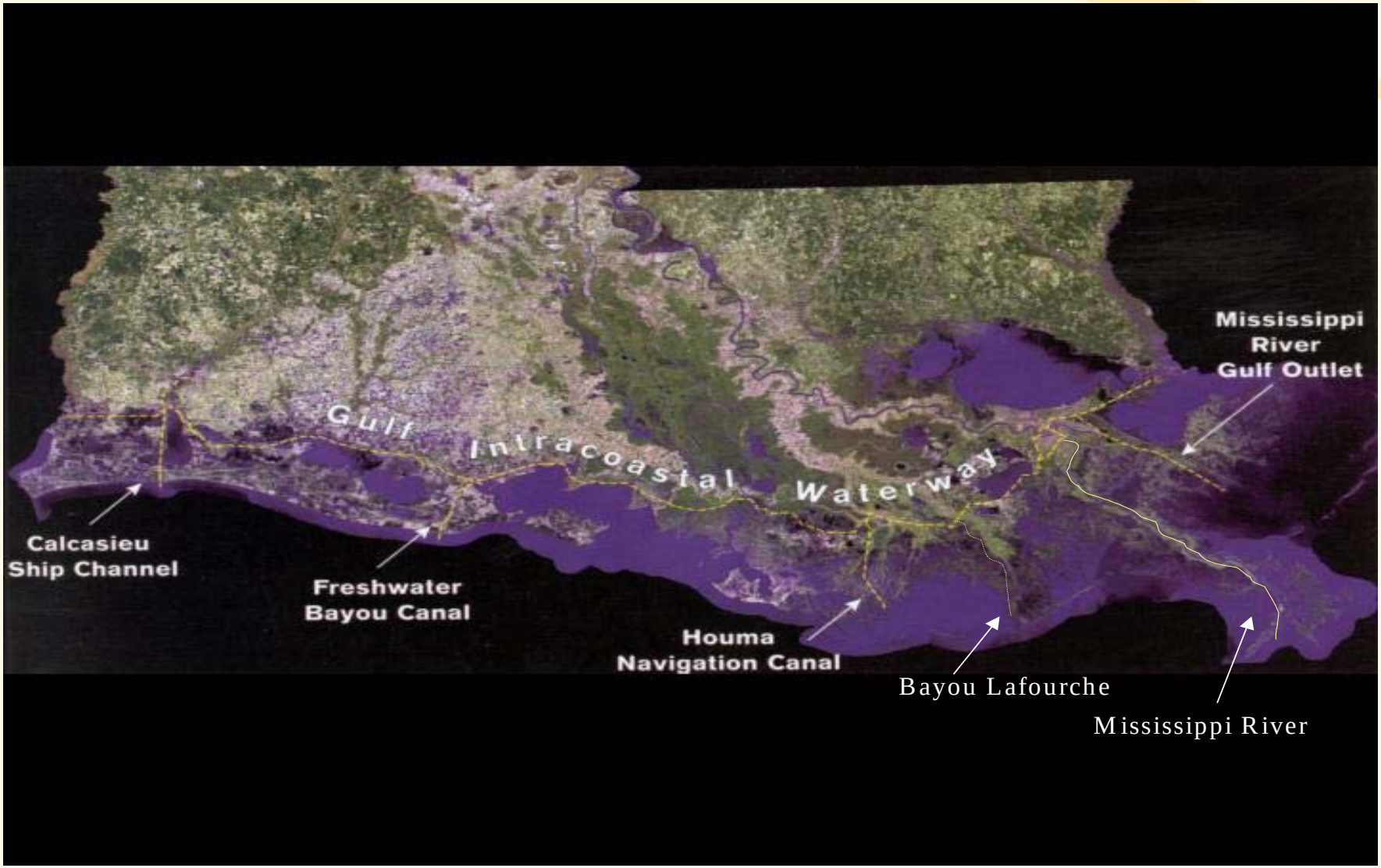
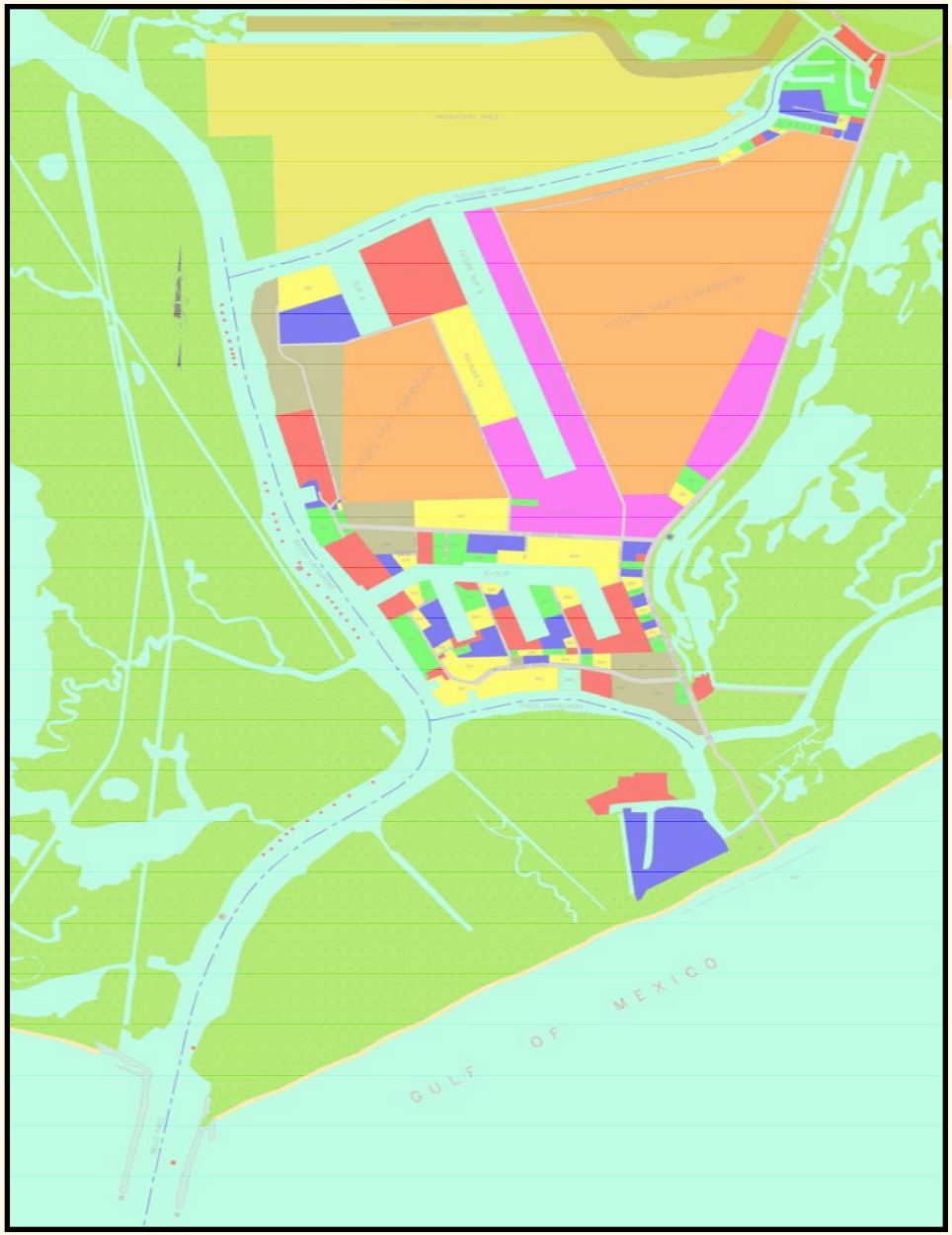
Greater Lafourche Port Commission
FOURCHON
The Gulf's Energy Connection

Port Fourchon

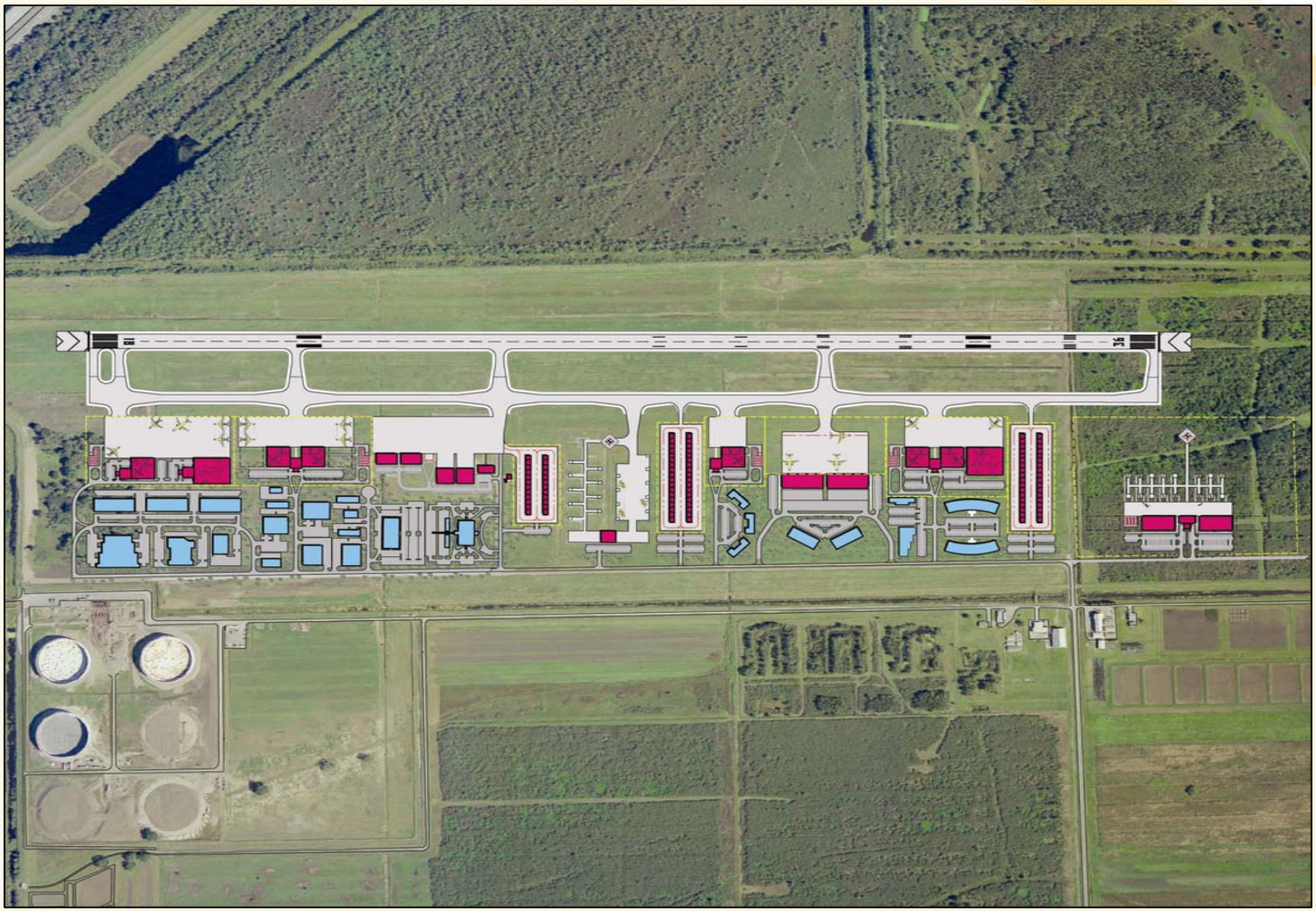
The Gulf's Energy Connection


Mississippi
River
Gulf Outlet
Gulf Intracoastal Waterway
Calcasieu
Ship Channel
Freshwater
Bayou Canal
Houma
Navigation Canal
Bayou Lafourche
Mississippi River

Future Port Development



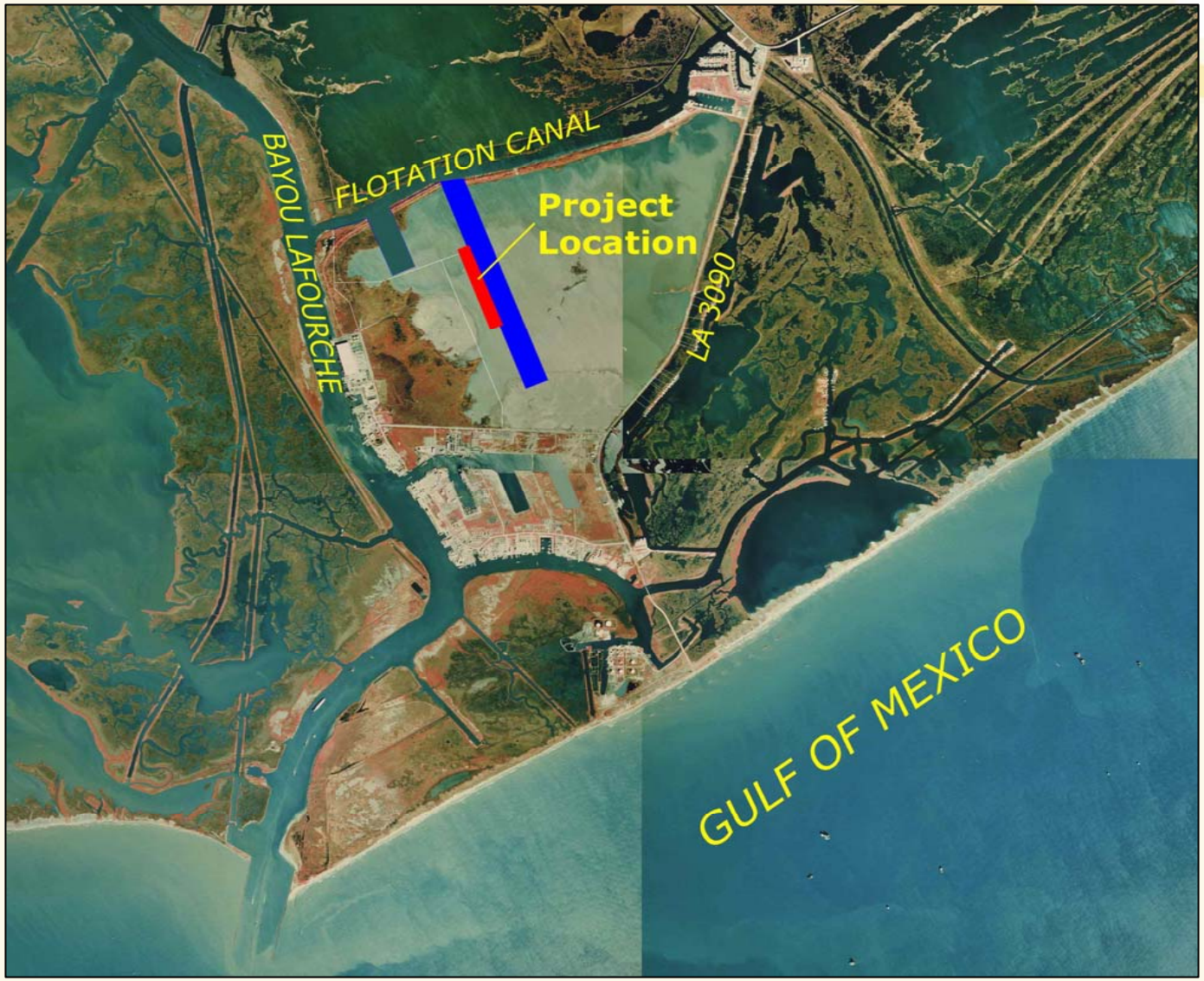
Future Airport Development



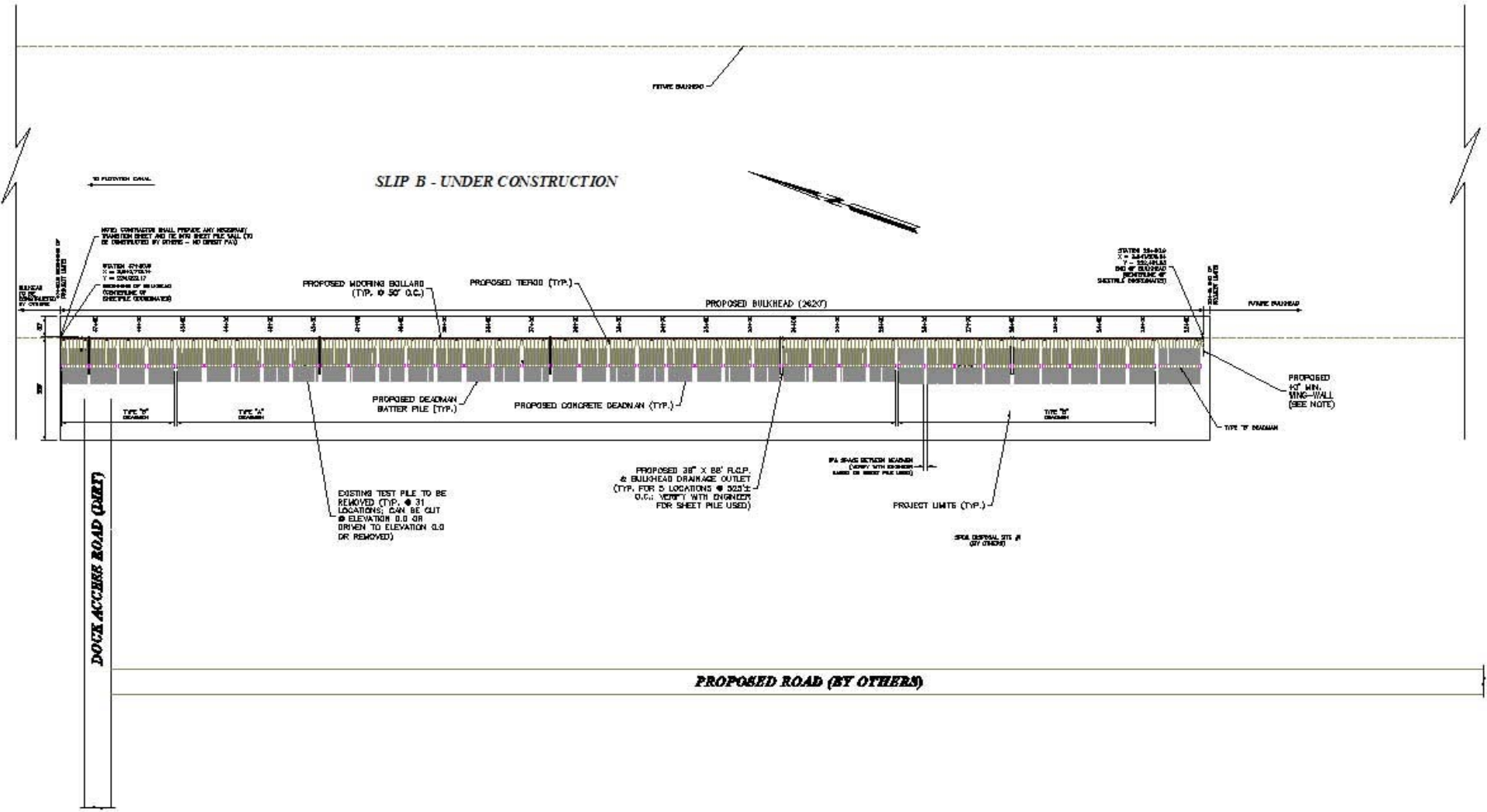
Port Fourchon

www.portfourchon.com

Location


FLOTATION CANAL
BAYOU LAFOURCHE
Project Location
LA 3090
GULF OF MEXICO

Site Plan


SLIP B - UNDER CONSTRUCTION
PROPOSED MOORING BOLLARD (TYP. @ 50' O.C.)
PROPOSED TIEROD (TYP.)
PROPOSED BULKHEAD (2620')
PROPOSED DEADMAN BATTER PILE (TYP.)
PROPOSED CONCRETE DEADMAN (TYP.)
PROPOSED 10' MIN. WING-WALL (SEE NOTE)
TYPE "B" DEADMAN
TYPE "A" DEADMAN
EXISTING TEST PILE TO BE REMOVED (TYP. @ 31 LOCATIONS; CAN BE CUT @ ELEVATION 0.0 OR DRIVEN TO ELEVATION 0.0 OR REMOVED)
PROPOSED 38' X 88' R.C.P. @ BULKHEAD DRAINAGE OUTLET (TYP. FOR 5 LOCATIONS @ 303'± O.C.; VERIFY WITH ENGINEER FOR SHEET PILE USED)
PROJECT LIMITS (TYP.)
DOCK ACCESS ROAD (DIRT)
PROPOSED ROAD (BY OTHERS)

Project Scope and Design Criteria

- 2620’ steel bulkhead system along the western side of Slip B
- Water depth of 26’ (-26’ bottom NGVD)
- Surcharge of 200 psf
- Final fill elevation +6’ NGVD
- Top of Bulkhead +6.5’ NGVD

Typical Bulkhead Design

26’ Depth & 200# Surcharge

- One 55’ Compression Pile and one 55’ tension pile spaced evenly.
- 60’ – 55 ksi sheet pile
- Lightweight aggregate close to bulkhead primarily for drainage

Soil Borings

- Soil boring were taken by PSI
- (Project Number 254-25148-1)
- Led to a test pile program
- Led to many design option considerations to reduce cost

Test Pile Program

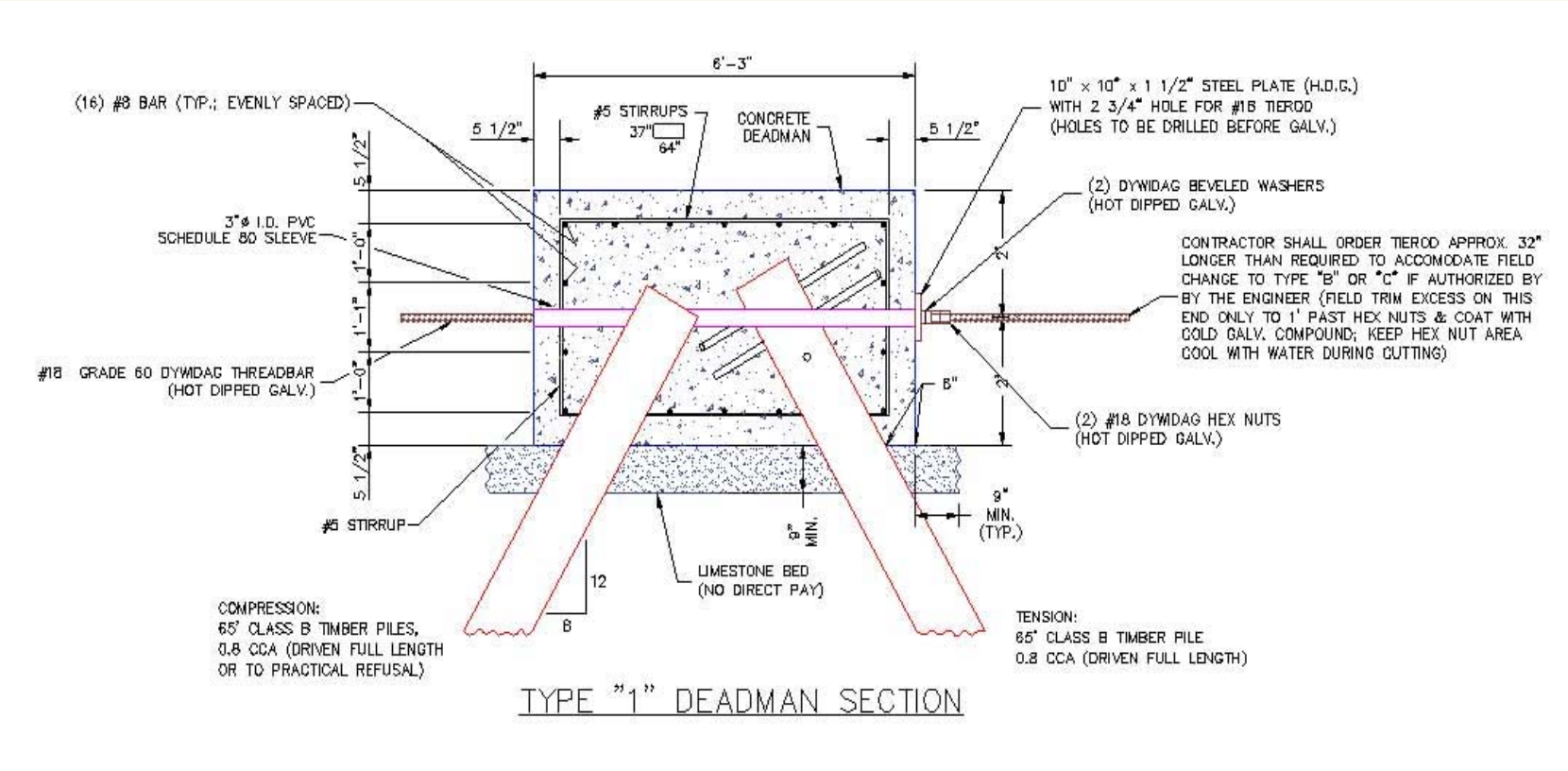
- Due to soil conditions a test pile program was conducted.
- The results helped reduce project cost significantly by allowing the use of timber piles versus concrete or steel piles.

Results of Soil Boring and Test Pile Program

- Two different deadman designs
- Increase in sheet length from previous designs
- Increase in the volume of lightweight aggregate used from previous designs
- Increase in fill material available for the project site

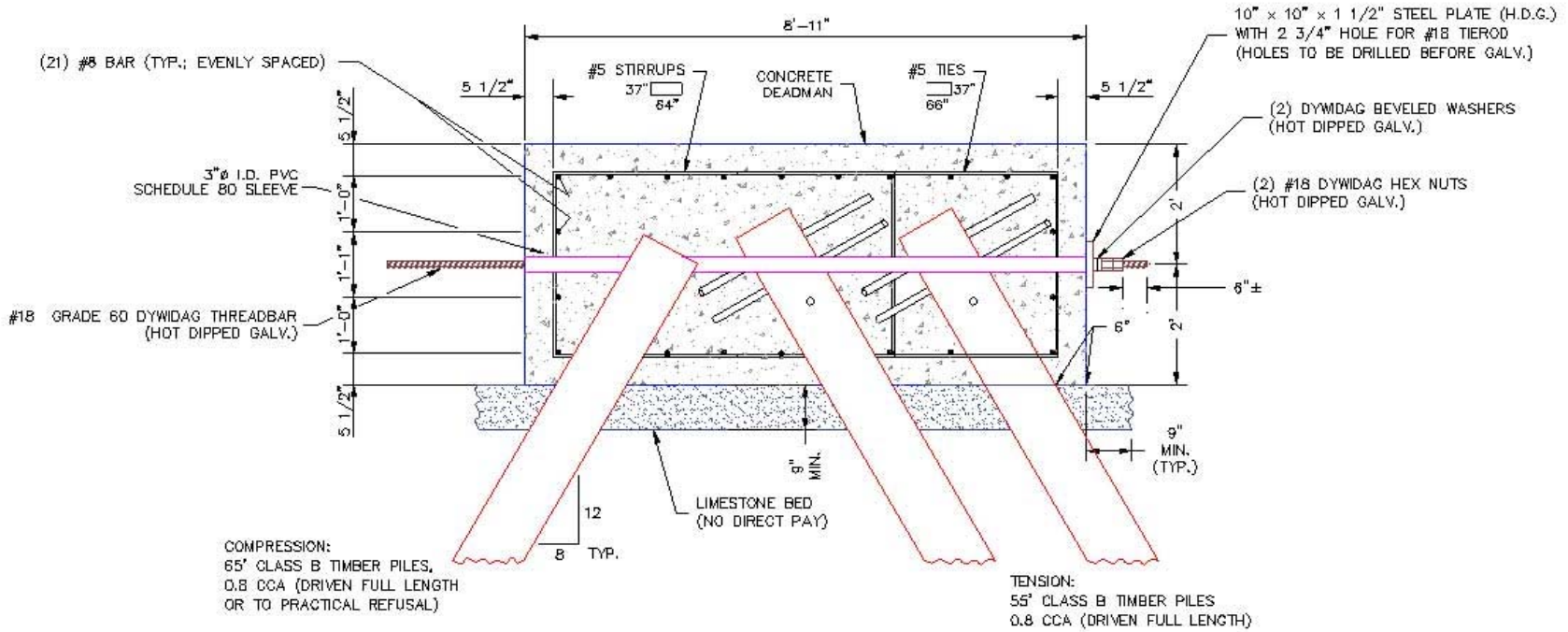
Deadman Type 1

- Requires one 65’ compression pile and one 65’ tension pile spaced at 3 foot on center
- Acceptable if a 65’ pile can be driven to length



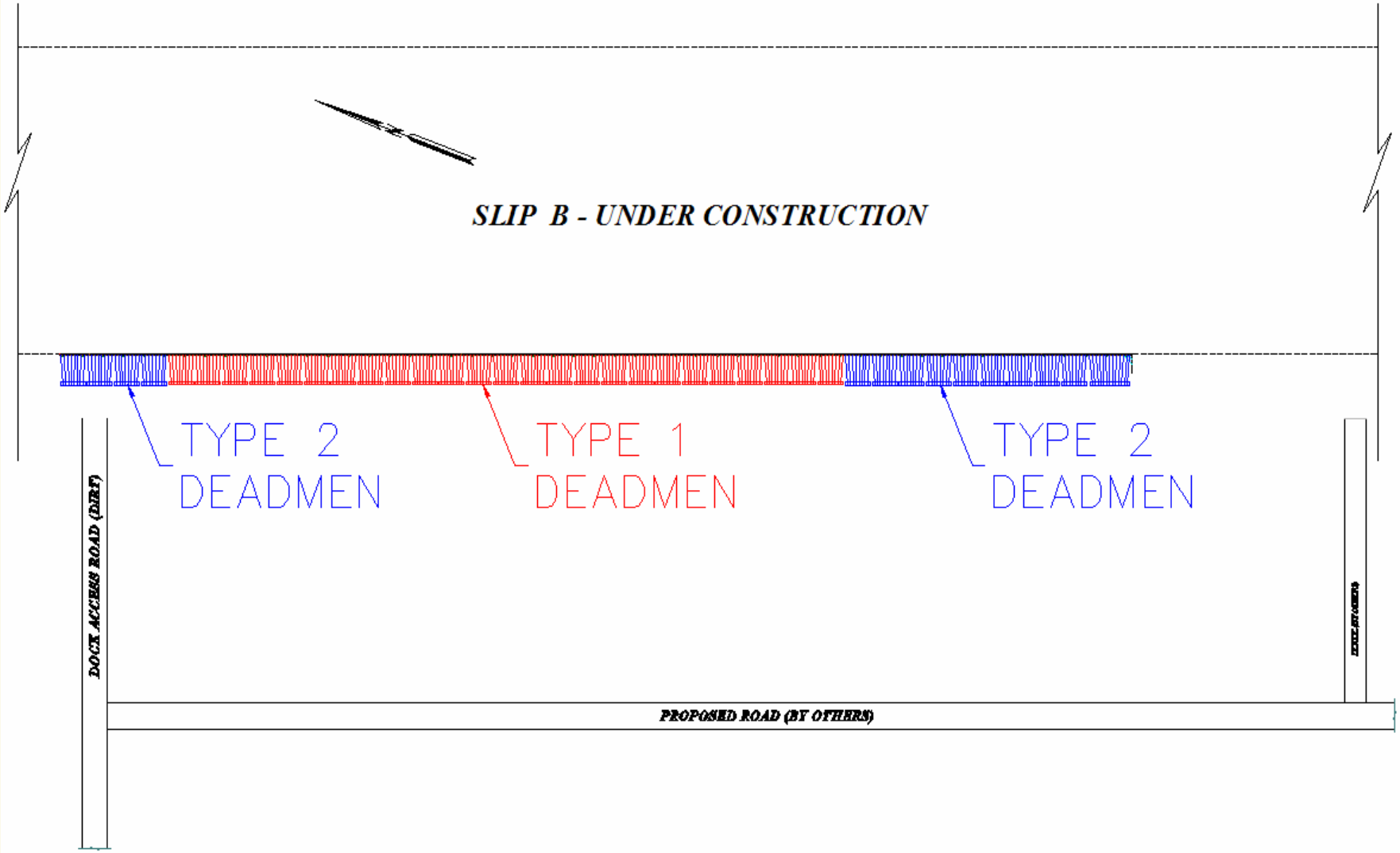
Deadman Type 2

- Requires one 65’ compression pile and two 55’ tension piles spaced at 3 foot on center
- Required if a 65’ pile cannot be driven to length
- Results in 50% more piles being needed



TYPE "2" DEADMAN SECTION

Deadman Layout

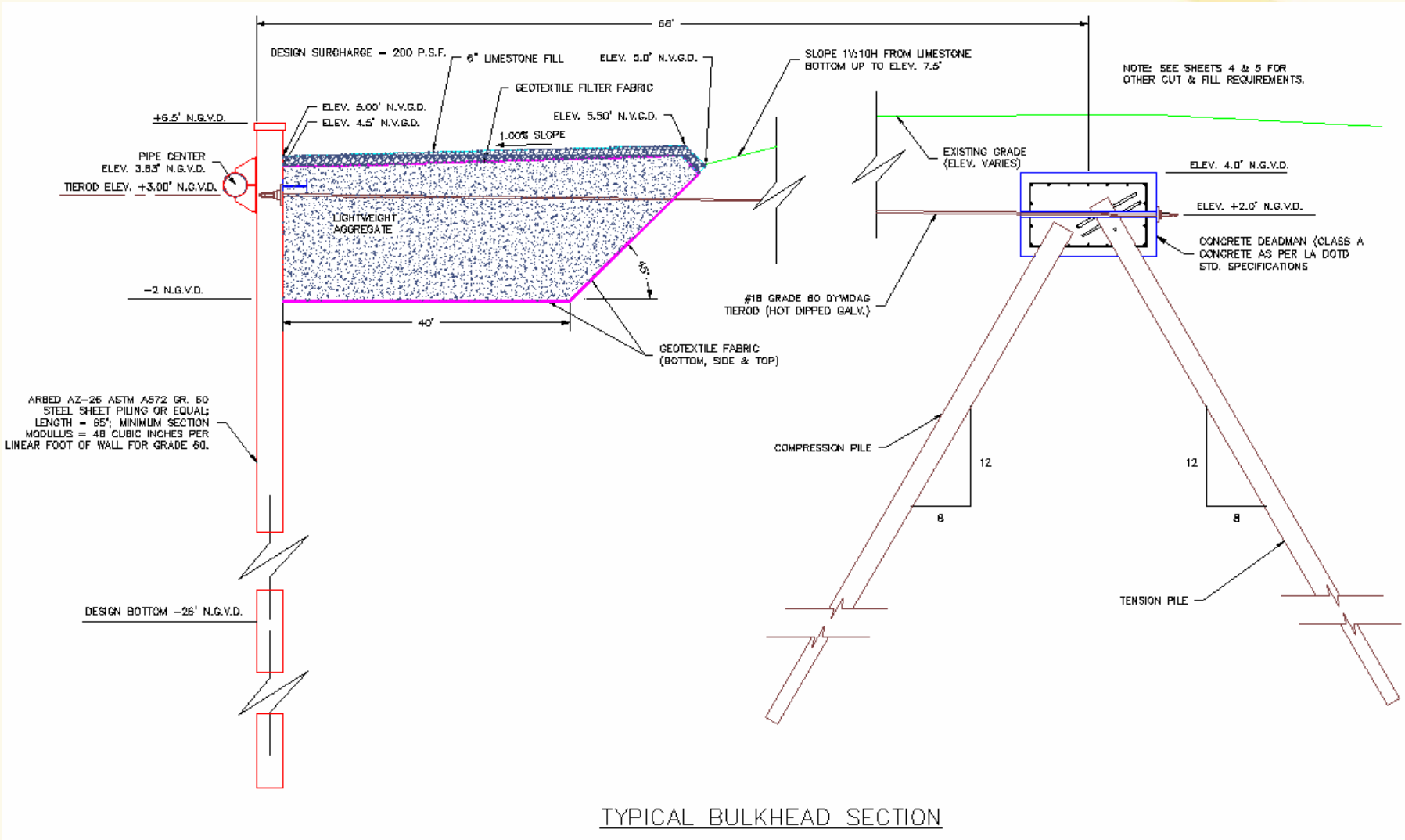


Sheet Pile Design

- 65’ sheet required
- ARBED AZ-26 sheet pile or equal
- ASTM A572 Grade 60 steel

Typical Bulkhead Section

Current Design



TYPICAL BULKHEAD SECTION


12/09/2005


11.07.2005 09:00

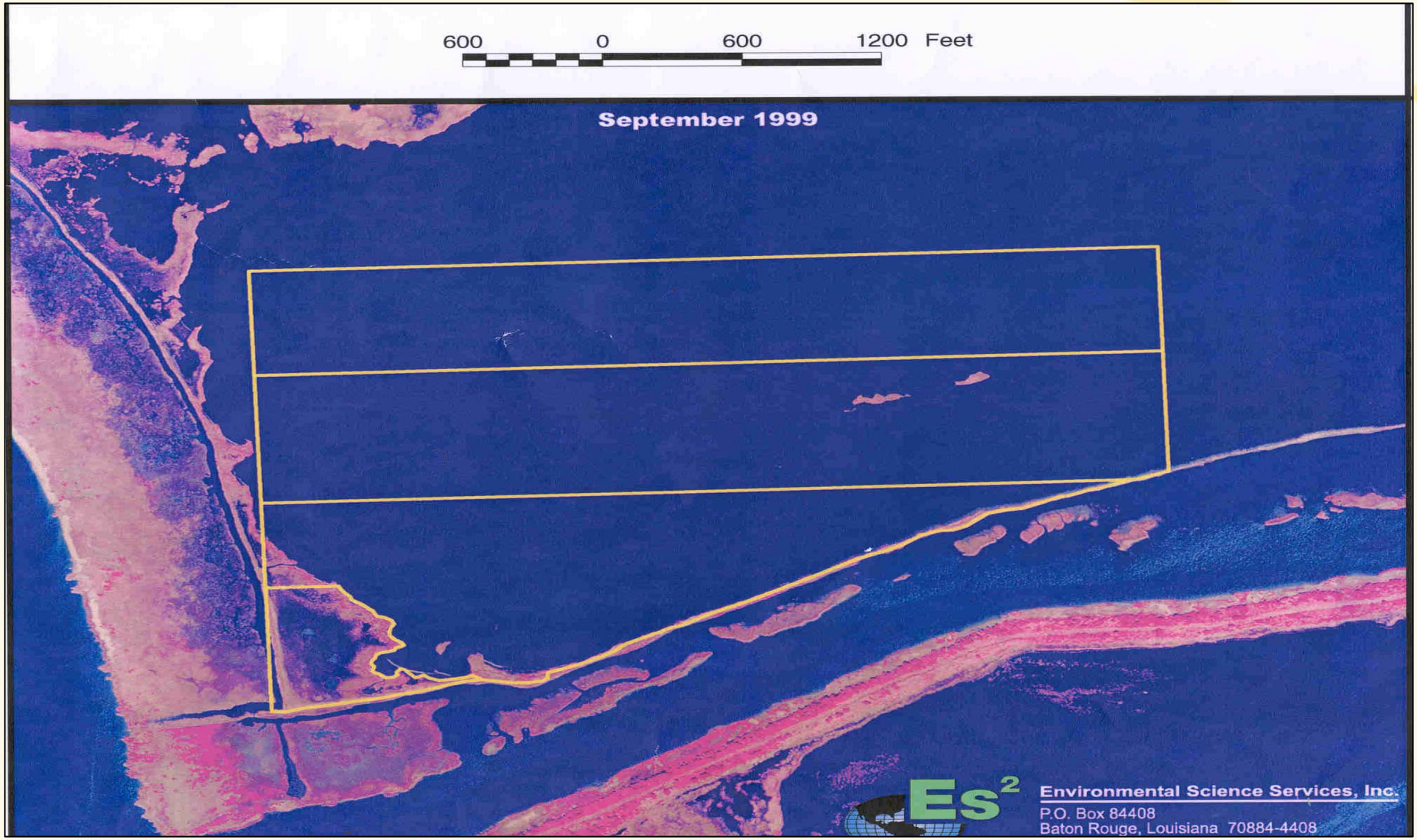

CAT
322C
01/19/2006


01/05/2006


12/09/2005

Rig Repair


GRADALL
04/10/2006


600 0 600 1200 Feet
September 1999
Es²
Environmental Science Services, Inc.
P.O. Box 84408
Baton Rouge, Louisiana 70884-4408

Maritime Forest Ridge

Maritime Forest Ridge

Maritime Forest Ridge

LA 1

FOURCHON

www.portfourchon.com


The future of this nation's energy stability rests in our ability to access the resources of the Gulf of Mexico.
America's WETLAND