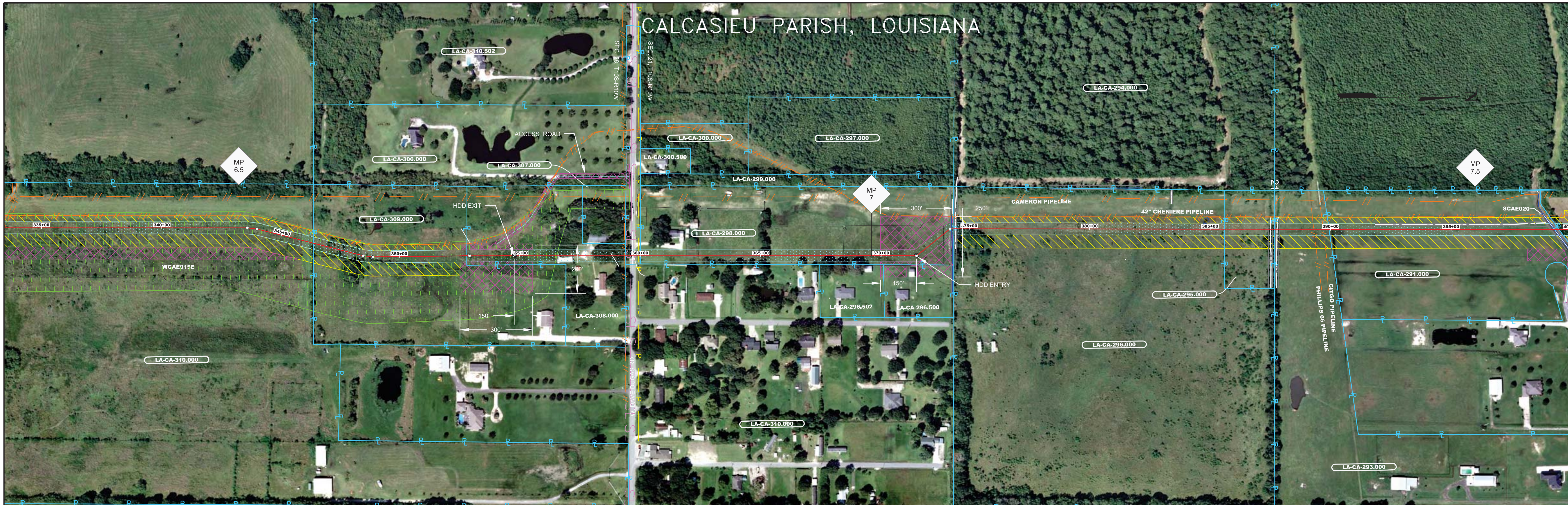
Legend

- Laydown Yard
- Parish Boundary

Figure 2.1-1dd: Driftwood Project Topgraphic Maps
Driftwood Project
Jefferson Davis Parish, Louisiana

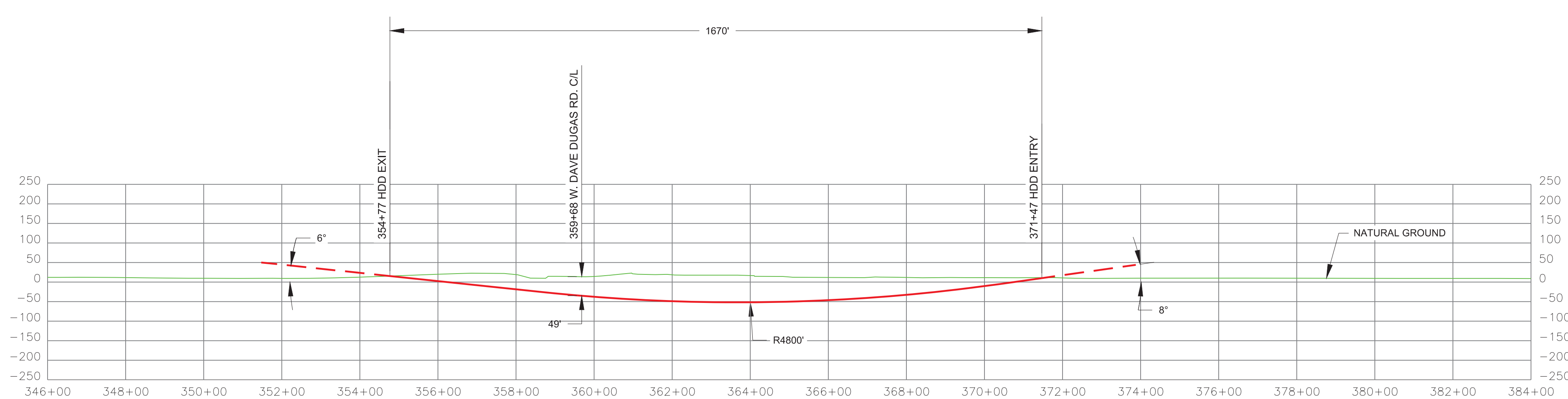
NOTES:
Map Projection: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Image Source: Esri Online "USA Topo Maps" Service Layer.

\\apaenvfile01\gis\1-PROJECTS\Driftwood\Fig 2.1-1 DW Topo Maps_20180911.mxd



PLAN

HORIZONTAL SCALE 1" = 200'



PROFILE

VERTICAL SCALE 1" = 200'

Figure 2.5-3

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00008

NOTES / LEGEND / MATERIALS

1. FINAL BOREHOLE DIAMETER SHALL BE 60" - 66"
2. MINIMUM ALLOWABLE RADIUS 4080'. MEASURED RADIUS SHALL BE 3 JOINT AVERAGE
3. HORIZONTAL POSITION OF BOREHOLE CENTERLINE SHALL BE AT LEAST 10' FROM EDGE OF PERMANENT ROW
4. VERTICAL POSITION OF BOREHOLE CENTERLINE SHALL NOT BE SHALLOWER THAN DESIGNED PROFILE
5. ENTRY POINT OF PILOT HOLE SHALL BE EXACTLY AT DESIGNED POSITION
6. LENGTH OF PILOT HOLE SHALL NOT BE SHORTER THAN DESIGNED
7. EXIT POINT OF PILOT HOLE SHALL NOT BE MORE THAN 10' FROM DESIGNED CENTERLINE
8. GEOTECHNICAL DATA SHOWN IS A SUMMARY ONLY. REFER TO GEOTECHNICAL REPORT.
9. CARRIER PIPE TO BE WELDED AND TESTED IN A SINGLE SECTION
10. CARRIER PIPE SHALL BE HYDROTESTED FOR A MINIMUM OF 4 HOURS PRIOR TO AND AFTER INSTALLATION. CALIPER PIG SHOULD BE RUN AFTER PULLBACK TO VERIFY PIPE INTEGRITY. REFER TO HYDROTESTING SPECIFICATIONS.
11. CLEARING OF VEGETATION BETWEEN THE ENTRY AND EXIT POINTS SHALL BE LIMITED TO DESIGNATED ACCESS FOR WATER SUPPLY AND CLEARING BY HAND FOR DOWNHOLE SURFACE COIL PLACEMENT.

REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
F	18AUG17	GENERAL UPDATES	RAM	MRI	MRI	MS
E	21JUN17	ISSUED FOR FERC-FCL04	RAM	MRI	MRI	MS
D	18MAY17	ADD ENV AND TRACTS	RAM	MRI	MRI	MS
C	11MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
B	09MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
A	05MAY17	ISSUE FOR REVIEW	RAM	MRI	MRI	MS

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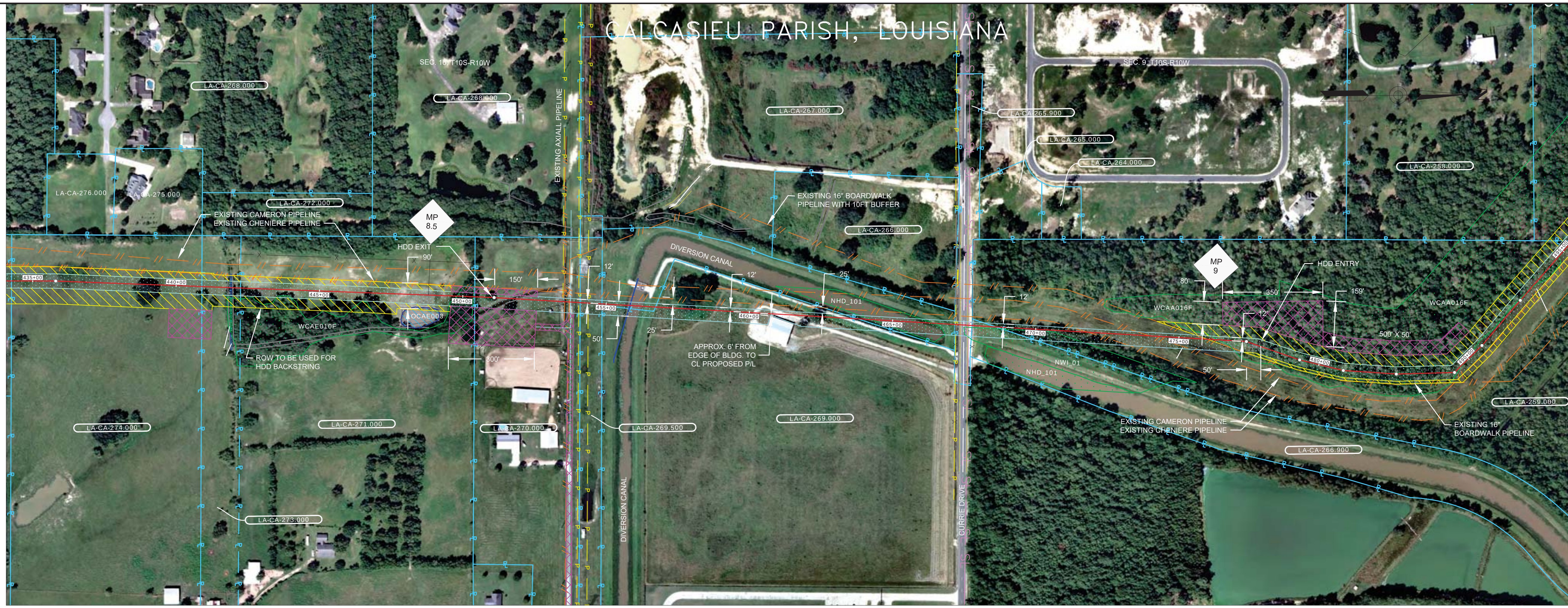
HOUSTON, TX. 77027-3259
(713) 952-7380 Fax (713) 952-7082
www.projectconsulting.com

DRIFTWOOD PIPELINE

DESIGN: DATE: ENG.: MRI DATE:
CHKD: APRVD: MRI DATE:

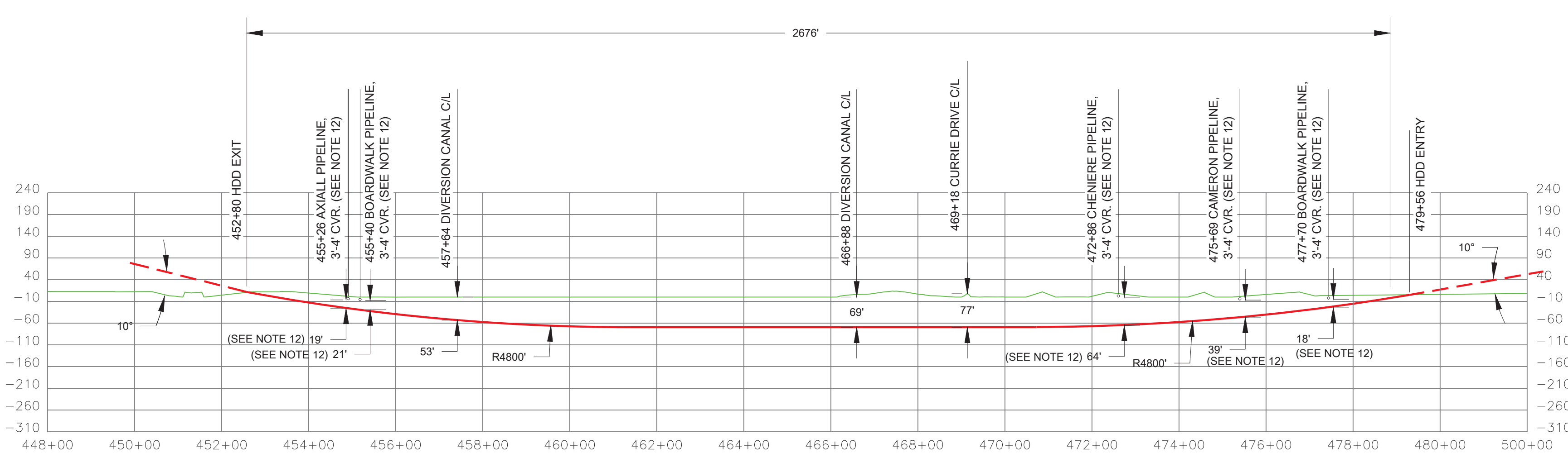
DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING W. DAVE DUGAS ROAD
354+77 TO 374+77

SCALE: AS NOTED
SIZE: ANSI D
JOB No.: 16141
CLIENT DWG No.:
PCS DWG No.: 16141-PL-HDD-0001
REV. F



PLAN

HORIZONTAL SCALE 1" = 200'



PROFILE

VERTICAL SCALE 1" = 200'

Figure 2.5-4

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00010

NOTES / LEGEND / MATERIALS

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11. CLEARING OF VEGETATION BETWEEN THE ENTRY AND EXIT POINTS SHALL BE LIMITED TO DESIGNATED ACCESS FOR WATER SUPPLY AND CLEARING BY HAND FOR DOWNHOLE SURFACE COIL PLACEMENT.
12. DISTANCES AND LOCATIONS ARE ESTIMATED AND ARE TO BE VERIFIED BY FIELD SURVEY BY CONTRACTOR.

REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
F	18AUG17	GENERAL UPDATES	RAM	MRI	MRI	MS
E	21JUN17	ISSUED FOR FERC-FCL04	JSP	MRI	MRI	MS
D	22MAY17	PROFILE UPDATES	JSP	MRI	MRI	MS
C	18MAY17	ADD ENV AND TRACTS	JSP	MRI	MRI	MS
B	11MAY17	GENERAL UPDATES	JSP	MRI	MRI	MS
A	05MAY17	ISSUE FOR REVIEW	RAM	MRI	MRI	MS

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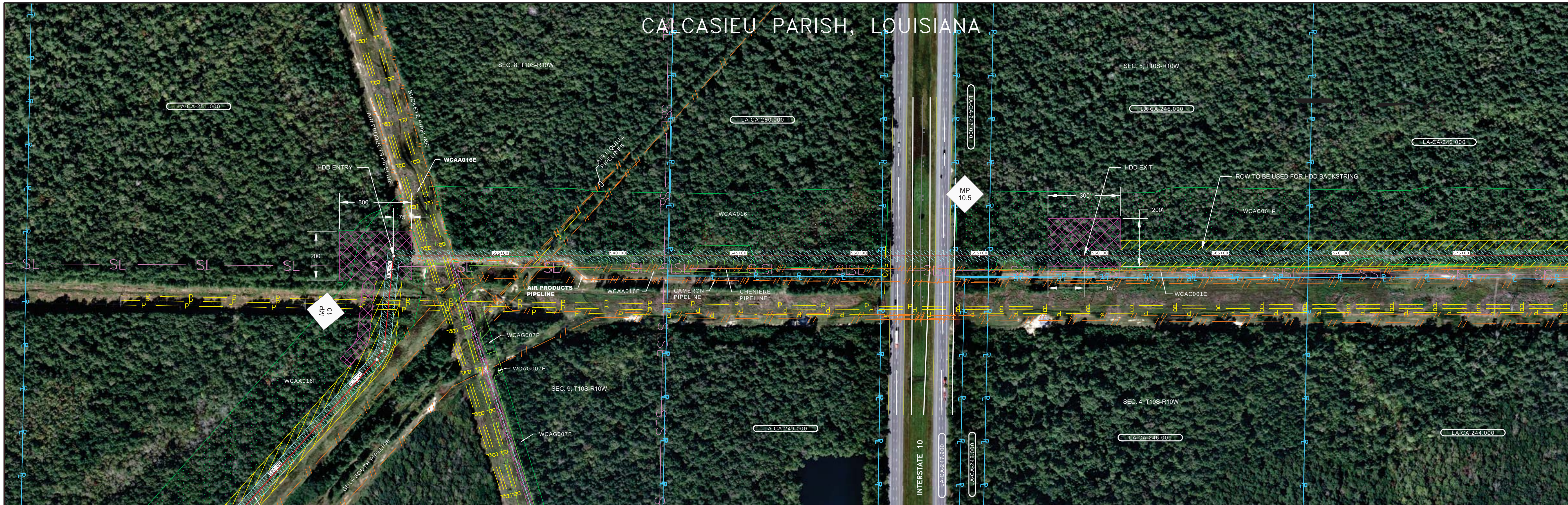
www.projectconsulting.com

DRIFTWOOD PIPELINE

DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING DIVERSION CANAL
452+80 TO 479+56

DESIGN:	DATE:	ENG.: MRI	DATE:	SCALE: AS NOTED	CLIENT DWG No.:	
				SIZE: ANSI D		
CHKD:		APRVD: MRI	DATE:	JOB No.: 16141	PCS DWG No.: 16141-PL-HDD-0002	REV. F



PLAN

0 200' 400'

HORIZONTAL SCALE 1" = 200'

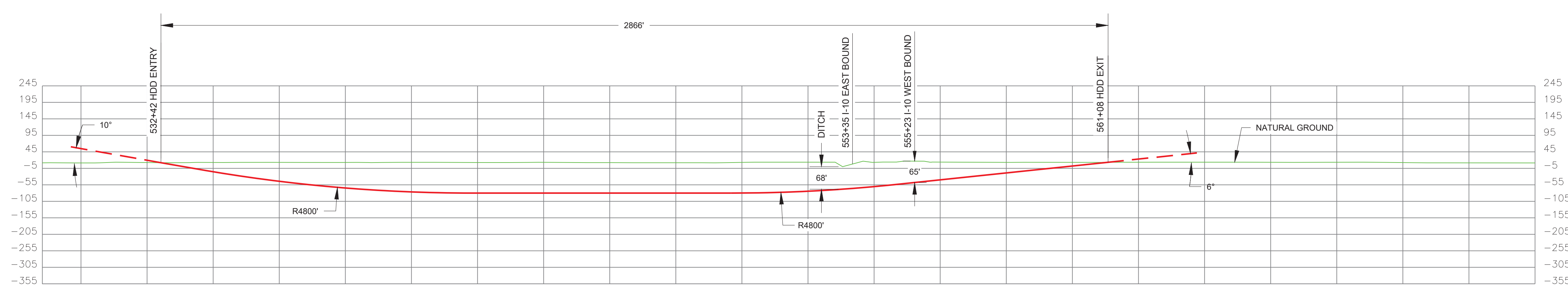


Figure 2.5-5

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PL PROPERTY LINE

PROFILE

VERTICAL SCALE 1" = 200'

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00012

NOTES / LEGEND / MATERIALS

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REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
G	18AUG17	GENERAL UPDATES	RAM	MRI	MRI	MS
F	28JUL17	GENERAL UPDATE	JSP	MRI	MRI	MS
E	21JUN17	ISSUED FOR FERC-FCL04	JSP	MRI	MRI	MS
D	18MAY17	ADD ENV AND TRACTS	RAM	MRI	MRI	MS
C	11MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
B	09MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS

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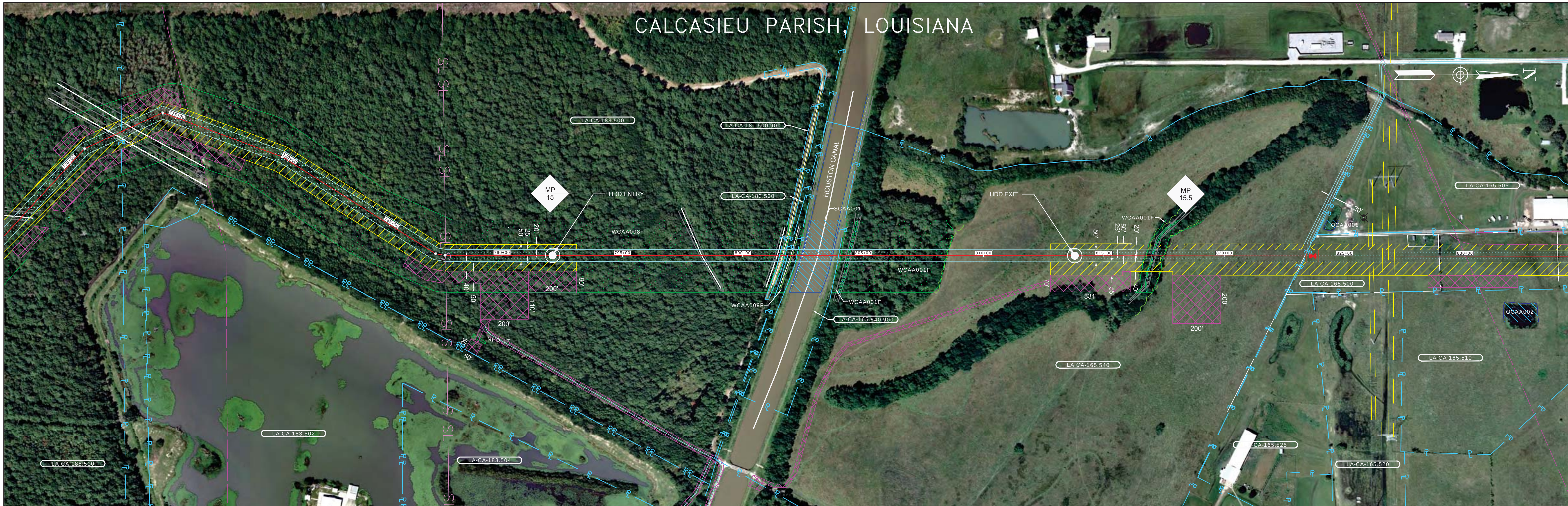
www.projectconsulting.com

DRIFTWOOD PIPELINE

DESIGN:	DATE:	ENG.: MRI	DATE:
CHKD:		APRVD: MRI	DATE:

DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING INTERSTATE 10
532+42 TO 561+08

SCALE: AS NOTED	CLIENT DWG No.:		
SIZE: ANSI D			
JOB No.: 16141	PCS DWG No.: 16141-PL-HDD-0003		REV. G



PLAN

HORIZONTAL SCALE 1":200'

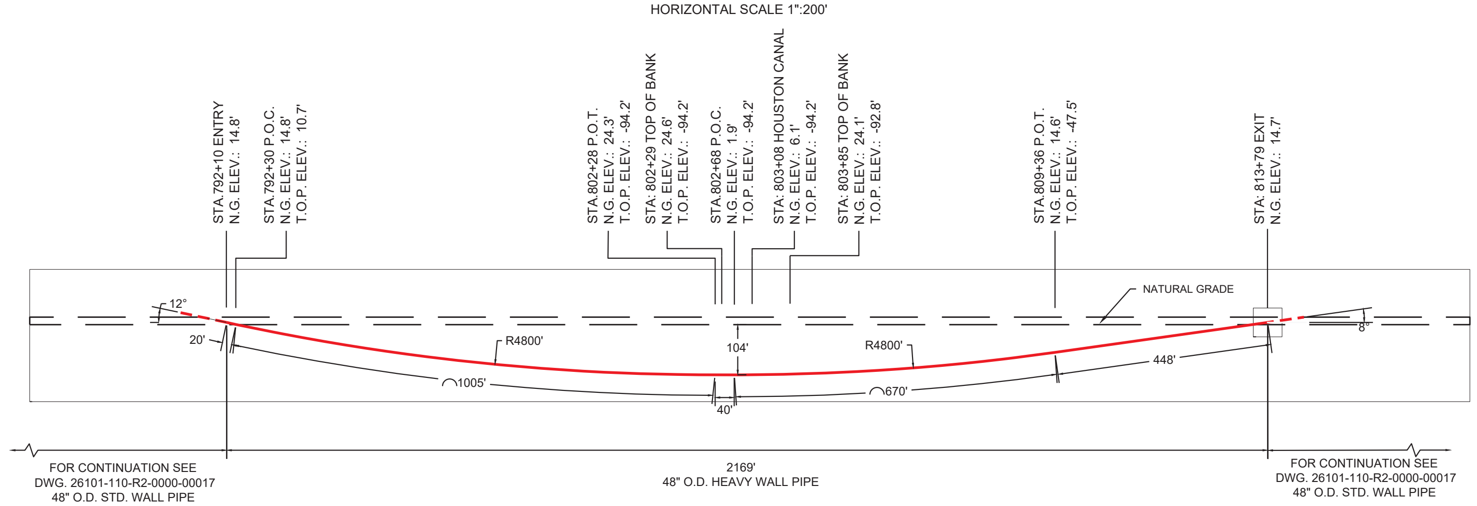


Figure 2.5-6

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

PROFILE

VERTICAL SCALE 1":200'

REFERENCE DOCUMENTS	DWG. NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R2-0000-0017

NOTES / LEGEND / MATERIALS

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REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
004	18AUG17	GENERAL UPDATES	RAM	MRI	MRI	MS
003	01MAR17	RE-ISSUE FOR FEED - FCL03	KM	PL	MB/SS	JT
002	02FEB17	RE-ISSUE FOR FEED - CC1-000	KM	PL	MB/SS	JT
001	19JAN17	RE-ISSUE FOR FEED - FCL02	KM	PL	MB/SS	JT
000	21NOV16	ISSUE FOR FEED	KM	PL	MB/SS	JT
00A	01NOV16	ISSUE FOR REVIEW	KM	PL	MB/SS	JT

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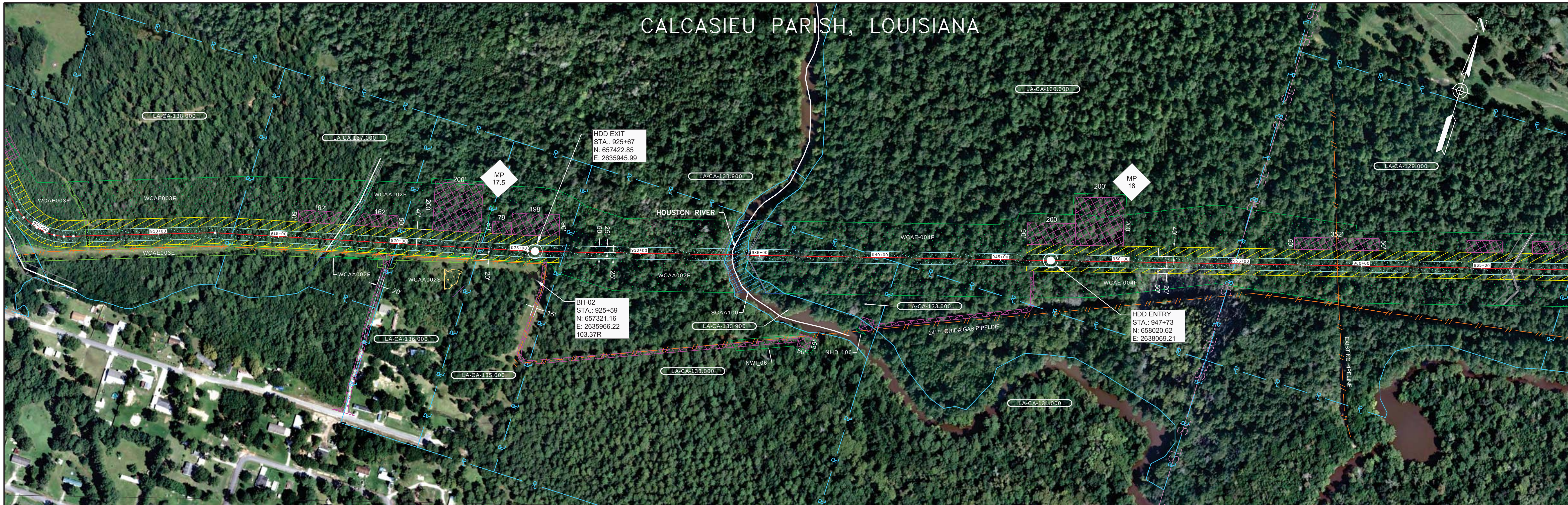
HOUSTON, TX. 77027-3259
(713) 952-7380 Fax (713) 952-7082
www.projectconsulting.com

DRIFTWOOD PIPELINE

DESIGN: | DATE: | ENG.: MRI | DATE:
CHKD: | | APRVD: MRI | DATE:

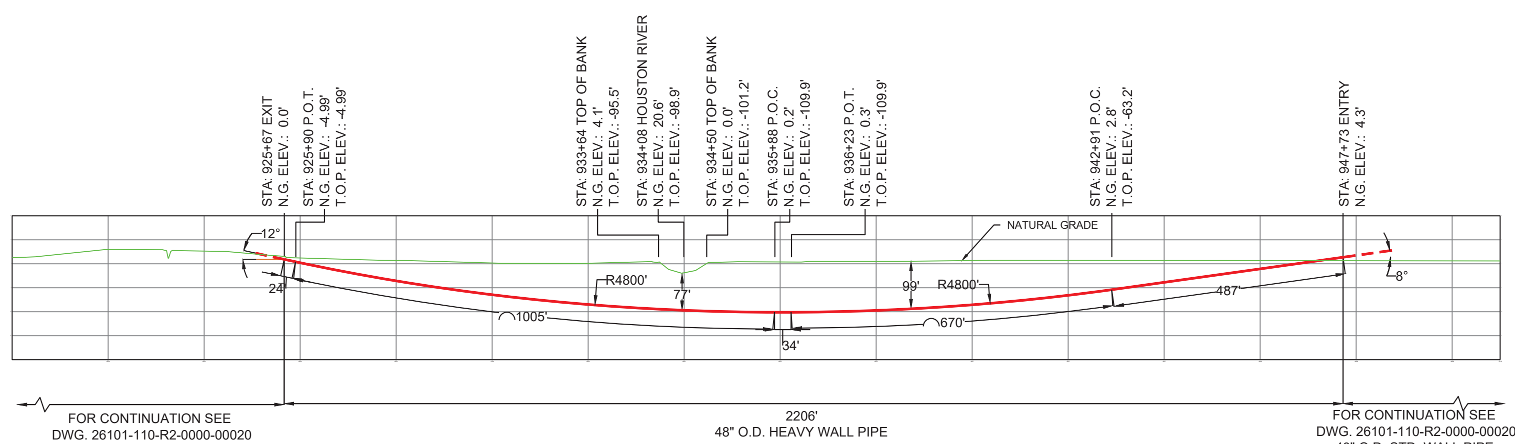
DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING HOUSTON CANAL
788+00 818+00

SCALE: AS NOTED
SIZE: ANSI D
CLIENT DWG No.:
JOB No.: 16141
PCS DWG No.: 26101-140-R3-0000-40001
REV. 004



PLAN

HORIZONTAL SCALE 1":200'



PROFILE

VERTICAL SCALE 1":200'

Figure 2.5-7

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PALUSTRINE SCRUB-SHRUB WETLAND
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

REFERENCE DOCUMENTS	DWG. NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R2-0000-00020

N O T E S / L E G E N D / M A T E R I A L S

1. FINAL BOREHOLE DIAMETER SHALL BE 60" - 66"
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REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
005	18AUG17	GENERAL UPDATES	JSP	MRI	MRI	MS
004	28JUL17	ATWS UPDATES	JSP	MRI	MRI	MS
003	01MAR17	RE-ISSUE FOR FEED - FCL03	KM	PL	MB/SS	JT
002	02FEB17	RE-ISSUE FOR FEED - CC1-000	KM	PL	MB/SS	JT
001	19JAN17	RE-ISSUE FOR FEED - FCL02	KM	PL	MB/SS	JT
000	21NOV16	ISSUE FOR FEED	KM	PL	MB/SS	JT

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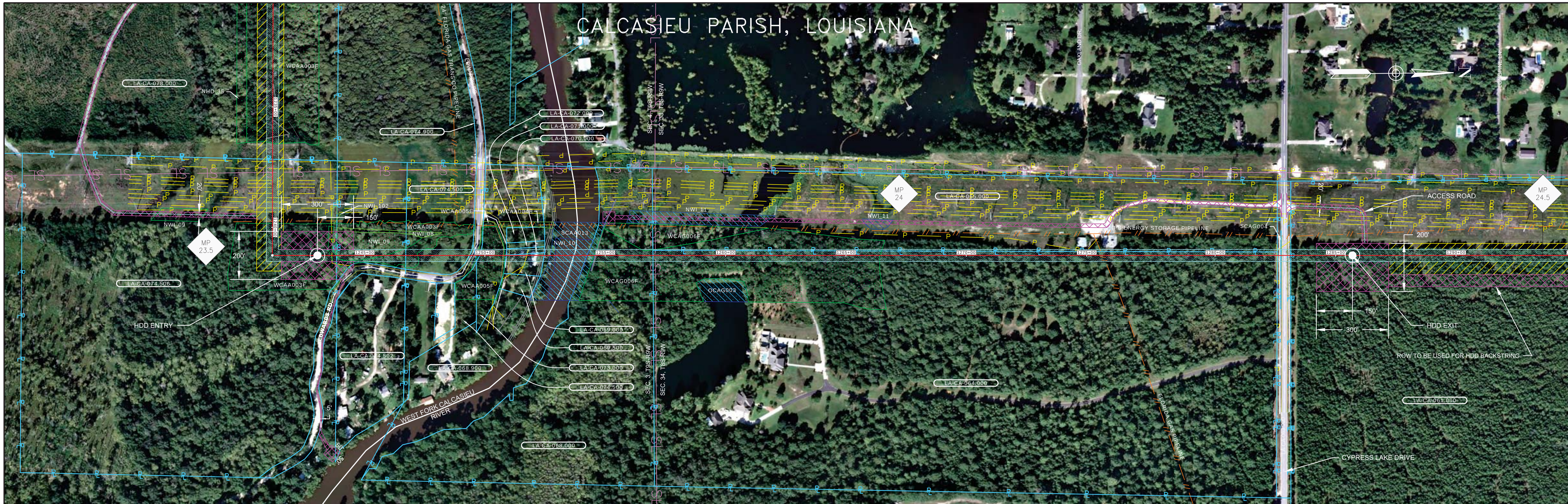
www.projectconsulting.com

DRIFTWOOD PIPELINE

DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING HOUSTON RIVER
922+00 TO 951+00

DESIGN:	DATE:	ENG.:	DATE:
CHKD:		APRVD:	DATE:

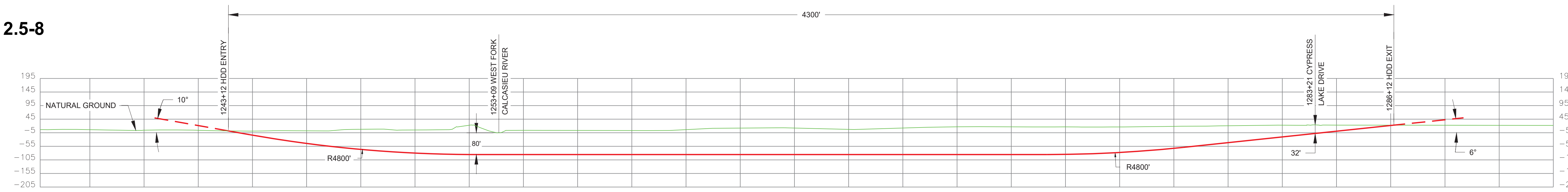
SCALE: AS NOTED	CLIENT DWG No.:		
SIZE: ANSI D			
JOB No.: 16141	PCS DWG No.: 26101-140-R3-0000-40002	REV. 005	



PLAN

HORIZONTAL SCALE 1" = 200'

Figure 2.5-8



LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

PROFILE

VERTICAL SCALE 1" = 200'

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00026

NOTES / LEGEND / MATERIALS

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REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
F	18AUG17	GENERAL UPDATES	RAM	MRI	MRI	MS
E	21JUN17	ISSUED FOR FERC-FCL04	JSP	MRI	MRI	MS
D	18MAY17	ADD ENV AND TRACTS	RAM	MRI	MRI	MS
C	11MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
B	09MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
A	05MAY17	ISSUE FOR REVIEW	RAM	MRI	MRI	MS

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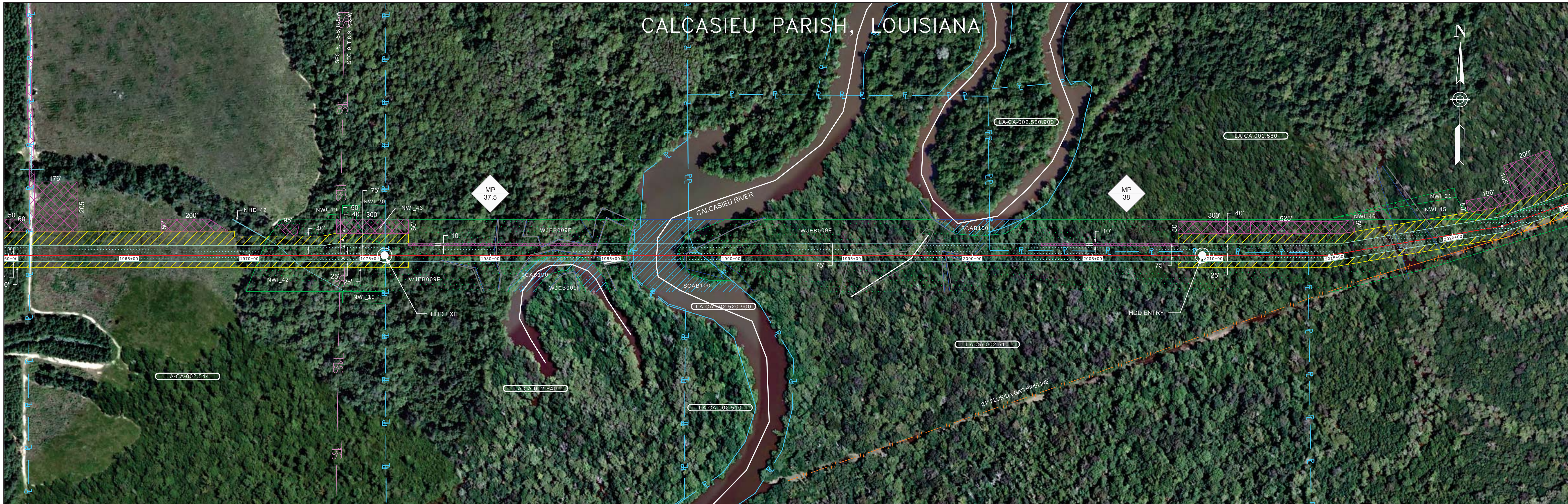
DRIFTWOOD PIPELINE

DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING WEST FORK CALCASIEU
1243+12 TO 1286+12

DESIGN:	DATE:	ENG.: MRI	DATE:	SCALE: AS NOTED	CLIENT DWG No.:	
				SIZE: ANSI D		
CHKD:		APRVD: MRI	DATE:	JOB No.: 16141	PCS DWG No.: 16141-PL-HDD-0005	REV. F



PLAN

HORIZONTAL SCALE 1" = 200'

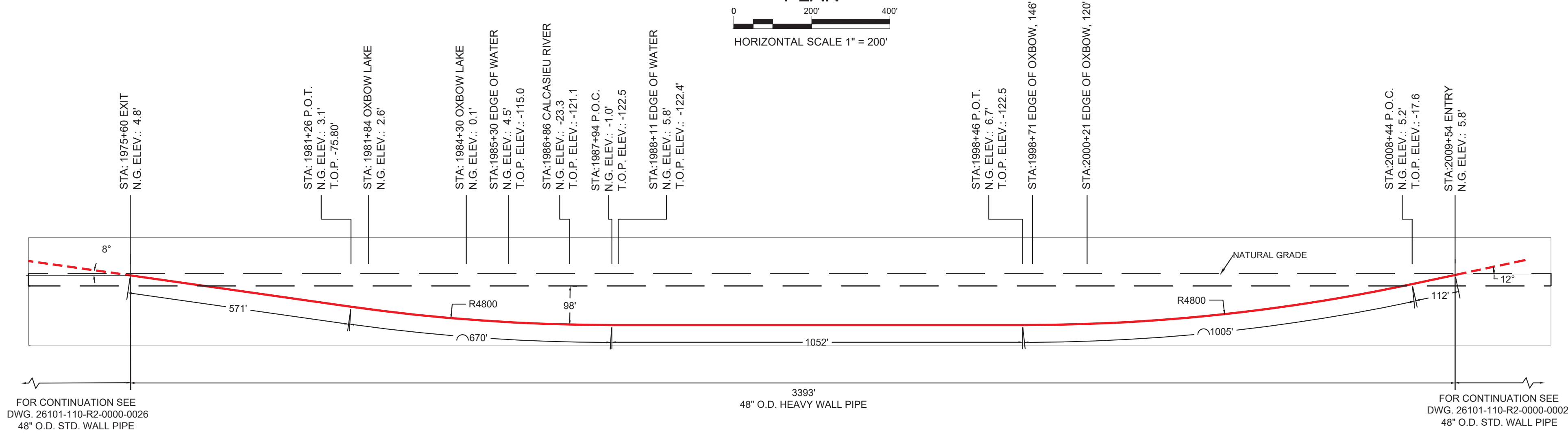


Figure 2.5-9

PROFILE

VERTICAL SCALE 1" = 200'

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00040

NOTES / LEGEND / MATERIALS

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9. CARRIER PIPE TO BE WELDED AND TESTED IN A SINGLE SECTION
10. CARRIER PIPE SHALL BE HYDROTESTED FOR A MINIMUM OF 4 HOURS PRIOR TO AND AFTER INSTALLATION. CALIPER PIG SHOULD BE RUN AFTER PULLBACK TO VERIFY PIPE INTEGRITY. REFER TO HYDROTESTING SPECIFICATIONS.
11. CLEARING OF VEGETATION BETWEEN THE ENTRY AND EXIT POINTS SHALL BE LIMITED TO DESIGNATED ACCESS FOR WATER SUPPLY AND CLEARING BY HAND FOR DOWNHOLE SURFACE COIL PLACEMENT.

REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
005	18AUG17	GENERAL UPDATES	JSP	MRI	MRI	MS
004	08JUN17	FERC DATA REQUEST	JSP	MRI	MRI	MS
003	01MAR17	RE-ISSUE FOR FEED - FCL03	KM	PL	MB/SS	JT
002	02FEB17	RE-ISSUE FOR FEED - CC1-000	KM	PL	MB/SS	JT
001	19JAN17	RE-ISSUE FOR FEED - FCL02	KM	PL	MB/SS	JT
000	21NOV16	ISSUE FOR FEED	KM	PL	MB/SS	JT

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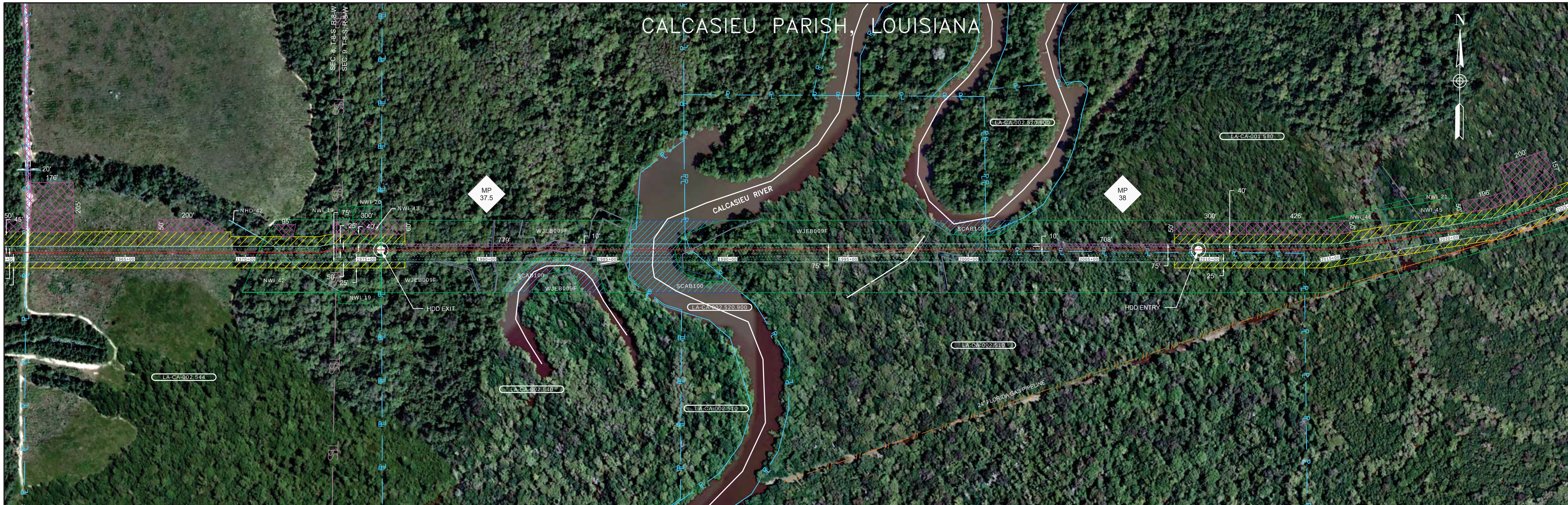
www.projectconsulting.com

DRIFTWOOD PIPELINE

DESIGN: MRI	DATE: 08JUN17	ENG.: MRI	DATE: 08JUN17
CHKD: SJW	08JUN17	APRVD: MSS	DATE: 08JUN17

DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING CALCASIEU RIVER
1973+00 TO 2012+00

SCALE: AS NOTED	CLIENT DWG No.:		
SIZE: ANSI D			
JOB No.: 16141	DWG No.: 26101-140-R3-0000-40004	REV.	005



PLAN

HORIZONTAL SCALE 1" = 200'

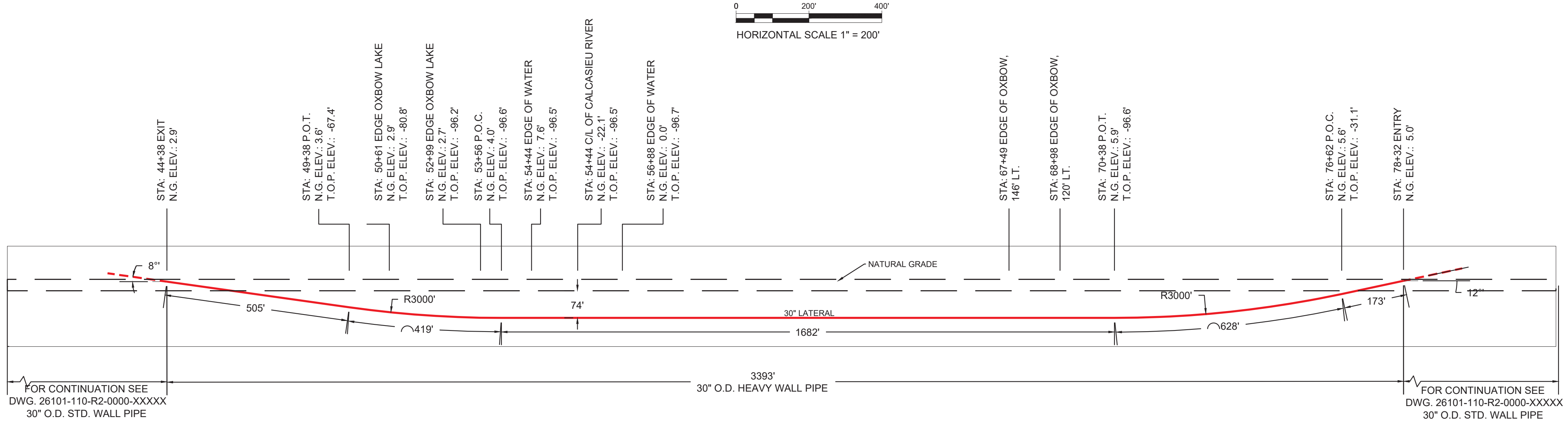


Figure 2.5-10

PROFILE

VERTICAL SCALE 1" = 200'

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

REFERENCE DOCUMENTS	DWG. NO.
HDD LAYOUT TYPICAL	26101-100-R5-0000-00080, -00081
WATER FILL/SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL TYPICAL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R2-0000-XXXXX

NOTES / LEGEND / MATERIALS

1. FINAL BOREHOLE DIAMETER SHALL BE 60" - 66"
2. MINIMUM ALLOWABLE RADIUS 2550'. MEASURED RADIUS SHALL BE 3 JOINT AVERAGE
3. HORIZONTAL POSITION OF BOREHOLE CENTERLINE SHALL BE AT LEAST 10' FROM EDGE OF PERMANENT ROW
4. VERTICAL POSITION OF BOREHOLE CENTERLINE SHALL NOT BE SHALLOWER THAN DESIGNED PROFILE
5. ENTRY POINT OF PILOT HOLE SHALL BE EXACTLY AT DESIGNED POSITION
6. LENGTH OF PILOT HOLE SHALL NOT BE SHORTER THAN DESIGNED
7. EXIT POINT OF PILOT HOLE SHALL NOT BE MORE THAN 10' FROM DESIGNED CENTERLINE
8. GEOTECHNICAL DATA SHOWN IS A SUMMARY ONLY. REFER TO GEOTECHNICAL REPORT.
9. CARRIER PIPE TO BE WELDED AND TESTED IN A SINGLE SECTION
10. CARRIER PIPE SHALL BE HYDROTESTED FOR A MINIMUM OF 4 HOURS PRIOR TO INSTALLATION. REFER TO HYDROTESTING SPECIFICATIONS.
11. CLEARING OF VEGETATION BETWEEN THE ENTRY AND EXIT POINTS SHALL BE LIMITED TO DESIGNATED ACCESS FOR WATER SUPPLY AND CLEARING BY HAND FOR DOWNHOLE SURFACE COIL PLACEMENT.

REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
005	18AUG17	GENERAL UPDATES	JSP	MRI	MRI	MS
004	28JUL17	REVISE FOR FCL-04	JSP	MRI	MRI	MS
003	01MAR17	RE-ISSUE FOR FEED - FCL03	KM	PL	MB/SS	JT
002	02FEB17	RE-ISSUE FOR FEED - CC1-000	KM	PL	MB/SS	JT
001	19JAN17	RE-ISSUE FOR FEED - FCL02	KM	PL	MB/SS	JT
000	21NOV16	ISSUE FOR FEED	KM	PL	MB/SS	JT

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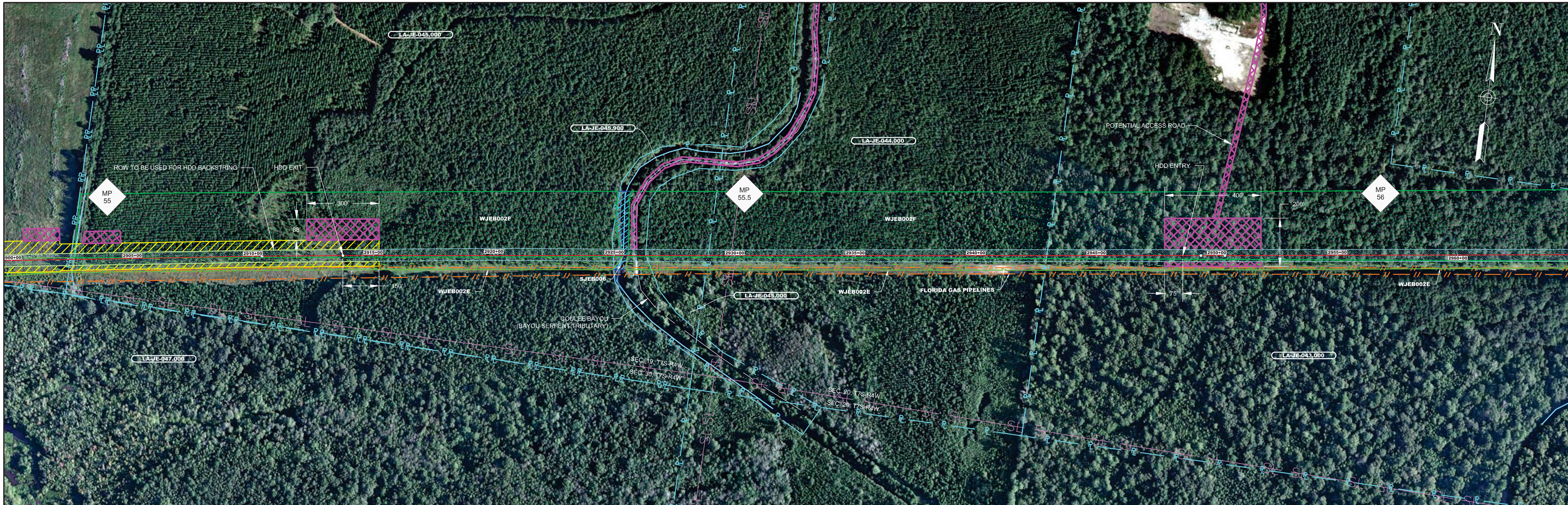
DRIFTWOOD PIPELINE

DRIFTWOOD LATERAL
30" HORIZONTAL DIRECTIONAL DRILL
CROSSING CALCASIEU RIVER
40+00 TO 82+50

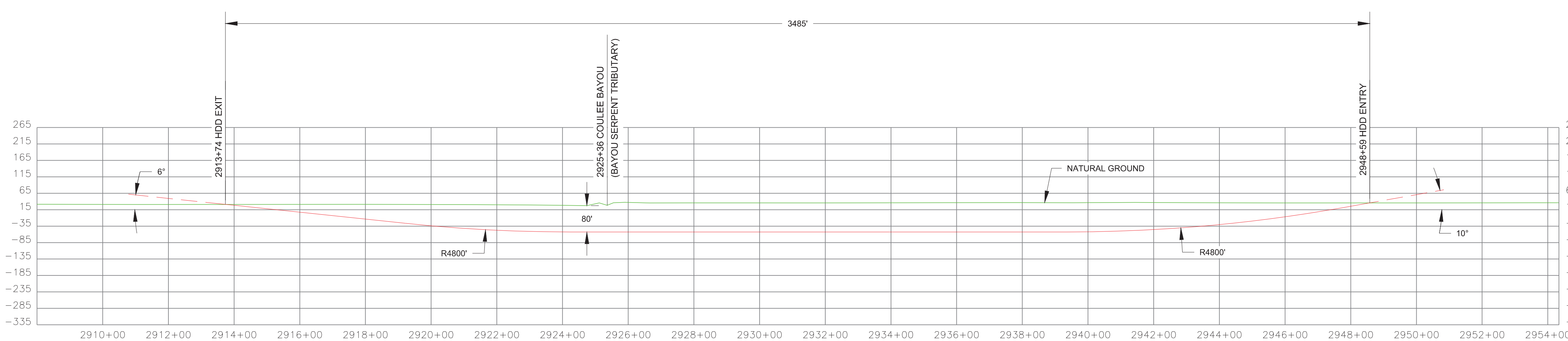
DESIGN:	DATE: 29SEP16	ENG.: MRI	DATE: 29SEP16
CHKD:	29SEP16	APRVD: MRI	DATE: 29SEP16

SCALE: AS NOTED	CLIENT DWG No.:		
SIZE: ANSI D			
JOB No.: 16141	PCS DWG No.: 26101-140-R3-0000-40006	REV.	005



PLAN

HORIZONTAL SCALE 1" = 200'



PROFILE

VERTICAL SCALE 1" = 200'

Figure 5.2-11

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00057, 00058

N O T E S / L E G E N D / M A T E R I A L S

1. FINAL BOREHOLE DIAMETER SHALL BE 60" - 66"
2. MINIMUM ALLOWABLE RADIUS 4080'. MEASURED RADIUS SHALL BE 3 JOINT AVERAGE
3. HORIZONTAL POSITION OF BOREHOLE CENTERLINE SHALL BE AT LEAST 10' FROM EDGE OF PERMANENT ROW
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REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
H	13OCT17	ENVIRONMENTAL UPDATES	RAM	MRI	MRI	MS
G	18AUG17	GENERAL UPDATES	JSP	MRI	MRI	MS
F	28JUL17	ATWS UPDATES	JSP	MRI	MRI	MS
E	21JUN17	ISSUED FOR FERC-FCL04	RAM	MRI	MRI	MS
D	18MAY17	ADD ENV AND TRACTS	RAM	MRI	MRI	MS
C	11MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS

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DRIFTWOOD PIPELINE

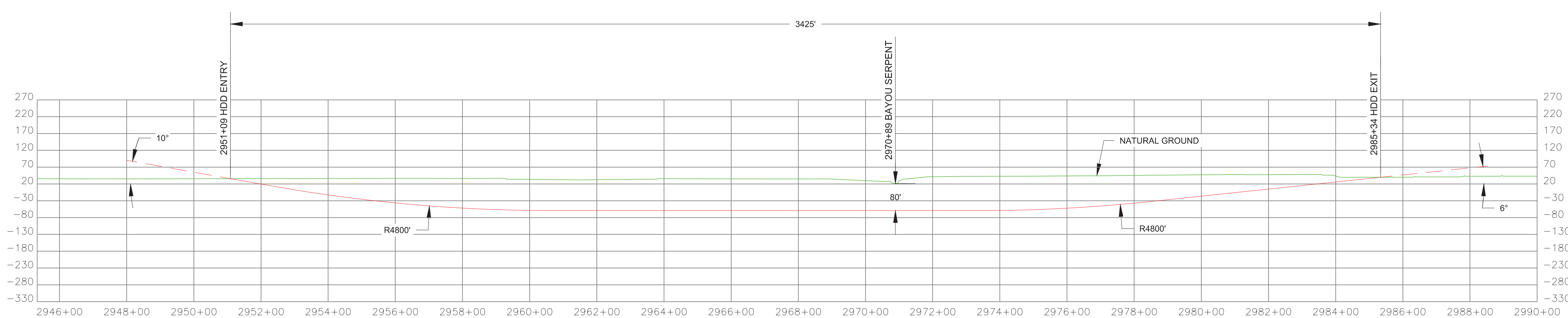
DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING COULEE BAYOU
2913+74 TO 2948+59

DESIGN:	DATE:	ENG.: MRI	DATE:	SCALE: AS NOTED	CLIENT DWG No.:		
				SIZE: ANSI D			
CHKD:		APRVD: MRI	DATE:	JOB No.:	PCS DWG No.: 16141-PL-HDD-0006	REV. H	

PLAN

0 200' 400'

HORIZONTAL SCALE 1" = 200'



PROFILE

VERTICAL SCALE 1" = 200'

Figure 2.5-12

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PL PROPERTY LINE

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00058

NOTES / LEGEND / MATERIALS

1. FINAL BOREHOLE DIAMETER SHALL BE 60" - 66"
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REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
G	13OCT17	ENVIRONMENTAL UPDATES	RAM	MRI	MRI	MS
F	18AUG17	GENERAL UPDATES	RAM	MRI	MRI	MS
E	21JUN17	ISSUED FOR FERC-FCL04	RAM	MRI	MRI	MS
D	18MAY17	ADD ENV AND TRACTS	RAM	MRI	MRI	MS
C	11MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
B	09MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS

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DRIFTWOOD PIPELINE

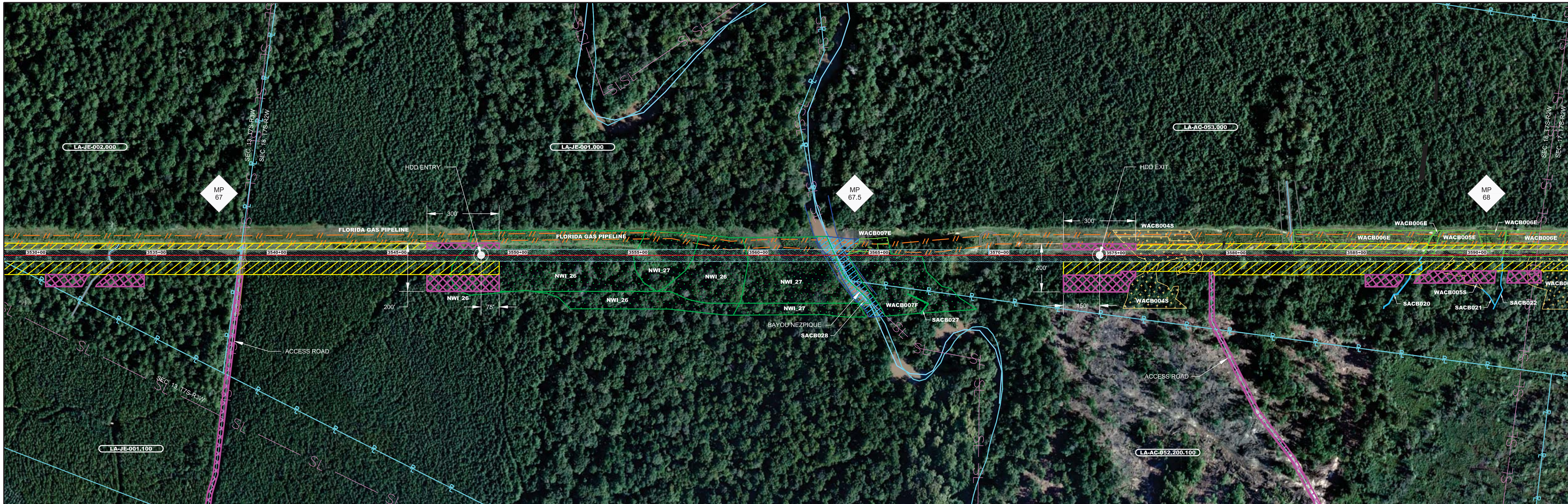
DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL CROSSING BAYOU SERPENT
2951+09 TO 2985+34

DESIGN:	DATE:	ENG.: MRI	DATE:	SCALE: AS NOTED
				SIZE: ANSI D
CHKD:		APRVD: MRI	DATE:	JOB No.: 16141

CLIENT DWG No.:

PCS DWG No.: 16141-PL-HDD-0007

REV. G



PLAN

0 200' 400'

HORIZONTAL SCALE 1" = 200'

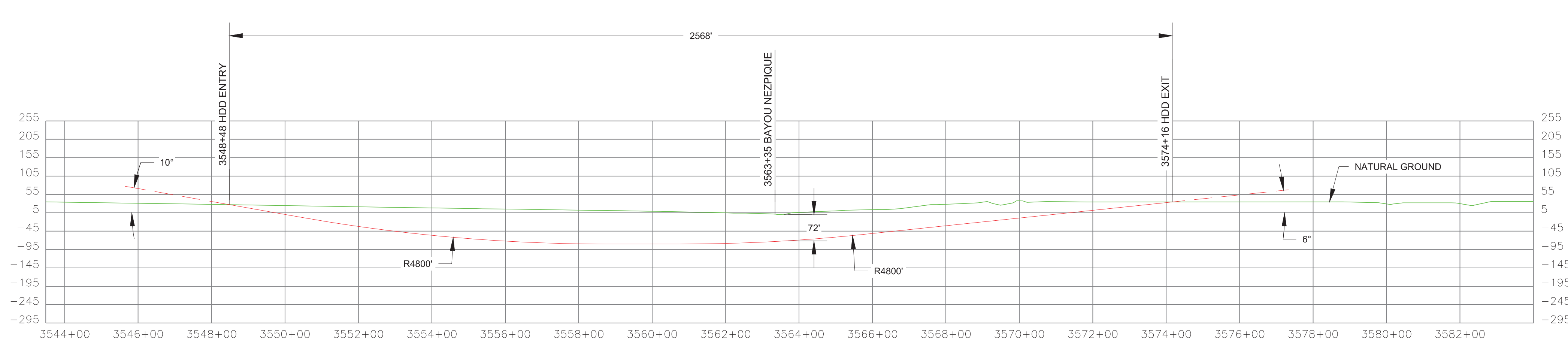


Figure 2.5-13

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PL PROPERTY LINE

PROFILE

VERTICAL SCALE 1" = 200'

REFERENCE DOCUMENTS	DRAWING NO.
TYPICAL HDD LAYOUT	26101-100-R5-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R5-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00068, 00069

NOTES / LEGEND / MATERIALS

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F	13OCT17	ENVIRONMENTAL UPDATES	JSP	MRI	MRI	MS
E	18AUG17	GENERAL UPDATES	RAM	MRI	MRI	MS
D	18MAY17	ADD ENV AND TRACTS	RAM	MRI	MRI	MS
C	11MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
B	09MAY17	GENERAL UPDATES	RAM	MRI	MRI	MS
A	05MAY17	ISSUE FOR REVIEW	RAM	MRI	MRI	MS

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DRIFTWOOD PIPELINE

DESIGN: DATE:
CHKD:
ENG.: MRI DATE:
APRVD: MRI DATE:

DRIFTWOOD PIPELINE
48" HORIZONTAL DIRECTIONAL DRILL
CROSSING BAYOU NEZPIQUE
3548+48 TO 3574+16

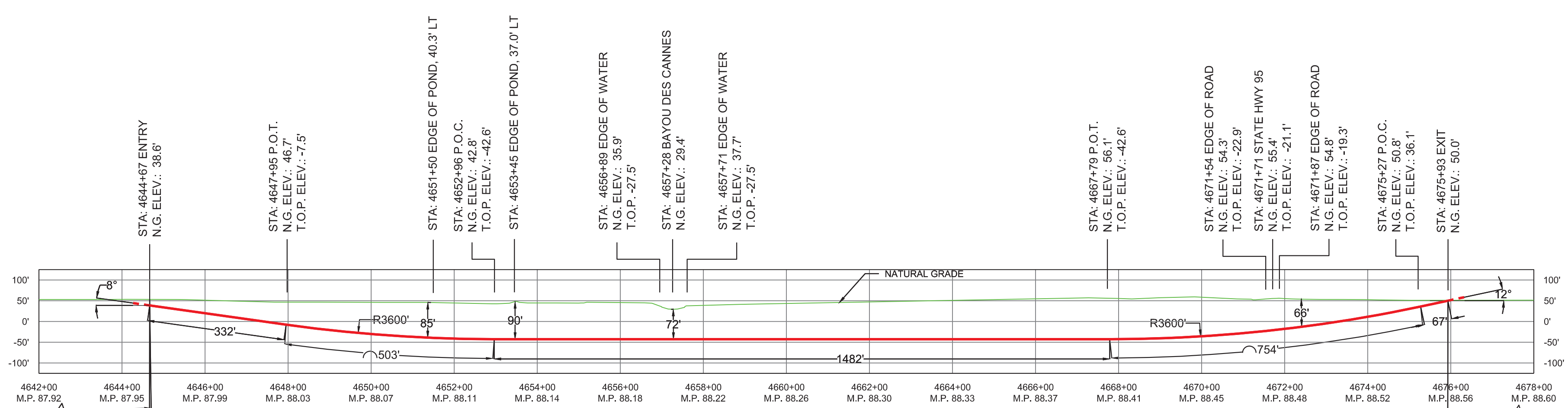
SCALE: AS NOTED
SIZE: ANSI D
JOB No.: 16141
CLIENT DWG No.:
PCS DWG No.: 16141-PL-HDD-0008
REV. F

EVANGELINE PARISH, LOUISIANA

PLAN

HORIZONTAL SCALE 1":200'

Figure 2.5-14



FOR CONTINUATION SEE DWG. 26101-110-R2-0000-00090 36" O.D. STD. WALL PIPE

3126' 36" O.D. HEAVY WALL PIPE

FOR CONTINUATION SEE DWG. 26101-110-R2-0000-00090 36" O.D. STD. WALL PIPE

PROFILE

VERTICAL SCALE 1":200'

LEGEND

- GEOTECHNICAL BORE HOLE LOCATION
- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- WATER BODY
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- PROPERTY LINE

REFERENCE DOCUMENTS	PCS NO.
TYPICAL HDD LAYOUT	26101-100-R0-0000-00080, -00081
WATER FILL AND SPILL TYPICAL	26101-100-R5-0000-00059, -00060
EROSION CONTROL	26101-100-R0-0000-00077, -00078
ALIGNMENT SHEET	26101-110-R1-0000-00090

NOTES / LEGEND / MATERIALS

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REV.	DATE	DESCRIPTION	DES.	CHK.	ENG	APR.
005	18AUG17	GENERAL UPDATES	JSP	MRI	MRI	MS
004	21JUN17	FERC DATA REQUEST - FCL04	JSP	MRI	MRI	MS
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002	02FEB17	RE-ISSUE FOR FEED - CC1-000	KM	PL	MB/SS	JT
001	19JAN17	RE-ISSUE FOR FEED - FCL02	KM	PL	MB/SS	JT
000	21NOV16	ISSUE FOR FEED	KM	PL	MB/SS	JT

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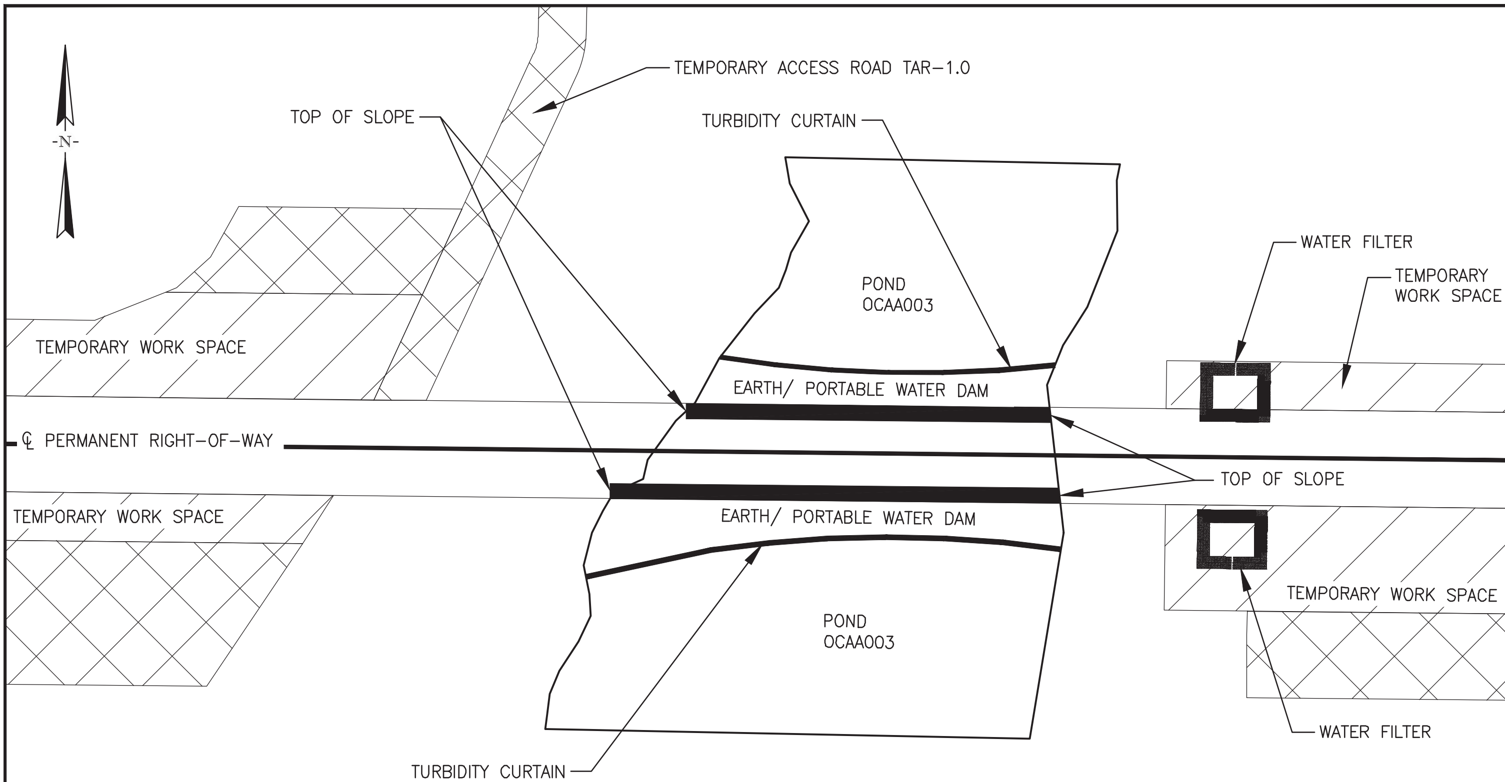
DRIFTWOOD LNG PIPELINE

DESIGN: DATE: ENG.: MRI DATE:
CHKD: APRVD: MRI DATE:

DRIFTWOOD PIPELINE
36" HORIZONTAL DIRECTIONAL DRILL
CROSSING BAYOU DES CANNES
4642+00 TO 4678+00

SCALE: AS NOTED
SIZE: ANSI D
CLIENT DWG No.:
JOB No.: 16141
PCS DWG No.: 26101-140-R3-0000-40005
REV. 005



PLAN

SCALE

THE INITIAL APPROACH TO ANY POND CROSSING WILL BE TO ATTEMPT TO OBTAIN PERMISSION FROM THE LAND OWNER AND TO HAVE THE LAND OWNER LOWER THE POND WATER TABLE TO AN ELEVATION BELOW THE CONSTRUCTION WORK SPACE SO NORMAL PIPE LAY CAN BE CONDUCTED THROUGH THE AREA. IF AN AGREEMENT CANNOT BE REACHED, THE FOLLOWING METHOD WILL BE USED:

TYPICAL POND CROSSING WILL CONSIST OF THE INSTALLATION OF AN EARTH DAM OR PORTABLE WATER DAM TO BE INSTALLED FROM HIGH BANK TO HIGH BANK. A TURBIDITY CURTAIN WILL BE USED TO PREVENT SEDIMENTATION FROM SPREADING THROUGHOUT THE POND AREA. THE WATER WITHIN THE CONSTRUCTION WORK AREA, WILL BE PUMPED OVER INTO A WATER FILTER STRUCTURE AND ALLOW TO FLOW NATURALLY BACK INTO POND. A WATER FILTER STRUCTURE MAY BE CONSTRUCTED IN A TIERED OR OTHER MANNER TO ENSURE WATER FLOW IS DIRECTED WHERE DESIRED. WATER FLOW BACK TO THE POND WILL BE MONITORED TO ENSURE FLOW IS AS DESIRED. ADDITIONAL MEASURES MAY BE TAKEN TO CONTAIN OUTFALL OF WATER FLOW FROM THE WATER FILTER STRUCTURE TO ENSURE WATER FLOW IS DIRECTED TO THE POND OR OTHER DESIRABLE AREAS. THE WATER TABLE WITHIN THE WORK AREA WILL BE LOWERED TO A SAFE WORKING ELEVATION. ONCE PIPELINE INSTALLATION IS COMPLETE, ALL DAM MATERIAL WILL BE REMOVED AND POND RESTORED TO ITS PREVIOUS WATER TABLE ELEVATION AND CONDITIONS. SHEET PILING MAY BE USED AS AN ALTERNATIVE TO AN EARTH DAM OR PORTABLE WATER DAM, IF CONDITIONS REQUIRE.

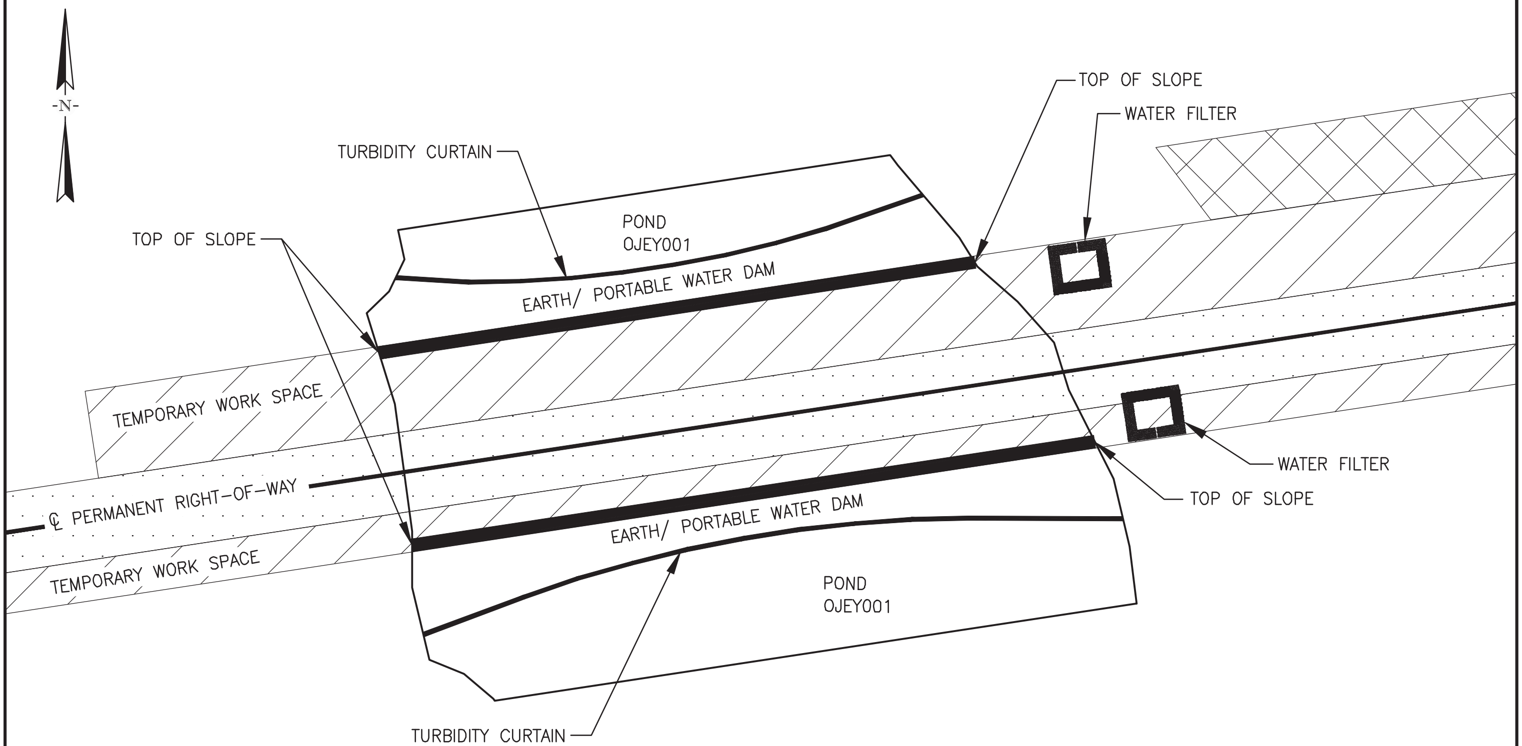
NOTES:

1. CONSTRUCT EARTH OR PORTABLE WATER DAM.
2. INSTALL TURBIDITY CURTAIN.
3. PUMP WATER OUT OF WORKSPACE INTO WATER FILTER STRUCTURE.
4. TURBIDITY CURTAIN AND WATER FILTER AREA WILL BE AGREED UPON BY LANDOWNER.

Figure 2.5-15
Site-specific Plan, MP 1.1

DRAWN BY: KA	CHK'D. BY: SW
DATE: 8-17-17	APPRV. BY: SW
DWG. NO. 16141-PL-SSP-0001	REV B

08-17-17 9:16 16141 4 KMA



PLAN

SCALE

THE INITIAL APPROACH TO ANY POND CROSSING WILL BE TO ATTEMPT TO OBTAIN PERMISSION FROM THE LAND OWNER AND TO HAVE THE LAND OWNER LOWER THE POND WATER TABLE TO AN ELEVATION BELOW THE CONSTRUCTION WORK SPACE SO NORMAL PIPE LAY CAN BE CONDUCTED THROUGH THE AREA. IF AN AGREEMENT CANNOT BE REACHED, THE FOLLOWING METHOD WILL BE USED:

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NOTES:

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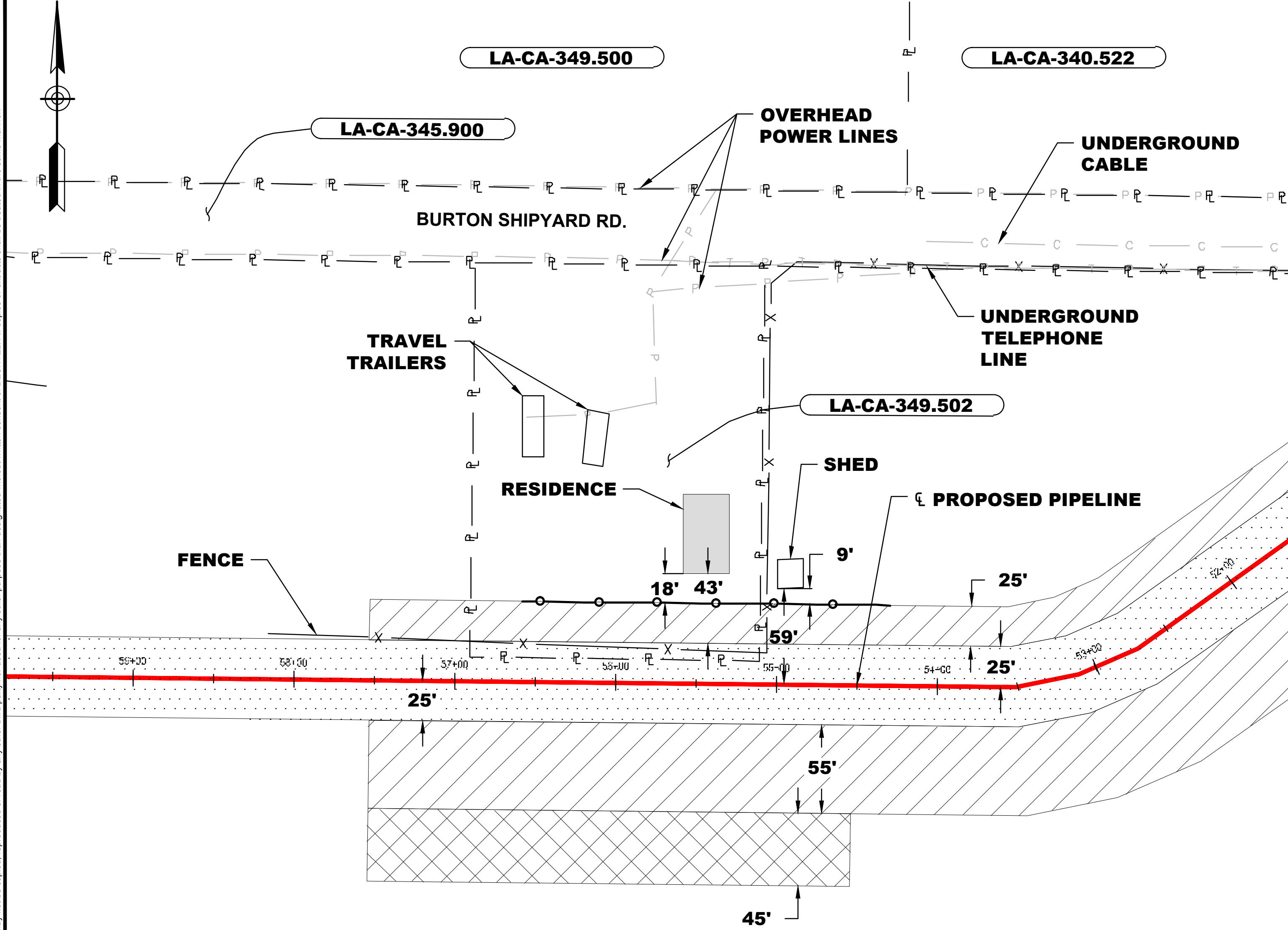
3. PUMP WATER OUT OF WORKSPACE INTO WATER FILTER STRUCTURE.
4. TURBIDITY CURTAIN AND WATER FILTER AREA WILL BE AGREED UPON BY LANDOWNER.

Figure 2.5-16
Site-specific Plan, MP 49.4

DRAWN BY: KA	CHK'D. BY: SW
DATE: 8-17-17	APPRV. BY: SW
DWG. NO. 16141-PL-SSP-0002	REV B

08-17-17 12:31 16141 4 KMA

RESIDENTIAL SITE SPECIFIC PLAN



NOTE:
FENCE TO BE REMOVED AND REPLACED IN ACCORDANCE WITH LANDOWNER AGREEMENT.

0 100' 200'

PROPOSED PIPELINE

SAFETY FENCE

PERMANENT EASEMENT

TEMPORARY WORKSPACE

ADDITIONAL TEMPORARY WORKSPACE

NOTES:

1. CONSTRUCTION METHOD: CONVENTIONAL
2. THIS RESIDENTIAL SITE PLAN DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AND SHOULD NOT BE RELIED UPON AS SUCH.
3. INSTALL AND MAINTAIN FENCING ALONG EDGE OF THE TEMPORARY WORK AREA TO EXTEND AT LEAST 100 FEET ON BOTH SIDES OF THE STRUCTURE(S).
4. FOR ADDITIONAL CONSTRUCTION METHOD NOTES, REFER TO:
   a. PROJECT SPECIFIC PLAN AND PROCEDURES.

DRIFTWOOD PIPELINE

BECHTEL OG&C

Figure 2.5-17
Residential Site-specific Plan, MP 1.0

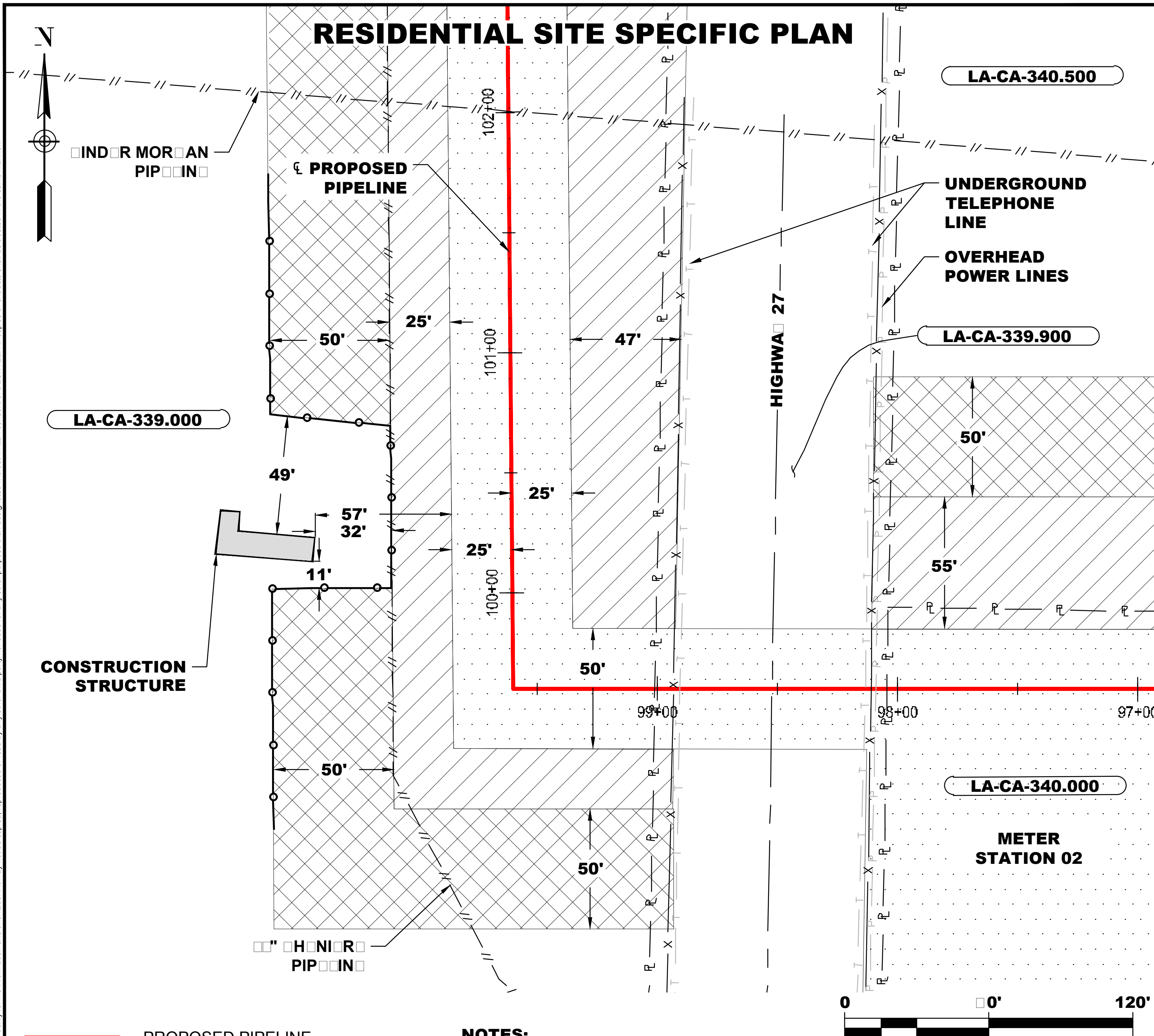
REV	DATE	DESCRIPTION	DES	CHK	ENG	APR
002	03/23/2017	IFF	AG3	PML	MB/SS	JT
001	03/01/2017	IFF	AG3	PML	MB/SS	JT
000	02/22/2017	IFF	AG3	PML	MB/SS	JT

CALCASIEU PARISH — LOUISIANA

SEC 14-T11S-R10W

SCALE: 1" = 100' — M.P. 1.05

SIZE: ANSI A — BEC DWG No.: 26101-100-R4-0000-10003 — REV 002



PROPOSED PIPELINE

SAFETY FENCE

PERMANENT EASEMENT

TEMPORARY WORKSPACE

ADDITIONAL TEMPORARY WORKSPACE

NOTES:

1. CONSTRUCTION METHOD: CONVENTIONAL
2. THIS RESIDENTIAL SITE PLAN DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AND SHOULD NOT BE RELIED UPON AS SUCH.
3. INSTALL AND MAINTAIN FENCING ALONG EDGE OF THE TEMPORARY WORK AREA TO EXTEND AT LEAST 100 FEET ON BOTH SIDES OF THE STRUCTURE(S).
4. FOR ADDITIONAL CONSTRUCTION METHOD NOTES, REFER TO:
   a. PROJECT SPECIFIC PLAN AND PROCEDURES.

DRIFTWOOD PIPELINE

Figure 2.5-18
Residential Site-specific Plan, MP 1.9

REV	DATE	DESCRIPTION	DES	CHK	ENG	APR
002	03/23/2017	IFF	AG3	PML	MB/SS	JT
001	03/01/2017	IFF	AG3	PML	MB/SS	JT
000	02/22/2017	IFF	AG3	PML	MB/SS	JT

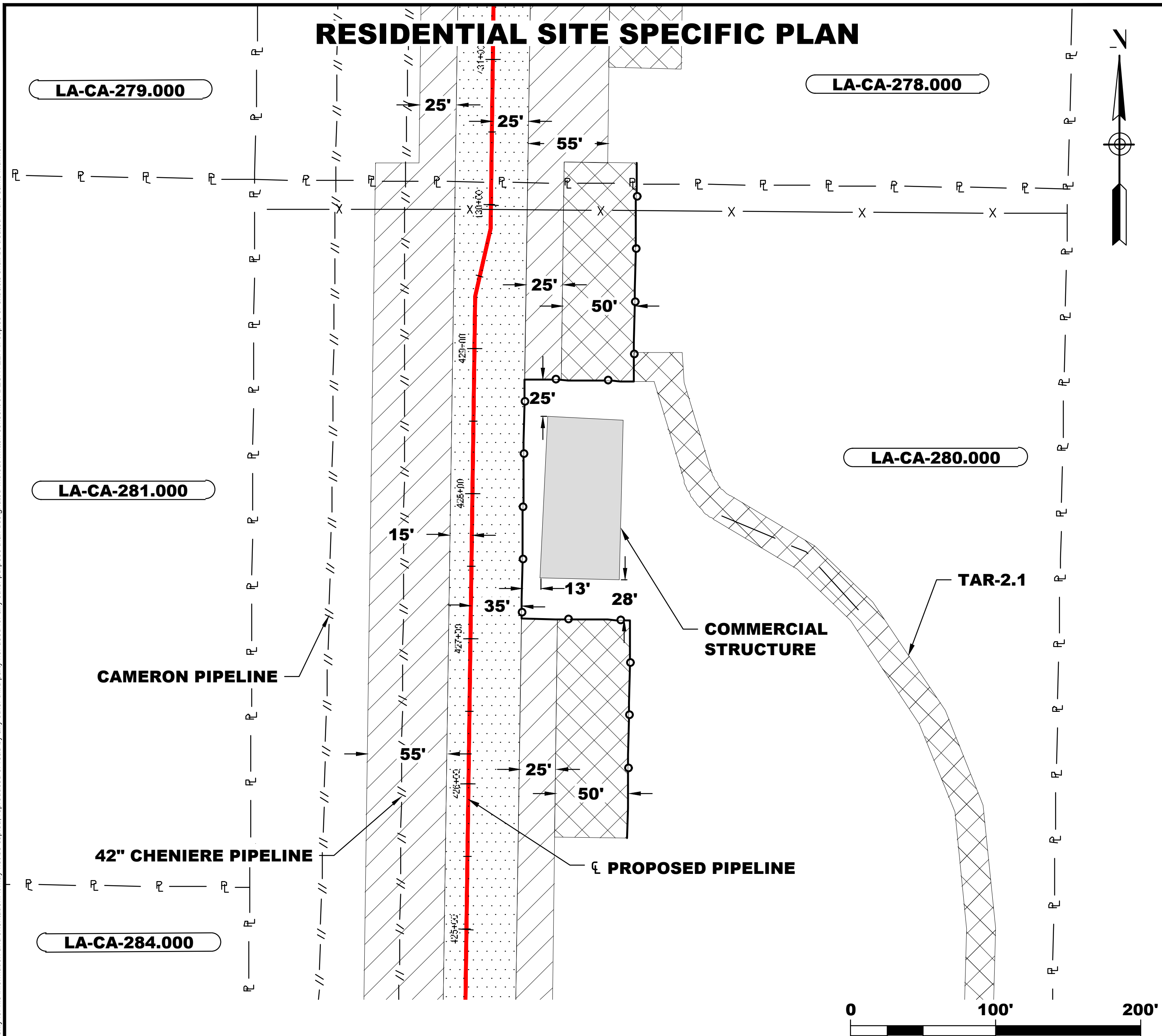
CALCASIEU PARISH — LOUISIANA

SEC 14-T11S-R10W

SCALE: 1" = 60' — M.P. 1.90

SIZE: ANSI A — BEC DWG No.: 26101-100-R4-0000-10004 — REV 002

RESIDENTIAL SITE SPECIFIC PLAN



PROPOSED PIPELINE

SAFETY FENCE

PERMANENT EASEMENT

TEMPORARY WORKSPACE

ADDITIONAL TEMPORARY WORKSPACE

NOTES:

1. CONSTRUCTION METHOD: CONVENTIONAL
2. THIS RESIDENTIAL SITE PLAN DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AND SHOULD NOT BE RELIED UPON AS SUCH.
3. INSTALL AND MAINTAIN FENCING ALONG EDGE OF THE TEMPORARY WORK AREA TO EXTEND AT LEAST 100 FEET ON BOTH SIDES OF THE STRUCTURE(S).
4. FOR ADDITIONAL CONSTRUCTION METHOD NOTES, REFER TO:
   a. PROJECT SPECIFIC PLAN AND PROCEDURES.

DRIFTWOOD PIPELINE

Figure 2.5-19
Residential Site-specific Plan, MP 8.1

REV	DATE	DESCRIPTION	DES	CHK	ENG	APR
002	03/23/2017	IFF	AG3	PML	MB/SS	JT
001	03/01/2017	IFF	AG3	PML	MB/SS	JT
000	02/22/2017	IFF	AG3	PML	MB/SS	JT

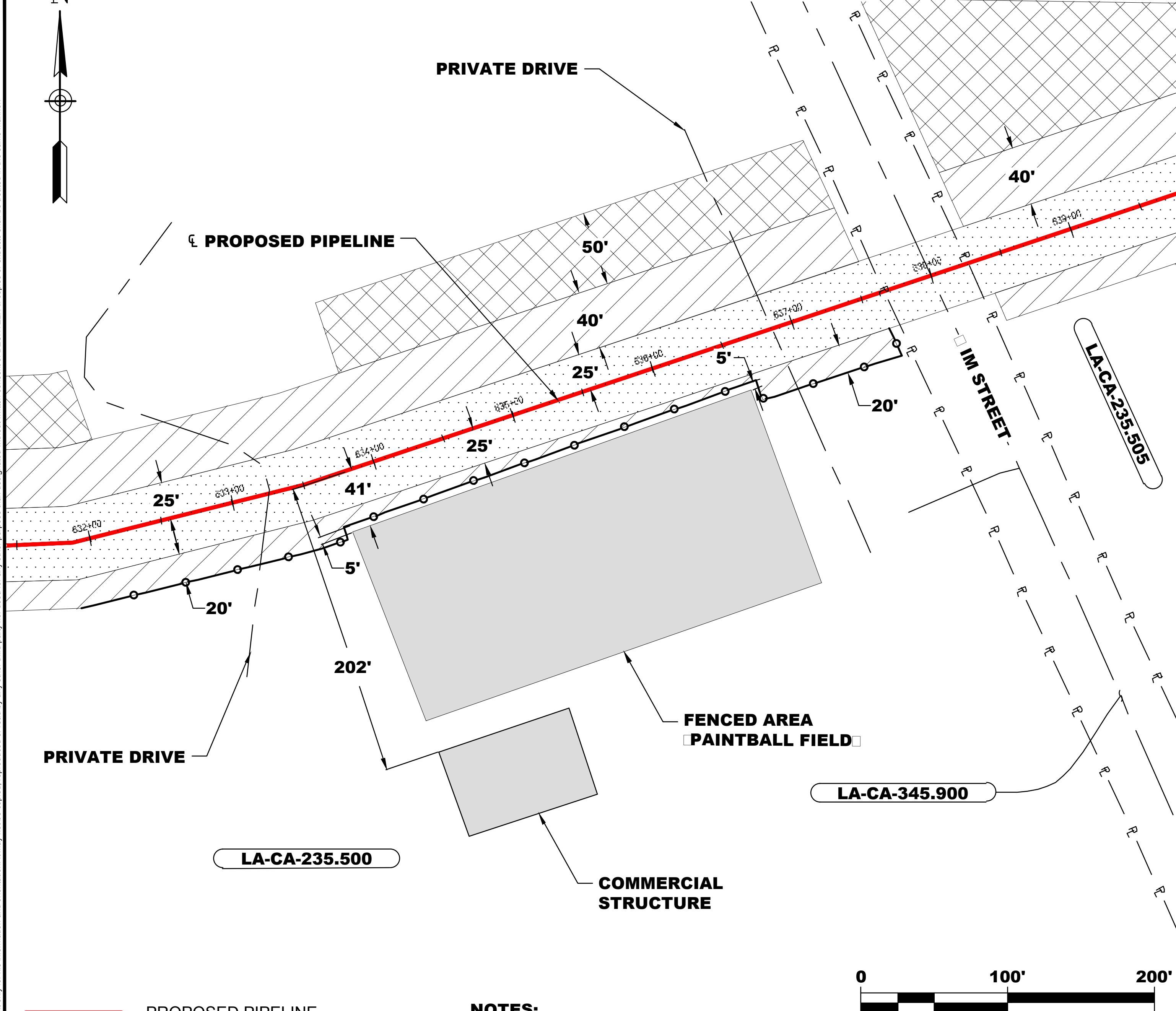
CALCASIEU PARISH — LOUISIANA

SEC 16-T10S-R10W

SCALE: 1" = 100' — M.P. 8.10

SIZE: ANSI A — BEC DWG No.: 26101-100-R4-0000-1000 — REV 002

RESIDENTIAL SITE SPECIFIC PLAN



PROPOSED PIPELINE

SAFETY FENCE

PERMANENT EASEMENT

TEMPORARY WORKSPACE

ADDITIONAL TEMPORARY WORKSPACE

NOTES:

1. CONSTRUCTION METHOD: CONVENTIONAL
2. THIS RESIDENTIAL SITE PLAN DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AND SHOULD NOT BE RELIED UPON AS SUCH.
3. INSTALL AND MAINTAIN FENCING ALONG EDGE OF THE TEMPORARY WORK AREA TO EXTEND AT LEAST 100 FEET ON BOTH SIDES OF THE STRUCTURE(S).
4. FOR ADDITIONAL CONSTRUCTION METHOD NOTES, REFER TO:
   a. PROJECT SPECIFIC PLAN AND PROCEDURES.

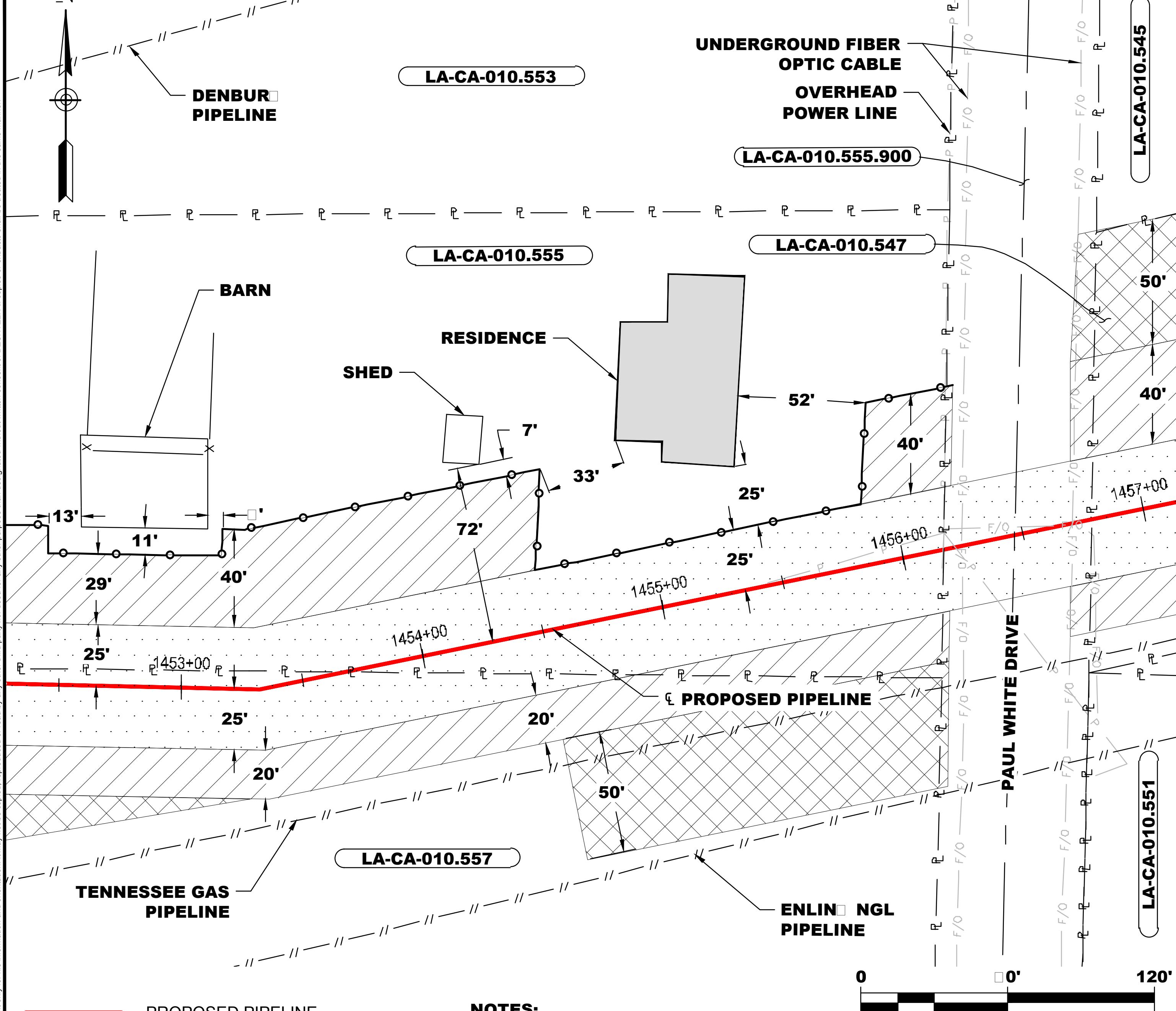
DRIFTWOOD PIPELINE

Figure 2.5-20
Residential Site-specific Plan, MP 12.0

REV	DATE	DESCRIPTION	DES	CHK	ENG	APR
002	03/23/2017	IFF	AG3	PML	MB/SS	JT
001	03/01/2017	IFF	AG3	PML	MB/SS	JT
000	02/22/2017	IFF	AG3	PML	MB/SS	JT

CALCASIEU PARISH		LOUISIANA
SEC 33-T[illegible]S-R10W		
SCALE: 1" = 100'		M.P. 12.00
SIZE: ANSI A	BEC DWG No.: 26101-100-R4-0000-10006	REV 002

RESIDENTIAL SITE SPECIFIC PLAN



PROPOSED PIPELINE

SAFETY FENCE

PERMANENT EASEMENT

TEMPORARY WORKSPACE

ADDITIONAL TEMPORARY WORKSPACE

NOTES:

1. CONSTRUCTION METHOD: CONVENTIONAL
2. THIS RESIDENTIAL SITE PLAN DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AND SHOULD NOT BE RELIED UPON AS SUCH.
3. INSTALL AND MAINTAIN FENCING ALONG EDGE OF THE TEMPORARY WORK AREA TO EXTEND AT LEAST 100 FEET ON BOTH SIDES OF THE STRUCTURE(S).
4. FOR ADDITIONAL CONSTRUCTION METHOD NOTES, REFER TO:
   a. PROJECT SPECIFIC PLAN AND PROCEDURES.

DRIFTWOOD PIPELINE

Figure 2.5-21
Residential Site-specific Plan, MP 27.5

CALCASIEU PARISH — LOUISIANA

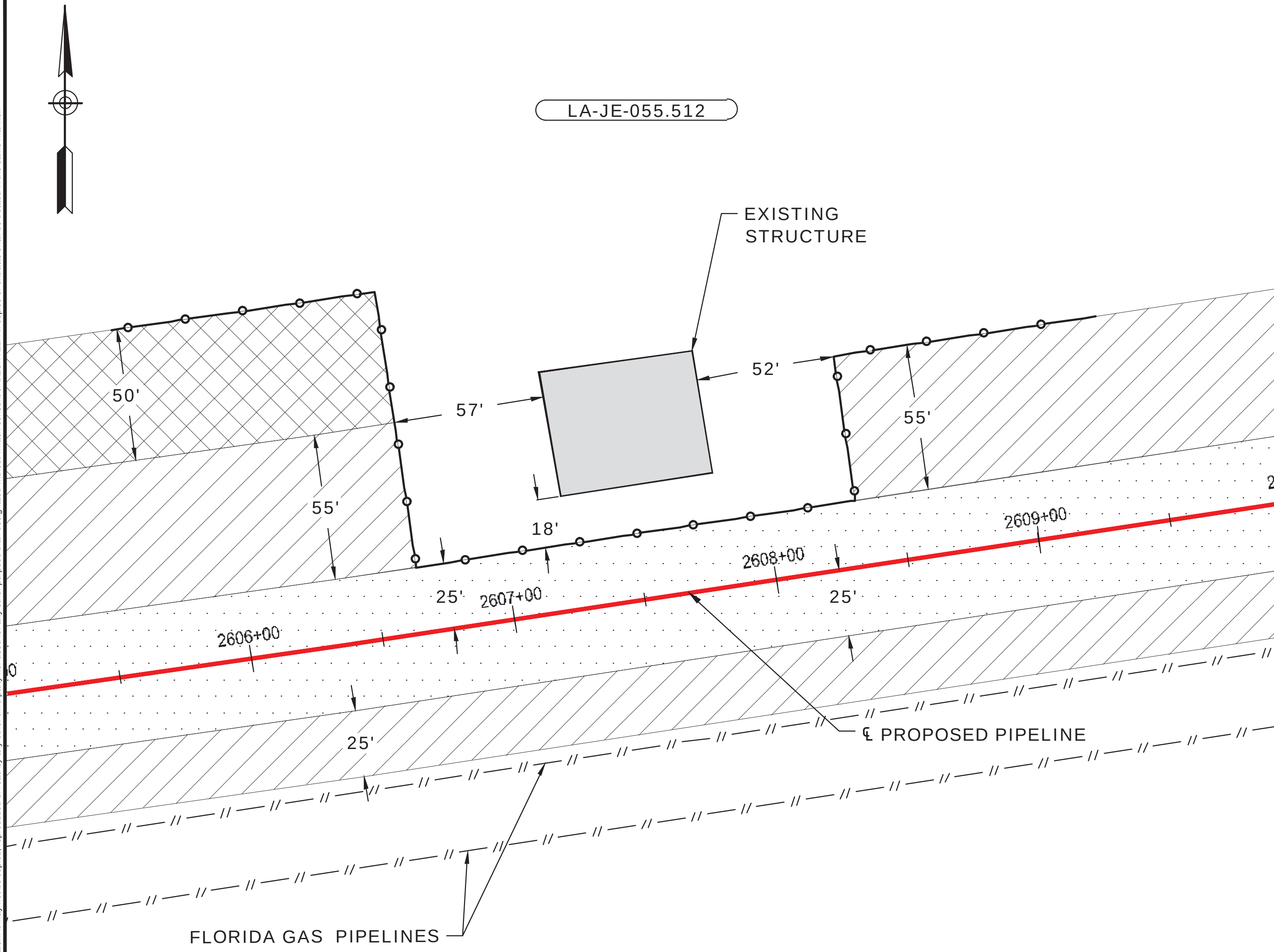
SEC 23-T S-R W

SCALE: 1" = 60' — M.P. 27.49

SIZE: ANSI A — BEC DWG No.: 26101-100-R4-0000-10007 — REV 002

REV	DATE	DESCRIPTION	DES	CHK	ENG	APR
002	03/23/2017	IFF	AG3	PML	MB/SS	JT
001	03/01/2017	IFF	AG3	PML	MB/SS	JT
000	02/22/2017	IFF	AG3	PML	MB/SS	JT

RESIDENTIAL SITE SPECIFIC PLAN



PROPOSED PIPELINE

SAFETY FENCE

PERMANENT EASEMENT

TEMPORARY WORKSPACE

ADDITIONAL TEMPORARY WORKSPACE

NOTES:

1. CONSTRUCTION METHOD: CONVENTIONAL
2. THIS RESIDENTIAL SITE PLAN DOES NOT CONSTITUTE A COMPLETE BOUNDARY SURVEY AND SHOULD NOT BE RELIED UPON AS SUCH.
3. INSTALL AND MAINTAIN FENCING ALONG EDGE OF THE TEMPORARY WORK AREA TO EXTEND AT LEAST 100 FEET ON BOTH SIDES OF THE STRUCTURE(S).
4. FOR ADDITIONAL CONSTRUCTION METHOD NOTES, REFER TO:
   a. EROSION CONTROL, REVEGETATION, MAINTENANCE AND WETLAND-WATERBODY MITIGATION PROCEDURES (SDN 26101-000-G65-GER-00003)
   b. INVASIVE PLANT-SPECIES MANAGEMENT AND SITE RESTORATION PLAN (SDN 26101-000-G65-GER-00004)
   c. RESIDENTIAL & AGRICULTURAL AREA PLAN (SDN: 26101-000-G65-GER-00005).

Figure 2.5-22

Residential Site-specific Plan, MP 49.4

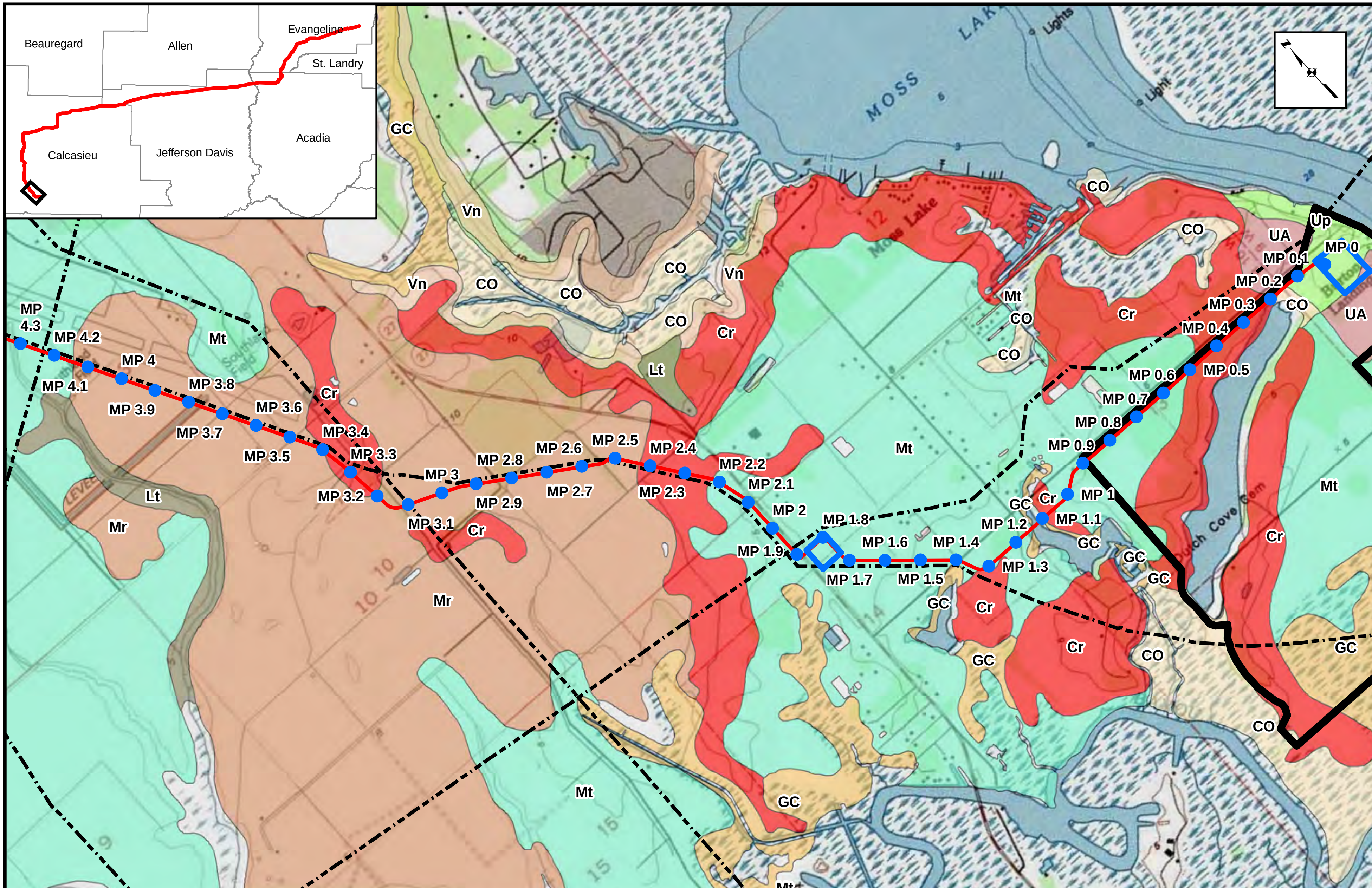
JEFFERSON DAVIS PARISH — LOUISIANA

SEC 29-T7S-R5W

REV	DATE	DESCRIPTION	DES	CHK	ENG	APR
000	02/21/2017	IFF	AG3	PML	MB/SS	JT
000	02/17/2017	IFR	AG3	PML	MB/SS	JT

SCALE: 1" = 60' — M.P. 49.37

SIZE: ANSI A — BEC DWG No.: 26101-100-R4-0000-10008 — REV 00A



Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Facility Boundary
- Existing Natural Gas Pipelines

Soil Name (Label)

- Clovelly muck (CO)
- Crowley-Vidrine silt loams (Cr)
- Edgerly loam, 0-1% slopes (Mr)
- Gentilly muck (GC)
- Leton silt loam (LeA/Lt)
- Mowata-Vidrine silt loams (Mt)
- Udifluvents, 1-20% slopes (UA)
- Urban land (Up)
- Vidrine silt loam, 1-3% slopes (Vn/VnB)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2a: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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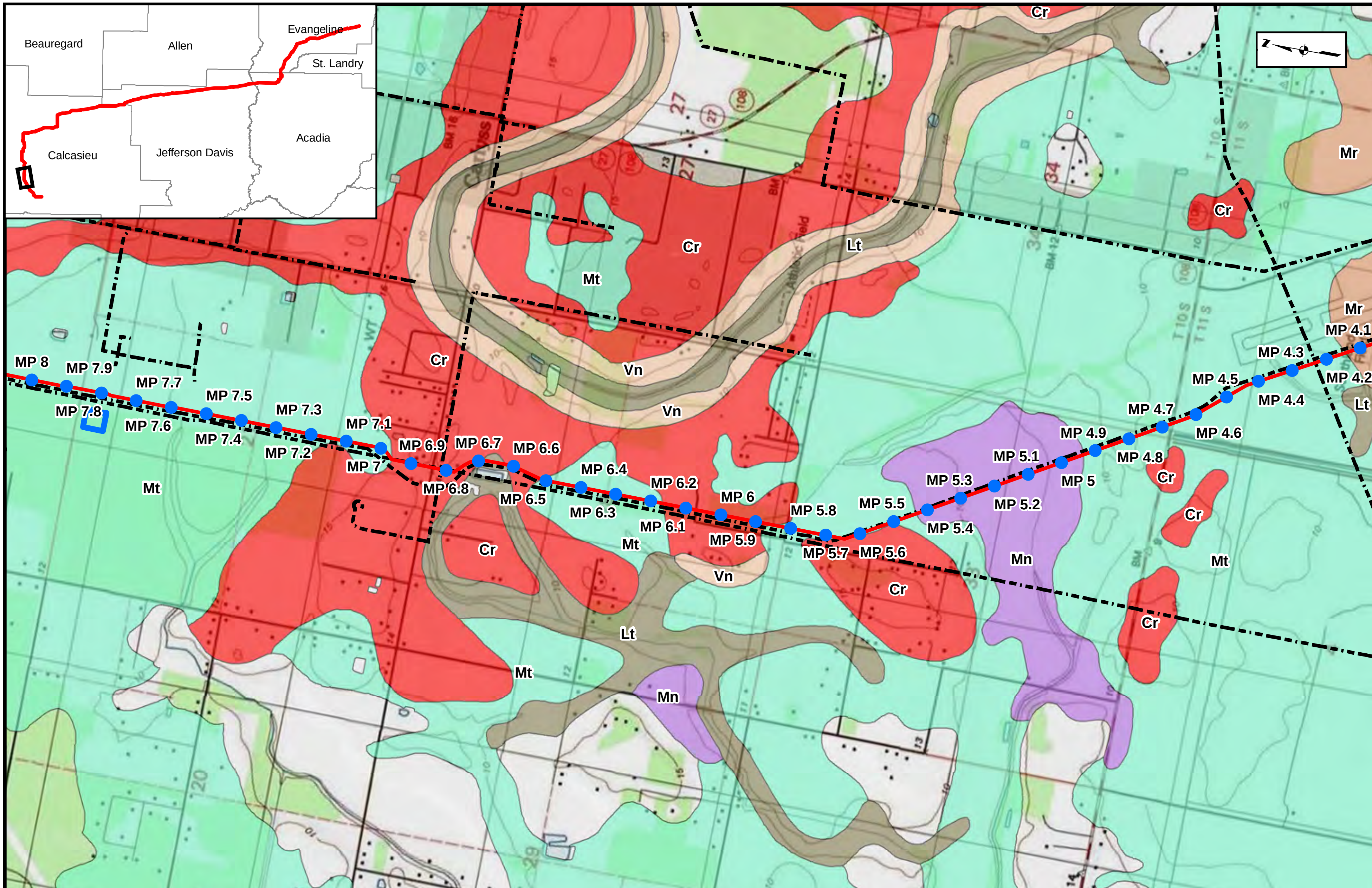

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Crowley-Vidrine silt loams (Cr)
- Edgerly loam, 0-1% slopes (Mr)
- Leton silt loam (LeA/Lt)
- Midland silty clay loam (Mn)
- Mowata-Vidrine silt loams (Mt)
- Vidrine silt loam, 1-3% slopes (Vn/VnB)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2b: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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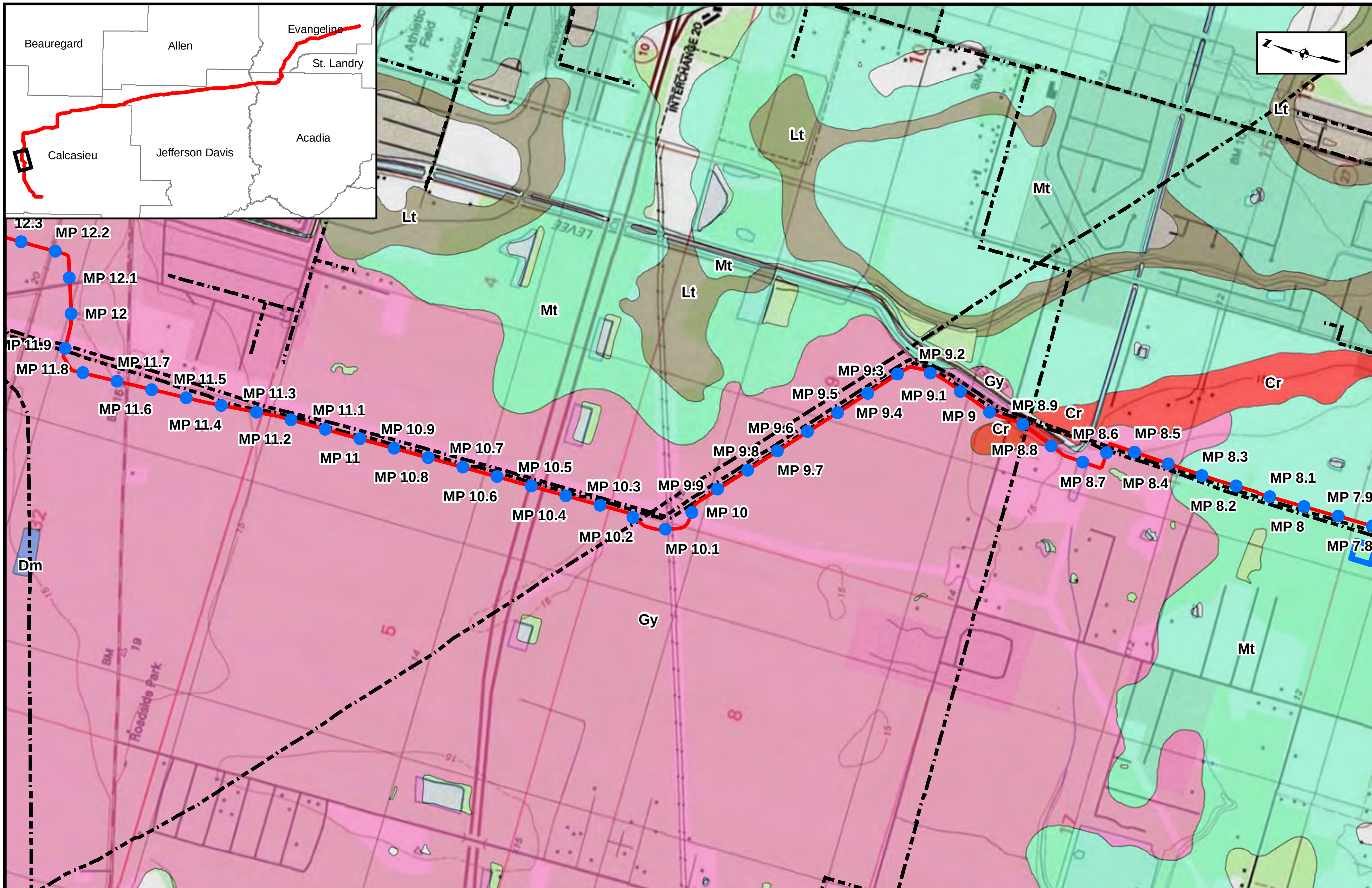

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Crowley-Vidrine silt loams (Cr)
- Dumps (Dm)
- Guyton-Messer silt loams (Gy)
- Leton silt loam (LeA/Lt)
- Mowata-Vidrine silt loams (Mt)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure **4.2-2**c: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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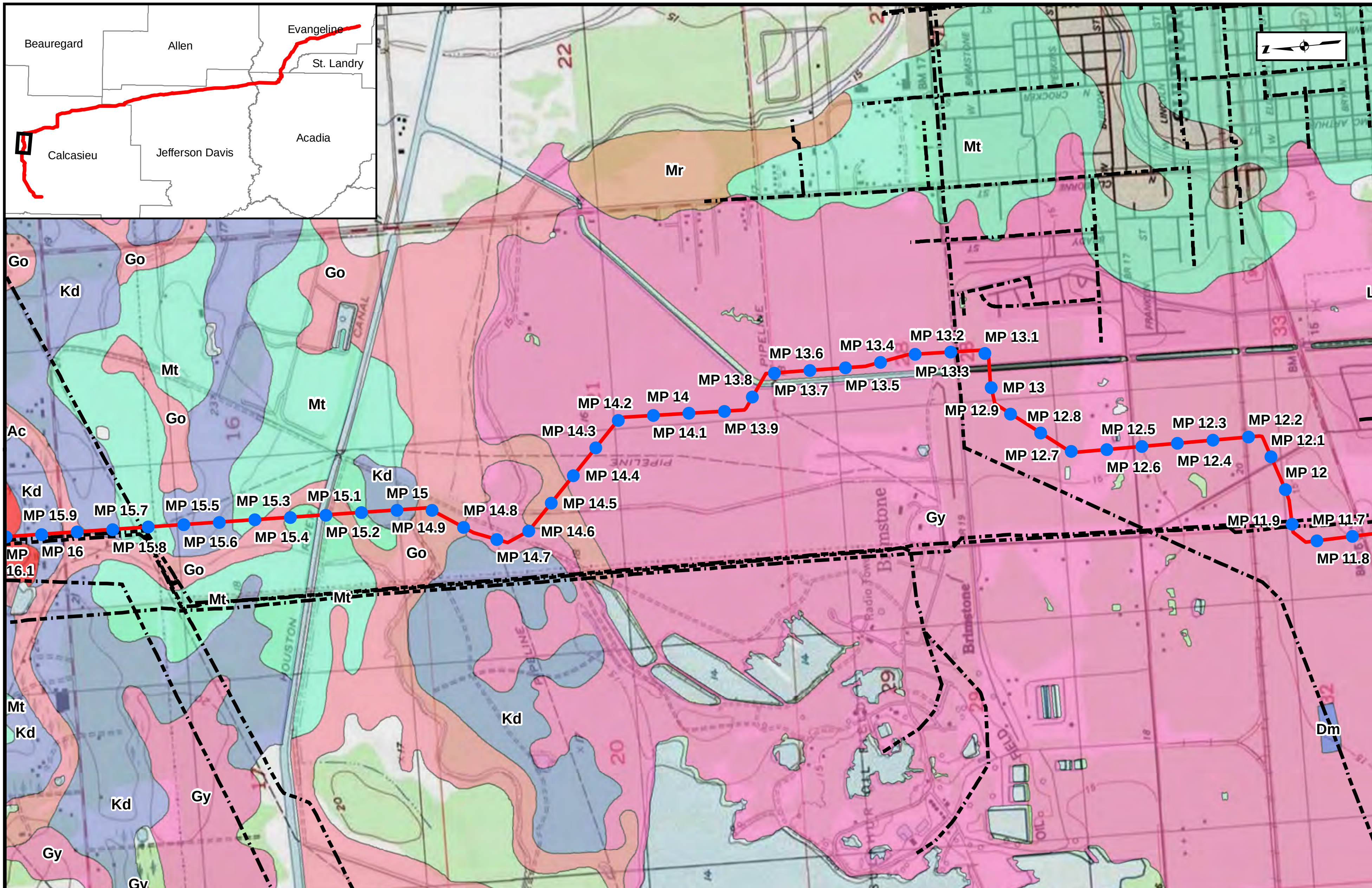

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine silt loams (Cr)
- Dumps (Dm)
- Edgerly loam, 0-1% slopes (Mr)
- Guyton silt loam, occasionally flooded (Go)
- Guyton-Messer silt loams (Gy)
- Kinder-Messer silt loams (Kd)
- Leton silt loam (LeA/Lt)
- Mowata-Vidrine silt loams (Mt)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure **4.2-2**d: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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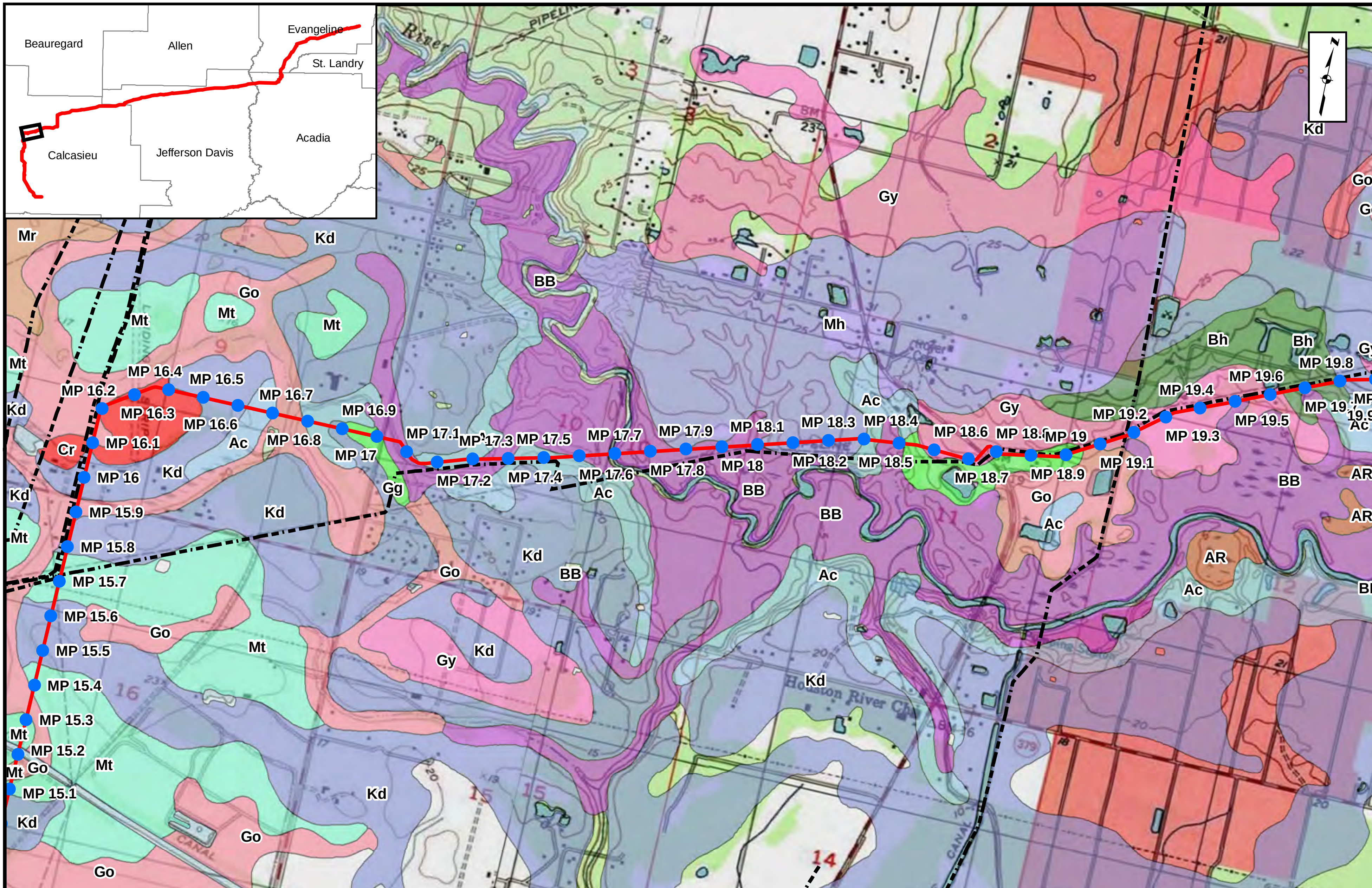

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Arat mucky silt loam (AR)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Bienville loamy fine sand, 1-3% slopes (Bh/BhB)
- Crowley-Vidrine silt loams (Cr)
- Edgerly loam, 0-1% slopes (Mr)
- Gore silt loam, 1-5% slopes (Gg/GrC)
- Guyton silt loam, occasionally flooded (Go)
- Guyton-Messer silt loams (Gy)
- Kinder-Messer silt loams (Kd)
- Messer-Guyton silt loams, gently undulating (Mh)
- Mowata-Vidrine silt loams (Mt)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2e: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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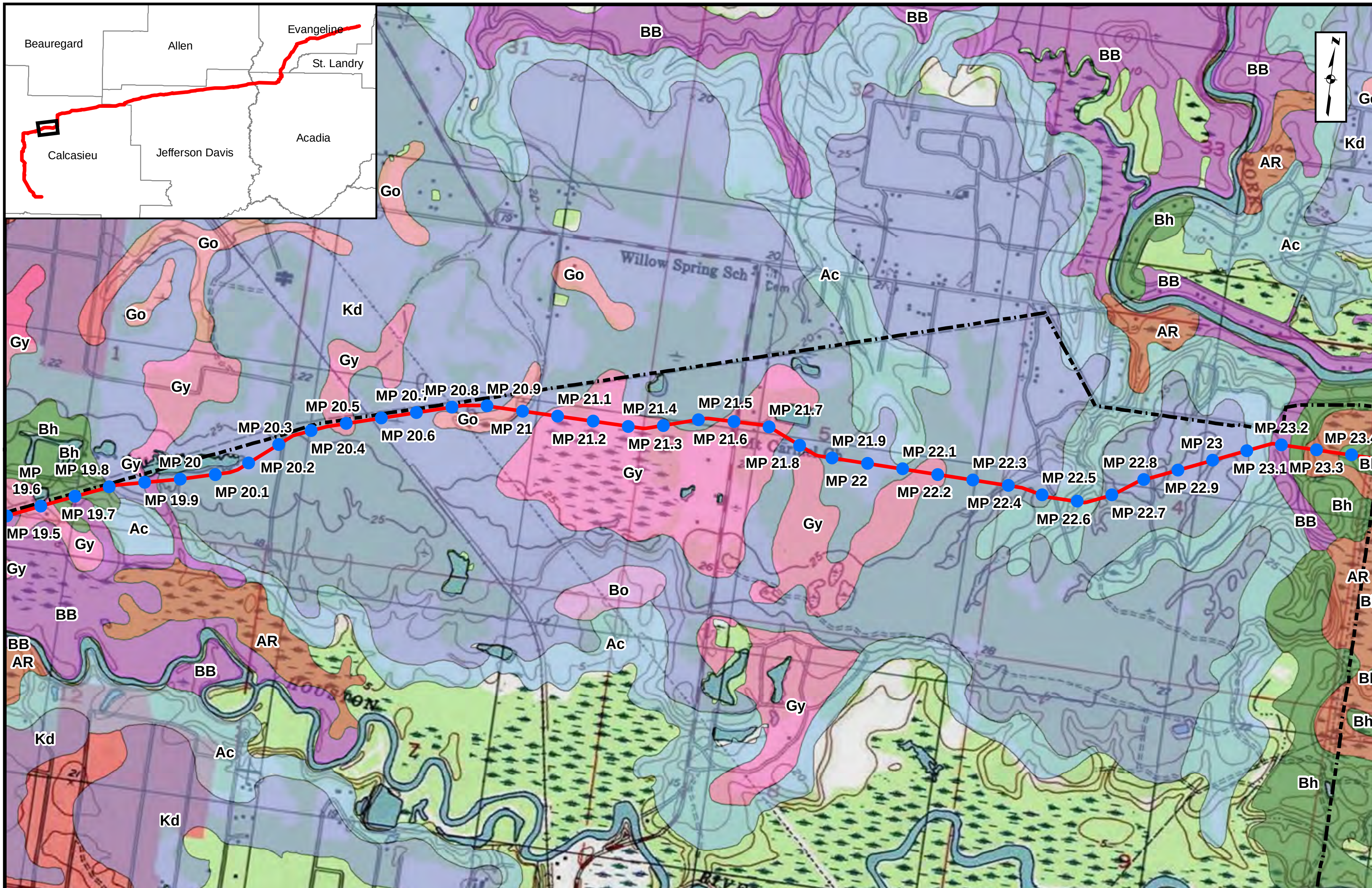

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Arat mucky silt loam (AR)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Bienville loamy fine sand, 1-3% slopes (Bh/BhB)
- Brimstone silt loam (Bo)
- Guyton silt loam, occasionally flooded (Go)
- Guyton-Messer silt loams (Gy)
- Kinder-Messer silt loams (Kd)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2f: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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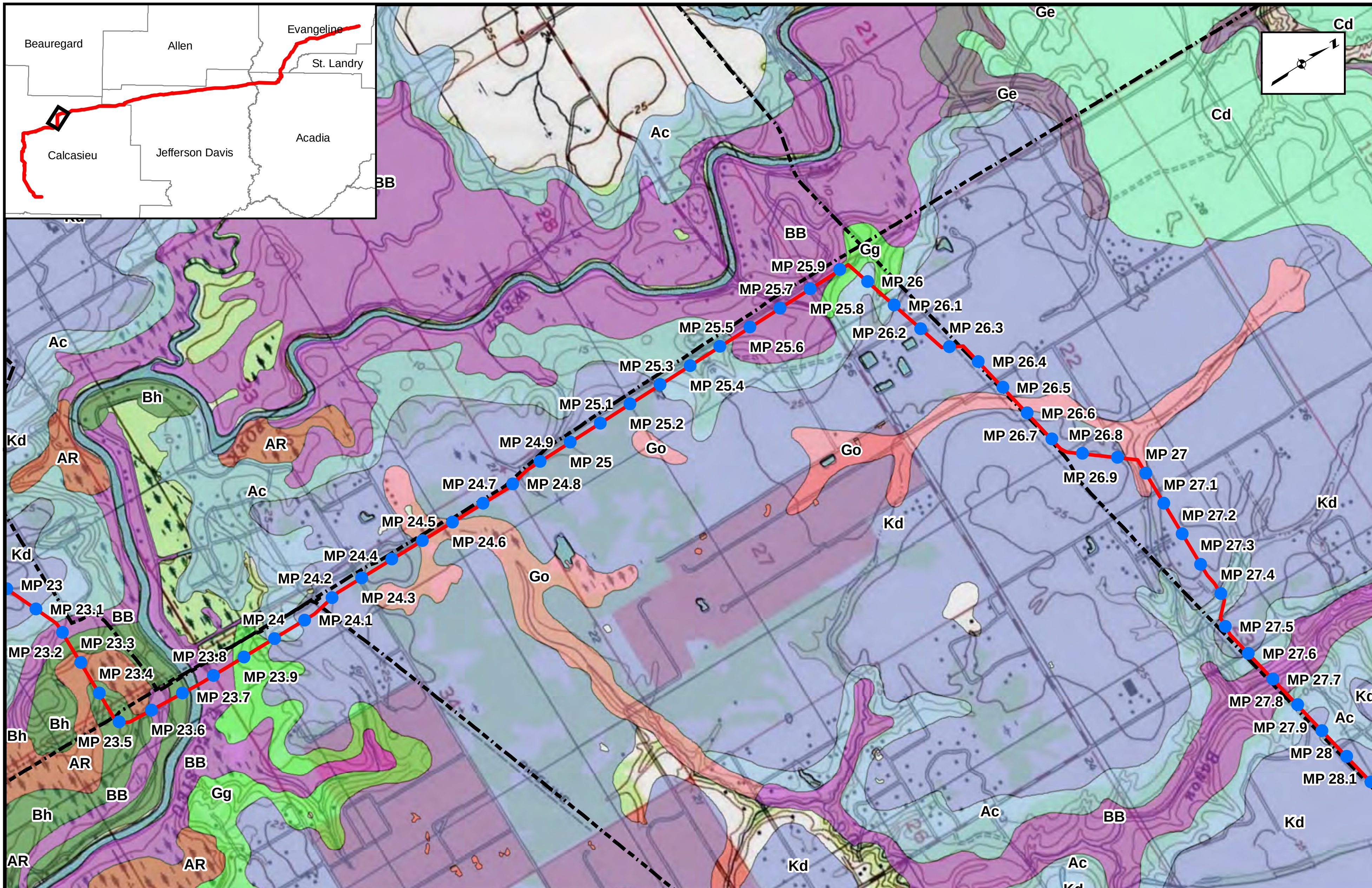

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Arat mucky silt loam (AR)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Bienville loamy fine sand, 1-3% slopes (Bh/BhB)
- Caddo-Messer complex, 0-1% slopes (Cd/CdA)
- Glenmora silt loam, 1-3% slopes (Ge/GnB)
- Gore silt loam, 1-5% slopes (Gg/GrC)
- Guyton silt loam, occasionally flooded (Go)
- Kinder-Messer silt loams (Kd)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2g: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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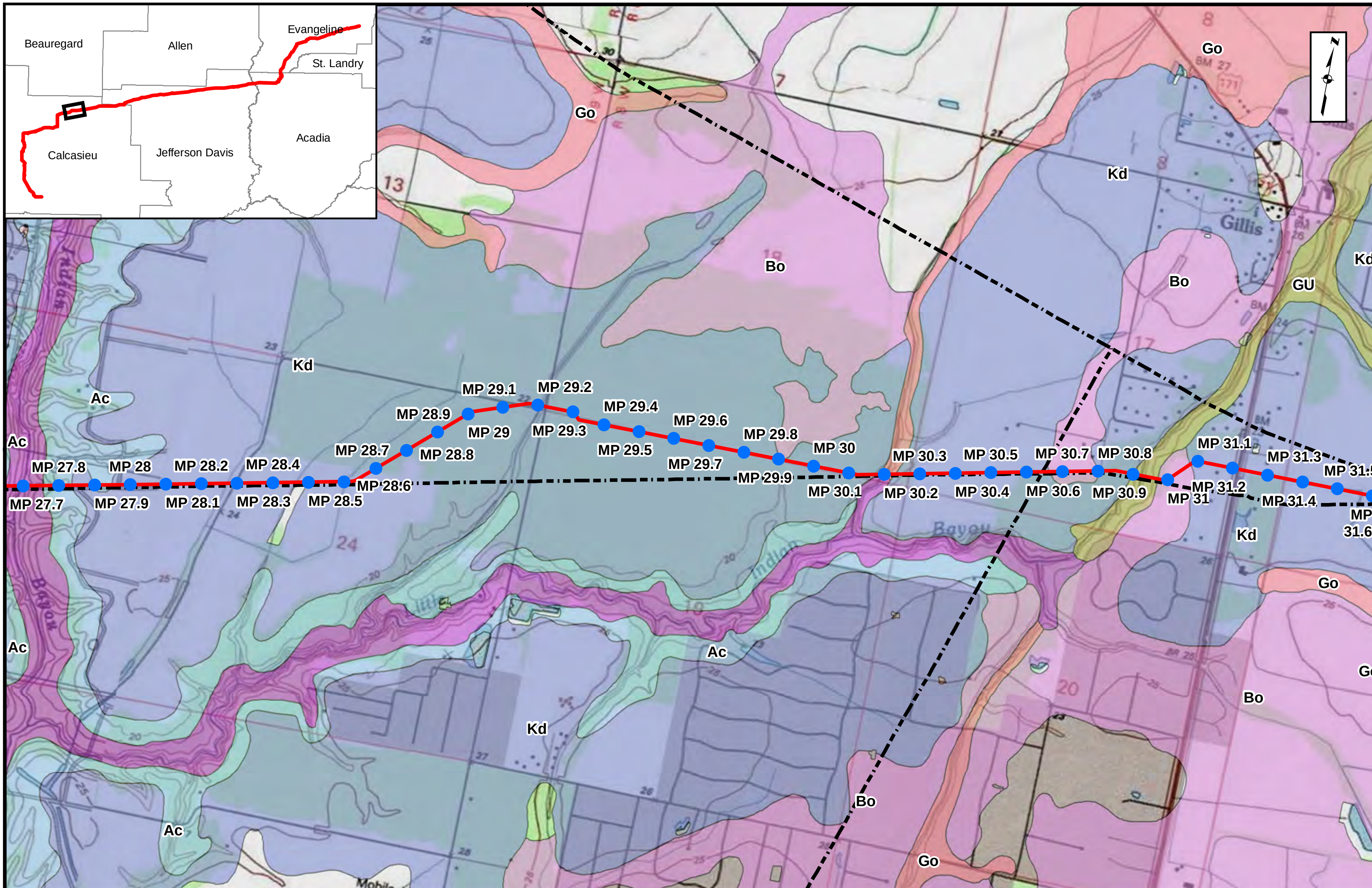

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Brimstone silt loam (Bo)
- Caddo-Messer complex, 0-1% slopes (Cd/CdA)
- Guyton and Bienville soils frequently flooded (GU/GUA)
- Guyton silt loam, occasionally flooded (Go)
- Kinder-Messer silt loams (Kd)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000
Feet

Figure 4.2-2h: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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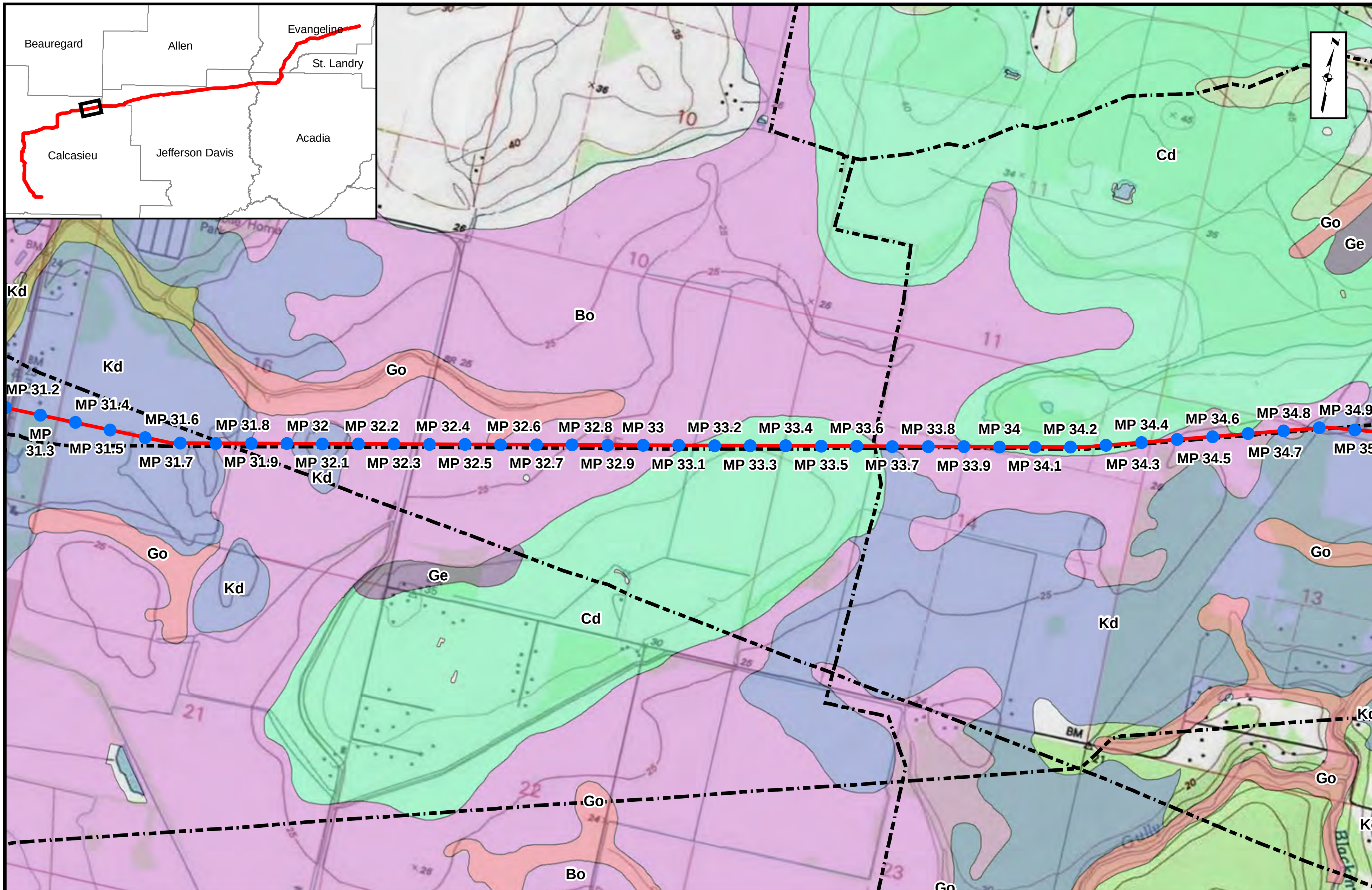

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Brimstone silt loam (Bo)
- Caddo-Messer complex, 0-1% slopes (Cd/CdA)
- Glenmora silt loam, 1-3% slopes (Ge/GnB)
- Guyton and Bienville soils frequently flooded (GU/GUA)
- Guyton silt loam, occasionally flooded (Go)
- Kinder-Messer silt loams (Kd)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2i: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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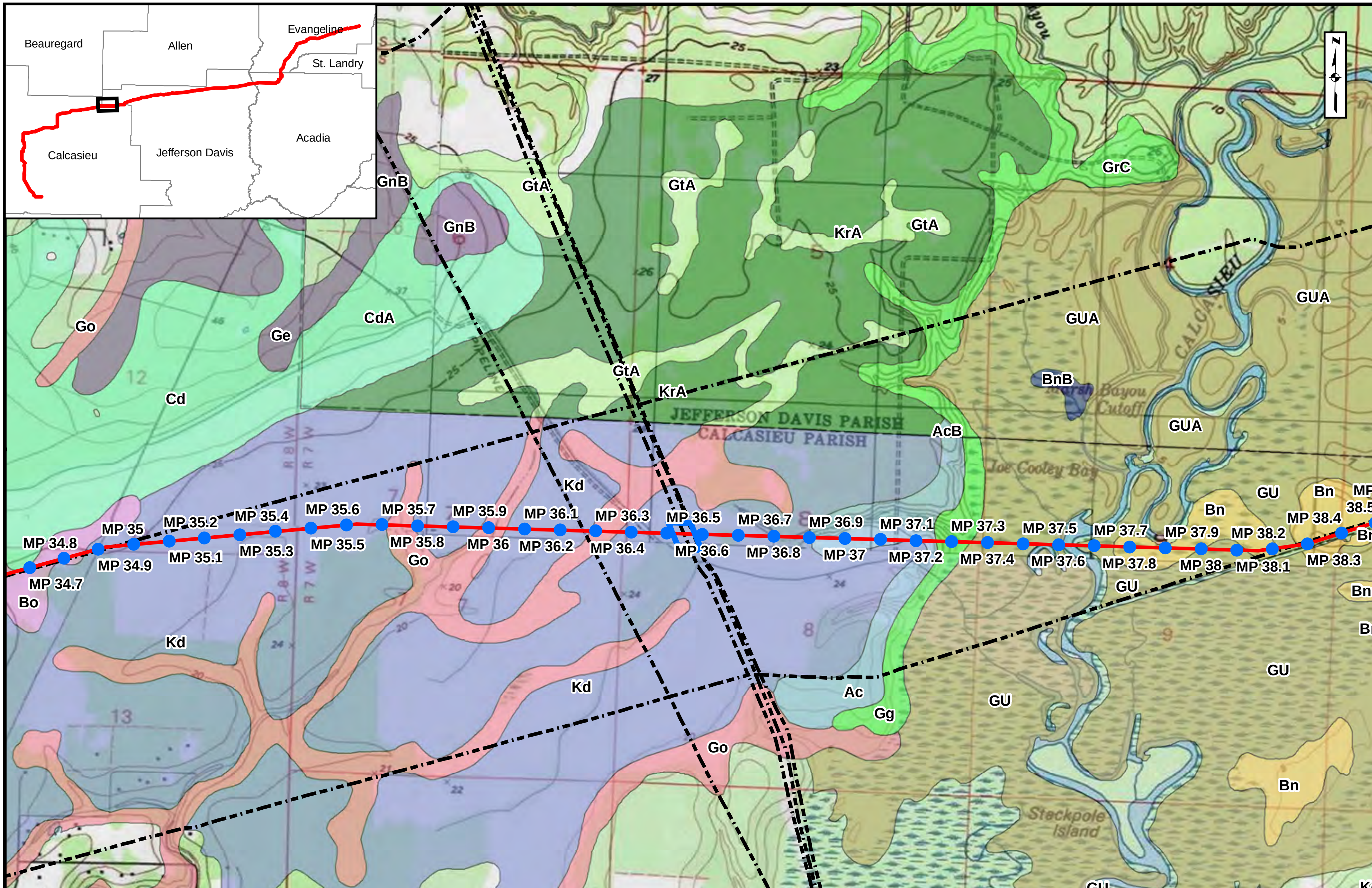

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Bienville-Cahaba-Guyton-Complex, gently undulating (Bn)
- Bienville-Guyton complex, gently undulating (BnB)
- Brimstone silt loam (Bo)
- Caddo-Messer complex, 0-1% slopes (Cd/CdA)
- Glenmora silt loam, 1-3% slopes (Ge/GnB)
- Gore silt loam, 1-5% slopes (Gg/GrC)
- Guyton and Bienville soils frequently flooded (GU/GUA)
- Guyton silt loam, 0-1% slopes, occasionally flooded (GtA)
- Guyton silt loam, occasionally flooded (Go)
- Kinder-Gist complex, 0-1% slopes (KrA)
- Kinder-Messer silt loams (Kd)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2j: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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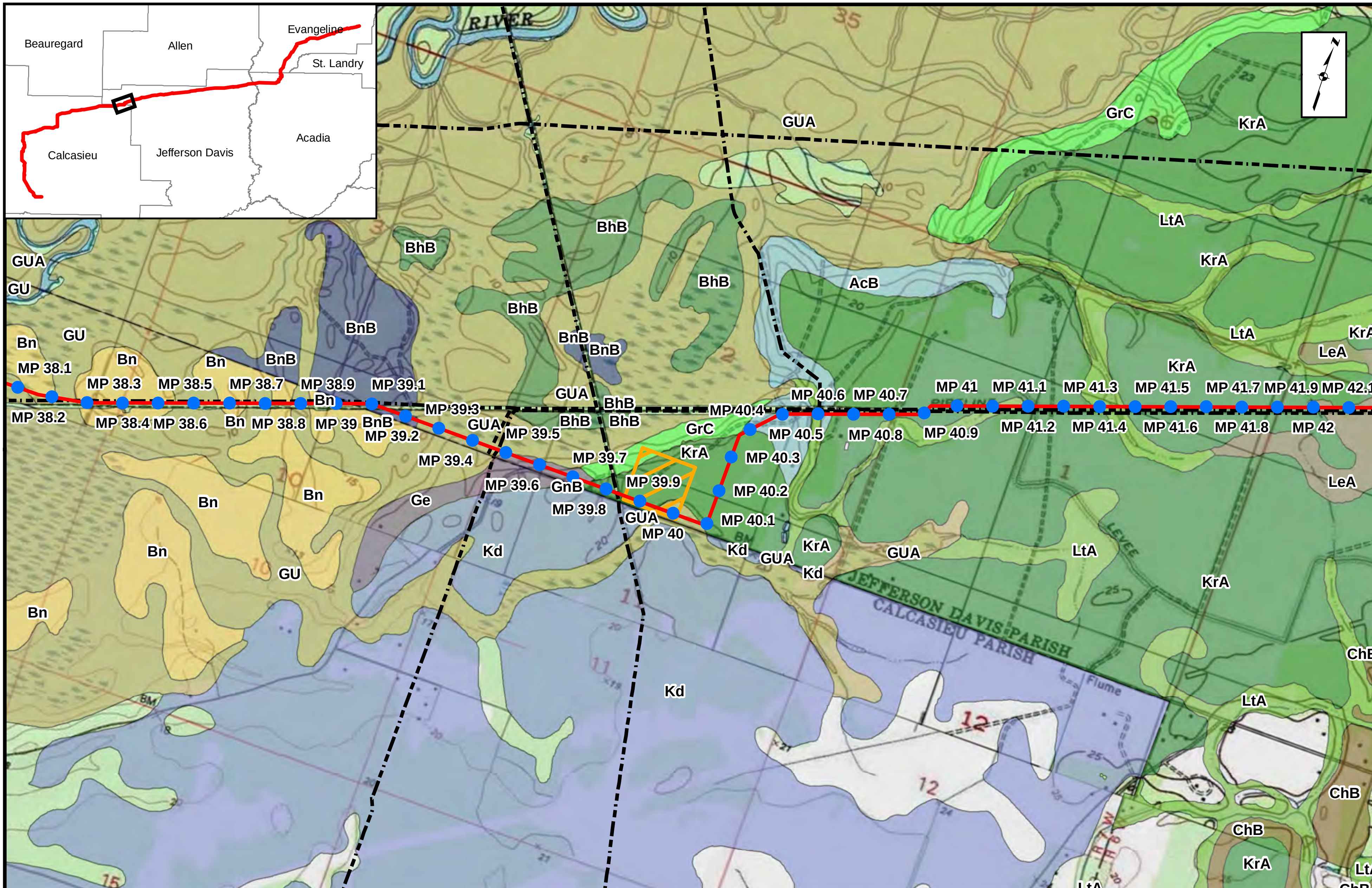

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Bienville loamy fine sand, 1-3% slopes (Bh/BhB)
- Bienville-Cahaba-Guyton-Complex, gently undulating (Bn)
- Bienville-Guyton complex, gently undulating (BnB)
- Cahaba fine sandy loam, 1 to 3 percent slopes (ChB)
- Glenmora silt loam, 1-3% slopes (Ge/GnB)
- Gore silt loam, 1-5% slopes (Gg/GrC)
- Guyton and Bienville soils frequently flooded (GU/GUA)
- Kinder-Gist complex, 0-1% slopes (KrA)
- Kinder-Messer silt loams (Kd)
- Leton silt loam (LeA/Lt)
- Leton silt loam, occasionally flooded (LtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2k: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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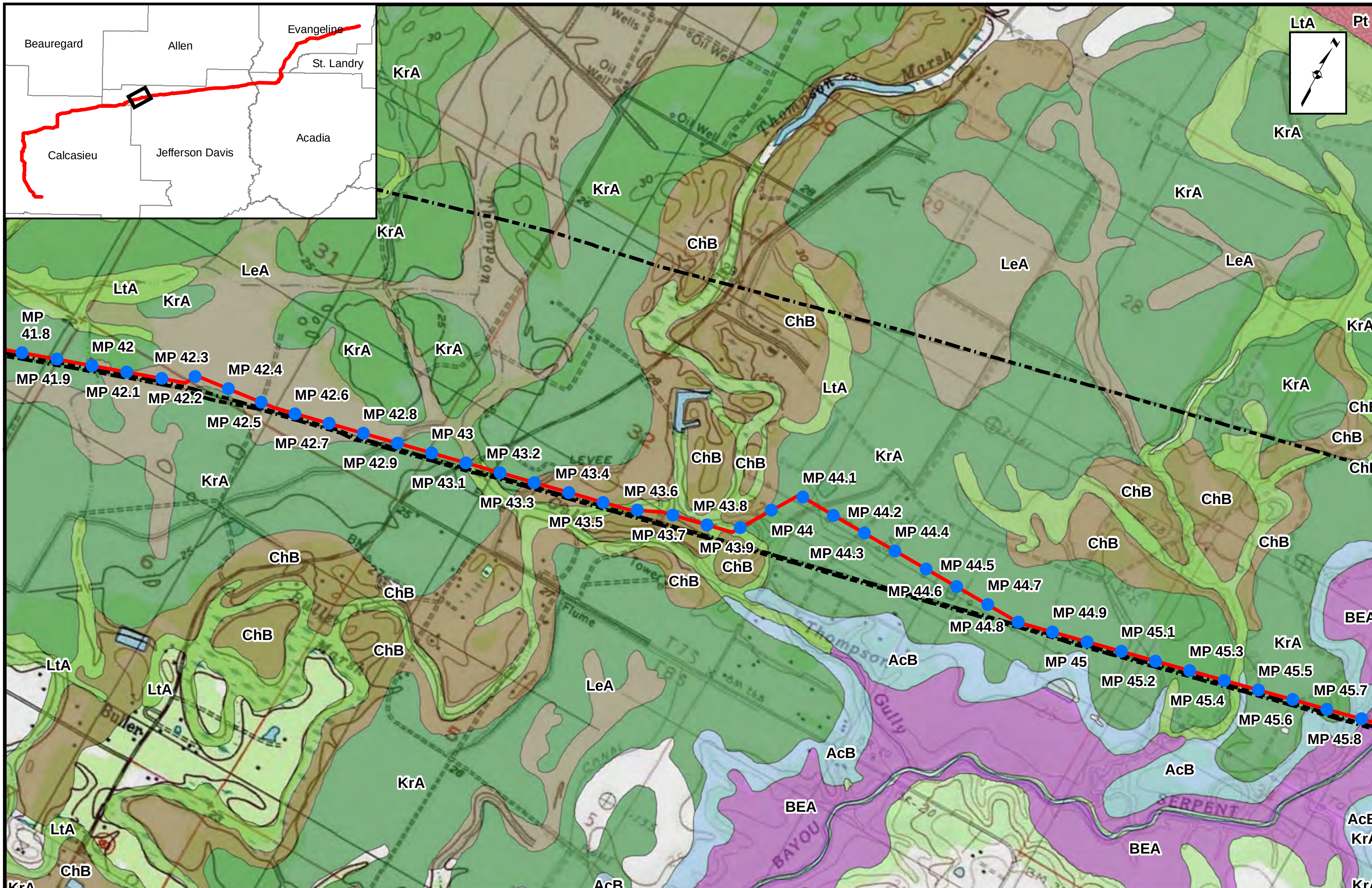

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Cahaba fine sandy loam, 1 to 3 percent slopes (ChB)
- Gore silt loam, 1-5% slopes (Gg/GrC)
- Kinder-Gist complex, 0-1% slopes (KrA)
- Leton silt loam (LeA/Lt)
- Leton silt loam, occasionally flooded (LtA)
- Pits, sand and gravel (Pt)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2I: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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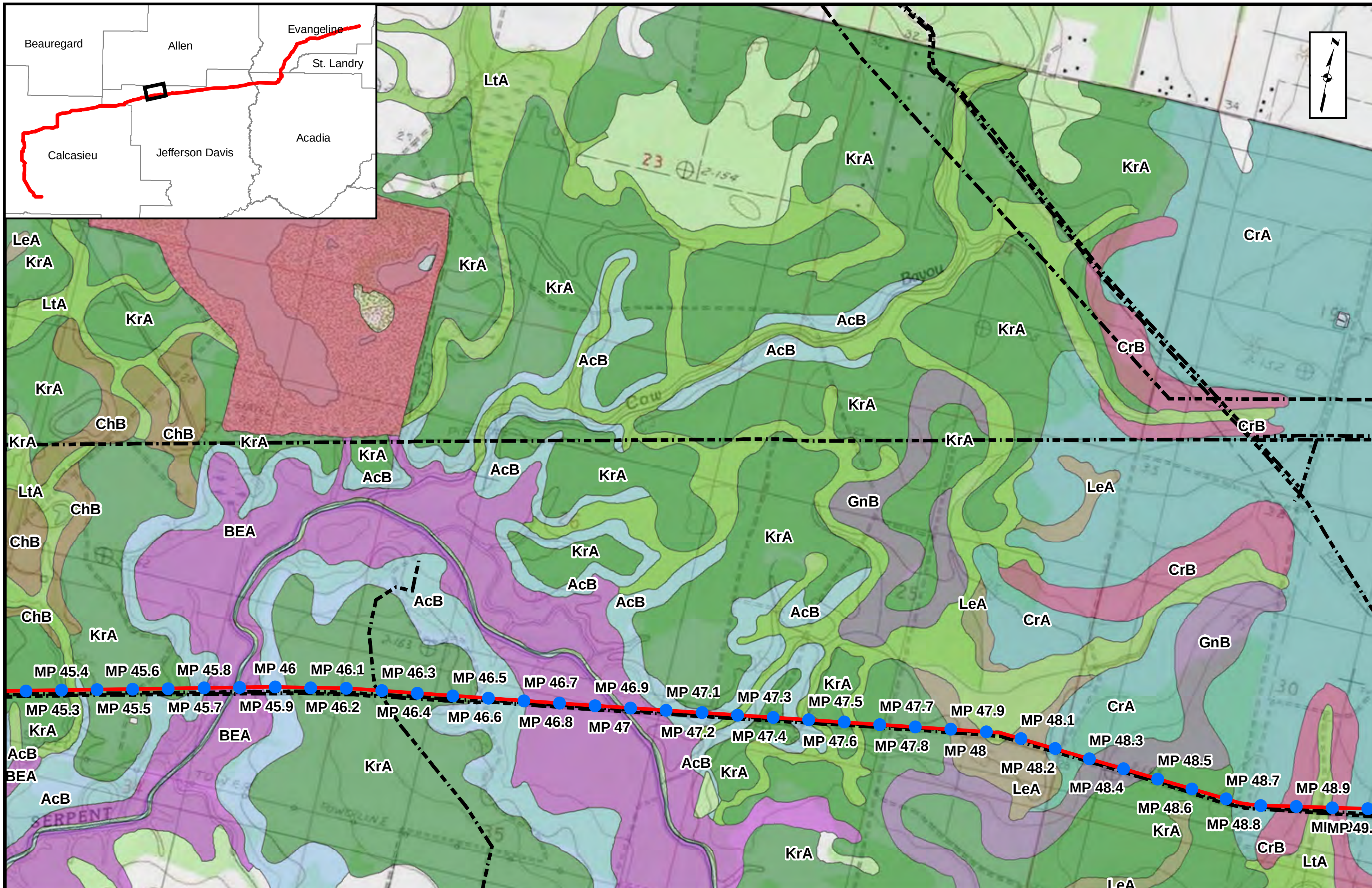

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Cahaba fine sandy loam, 1 to 3 percent slopes (ChB)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Crowley-Vidrine complex, 1-3% slopes (CrB)
- Glenmora silt loam, 1-3% slopes (Ge/GnB)
- Kinder-Gist complex, 0-1% slopes (KrA)
- Leton silt loam (LeA/Lt)
- Leton silt loam, occasionally flooded (LtA)
- Pits, sand and gravel (Pt)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000
Feet

Figure 4.2-2m: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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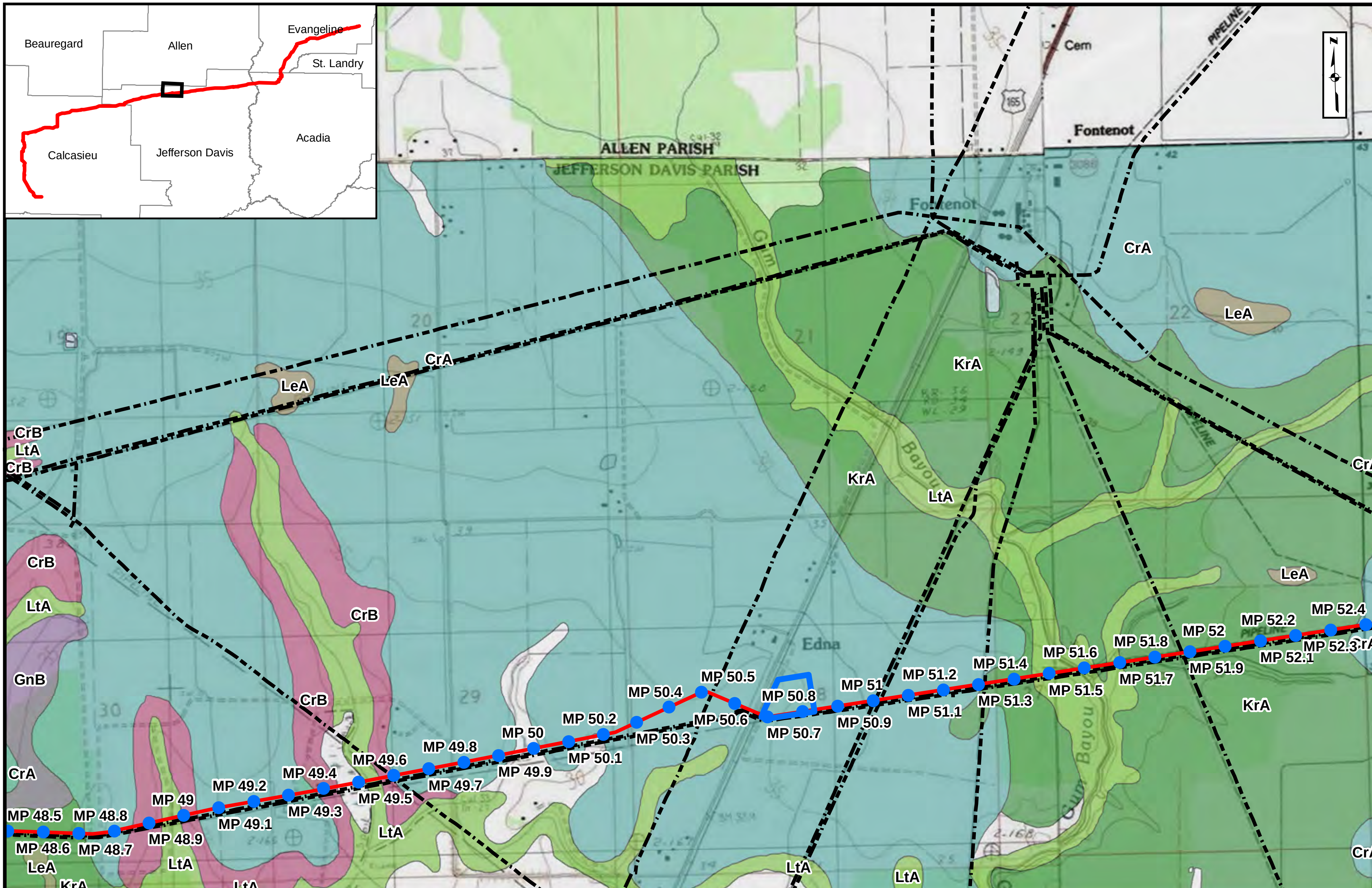

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Crowley-Vidrine complex, 1-3% slopes (CrB)
- Glenmora silt loam, 1-3% slopes (Ge/GnB)
- Kinder-Gist complex, 0-1% slopes (KrA)
- Leton silt loam (LeA/Lt)
- Leton silt loam, occasionally flooded (LtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2n: Soils along Proposed Pipeline Route
Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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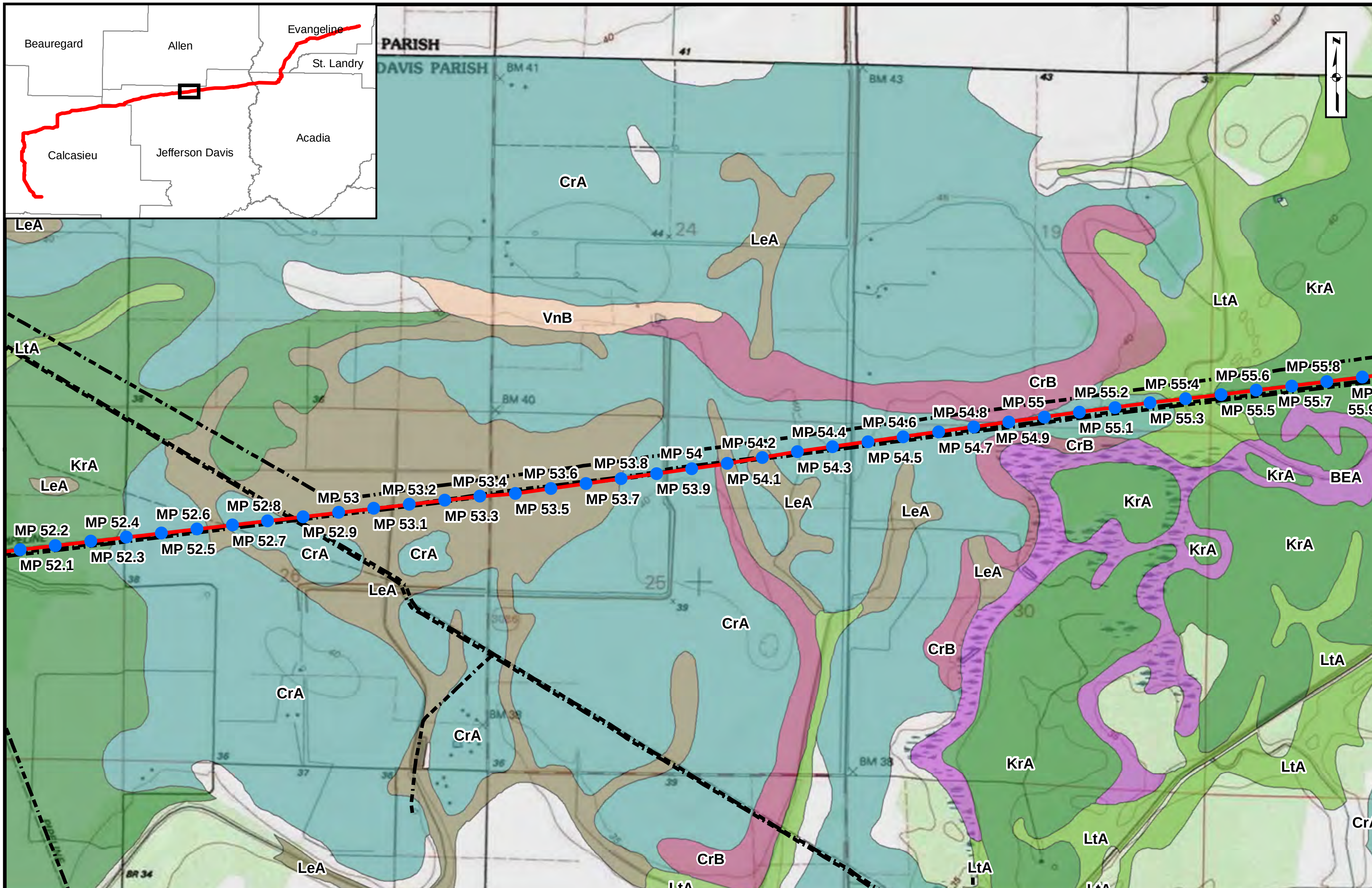

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Crowley-Vidrine complex, 1-3% slopes (CrB)
- Kinder-Gist complex, 0-1% slopes (KrA)
- Leton silt loam (LeA/Lt)
- Leton silt loam, occasionally flooded (LtA)
- Vidrine silt loam, 1-3% slopes (Vn/VnB)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2o: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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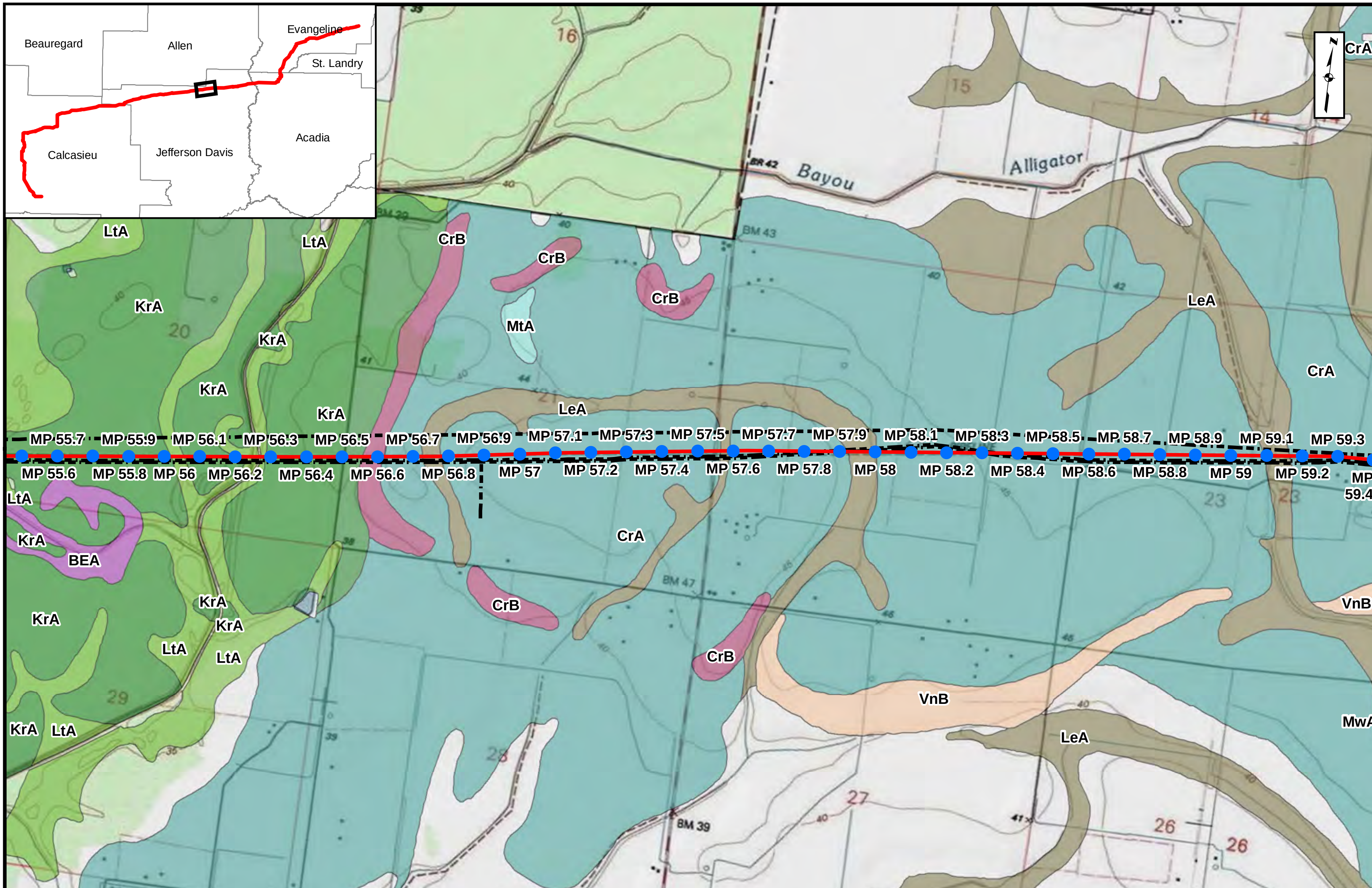

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Crowley-Vidrine complex, 1-3% slopes (CrB)
- Kinder-Gist complex, 0-1% slopes (KrA)
- Leton silt loam (LeA/Lt)
- Leton silt loam, occasionally flooded (LtA)
- Mowata silt loam, 0-1% slopes (Mt/MtA)
- Mowata-Vidrine complex, 0-1% slopes (MwA)
- Vidrine silt loam, 1-3% slopes (Vn/VnB)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2p: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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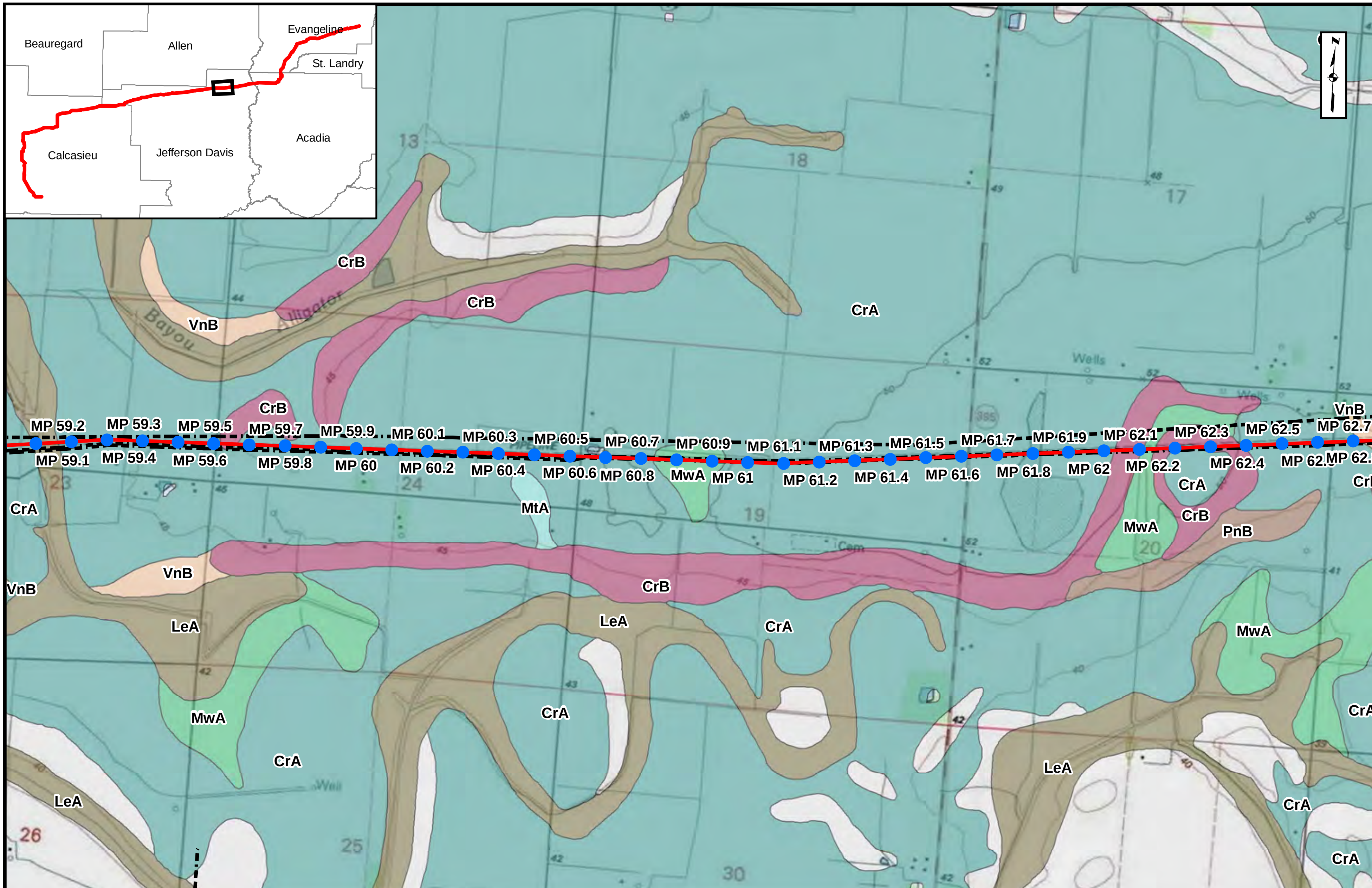

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Crowley-Vidrine complex, 1-3% slopes (CrB)
- Leton silt loam (LeA/Lt)
- Mowata silt loam, 0-1% slopes (Mt/MtA)
- Mowata-Vidrine complex, 0-1% slopes (MwA)
- Pineisland loam, 1-3% slopes (PnB)
- Vidrine silt loam, 1-3% slopes (Vn/VnB)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2q: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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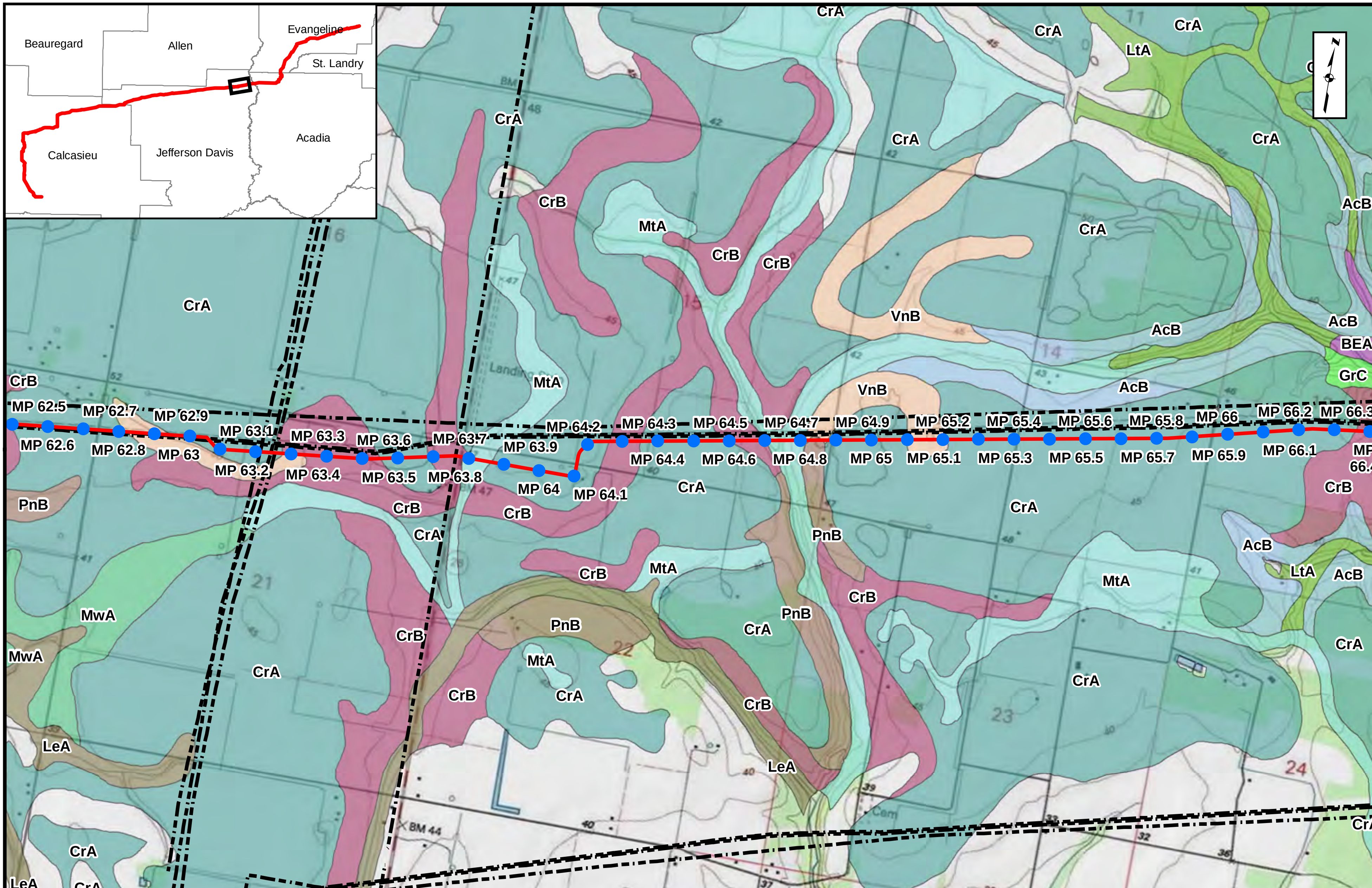

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Crowley-Vidrine complex, 1-3% slopes (CrB)
- Gore silt loam, 1-5% slopes (Gg/GrC)
- Leton silt loam (LeA/Lt)
- Leton silt loam, occasionally flooded (LtA)
- Mowata silt loam, 0-1% slopes (Mt/MtA)
- Mowata-Vidrine complex, 0-1% slopes (MwA)
- Pineisland loam, 1-3% slopes (PnB)
- Vidrine silt loam, 1-3% slopes (Vn/VnB)

NOTES:
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

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Feet

Figure 4.2-2r: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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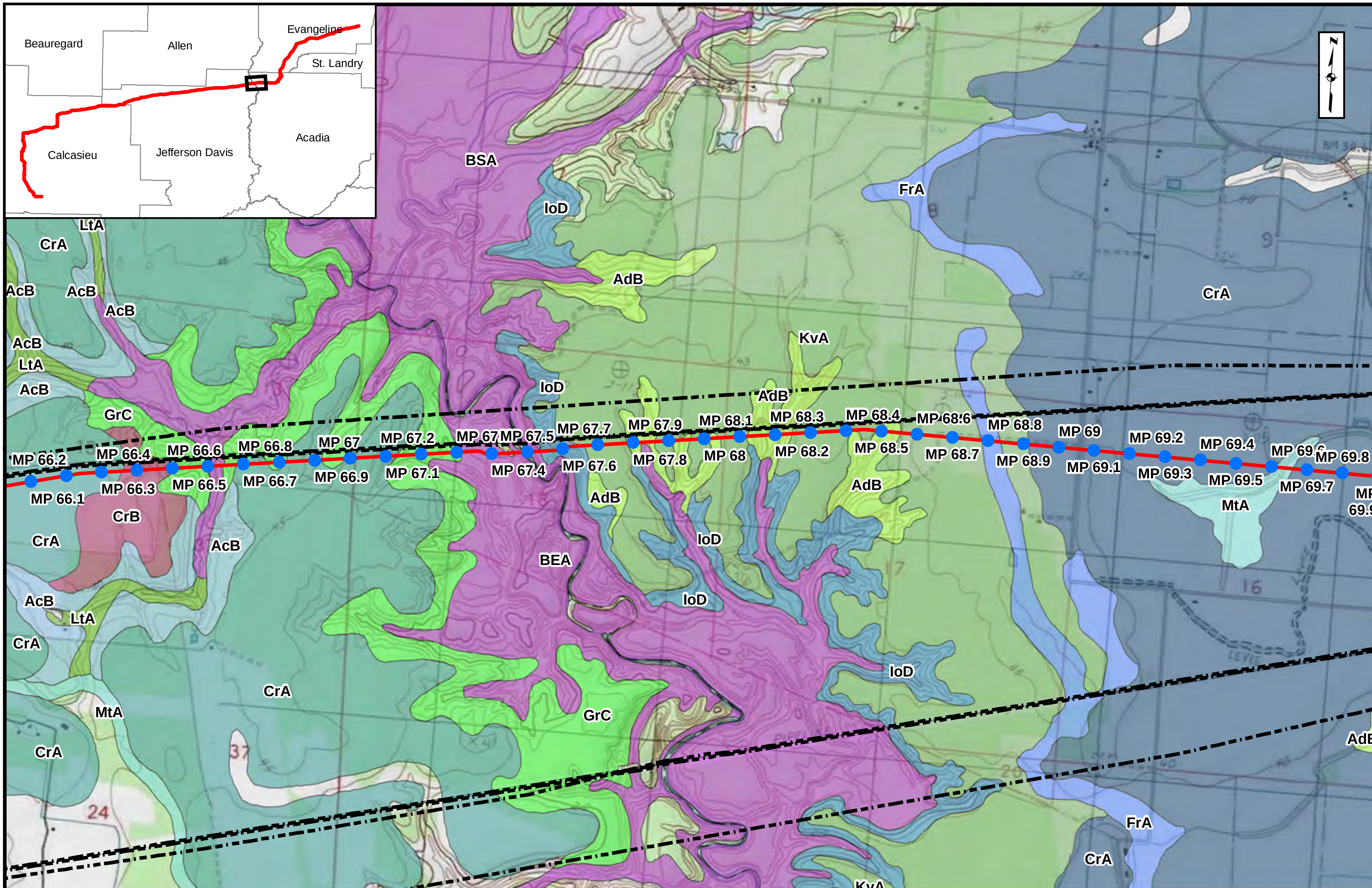

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Acadiana silt loam, 1-3% slopes (AdB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley silt loam, 0-1% slopes (CrA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Crowley-Vidrine complex, 1-3% slopes (CrB)
- Frost silt loam, 0-1% slopes, occasionally flooded (FrA)
- Gore silt loam, 1-5% slopes (Gg/GrC)
- Iota silt loam, 3-8% slopes (IoD)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Leton silt loam, occasionally flooded (LtA)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure **4.2-2**s: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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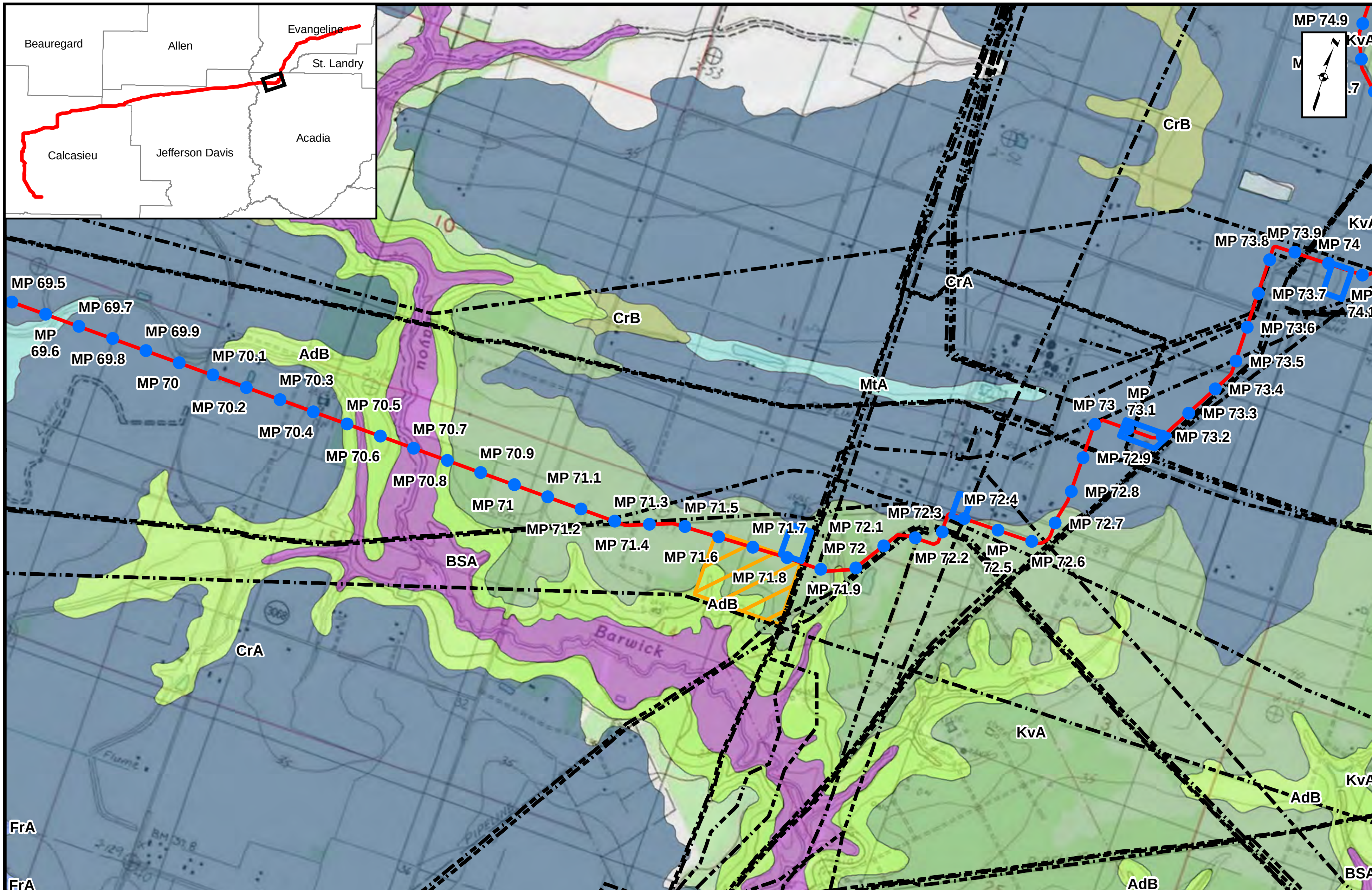

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadiana silt loam, 1-3% slopes (AdB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley silt loam, 0-1% slopes (CrA)
- Crowley silt loam, 1-3% slopes (CrB)
- Frost silt loam, 0-1% slopes, occasionally flooded (FrA)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2t: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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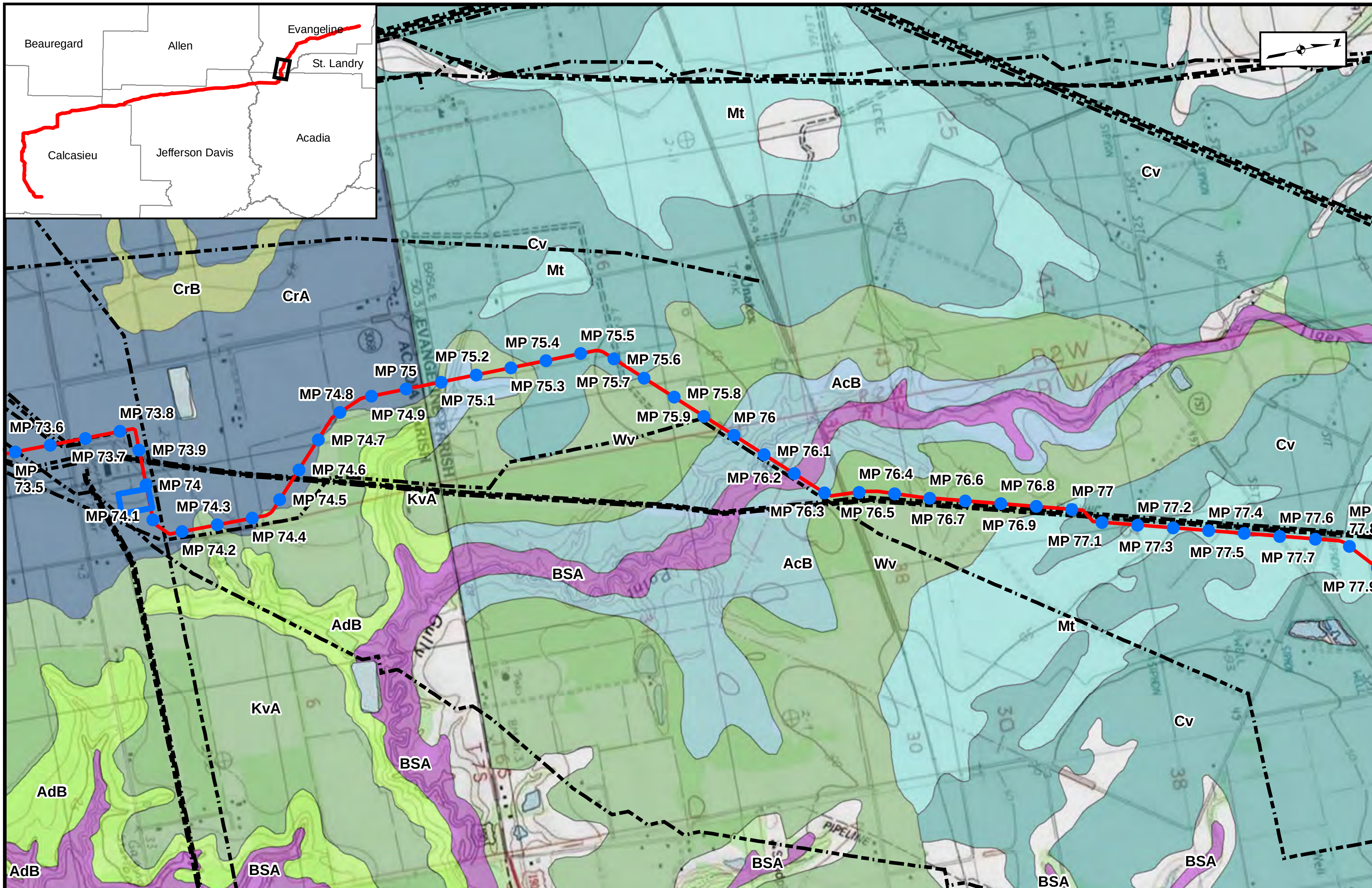

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Acadiana silt loam, 1-3% slopes (AdB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley silt loam, 0-1% slopes (CrA)
- Crowley silt loam, 1-3% slopes (CrB)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2u: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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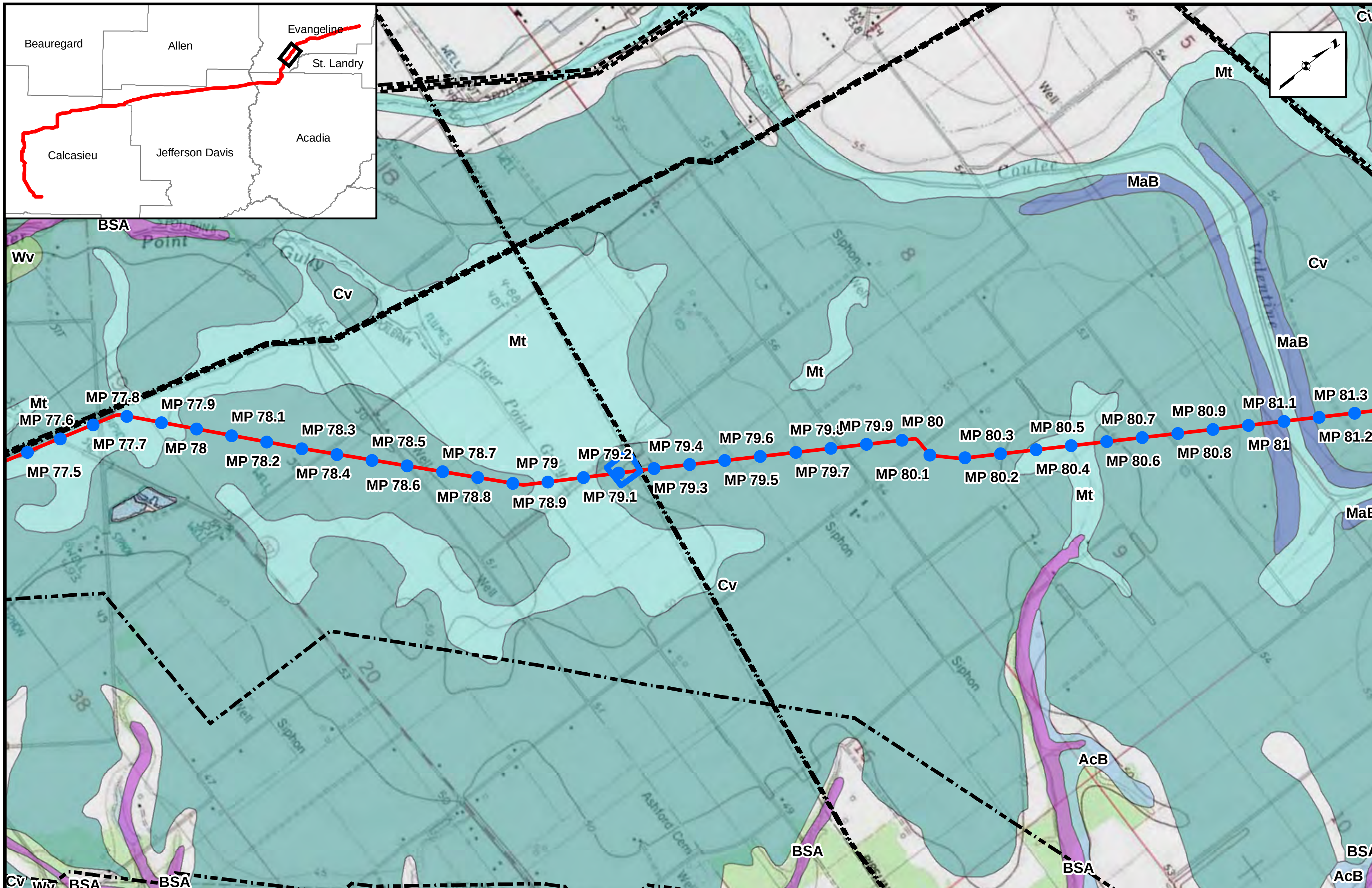

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Mamou silt loam, 1-3% slopes (MaB)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2v: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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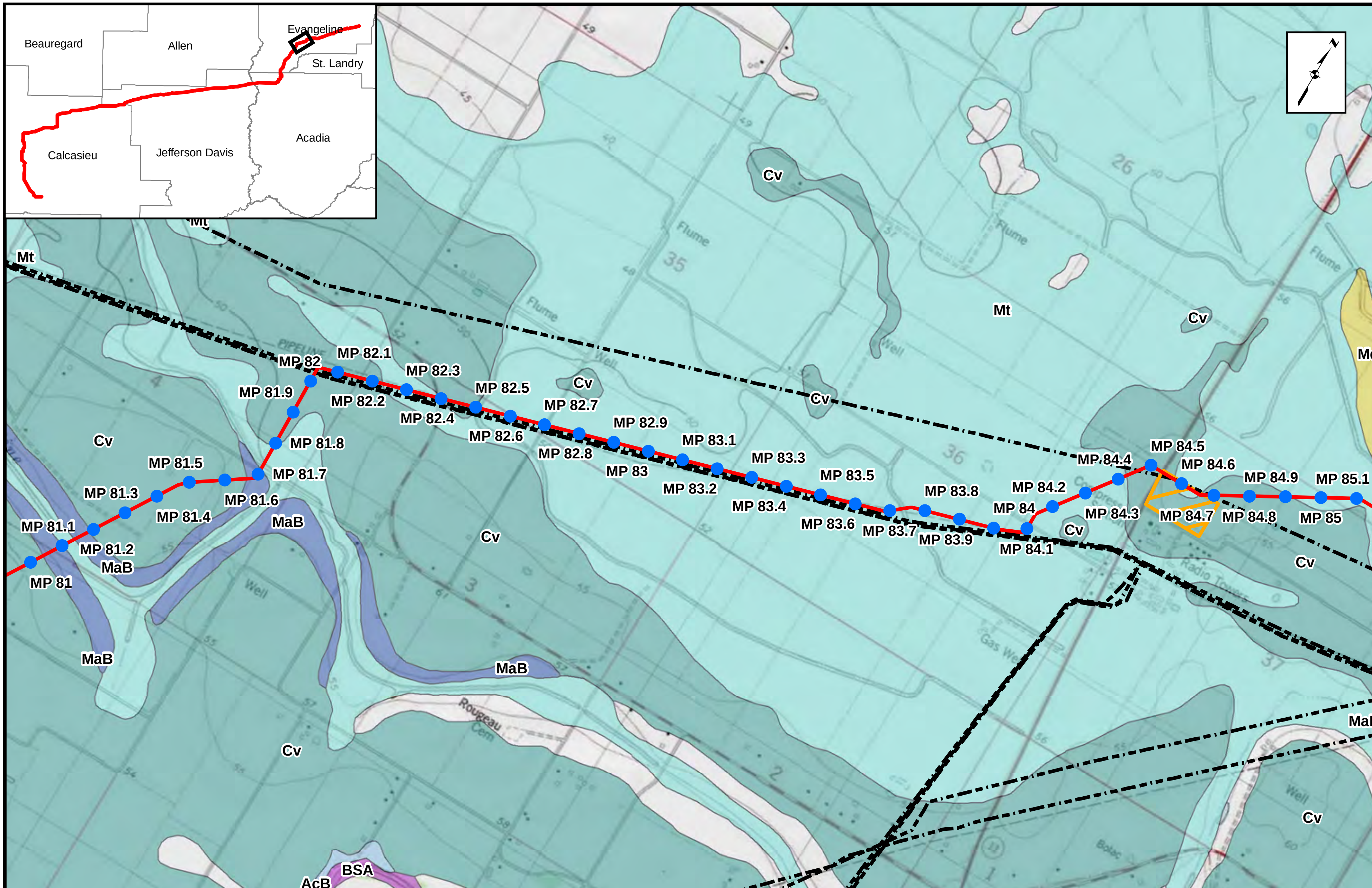

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Mamou silt loam, 1-3% slopes (MaB)
- Midland silty clay loam, 0-1% slopes (Md)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2w: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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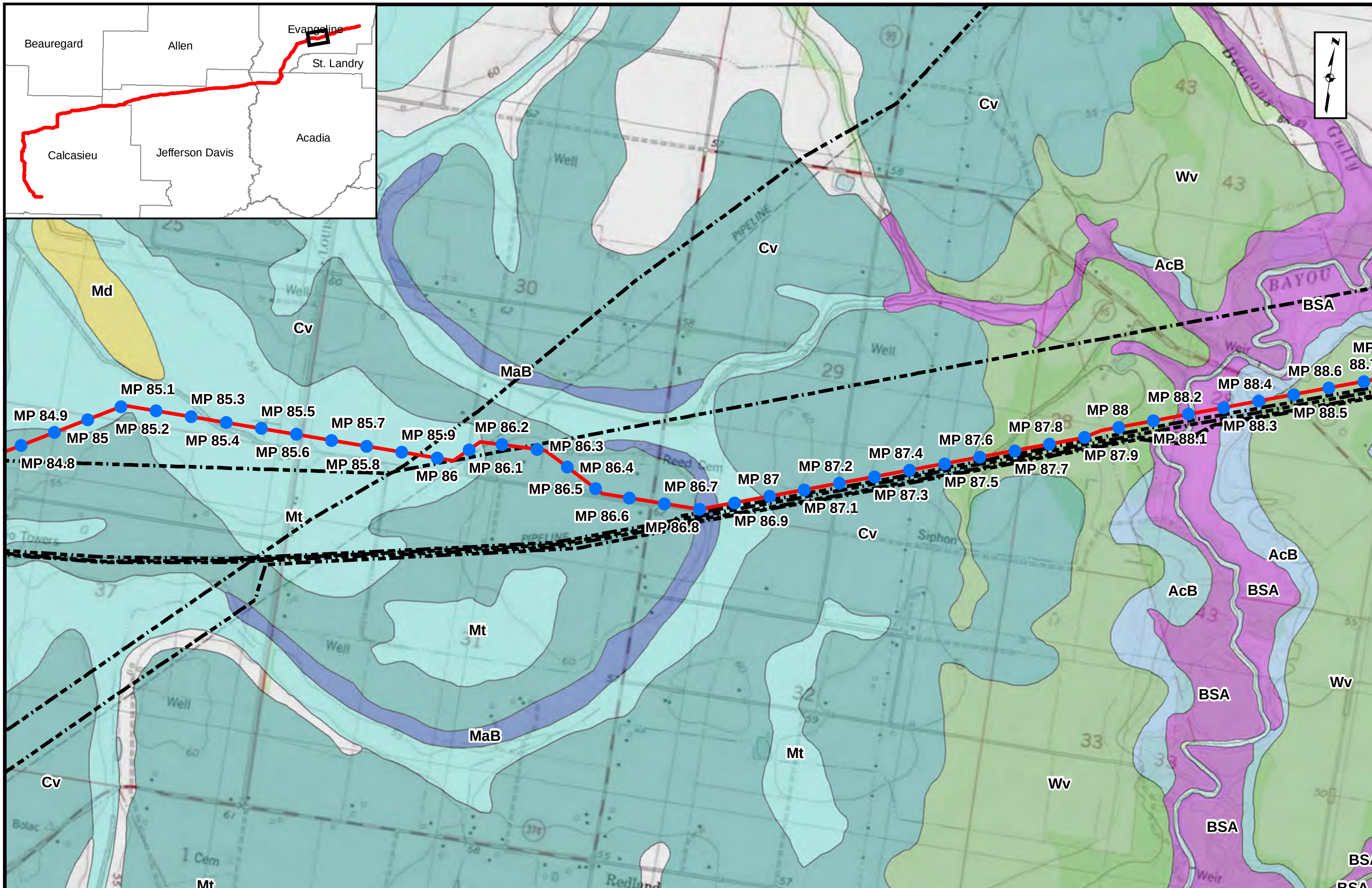

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Mamou silt loam, 1-3% slopes (MaB)
- Midland silty clay loam, 0-1% slopes (Md)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2x: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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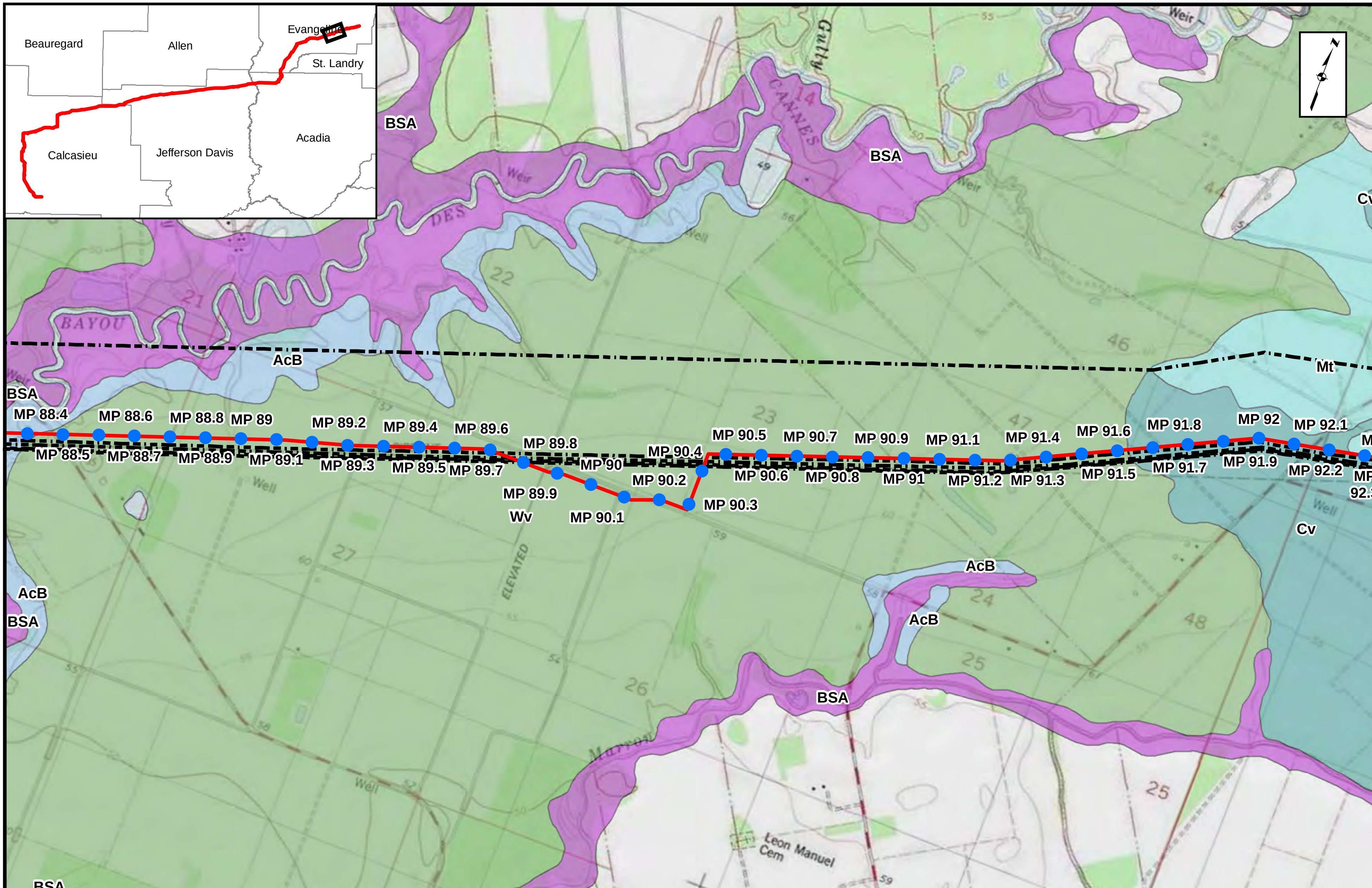

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2y: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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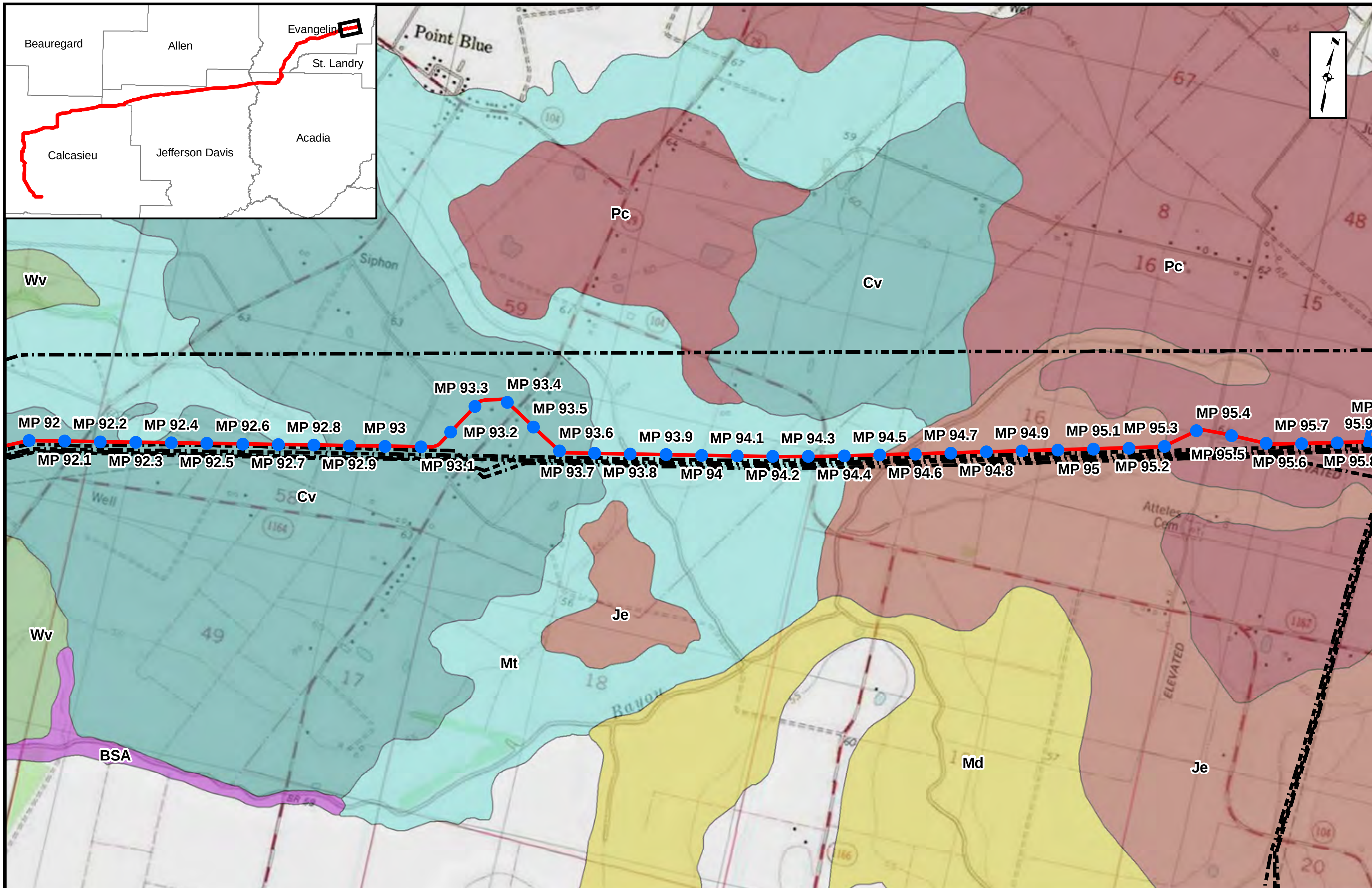

Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Jeanerette silt loam (Je)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Midland silty clay loam, 0-1% slopes (Md)
- Mowata silt loam, 0-1% slopes (Mt/MtA)
- Patoutville-Crowley complex, 0-1% slopes (Pc)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
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Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure 4.2-2z: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

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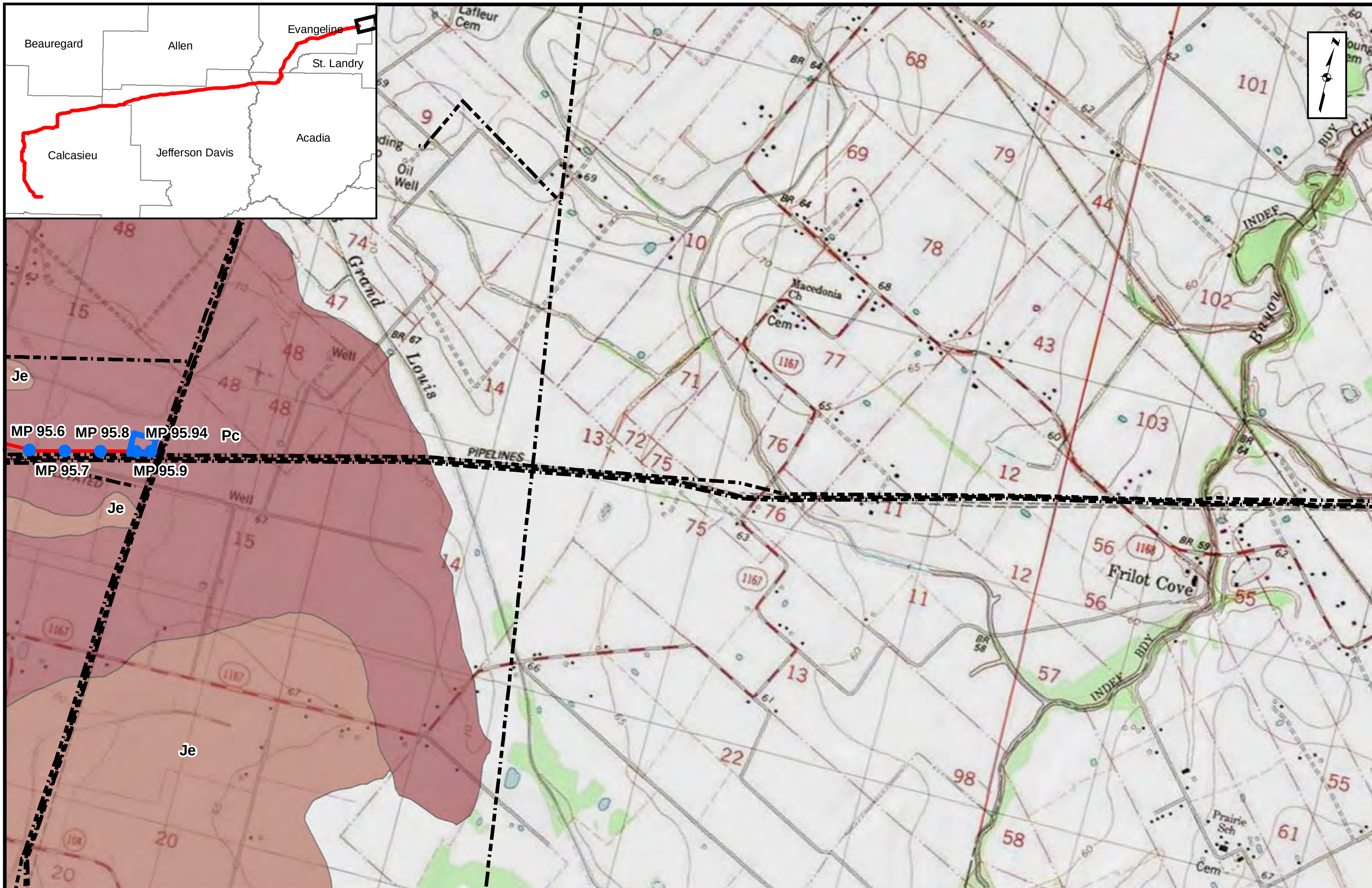


Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

- Jeanerette silt loam (Je)
- Patoutville-Crowley complex, 0-1% slopes (Pc)

NOTES:
Basemap Imagery: ESRI World Imagery and Transportation
Reproduced under license in ArcGIS 10.4
Soil Data: USDA NRCS SSURGO
Natural Gas Pipelines: Bechtel

0 1,000 2,000 Feet

Figure **4.2-2**aa: Soils along Proposed Pipeline Route Resource Report 7
Driftwood LNG Project
Driftwood LNG LLC and Driftwood Pipeline LLC
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

P:\Projects\0343777 Bechtel Corp Driftwood LNG Release One.BW\GIS\MXD\RR\RR7\Fig7_3_PipelineSoils.mxd - summer.king - 1/31/2017

APPENDIX E

RISK MANAGEMENT PLAN FOR THE BOLLINGER PARCEL

DRIFTWOOD LNG

March 1, 2017

Percy V. Harris
Administrator, Remediation Division
Louisiana Department of Environmental Quality
Office of Environmental Assessment
P.O. Box 4314
Baton Rouge, LA 70821-4314

RE: Driftwood LNG Facility
FERC Docket PF16-6-000
Agency Interest No. 40194

Dear Mr. Harris:

On January 17, 2017 Driftwood LNG LLC (Driftwood) met with Mr. Bill Schramm and yourself at LDEQ offices to discuss recent site investigations at the Driftwood Facility and plans for avoidance of contaminated media during construction of the Driftwood LNG facility. During that meeting, it was suggested that Driftwood develop a risk management plan for LDEQ review. The intent of the Risk Management Plan is to communicate Driftwood's plans for avoidance and non-disturbance of areas with detected contamination.

Please find attached the Draft Risk Management Plan for your review. Please note this plan follows a Table of Contents previously presented to LDEQ.

Driftwood is requesting LDEQ offer any comments or feedback with respect to the Risk Management Plan once LDEQ has had an opportunity to review. I will be contacting you early the week of 06 March to arrange a time for a follow-up discussion that is suitable.

If you have any questions, please feel free to contact me at (713) 235-9611 or via email at rick.greiner@driftwoodlng.com.

Sincerely,

John F. (Rick) Greiner, CPG

Driftwood LNG Environmental Manager

Cc: Mark S. Wilson, Geologist 3, LDEQ/OEA/RD/Group2/ARO

Cathy Rourke, VP HSE

Rachel Candelet, VP Legal

RISK MANAGEMENT PLAN FOR THE DRIFTWOOD LNG LLC PROJECT
CALCASIEU PARISH, LOUISIANA, AI # 40194

1.0 Project Overview

Driftwood LNG LLC (DWLNG) is proposing a liquefied natural gas (LNG) production and export facility (the Facility), including marine facilities to allow for the safe berthing and un-berthing of three LNG ships up to 216,000 cubic meters each, to be located on the west bank of the Calcasieu River between mile markers 22 and 23 near Carlyss, Calcasieu Parish, Louisiana. The Facility will include five liquefaction plants capable of producing up to 26 million tonnes per annum of LNG for global export. To provide natural gas feedstock to the Facility, Driftwood Pipeline LLC (DWLP) is proposing an associated approximately 96-mile interstate natural gas pipeline (the Pipeline). The Pipeline will include three compressor stations, as well as a 3.4-mile lateral pipeline (see Figure P1-0000-00001).

2.0 Purpose

The purpose of this Risk Management Plan is to describe the steps for managing avoidance and non-disturbance of known contamination during construction of the LNG facility. The plan identifies the location of known contamination and establishes a zone of separation between known contamination and planned construction activities.

3.0 Summary of Construction Activities and Schedule

This Risk Management Plan (RMP) will focus on construction activities on the northeastern portion of the Facility. The property will be leased from the Lake Charles Harbor and Terminal District. The areas of interest are the North Slip and northern shore of the North Slip. The following construction activities will be undertaken in the order listed:

- Avoidance of existing mooring dolphins and batter piles
- Demolition of existing breasting dolphins and vertical piles
- Removal of north shore revetment matting
- Excavation and dredging of North Slip and southern contiguous land for marine berths
- Replacement of revetment matting
- Installation of vertical piles for new pipe bridge and loading platform
- Installation of new breasting dolphin batter piles

4.0 Conceptual Site Model

A Conceptual Site Model (CSM) is a written and/or illustrative representation of the physical, chemical, and biological processes that control the transport, migration, and actual/potential impacts of contamination to human and/or ecological receptors. The following sections describe the sources of contamination, contaminant migration pathways and potential receptors.

4.1 Sources of Contamination

The Fredeman Pit Site and the Bollinger Calcasieu Site are identified sources of contamination that lie outside and north of the DWLNG Facility boundary. Tract 29 is a small area of residual contamination on the far eastern edge of the north shore of the North Slip (see Figure 1-4).

4.1.1 Fredeman Pit Site

The Fredeman Pit Site (FPS) has been investigated by the Louisiana Department of Environmental Quality (LDEQ). *The Fredeman Pit Site, Sulphur, LA Triad Approach Site Investigation Report by Eagle*

Driftwood LNG LLC and Driftwood Pipeline LLC
Docket No. CP17-__-000
Docket No. CP17-__-000

Appendix 7A-6
Risk Management Plan – Site Plan

SITE PLAN FILED AS
Privileged and Confidential Information – DO NOT RELEASE
Refer to Volume II

Environmental Services, Inc. (December 2012) reports soil and groundwater contamination that exceeds RECAP standards. The report indicates:

- The Area of Investigation is approximately 2.9 acres.
- The FPS and surrounding facilities were used for cleaning cargo barges. Various owners operated the site dating back to 1965. (The site is not currently in operation.)
- Two surface impoundments, the East and West Pits, were the primary location for storage and disposal of wastes.
- By 1981 the two surface impoundments had been filled and covered.
- Several petroleum and chlorinated hydrocarbon compounds are present in soil and groundwater in concentrations that exceed RECAP standards.
- Most soil contamination exists below 18 feet below ground level (BGL) and in proximity to the East and West Pits (see Figure 5).
- Groundwater contamination exists in the 20-foot sand and the 38-foot shell hash zone. The Triad report noted dense non-aqueous phase liquid (DNAPL) in one of the eight 50-foot sand zone temporary monitoring points which was attributed to an improperly constructed monitoring well (see Figure 6).

4.1.2 Bollinger Calcasieu Site

The Bollinger Calcasieu Site (BCS) is described in the document *RECAP Assessment of the Former Bollinger Calcasieu Shipyard*, prepared by US Risk Management, LLC (October 2013). This document reports that the BCS facility is addressing soil and groundwater contamination that exceeds RECAP standards. (Note: The current status of these activities has not been confirmed.) The document reports the following:

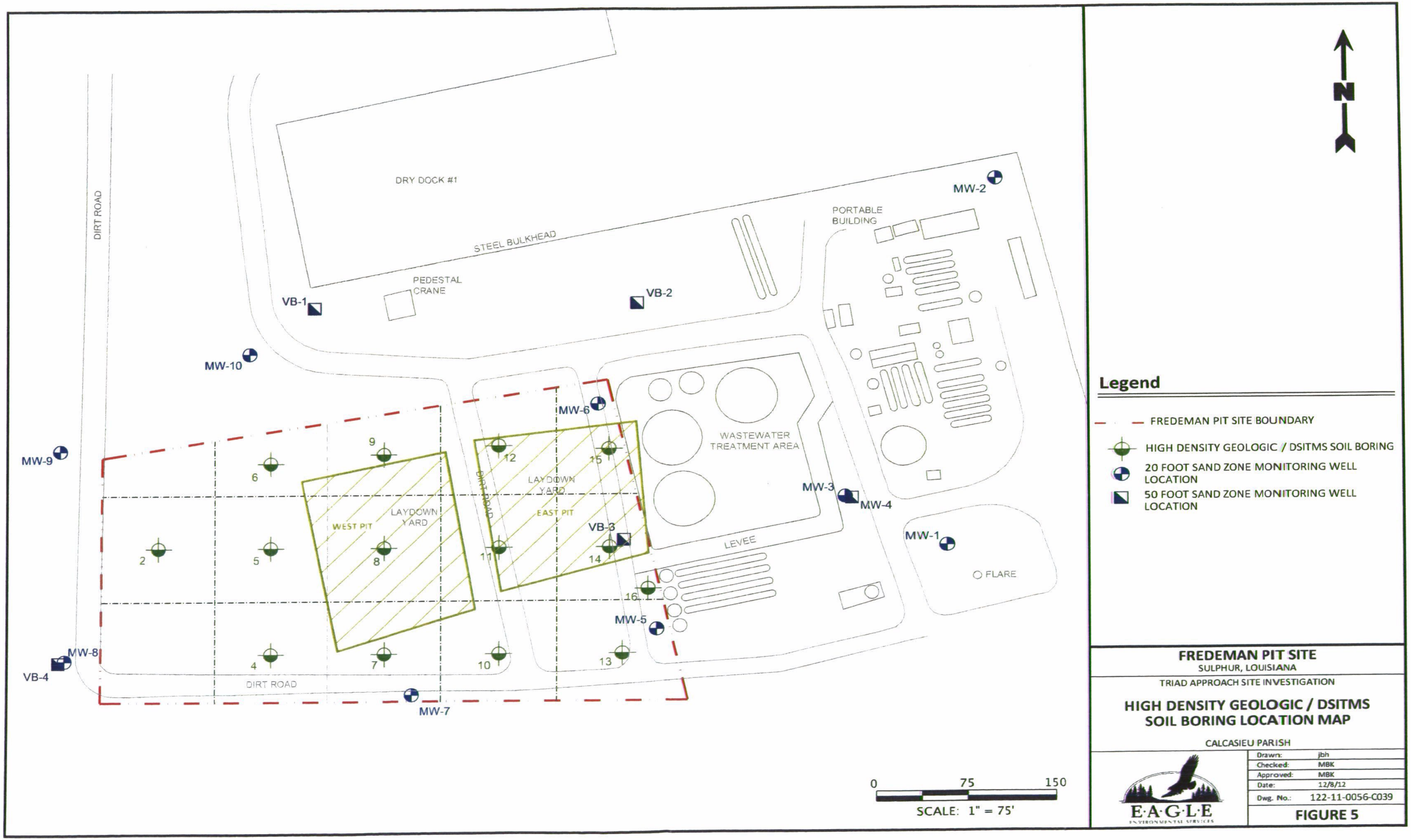
- The Area of Investigation, known as the Marine Cleaning Area, began operation as a full-service barge and marine vessel maintenance and repair facility in 1964 (see Figure 2). The site is not currently in operation.
- Benzo(a)pyrene, methylene chloride, tetrachloroethylene, and trichloroethene exceed soil RECAP standards and require a Corrective Action Plan.
    - o The status of the Corrective Action Plan has not been confirmed.
- 1,2-dichloroethane, 1,1-dichloroethene, cis 1,2-dichloroethene, tetrachloroethylene, 1,1,2-trichloroethane, trichloroethene, vinyl chloride, and aliphatics C8-C10 exceed groundwater RECAP standards and require a Corrective Action Plan.
    - o The status of the Corrective Action Plan has not been confirmed.

4.1.3 Tract 29 on the Lake Charles Harbor and Terminal District (LCHTD) property

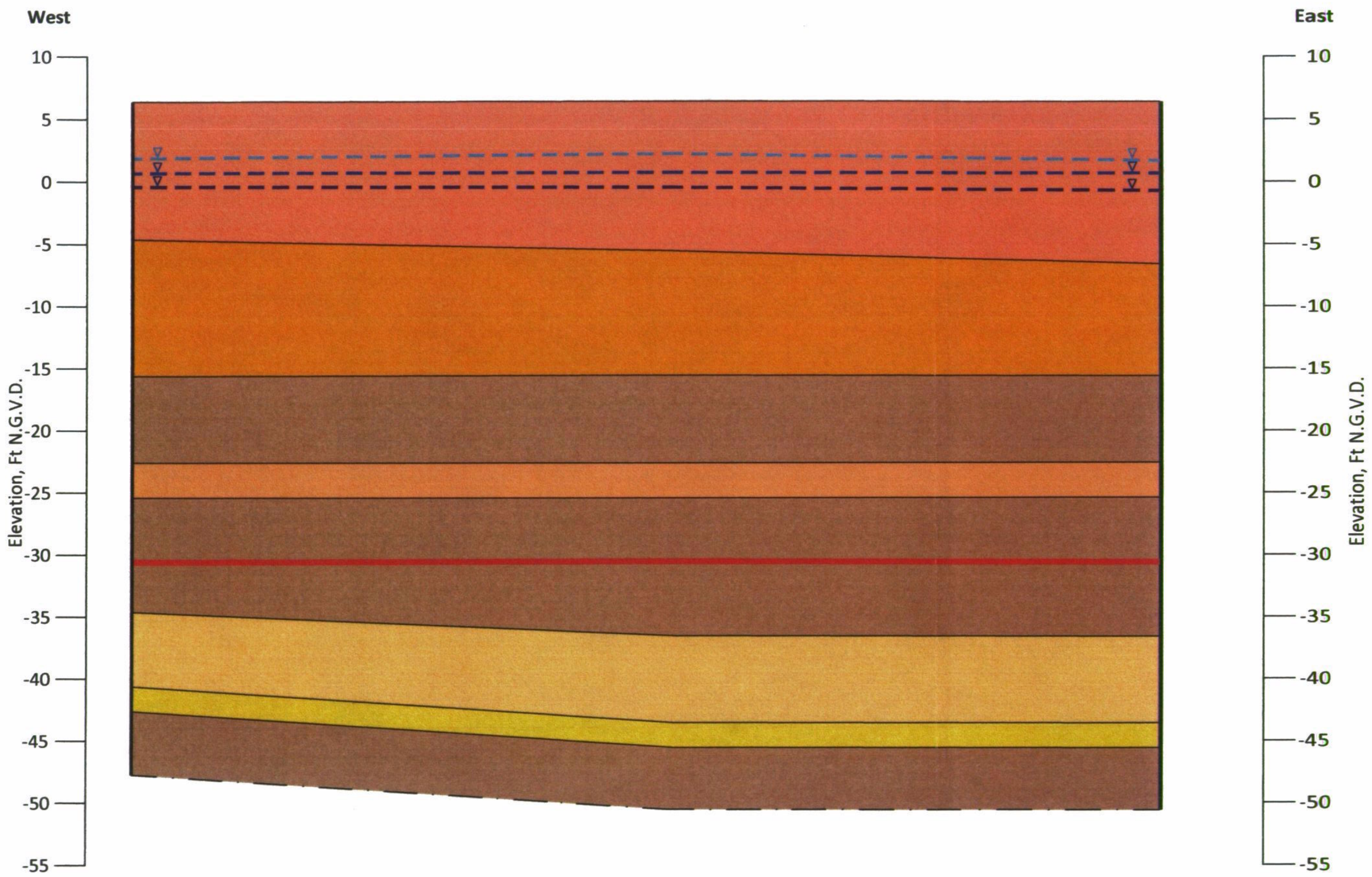
Global Industries, Ltd, the property owner at the time, filed a Conveyance Notice with the Calcasieu Parish Clerk of Court in 2003 for an area of approximately 0.155 acres referred to as Tract 29. This area is located on the easternmost portion of the north shore of the North Slip (see Figure 3) was found to have surface contamination. The C-K Associates, Inc. March 1998 *Excavation Area Assessment Report* indicates that contaminated soil was excavated and disposed offsite. The Conveyance Notice was filed to record this area as a land use restricted risk-based closure. On July 31, 1998 LDEQ issued a closure letter for this site. The closure is protective of industrial exposures and land use will not change during the life of the DWLNG operations.

4.2 Contaminant Migration Pathways

The *RECAP Assessment of the Former Bollinger Calcasieu Shipyard*, prepared by US Risk Management, LLC, (October 2013) reports a single man-made vapor intrusion migration pathway on the BCS which consists of a mixed use building constructed on a concrete pad within the Marine Cleaning AOI. No other buildings,



N
DRY DOCK #1
STEEL BULKHEAD
PEDESTAL CRANE
PORTABLE BUILDING
DIRT ROAD
VB-1
VB-2
VB-3
VB-4
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
WASTEWATER TREATMENT AREA
LEVEE
FLARE
WEST PIT
EAST PIT
LAYDOWN YARD
LAYDOWN YARD
DIRT ROAD
DIRT ROAD
2
4
5
6
7
8
9
10
11
12
13
14
15
16
0
75
150
SCALE: 1" = 75'
Legend
FREDEMAN PIT SITE BOUNDARY
HIGH DENSITY GEOLOGIC / DSITMS SOIL BORING
20 FOOT SAND ZONE MONITORING WELL LOCATION
50 FOOT SAND ZONE MONITORING WELL LOCATION
FREDEMAN PIT SITE
SULPHUR, LOUISIANA
TRIAD APPROACH SITE INVESTIGATION
HIGH DENSITY GEOLOGIC / DSITMS
SOIL BORING LOCATION MAP
CALCASIEU PARISH
E·A·G·L·E
ENVIRONMENTAL SERVICES
Drawn: jbh
Checked: MBK
Approved: MBK
Date: 12/8/12
Dwg. No.: 122-11-0056-C039
FIGURE 5



Cross-Section

Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 10'

Legend

- Shell Hash
- Bioturbation
- Clay
- Clay with Silts & Sands
- Interbedded Silty Clay & Silty Sands
- Silty Sands
- Sand
- N.G.V.D. National Geodetic Vertical Datum
- Potentiometric Elevation of 20 Foot Sand Zone
- Potentiometric Elevation of 38 Foot Shell Hash Zone
- Potentiometric Elevation of 50 Foot Sand Zone

Note

N.G.V.D. elevations referenced to N.G.V.D. elevation of MW-6 as described in Section 5.6.2 of the Triad Approach Site Investigation Final Report.

Note:

Stratigraphy between borings are inferred. Actual conditions may vary.

FREDEMAN PIT SITE
SULPHUR, LOUISIANA
TRIAD APPROACH SITE INVESTIGATION

GENERALIZED HYDROGEOLOGIC CROSS-SECTION

CALCASIEU PARISH

E·A·G·L·E ENVIRONMENTAL SERVICES

Drawn:	jbh
Checked:	MBK
Approved:	MBK
Date:	12/10/12
Dwg. No.:	122-11-0056-C041

FIGURE 6

Legend

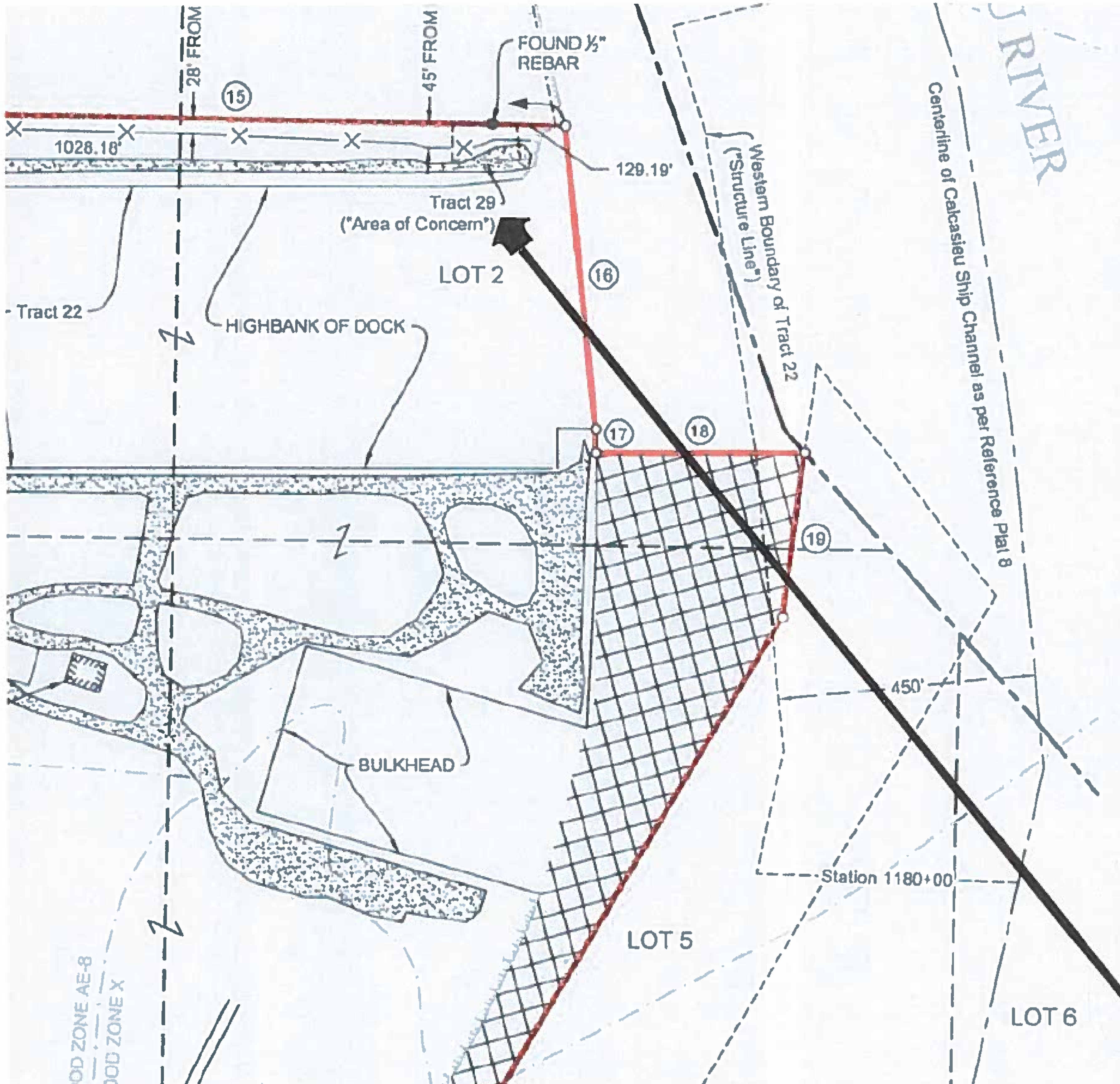
- July 10, 2012 Sampling Event
- July 25, 2013 Sampling Event
- Sediment Sample Location

N

0 150 300

Feet

PROJECT No. #16-120029	FIGURE 2
DESIGNED BY -----	REMEDIATION AREA WITH SAMPLE LOCATIONS
DRAWN BY BL	RECAP ASSESSMENT Southern Recycling Bollinger Calcasieu Site Sulphur, Louisiana
CHECKED BY L. STOLTZFUS	
REVIEWED BY L. STOLTZFUS	USRISK UNITED STATES RISK MANAGEMENT, L.L.C.
DATE 08/04/2013	



BII	13	Intentionally Deleted.
BII	14	Intentionally Deleted.
BII	15	Right of Way Deed from Global Industries, LTD, to Calcasieu Parish Police Jury, filed February 17, 1999
BII	16	Intentionally Deleted.
BII	17	Intentionally Deleted.
BII	18	Intentionally Deleted.
BII	19a	Intentionally Deleted.
BII	19b	Intentionally Deleted.
BII	20	Servitude from Mary P. Leveque to United States of America, dated August 27, 1963, filed August 28, 1963, bearing Clerk's File No. 929581, recorded in Conveyance Book 863, Page 288, as assigned to the Lake Charles Harbor & Terminal District by Quitclaim Deed filed August 17, 2015, bearing Clerk's File No. 3195913, in Conveyance Book 4056, Page 801, records of Calcasieu Parish, LA
BII	21	Legends of Plat, dated October 5, 1962, filed August 27, 1963
BII	22	Temporary Servitude from Landex, Inc., et al, to Pauley Agency, Inc., dated April 28, 1965, filed April 29, 1965
BII	23	Temporary Easement from Global Industries, LTD, to Lake Charles Harbor & Terminal District, dated February 16, 2000, filed February 17, 2000
BII	24	Intentionally Deleted.
BII	25	Intentionally Deleted.
BII	26	Intentionally Deleted.
BII	27	Right of Way and Line Easement Agreement from Owens-Illinois, Inc., to Mobil Pipeline Company, dated April 6, 1976, filed May 1, 1976
BII	28	Pipeline Servitude Agreement from Global Industries, LTD, to Cheniere Creole Trail Pipeline, L.P., dated June 18, 2007, filed June 27, 2007
BII	29	Conveyance Notification of Contaminated Soil by Global Industries, LTD, dated August 4, 2003, filed August 12, 2003
BII	30	Intentionally Deleted.

Figure 3

underground utilities or sewers, drainage channels, or water supply wells have been identified that contribute to contaminant migration.

The *Fredeman Pit Site, Sulphur, LA Triad Approach Site Investigation Report* by Eagle Environmental Services, Inc. (December 2012) reports silt-filled fractures in surficial clays as a natural migration pathway. The *RECAP Assessment of the Former Bollinger Calcasieu Shipyard* reports groundwater migration and discharge to a surface water body as additional natural migration pathways.

Silt-filled fractures in surficial clays may have contributed to the migration of contamination from the 20-foot sand zone to the 38-foot shell hash zone but the thickness and structure of the clays below the 38-foot shell hash zone seem to have protected the 50-foot sand zone from contaminant migration in the overall area. Sediment and soil were sampled in the North Slip on the Driftwood LNG Project site to a depth of 50 feet BGL and no constituents of concern (COCs) were detected – *North Barge Slip Soil Sampling* by Geosyntec (December 2016). Thus, there is no evidence of discharge of COCs to the North Slip.

5.0 Permits, Property Access and Health and Safety

5.1 Permits

Excavation and dredging of soils and sediment will be in accordance with an US Army Corps of Engineers 404 Clean Water Act (CWA) permit. Alteration of existing U.S. Army Corps of Engineers-structural limits will be in accordance with a US Army Corps of Engineers 408 permit. Air emissions during construction and operation will comply with LDEQ permit conditions. Point source discharge of pollutants during construction and operation will comply with a LPDES permit. Construction and operation will also comply with a Federal Energy Regulatory Commission (FERC) permit.

5.2 Property Access and Health and Safety

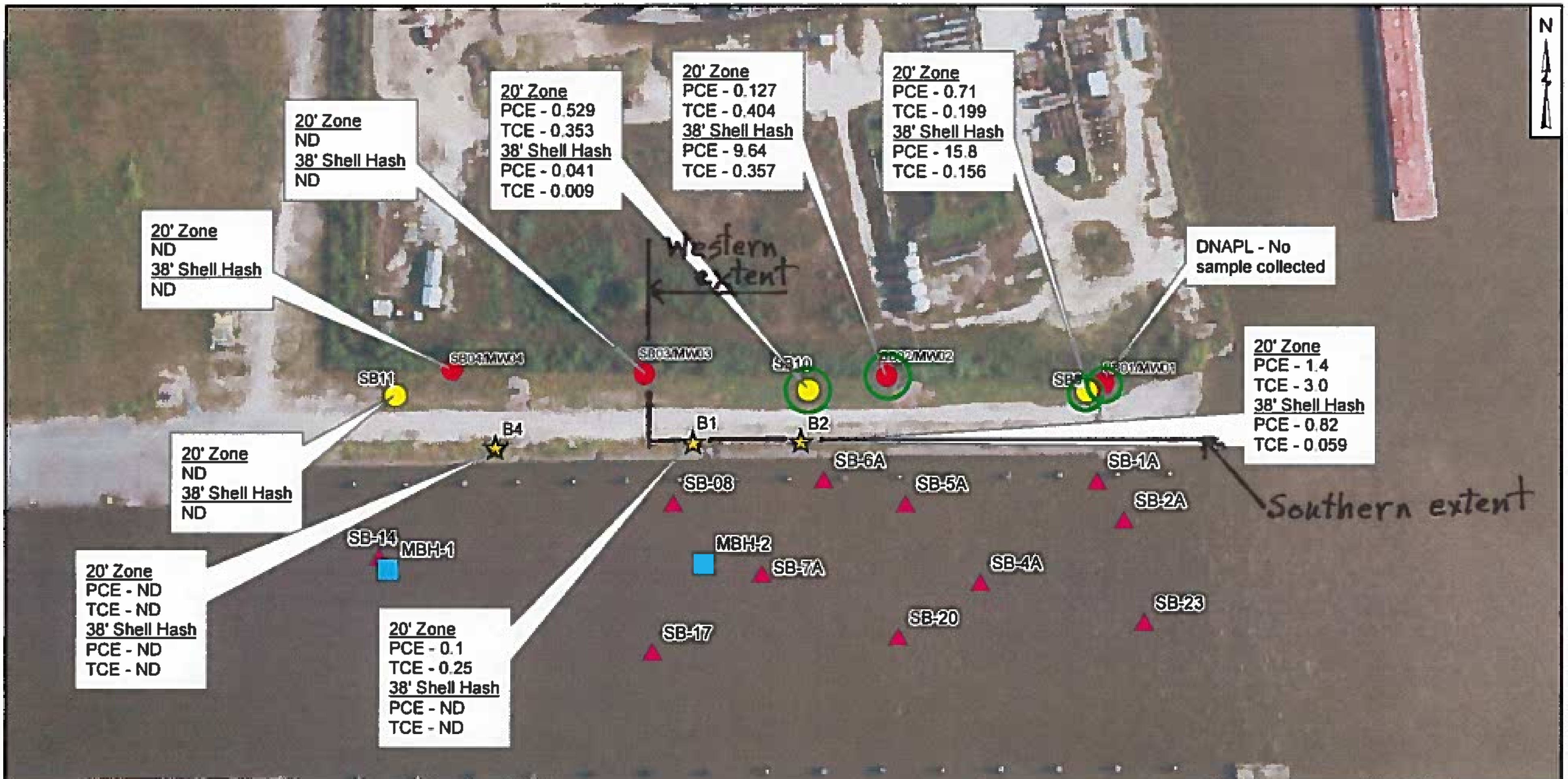
The Fredeman Pit Site, the Bollinger Calcasieu Site, and Tract 29 are each zoned for industrial use, fenced and access restricted. These restrictions are the primary layer of protection for the health and safety of the public. All construction personnel will receive training to ensure their understanding that access is restricted to approved work areas.

The DWLNG construction site will be confined to within the Facility property. It will not encroach on or disturb either the FPS or the BCS property. The restricted access and training will prevent DWLNG construction activity from directly impacting these areas of known contamination and the health and safety of construction workers at the site or the general public.

6.0 Performance Criteria (Zone of Separation Description)

Construction activities will avoid and not disturb known contamination on the adjacent FPS and BCS property. This has been the objective throughout the stages of facility design. Also, disturbance of known contamination at the FPS and BCS will be avoided through control of access to these sites afforded by the existing fence between the three properties.

The minimum distance between known contamination and planned construction activity is 74 feet. Furthermore, the separation distance between the closest planned construction activity (the Loading Platform piles) to the southern property boundary of the FPS and BCS property, is a minimum of 114 feet. To estimate the southernmost extent of contaminated media in the North Slip area at both the 20-foot sand zone and the 38-foot shell hash zone intervals, an east-west line connecting Geosyntec temporary monitoring wells B1 and B2 was established, south of which all soil and groundwater samples comply with



Legend

- Sample Location (February 2016)
- AECOM 2016 Boring (location approximate based on field reconnaissance)
- Geosyntec Boring Location
- Previous VOC Detections
- November 2016 Barge Slip Environmental Boring
- November 2016 Barge Slip Geotechnical Boring

Notes
Source of 2015 aerial photograph: USDA Geospatial Data Gateway.
Groundwater PCE/TCE results presented in milligrams per liter (mg/L)
ND - Not Detected

150 75 0 150 Feet

Groundwater PCE and TCE Distribution Summary - North of Barge Slip

Sulphur, Louisiana

Geosyntec consultants

Baton Rouge, Louisiana | September 2016

Figure 3A

RECAP standards. This line is used to calculate the minimum distance between known contamination and planned construction activities south of this line (see Figure 3A).

To estimate the westernmost extent of contaminated media in the North Slip area, a north-south line connecting the Arabie Phase II soil boring SB03 and Geosyntec Phase II soil boring SB-08 was established, west of which all soil and groundwater samples comply with RECAP standards (see Figure 3A).

6.1 Limits of Contaminated Media in the North Slip Area
Site investigations conducted by DWLNG in the North Slip Area identified soil RECAP exceedances in the following sampling intervals: 18-20, 20-27, and 37-39 feet BGL. Soils from ground surface to 18 feet BGL did not exceed RECAP standards. Groundwater exceedances of RECAP standards occurred in the 20-foot sand and 38-foot shell hash zones. The locations of these exceedances have been avoided during design and engineering.

6.2 Description of Construction Activities in the North Slip Area
Construction activities in the North Slip area have been designed to avoid disturbance of known contaminated media. These construction activities are listed in order of construction sequence:

- Demolition – leave on-shore mooring dolphins and batter piles in place, cut off existing breasting dolphin monopiles below the mud line, and remove concrete revetment mat
- Excavation and Dredging of Sediment and Soil
- Shore Protection - Revetment and/or Riprap and Geotextile Installation
- Pipe Bridge and Loading Platform Vertical Pile Installation
- Mooring Dolphins Batter Piles Installation

6.2.1 Demolition
Existing on-shore mooring dolphins are supported by 12-inch diameter steel batter piles and will be clearly marked to ensure identification. Batter piles are a construction technique where piles are driven into the subsurface in a fan-shaped multi-pod configuration. They extend from above the surface to EL. -62 feet NAVD88 and are filled with concrete in the top 9 feet. The mooring dolphins are spaced along the shore line of the North Slip and will be left in place and not disturbed (see Figure 26089-200-R0K-0000-11131) below the mud line. The seven mooring dolphins (shaded blue on Figure 26089-200-R0K-0000-11131) on the easternmost end of the North Slip are potentially within soil and groundwater that exceed RECAP standards (east of the Arabie soil boring SB-03 and Geosyntec soil boring SB-08), a line that denotes the westernmost extent of contaminated media. These dolphins will be clearly marked and left in place throughout construction to mitigate the risk of disturbing known contaminated media.

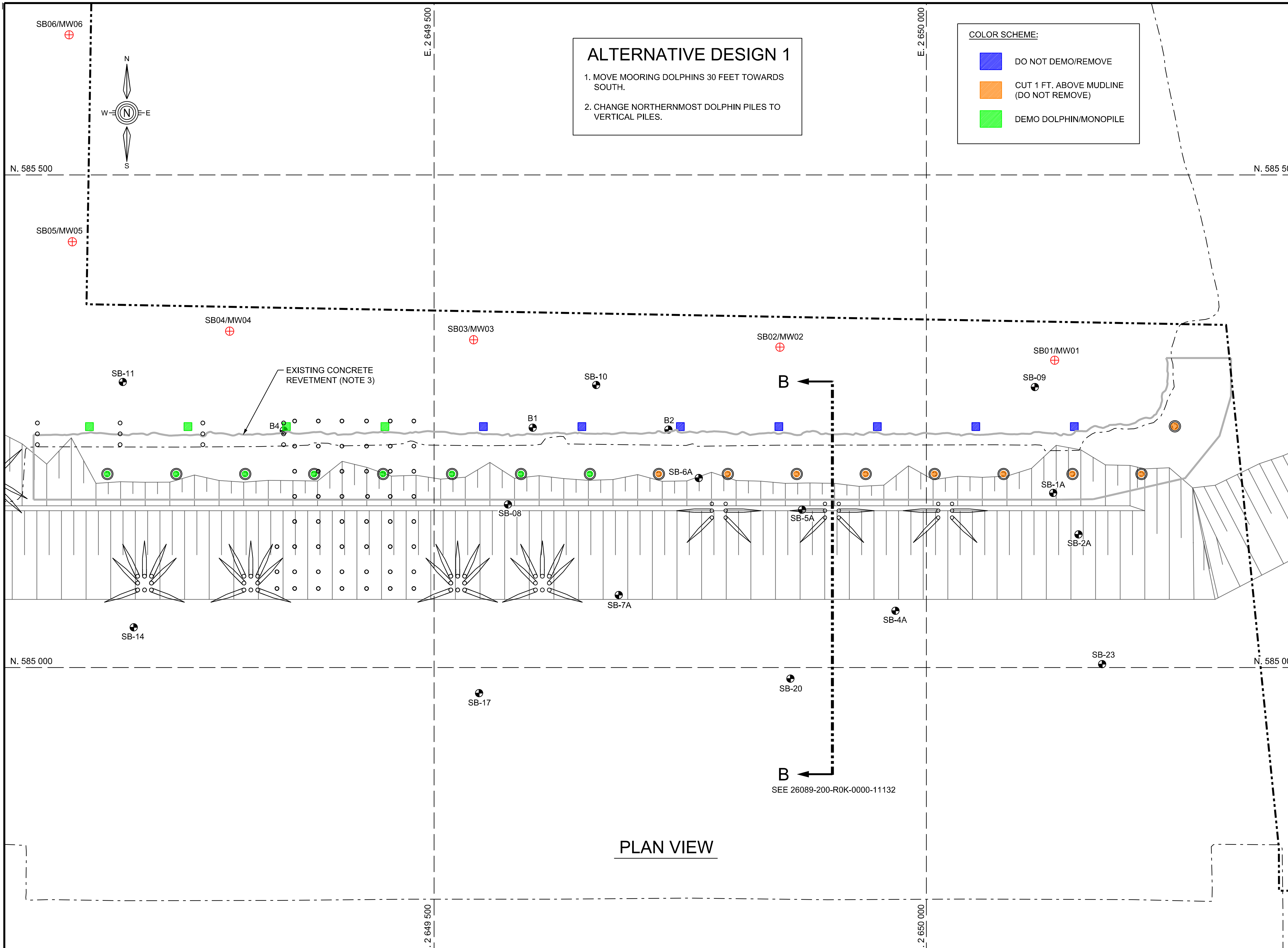
Existing in-slip breasting dolphins (shaded orange on Figure 26089-200-R0K-0000-11131) are supported by 48-inch or 60-inch diameter steel monopiles that extend to EL. -85 feet NAVD88 and are filled with concrete from the top down to zero (0) feet NAVD88. The piles will be cut off below the mud line, and to prevent creation of a conduit for possible downward migration of contaminants, the piles will be sealed using a bentonite grout. The piles are approximately 45 feet south of the east-west contamination line demarcated by Geosyntec's temporary monitoring wells B1 and B2. RECAP compliant SB-6A lies between the two westernmost breasting dolphins and RECAP compliant SB-1A lies within 20 feet of the easternmost breasting dolphins. Demolition activities involving in-slip breasting dolphins will not disturb contaminated media.

ALTERNATIVE DESIGN 1

1. MOVE MOORING DOLPHINS 30 FEET TOWARDS SOUTH.
2. CHANGE NORTHERNMOST DOLPHIN PILES TO VERTICAL PILES.

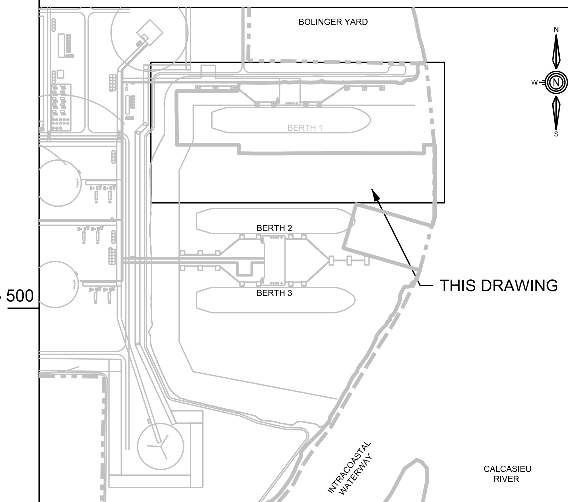
COLOR SCHEME:

- DO NOT DEMO/REMOVE
- CUT 1 FT. ABOVE MUDLINE (DO NOT REMOVE)
- DEMO DOLPHIN/MONOPILE



PLAN VIEW

KEY PLAN



NOTE:

1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN FEET AND INCHES.
2. COORDINATES ARE IN NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US SURVEY FEET.
3. EXISTING CONCRETE REVETMENT BASED FROM LANIER DWG. NO. C200-MA-002-D.

LEGEND:

- PROPERTY BOUNDARY LINE
- GRID LINE
- EXISTING BULKHEAD/SHORELINE
- DREDGING FOOTPRINT (NOTE 3)
- SOIL BORING/MONITORING WELL (ARABIE FEBRUARY 2016)
- ENVIRONMENTAL BORE HOLES
- EXISTING MONOPILES
- EXISTING MOORING DOLPHIN
- PLANNED VERTICAL PILE
- PLANNED BATTER PILE
- PILE TIP

50' 0 50' 100' 150'
SCALE BAR FEET

NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM	NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM
00A	02-22-2017	ISSUED FOR REVIEW	TGP	YY	DH	TP	JB								

BECHTEL
Bechtel OG&C, Inc.
26089-200

DRIFTWOOD LNG

DRIFTWOOD LNG
MARINE FACILITIES
BERTH 1 - EAST MOORING DOLPHIN
ALTERNATIVE DESIGN 1 - PLAN
SULPHUR, LOUISIANA

SCALE:	
CLIENT DRAWING NO.	REV.
BECHTEL DRAWING NO.	REV.
26089-200-R0K-0000-11131	00A

The existing revetment mat consists of a net of concrete blocks connected by steel cable that will be removed just prior to the excavation and dredging of sediments and soils to construct the marine berths. Precautions will be taken to not disturb the surface water/soil interface. At the depth of the 20-foot sand zone and 38-foot shell hash zone, the revetment mat is separated from the north-south contaminated media demarcation line by a horizontal distance of 50 feet (see Figure 26089-200-R0K-0000-11132).

6.2.2 Excavation and Dredging of Sediment and Soil

Excavation of soils for the Marine facility will begin south of the North Slip in Area 4 and will stop leaving an interior levee between the southern berths and the North Slip (see Figure 26089-200-R0-0000-10202). Dredging of North Slip sediment and soil will then begin by breaching the berm and dredging soil and sediment in both Area 3 and 4. Soil and sediment adjacent to the north shore of the North Slip will be removed by dredging along an east-west line at the toe of the existing revetment mat. The toe of the existing revetment mat is located a horizontal distance of 50 feet south of clean line connecting temporary monitoring wells B1 and B2 which mark the southernmost extent of contaminated media. Maintaining this 50-foot separation distance will prevent disturbance of contaminated media.

6.2.3 Shore Protection - Revetment and/or Riprap and Geotextile Installation

Upon completion of excavation and dredging of North Slip soil and sediment, new revetment materials will be installed on the north shore of the North Slip to replace the existing revetment that will be removed. The revetment material will be of the same construction as the existing revetment or by rock rip rap (or both). Removal and replacement of the revetment mat will avoid contact with and not disturb contaminated media.

6.2.4 Pipe Bridge and Loading Platform Vertical Pile Installation

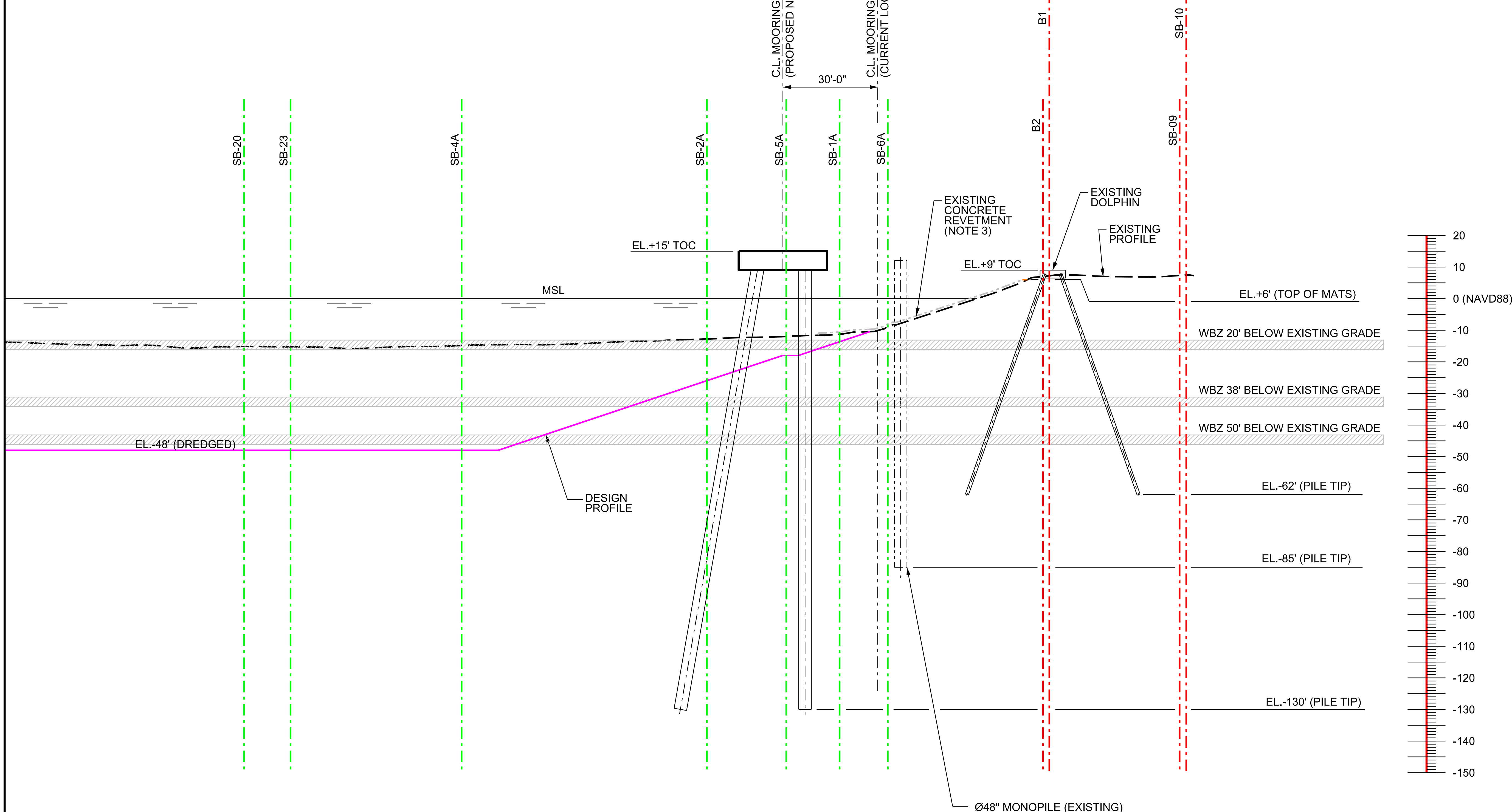
The Pipe Bridge will be a linear feature on the north shore of the North Slip and will extend from the west end of the slip eastward to approximately the location of soil boring B4 (see Figure 26089-200-R0K-0000-11131). Soil boring B4 is compliant with RECAP standards and is approximately 190 feet west of the north-south clean line demarcated by Arabie SB-03 and Geosyntec SB-08.

The eastern end of the Pipe Bridge and vertical piers will abut the northwest corner of the Loading Platform which will be a rectangular structure that will extend southward into the North Slip and eastward along the northern shore of the North Slip B4 (see Figure 26089-200-R0K-0000-11131). The easternmost vertical piers for the Loading Platform will be located approximately 62 feet west of the north-south clean line demarcated by Arabie SB-03 and Geosyntec SB-08, both sampling locations that did not exceed RECAP standards. Therefore, the Pipe Bridge and the Loading Platform will be separated from known contaminated media by at least the 62 feet that separates the loading platform from known contaminated media. Based on this 62-foot distance, contaminated media will be avoided and not disturbed.

The depth of the vertical piles for the Pipe Bridge and Loading Platform will be EL. -110 and EL. -120 feet NAVD88 respectively. Site-specific data from the Fugro Geotechnical Phase I and Phase II Reports indicate that the elevation of the top of the Chicot aquifer ranges from EL. -232 to -255 (see Plates 2, 3e. 2b and 3d). Phase I geotechnical soil borings BHPS-4, BH-8 and BHPS-5 encountered Stratum V, interpreted to be the upper sands of the Chicot aquifer, at elevations of EL. -235, -245 and -255, respectively. Phase II geotechnical soil boring BHPS-6 encountered Stratum V at elevation EL. -232. Fugro described Stratum V as a very dense silt, silty sand and clayey sand with blow counts greater than 50 blows per foot (very dense) as measured by standard penetration testing.

NOTE:

1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN FEET AND INCHES.
2. COORDINATES ARE IN NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US SURVEY FEET.
3. EXISTING CONCRETE REVETMENT BASED FROM LANIER DWG. NO. C200-MA-002-D.
4. DOLPHIN INNER PILES NOT SHOWN FOR CLARITY.



SECTION B-B

SEE 26089-200-R0K-0000-11131

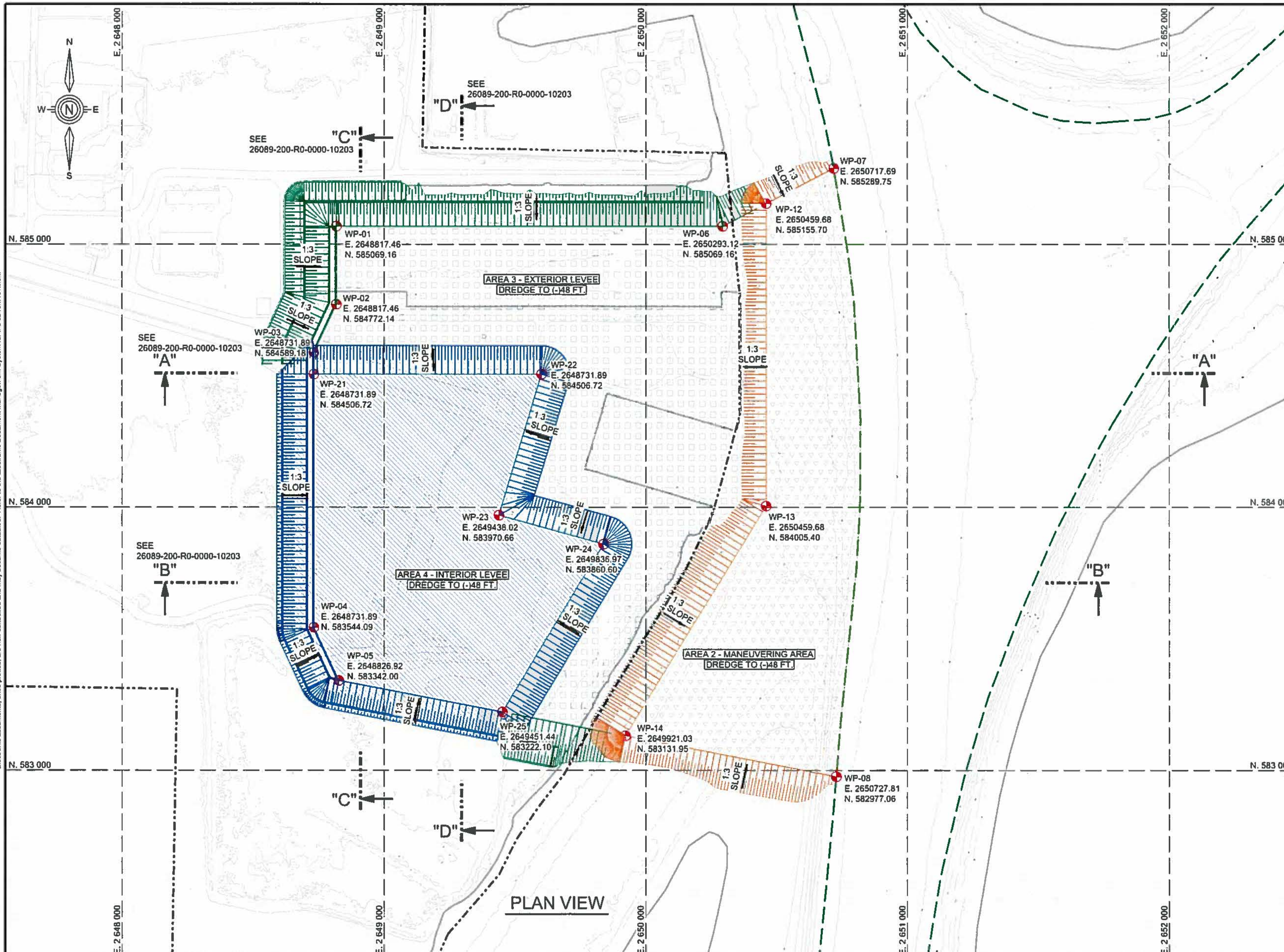
NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM	NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM
00A	01-11-2017	ISSUED FOR REVIEW	TGP	YY	DH	TP	JB								

Bechtel OG&C, Inc.
26089-200

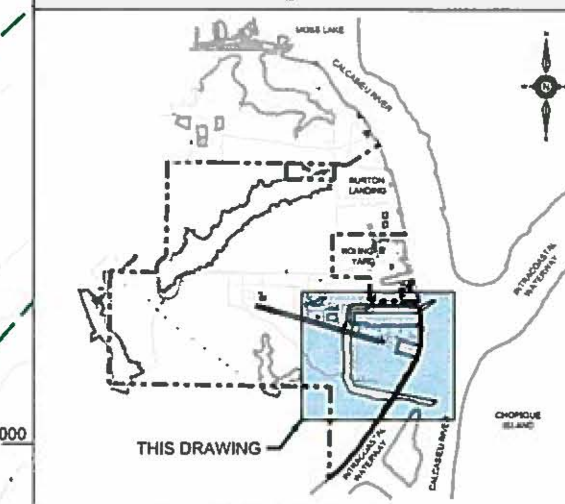
DRIFTWOOD LNG

DRIFTWOOD LNG
MARINE FACILITIES
BERTH 1 - EAST MOORING DOLPHIN
ALTERNATIVE DESIGN 1 - SECTION B-B
SULPHUR, LOUISIANA

SCALE:	
CLIENT DRAWING NO.	REV.
BECHTEL DRAWING NO.	REV.
26089-200-R0K-0000-11132	00A



KEY PLAN



NOTE:

1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN FEET.
2. ELEVATIONS ARE IN FEET RELATIVE TO NAVD88.
3. NAVD88 = 1.8' MEAN LOW GULF (MLG).
4. COORDINATES ARE IN NAD83 LOUISIANA STATE PLANE, SOUTHERN ZONE, US SURVEY FEET.
5. EXISTING CHANNEL BASED FROM NOAA CHART NO. 11339.
6. DREDGING DEPTHS INCLUDES OVERDREDGING.

LEGEND:

- AREA 2 - MANEUVERING AREA DREDGE TO (-)48 FT. (NOTE 6) (EST. QTY = 1.2M CU YD.)
- AREA 3 - EXTERIOR LEVEE DREDGE TO (-)48 FT. (NOTE 6) (EST. QTY = 3.0M CU YD.)
- AREA 4 - INTERIOR LEVEE DREDGE TO (-)48 FT. (NOTE 6) (EST. QTY = 1.7M CU YD.)
- WORKING POINT (WP)
- PROPERTY BOUNDARY
- EXISTING SHORELINE/BULKHEAD
- VESSEL TURNING CIRCLE
- EXISTING CHANNEL

100' 0 100' 200' 300' 400' 500'
SCALE BAR FEET

NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM
00A	09-12-2016	ISSUED FOR REVIEW	TP	CT	DH	—	CB
00B	11-03-2016	ISSUED FOR FEED (ADDED OVERDREDGING, UPDATED DREDGING QUANTITY & WORKING POINTS)	TP	CT	DH	TP	JB
00C	02-16-2017	ISSUED FOR FEED (UPDATED DREDGING FOOTPRINT, SLOPE, QUANTITY & WORKING POINTS)	TP	CT	DH	TP	JB

NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM

BECHTEL
Bechtel OG&C, Inc. 26089-200

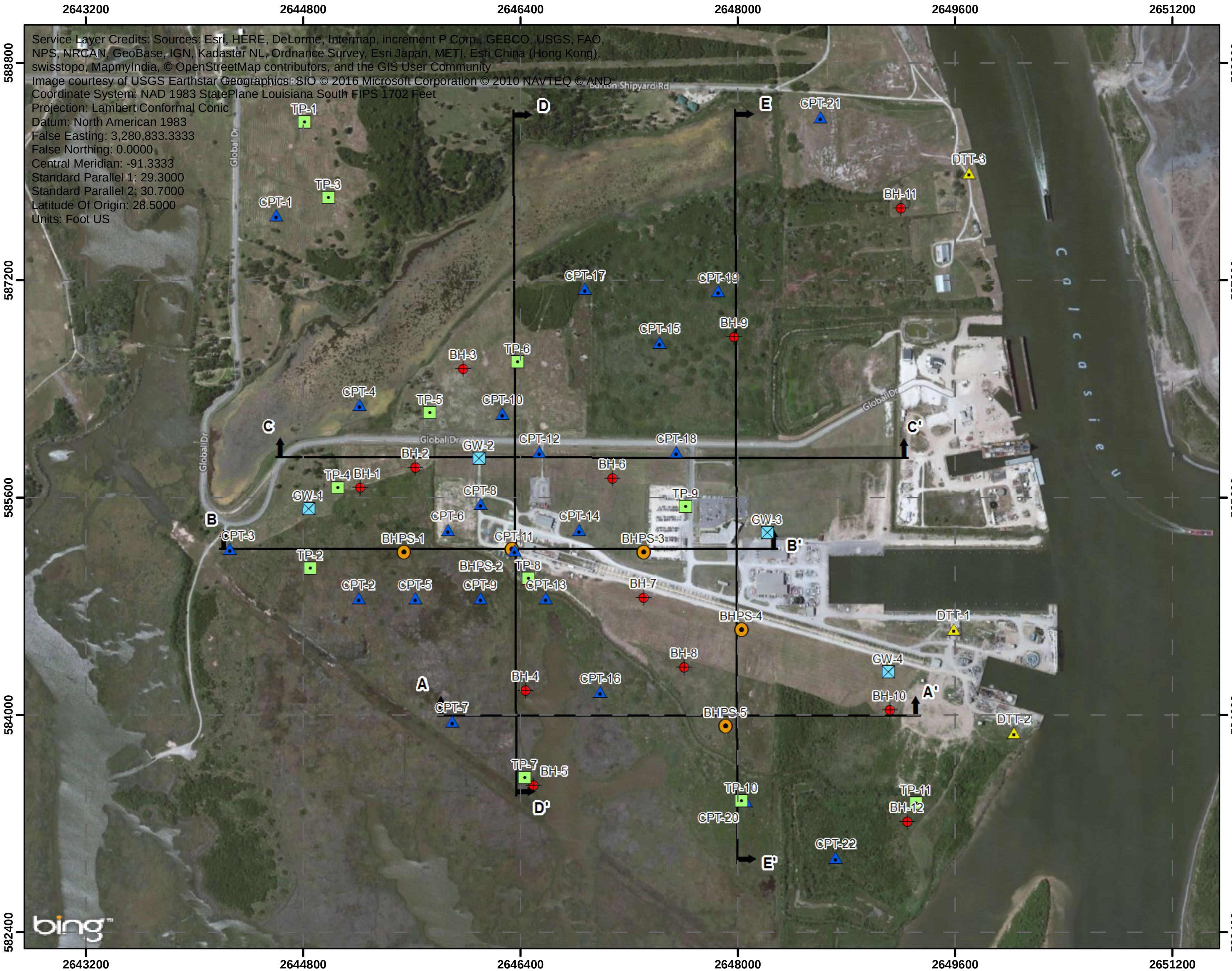
DRIFTWOOD LNG

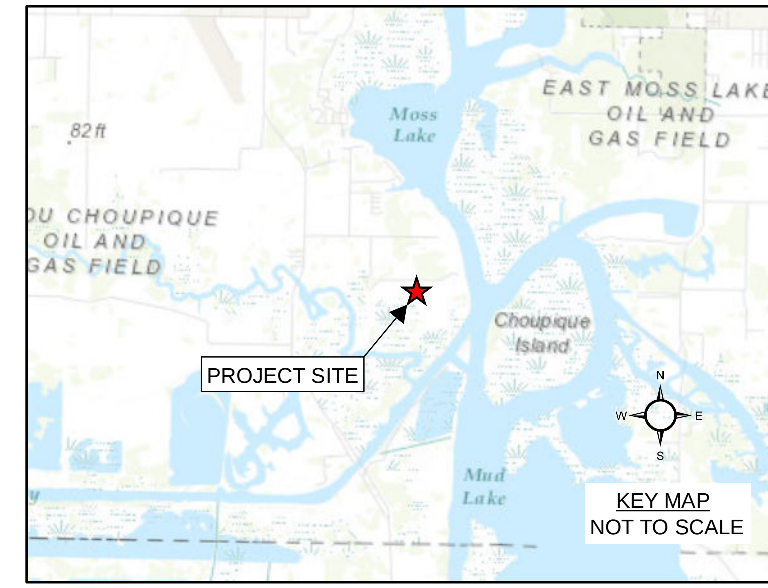
DRIFTWOOD LNG

MARINE FACILITIES - LOADING BERTH EXCAVATION AND DREDGING BREAKDOWN SHEET 2 OF 3

SULPHUR, LOUISIANA

SCALE:
CLIENT DRAWING NO. REV.
BECHTEL DRAWING NO. 26089-200-R0-0000-10202 REV. 00C





LEGEND

- GEOTECHNICAL BORING
- GEOTECHNICAL BORING W/ PS LOGGING
- CONE PENETRATION TEST
- TEST PIT
- GROUNDWATER WELL
- DREDGE TEST TRENCH
- CROSS-SECTION

NOTES:

1. EXPLORATION LOCATIONS AREA APPROXIMATE.
2. SURVEYED ASBUILT COORDINATES PROVIDED BY FUGRO JOHN CHANCE.

N
W E
S

0 400 800 1,600
Feet

PLAN OF EXPLORATIONS
GEOTECHNICAL DATA REPORT
DRIFTWOOD LNG PROJECT - PHASE I
SULPHUR, LOUISIANA

PLATE 2

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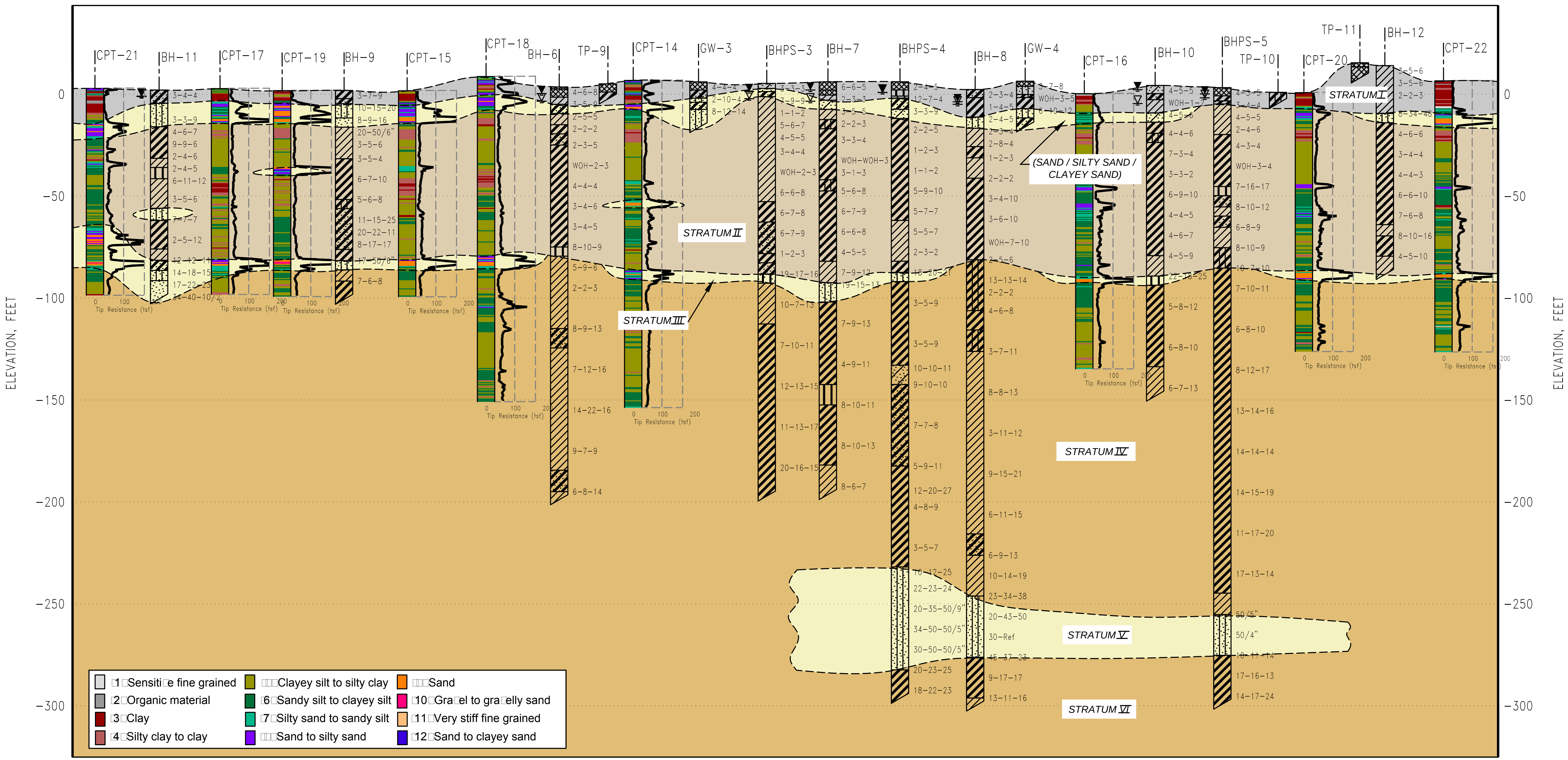
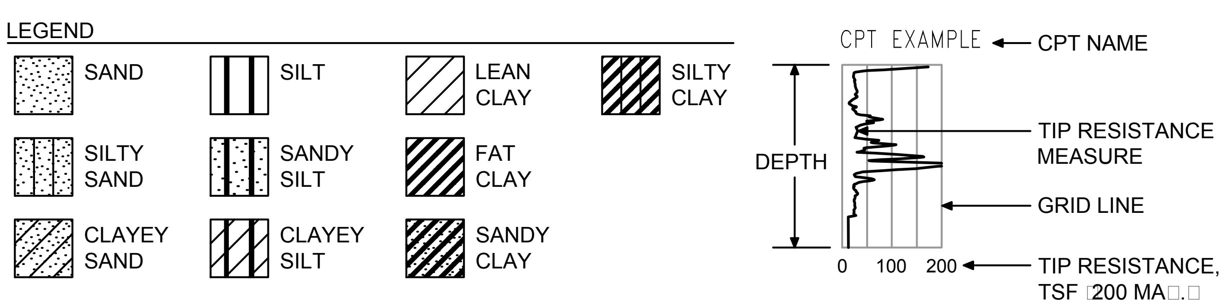
Report No. 04.101600□7-1





NOT□□

1. DATA CONCERNING SUBSURFACE CONDITIONS HAVE BEEN OBTAINED AT BORING LOCATIONS ONLY. ACTUAL CONDITIONS AT LOCATIONS BETWEEN BORINGS MAY VARY FROM THE GENERALIZED SOIL PROFILE SHOWN HERE.

□□N□RA□I□□D SUBSUR□A□□ PRO□I□□ S□□TION □□□

GEOTECHNICAL DATA REPORT

DRIFTWOOD LNG PROJECT - PHASE I

SULPHUR, LOUISIANA

0 □0 100 FEET

VERTICAL SCALE

PLATE 3e

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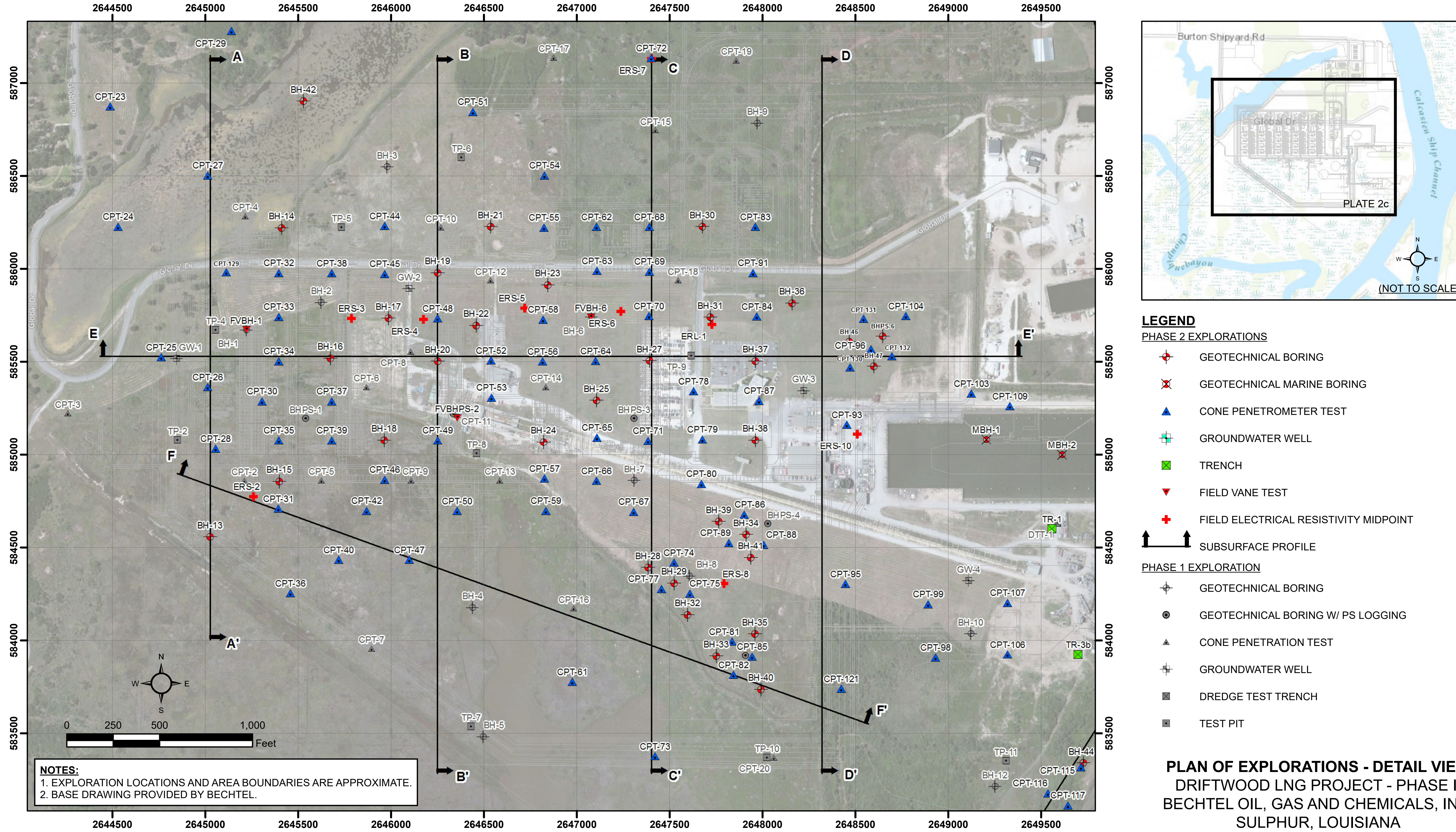


LEGEND

PHASE 2 EXPLORATIONS

- GEOTECHNICAL BORING
- GEOTECHNICAL MARINE BORING
- CONE PENETROMETER TEST
- GROUNDWATER WELL
- TRENCH
- FIELD VANE TEST
- FIELD ELECTRICAL RESISTIVITY MIDPOINT
- SUBSURFACE PROFILE

PHASE 1 EXPLORATION

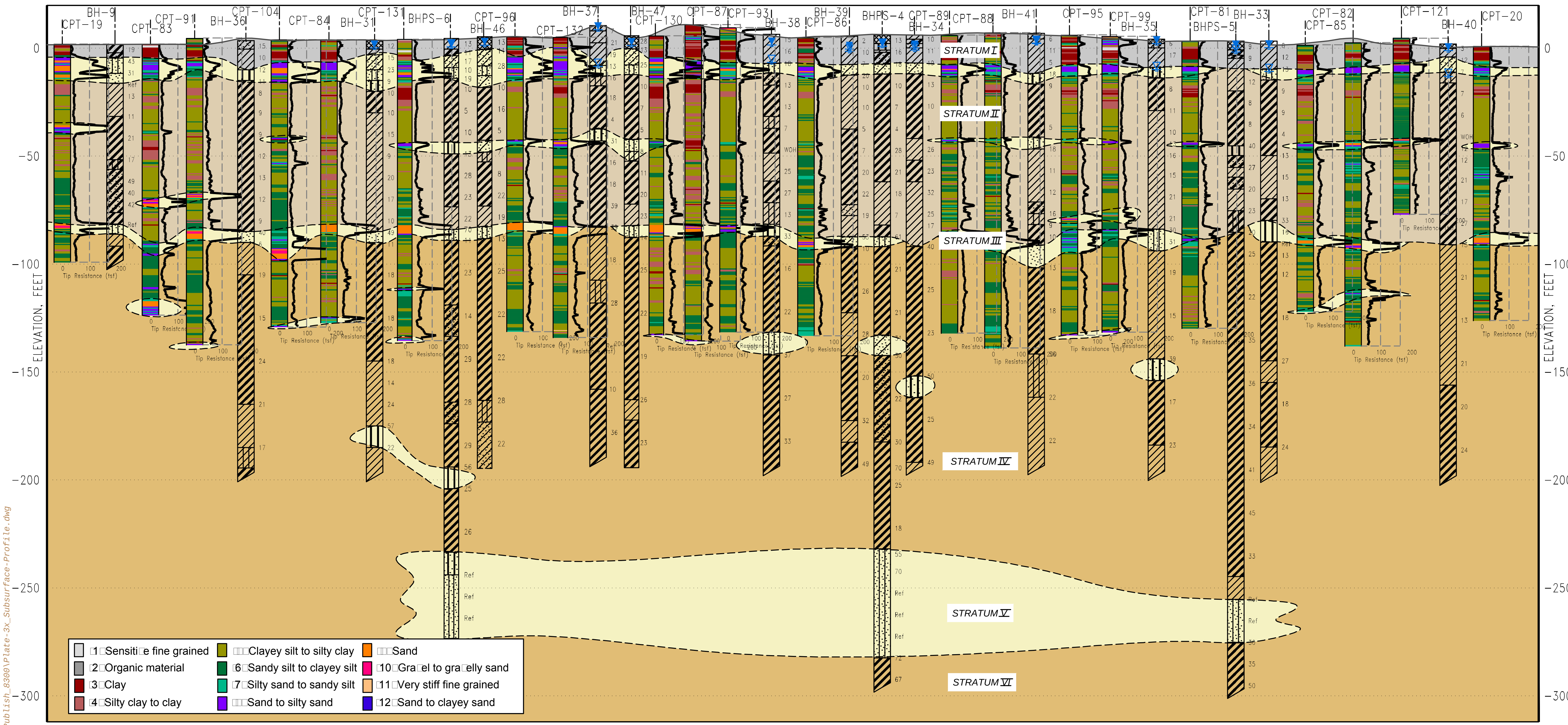
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING W/ PS LOGGING
- CONE PENETRATION TEST
- GROUNDWATER WELL
- DREDGE TEST TRENCH
- TEST PIT

NOTES:
1. EXPLORATION LOCATIONS AND AREA BOUNDARIES ARE APPROXIMATE.
2. BASE DRAWING PROVIDED BY BECHTEL.

PLAN OF EXPLORATIONS - DETAIL VIEW
DRIFTWOOD LNG PROJECT - PHASE II
BECHTEL OIL, GAS AND CHEMICALS, INC.
SULPHUR, LOUISIANA

PLATE 2b

Report No. 04.101600□7-2



LEGEND

SAND | SILT | LEAN CLAY | SANDY LEAN CLAY (CL)

SILTY SAND | SANDY SILT | FAT CLAY | SILTY CLAY

CLAYEY SAND | CLAYEY SILT | SANDY FAT CLAY (CH)

CPT EXAMPLE ← CPT NAME

DEPTH

TIP RESISTANCE MEASURE

GRID LINE

0 100 200 ← TIP RESISTANCE, TSF (200 MAX.)

NOTES

1. DATA CONCERNING SUBSURFACE CONDITIONS HAVE BEEN OBTAINED AT BORING LOCATIONS ONLY. ACTUAL CONDITIONS AT LOCATIONS BETWEEN BORINGS MAY VARY FROM THE GENERALIZED SOIL PROFILE SHOWN HERE.
2. BLOW COUNTS CORRESPOND TO N_{60} VALUES CALCULATED BASED ON SITE-SPECIFIC SPT CALIBRATION RESULTS.

GENERALIZED SUBSURFACE PROFILE SECTION D-D'

DRIFTWOOD LNG PROJECT - PHASE II

BECHTEL OIL, GAS AND CHEMICALS, INC.

SULPHUR, LOUISIANA

0 40 80 FEET

VERTICAL SCALE

PLATE 3d

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REVISION: 0

The thickness of the overlying confining Stratum IV ranges from approximately 130 to 169 feet where the Chicot aquifer was encountered. Stratum IV is described as natural cohesive soils. Measured moisture content within the cohesive soils ranged between 16 and 77 percent. Results from liquid limit tests ranged from 26 to 119, with plasticity indices ranging from 13 to 34. From this data, there is at least 112 feet of cohesive confining clay aquitard between the total depth of the deeper Loading Platform vertical piles and the top of the Chicot aquifer. There is at least 122 feet of cohesive confining clay aquitard between the final depth of the shallower Pipe Bridge piles and the top of the Chicot aquifer. Therefore, the vertical piles will not impact the Chicot aquifer.

6.2.5 Mooring Dolphins Batter Piles Installation
Mooring dolphins will be constructed on batter piles in the North Slip along the northern shore line. The three easternmost mooring dolphins and batter piles will be installed 74 feet south of known contamination on the eastern end of the north shore of the North Slip between Geosyntec soil boring B2 and AECOM soil boring SB9. Soil and groundwater samples from these borings exceeded RECAP standards. The horizontal distance from these batter piles to contamination in the 20-foot sand and 38-foot shell hash zones is 74 feet (see Figure 26089-200-R0K-0000-11132).

The batter piles will extend in depth to -130 feet NAVD88. From the previous discussion of the depth to the top of the Chicot aquifer, there is at least 102 feet of cohesive confining clay aquitard between the final depth of the mooring dolphin batter piles and the top of the Chicot aquifer.

The westernmost of the three batter piles is 38 feet southeast of soil boring SB-6A which did not exceed RECAP standards. The central-most of the three batter piles is 31 feet east of soil boring SB-5A which also did not exceed RECAP standards. The third and most easterly batter pile lies approximately 85 feet south of the east-west clean line demarcated by soil borings B1 and B2. At the levels of the 20-foot sand and the 38-foot shell hash zones, the horizontal distance from the three batter piles to the shore line where temporary monitoring wells B-1 and B-2 mark the southernmost exceedances of RECAP standards, is approximately 74 feet (see Figures 26089-200-R0K-0000-11131 and 26089-200-R0K-0000-11132).

6.3 Potential for Contaminant Migration
The Triad Report for the Fredeman Pit Site is the source of geological and hydrogeological data used to describe and evaluate the potential for contaminant migration from the Fredeman Pit Site, the Bollinger Calcasieu Site and the DWLNG facility. The average hydraulic conductivity, average hydraulic gradient, and effective porosity reported for the 20-foot sand zone was reported to be 0.388 feet/day, 0.0005 feet per foot, and 0.2 respectively. The estimated average linear velocity of groundwater in the 20-foot sand zone was calculated to be 0.0017 feet/day or about 0.6 feet per year.

Assuming an average linear velocity of groundwater of 0.6 feet per year, chlorinated hydrocarbons would be expected to move by advection at a similar rate. Over a 20-year period, the contamination could be expected to move by advection approximately 12 feet. The distance from the most southerly known contamination in the 20-foot sand zone is 74 feet north of planned construction activities in the North Slip area. Thus, it is not likely that contamination would migrate south to construction areas. Furthermore, the lack of detections of chlorinated hydrocarbons in North Slip sediment and soil indicates that natural biodegradation processes are likely attenuating the contaminants. The presence of biodegradation products such as cis 1,2 dichloroethene is also a qualitative indicator of the transformation by reductive dechlorination of chlorinated hydrocarbons. Therefore, it is likely that the chlorinated hydrocarbons in groundwater are stable and not expanding.

7.0 Contingency Plan

In the event that contaminated media is encountered, based on indicators such as visual discoloration, odors or sheen on water, DWLNG will refer to and follow the Unanticipated Discoveries Plan (UDP) to manage and control the potential release. The UDP sets out procedures for stopping work, securing the area, reporting the event, investigating the condition, and identifying necessary emergency response actions. The UDP is attached to this RMP as Appendix A.

APPENDIX A

Driftwood LNG Facility and Pipeline Project

Unanticipated Discoveries Plan

Driftwood LNG Facility and Pipeline Project

Unanticipated Discoveries Plan

March 2017

Contents

Figures

1 Introduction

Driftwood LNG LLC and Driftwood Pipeline LLC (together, DWLNG) are proposing to site, construct, own, and operate a liquefied natural gas (LNG) production and export facility (Facility) on the west bank of the Calcasieu River near Carlyss, Calcasieu Parish, Louisiana. The Driftwood LNG Project (the Facility and the Pipeline collectively, the Project) will include five liquefaction plants capable of producing up to 26 million tonnes per annum (MTPA) of LNG for global export. Natural gas will be delivered to the LNG facility from existing interstate pipeline systems via a proposed new 96-mile pipeline that includes up to 15 meter stations and associated tie-ins at up to 13 sites, and three compressor stations.

The proposed Project consists of:

- A natural gas liquefaction and export facility, including marine facilities to be located along the west bank of the Calcasieu River between mile markers 22 and 23, in Calcasieu Parish, Louisiana; and,

- An approximately 96-mile Pipeline, to deliver natural gas at an annual average of 4 billion cubic feet per day, consisting of:

    - 74 miles of single 48-inch diameter pipeline;
    - 11 miles of single 42-inch diameter pipeline;
    - 11 miles of single 36-inch diameter pipeline;
    - 3.5 miles of 30-inch diameter pipeline lateral;
    - 3 compressor stations; and
    - Up to 15 meter stations and associated tie-ins at up to 13 sites.

The Project has completed a number of environmental studies in preparation for development of this Federal Energy Regulated Commission (FERC) regulated project. However, occasionally unanticipated discoveries are made during construction even after completion of thorough investigations, such as archeological sites, historical sites, paleontological sites, soil or groundwater contamination, or orphaned oil and gas wells. The Project is developing this Unanticipated Discoveries Plan (UDP) to plan for unanticipated discoveries and lay out initial procedures and training.

1.1 Regulatory Background and Authority

The nature of the unanticipated discovery will dictate the state and federal regulations that cover assessment and reporting. The applicable state and federal regulations are:

- Archeological Sites, Historical Sites, Cemeteries, and Unmarked Burials:
    - Chapter 16 – Louisiana Archaeological Resources (R.S. 41:1601-1615), 1975;
    - Chapter 10 – Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671-681), 1992;
    - Chapter 21-B – Louisiana Historic Cemetery Preservation Act (R.S. 25:931-943);
    - Secretary of the Interior's *Standards for Archaeology and Historic Preservation* (48 CFR 44716-42); and

        - FERC, Office of Energy Projects: *Guidelines for Reporting on Cultural Resources Investigations for Pipeline Projects;*
    - Soil or Groundwater Contamination:
        - Subtitle II of Title 30 of the Louisiana Revised Statutes;
        - Louisiana Department of Environmental Quality (LDEQ's) Risk Evaluation/Corrective Action Program (RECAP); and
        - Louisiana Administrative Code (LAC) Title 33 Chapter 39 (33:I.3919 - *Notification Requirements for Unauthorized Discharges With Groundwater Contamination Impact*)
    - Orphaned Oil and Gas Wells:
        - LDEQ's RECAP; and
        - Louisiana Department of Natural Resources, Oilfield Restoration Program;
    - Paleontological Sites:
        - No state regulations

1.2 Cultural Resources

Louisiana has state laws protecting both cemeteries and unmarked burials. An unmarked burial includes any location where human remains have been or may be found inadvertently and where there is no surficial evidence of a burial site (i.e., cemetery fence lines, tombstones, grave markers, etc.). This includes all prehistoric or historic Native American burials as well as all early historic-period Euro-American, African-American, and other isolated burials and abandoned cemeteries that are no longer being used for internments or being maintained in good condition.

Unmarked burials are protected by Chapter 10 – Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671-681) and cemeteries are protected by Chapter 21-B – Louisiana Historic Cemetery Preservation Act (R.S. 25:931-943). Both laws outline the reporting protocol in the event an unmarked grave, burial, or historic cemetery is discovered; and establish the office of the Louisiana State Archaeologist (State Historic Preservation Officer, SHPO) as the regulator in charge of these cultural resources.

1.3 Soil or Groundwater Contamination

LDEQ's RECAP rules have been promulgated and became final on October 20, 2003. This regulation establishes the LDEQ's minimum remediation standards for present and past uncontrolled constituent releases. RECAP is a consistent decision-making process for the assessment of, and the response to, environmental contamination that is based on the protection of human health and the environment.

1.4 Orphaned Oil or Gas Wells

Subtitle II of Title 30 of the Louisiana Revised Statutes contains the state regulations governing protection of human health and the environment. LDEQ's RECAP program provides guidelines for assessing and remedying releases of hazardous materials to the environment. The Louisiana Oilfield Site Restoration Program was created in 1993 within the Louisiana Department of Natural Resources to address unrestored orphaned oilfield sites. The specific focus of the program is to properly plug and abandon orphan wells in addition to properly restore the site. Potential contamination associated with wells should be handled in accordance with the soil and groundwater contamination requirements.

2 Unanticipated Discovery Procedures

UDP procedures have been developed for unanticipated discoveries associated with Project construction. A flow chart illustrating the specific protocols for the soil and groundwater sites and cultural resources is provided as a quick reference to be used during training (

Figure and 2). A summary of the protocols for each discovery type is discussed below.

2.1 Unanticipated Discovery Procedure Training

UDP training will be provided to Project staff and contractors tasked with supervising or overseeing ground disturbing activities during pre-construction, construction, operation, and decommissioning phases of the Project lifecycle.

The training will include the following elements:

- Applicable local, state, and federal legislation and requirements;
- Overview of the known resources within the Project area and its immediate vicinity, as it relates;
- The training will include hazard identification and worker protection;
- Introduction to in-field identification of unanticipated discoveries; and
- The protocols to be followed and notification requirements in the event an unanticipated discovery is made during Project activities.

UDP training will be incorporated into the onboarding training for appropriate Project and contractor staff.

2.2 Cultural Resources

2.2.1 Cultural Finds or Sites

For purposes of the UDP, archaeological material is defined as any prehistoric or historic object (artifact), feature, structural remains, or landscape modification. Examples include but are not limited to the following:

- Prehistoric artifacts such as projectile points/arrowheads, pottery sherds, shell, stone tools, cooked or modified animal bone, or chipped stone;
- Historic artifacts such as pottery sherds, window or bottle glass, nails, bricks and mortar, or cut stone;
- A cluster or concentration of prehistoric or historic artifacts;
- Features such as soil stains, trash pits, fire pits/hearths, post molds, earthen mounds; and
- Building ruins such as stone, brick, or concrete foundations, piers, concrete slabs, or other structural remains.
- Body fossils (fossilized remains of ancient organisms) and trace fossils (impressions made on a substrate by ancient organisms).

Prior to construction of the Project, the site owner will name a Site Manager who will be responsible for daily supervision of construction and is expected to be present on site during all phases of construction. The following general procedure is to be executed if archaeological material is discovered by any Project staff or contractor during Project activities:

1. Construction activity within a 10-foot buffer of the discovery will be stopped immediately.

2. The Site Manager will be informed of any find or sites identified. The Site Manager will then contact the Project health, safety and environmental (HSE) representative for the area. All remains or materials will be left in place for further evaluation.

3. The HSE representative will contact the Site Manager and supervise installation of site protective measures. The Site Manager will contact the owner representative.

4. The Site Manager will secure the area around the discovery and protective measures will be put in place to prevent any damage, loss, or removal of objects or features.

5. The owner representative will contract with an appropriate cultural resource specialist to document the discovery and a determination will be made of the need for additional examination in consultation with appropriate parties.

6. The owner representative will notify FERC, SHPO, Native American Tribes, Louisiana Division of Archeology (LDA) and other authorities that have expressed interest, as required.

7. Depending on the results of the professional assessment of the find, the SHPO will determine its research potential, and/or NRHP eligibility. If the find lacks research potential or is determined to be ineligible for listing on the NRHP, resumption of construction may be allowed, with continued monitoring during construction activities as may be appropriate (as in the case where new data suggests that the likelihood of additional finds is moderate to high). In such case, the cultural research specialist will remain on site for the duration of any operations that may expose or damage cultural resources. The cultural research specialist will have the opportunity to collect further information during construction by means of photographs and various measurements, staying in contact with the SHPO throughout the evaluation process. If, at the end of such monitoring, and in consultation with the SHPO, the resources are determined to be ineligible for NRHP listing, the cultural research specialist will submit to the Project, the SHPO, FERC, and interested Native American tribes a formal data recovery and mitigation plan.

   If the find is determined as eligible or potentially eligible for NRHP listing, the Site Manager, in consultation with the owner representative, will initiate the necessary mitigations (Phase II testing or Phase III data recovery).

8. No work that could result in impacts to the discovery will proceed until required mitigations are implemented and, where applicable, the appropriate regulatory agencies have given clearance for work to proceed.

9. If the discovery includes potential human remains or unmarked burial sites, the procedures in the section below should be followed.

2.2.2 Human Remains and Unmarked Burials

The probability of encountering human remains in the Project area is low; however, in the event that an unmarked burial, including human remains, are encountered during construction on privately owned or other non-federally owned lands, the following plan outlines the specific procedures to be followed.

These procedures meet or exceed the requirements of the Louisiana Unmarked Human Burial Sites Preservation Act (Act 1991, No. 704, §1, effective January 1, 1992). Should any human remains or other associated cultural objects by encountered on federal lands, the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) will be followed with the responsible Federal official being contacted immediately upon discovery for further instruction. However, no Federal lands are currently proposed to be affected by the Project.

1. If an unmarked burial is encountered during construction, the Site Manager shall notify the Project representative and HSE representative, the law enforcement agency, and the coroner of the jurisdiction where the site or remains are located, the SHPO, the FERC, and the state archeologist acting on behalf of the Unmarked Burial Sites Board within 24 hours of discovery. The cultural resource specialist will also be contracted to assist with identifying the remains.

2. If the coroner finds that the unmarked burial site is over 50 years old and that there is no need for a legal inquiry by his office or for a criminal investigation, the SHPO shall have jurisdiction of the site, human skeletal remains, and the burial artifacts. The disposition of unmarked burial sites, human skeletal remains, or burial artifacts shall proceed as follows:
    - i. Every reasonable effort will be made to restore the unmarked burial site and to avoid disturbing the human skeletal remains or burial artifacts;
        1. If the SHPO determines that the burial site has significant scientific value, the SHPO may issue a permit for scientific study.
        2. Any agreement by the owner of the property to leave the unmarked burial site undisturbed shall constitute consent on the owner's part to allow relatives of the deceased or any other interested parties free access to the site without the owner's permission.
    - ii. The Project representative, in coordination with the SHPO shall make reasonable efforts to identify and locate persons who can establish direct kinship with or descent from the individual whose remains have been found.
    - iii. If the unmarked burial site or the human skeletal remains can be shown to have ethnic affinity with a living Native American tribe, the Project representative will notify the tribe of the discovery.
    - iv. If the human skeletal remains must be removed, then control of the disposition of these remains will be in the following order:
        1. If any direct relations or descendants are found, such person or persons will have the right to control the disposition of the human skeletal remains.
        2. If the human skeletal remains can be shown to have ethnic affinity to any living tribe of Native Americans, then the tribe will have control of the disposition of the human skeletal remains.
    - b. If no direct relation or descendant is found, or if no ethnic affinity of the human skeletal remains to any living Native American tribe can be shown, or if no direct relation or descendant or Native American tribe takes responsibility for the re-interment of the human remains, then the SHPO shall determine the proper disposition of the human remains.

3. If a permit has been issued pursuant to R.S. 8:676(A)(6), the cost of disinterment, re-interment, or study of the human skeletal remains shall be paid by the Project, or their agent.

4. All burial artifacts found in an unmarked burial site shall become the property of the state and the SHPO shall be the custodian thereof. The disposition of the burial artifacts shall be made by the SHPO in accordance with its regulations. The SHPO may donate the burial artifacts to an educational institution, a public museum, or a Native American tribe for display and study purposes. In no event, however, shall the SHPO or any recipient sell the burial artifacts.

2.3 Other Finds or Discoveries

Project works may uncover other man-made artifacts which are not of historic, cultural, or archaeological significance. As previously stated these additional discoveries include orphaned oil and gas wells and contaminated soils and groundwater. For the purposes of the UDP, "contaminated soils/sediments" is defined as any medium (including surface soil, sediment associated with water bodies, subsurface soil, surface water and groundwater) that, while engaged in Project construction activities, is identified as having indicators of chemical contamination.

These indicators may include:

- Buried drums or containers, rusted or in otherwise poor condition
- Stained or discolored soil (in contrast to adjoining materials)
- Spoil material containing debris other than obvious inert construction material
- Chemical or hydrocarbon odors emanating from excavations
- Visible sheen or other discoloration on surface water or groundwater
- Structures such as pipelines or underground storage tanks

The following procedure is to be executed if the presence of contaminated media is suspected or discovered by a Project staff or contractor during Project construction activities:

1. Construction activity within a 10-foot buffer around the discovery will be stopped immediately.

2. The Site Manager will be informed of the discovery. The Site Manager will then contact the HSE representative for the area. All contaminated media or exposed orphaned wells will be left in place.

3. The HSE representative will coordinate with the Site Manager. The Site Manager will contact the owner representative.

4. The Site Manager will, if safe to do so, secure the area around the discovery and install protective measures such as flagging or barrier tape to prevent unauthorized entry into the exclusion zone and personnel contact with contaminated media or exposed oil and gas well.

5. If warranted, the owner representative will notify the FERC, the LDEQ, the local parish emergency response contact, and other authorities within 7 days, as required, for contaminated media. For reported unanticipated orphaned oil and gas wells, the Project will contact the Louisiana Department of Natural Resources.

6. Upon notification, the HSE representative will perform or direct a hazard assessment to determine appropriate control measures to be implemented that may include sampling breathing zone ambient air, soil, soil gas, sediment, groundwater, and/or wipe samples of

infrastructure or debris. Samples should be analyzed against the appropriate RECAP site screening standard.

7. The owner representative will contract with an appropriate environmental and/or emergency response specialist to put measures in place based on results of the screening.

8. If potentially contaminated soil or groundwater reaches (or has the potential to reach) surface waters, then the measures set forth in the Project Spill Prevention, Control and Countermeasures Plan shall be followed.

9. No work that could disturb contaminated media will proceed until required mitigations and/or cleanup are implemented and, where applicable, the appropriate regulatory authorities have given clearance for work to proceed.

10. Upon evaluation of emergency response actions and sampling results, additional notifications may be made to coordinate further measures to be implemented in the contaminated area to protect personnel and the environment and resume activities in a safe, environmentally compliant manner. Measures may include additional personal protective equipment, segregation of contaminated media, and treatment or off-site disposal of contaminated media.

11. Identification, delineation, characterization, handling, labeling, storage, manifesting, transportation, record keeping, and disposal of potentially contaminated media shall be conducted in accordance with applicable federal, state and local regulations and guidance.

Figure 1. Cultural Resource Response Protocols

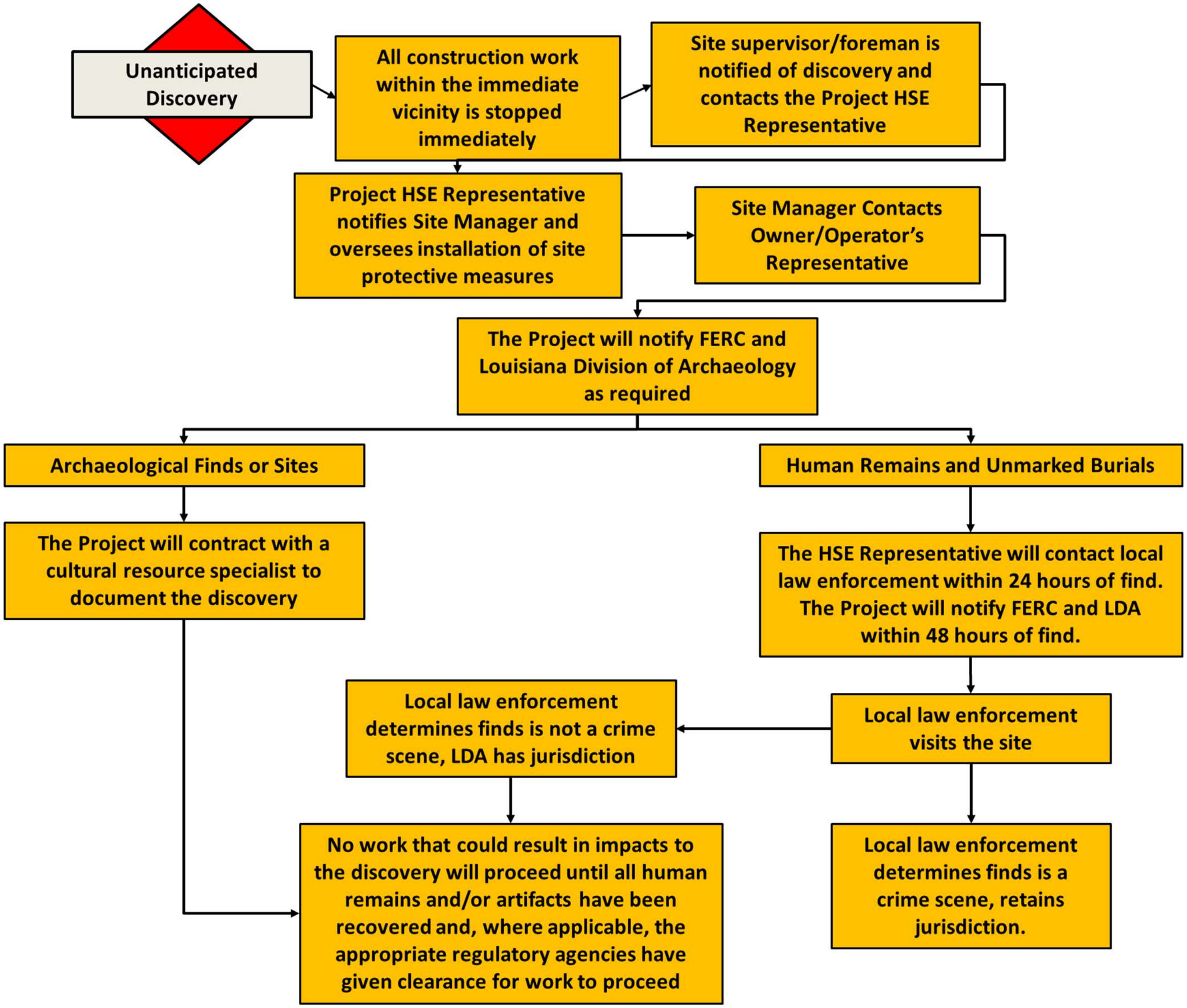
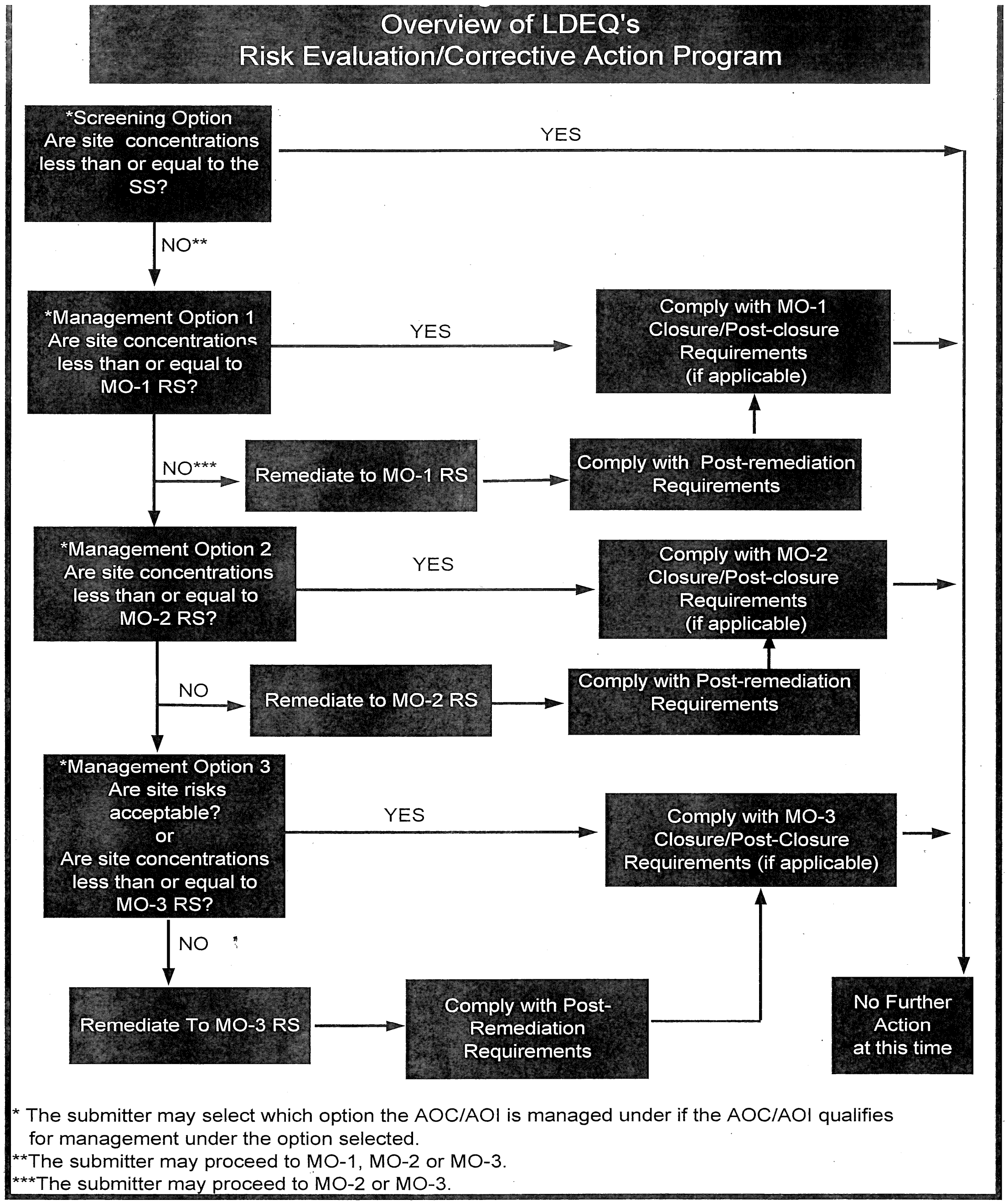


Figure 2. Contaminated Soils and Groundwater Response Protocols



3 Key Stakeholders

In the event of an unanticipated discovery, the key stakeholders and/or agency officials listed below should be contacted consistent with the steps outlined above.

FERC Contact
Laurie Boros
Staff Archaeologist
Federal Energy Regulatory Commission
888 1st Street NE
Washington, DC 20426
Phone: (202) 502-8046
laurie.boros@ferc.gov

FERC Project Manager
Kelley Munoz, Environmental Project Manager
Federal Energy Regulatory Commission, Office of Energy Projects
888 1st Street NE
Washington, DC 20426
Phone: (202) 502-6739
Kelley.Munoz@ferc.gov

Driftwood LNG LLC and Driftwood Pipeline LLC
Howard Candelet
1201 Louisiana, Suite 3100
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APPENDIX F

LIST OF PREPARERS

Driftwood Project EIS Team

APPENDIX F

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TRC Environmental Corporation is a third-party contractor assisting the Commission staff in reviewing the environmental aspects of the project application and preparing the environmental documents required by NEPA. Third-party contractors are selected by Commission staff and funded by project applicants. Per the procedures in 40 CFR 1506.5(c), third-party contractors execute a disclosure statement specifying that they have no financial or other conflicting interest in the outcome of the project. Third-party contractors are required to self-report any changes in financial situation and to refresh their disclosure statements annually. The Commission staff solely directs the scope, content, quality, and schedule of the contractor's work. The Commission staff independently evaluates the results of the third-party contractor's work and the Commission, through its staff, bears ultimate responsibility for full compliance with the requirements of NEPA.