STATE OF LOUISIANA
DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION

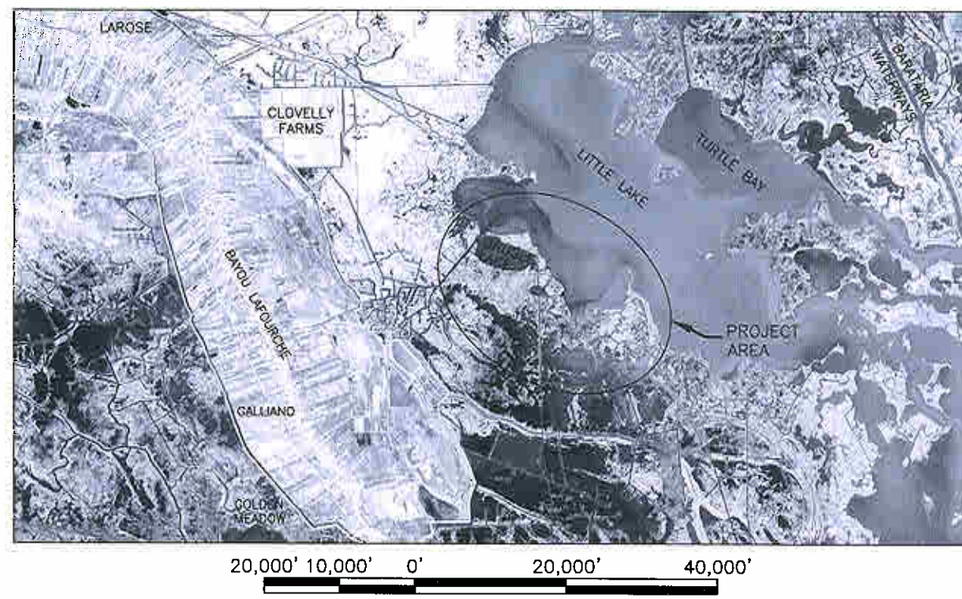
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

BA-37

LAFOURCHE PARISH

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	APPROXIMATE PIPELINE LOCATIONS
4	PROJECT LAYOUT
4A	AS-BUILT ACCESS, FLOATATION, ROCK DIKE STATIONING, SIGNS
5	BORING LOCATIONS
6	MARSH CREATION PLAN VIEW
6A	PRE CONSTRUCTION & AS-BUILT CELL ELEVATIONS
6B	PRE CONSTRUCTION, AS-BUILT, & 9 MONTH POST CONSTRUCTION MONITORING CELL ELEVATIONS
6C	INITIAL, 14 DAY, 28 DAY CELL ELEVATIONS
7	STAKE COORDINATES
8	PROPOSED CONTAINMENT
9	TYPICAL INTERNAL TRAINING DIKE SECTION & PLAN VIEW
10-13	SHORELINE PROTECTION PLAN VIEW
14	ROCK DIKE COORDINATES
15	TYPICAL ACCESS CHANNEL PLAN & PROFILE VIEWS
16	TYPICAL ACCESS CHANNEL SECTION
17	FISH DIP PLAN VIEW
18	FISH DIP DETAIL
19	TYPICAL ROCK DIKE SECTIONS
20	TYPICAL MARSH SECTIONS
21	TYPICAL CONTAINMENT LEVEE SECTION & PLAN VIEW
22	TYPICAL BORROW AREA SECTIONS
22A	AS-BUILT BORROW AREA PLAN VIEW
23-26	ROCK DIKE CROSS SECTIONS
27-30	MARSH CREATION CROSS SECTIONS
31	TYPICAL DETAILS
32	WEATHER CONDITIONS
33	ADJUSTED ROCK DIKE ALIGNMENT
34-47	ROCK DIKE CROSS SECTIONS
48	MARSH TRANSECT PLAN VIEW
49-56	MARSH CROSS SECTIONS (EXISTING)



FEDERAL PROJECT SPONSOR

STATE PROJECT SPONSOR

CED DIRECTOR

CED ENGINEER MANAGER

CED PROJECT ENGINEER

AS BUILT PLANS

TYPE OF CONSTRUCTION

CLASSIFICATION III (HEAVY CONSTRUCTION)
SHORELINE PROTECTION AND MARSH CREATION

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

TITLE SHEET

DATE: FEBRUARY 2005
SHEET 1

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A01 TITLE SHEET.DWG

GENERAL NOTES

1. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) U. S. SURVEY FEET (FEET). ALL HORIZONTAL COORDINATES ARE GIVEN IN THE NORTH AMERICAN DATUM OF 1983 (NAD83, LOUISIANA STATE PLANE SOUTH ZONE U. S. FEET).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NAVIGATING FROM A NAVIGABLE WATER BODY TO THE PROJECT AREA. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NAVIGATING WITHIN THE LIMITS OF THE PROJECT PLAN AREA AND DREDGING ONLY WITHIN THE LIMITS OF THE FLOATATION, ACCESS CHANNELS AND BORROW AREA. THE LDNR. PROJECT ENGINEER OR HIS REPRESENTATIVE SHALL MONITOR THE EQUIPMENT LOCATION DURING CONSTRUCTION.
3. ALL EQUIPMENT SHALL BE FLOATING AT ALL TIMES DURING THE TRANSIT TO AND FROM THE PROJECT SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS 5 WORKING DAYS PRIOR TO MOBILIZATION. ALL PIPELINES AND UNDERGROUND UTILITIES SHALL BE MARKED WITH BUOYS BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN BUOYS DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE CLEARANCES FROM THE PIPELINES SET FORTH IN THE PLAN DRAWINGS OR IN THE BID DOCUMENTS. SEE SP-4 "LAND OWNER REQUIREMENTS". NO EXCAVATION IS ALLOWED WITHIN ANY AREA RESTRICTED BY PIPELINE COMPANIES AND SET FORTH ON THE PLANS. THE FOLLOWING IS A LIST OF UTILITIES AND PIPELINE OPERATORS KNOWN TO HAVE PIPELINES IN THE VICINITY. PIPELINE LOCATIONS SHOWN ON SHEET **3** ARE APPROXIMATIONS. THE OWNER IS NOT LIABLE FOR EXACT LOCATIONS. THE CONTRACTOR MUST CALL LOUISIANA ONE CALL AT 1-800-272-3020 AT LEAST 5 WORKING DAYS PRIOR TO MOBILIZATION.

TENNESSEE GAS	CAM PIPELINE	MARDI GRAS/BP	MARDI GRAS/BP
CONTACT: MIKE BRYAN	CONTACT: JERRY ERCEG	CONTACT: BILL SCAIFE	CONTACT: BARRY DUFF
PHONE: (985) 879-3516 EXT. 2023	PHONE: (504) 393-6285	PHONE: (281) 366-4402	PHONE: (281) 366-6567
FAX: (985) 876-0836	FAX: (504) 394-2652	FAX: (281) 366-7910	FAX: (281) 366-3385
PIPE SIZE: 4", 6", AND 12"	PIPE SIZE: 24"	PIPE SIZE: 30"	PIPE SIZE: 30"

5. THE CONTRACTOR SHALL CONTACT MR. HARALD WERNER OF CLOVELLY OIL AT LEAST FIVE (5) WORKING DAYS PRIOR TO ACCESSING THE SITE TO OBTAIN PERMISSION TO ACCESS THE SITE. MR. WERNER CAN BE REACHED AT (504) 522-7496.
6. THE CONTRACTOR SHALL CONTACT MR. RANDY MOERTLE AT LEAST FIVE (5) WORKING DAYS PRIOR TO ACCESSING THE PROJECT SITE. MR. MOERTLE CAN BE REACHED AT HIS OFFICE AT (985) 532-6388 OR ON HIS CELL PHONE AT (985) 856-3630.
7. THE CONTRACTOR SHALL CONTACT MR. ZEB MAYHEW, JR. AT LEAST FIVE (5) WORKING DAYS PRIOR TO ACCESSING THE PROJECT SITE. MR. MAYHEW CAN BE REACHED AT HIS HOME AT (225) 265-4211 OR ON HIS CELL PHONE AT (225) 915-9527.
8. THE CONTRACTOR SHALL CONTACT MS. MERLE HIGGISON AT LEAST FIVE (5) WORKING DAYS PRIOR TO ACCESSING THE PROJECT SITE. MS. HIGGISON CAN BE REACHED AT (516) 759-9415.
9. THE BOAT LAUNCH HAS BEEN DEDICATED TO LAFOURCHE PARISH AND MAY BE UTILIZED THROUGH OUT CONSTRUCTION.
10. PLANS AND BID DOCUMENTS ARE COMPLEMENTARY; WHAT IS REQUIRED IN ONE IS AS BINDING AS IF REQUIRED BY ALL. CLARIFICATIONS AND INTERPRETATIONS OF, OR NOTIFICATIONS OF MINOR VARIATIONS AND DEVIATIONS IN THE CONTRACT DOCUMENTS, WILL BE ISSUED BY THE ENGINEER.
11. ELEVATIONS SHOWN ON PLANS ARE BASED ON SURVEYS PERFORMED BETWEEN 11/22/02 AND 1/27/03 BY T. BAKER SMITH AND SON, INC FOR LDNR.
12. THE ROCK ALIGNMENT AND MARSH CREATION AREA MAY BE REVISED BY THE ENGINEER AT THE TIME OF CONSTRUCTION TO REFLECT CHANGES IN FIELD CONDITIONS.
13. INITIAL PLACEMENT OF TEMPORARY NAVIGATION SIGNS SHALL BE 10.0' OUTSIDE OF THE SPOIL PLACEMENT. TEMPORARY NAVIGATION SIGNS AND PILINGS SHALL BE REMOVED PRIOR TO DEMOBILIZATION. PILINGS MAY BE REUSED AT PERMANENT SIGN LOCATIONS IF APPROVED BY THE ENGINEER. SEE SHEET 19 FOR PERMANENT SIGN LOCATIONS.
14. ANY DAMAGE TO EXISTING U.S. COAST GUARD NAVIGATION AIDS OR PRIVATE NAVIGATION AIDS SHALL BE REPAIRED BY THE CONTRACTOR TO U.S. COAST GUARD STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
15. ESTIMATED DREDGE QUANTITIES SHOWN ARE FOR BIDDING PURPOSES ONLY AND WERE CALCULATED ACCORDING TO CONDITIONS SURVEYED FROM 11/22/02 TO 1/27/03. DREDGE QUANTITIES WERE CALCULATED USING THE END AREA METHOD OF SECTIONS 1 THOUGH 10 AND 11 THOUGH 17 WHICH WERE TAKEN ON 1000.0' CENTERS. THE VOLUME FROM SECTIONS 1 THOUGH 10 AND SECTIONS 11 THROUGH 17 WERE AVERAGED TO DETERMINE THE BID QUANTITIES. SETTLEMENT OF THE DREDGE MATERIAL IS NOT INCLUDED IN THE BID QUANTITIES. ACTUAL QUANTITIES WILL BE BASED ON A SURVEY DONE AS PART OF THIS CONTRACT AS REQUIRED IN TS-3 "SURVEYING" OF THE SPECIFICATIONS. THE OWNER RESERVES THE RIGHT TO ADJUST QUANTITIES HIGHER OR LOWER WITHOUT ADJUSTMENT OF THE UNIT PRICE.
16. ESTIMATED ROCK QUANTITIES SHOWN ARE FOR BIDDING PURPOSES ONLY AND WERE CALCULATED ACCORDING TO CONDITIONS SURVEYED FROM 11/22/02 TO 1/27/03. ROCK QUANTITIES WERE CALCULATED USING THE END AREA METHOD OF SECTIONS AT THE BEGINNING OF EACH ROCK SEGMENT, 1000.0' CENTERS ALONG EACH SEGMENT, AND AT THE END OF EACH SEGMENT. TWO FEET OF SETTLEMENT UNDER THE CROWN TAPERING TO NO SETTLEMENT AT THE TOE OF STRUCTURE WAS INCLUDED IN THE QUANTITIES. THE QUANTITIES REQUIRED FOR EACH FISH DIP WERE CALCULATED ASSUMING AN UNIFORM 2.0' LAYER OF RIP-RAP BEING INSTALLED OVER THE ENTIRE FISH DIP AND 0.25' OF SETTLEMENT. THE IN-PLACE UNIT WEIGHT OF 1.5 TONS/CU. YDS. FOR THE ROCK WAS ASSUMED. ACTUAL QUANTITIES WILL BE BASED ON BARGE DISPLACEMENT MEASUREMENTS. SEE SECTION TS 12.10 "MEASUREMENTS AND PAYMENT" FOR ADDITIONAL REQUIREMENTS. THE OWNER RESERVES THE RIGHT TO ADJUST QUANTITIES HIGHER OR LOWER WITHOUT ADJUSTMENT OF THE UNIT PRICE.
17. MATERIAL STOCKPILED LAKEWARD OF FLOATATION AND ACCESS CHANNELS SHALL BE DEPOSITED IN AREAS SHOWN ON THE PLANS AND PLACED SUCH THAT IT IS READILY AVAILABLE TO BE USED TO BACK FILL FLOATATION AND ACCESS CHANNELS. ONLY MATERIAL DREDGED FROM FLOATATION AND ACCESS CHANNELS SHALL BE BACK FILLED INTO SAID CHANNELS.
18. MEAN HIGH WATER (MHW) AND MEAN LOW WATER (MLW) WERE CALCULATED FROM THE NOAA GRAND ISLE TIDAL GAGE AND THE USGS GAGE IN LITTLE LAKE. DATA FROM 01/01/1984 TO 12/31/2002 WAS USED. ELEVATIONS ARE REFERENCED TO NAVD 88, US FEET.
19. THE CONTRACTOR SHALL PERFORM A MAGNETOMETER SURVEY OF THE ACCESS, FLOATATION, AND BORROW AREA. DRAWINGS SHOWING THE TRACK LINES, ANY MAGNETOMETER HITS, COORDINATES, AMPLITUDE, SIGNATURE TYPE, AND SIGNATURE WIDTH OF ALL MAGNETOMETER HITS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO MOBILIZATION. MAGNETOMETER LINES SHALL BE RUN ALONG THE CENTERLINE ALIGNMENT OF ACCESS CHANNELS, THE FLOATATION CHANNEL, AND THE ROCK ALIGNMENT. ADDITIONAL MAGNETOMETER LINES SHALL BE RUN PERPENDICULAR TO THE ROCK ALIGNMENT AND ACCESS CHANNEL. THESE LINES SHALL BEGIN AT THE EDGE OF THE PERMANENT OR TEMPORARY SPOIL PLACEMENT AND EXTEND 25.0' PAST THE TEMPORARY SPOIL AND SHALL BE SPACED A MAXIMUM OF 500.0' APART. MAGNETOMETER LINES IN THE BORROW AREA SHALL FORM A GRID PATTERN WITH A MAXIMUM OFFSET OF 500.0' APART AND SHALL BE ORIENTED NORTH/SOUTH AND EAST/WEST. THE DRAWING SHALL BE STAMPED BY A REGISTERED PROFESSIONAL SURVEYOR LICENSED IN LOUISIANA. SEE SECTION TS 3.5 "MAGNETOMETER SURVEY" FOR ADDITIONAL REQUIREMENTS.

SUMMARY OF ESTIMATED QUANTITIES

BASE BID

ITEM No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	AS-BUILT QUANTITY
1	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1	1
2	SURVEYING OF MARSH CREATION AREA AND LAKE TRANSECTS	LUMP SUM	1	1
3	PRIMARY EARTHEN BOUNDARY CONTAINMENT LEVEE	LINEAR FEET	8,123	11,273
4	SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEE	LINEAR FEET	6,675	6,424
5	INTERNAL TRAINING DIKES (3,165' MINIMUM)	LUMP SUM	1	1
6	HYDRAULIC DREDGING (FILL VOLUME IN PLACE @ 2.4' EL.)	CUBIC YARDS	2,512,432	2,828,974
7	WOVEN GEOTEXTILE FABRIC	SQ. YARDS	118,693	113,284
8	ROCK SETTLEMENT PLATES	EACH	24	24
9	250 LB CLASS ROCK	TONS	151,103	145,528
10	TEMPORARY WARNING SIGNS	EACH	63	34
11	PERMANENT WARNING SIGNS	EACH	25	25
12	GRADE STAKES AND FLAGGING	EACH	207	207
13	MARSH SETTLEMENT PLATES	EACH	5	0
14	ACCESS AND FLOATATION CHANNELS	LUMP SUM	1	1

ADDITIVE ALTERNATE BID

ITEM No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	AS-BUILT QUANTITY
15	HYDRAULIC DREDGING	CUBIC YARDS	422,361	336,147
16	GRADE, STAKES AND FLAGGING	EACH	15	15
17	PRIMARY EARTHEN BOUNDARY CONTAINMENT LEVEE	LINEAR FEET	205	205
18	SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEE	LINEAR FEET	6,261*	6,261
19	INTERNAL TRAINING DIKES (414' MINIMUM)	LUMP SUM	1	1
20	R250 CORDS CLASS ROCK C.O. NO. 4	TONS	30,000	29,762

LOW BIDDER WILL BE DETERMINED ON THE BASIS OF THE BASE BID ALONE.

QUANTITIES SHOWN ARE FOR BID PURPOSES ONLY AND WERE CALCULATED ACCORDING TO CONDITIONS SURVEYED FROM 11/22/02 TO 1/27/03. THE OWNER RESERVES THE RIGHT TO ADJUST QUANTITIES HIGHER OR LOWER WITHOUT ADJUSTMENT OF THE UNIT PRICE. SEE NOTES 12 AND 13.

* IF THE ADDITIVE ALTERNATE IS AWARDED THE TOTAL LENGTH OF SECONDARY EARTHEN CONTAINMENT LEVEE REQUIRED TO CONSTRUCT BOTH THE BASE BID AND ADDITIVE ALTERNATE WILL BE 6,261 FEET. SEE SHEETS 8 OF 32 FOR CLARIFICATION.

AS BUILT PLANS

REV.	DATE	DESCRIPTION	BY
1	4/13/05	REVISED NOTE 6.	KC
2	4/13/05	ADDED NOTES 7, 8, AND 9.	KC
3	4/13/05	ADDED BASE BID ITEM 14.	KC
4	4/17/07	ADDED AS-BUILT QUANTITIES	JMP
5	5/1/07	REVISED SHEET NUMBER & QUANTITIES LIST	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

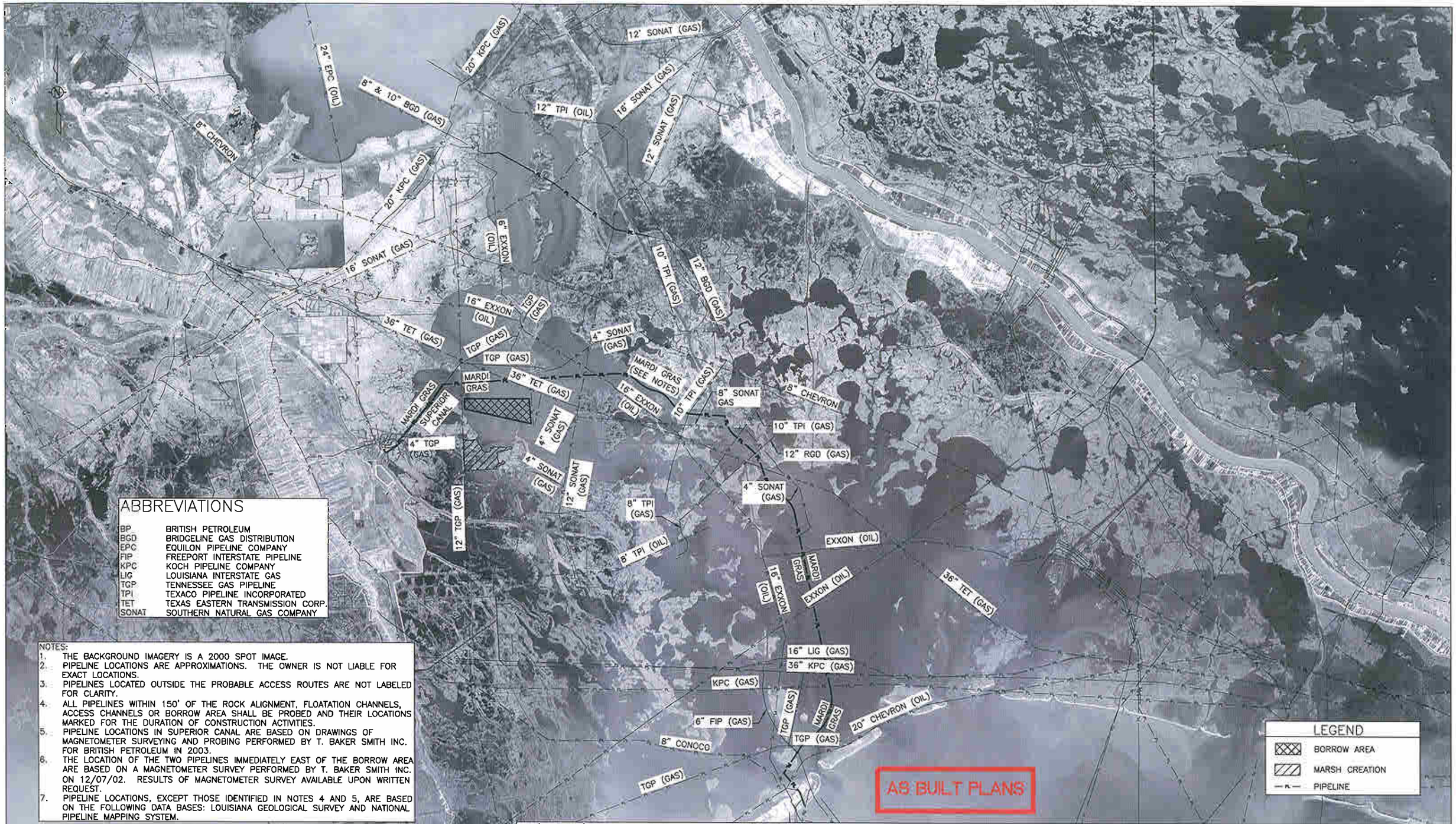
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

GENERAL NOTES

DATE: FEBRUARY 2005
SHEET 2

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A02 GENERAL NOTES.DWG



ABBREVIATIONS

BP	BRITISH PETROLEUM
BGD	BRIDGELINE GAS DISTRIBUTION
EPC	EQUILON PIPELINE COMPANY
FIP	FREEPORT INTERSTATE PIPELINE
KPC	KOCH PIPELINE COMPANY
LIG	LOUISIANA INTERSTATE GAS
TGP	TENNESSEE GAS PIPELINE
TPI	TEXACO PIPELINE INCORPORATED
TET	TEXAS EASTERN TRANSMISSION CORP.
SONAT	SOUTHERN NATURAL GAS COMPANY

NOTES:

1. THE BACKGROUND IMAGERY IS A 2000 SPOT IMAGE.
2. PIPELINE LOCATIONS ARE APPROXIMATIONS. THE OWNER IS NOT LIABLE FOR EXACT LOCATIONS.
3. PIPELINES LOCATED OUTSIDE THE PROBABLE ACCESS ROUTES ARE NOT LABELED FOR CLARITY.
4. ALL PIPELINES WITHIN 150' OF THE ROCK ALIGNMENT, FLOATATION CHANNELS, ACCESS CHANNELS OR BORROW AREA SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
5. PIPELINE LOCATIONS IN SUPERIOR CANAL ARE BASED ON DRAWINGS OF MAGNETOMETER SURVEYING AND PROBING PERFORMED BY T. BAKER SMITH INC. FOR BRITISH PETROLEUM IN 2003.
6. THE LOCATION OF THE TWO PIPELINES IMMEDIATELY EAST OF THE BORROW AREA ARE BASED ON A MAGNETOMETER SURVEY PERFORMED BY T. BAKER SMITH INC. ON 12/07/02. RESULTS OF MAGNETOMETER SURVEY AVAILABLE UPON WRITTEN REQUEST.
7. PIPELINE LOCATIONS, EXCEPT THOSE IDENTIFIED IN NOTES 4 AND 5, ARE BASED ON THE FOLLOWING DATA BASES: LOUISIANA GEOLOGICAL SURVEY AND NATIONAL PIPELINE MAPPING SYSTEM.

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

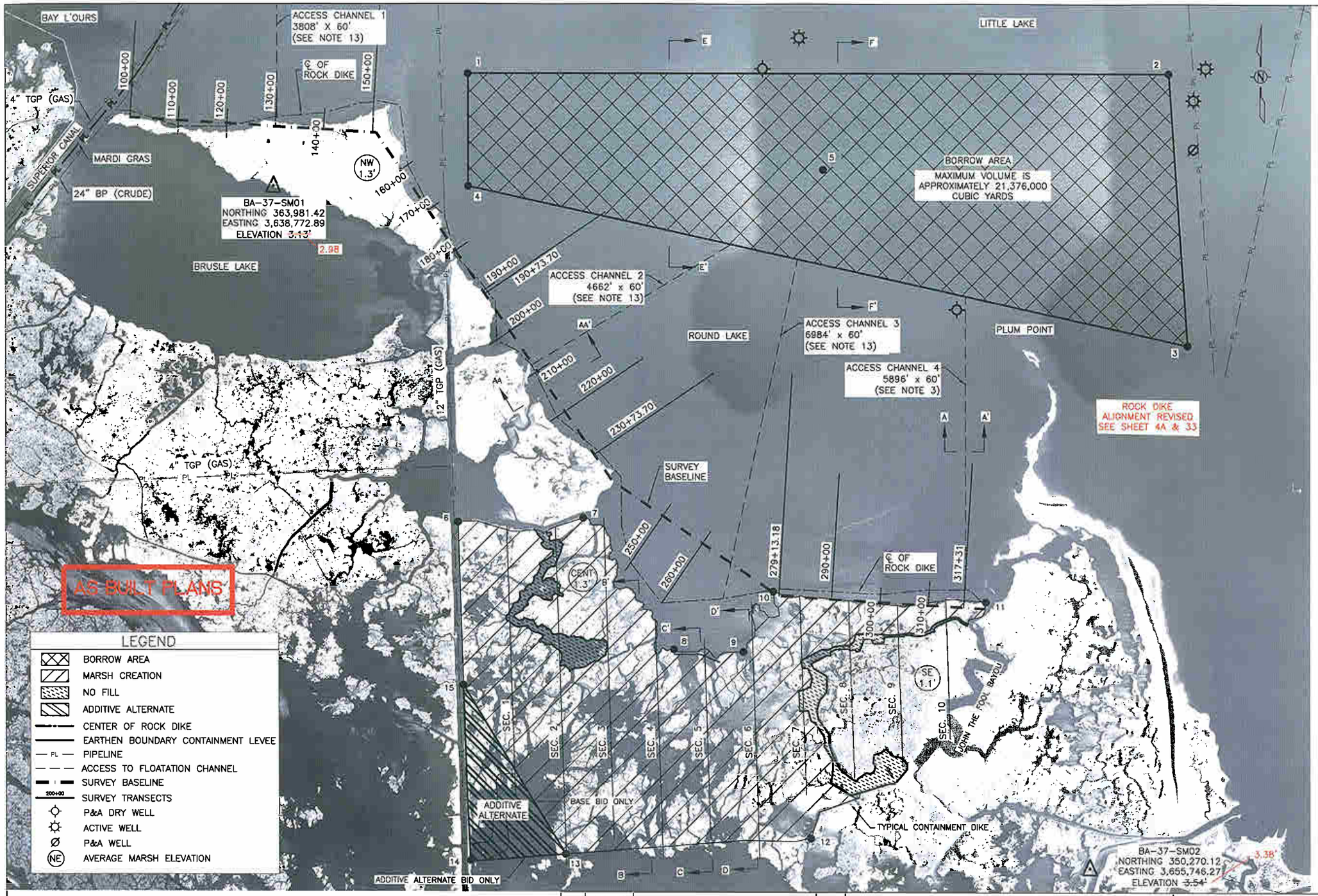
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

APPROXIMATE PIPELINE LOCATIONS

DATE: FEBRUARY 2005
SHEET 3

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A03 PIPELINE.DWG



BORROW AREA BOUNDARY

PT.	NORTHING (FEET)	EASTING (FEET)
1	366,289.36	3,642,789.75
2	366,289.36	3,657,225.92
3	360,714.07	3,657,625.28
4	363,981.42	3,642,789.75
5	364,318.55	3,650,107.67

MARSH CREATION AREA BOUNDARY

PT.	NORTHING (FEET)	EASTING (FEET)
6	357,069.21	3,642,574.77
7	357,151.21	3,645,148.02
8	354,393.40	3,647,018.99
9	354,389.79	3,648,460.82
10	355,629.68	3,649,078.20
11	355,420.24	3,653,462.74
12	350,547.65	3,649,847.88
13	350,216.87	3,644,778.37
14	350,085.81	3,642,821.18
15	353,705.18	3,642,680.21

NOTES:

1. SEE SHEET 19 FOR SECTION AA–AA'.
2. SEE SHEET 16 FOR SECTION A–A'.
3. SEE SHEET 20 FOR SECTIONS B–B', C–C', AND D–D'.
4. SEE SHEET 22 FOR SECTIONS E–E' AND F–F'
5. ALL PIPELINES WITHIN 150' OF THE ROCK ALIGNMENT, FLOATATION CHANNELS, ACCESS CHANNELS OR BORROW AREA SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
6. PERMITTED ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
7. SEE SHEET 14 FOR PROPOSED COORDINATES OF ROCK DIKE. A TABLE CONTAINING THE SAME INFORMATION SHALL BE SUBMITTED FOR APPROVAL BY THE CONTRACTOR. WRITTEN APPROVAL BY THE ENGINEER OF THE ALIGNMENT AND QUANTITIES IS REQUIRED BEFORE PLACING ANY ROCKS.
8. PIPELINE LOCATIONS ARE APPROXIMATIONS. THE OWNER IS NOT LIABLE FOR EXACT LOCATIONS.
9. PIPELINE LOCATIONS IN SUPERIOR CANAL ARE BASED ON RESULTS OF MAGNETOMETER SURVEYING AND PROBING PERFORMED BY T. BAKER SMITH INC. FOR BRITISH PETROLEUM IN 2003.
10. TWO PIPELINES IMMEDIATELY EAST OF THE BORROW AREA ARE BASED ON A MAGNETOMETER SURVEY PERFORMED BY T. BAKER SMITH INC. ON 12/07/02. RESULTS OF MAGNETOMETER AVAILABLE UPON WRITTEN REQUEST.
11. APPROXIMATE PIPELINE LOCATIONS EXCEPT THOSE IDENTIFIED IN NOTES 9 AND 10 ARE BASED ON THE FOLLOWING DATA BASES: LOUISIANA GEOLOGICAL SURVEY AND NATIONAL PIPELINE MAPPING SYSTEM.
12. SECTIONS 1, 3, 5 AND 7 WERE EXTENDED TO CALCULATE QUANTITIES. THE CONTRACTOR SHALL VERIFY THE PRE–CONSTRUCTION ELEVATIONS AT THE EARTHEN BOUNDARY CONTAINMENT LEVEES. SEE SECTION TS 5.1, "SCOPE" FOR ADDITIONAL REQUIREMENTS.
13. SEE SHEET 16 FOR ACCESS CHANNELS COORDINATES.

REV.	DATE	DESCRIPTION	BY
1	4/19/05	REVISED MONUMENT INFORMATION.	KC
2	4/17/07	CORRECT MONUMENT ELEVATIONS	JMP
3	6/1/07	REVISED SHEET NUMBER, SET, & ELEVATION	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

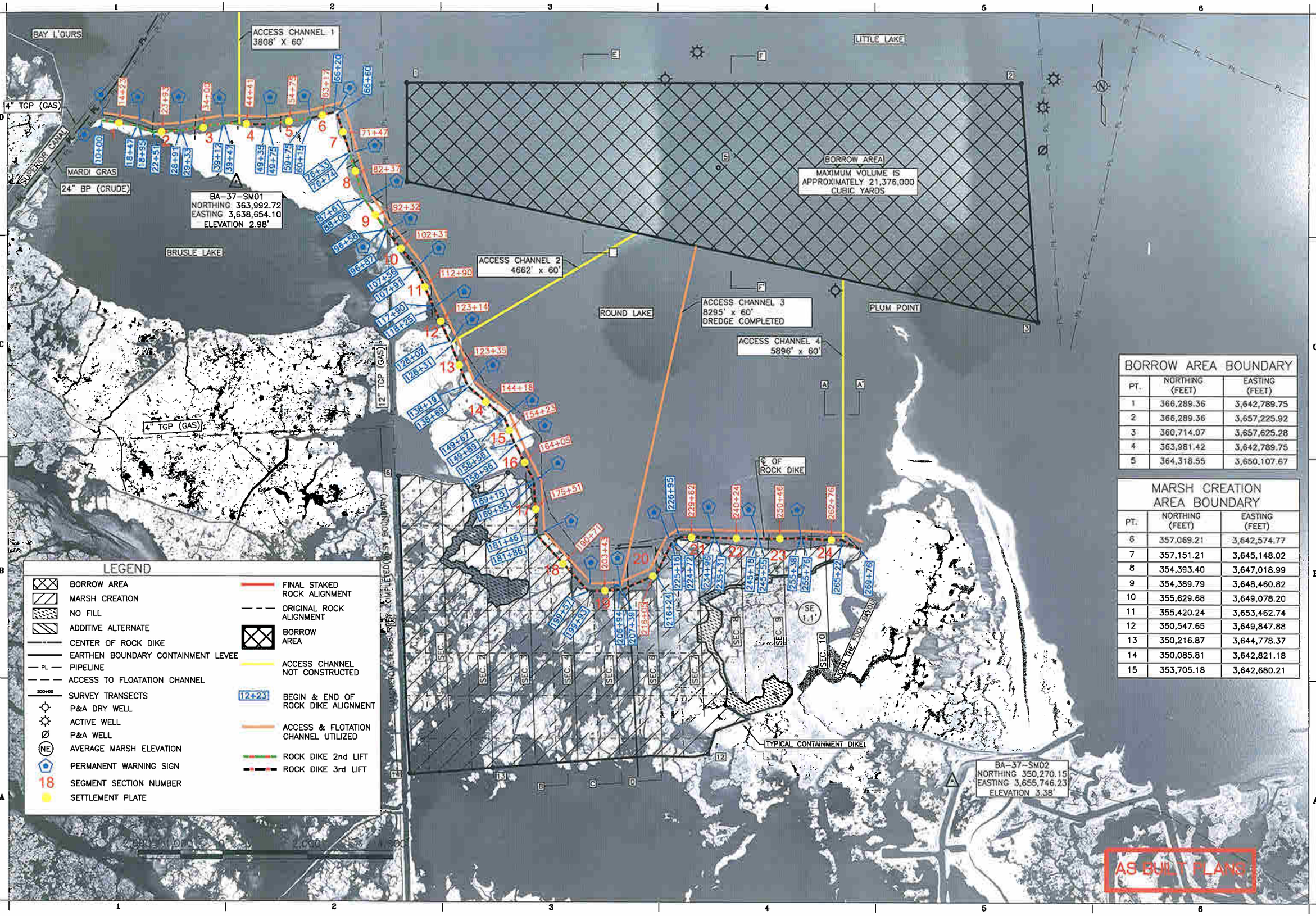
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

PROJECT LAYOUT

DATE: FEBRUARY 2005
SHEET 4

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A04-5 PROJECT LOCATION.DWG



BORROW AREA BOUNDARY

PT.	NORTHING (FEET)	EASTING (FEET)
1	366,289.36	3,642,789.75
2	366,289.36	3,657,225.92
3	360,714.07	3,657,625.28
4	363,981.42	3,642,789.75
5	364,318.55	3,650,107.67

MARSH CREATION AREA BOUNDARY

PT.	NORTHING (FEET)	EASTING (FEET)
6	357,069.21	3,642,574.77
7	357,151.21	3,645,148.02
8	354,393.40	3,647,018.99
9	354,389.79	3,648,460.82
10	355,629.68	3,649,078.20
11	355,420.24	3,653,462.74
12	350,547.65	3,649,847.88
13	350,216.87	3,644,778.37
14	350,085.81	3,642,821.18
15	353,705.18	3,642,680.21

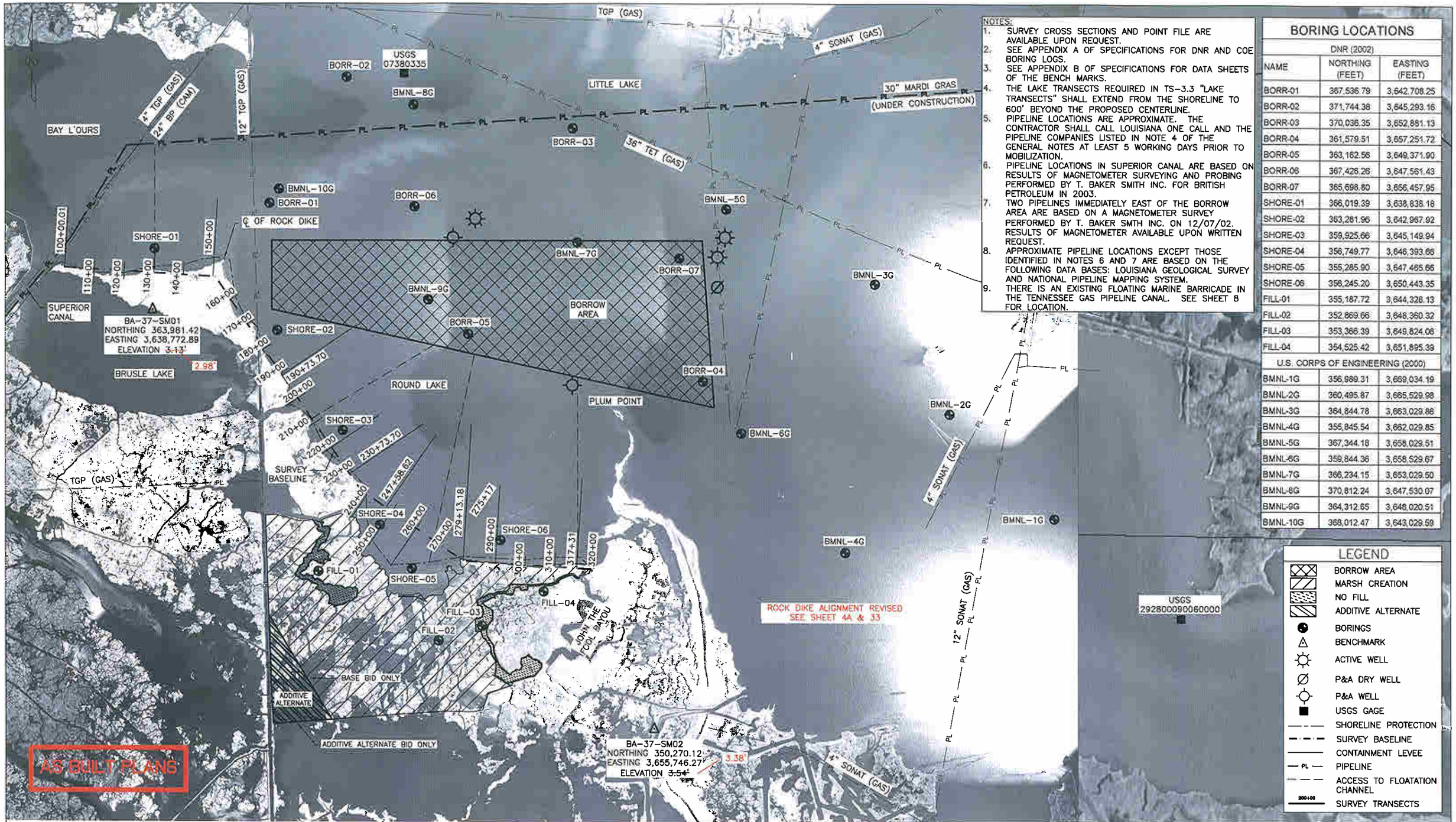
Shaw Coastal, Inc.

MAIN OFFICE LOCATION:
197 ELYSIAN DRIVE
HOUMA, LA. 70363
PHONE: (985) 868-3434
FAX: (985) 868-8513
AN ADDITIONAL OFFICE IN WESTWEGO, LA.

BA-37 LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION PROJECT
LITTLE LAKE SHORELINE
AS-BUILT
ACCESS&FLOATATION CHANNELS, ROCK DIKE, AND STATIONING

SHEET NUMBER 4A

V:\CAD\116478\DNR ORIGINAL DESIGN PLANS B-28-08\AS-BUILT-LAND 2007\A 4A-ACCESS, FLOATATION, ROCK DIKE.DWG



NOTES:

1. SURVEY CROSS SECTIONS AND POINT FILE ARE AVAILABLE UPON REQUEST.
2. SEE APPENDIX A OF SPECIFICATIONS FOR DNR AND COE BORING LOGS.
3. SEE APPENDIX B OF SPECIFICATIONS FOR DATA SHEETS OF THE BENCH MARKS.
4. THE LAKE TRANSECTS REQUIRED IN TS-3.3 "LAKE TRANSECTS" SHALL EXTEND FROM THE SHORELINE TO 600' BEYOND THE PROPOSED CENTERLINE.
5. PIPELINE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL AND THE PIPELINE COMPANIES LISTED IN NOTE 4 OF THE GENERAL NOTES AT LEAST 5 WORKING DAYS PRIOR TO MOBILIZATION.
6. PIPELINE LOCATIONS IN SUPERIOR CANAL ARE BASED ON RESULTS OF MAGNETOMETER SURVEYING AND PROBING PERFORMED BY T. BAKER SMITH INC. FOR BRITISH PETROLEUM IN 2003.
7. TWO PIPELINES IMMEDIATELY EAST OF THE BORROW AREA ARE BASED ON A MAGNETOMETER SURVEY PERFORMED BY T. BAKER SMTH INC. ON 12/07/02. RESULTS OF MAGNETOMETER AVAILABLE UPON WRITTEN REQUEST.
8. APPROXIMATE PIPELINE LOCATIONS EXCEPT THOSE IDENTIFIED IN NOTES 6 AND 7 ARE BASED ON THE FOLLOWING DATA BASES: LOUISIANA GEOLOGICAL SURVEY AND NATIONAL PIPELINE MAPPING SYSTEM.
9. THERE IS AN EXISTING FLOATING MARINE BARRICADE IN THE TENNESSEE GAS PIPELINE CANAL. SEE SHEET 8 FOR LOCATION.

BORING LOCATIONS

NAME	NORTHING (FEET)	EASTING (FEET)
DNR (2002)		
BORR-01	367,536.79	3,642,708.25
BORR-02	371,744.38	3,645,293.16
BORR-03	370,036.35	3,652,881.13
BORR-04	361,579.51	3,657,251.72
BORR-05	363,162.56	3,649,371.90
BORR-06	367,426.26	3,647,561.43
BORR-07	365,698.80	3,656,457.95
SHORE-01	366,019.39	3,638,838.18
SHORE-02	363,281.96	3,642,967.92
SHORE-03	359,925.66	3,645,149.94
SHORE-04	356,749.77	3,646,393.66
SHORE-05	355,285.90	3,647,465.66
SHORE-06	356,245.20	3,650,443.35
FILL-01	355,187.72	3,644,328.13
FILL-02	352,869.66	3,648,360.32
FILL-03	353,366.39	3,649,824.06
FILL-04	354,525.42	3,651,895.39
U.S. CORPS OF ENGINEERING (2000)		
BMNL-1G	356,989.31	3,669,034.19
BMNL-2G	360,495.87	3,685,529.98
BMNL-3G	364,844.78	3,663,029.86
BMNL-4G	355,845.54	3,662,029.85
BMNL-5G	367,344.18	3,658,029.51
BMNL-6G	359,844.36	3,658,529.67
BMNL-7G	366,234.15	3,653,029.50
BMNL-8G	370,812.24	3,647,530.07
BMNL-9G	364,312.65	3,648,020.51
BMNL-10G	368,012.47	3,643,029.59

LEGEND

- BORROW AREA
- MARSH CREATION
- NO FILL
- ADDITIVE ALTERNATE
- BORINGS
- BENCHMARK
- ACTIVE WELL
- P&A DRY WELL
- P&A WELL
- USGS GAGE
- SHORELINE PROTECTION
- SURVEY BASELINE
- CONTAINMENT LEVEE
- PL — PIPELINE
- ACCESS TO FLOATATION CHANNEL
- 200+00 SURVEY TRANSECTS

AS BUILT PLANS

3,000' 1,500' 0' 3,000' 6,000'

REV.	DATE	DESCRIPTION	BY
1	4/19/05	REVISED MONUMENT INFORMATION.	KC
2	4/17/05	CORRECT MONUMENT ELEVATIONS	JMP
3	5/1/07	REVISED SHEET NUMBER, SET, & ELEVATION	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

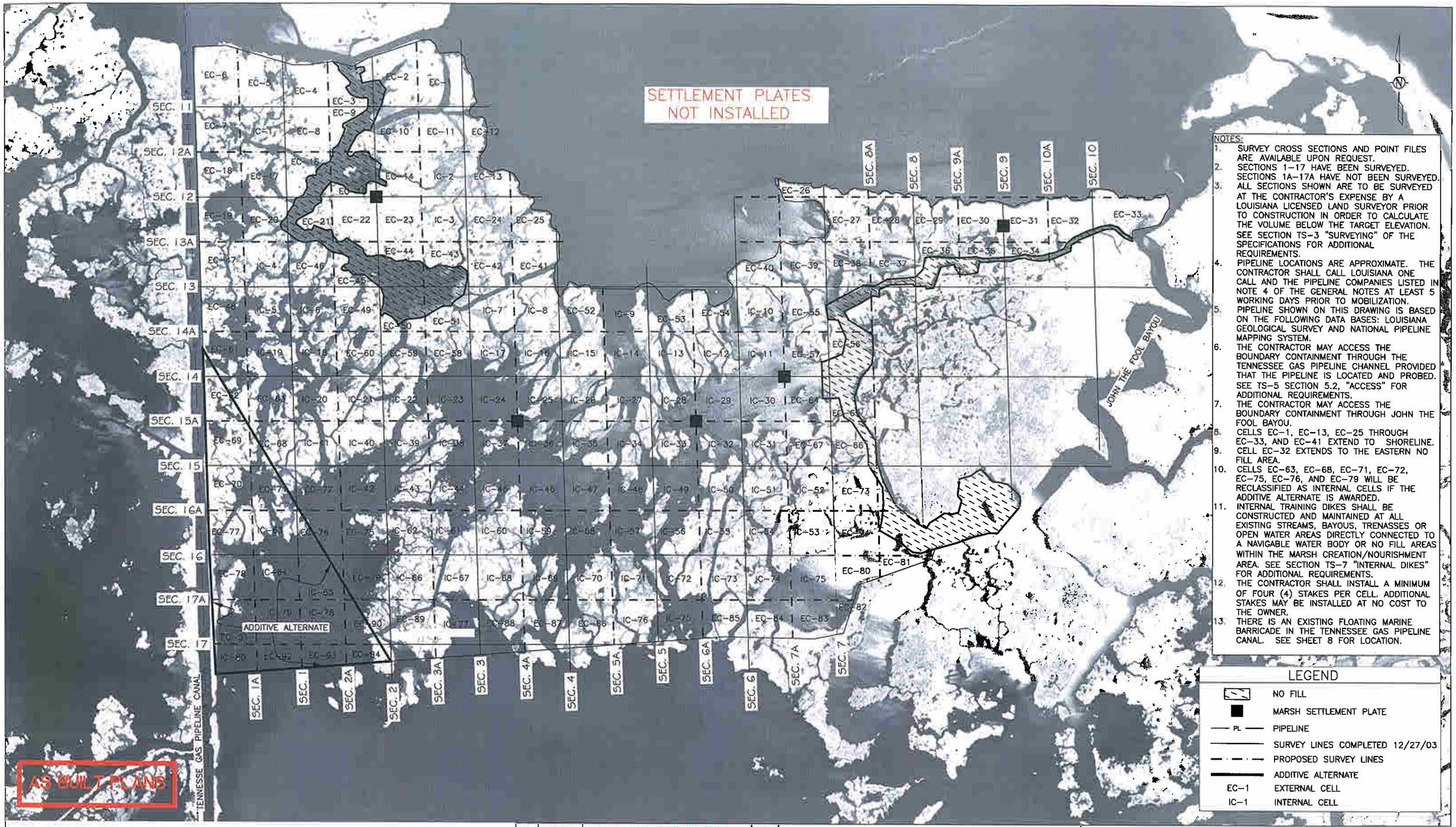
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

BORING LOCATIONS

DATE: FEBRUARY 2005
SHEET 5

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A04-5 PROJECT LOCATION.DWG



NOTES:

1. SURVEY CROSS SECTIONS AND POINT FILES ARE AVAILABLE UPON REQUEST.
2. SECTIONS 1–17 HAVE BEEN SURVEYED. SECTIONS 1A–17A HAVE NOT BEEN SURVEYED.
3. ALL SECTIONS SHOWN ARE TO BE SURVEYED AT THE CONTRACTOR'S EXPENSE BY A LOUISIANA LICENSED LAND SURVEYOR PRIOR TO CONSTRUCTION IN ORDER TO CALCULATE THE VOLUME BELOW THE TARGET ELEVATION. SEE SECTION TS–3 "SURVEYING" OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. PIPELINE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CALL LOUISIANA ONE CALL AND THE PIPELINE COMPANIES LISTED IN NOTE 4 OF THE GENERAL NOTES AT LEAST 5 WORKING DAYS PRIOR TO MOBILIZATION.
5. PIPELINE SHOWN ON THIS DRAWING IS BASED ON THE FOLLOWING DATA BASES: LOUISIANA GEOLOGICAL SURVEY AND NATIONAL PIPELINE MAPPING SYSTEM.
6. THE CONTRACTOR MAY ACCESS THE BOUNDARY CONTAINMENT THROUGH THE TENNESSEE GAS PIPELINE CHANNEL PROVIDED THAT THE PIPELINE IS LOCATED AND PROBED. SEE TS–5 SECTION 5.2, "ACCESS" FOR ADDITIONAL REQUIREMENTS.
7. THE CONTRACTOR MAY ACCESS THE BOUNDARY CONTAINMENT THROUGH JOHN THE FOOL BAYOU.
8. CELLS EC–1, EC–13, EC–25 THROUGH EC–33, AND EC–41 EXTEND TO SHORELINE.
9. CELL EC–32 EXTENDS TO THE EASTERN NO FILL AREA.
10. CELLS EC–63, EC–68, EC–71, EC–72, EC–75, EC–76, AND EC–79 WILL BE RECLASSIFIED AS INTERNAL CELLS IF THE ADDITIVE ALTERNATE IS AWARDED.
11. INTERNAL TRAINING DIKES SHALL BE CONSTRUCTED AND MAINTAINED AT ALL EXISTING STREAMS, BAYOUS, TRENASSES OR OPEN WATER AREAS DIRECTLY CONNECTED TO A NAVIGABLE WATER BODY OR NO FILL AREAS WITHIN THE MARSH CREATION/NOURISHMENT AREA. SEE SECTION TS–7 "INTERNAL DIKES" FOR ADDITIONAL REQUIREMENTS.
12. THE CONTRACTOR SHALL INSTALL A MINIMUM OF FOUR (4) STAKES PER CELL. ADDITIONAL STAKES MAY BE INSTALLED AT NO COST TO THE OWNER.
13. THERE IS AN EXISTING FLOATING MARINE BARRICADE IN THE TENNESSEE GAS PIPELINE CANAL. SEE SHEET 8 FOR LOCATION.

LEGEND

	NO FILL
	MARSH SETTLEMENT PLATE
PL	PIPELINE
	SURVEY LINES COMPLETED 12/27/03
	PROPOSED SURVEY LINES
	ADDITIVE ALTERNATE
EC–1	EXTERNAL CELL
IC–1	INTERNAL CELL

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER & ADDED NOTE	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

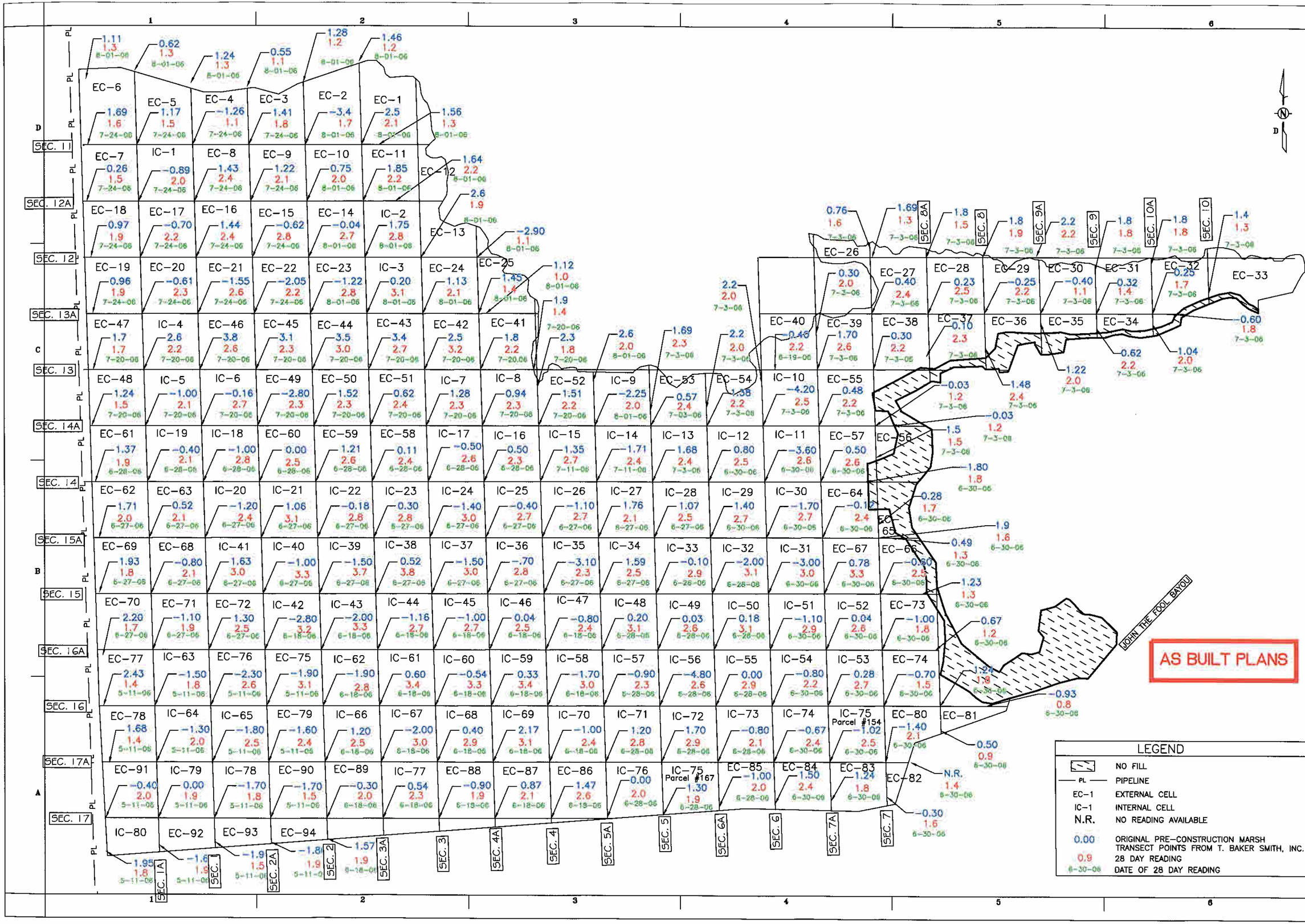
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

MARSH CREATION PLAN VIEW

DATE: FEBRUARY 2005
SHEET 6

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A08 PROJECT LOCATION.DWG



Shaw Coastal, Inc.

MAIN OFFICE LOCATION: 197 ELYSIAN DRIVE HOUMA, LA. 70363

PHONE: (985) 868-3434 FAX: (985) 868-8513

AN ADDITIONAL OFFICE IN WESTWEGO, LA.

DESIGNED BY: JMP
CHECKED BY: AKK
DRAWN BY: BJS
DATE: 8-31-06

PLOT SCALE: 1:1
PLOT DATE: 8-31-06

DESIGN FILE NAME: A IN THE MARSH TRANSECT.dwg

SUBMITTED BY:

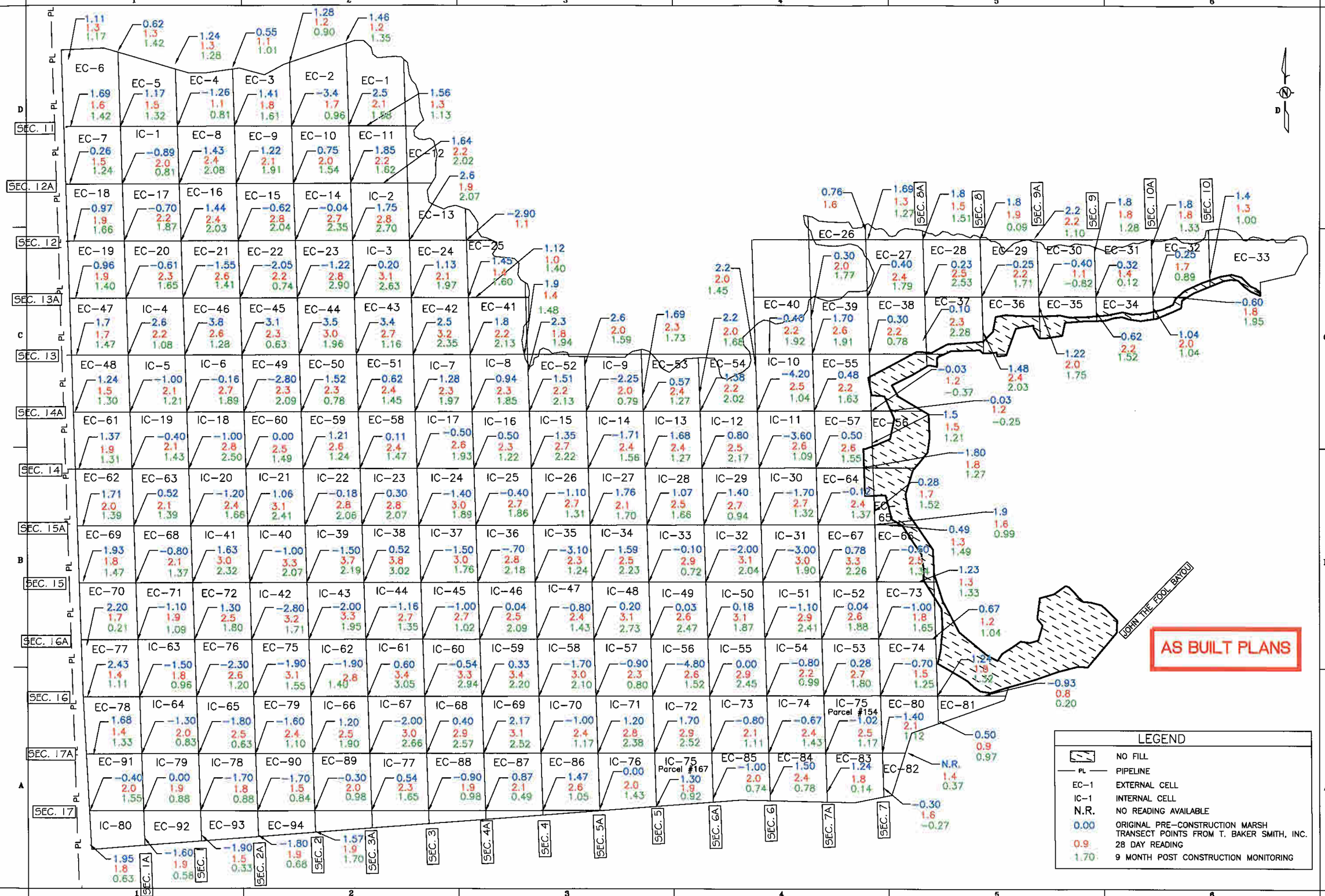
SOLICITATION NO. 119478

BA-37 LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION PROJECT

PRE CONSTRUCTION & AS-BUILT CELL ELEVATIONS

SHEET NUMBER 6A

V:\CAD\119478\DWG ORIGINAL DESIGN PLANS 8-28-06\A IN THE MARSH TRANSECT.dwg



Shaw Coastal, Inc.

MAIN OFFICE LOCATION:
197 ELYSIAN DRIVE
HOUMA, LA. 70363

PHONE: (985) 868-3434 AN ADDITIONAL OFFICE IN WESTWEGO, LA.
FAX: (985) 868-8513

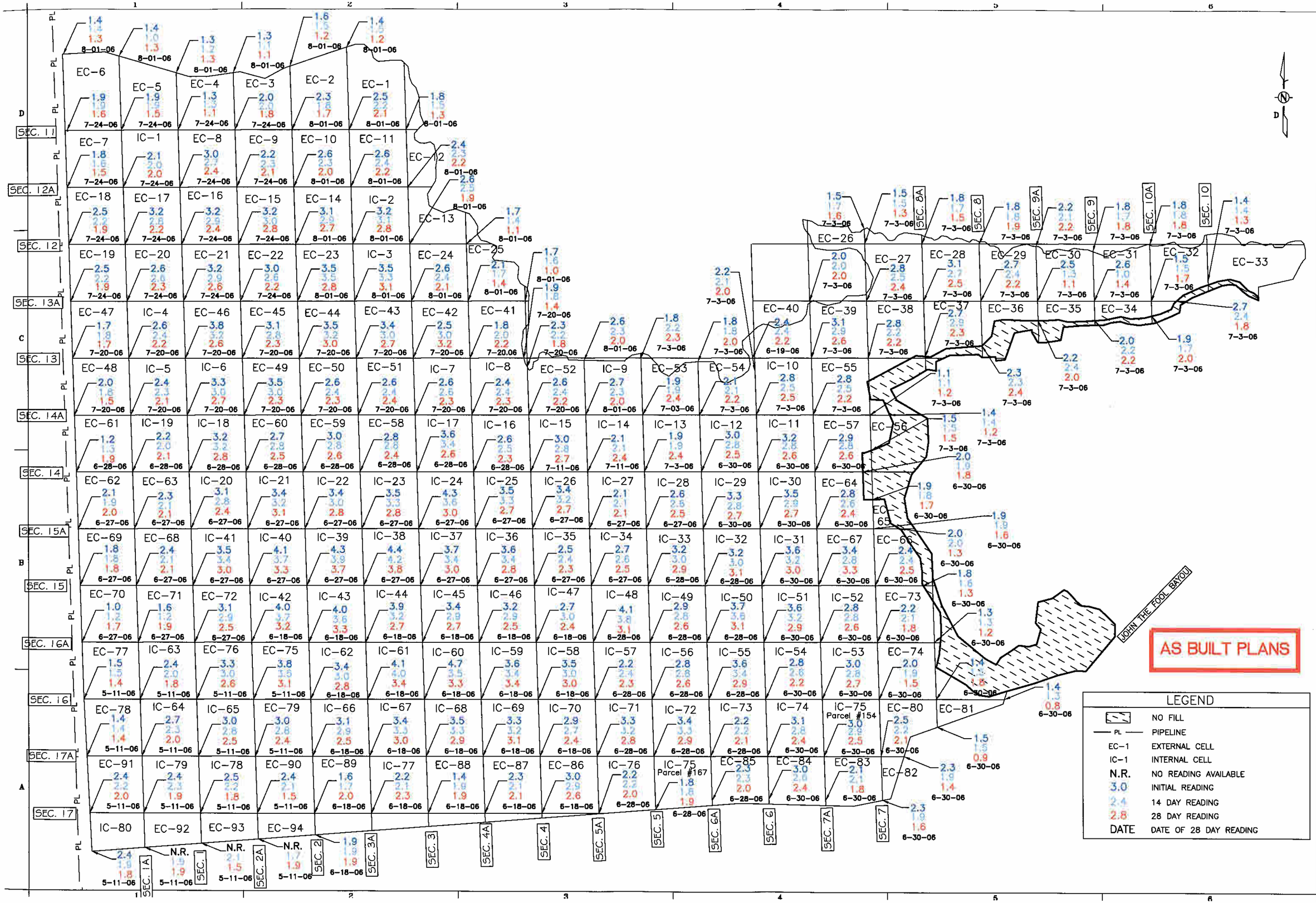
DESIGNED BY: JMP
CHECKED BY: AKK
DRAWN BY: MJD
DATE: 7-31-07
PLOT SCALE: 1:1
PLOT DATE: 8-31-06
DESIGN FILE NAME: e to post construction monitoring
SUBMITTED BY:
SOLICITATION NO. 116478

8N-37 LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION PROJECT

9 MONTH POST CONSTRUCTION MONITORING

SHEET NUMBER 6B

V:\CAD\116478\DNR ORIGINAL DESIGN PLANS 8-28-06\A 6B POST CONSTRUCTION MONITORING.dwg


AS BUILT PLANS
LEGEND
NO FILL
PL PIPELINE
EC-1 EXTERNAL CELL
IC-1 INTERNAL CELL
N.R. NO READING AVAILABLE
3.0 INITIAL READING
2.4 14 DAY READING
2.8 28 DAY READING
DATE DATE OF 28 DAY READING
JOHN THE FOOL BAYOU
SEC. 1A
SEC. 1
SEC. 2A
SEC. 2
SEC. 3A
SEC. 3
SEC. 4A
SEC. 4
SEC. 5A
SEC. 5
SEC. 6A
SEC. 6
SEC. 7A
SEC. 7
SEC. 8A
SEC. 8
SEC. 9A
SEC. 9
SEC. 10A
SEC. 10
SEC. 11
SEC. 12A
SEC. 12
SEC. 13A
SEC. 13
SEC. 14A
SEC. 14
SEC. 15A
SEC. 15
SEC. 16A
SEC. 16
SEC. 17A
SEC. 17
Parcel #154
Parcel #167
Shaw Coastal, Inc.
MAIN OFFICE LOCATION: 197 ELYSIAN DRIVE HOUMA, LA. 70363
PHONE: (985) 868-3434 FAX: (985) 868-8513
AN ADDITIONAL OFFICE IN WESTWEGO, LA.
INITIAL, 14 DAY, 28 DAY CELL ELEVATIONS
SHEET NUMBER 6C

SECTION INTERSECTIONS COORDINATES (STAKE LOCATIONS)

Point	Northing (Feet)	Easting (Feet)
1A,11	356,402.27	3,643,090.91
1A,12A	355,902.30	3,643,106.55
1A,12	355,402.31	3,643,107.71
1A,13A	354,902.37	3,643,137.83
1A,13	354,402.41	3,643,153.48
1A,14A	353,902.45	3,643,169.12
1A,14	353,402.48	3,643,184.76
1A,15A	352,902.52	3,643,200.40
1A,15	352,402.55	3,643,216.05
1A,16A	351,902.59	3,643,231.69
1A,16	351,402.62	3,643,247.33
1A,17A	350,902.66	3,643,262.97
1A,17	350,405.64	3,643,278.52
1,11	356,403.43	3,643,591.12
1,12A	355,903.47	3,643,606.76
1,12	355,403.50	3,643,622.40
1,13A	354,903.54	3,643,638.04
1,13	354,403.57	3,643,653.68
1,14A	353,903.61	3,643,669.33
1,14	353,403.64	3,643,684.97
1,15A	352,903.68	3,643,700.61
1,15	352,403.71	3,643,716.25
1,16A	351,903.75	3,643,731.90
1,16	351,403.78	3,643,747.54
1,17A	350,903.86	3,643,763.68
1,17	350,405.46	3,643,778.99
2A,11	356,404.60	3,644,091.32
2A,12A	355,904.63	3,644,106.97
2A,12	355,404.67	3,644,122.61
2A,13A	354,904.70	3,644,138.25
2A,13	354,404.74	3,644,153.89
2A,14A	353,904.77	3,644,169.54
2A,14	353,404.81	3,644,185.18
2A,15A	352,904.84	3,644,200.82
2A,15	352,404.88	3,644,216.46
2A,16A	351,904.91	3,644,232.11
2A,16	351,403.78	3,643,747.54
2A,17A	350,904.80	3,644,263.26
2A,17	350,405.98	3,644,280.16

Point	Northing (Feet)	Easting (Feet)
2,11	356,405.76	3,644,591.53
2,12A	355,905.80	3,644,607.17
2,12	355,405.83	3,644,622.82
2,13A	354,905.87	3,644,638.46
2,13	354,405.90	3,644,654.10
2,14A	353,905.94	3,644,669.74
2,14	353,405.97	3,644,685.39
2,15A	352,906.01	3,644,701.03
2,15	352,406.04	3,644,716.67
2,16A	351,906.08	3,644,732.31
2,16	351,406.11	3,644,747.96
2,17A	350,906.15	3,644,763.60
2,17	350,406.18	3,644,779.24
3A,11	356,406.93	3,645,091.74
3A,12A	355,906.96	3,645,107.38
3A,12	355,407.00	3,645,123.02
3A,13A	354,907.03	3,645,138.67
3A,13	354,407.07	3,645,154.31
3A,14A	353,907.10	3,645,169.95
3A,14	353,407.14	3,645,185.59
3A,15A	352,907.17	3,645,201.24
3A,15	352,407.21	3,645,216.88
3A,16A	351,907.24	3,645,232.52
3A,16	351,407.28	3,645,248.16
3A,17A	350,907.31	3,645,263.81
3A,17	350,407.35	3,645,279.45
3,11	356,408.09	3,645,591.95
3,12A	355,908.13	3,645,607.59
3,12	355,408.16	3,645,623.23
3,13A	354,908.20	3,645,638.88
3,13	354,408.23	3,645,654.52
3,14A	353,908.27	3,645,670.16
3,14	353,408.30	3,645,685.80
3,15A	352,908.34	3,645,701.44
3,15	352,408.37	3,645,717.09
3,16A	351,908.41	3,645,732.73
3,16	351,408.44	3,645,748.37
3,17A	350,908.48	3,645,764.01
3,17	350409.6745	3646279.865

Point	Northing (Feet)	Easting (Feet)
4A,12A	355,909.29	3,646,107.80
4A,12	355,409.32	3,646,123.44
4A,13A	354,909.36	3,646,139.08
4A,13	354,409.39	3,646,154.73
4A,14A	353,909.43	3,646,170.37
4A,14	353,409.46	3,646,186.01
4A,15A	352,909.50	3,646,201.65
4A,15	352,409.53	3,646,217.30
4A,16A	351,909.57	3,646,232.94
4A,16	351,409.60	3,646,248.58
4A,17A	350,909.64	3,646,264.22
4A,17	350,409.67	3,646,279.87
4,13A	354,910.52	3,646,639.29
4,13	354,410.56	3,646,654.93
4,14A	353,910.59	3,646,670.58
4,14	353,410.63	3,646,686.22
4,15A	352,910.66	3,646,701.86
4,15	352,410.70	3,646,717.50
4,16A	351,910.73	3,646,733.15
4,16	351,410.77	3,646,748.79
4,17A	350,910.80	3,646,764.43
4,17	350,410.84	3,646,780.07
5A,13	354,411.72	3,647,155.14
5A,14A	353,911.76	3,647,170.78
5A,14	353,411.79	3,647,186.43
5A,15A	352,911.83	3,647,202.07
5A,15	352,411.86	3,647,217.71
5A,16A	351,911.90	3,647,233.35
5A,16	351,411.93	3,647,249.00
5A,17A	350,911.97	3,647,264.64
5A,17	350,412.00	3,647,280.28

Point	Northing (Feet)	Easting (Feet)
5,13	354,412.89	3,647,655.35
5,14A	353,912.92	3,647,670.99
5,14	353,412.96	3,647,686.64
5,15A	352,912.99	3,647,702.28
5,15	352,413.03	3,647,717.92
5,16A	351,913.06	3,647,733.56
5,16	351,413.10	3,647,749.21
5,17A	350,913.13	3,647,764.85
6A,13	354,414.04	3,648,153.25
6A,14A	353,914.09	3,648,171.20
6A,14	353,414.12	3,648,186.84
6A,15A	352,914.16	3,648,202.49
6A,15	352,414.19	3,648,218.13
6A,16A	351,914.23	3,648,233.77
6A,16	351,414.26	3,648,249.41
6A,17A	350,914.30	3,648,265.06
6,12	355,413.18	3,648,624.54
6,13A	354,915.18	3,648,640.12
6,13	354,415.21	3,648,655.77
6,14A	353,915.25	3,648,671.41
6,14	353,415.28	3,648,687.05
6,15A	352,915.32	3,648,702.69
6,15	352,415.35	3,648,718.34
6,16A	351,915.39	3,648,733.98
6,16	351,415.42	3,648,749.62
6,17A	350,915.46	3,648,765.26
7A,12	355,416.31	3,649,124.69
7A,13A	354,916.34	3,649,140.33
7A,13	354,416.38	3,649,155.98
7A,14A	353,916.41	3,649,171.62
7A,14	353,416.45	3,649,187.26
7A,15A	352,916.48	3,649,202.90
7A,15	352,416.52	3,649,218.55
7A,16A	351,916.55	3,649,234.19
7A,16	351,416.59	3,649,249.83
7A,17A	350,916.62	3,649,265.47

Point	Northing (Feet)	Easting (Feet)
7,12	355,417.47	3,649,624.90
7,13A	354,917.51	3,649,640.54
7,13	354,417.54	3,649,656.18
7,14A	353,917.58	3,649,671.83
7,14	353,417.61	3,649,687.47
7,15A	352,917.65	3,649,703.11
7,15	352,417.68	3,649,718.75
7,16A	351,917.72	3,649,734.40
8A,12	355,418.64	3,650,125.11
8A,13A	354,918.67	3,650,140.75
8A,13	354,418.71	3,650,156.39
8,12	355,419.80	3,650,625.32
8,13A	354,919.84	3,650,640.96
8,13	354,426.81	3,650,650.29
9A,12	355,420.96	3,651,125.52
9A,13A	354,921.00	3,651,141.17
9A,13	354,421.03	3,651,156.22
9,12	355,422.13	3,651,625.73
9,13A	354,922.16	3,651,641.37
9,13	354,422.20	3,651,657.02
10A,12	355,423.29	3,652,125.94
10A,13A	354,923.33	3,652,141.58
10A,13	354,423.36	3,652,157.22
10,12	355424.4566	3652626.148
10,13A	354924.4916	3652641.791
10,13	354424.5267	3652657.433

AS BUILT PLANS

AS-BUILT STAKE LOCATION COORDINATES SHOWN IN APPENDIX I "CELL SHEETS"

NOTES:
1. THE CONTRACTOR SHALL INSTALL A MINIMUM OF FOUR STAKES PER CELL. ADDITIONAL STAKES MAY BE INSTALLED AT NO COST TO THE OWNER.
2. ALL COORDINATES REFERENCE THE NORTH AMERICAN DATUM OF 1983 (NAD 83) LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.

SURVEY BASELINE (SEE SHEET 4)			
Northing (Feet)	Easting (Feet)	Bearing	Distance (Feet)
365,389.06	3,635,818.26	S 86°28'13.5" E	5,073.72
365,076.70	3,640,882.35	S 34°11'22.5" E	8,655.29
357,917.20	3,645,746.04	S 55°25'36.2" E	4,184.12
355,542.88	3,649,191.25	S 86°29'44.5" E	4,248.84
355,283.17	3,653,432.15	S 86°29'44" E	4,248.83

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

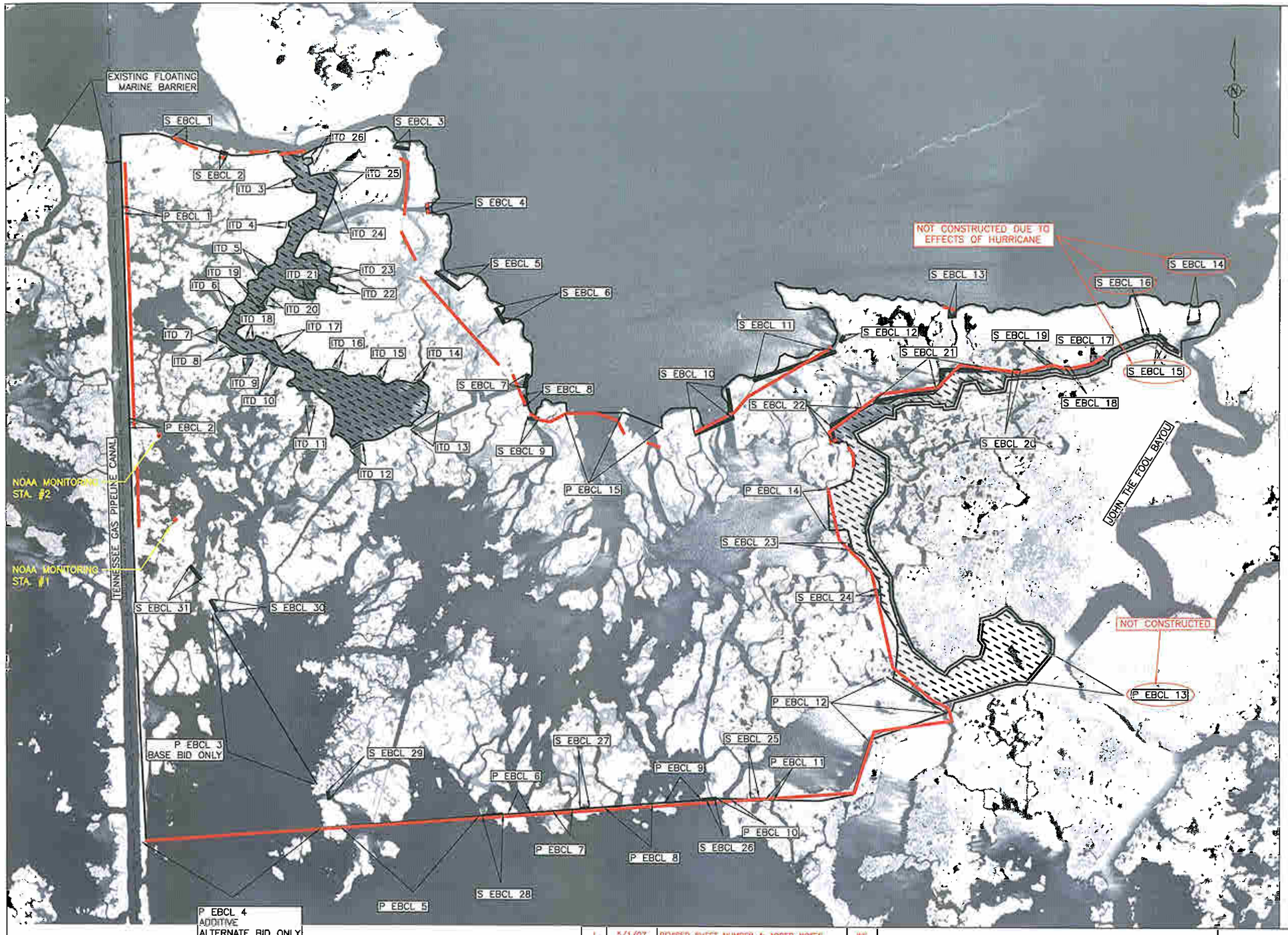
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

STAKE COORDINATES

DATE: FEBRUARY 2005
SHEET 7

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A07 SECTION COORDINATES.DWG



NOTES:

1. THE BACKGROUND IMAGERY WAS ACQUIRED BY GULF COST AERIAL MAPPING COMPANY ON APRIL 15, 2003 FOR LDNR.
2. INTERNAL TRAINING DIKES SHALL BE CONSTRUCTED AND MAINTAINED AT ALL EXISTING STREAMS, BAYOUS, TRENASSES, OR OPEN WATER AREAS DIRECTLY CONNECTED TO A NAVIGABLE WATER BODY OR NO FILL AREA UNLESS A PRIMARY OR SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEE IS SHOWN. INTERNAL TRAINING DIKES MAY BE CONSTRUCTED ANYWHERE WITHIN THE MARSH CREATION\NOURISHMENT AREA TO MAXIMIZE SOLIDS RETENTION.
3. THE LENGTHS OF THE INTERNAL TRAINING DIKES SHOWN ON SHEET 9 INCLUDE A 20' TIE-IN TO EXISTING MARSH ON EACH END.
4. SEE SECTION TS-7 "INTERNAL TRAINING DIKES" OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5. THE VOLUME OF INTERNAL TRAINING DIKES SHOWN ON SHEET 9 ARE BASED ON A DIGITAL TERRAIN MODEL DEVELOPED IN AUTOCAD OF SURVEY POINTS COLLECTED BETWEEN 11/22/02 AND 1/27/03 BY T. BAKER SMITH AND SON, INC.
6. THE CONTRACTOR SHALL INCLUDE IN HIS BASE BID THE COST OF CONSTRUCTING THE LENGTH OF INTERNAL TRAINING DIKES SHOWN ON SHEET 9 (3,165 FEET MINIMUM).
7. SEE SHEET 21 FOR THE VOLUME OF MATERIAL REQUIRED FOR EACH PRIMARY AND SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEE.
8. ALL SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEES SHALL BE DEGRADED TO THE ELEVATION OF THE ADJACENT MARSH CREATION PRIOR TO DEMOBILIZATION.
9. SECONDARY EARTHEN CONTAINMENT LEVEES 29-31 ARE INCLUDED ONLY IN THE BASE BID. THERFORE, THE TOTAL LENGTH OF SECONDARY EARTHEN CONTAINMENT LEVEE REQUIRED TO CONSTRUCT BOTH THE BASE BID AND ADDITIVE ALTERNATE WILL BE 6,261 FEET RATHER THAN THE 6,675 FEET REQUIRED TO CONSTRUT ONLY THE BASE BID.

LEGEND

- NO FILL
- PL — PIPELINE
- INTERNAL TRAINING DIKES (ITD)
- PRIMARY EARTHEN BOUNDARY CONTAINMENT LEVEES (P EBCL)
- SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEES (S EBCL)
- ASBUILT PRIMARY & SECONDARY CONTAINMENT LEVEES

AS BUILT PLANS

1,000' 500' 0' 1,000' 2,000'

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER & ADDED NOTES	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

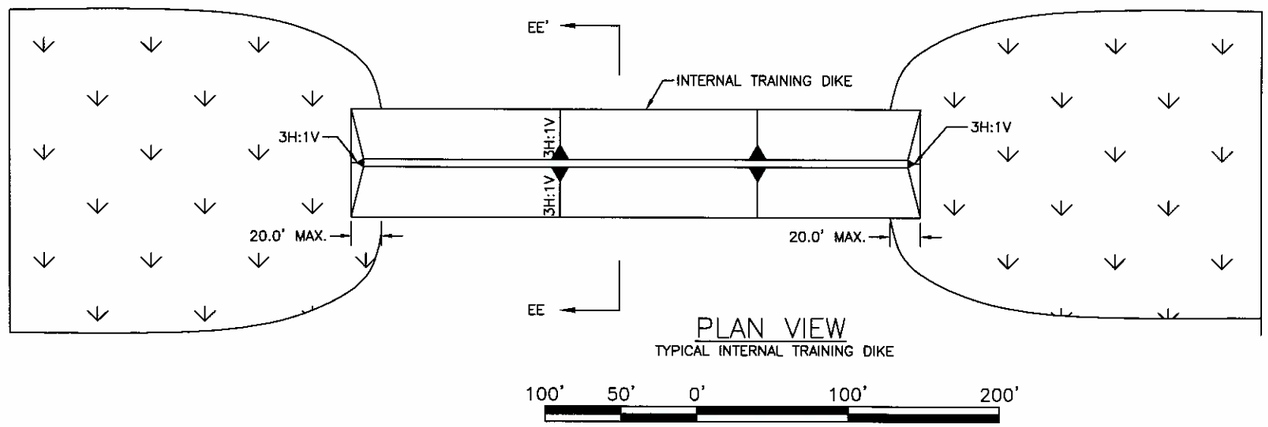
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

PROPOSED CONTAINMENT

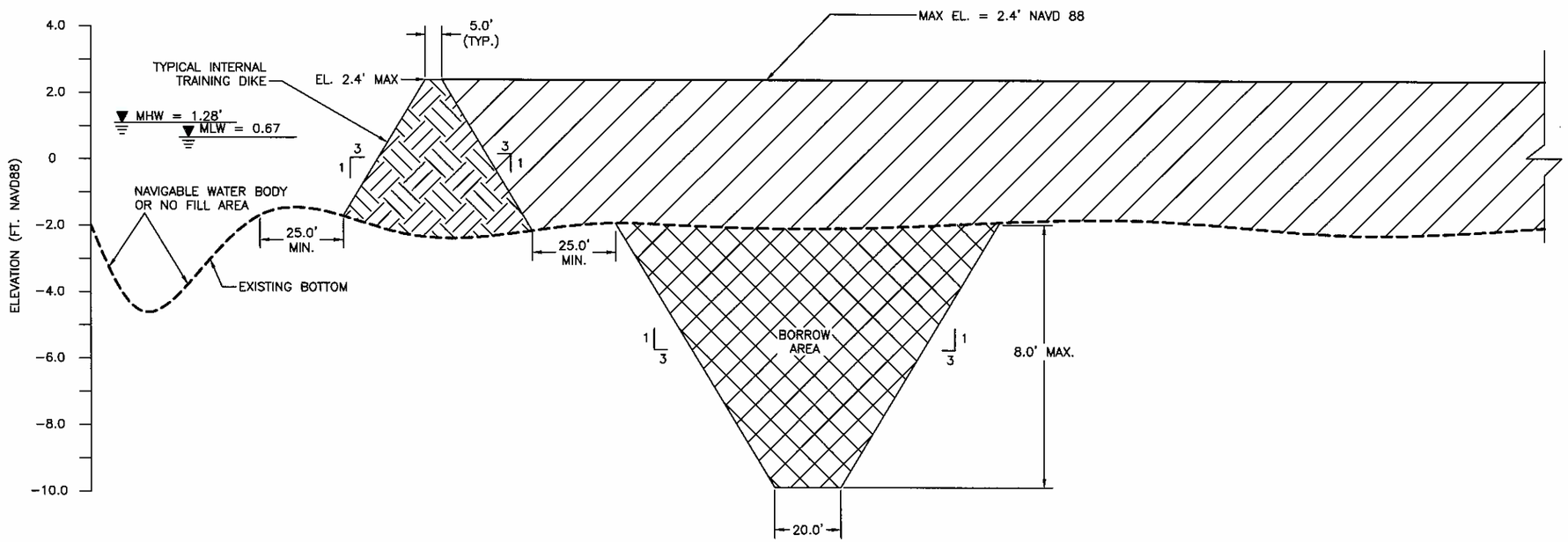
DATE: FEBRUARY 2005
SHEET 8

V:\CAD\116478\DNR DESIGN PLANS 6-28-06\AS-BUILT-LAND 2007\A08 INTERNAL TRAINING DIKES.DWG



PLAN VIEW
TYPICAL INTERNAL TRAINING DIKE

INTERNAL TRAINING DIKES ORIGINALLY CONSTRUCTED BUT WERE INCORPORATED INTO THE MARSH CREATION DUE TO CHANGE ORDER #3 (FILLING OF "NO FILL" AREA)



SECTION EE-EE'
TYPICAL INTERNAL TRAINING DIKE

HORIZONTAL GRAPHIC SCALE
40' 20' 0 40' 80'
4' 2' 0 4' 8'
VERTICAL GRAPHIC SCALE

INTERNAL TRAINING DIKE (ITD) VOLUMES		
DIKE	LENGTH (FEET)	VOLUME (CU. YDS.)
ITD 1	83.0	92.0
ITD 2	60.0	52.0
ITD 3	154.0	390.0
ITD 4	110.0	268.0
ITD 5	170.0	284.0
ITD 6	153.0	128.0
ITD 7	108.0	151.0
ITD 8	106.0	183.0
ITD 9	100.0	48.0
ITD 10	150.0	260.0
ITD 11	346.0	427.0
ITD 12	77.0	45.0
ITD 13	73.0	104.0
ITD 14	71.0	74.0
ITD 15	154.0	291.0
ITD 16	74.0	312.0
ITD 17	58.0	56.0
ITD 18	93.0	66.0
ITD 19	101.0	71.0
ITD 20	89.0	105.0
ITD 21	107.0	136.0
ITD 22	381.0	431.0
ITD 23	255.0	177.0
ITD 24	96.0	115.0
BASE BID TOTAL	3,165.0	4,266.0

AS BUILT PLANS

NOTES:
1. INTERNAL TRAINING DIKES SHALL BE CONSTRUCTED AND MAINTAINED AT ALL EXISTING STREAMS, BAYOUS, TRENASSES, OR OPEN WATER AREAS DIRECTLY CONNECTED TO A NAVIGABLE WATER BODY OR NO FILL AREA. INTERNAL TRAINING DIKES MAY BE CONSTRUCTED ANYWHERE WITHIN THE MARSH CREATION/NOURISHMENT AREA TO MAXIMIZE SOLIDS RETENTION.
2. THE LENGTHS OF THE INTERNAL TRAINING DIKES SHOWN ABOVE INCLUDE A 20' TIE-IN TO EXISTING MARSH ON EACH END.
3. THE CONTRACTOR SHALL INCLUDE IN HIS BASE BID THE COST OF CONSTRUCTING THE LENGTH OF INTERNAL TRAINING DIKES SHOWN ABOVE (3,165 FEET MINIMUM).
4. SEE SECTION TS-7 "INTERNAL TRAINING DIKES" OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS OF THE EARTHEN BOUNDARY CONTAINMENT LEVEES.
5. THE VOLUME OF INTERNAL TRAINING DIKES SHOWN ABOVE ARE BASED ON A DIGITAL TERRAIN MODEL DEVELOPED IN AUTOCAD OF SURVEY POINTS COLLECTED BETWEEN 11/22/02 AND 1/27/03 BY T. BAKER SMITH AND SON, INC. A 1:1 CUT TO FILL RATIO WAS ASSUMED IN THE CALCULATIONS.

LEGEND
- INTERNAL TRAINING DIKE BORROW AREA
- FILL AREA
- INTERNAL TRAINING DIKE

REV.	DATE	DESCRIPTION	BY
1	4/22/05	CHANGED BORROW AREA SIDE SLOPES TO 3H:1V.	KC
1	8/1/07	REVISED SHEET NUMBER & NOTES	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

TYPICAL INTERNAL TRAINING DIKE SECTION & PLAN VIEW

DATE: FEBRUARY 2005
SHEET 9

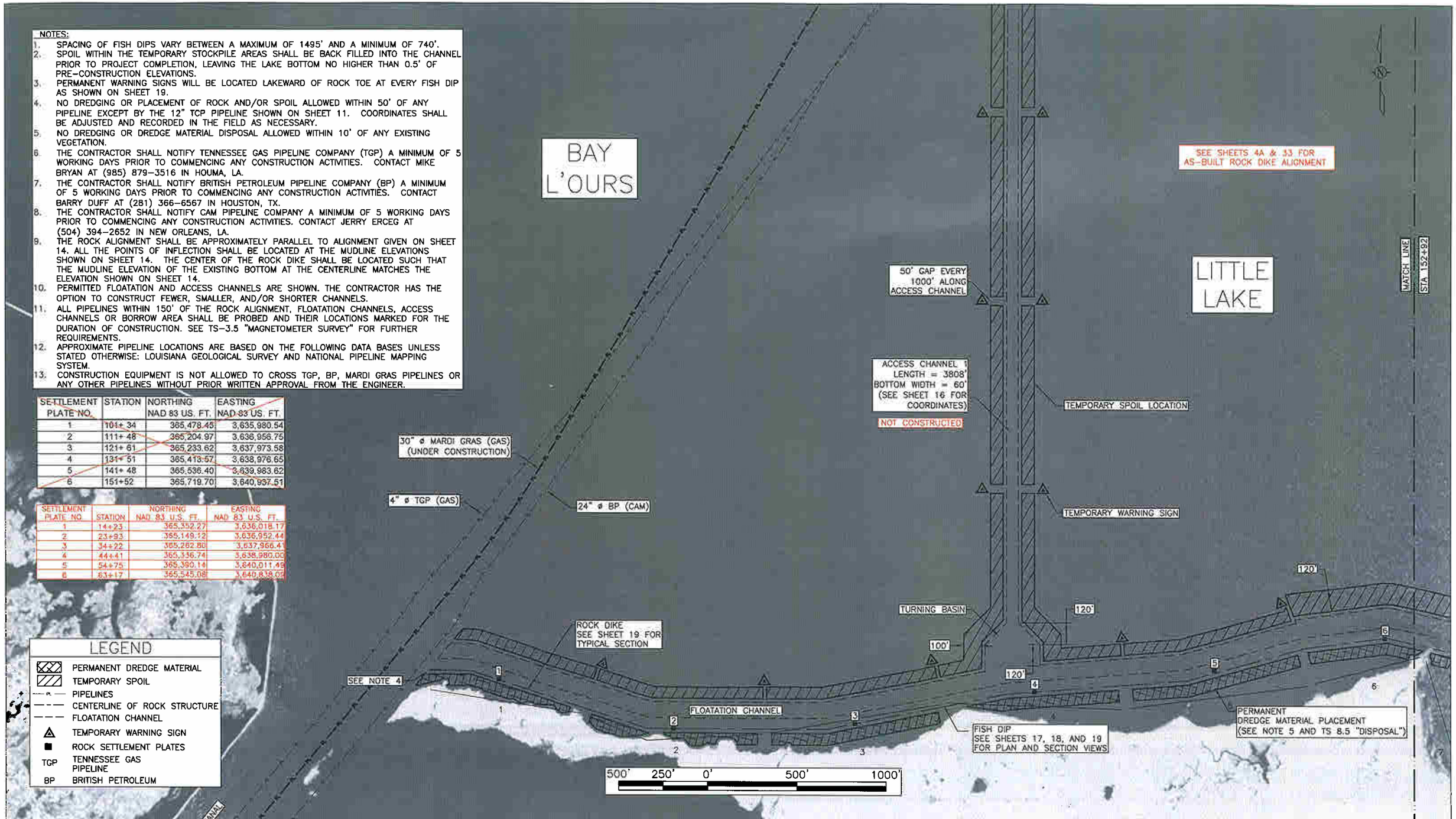
V:\CAD\116478\DNR DESIGN PLANS 8-28-08\AS-BUILT-LAND 2007\AD9 INTERNAL TRAINING DIKES.DWG

NOTES:

1. SPACING OF FISH DIPS VARY BETWEEN A MAXIMUM OF 1495' AND A MINIMUM OF 740'.
2. SPOIL WITHIN THE TEMPORARY STOCKPILE AREAS SHALL BE BACK FILLED INTO THE CHANNEL PRIOR TO PROJECT COMPLETION, LEAVING THE LAKE BOTTOM NO HIGHER THAN 0.5' OF PRE-CONSTRUCTION ELEVATIONS.
3. PERMANENT WARNING SIGNS WILL BE LOCATED LAKEWARD OF ROCK TOE AT EVERY FISH DIP AS SHOWN ON SHEET 19.
4. NO DREDGING OR PLACEMENT OF ROCK AND/OR SPOIL ALLOWED WITHIN 50' OF ANY PIPELINE EXCEPT BY THE 12" TCP PIPELINE SHOWN ON SHEET 11. COORDINATES SHALL BE ADJUSTED AND RECORDED IN THE FIELD AS NECESSARY.
5. NO DREDGING OR DREDGE MATERIAL DISPOSAL ALLOWED WITHIN 10' OF ANY EXISTING VEGETATION.
6. THE CONTRACTOR SHALL NOTIFY TENNESSEE GAS PIPELINE COMPANY (TGP) A MINIMUM OF 5 WORKING DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES. CONTACT MIKE BRYAN AT (985) 879-3516 IN HOUMA, LA.
7. THE CONTRACTOR SHALL NOTIFY BRITISH PETROLEUM PIPELINE COMPANY (BP) A MINIMUM OF 5 WORKING DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES. CONTACT BARRY DUFF AT (281) 366-6567 IN HOUSTON, TX.
8. THE CONTRACTOR SHALL NOTIFY CAM PIPELINE COMPANY A MINIMUM OF 5 WORKING DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES. CONTACT JERRY ERCEG AT (504) 394-2652 IN NEW ORLEANS, LA.
9. THE ROCK ALIGNMENT SHALL BE APPROXIMATELY PARALLEL TO ALIGNMENT GIVEN ON SHEET 14. ALL THE POINTS OF INFLECTION SHALL BE LOCATED AT THE MUDLINE ELEVATIONS SHOWN ON SHEET 14. THE CENTER OF THE ROCK DIKE SHALL BE LOCATED SUCH THAT THE MUDLINE ELEVATION OF THE EXISTING BOTTOM AT THE CENTERLINE MATCHES THE ELEVATION SHOWN ON SHEET 14.
10. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
11. ALL PIPELINES WITHIN 150' OF THE ROCK ALIGNMENT, FLOATATION CHANNELS, ACCESS CHANNELS OR BORROW AREA SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION. SEE TS-3.5 "MAGNETOMETER SURVEY" FOR FURTHER REQUIREMENTS.
12. APPROXIMATE PIPELINE LOCATIONS ARE BASED ON THE FOLLOWING DATA BASES UNLESS STATED OTHERWISE: LOUISIANA GEOLOGICAL SURVEY AND NATIONAL PIPELINE MAPPING SYSTEM.
13. CONSTRUCTION EQUIPMENT IS NOT ALLOWED TO CROSS TGP, BP, MARDI GRAS PIPELINES OR ANY OTHER PIPELINES WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 US. FT.	EASTING NAD 83 US. FT.
1	101+ 34	365,478.45	3,635,980.54
2	111+ 48	365,204.97	3,636,956.75
3	121+ 61	365,233.62	3,637,973.58
4	131+ 51	365,413.57	3,638,976.65
5	141+ 48	365,536.40	3,639,983.62
6	151+52	365,719.70	3,640,937.51

SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 U.S. FT.	EASTING NAD 83 U.S. FT.
1	14+23	365,352.27	3,636,018.17
2	23+93	365,149.12	3,636,952.44
3	34+22	365,262.80	3,637,966.41
4	44+41	365,336.74	3,638,980.00
5	54+75	365,390.14	3,640,011.49
6	63+17	365,545.08	3,640,838.09



AS BUILT PLANS

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER & ADDED NOTE	WE

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

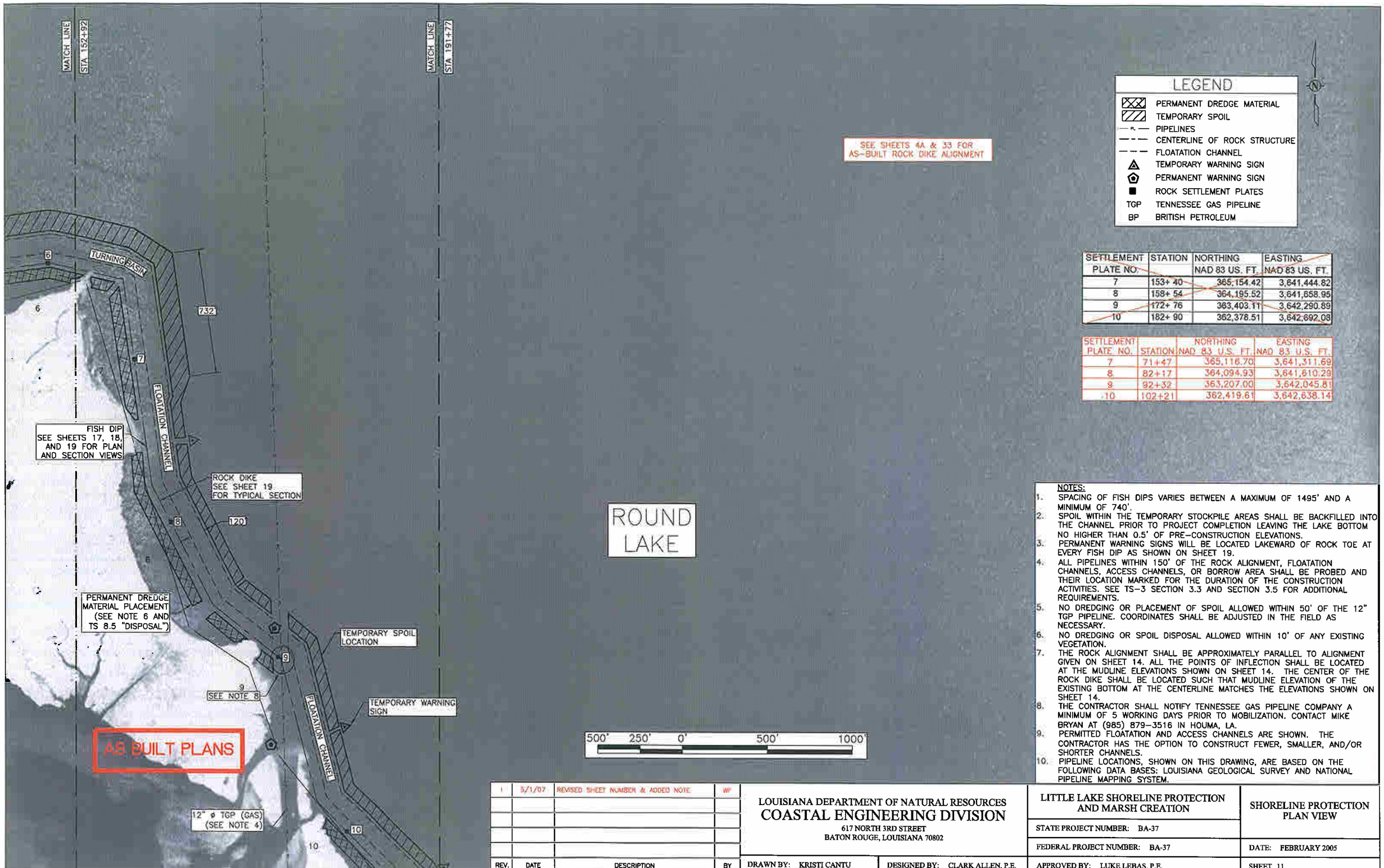
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

SHORELINE PROTECTION PLAN VIEW

DATE: FEBRUARY 2005
SHEET 10

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A10-13 ROCK ALIGN.DWG



SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 US. FT.	EASTING NAD 83 US. FT.
7	153+ 40	365,154.42	3,641,444.82
8	158+ 54	364,195.52	3,641,658.95
9	172+ 76	363,403.11	3,642,290.89
10	182+ 90	362,378.51	3,642,692.08

SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 U.S. FT.	EASTING NAD 83 U.S. FT.
7	71+47	365,116.70	3,641,311.69
8	82+17	364,094.93	3,641,810.29
9	92+32	363,207.00	3,642,045.81
10	102+21	362,419.61	3,642,638.14

NOTES:

1. SPACING OF FISH DIPS VARIES BETWEEN A MAXIMUM OF 1495' AND A MINIMUM OF 740'.
2. SPOIL WITHIN THE TEMPORARY STOCKPILE AREAS SHALL BE BACKFILLED INTO THE CHANNEL PRIOR TO PROJECT COMPLETION LEAVING THE LAKE BOTTOM NO HIGHER THAN 0.5' OF PRE-CONSTRUCTION ELEVATIONS.
3. PERMANENT WARNING SIGNS WILL BE LOCATED LAKEWARD OF ROCK TOE AT EVERY FISH DIP AS SHOWN ON SHEET 19.
4. ALL PIPELINES WITHIN 150' OF THE ROCK ALIGNMENT, FLOATATION CHANNELS, ACCESS CHANNELS, OR BORROW AREA SHALL BE PROBED AND THEIR LOCATION MARKED FOR THE DURATION OF THE CONSTRUCTION ACTIVITIES. SEE TS-3 SECTION 3.3 AND SECTION 3.5 FOR ADDITIONAL REQUIREMENTS.
5. NO DREDGING OR PLACEMENT OF SPOIL ALLOWED WITHIN 50' OF THE 12" TGP PIPELINE. COORDINATES SHALL BE ADJUSTED IN THE FIELD AS NECESSARY.
6. NO DREDGING OR SPOIL DISPOSAL ALLOWED WITHIN 10' OF ANY EXISTING VEGETATION.
7. THE ROCK ALIGNMENT SHALL BE APPROXIMATELY PARALLEL TO ALIGNMENT GIVEN ON SHEET 14. ALL THE POINTS OF INFLECTION SHALL BE LOCATED AT THE MUDLINE ELEVATIONS SHOWN ON SHEET 14. THE CENTER OF THE ROCK DIKE SHALL BE LOCATED SUCH THAT MUDLINE ELEVATION OF THE EXISTING BOTTOM AT THE CENTERLINE MATCHES THE ELEVATIONS SHOWN ON SHEET 14.
8. THE CONTRACTOR SHALL NOTIFY TENNESSEE GAS PIPELINE COMPANY A MINIMUM OF 5 WORKING DAYS PRIOR TO MOBILIZATION. CONTACT MIKE BRYAN AT (985) 879-3516 IN HOUMA, LA.
9. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
10. PIPELINE LOCATIONS, SHOWN ON THIS DRAWING, ARE BASED ON THE FOLLOWING DATA BASES: LOUISIANA GEOLOGICAL SURVEY AND NATIONAL PIPELINE MAPPING SYSTEM.

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER & ADDED NOTE	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

SHORELINE PROTECTION PLAN VIEW

DATE: FEBRUARY 2005
SHEET 11

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A10-13 ROCK ALIGN.DWG

SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 US. FT.	EASTING NAD 83 US. FT.
11	193+ 07	361,625.66	3,643,327.92
12	203+26	360,625.47	3,643,755.43
13	213+ 40	359,837.06	3,644,320.13
14	223+18	359,012.29	3,644,878.82
15	231+76	358,383.44	3,645,594.16
16	241+ 75	357,502.55	3,645,938.02

SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 U.S. FT.	EASTING NAD 83 U.S. FT.
11	112+90	361,506.80	3,643,206.10
12	123+14	360,626.19	3,643,684.79
13	133+29	359,702.98	3,644,080.04
14	144+18	358,819.55	3,644,634.19
15	154+23	358,208.23	3,645,427.83
16	164+05	357,429.13	3,645,746.50

NOTES:

1. SPACING OF FISH DIPS VARIES BETWEEN A MAXIMUM OF 1495' AND A MINIMUM OF 740'.
2. SPOIL WITHIN THE TEMPORARY STOCKPILE AREAS SHALL BE BACKFILLED INTO THE CHANNEL PRIOR TO PROJECT COMPLETION, LEAVING THE LAKE BOTTOM NO HIGHER THAN 0.5' OF PRE-CONSTRUCTION ELEVATIONS.
3. PERMANENT WARNING SIGNS WILL BE LOCATED LAKEWARD OF ROCK TOE AT EVERY FISH DIP AS SHOWN ON SHEET 19.
4. NO DREDGING OR SPOIL DISPOSAL ALLOWED WITHIN 10' OF ANY EXISTING VEGETATION.
5. THE ROCK ALIGNMENT SHALL BE APPROXIMATELY PARALLEL TO ALIGNMENT GIVEN ON SHEET 14. ALL THE POINTS OF INFLECTION SHALL BE LOCATED AT THE MUDLINE ELEVATIONS SHOWN ON SHEET 14. THE CENTER OF THE ROCK DIKE SHALL BE LOCATED SUCH THAT MUDLINE ELEVATION OF THE EXISTING BOTTOM AT THE CENTERLINE MATCHES THE ELEVATIONS SHOWN ON SHEET 14.
6. ALL PIPELINES WITHIN 150' OF THE ROCK ALIGNMENT, FLOATATION CHANNELS, ACCESS CHANNELS, OR BORROW AREA SHALL BE PROBED AND THEIR LOCATION MARKED FOR THE DURATION OF THE CONSTRUCTION ACTIVTIES.
7. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER & ADDED NOTE	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

SHORELINE PROTECTION PLAN VIEW

DATE: FEBRUARY 2005
SHEET 12

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A10-13 ROCK ALIGN.DWG

NOTES:

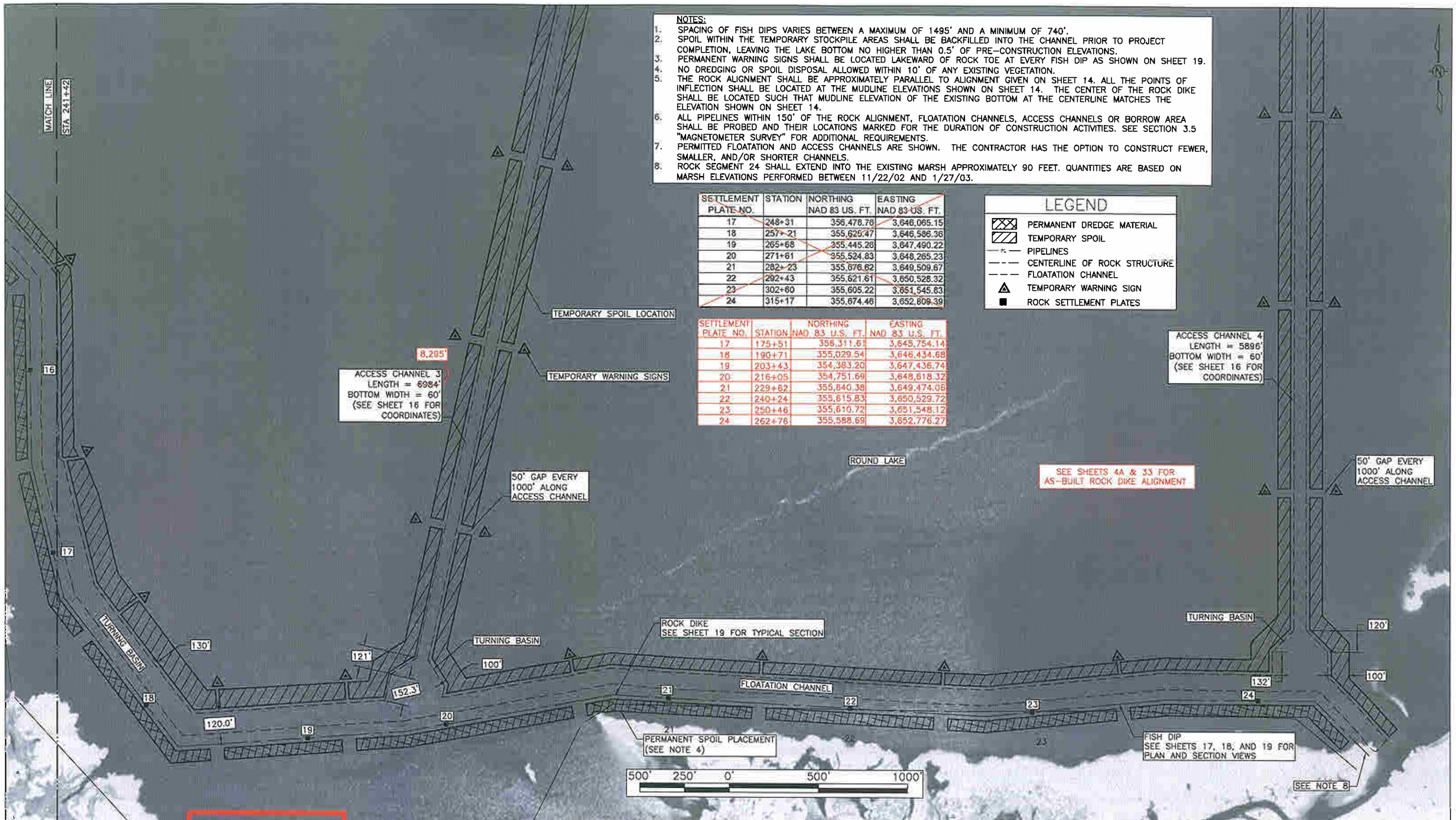
1. SPACING OF FISH DIPS VARIES BETWEEN A MAXIMUM OF 1495' AND A MINIMUM OF 740'.
2. SPOIL WITHIN THE TEMPORARY STOCKPILE AREAS SHALL BE BACKFILLED INTO THE CHANNEL PRIOR TO PROJECT COMPLETION, LEAVING THE LAKE BOTTOM NO HIGHER THAN 0.5' OF PRE-CONSTRUCTION ELEVATIONS.
3. PERMANENT WARNING SIGNS SHALL BE LOCATED LAKEWARD OF ROCK TOE AT EVERY FISH DIP AS SHOWN ON SHEET 19.
4. NO DREDGING OR SPOIL DISPOSAL ALLOWED WITHIN 10' OF ANY EXISTING VEGETATION.
5. THE ROCK ALIGNMENT SHALL BE APPROXIMATELY PARALLEL TO ALIGNMENT GIVEN ON SHEET 14. ALL THE POINTS OF INFLECTION SHALL BE LOCATED AT THE MUDLINE ELEVATIONS SHOWN ON SHEET 14. THE CENTER OF THE ROCK DIKE SHALL BE LOCATED SUCH THAT MUDLINE ELEVATION OF THE EXISTING BOTTOM AT THE CENTERLINE MATCHES THE ELEVATION SHOWN ON SHEET 14.
6. ALL PIPELINES WITHIN 150' OF THE ROCK ALIGNMENT, FLOATATION CHANNELS, ACCESS CHANNELS OR BORROW AREA SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SECTION 3.5 "MAGNETOMETER SURVEY" FOR ADDITIONAL REQUIREMENTS.
7. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
8. ROCK SEGMENT 24 SHALL EXTEND INTO THE EXISTING MARSH APPROXIMATELY 90 FEET. QUANTITIES ARE BASED ON MARSH ELEVATIONS PERFORMED BETWEEN 11/22/02 AND 1/27/03.

SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 US. FT.	EASTING NAD 83 US. FT.
17	248+31	356,478.76	3,646,065.15
18	257+21	355,625.47	3,646,586.36
19	265+68	355,445.28	3,647,490.22
20	271+61	355,524.83	3,648,265.23
21	282+23	355,676.62	3,649,509.67
22	292+43	355,621.61	3,650,528.32
23	302+60	355,605.22	3,651,545.83
24	315+17	355,674.48	3,652,809.39

SETTLEMENT PLATE NO.	STATION	NORTHING NAD 83 U.S. FT.	EASTING NAD 83 U.S. FT.
17	175+51	356,311.61	3,645,754.14
18	190+71	355,029.54	3,646,434.68
19	203+43	354,383.20	3,647,436.74
20	216+05	354,751.69	3,648,618.32
21	229+62	355,640.38	3,649,474.06
22	240+24	355,615.83	3,650,529.72
23	250+46	355,610.72	3,651,548.12
24	262+76	355,588.69	3,652,776.27

LEGEND

- PERMANENT DREDGE MATERIAL
- TEMPORARY SPOIL
- PIPELINES
- CENTERLINE OF ROCK STRUCTURE
- FLOATATION CHANNEL
- TEMPORARY WARNING SIGN
- ROCK SETTLEMENT PLATES



AS BUILT PLANS

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER & ADDED NOTE	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

SHORELINE PROTECTION PLAN VIEW

DATE: FEBRUARY 2005
SHEET 13

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A10-13 ROCK ALIGN.DWG

SHORELINE PROTECTION CENTERLINE COORDINATES

Rock Seg.	Point Location	Northing (Feet)	Easting (Feet)	MUDLINE ELEV. AT CENTERLINE	Bearing	Approx. Length (Feet)	Estimated Quantity (Tons)
1	Beginning	365,529.04	3,635,597.85	-2.96			
	PI1	365,523.63	3,635,827.04	-2.02	S 88°38'27" E	229.24	
	End	365,321.52	3,636,444.13	-2.34	S 71°51'54" E	649.34	5,511
2	Beginning	365,308.73	3,636,482.03	-2.35	S 71°21'23" E	40.01	216*
	PI1	365,205.60	3,636,808.78	-2.00	S 72°29'00" E	342.63	
	End	365,202.89	3,637,447.88	-2.05	S 89°45'25" E	639.11	5,990
3	Beginning	365,202.73	3,637,485.66	-2.07	S 89°45'25" E	37.78	204*
	PI1	365,201.35	3,637,810.42	-2.00	S 89°45'25" E	324.76	
	End	365,328.97	3,638,455.59	-0.87	N 78°48'40" E	657.67	5,339
4	Beginning	365,334.66	3,638,489.24	-1.14	N 80°23'48" E	34.13	174*
	PI1	365,401.98	3,638,824.70	-2.00	N 79°39'10" E	342.15	
	End	365,450.84	3,639,465.53	-1.96	N 85°38'24" E	642.69	6,018
5	Beginning	365,453.83	3,639,504.79	-1.94	N 85°38'24" E	39.38	211*
	PI1	365,478.71	3,639,831.33	-1.92	N 85°38'34" E	327.49	
	End	365,650.81	3,640,452.53	-2.02	N 74°30'55" E	644.60	5,793
6	Beginning	365,660.50	3,640,489.16	-2.08	N 75°10'26" E	37.88	207*
	PI1	365,720.76	3,640,948.98	-2.32	N 82°32'04" E	463.75	
	End	365,631.39	3,641,343.30	-2.74	S 77°13'49" E	404.32	6,071
7	Beginning	365,615.22	3,641,380.12	-2.72	S 66°17'42" E	40.21	219*
	End	364,665.81	3,641,512.15	-2.01	S 7°54'59" E	958.55	6,888
8	Beginning	364,628.52	3,641,517.35	-1.91	S 7°55'39" E	37.66	204*
	PI1	364,412.39	3,641,547.37	-2.53	S 7°54'31" E	218.20	
	End	363,731.72	3,641,894.10	-2.09	S 26°59'39" E	763.90	6,842
9	Beginning	363,701.07	3,641,916.87	-2.10	S 36°33'20" E	38.18	186*
	PI1	363,389.65	3,642,304.86	-3.26	S 51°14'53" E	497.51	
	End	362,891.37	3,642,430.95	-1.99	S 14°11'41" E	513.99	7,031
10	Beginning	362,856.04	3,642,439.78	-2.06	S 14°01'45" E	36.41	193*
	PI1	362,555.94	3,642,516.40	-0.61	S 14°19'23" E	309.72	
	End	362,044.99	3,643,019.41	-2.06	S 44°33'03" E	717.00	7,544
11	Beginning	362,014.01	3,643,040.80	-2.02	S 34°37'30" E	37.65	219*
	PI1	361,597.41	3,643,347.66	-3.28	S 36°22'31" E	517.42	
	End	361,059.90	3,643,367.66	-2.01	S 2°07'48" E	537.89	8,000
* Fish Dip Quantity							

Rock Seg.	Point Location	Northing (Feet)	Easting (Feet)	MUDLINE ELEV. AT CENTERLINE	Bearing	Approx. Length (Feet)	Estimated Quantity (Tons)
12	Beginning	361,021.14	3,643,369.09	-1.99	S 2°06'51" E	38.79	145*
	PI1	360,804.08	3,643,377.18	-2.43	S 2°08'09" E	217.20	
	PI2	360,617.54	3,643,770.60	-2.16	S 64°37'53" E	435.41	
	End	360,309.79	3,644,087.56	-2.78	S 45°50'38" E	441.78	7,586
13	Beginning	360,271.57	3,644,106.41	-2.79	S 26°15'06" E	42.61	250*
	End	359,392.19	3,644,538.95	-2.07	S 26°11'29" E	980.00	6,783
14	Beginning	359,357.22	3,644,554.80	-2.07	S 24°22'30" E	38.40	206*
	PI1	359,221.65	3,644,621.03	-1.91	S 26°02'22" E	150.89	
	End	358,704.04	3,645,251.02	-2.02	S 50°35'35" E	815.35	5,477
15	Beginning	358,679.90	3,645,280.40	-2.09	S 50°35'35" E	38.03	203*
	PI1	358,523.17	3,645,471.16	-2.23	S 50°35'35" E	246.89	
	End	358,022.10	3,645,904.01	-3.01	S 40°49'19" E	662.14	6,536
16	Beginning	357,993.43	3,645,931.86	-3.05	S 44°09'41" E	39.97	228*
	End	356,983.53	3,645,944.08	-1.14	S 0°41'36" E	1,009.97	6,570
17	Beginning	356,949.68	3,645,951.77	-0.97	S 12°46'43" E	34.71	166*
	PI1	356,226.44	3,646,124.35	-2.00	S 13°25'21" E	743.54	
	End	356,039.54	3,646,268.03	-1.97	S 37°33'8" E	235.75	4,743
18	Beginning	356,009.49	3,646,291.14	-1.98	S 37°33'08" E	37.90	201*
	PI1	355,393.43	3,646,764.75	-2.22	S 37°33'08" E	777.07	
	End	355,408.03	3,646,969.07	-2.28	N 85°54'49" E	204.84	5,519
19	Beginning	355,410.82	3,647,008.17	-2.30	N 85°54'49" E	39.20	214*
	End	355,460.75	3,647,706.98	-2.64	N 85°54'49" E	700.59	4,949
20	Beginning	355,463.64	3,647,747.49	-2.63	N 85°54'49" E	40.62	227*
	PI1	355,484.69	3,648,042.12	-2.12	N 85°54'49" E	295.38	
	End	355,655.23	3,648,990.06	-1.41	N 79°48'05" E	963.16	8,507
21	Beginning	355,661.51	3,649,024.97	-1.41	N 79°48'05" E	35.46	186*
	PI1	355,693.08	3,649,200.45	-2.24	N 79°48'05" E	178.30	
	End	355,650.52	3,650,000.15	-1.48	S 86°57'13" E	800.83	4,965
22	Beginning	355,648.60	3,650,036.28	-1.57	S 86°57'13" E	36.19	186*
	End	355,594.61	3,651,020.62	-1.41	S 86°51'39" E	985.82	5,288
23	Beginning	355,592.63	3,651,056.41	-1.51	S 86°49'46" E	35.84	184*
	PI1	355,580.01	3,651,284.25	-2.00	S 86°49'46" E	228.19	
	End	355,652.49	3,652,036.36	-2.00	N 84°29'44" E	755.60	6,060
24	Beginning	355,656.13	3,652,074.18	-2.01	N 84°29'44" E	37.99	207*
	PI1	355,677.13	3,652,292.07	-2.00	N 84°29'44" E	218.90	
	PI2	355,672.81	3,653,128.15	-1.54	S 89°42'15" E	836.09	
	End	355,371.62	3,653,429.34	-1.76	S 45°00'00" E	425.95	7,100
* Fish Dip Quantity					TOTAL	24,886.57	151,103

AS BUILT PLANS

NOTES:

1. ROCK SEGMENTS 1–24 ARE NUMBERED WEST TO EAST WITH SEGMENT 1 ADJACENT TO SUPERIOR CHANNEL AND SEGMENT 24 NEAR PLUM POINT. SEE SHEETS 10–13 FOR PLAN VIEW OF ROCK SEGMENTS
2. ALL COORDINATES REFERENCE THE NORTH AMERICAN DATUM OF 1983 (NAD 83) LOUISIANA SOUTH ZONE, U.S. SURVEY FEET.
3. THE ROCK ALIGNMENT SHALL BE APPROXIMATELY PARALLEL TO ALIGNMENT ABOVE. ALL THE POINTS OF INFLECTION SHALL BE LOCATED AT THE MUDLINE ELEVATIONS GIVEN ABOVE. THE CENTER OF THE ROCK DIKE SHALL BE LOCATED SUCH THAT THE MUDLINE ELEVATION OF THE EXISTING BOTTOM AT THE CENTERLINE MATCHES THE ELEVATIONS SHOWN.
4. ESTIMATED QUANTITIES SHOWN ARE FOR BIDDING PURPOSES ONLY AND WERE CALCULATED ACCORDING TO CONDITIONS SURVEYED FROM 11/22/02 TO 1/27/03. ROCK QUANTITIES WERE CALCULATED USING THE END AREA METHOD OF SECTIONS AT BEGINNING OF EACH ROCK SEGMENT, 1000.0' CENTERS ALONG EACH SEGMENT, AND AT THE END OF EACH SEGMENT. TWO FEET OF SETTLEMENT UNDER THE CROWN TAPERING TO NO SETTLEMENT AT THE TOE OF STRUCTURE WERE INCLUDED IN THE QUANTITIES. THE QUANTITIES REQUIRED FOR EACH FISH DIP WAS CALCULATED ASSUMING AN UNIFORM 2.0' LAYER OF ROCK BEING INSTALLED OVER THE ENTIRE FISH DIP AND 0.25' OF SETTLEMENT. THE IN–PLACE UNIT WEIGHT OF 1.5 TONS/CU. YDS. FOR THE ROCK WAS ASSUMED. ACTUAL QUANTITIES WILL BE BASED ON BARGE DISPLACEMENT MEASUREMENTS. SEE SECTION TS 12.10 "MEASUREMENTS AND PAYMENT" FOR ADDITIONAL REQUIREMENTS. THE OWNER RESERVES THE RIGHT TO ADJUST QUANTITIES WITHOUT ADJUSTMENT OF THE UNIT PRICE.

SEE SHEET 33

REV.	DATE	DESCRIPTION	BY
1	6/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

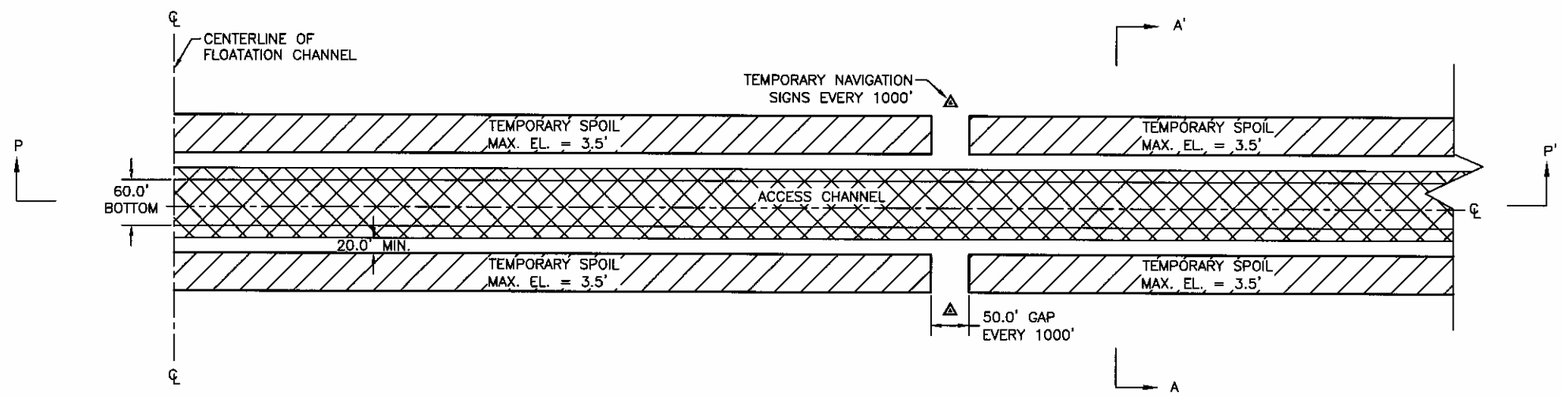
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

ROCK DIKE COORDINATES

DATE: FEBRUARY 2005
SHEET 14

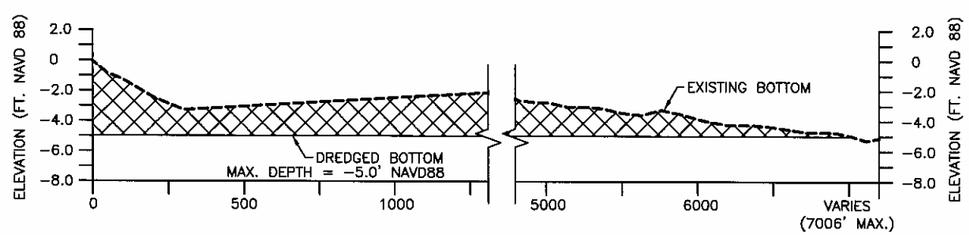
V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A14 CENTERLINE.DWG



PLAN VIEW

TYPICAL ACCESS CHANNEL

200' 100' 0' 200' 400'



SECTION P–P'

TYPICAL ACCESS CHANNEL

HORIZONTAL GRAPHIC SCALE

500' 250' 0 500' 1000'

10' 5' 0 10' 20'

VERTICAL GRAPHIC SCALE

AS BUILT PLANS

NOTES:

1. SPOIL WITHIN THE TEMPORARY STOCKPILE AREAS SHALL BE BACKFILLED INTO THE CHANNEL PRIOR TO PROJECT COMPLETION LEAVING THE LAKE BOTTOM NO HIGHER THAN 0.5' OF PRE–CONSTRUCTION ELEVATIONS.
2. ALL ACCESS DREDGING WILL BE PAID AS A LUMP SUM ITEM UNDER BID ITEM 14 "ACCESS AND FLOATATION CHANNELS".
3. NO DREDGING ALLOWED OUTSIDE OF BORROW AREA AND FLOATATION AND ACCESS CHANNELS.
4. SEE SHEET 16 FOR TYPICAL SECTION A–A'.
5. SEE SHEETS 10–13 FOR LOCATIONS OF TEMPORARY SPOIL.
6. NO PORTION OF ANY EQUIPMENT OR VESSEL SHALL CONTACT THE WATER BOTTOM DURING TRANSIT TO OR FROM THE PROJECT SITE.
7. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ACCESS CHANNELS IN A USEABLE CONDITION FOR THE DURATION OF THE CONSTRUCTION AT NO COST TO THE OWNER.
9. THE ACCESS CHANNELS VOLUMES SHOWN ON SHEET 16 ARE BASED ON A DIGITAL TERRAIN MODEL (DTM) DEVELOPED IN AUTOCAD FROM SURVEY POINTS ON THE TRANSECTS SHOWN ON SHEET 4 AND POINTS WITHIN THE BORROW AREA.
10. THE CONTRACTOR SHALL VERIFY THE ELEVATIONS ALONG THE ACCESS CHANNEL IN THE PRE–CONSTRUCTION SURVEY.

REV.	DATE	DESCRIPTION	BY
1	4/13/05	REVISED NOTE 2.	KC
2	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37

FEDERAL PROJECT NUMBER: BA-37

APPROVED BY: LUKE LEBAS, P.E.

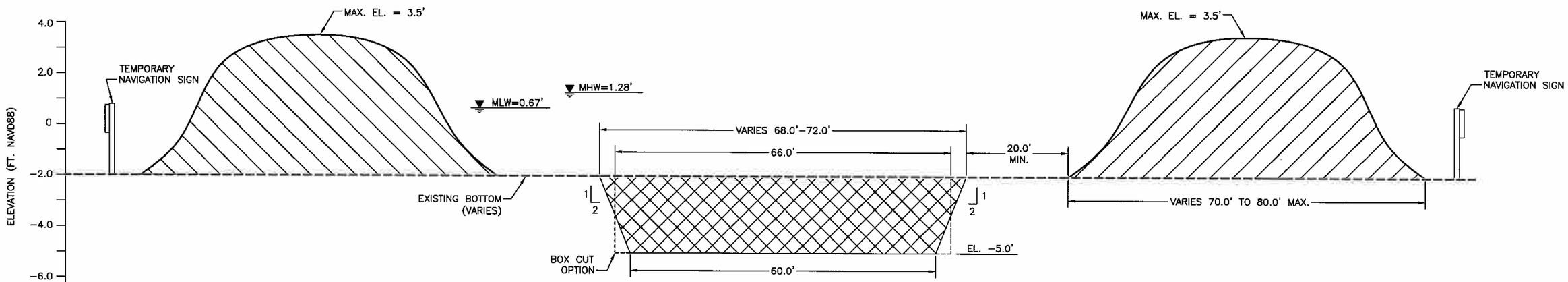
TYPICAL ACCESS CHANNEL PLAN AND PROFILE VIEWS

DATE: FEBRUARY 2005

SHEET 15

V:\CAD\116478\DNR DESIGN PLANS 8-28-08\AS-BUILT-LAND 2007\A15 ACCESS CHANNEL.DWG

	BEGIN (X, Y)	END (X, Y)	LENGTH	VOLUME (CU. YRDS)	
ACCESS CHANNEL #1	3638854.65, 365362.93	3638854.65, 369362.93	3808'	8400	NOT CONSTRUCTED
ACCESS CHANNEL #2	3644091.65, 360303.76	3648212.25, 362787.78	4662'	16300	NOT CONSTRUCTED
ACCESS CHANNEL #3	3648042.33, 355484.73	3649583.88, 362485.09	~~6094'~~ 8295'	~~15400~~	
ACCESS CHANNEL #4	3653044.19, 355673.24	3653044.98, 361722.83	5896'	26400	NOT CONSTRUCTED
		TOTAL	~~21350'~~ 22,661'	66500	



SECTION A-A'
TYPICAL ACCESS CHANNEL
(SEE SHEET 4 FOR LOCATION)

AS BUILT PLANS

*ACCESS CHANNELS ARE NUMBERED FROM WEST TO EAST WITH THE 'BEGIN' COORDINATES AT THE CENTER LINE OF THE ROCK DIKE.

NOTES:
1. ACCESS CHANNEL SIDE SLOPES WERE PROVIDED BY GEOTECHINAL CONSULTANTS.
2. ALL FLOATATION DREDGING WILL BE AT NO DIRECT PAY UNLESS DREDGED HYDRAULICALLY AND PLACED IN MARSH CREATION/NOUSHISHMENT AREA.
3. THE SPOIL FROM MAINTENANCE DREDGING SHALL BE PLACED ADJACENT TO THE CHANNEL.
4. SPOIL WITHIN THE TEMPORARY STOCKPILE AREA SHALL BE BACKFILLED IN CHANNEL PRIOR TO PROJECT COMPLETION LEAVING THE LAKE BOTTOM NO HIGHER THAN 0.5' OF PRE-CONSTRUCTION ELEVATIONS.
5. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
6. ACCESS CHANNEL BOTTOM WIDTH = 60'
   FLOATATION CHANNEL BOTTOM WIDTH = 80' EXCEPT IN TURNING BASIN WHERE THE WIDTH = 120'. SEE SHEETS 10-13.
7. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ACCESS CHANNELS IN A USEABLE CONDITION FOR THE DURATION OF THE CONSTRUCTION AT NO COST TO THE OWNER.
8. THE ACCESS CHANNELS VOLUMES SHOWN ABOVE ARE BASED ON A DIGITAL TERRAIN MODEL (DTM) DEVELOPED IN AUTOCAD FROM SURVEY POINTS ON THE TRANSECTS SHOWN ON SHEET 4 AND POINTS WITHIN THE BORROW AREA.
9. THE CONTRACTOR SHALL VERIFY THE ELEVATIONS ALONG THE ACCESS CHANNEL IN THE PRE-CONSTRUCTION SURVEY.

HORIZONTAL GRAPHIC SCALE
20' 10' 0 20' 40'
4' 2' 0 4' 8'
VERTICAL GRAPHIC SCALE

LEGEND
ACCESS CHANNEL
TEMPORARY SPOIL

REV.	DATE	DESCRIPTION	BY
1	8/1/07	REVISED SHEET NUMBER & UPDATED NOTES	WI

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

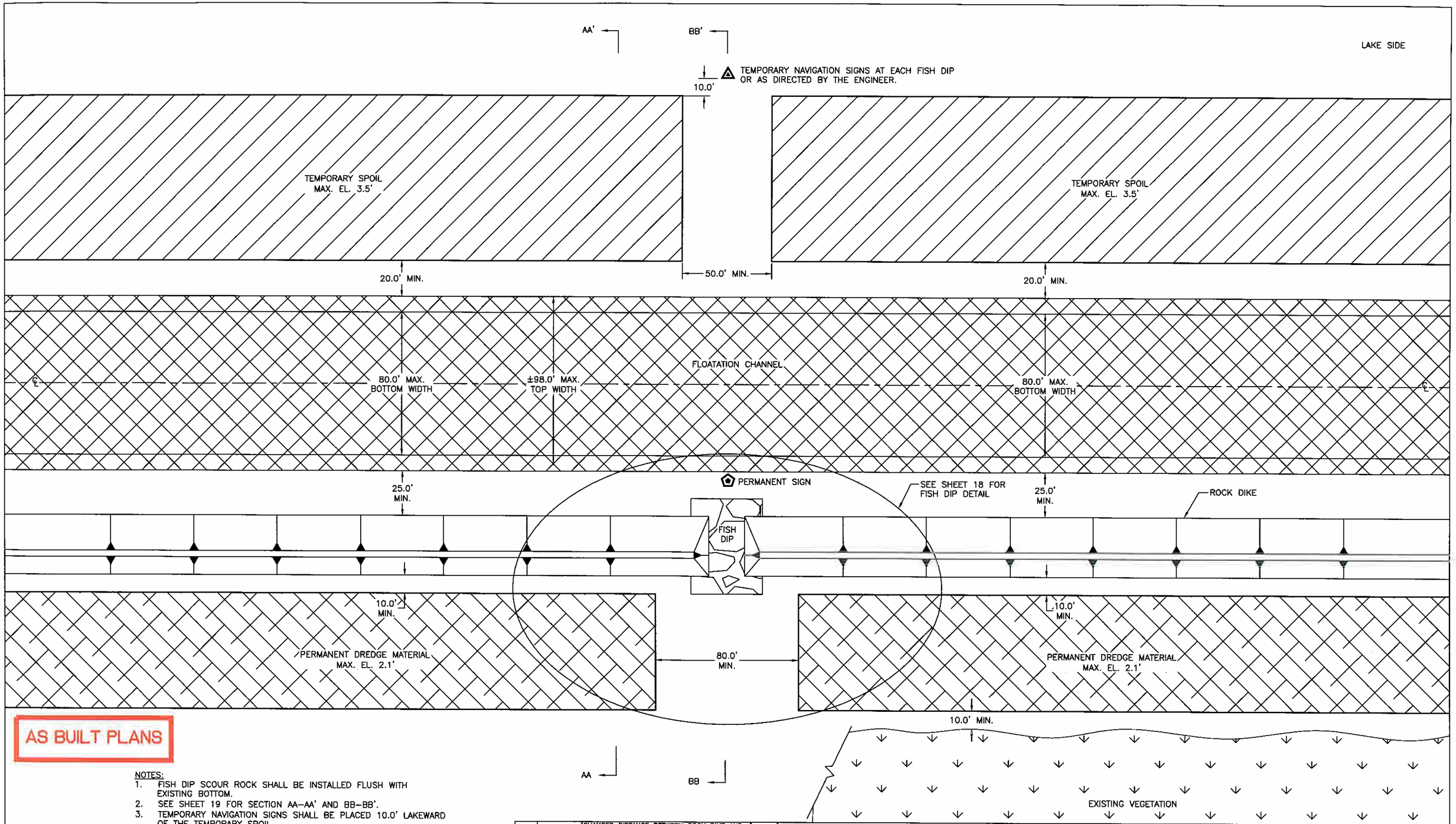
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

TYPICAL ACCESS CHANNEL SECTION

DATE: FEBRUARY 2005
SHEET 16

V:\CAD\116478\DNR DESIGN PLANS 8-28-08\AS-BUILT-LAND 2007\A16 ACCESS XSECT.DWG



AS BUILT PLANS

NOTES:

1. FISH DIP SCOUR ROCK SHALL BE INSTALLED FLUSH WITH EXISTING BOTTOM.
2. SEE SHEET 19 FOR SECTION AA–AA' AND BB–BB'.
3. TEMPORARY NAVIGATION SIGNS SHALL BE PLACED 10.0' LAKEWARD OF THE TEMPORARY SPOIL.
4. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
5. TEMPORARY SPOIL SHALL HAVE A 50.0' GAP AT EACH FISH DIP.

50' 25' 0' 50' 100'

REV.	DATE	DESCRIPTION	BY
1	4/13/05	CHANGED DISTANCE BETWEEN ROCK DIKE AND FLOATATION CHANNEL FROM 40' TO 25' MIN.	KC
1	5/1/07	REVISED SHEET NUMBER	WT

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

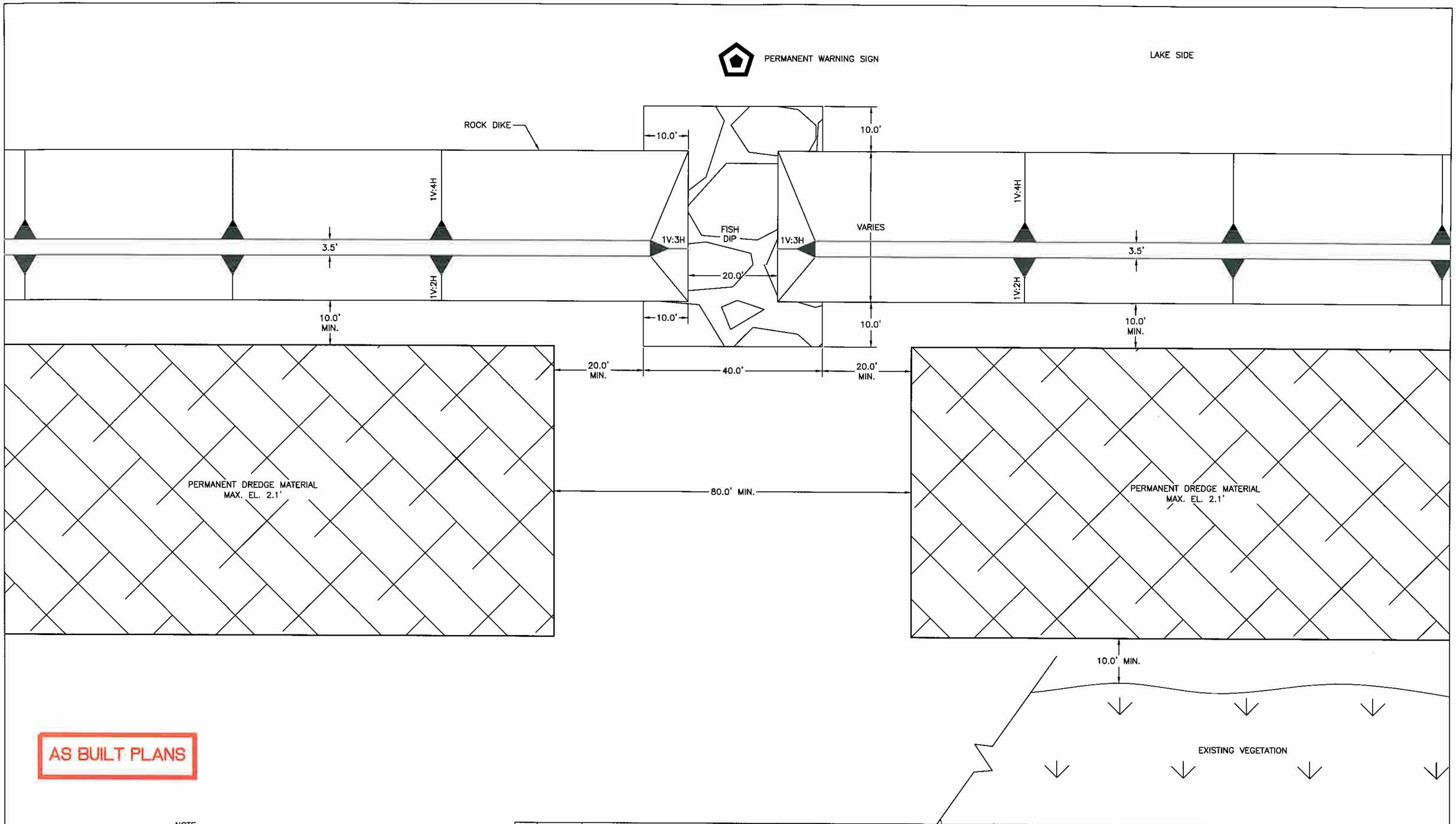
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

FISH DIP PLAN VIEW

DATE: FEBRUARY 2005
SHEET 17

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A17 FISH DIP PLAN.DWG



AS BUILT PLANS

NOTE:
FISH DIP SCOUR ROCK SHALL BE INSTALLED FLUSH WITH EXISTING BOTTOM.

20' 10' 0' 20' 40'

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

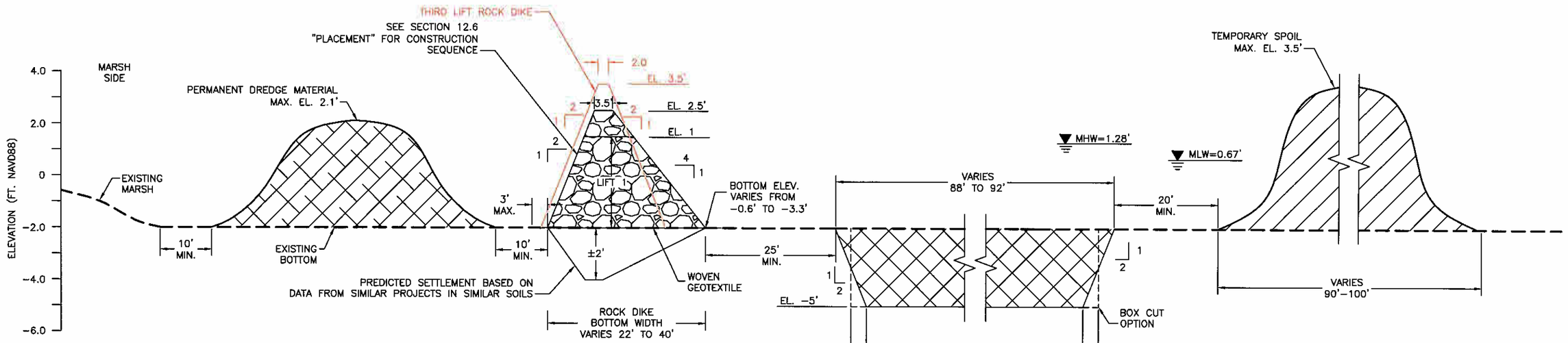
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

FISH DIP DETAIL

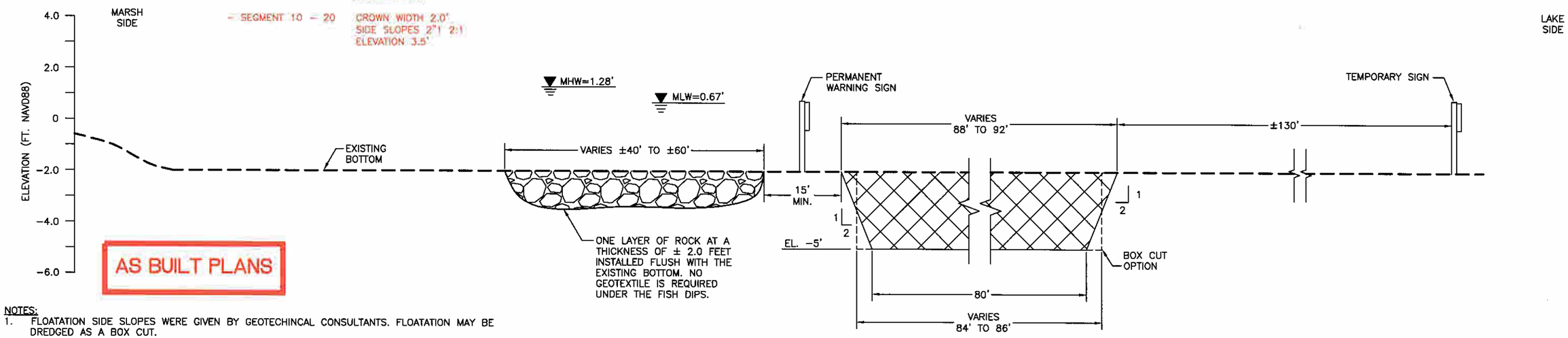
DATE: FEBRUARY 2005
SHEET 18

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A18 FISH DIP PLAN.DWG



SECTION AA-AA'
ROCK DIKE

- SEGMENT 23 & 24, CROWN WIDTH 3.5' SIDE SLOPES 4:1 & 2:1 ELEVATION 4.0'
- SEGMENT 21 & 22, CROWN WIDTHN 2.0' SIDE SLOPES 2:1 & 2:1 ELEVATION 4.0'
- SEGMENT 10 - 20 CROWN WIDTH 2.0' SIDE SLOPES 2:1 2:1 ELEVATION 3.5'



AS BUILT PLANS

SECTION BB-BB'
FISH DIP

NOTES:

1. FLOATATION SIDE SLOPES WERE GIVEN BY GEOTECHINCAL CONSULTANTS. FLOATATION MAY BE DREDGED AS A BOX CUT.
2. ALL FLOATATION DREDGING WILL BE PAID AS A LUMP SUM ITEM UNDER BID ITEM 14 "ACCESS AND FLOATATION CHANNEL".
3. THE SPOIL FROM MAINTENANCE DREDGING OF ACCESS CHANNELS AND/OR FLOATATION CHANNELS SHALL BE PLACED ADJACENT TO THE CHANNEL.
4. SPOIL WITHIN THE TEMPORARY STOCKPILE AREAS SHALL BE BACK FILLED INTO THE CHANNEL PRIOR TO PROJECT COMPLETION LEAVING THE LAKE BOTTOM NO HIGHER THAN 0.5' OF PRE-CONSTRUCTION ELEVATIONS.
5. PERMITTED FLOATATION AND ACCESS CHANNELS ARE SHOWN. THE CONTRACTOR HAS THE OPTION TO CONSTRUCT FEWER, SMALLER, AND/OR SHORTER CHANNELS.
6. THE REMOVAL OF APPROXIMATELY 220,670 CUBIC YARDS OF MATERIAL WILL BE REQUIRED TO CONSTRUCT THE FLOATATION CHANNEL SHOWN WEST OF THE 12" TENNESSEE GAS PIPELINE.
7. THE REMOVAL OF APPROXIMATELY 182,160 CUBIC YARDS OF MATERIAL WILL BE REQUIRED TO CONSTRUCT THE FLOATATION CHANNEL SHOWN EAST OF THE 12" TENNESSEE GAS PIPELINE.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ACCESS CHANNELS IN A USABLE CONDITION FOR THE DURATION OF CONSTRUCTION AT NO COST TO THE OWNER.

HORIZONTAL GRAPHIC SCALE
20' 10' 0 20' 40'
4' 2' 0 4' 8'
VERTICAL GRAPHIC SCALE

LEGEND
- ROCK DIKE
- FLOATATION CHANNEL
- PERMANENT DREDGE MATERIAL
- TEMPORARY SPOIL

REV.	DATE	DESCRIPTION	BY
1	4/13/05	CHANGED DISTANCE BETWEEN ROCK DIKE AND FLOATATION CHANNEL FROM 40' TO 25' MIN.	KC
2	4/13/05	CHANGED DISTANCE BETWEEN FISH DIP AND FLOATATION CHANNEL FROM 30' TO 15' MIN.	KC
3	4/13/05	REVISED NOTE 2.	KC
4	6/1/07	REVISED SHEET NUMBER & NOTES	WW

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

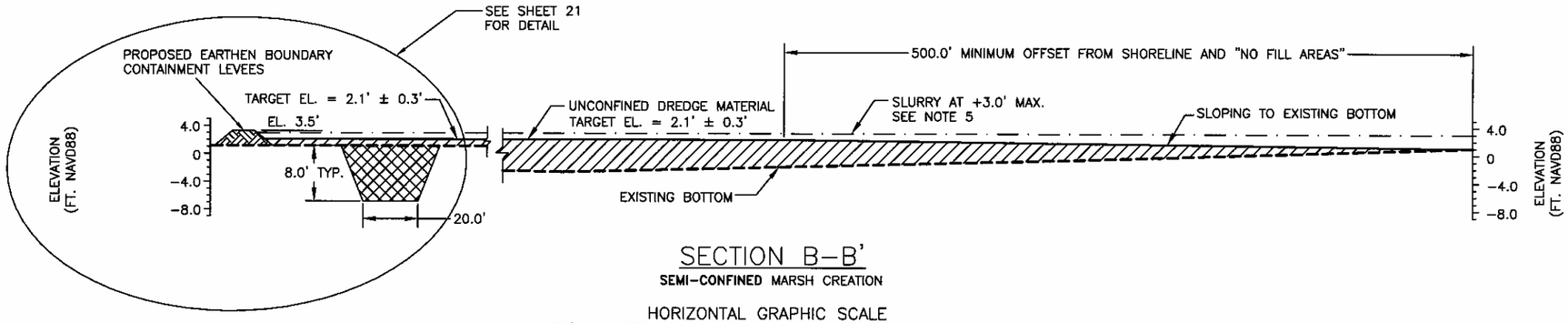
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

TYPICAL ROCK DIKE SECTIONS

DATE: FEBRUARY 2005
SHEET 19

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A19 ROCK DIKE SECTIONS.DWG



SECTION B–B'

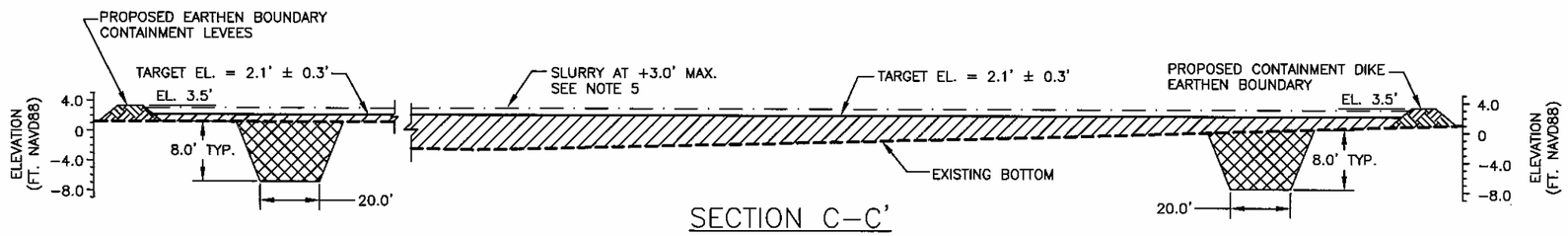
SEMI–CONFINED MARSH CREATION

HORIZONTAL GRAPHIC SCALE

50' 25' 0 50' 100'

20' 10' 0 20' 40'

VERTICAL GRAPHIC SCALE



SECTION C–C'

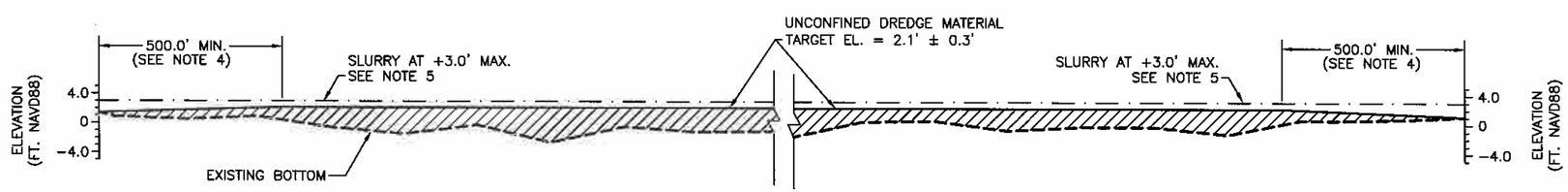
CONFINED MARSH CREATION

HORIZONTAL GRAPHIC SCALE

50' 25' 0 50' 100'

20' 10' 0 20' 40'

VERTICAL GRAPHIC SCALE



SECTION D–D'

UNCONFINED MARSH CREATION

HORIZONTAL GRAPHIC SCALE

400' 200' 0 400' 800'

20' 10' 0 20' 40'

VERTICAL GRAPHIC SCALE

NOTES:

1. DISCHARGE SHALL BE DIRECTED TO RETAIN AS MUCH MATERIAL AS POSSIBLE.
2. NO DISCHARGE POINT SHALL BE WITHIN 500.0' OF THE PROJECT BOUNDARY OR ANY AREA DEPICTED AS NO FILL WITHOUT PRIOR APPROVAL OF THE ENGINEER.
3. NO DISCHARGE POINT SHALL BE WITHIN 75' OF ANY GRADE STAKES WITHOUT PRIOR APPROVAL OF THE ENGINEER.
4. MINIMUM OFFSET FROM SHORELINE AND "NO FILL AREAS" IS 500.0'.
5. THE SLURRY MAY BE PUMPED TO A MAXIMUM ELEVATION OF +3.0' NAVD 88. HOWEVER, IF THE MATERIAL DOES NOT DEWATER TO A ACCEPTABLE ELEVATION (1.8' TO 2.4' NAVD 88) WITHIN 28 DAYS, THE MAXIMUM SLURRY ELEVATION MAY BE ADJUSTED BY A WRITTEN FIELD ORDER. ANY CHANGES TO THE MAXIMUM SLURRY ELEVATIONS WILL NOT EFFECT THE UNIT COST.

AS BUILT PLANS

SUMMARY OF AVERAGE EXISTING MARSH ELEVATION (SEE SHEET 4)

PT.	NORTHING	EASTING	AVE MARSH ELEV. FT. NAVD 88
NW	363,333	3,640,686	1.3
CENT.	355,923	3,645,139	1.3
SE	353,859	3,652,243	1.1
AVER.	NA	NA	1.2

LEGEND

- CONTAINMENT DIKE BORROW
- FILL AREA
- EARTHEN LEVEE

REV.	DATE	DESCRIPTION	BY
1	4/13/05	REVISED NOTE 3.	KC
2	4/13/05	ADDED NOTE 5.	KC
3	4/13/05	ADDED SLURRY LINE AND LEADER NOTE TO EACH SECTION.	KC
4	4/26/05	CHANGED THE FLOATATION DEPTH DIMENSIONS FROM 8.0' MAX. TO 8.0' TYP.	KC
5	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37

FEDERAL PROJECT NUMBER: BA-37

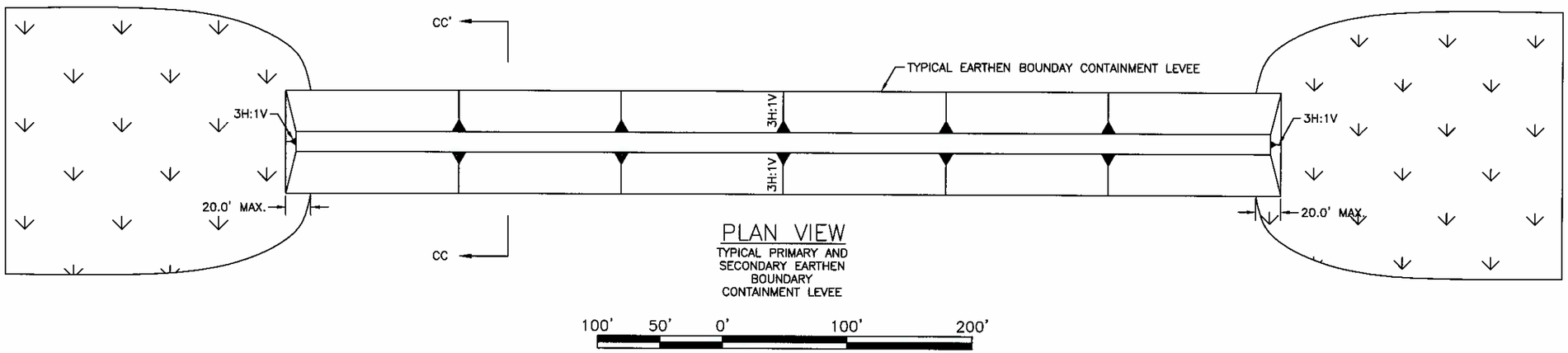
APPROVED BY: LUKE LEBAS, P.E.

TYPICAL MARSH SECTIONS

DATE: FEBRUARY 2005

SHEET 20

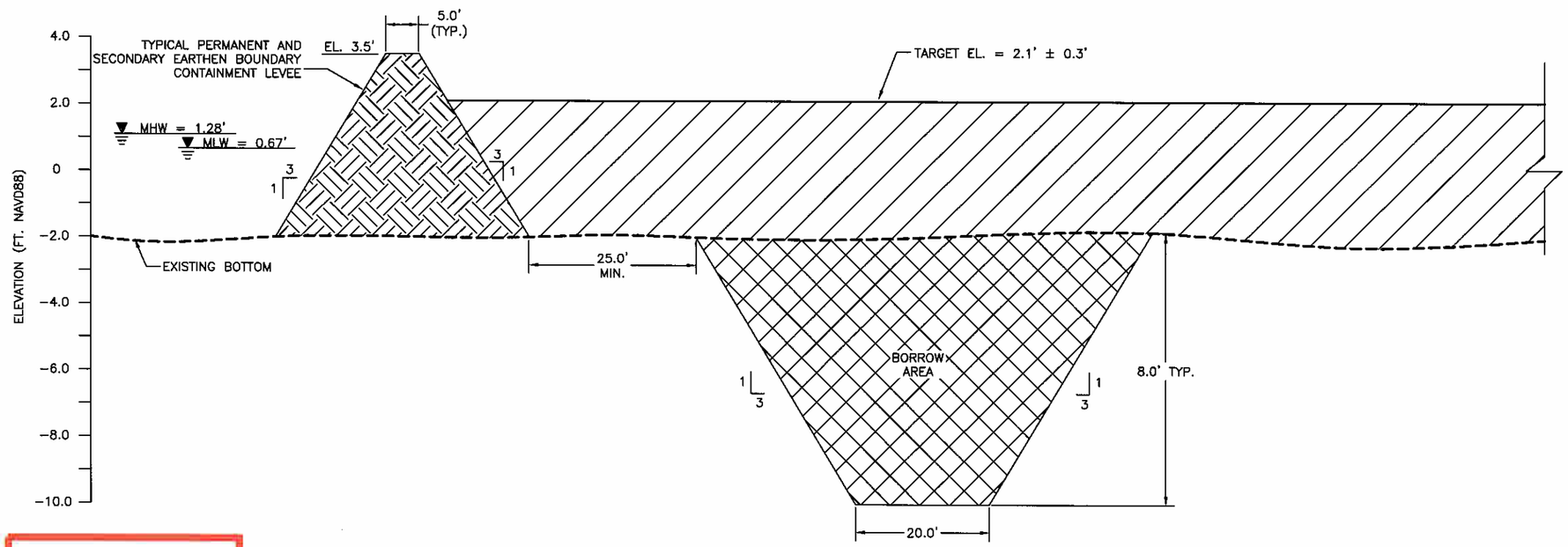
V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A20 MARSH SECTIONS.DWG



PLAN VIEW
TYPICAL PRIMARY AND SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEE

PRIMARY EARTHEN BOUNDARY CONTAINMENT LEVEE (P EBCL) VOLUMES		
LEVEE	LENGTH (FEET)	VOLUME (CU. YDS.)
P EBCL 1	75.0	85.0
P EBCL 2	98.0	106.0
P EBCL 3*	1,768.0	5,154.0
P EBCL 4**	1,973.0	5,301.0
P EBCL 5	1,388.0	3,125.0
P EBCL 6	232.46	1,053.0
P EBCL 7	196.0	297.0
P EBCL 8	482.95	939.0
P EBCL 9	406.06	841.0
P EBCL 10	137.0	394.0
P EBCL 11	81.66	103.0
P EBCL 12	1,478.95	3,555.0
P EBCL 13	386.58	1,251.0
P ECBL 14	413.77	1,074.0
P ECBL 15	978.32	2,175.0
BASE BID TOTAL	8,122.75	20,152.0
ADD. ALT. TOTAL	205.0	147.0

*P EBCL 3 IS INCLUDED ONLY IN THE BASE BID.
** P EBCL 4 IS INCLUDED ONLY IN THE ADDITIVE ALTERNATE BID.



SECTION CC–CC'
TYPICAL PRIMARY AND SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEE

SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEE (S EBCL) VOLUMES		
LEVEE	LENGTH (FEET)	VOLUME (CU. YDS.)
S EBCL 1	157.03	653.0
S EBCL 2	80.27	259.0
S EBCL 3	165.9	226.0
S EBCL 4	118.22	148.0
S EBCL 5	306.31	432.0
S EBCL 6	183.16	165.0
S EBCL 7	150.93	449.0
S EBCL 8	113.61	316.0
S EBCL 9	121.37	431.0
S EBCL 10	721.2	1,080.0
S EBCL 11	870.0	1,193.0
S EBCL 12	79.84	132.0
S EBCL 13	87.9	146.0
S ECBL 14	135.53	129.0
S ECBL 15	105.22	127.0
S ECBL 16	57.83	149.0
S ECBL 17	72.12	75.0
S ECBL 18	57.88	79.0
S ECBL 19	67.21	107.0
S ECBL 20	77.68	280.0
S ECBL 21	1,258.11	3,071.0
S ECBL 22	601.52	1,395.0
S ECBL 23	66.66	242.0
S ECBL 24	70.39	174.0
S ECBL 25	140.77	198.0
S ECBL 26	87.04	366.0
S ECBL 27	97.7	147.0
S ECBL 28	209.98	244.0
S ECBL 29*	93.56	302.0
S ECBL 30*	138.44	388.0
S ECBL 31*	181.84	552.0
BASE BID TOTAL	6,675.22	13,655.0
ADD. ALT. TOTAL	6,261.38	12,413.0

* S EBCL 29–31 ARE INCLUDED ONLY IN THE BASE BID. SEE SHEET 8 OF 32 FOR CLARIFICATION.

AS BUILT PLANS

NOTES:
1. CONTAINMENT LEVEES WILL BE CONSTRUCTED ONLY IN OPEN WATER ALONG PROJECT BOUNDARY. INTERNAL TRAINING DIKES ARE ALLOWED PROVIDED THEY ARE NO HIGHER THAN 2.4' NAVD 88. SEE SHEETS 8 AND 9 FOR LOCATION AND TYPICAL SECTION OF THE INTERNAL TRAINING DIKES.
2. THE LENGTHS OF THE PRIMARY AND SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEES SHOWN ON ABOVE INCLUDE A 20' TIE–IN TO EXISTING MARSH ON EACH END.
3. SEE SECTION TS–5 "PRIMARY EARTHEN BOUNDARY CONTAINMENT LEVEES" AND TS–6 "SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEES OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. SEE SHEET 8 FOR LOCATION OF THE PRIMARY AND SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEES.
5. THE VOLUME OF PRIMARY AND SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEES SHOWN ABOVE ARE BASED ON A DIGITAL TERRAIN MODEL DEVELOPED IN AUTOCAD OF SURVEY POINTS COLLECTED BETWEEN 11/22/02 AND 1/27/03 BY T. BAKER SMITH AND SON, INC. A 1:1 CUT TO FILL RATIO WAS ASSUMED IN THE CALCULATIONS.
6. ALL SECONDARY EARTHEN BOUNDARY CONTAINMENT LEVEES SHALL BE DEGRADED TO THE ELEVATION OF THE ADJACENT MARSH CREATION PRIOR TO DEMOBILIZATION.

HORIZONTAL GRAPHIC SCALE
20' 10' 0 20' 40'
4' 2' 0 4' 8'
VERTICAL GRAPHIC SCALE

LEGEND
- CONTAINMENT DIKE BORROW AREA
- FILL AREA
- EARTHEN CONTAINMENT LEVEE

REV.	DATE	DESCRIPTION	BY
1	4/22/05	CHANGED BORROW AREA SIDE SLOPES TO 3H:1V.	KC
2	4/26/05	CHANGED THE FLOATATION DEPTH DIMENSION FROM 8.0' MAX. TO 8.0' TYP.	KC
1	8/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

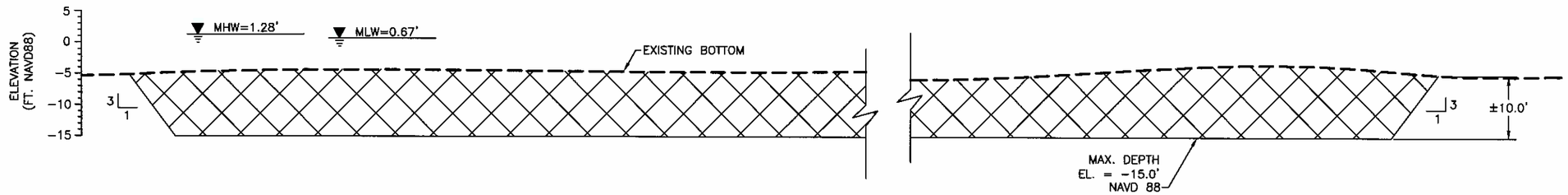
DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

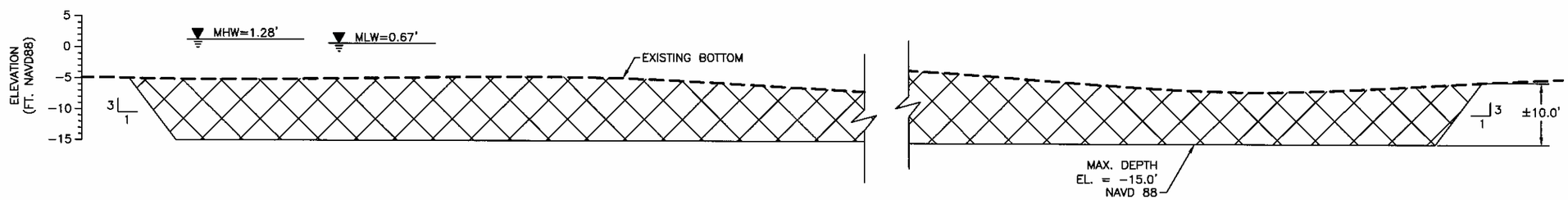
STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

TYPICAL CONTAINMENT LEVEE SECTION & PLAN VIEW

DATE: FEBRUARY 2005
SHEET 21



SECTION E-E'
BORROW AREA



SECTION F-F'
BORROW AREA

HORIZONTAL GRAPHIC SCALE
40' 20' 0 40' 80'
20' 10' 0 20' 40'
VERTICAL GRAPHIC SCALE

NOTE:
THE BORROW AREA CONTAINS APPROXIMATELY 21,376,000 CUBIC YARDS OF MATERIAL WITH A MAXIMUM DEPTH OF CUT TO A ELEVATION OF -15.0'.

AS BUILT PLANS

REV.	DATE	DESCRIPTION	BY
1	6/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

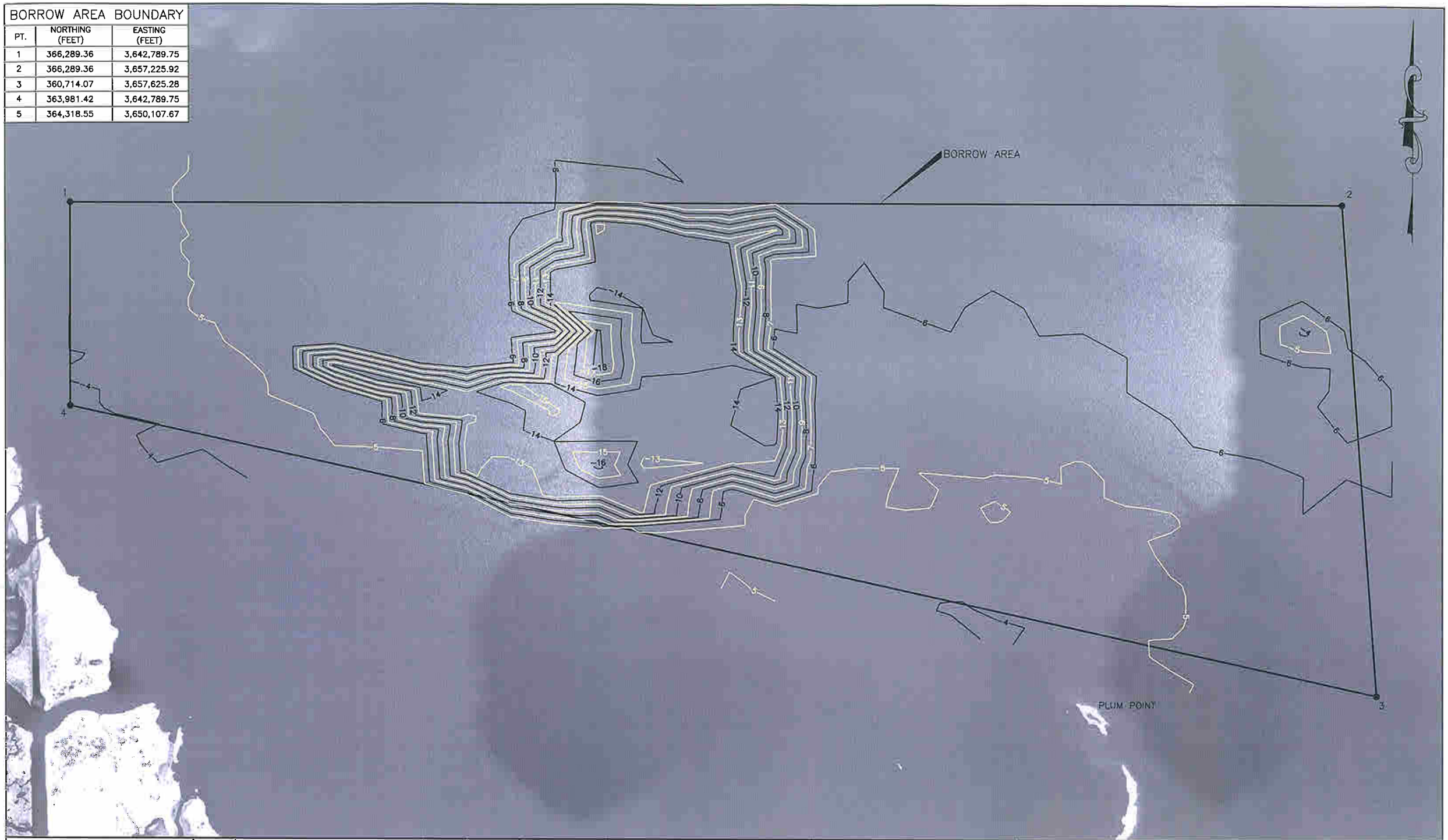
STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

TYPICAL BORROW AREA SECTIONS

DATE: FEBRUARY 2005
SHEET 22

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A22 TYPICAL BORROW SECTION.DWG

BORROW AREA BOUNDARY		
PT.	NORTHING (FEET)	EASTING (FEET)
1	366,289.36	3,642,789.75
2	366,289.36	3,657,225.92
3	360,714.07	3,657,625.28
4	363,981.42	3,642,789.75
5	364,318.55	3,650,107.67



NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

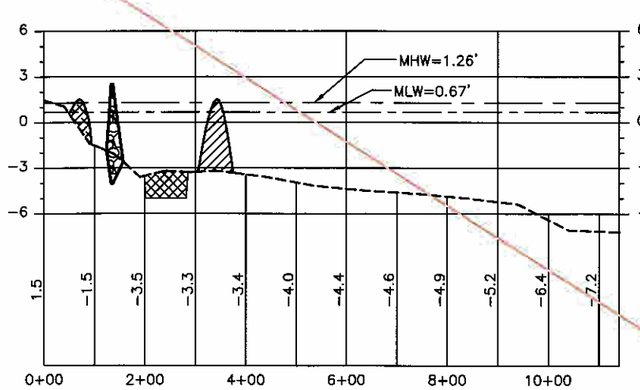
SCALE IN FEET
1000 500 0 1000

FILE NAME:	051460-P2
TBS NO.:	2005-1460
DATE:	10/16/06
PLOT SCALE:	1"=1000'
DRAWN BY:	KSP
APPROVED:	PJT
MAP NO.	

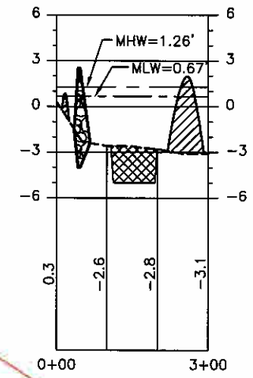
AS-BUILT BORROW AREA
PLAN VIEW

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

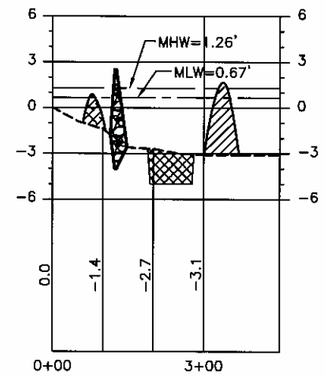
SHEET NO. 1 OF 1



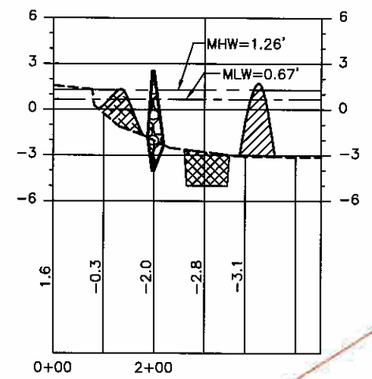
STA. 100+00



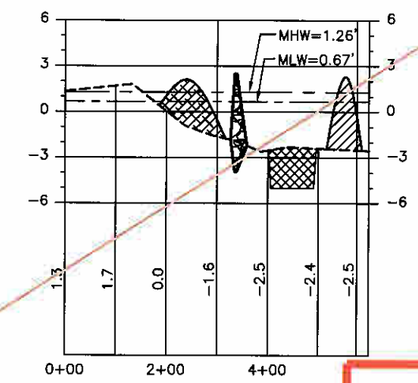
STA. 110+00



STA. 120+00

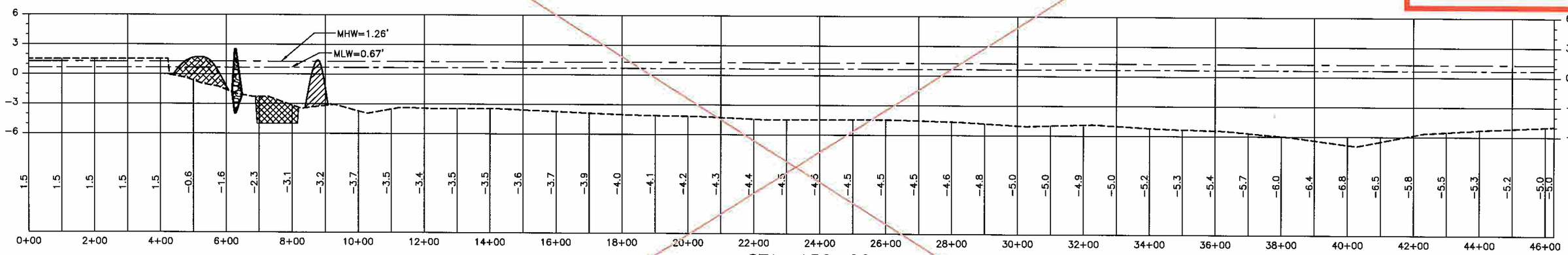


STA. 130+00



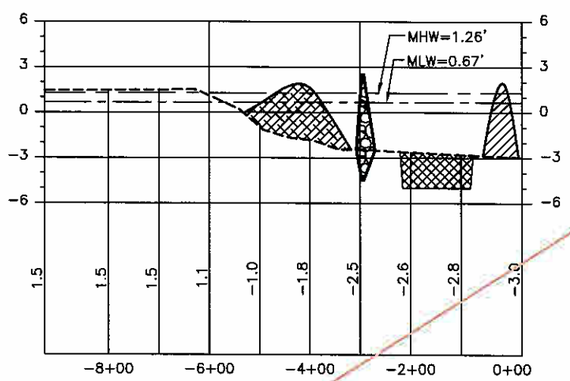
STA. 140+00

AS BUILT PLANS

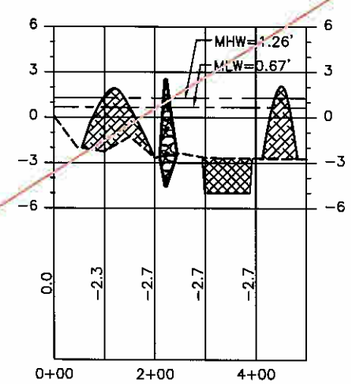


STA. 150+00

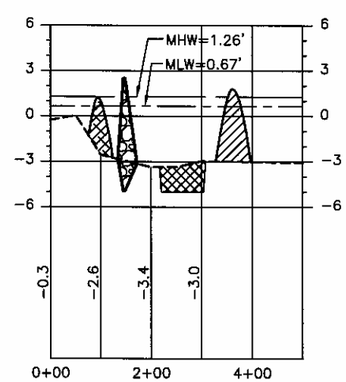
SEE SHEETS 34-47



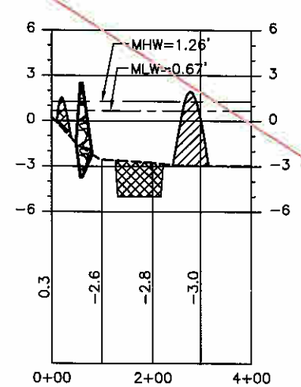
STA. 150+74



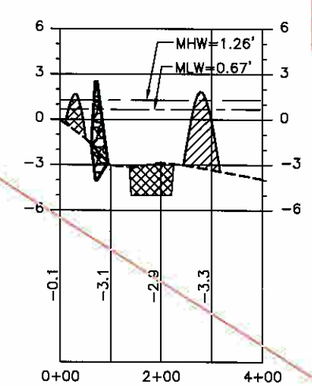
STA. 160+00



STA. 170+00



STA. 180+00



STA. 190+00

NOTES:
1. CROSS SECTIONS ARE BASED ON SURVEY PERFORMED BETWEEN 11/22/02 AND 1/27/03.
2. NUMBERS BELOW THE EXISTING GROUND ARE THE EXISTING MUDLINE ELEVATIONS IN NAVD 88 FEET.

LEGEND

- ROCK DIKE EL.=2.5'
- PERMANENT DREDGE MATERIAL
- TEMPORARY SPOIL
- FLOATATION CHANNEL
- EXISTING BOTTOM

HORIZONTAL GRAPHIC SCALE
300' 150' 0 300' 600'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

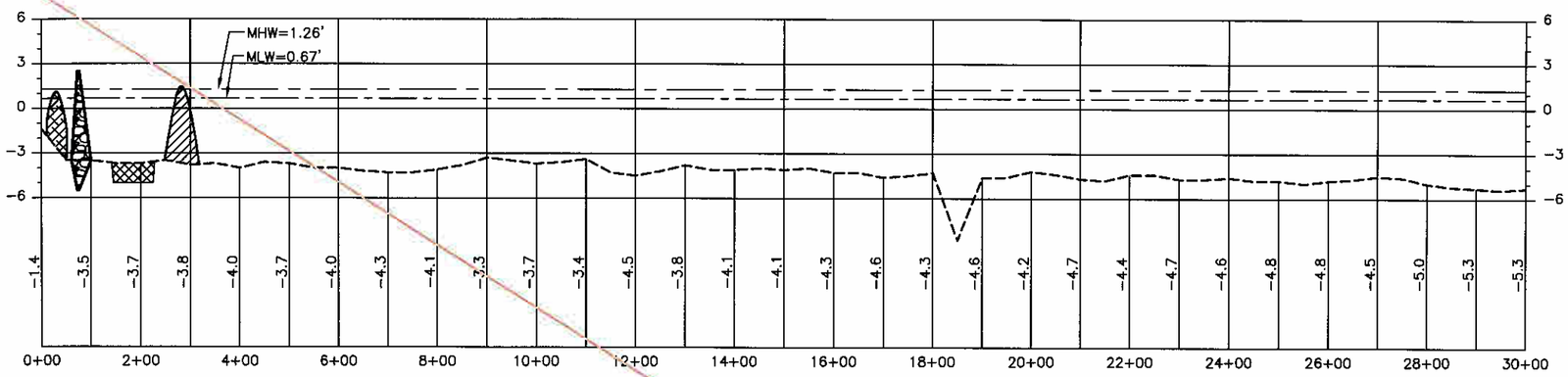
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

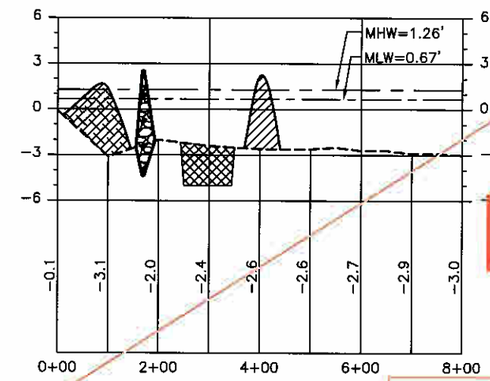
ROCK DIKE CROSS SECTIONS

DATE: FEBRUARY 2005
SHEET 23

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A23-26 REV ROCK X-SEC.DWG



STA. 190+74



STA. 200+00

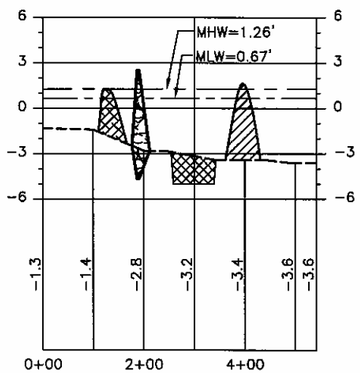
AS BUILT PLANS

SEE SHEETS 34-47

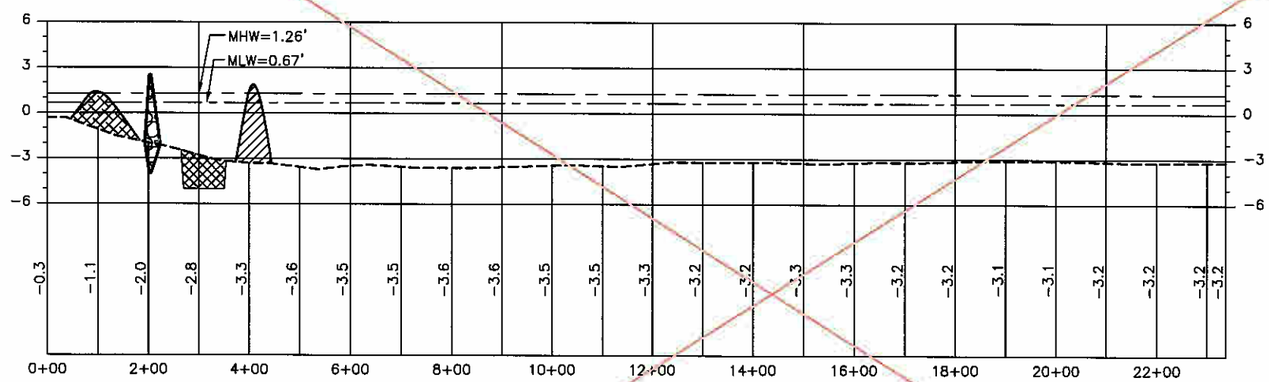
NOTES:
1. CROSS SECTIONS ARE BASED ON SURVEY PERFORMED BETWEEN 11/22/02 AND 1/27/03.
2. NUMBERS BELOW THE EXISTING GROUND ARE THE EXISTING MUDLINE ELEVATIONS IN NAVD 88 FEET.

LEGEND

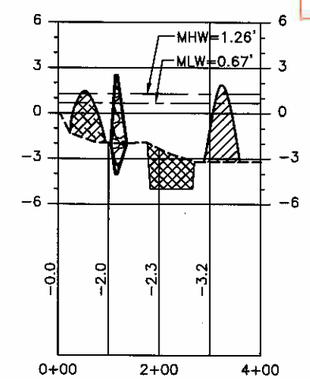
- ROCK DIKE EL.=2.5'
- PERMANENT DREDGE MATERIAL
- TEMPORARY SPOIL
- FLOATATION CHANNEL
- EXISTING BOTTOM



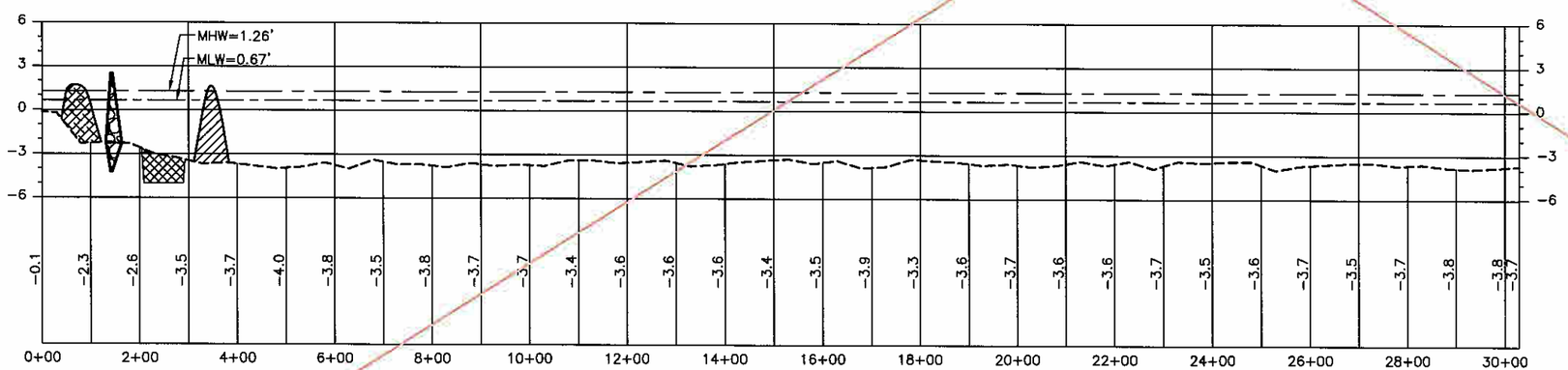
STA. 210+00



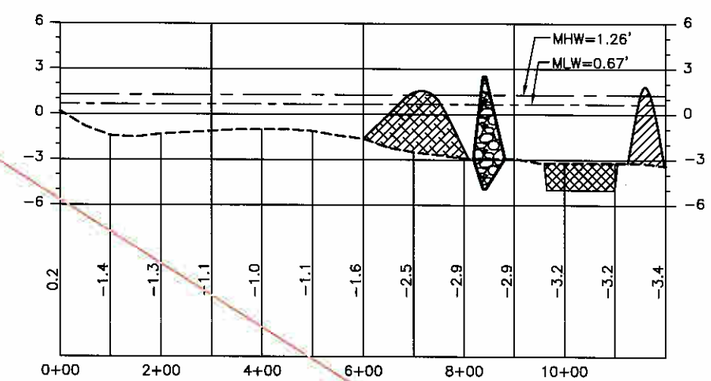
STA. 220+00



STA. 230+00



STA. 230+74



STA. 240+00

HORIZONTAL GRAPHIC SCALE
300' 150' 0 300' 600'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

REV.	DATE	DESCRIPTION	BY
1	9/1/07	REVISED SHEET NUMBER.	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

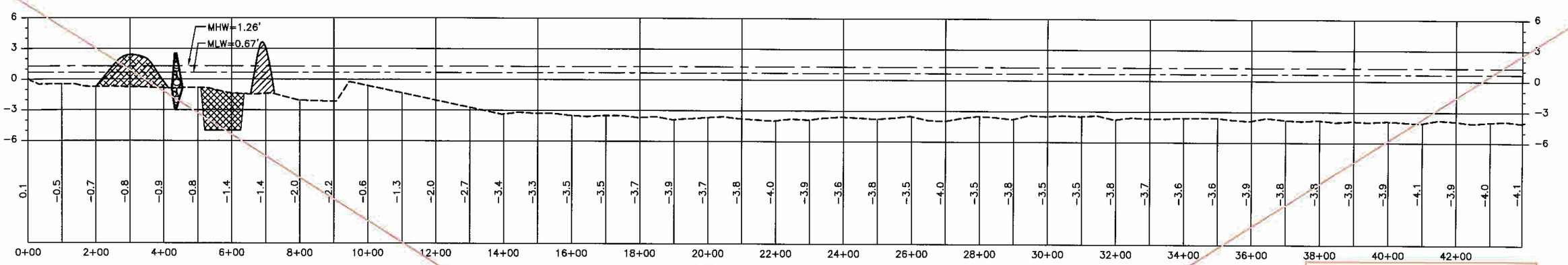
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

ROCK DIKE CROSS SECTIONS

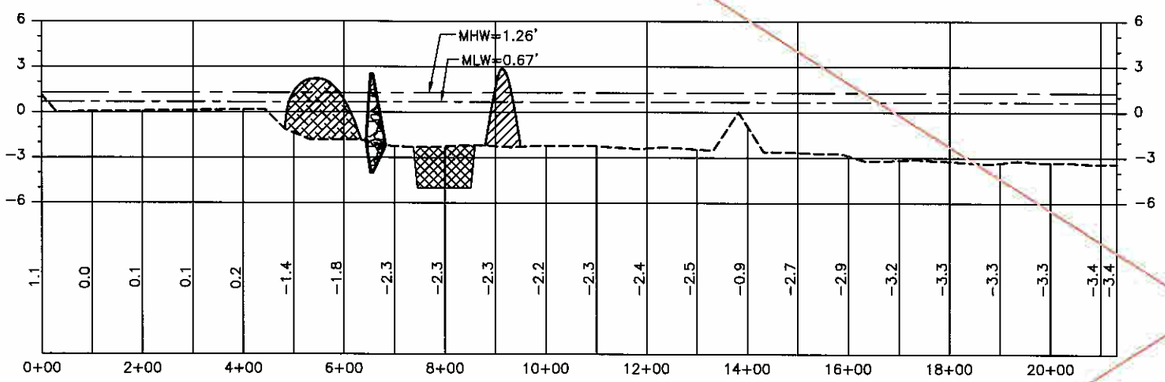
DATE: FEBRUARY 2005
SHEET 24

V:\CAD\115478\DNR DESIGN PLANS 8-28-08\AS-BUILT-LAND 2007\A23-25 REV ROCK X-SEC.DWG

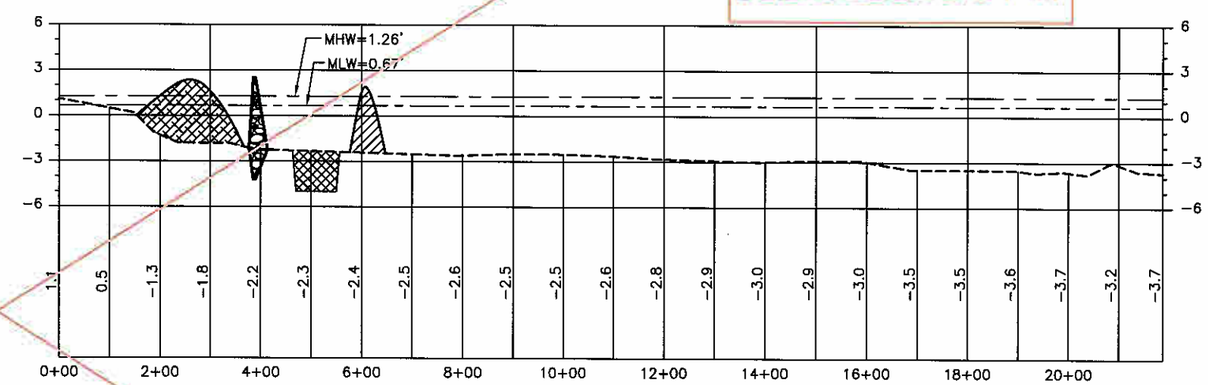


STA. 247+59

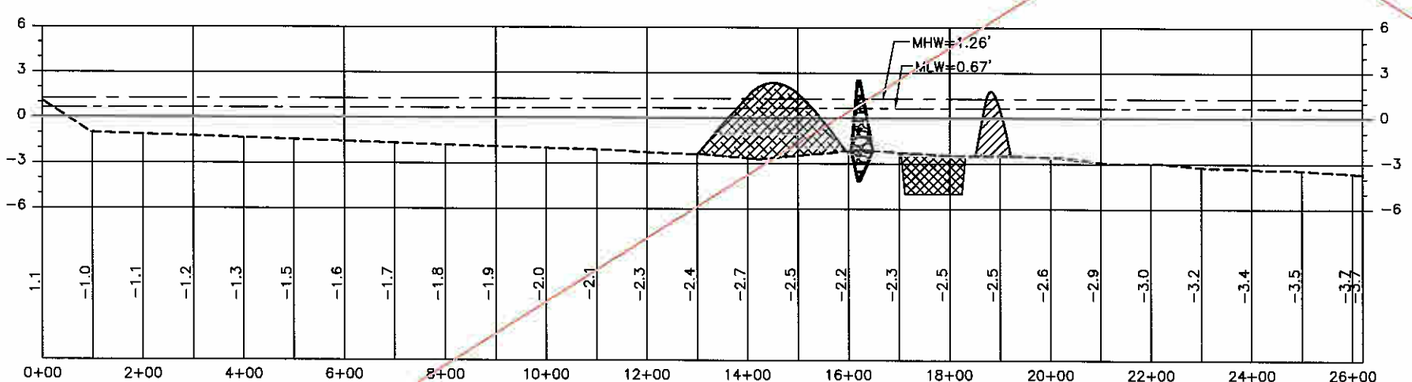
SEE SHEETS 34-47



STA. 250+00



STA. 260+00



STA. 270+00

AS BUILT PLANS

NOTES:
1. CROSS SECTIONS ARE BASED ON SURVEY PERFORMED BETWEEN 11/22/02 AND 1/27/03.
2. NUMBERS BELOW THE EXISTING GROUND ARE THE EXISTING MUDLINE ELEVATIONS IN NAVD 88 FEET.

LEGEND

- ROCK DIKE EL.=2.5'
- PERMANENT DREDGE MATERIAL
- TEMPORARY SPOIL
- FLOATATION CHANNEL
- EXISTING BOTTOM

HORIZONTAL GRAPHIC SCALE
300' 150' 0 300' 600'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

REV.	DATE	DESCRIPTION	BY
1	6/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

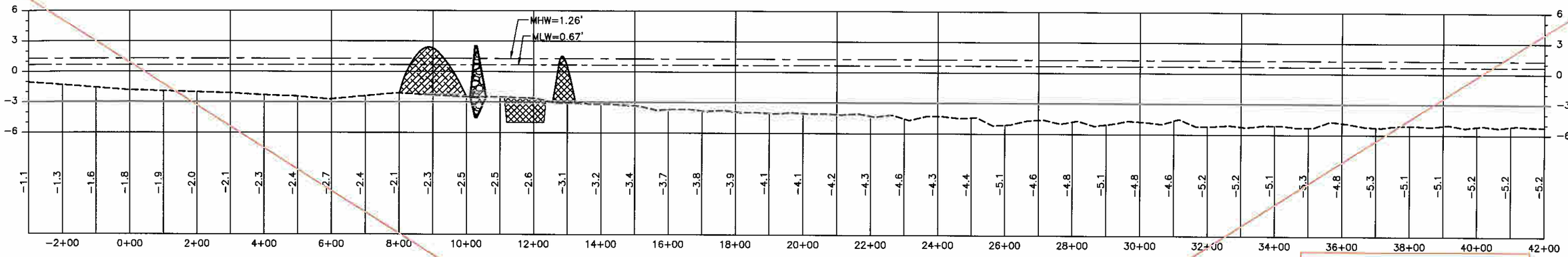
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

ROCK DIKE CROSS SECTIONS

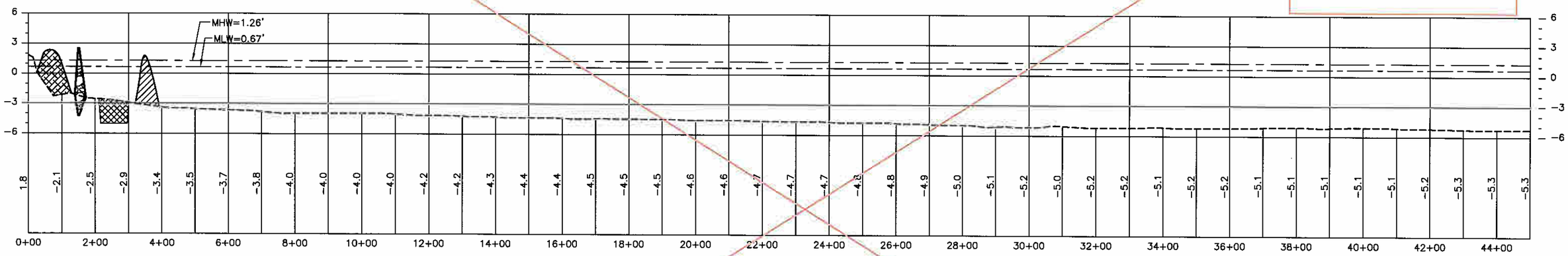
DATE: FEBRUARY 2005
SHEET 25

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A23-26 REV ROCK X-SEC.DWG

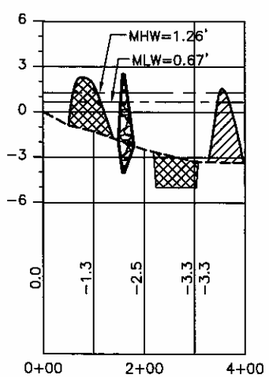


STA. 275+17

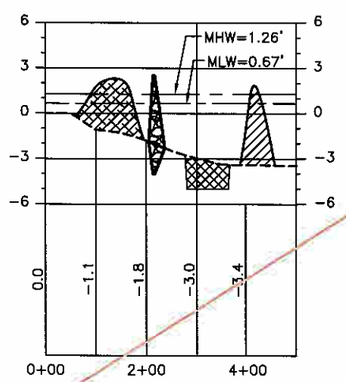
SEE SHEETS 34-47



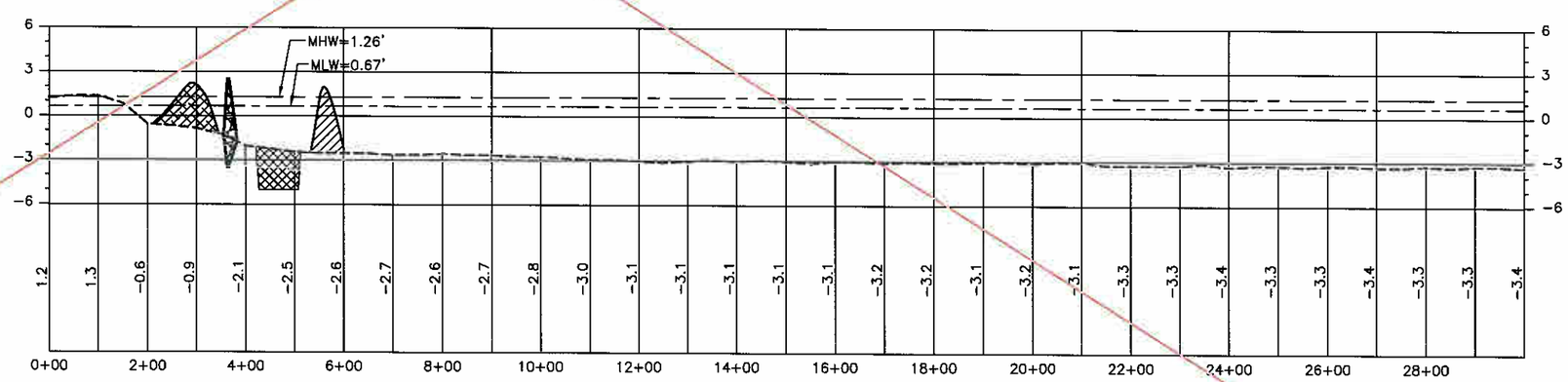
STA. 279+13



STA. 290+00



STA. 300+00



STA. 317+31

HORIZONTAL GRAPHIC SCALE
300' 150' 0 300' 600'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

AS BUILT PLANS

LEGEND

- ROCK DIKE EL.=2.5'
- PERMANENT DREDGE MATERIAL
- TEMPORARY SPOIL
- FLOATATION CHANNEL
- EXISTING BOTTOM

NOTES:
1. CROSS SECTIONS ARE BASED ON SURVEY PERFORMED BETWEEN 11/22/02 AND 1/27/03.
2. NUMBERS BELOW THE EXISTING GROUND ARE THE EXISTING MUDLINE ELEVATIONS IN NAVD 88 FEET.

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

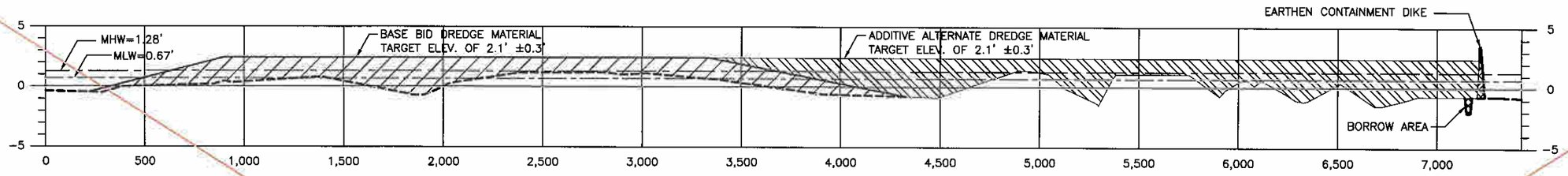
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

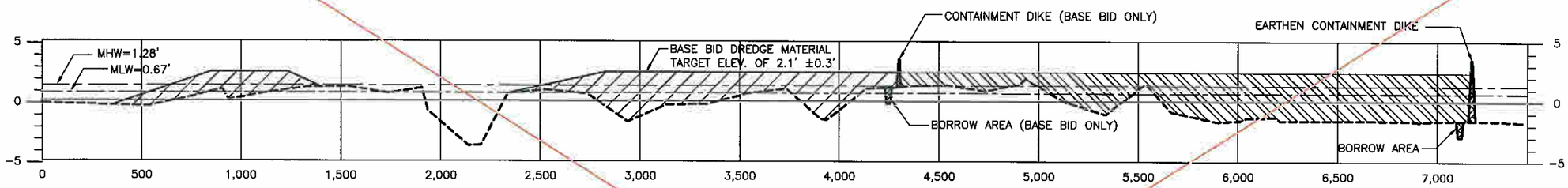
ROCK DIKE CROSS SECTIONS

DATE: FEBRUARY 2005
SHEET 26

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A23-26 REV ROCK X-SEC.DWG

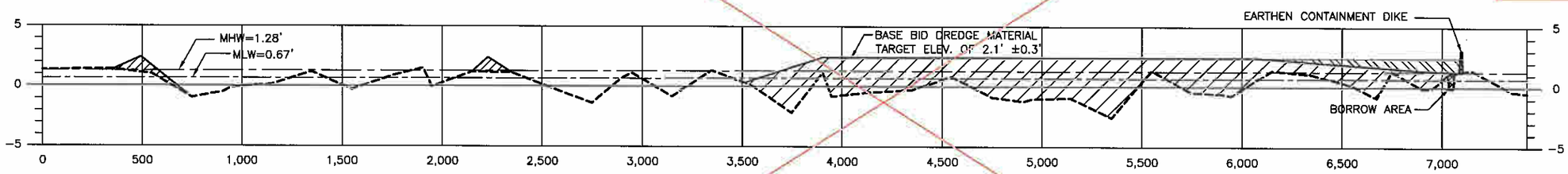


SECTION 1A
LOOKING EAST

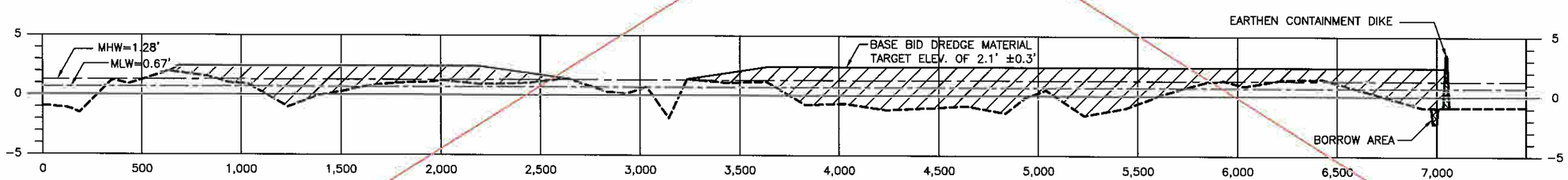


SECTION 1
LOOKING EAST

SEE SHEETS 49-56



SECTION 2
LOOKING EAST



SECTION 3
LOOKING EAST

AS BUILT PLANS

LEGEND

- BASE BID DREDGE MATERIAL
- ADDITIVE ALTERNATE DREDGE MATERIAL
- BORROW AREA
- EARTHEN CONTAINMENT DIKE
- EXISTING BOTTOM

HORIZONTAL GRAPHIC SCALE
600' 300' 0 600' 1,200'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

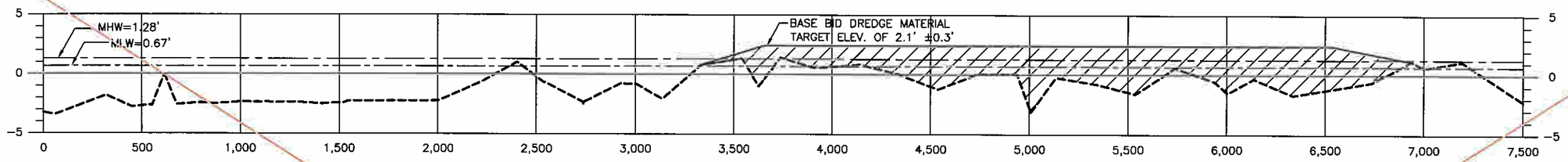
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

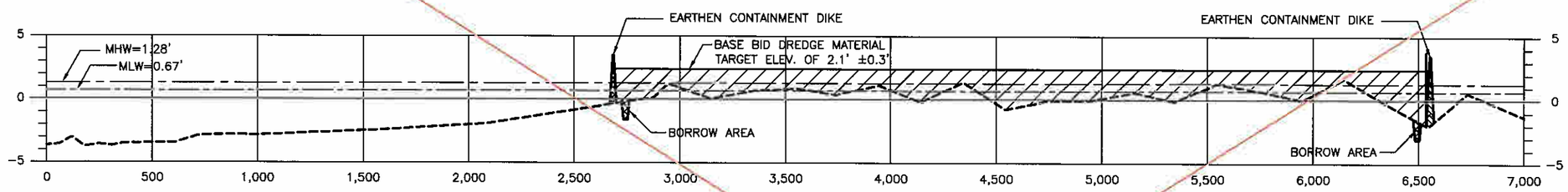
MARSH CREATION CROSS SECTIONS

DATE: FEBRUARY 2005
SHEET 27

V:\CAD\116478\DNR DESIGN PLANS 8-28-08\AS-BUILT-LAND 2007\A27-30 MARSH SECTIONS.DWG

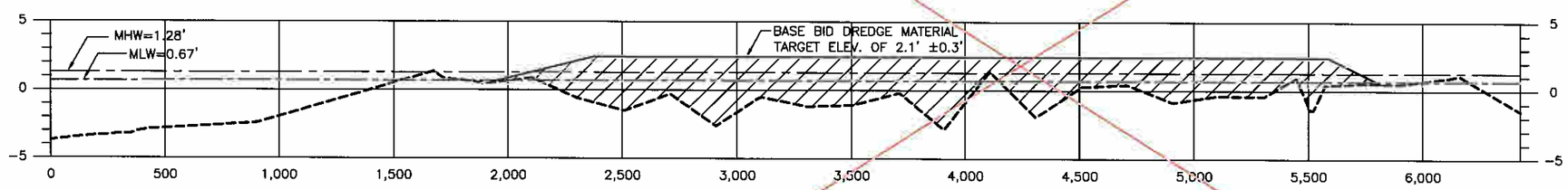


SECTION 4
LOOKING EAST



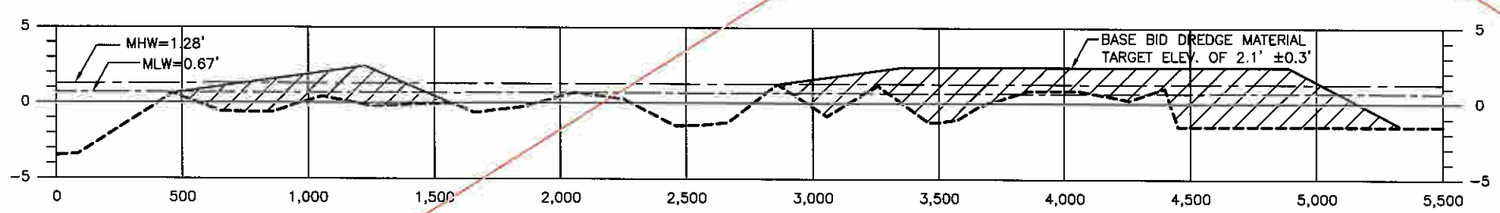
SEE SHEETS 49-56

SECTION 5
LOOKING EAST

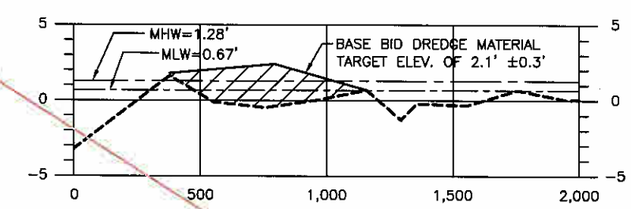


SECTION 6
LOOKING EAST

LEGEND
BASE BID DREDGE MATERIAL
ADDITIVE ALTERNATE DREDGE MATERIAL
BORROW AREA
EARTHEN CONTAINMENT DIKE
EXISTING BOTTOM



SECTION 7
LOOKING EAST



SECTION 8
LOOKING EAST

AS BUILT PLANS

HORIZONTAL GRAPHIC SCALE
600' 300' 0 600' 1,200'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

REV.	DATE	DESCRIPTION	BY
1	9/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

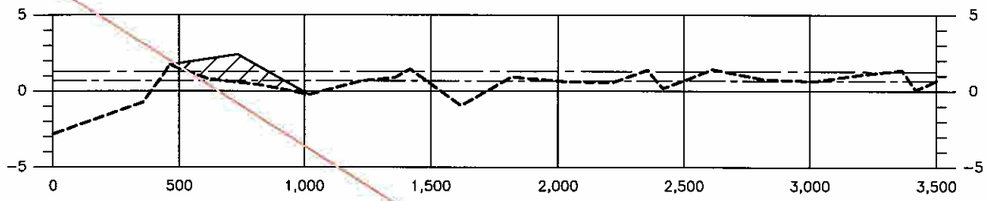
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

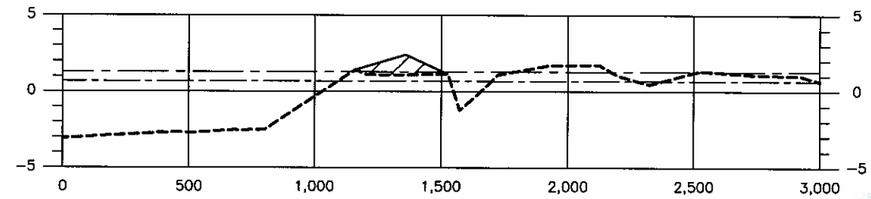
MARSH CREATION CROSS SECTIONS

DATE: FEBRUARY 2005
SHEET 28

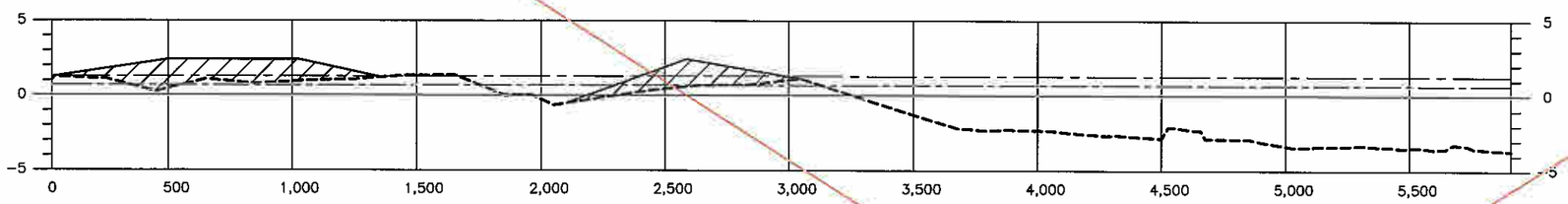
V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A27-30 MARSH SECTIONS.DWG



SECTION 9
LOOKING EAST

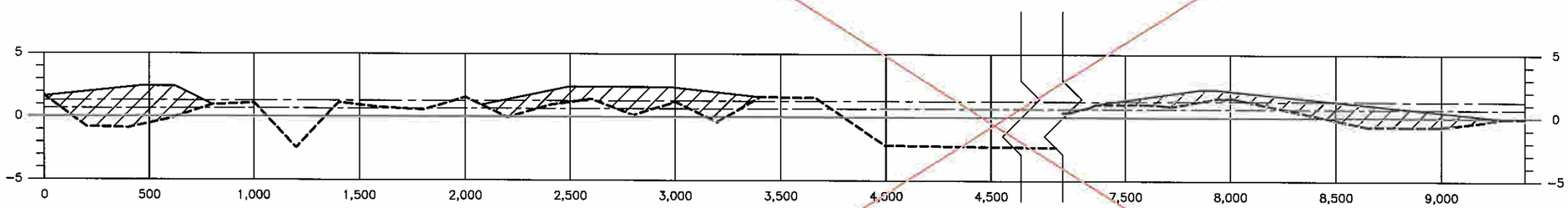


SECTION 10
LOOKING EAST

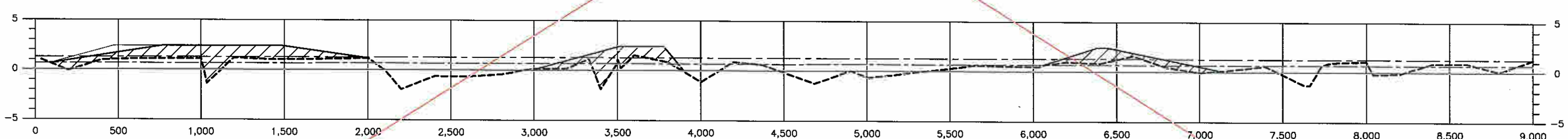


SECTION 11
LOOKING NORTH

SEE SHEETS 49-56



SECTION 12
LOOKING NORTH



SECTION 13
LOOKING NORTH

AS BUILT PLANS

HORIZONTAL GRAPHIC SCALE
600' 300' 0 600' 1,200'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

LEGEND

- BASE BID DREDGE MATERIAL
- ADDITIVE ALTERNATE DREDGE MATERIAL
- BORROW AREA
- EARTHEN CONTAINMENT DIKE
- EXISTING BOTTOM

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

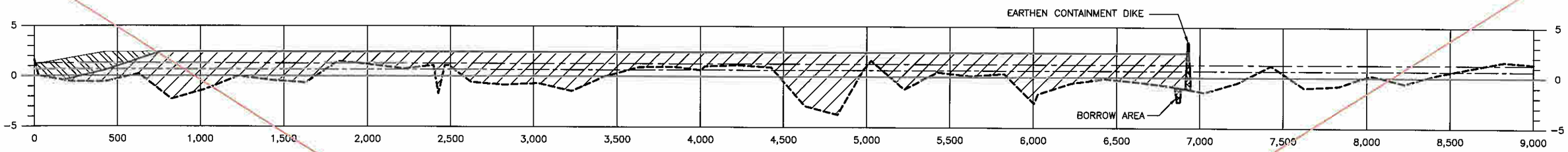
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

MARSH CREATION CROSS SECTIONS

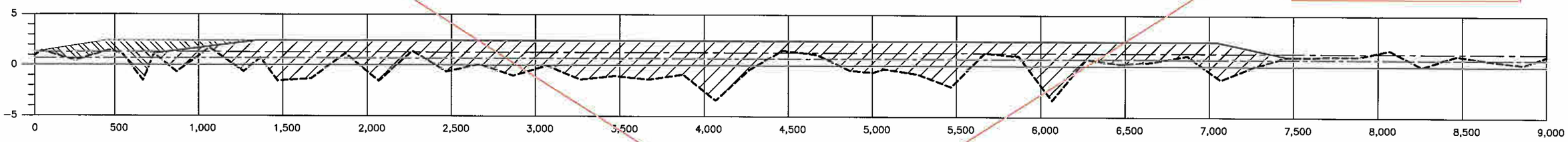
DATE: FEBRUARY 2005
SHEET 29

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A27-30 MARSH SECTIONS.DWG

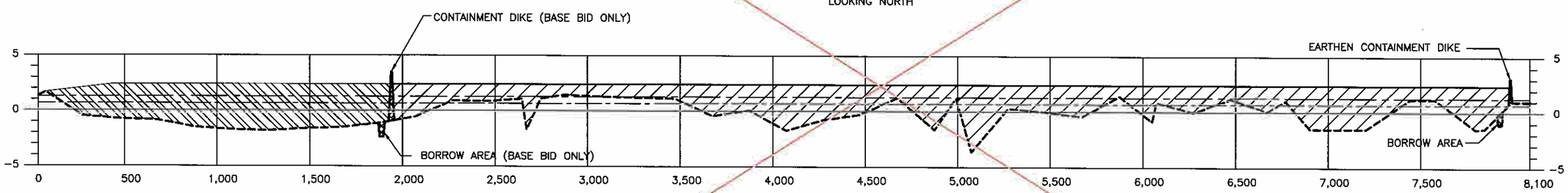


SECTION 14
LOOKING NORTH

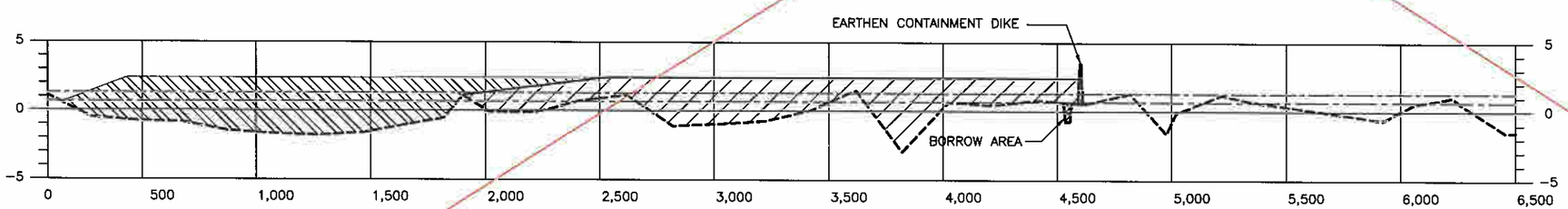
SEE SHEETS 49-56



SECTION 15
LOOKING NORTH



SECTION 16
LOOKING NORTH



SECTION 17
LOOKING NORTH

AS BUILT PLANS

HORIZONTAL GRAPHIC SCALE
600' 300' 0 600' 1,200'
10' 5' 0 10' 20'
VERTICAL GRAPHIC SCALE

LEGEND

- BASE BID DREDGE MATERIAL
- ADDITIVE ALTERNATE DREDGE MATERIAL
- BORROW AREA
- EARTHEN CONTAINMENT DIKE
- EXISTING BOTTOM

REV.	DATE	DESCRIPTION	BY
1	5/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

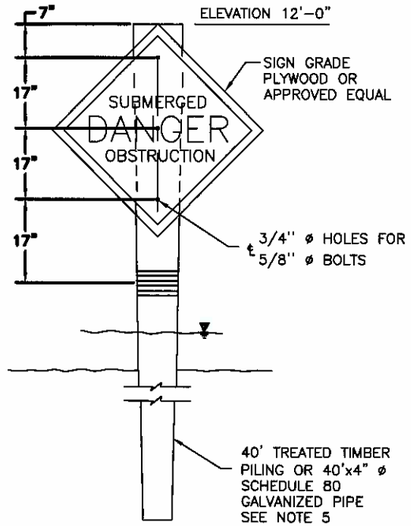
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

MARSH CREATION CROSS SECTIONS

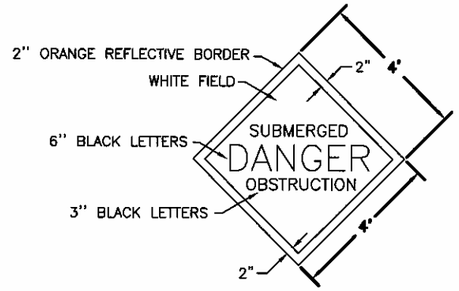
DATE: FEBRUARY 2005
SHEET 30

V:\CAD\116478\DNR DESIGN PLANS 8-28-06\AS-BUILT-LAND 2007\A27-30 MARSH SECTIONS.DWG



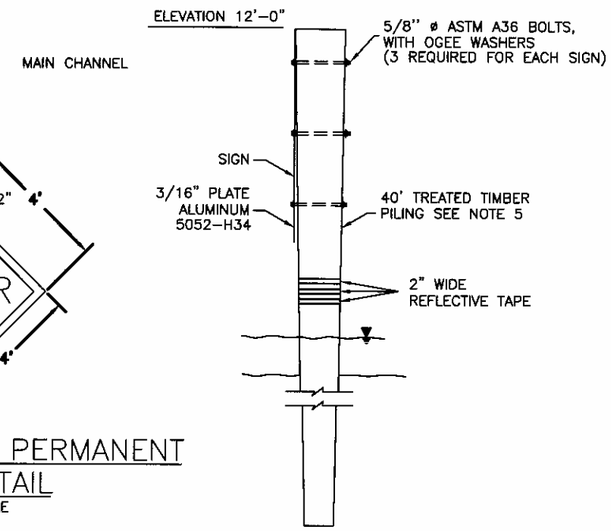
TEMPORARY WARNING SIGN ELEVATION

NOT TO SCALE



TEMPORARY AND PERMANENT SIGN DETAIL

NOT TO SCALE



PERMANENT WARNING SIGN SIDE DETAIL

NOT TO SCALE

GENERAL NOTES:

1. TWENTY-FIVE PERMANENT AND SIXTY-THREE TEMPORARY WARNING SIGNS SHALL BE INSTALLED AT LOCATIONS STATED ON SHEET 19.
2. THE 2" BORDER ON THE WARNING SIGN WILL BE A REFLECTIVE MATERIAL OF ORANGE COLOR. THE LETTERING FIELD WILL BE A REFLECTIVE MATERIAL OF WHITE COLOR. THE LETTERING FOR THE WARNING SIGNS WILL BE BLACK. ALL SIGNS MUST MEET U.S. COAST GUARD STANDARDS; IN ACCORDANCE WITH 33 CFR 330.4 (a) (1) WHICH CAN BE DOWNLOADED AT http://www.access.gpo.gov/nara/cfr/waisidx_02/33cfr330_02.html
3. NEOPRENE WASHERS OR GASKETS SHALL BE PLACED BETWEEN THE SIGN AND CONNECTING HARDWARE AT ALL POINTS OF CONTACT. THE NEOPRENE GASKET SHALL EXTEND PAST THE CONNECTION HARDWARE A MINIMUM OF 1/8".
4. HARDWARE FOR TIMBER CONNECTIONS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SECTION 811.5 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS PUBLISHED BY THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, LATEST EDITION.
5. ALL PILES SHALL BE TREATED WITH CREOSOTE OR CHROMATED COPPER ARSENATE (CCA). SEE TS-13 "TEMPORARY WARNING SIGNS" OR TS-14 "PERMANENT WARNING SIGNS" FOR TREATMENT REQUIREMENTS. ALL PILING SHALL BE CAPPED ACCORDING TO LA DOTD SPECIFICATION 812.06.
6. THE CONTRACTOR HAS THE OPTION OF USING A 40'x4" ø SCHEDULE 80 GALVANIZED METAL PIPE OR OTHER APPROVED MATERIAL FOR TEMPORARY SIGNS.
7. TIMBER PILING SHALL BE 40-FEET IN LENGTH WITH A NOMINAL 12-INCH DIAMETER BUTT AND 7-INCH MINIMUM DIAMETER AT THE TIP.
8. TEMPORARY WARNING SIGNS SHALL HAVE THE SAME COLORING AND REFLECTIVE TAPE AS PERMANENT SIGNS BUT MAY BE CONSTRUCTED WITH 3/4" SIGN GRADE PLYWOOD.
9. THE SUPPORTS FOR THE TEMPORARY SIGNS SHALL BE REMOVED TO 5' BELOW MUD LINE OR REMOVED COMPLETELY AFTER PERMANENT SIGNS ARE ACCEPTED.
10. THE WOVEN GEOTEXTILE FABRIC SHALL OVERLAP ROCK DIKE EDGE BY A MINIMUM OF 1' ON EACH SIDE. ANY SEAM PARALLEL TO ROCK DIKE CENTERLINE SHALL BE SEWN. THE MINIMUM OVERLAP AT THE ROLL/GEOTEXTILE PANEL ENDS, PERPENDICULAR TO ROCK DIKE CENTERLINE, SHALL BE FIVE (5) FEET UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
11. THE GEOTEXTILE WIDTH SHOWN INCLUDES A 3' EXTENSION ON EACH SIDE OF THE ROCK DIKE. SEE TS-10 "WOVEN GEOTEXTILE FABRIC" FOR ADDITIONAL REQUIREMENTS.
12. ALL ROCK SETTLEMENT PLATES, MARSH SETTLEMENT PLATES, AND GRADE STAKES MUST BE INSTALLED AND MAINTAINED WITHIN 10.5' OF VERTICAL.

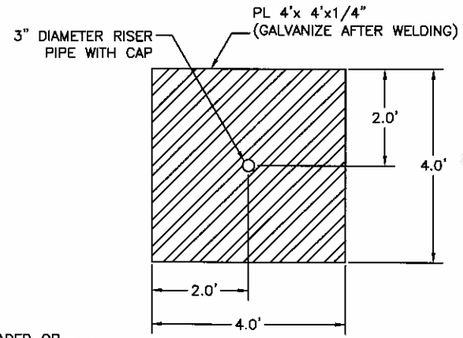
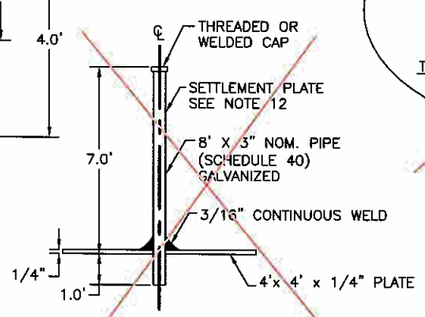


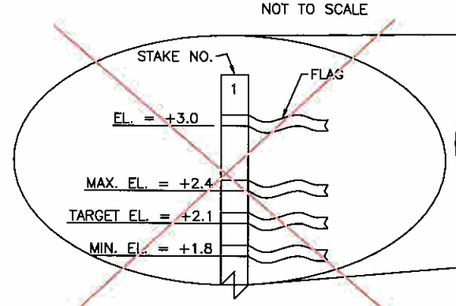
PLATE DETAIL

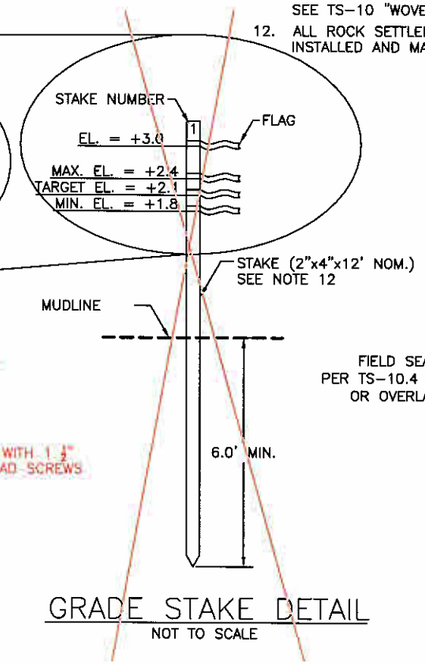
NOT TO SCALE



MARSH CREATION SETTLEMENT PLATE

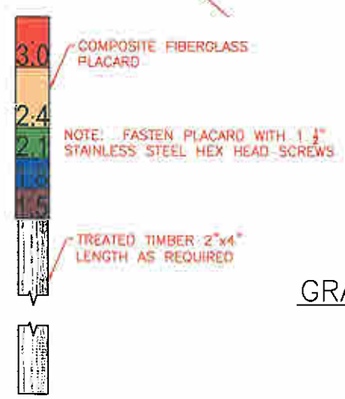
NOT TO SCALE





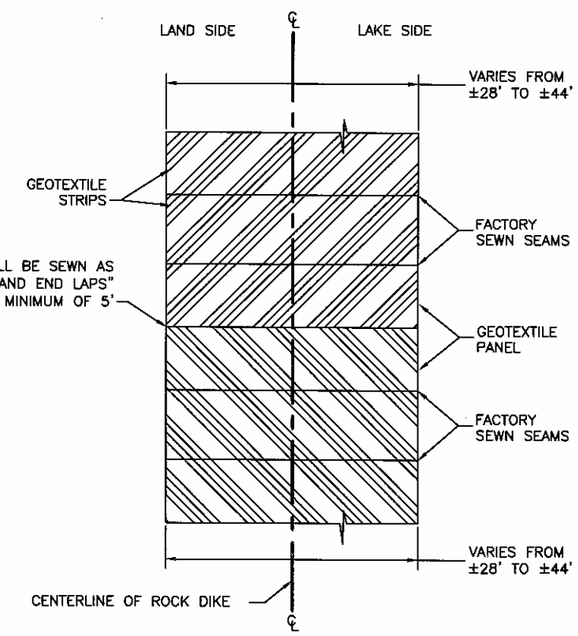
GRADE STAKE DETAIL

NOT TO SCALE



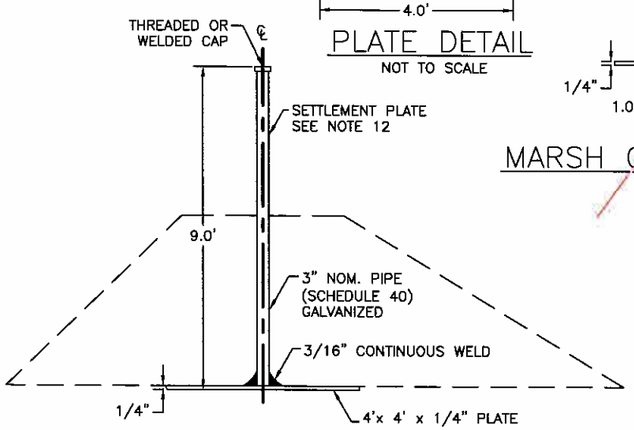
COMPOSITE FIBERGLASS PLACARD DETAIL

NOT TO SCALE



WOVEN GEOTEXTILE LAYOUT

NOT TO SCALE



ROCK DIKE SETTLEMENT PLATE

NOT TO SCALE

SETTLEMENT PLATE NOTES:

1. SETTLEMENT PLATES SHALL BE INSTALLED ALONG THE CENTERLINE OF THE ROCK DIKE AS SHOWN ON SHEETS 10-13.
2. THE SETTLEMENT PLATES SHALL BE SURVEYED WITHIN A DAY OF INSTALLATION AND WITNESSED BY THE DNR INSPECTOR UNTIL THE ROCK IS ACCEPTED.
3. SETTLEMENT PLATES SHALL BE BUILT USING ASTM A36 STEEL AND HOT-DIPPED GALVANIZED AFTER FABRICATION PER SPECIFICATION TS-11 "ROCK SETTLEMENT PLATES".

AS BUILT PLANS

REV.	DATE	DESCRIPTION	BY
1	4/13/05	MOVED THE FLAG ELEVATIONS ON THE GRADING STAKE DETAIL TO THE BOTTOM OF THE FLAGS.	KC
2	4/26/05	ADDED NOTE 12.	KC
3	4/26/05	ADDED AN EXAGGERATED VIEW OF THE FLAGING.	CA
4	8/1/07	REVISED SHEET NUMBER & TEXT	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P.E.

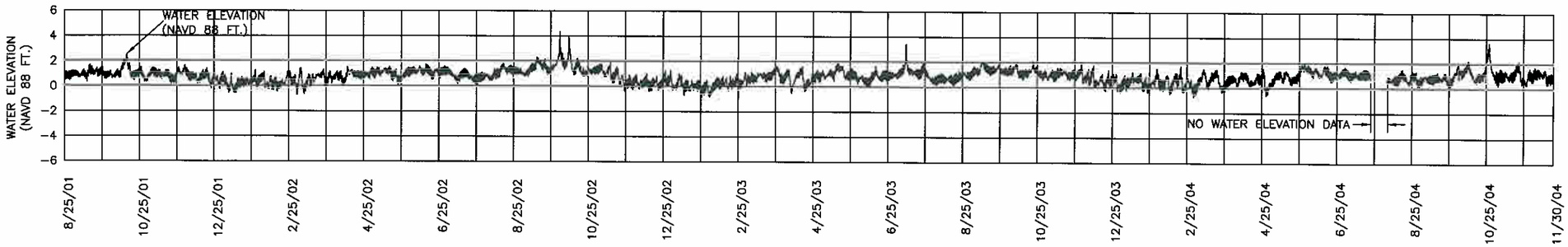
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

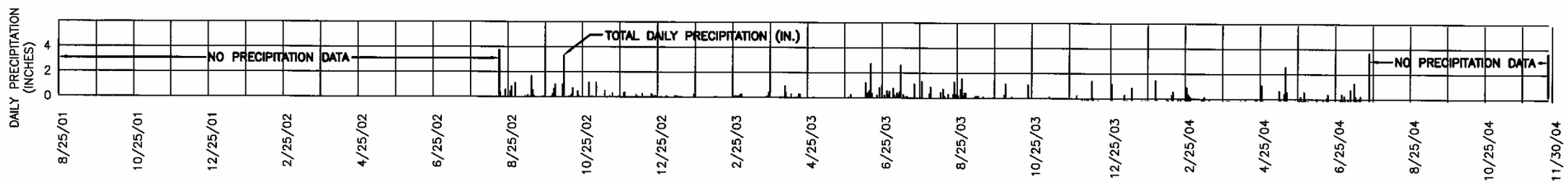
STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P.E.

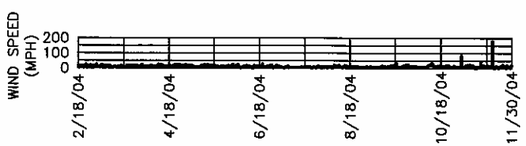
TYPICAL DETAILS

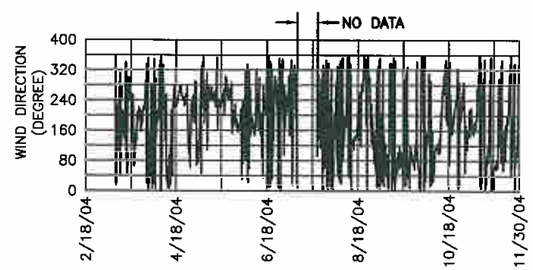
DATE: FEBRUARY 2005
SHEET 31

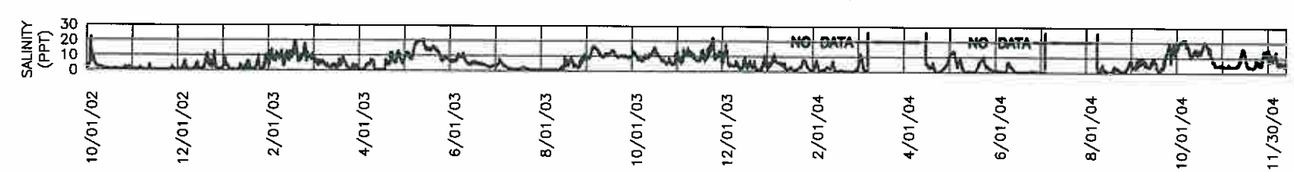
V:\CAD\116478\DNR DESIGN PLANS 8-28-08\AS-BUILT-LAND 2007\A31 TYPICAL DETAILS.DWG

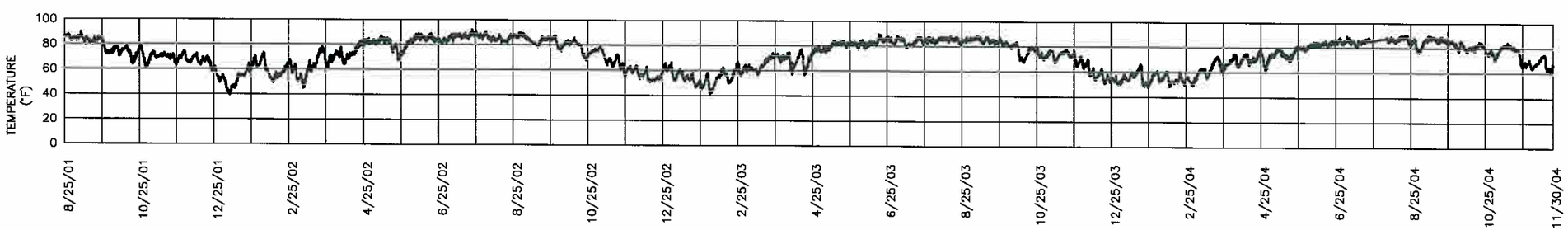












PARAMETER	MINIMUM	AVERAGE	MAXIMUM	PERIOD OF RECORD
WATER ELEV.	−0.87'	0.83'	4.33'	8/25/01 TO 11/30/2004
PRECIPITATION	0.00"	0.01"	1.40"	8/12/2002 TO 7/6/2004
WIND SPEED	0 MPH	11 MPH	118 MPH	2/18/2002 TO 11/30/2004
WIND DIRECTION	N/A	N/A	N/A	3/9/2002 TO 11/30/2004
SALINITY	0.00 PPT	5.33 PPT	23.36 PPT	10/01/2002 TO 11/30/2004
TEMPERATURE	39.2°F	72°F	92°F	8/25/2001 TO 11/30/2004

AS BUILT PLANS

NOTES:
1. ALL DATA SHOWN IS BASED ON THE USGS GAGE 292800090060000 LITTLE LAKE NEAR BAY DOSGRIS E OF ALLIANO, LA.
2. DATA USED TO GENERATE THE GRAPH SHOWN IS AVAILABLE UPON REQUEST.
3. THE WIND DIRECTION REFERENCES THE DIRECTION THE WIND IS BLOWING FROM WITH NORTH BEING ZERO DEGREES.

REV.	DATE	DESCRIPTION	BY
1	3/1/07	REVISED SHEET NUMBER	WF

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

DRAWN BY: KRISTI CANTU
DESIGNED BY: CLARK ALLEN, P. E.

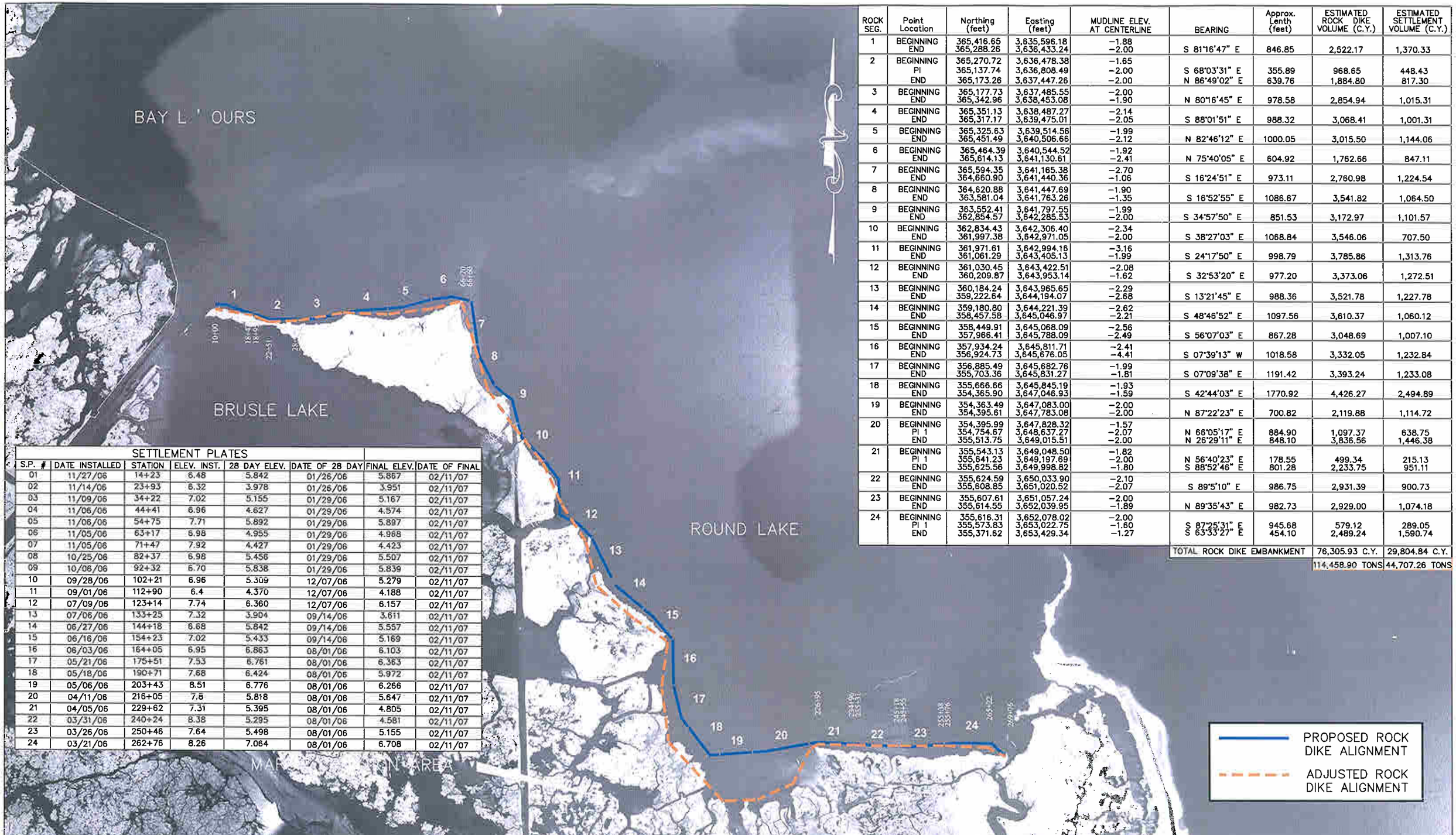
LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION

STATE PROJECT NUMBER: BA-37
FEDERAL PROJECT NUMBER: BA-37
APPROVED BY: LUKE LEBAS, P. E.

WEATHER CONDITIONS IN LITTLE LAKE

DATE: FEBRUARY 2005
SHEET 32

V:\CAD\116478\DNR DESIGN PLANS 8-28-08\AS-BUILT-LAND 2007\A32.DWG



SETTLEMENT PLATES							
S.P. #	DATE INSTALLED	STATION	ELEV. INST.	28 DAY ELEV.	DATE OF 28 DAY	FINAL ELEV.	DATE OF FINAL
01	11/27/06	14+23	6.48	5.842	01/26/06	5.867	02/11/07
02	11/14/06	23+93	6.32	3.978	01/26/06	3.951	02/11/07
03	11/09/06	34+22	7.02	5.155	01/29/06	5.167	02/11/07
04	11/06/06	44+41	6.96	4.627	01/29/06	4.574	02/11/07
05	11/06/06	54+75	7.71	5.892	01/29/06	5.897	02/11/07
06	11/05/06	63+17	6.98	4.955	01/29/06	4.968	02/11/07
07	11/05/06	71+47	7.92	4.427	01/29/06	4.423	02/11/07
08	10/25/06	82+37	6.98	5.456	01/29/06	5.507	02/11/07
09	10/06/06	92+32	6.70	5.838	01/29/06	5.839	02/11/07
10	09/28/06	102+21	6.96	5.309	12/07/06	5.279	02/11/07
11	09/01/06	112+90	6.4	4.370	12/07/06	4.188	02/11/07
12	07/09/06	123+14	7.74	6.360	12/07/06	6.157	02/11/07
13	07/06/06	133+25	7.32	3.904	09/14/06	3.611	02/11/07
14	06/27/06	144+18	6.68	5.842	09/14/06	5.557	02/11/07
15	06/16/06	154+23	7.02	5.433	09/14/06	5.169	02/11/07
16	06/03/06	164+05	6.95	6.863	08/01/06	6.103	02/11/07
17	05/21/06	175+51	7.53	6.761	08/01/06	6.363	02/11/07
18	05/18/06	190+71	7.68	6.424	08/01/06	5.972	02/11/07
19	05/06/06	203+43	8.51	6.776	08/01/06	6.266	02/11/07
20	04/11/06	216+05	7.8	5.818	08/01/06	5.647	02/11/07
21	04/05/06	229+62	7.31	5.395	08/01/06	4.805	02/11/07
22	03/31/06	240+24	8.38	5.295	08/01/06	4.581	02/11/07
23	03/26/06	250+46	7.64	5.498	08/01/06	5.155	02/11/07
24	03/21/06	262+76	8.26	7.064	08/01/06	6.708	02/11/07

ROCK SEG.	Point Location	Northing (feet)	Easting (feet)	MUDLINE ELEV. AT CENTERLINE	BEARING	Approx. Lenth (feet)	ESTIMATED ROCK DIKE VOLUME (C.Y.)	ESTIMATED SETTLEMENT VOLUME (C.Y.)
1	BEGINNING	365,416.65	3,635,596.18	−1.88				
	END	365,288.26	3,636,433.24	−2.00	S 81°16'47" E	846.85	2,522.17	1,370.33
2	BEGINNING	365,270.72	3,636,478.38	−1.65				
	PI	365,137.74	3,636,808.49	−2.00	S 68°03'31" E	355.89	968.65	448.43
	END	365,173.26	3,637,447.26	−2.00	N 86°49'02" E	639.76	1,884.80	817.30
3	BEGINNING	365,177.73	3,637,485.55	−2.00				
	END	365,342.96	3,638,453.08	−1.90	N 80°16'45" E	978.58	2,854.94	1,015.31
4	BEGINNING	365,351.13	3,638,487.27	−2.14				
	END	365,317.17	3,639,475.01	−2.05	S 88°01'51" E	988.32	3,068.41	1,001.31
5	BEGINNING	365,325.63	3,639,514.56	−1.99				
	END	365,451.49	3,640,506.66	−2.12	N 82°46'12" E	1000.05	3,015.50	1,144.06
6	BEGINNING	365,464.39	3,640,544.52	−1.92				
	END	365,614.13	3,641,130.61	−2.41	N 75°40'05" E	604.92	1,762.66	847.11
7	BEGINNING	365,594.35	3,641,165.38	−2.70				
	END	364,660.90	3,641,440.36	−1.06	S 16°24'51" E	973.11	2,760.98	1,224.54
8	BEGINNING	364,620.88	3,641,447.69	−1.90				
	END	363,581.04	3,641,763.26	−1.35	S 16°52'55" E	1086.67	3,541.82	1,064.50
9	BEGINNING	363,552.41	3,641,797.55	−1.99				
	END	362,854.57	3,642,285.53	−2.00	S 34°57'50" E	851.53	3,172.97	1,101.57
10	BEGINNING	362,834.43	3,642,306.40	−2.34				
	END	361,997.38	3,642,971.05	−2.00	S 38°27'03" E	1068.84	3,546.06	707.50
11	BEGINNING	361,971.61	3,642,994.16	−3.16				
	END	361,061.29	3,643,405.13	−1.99	S 24°17'50" E	998.79	3,785.86	1,313.76
12	BEGINNING	361,030.45	3,643,422.51	−2.08				
	END	360,209.87	3,643,953.14	−1.62	S 32°53'20" E	977.20	3,373.06	1,272.51
13	BEGINNING	360,184.24	3,643,965.65	−2.29				
	END	359,222.64	3,644,194.07	−2.68	S 13°21'45" E	988.36	3,521.78	1,227.78
14	BEGINNING	359,180.80	3,644,221.39	−2.62				
	END	358,457.58	3,645,046.97	−2.21	S 48°46'52" E	1097.56	3,610.37	1,060.12
15	BEGINNING	358,449.91	3,645,068.09	−2.56				
	END	357,966.41	3,645,788.09	−2.49	S 56°07'03" E	867.28	3,048.69	1,007.10
16	BEGINNING	357,934.24	3,645,811.71	−2.41				
	END	356,924.73	3,645,676.05	−4.41	S 07°39'13" W	1018.58	3,332.05	1,232.84
17	BEGINNING	356,885.49	3,645,682.76	−1.99				
	END	355,703.36	3,645,831.27	−1.81	S 07°09'38" E	1191.42	3,393.24	1,233.08
18	BEGINNING	355,666.66	3,645,845.19	−1.93				
	END	354,365.90	3,647,046.93	−1.59	S 42°44'03" E	1770.92	4,426.27	2,494.89
19	BEGINNING	354,363.49	3,647,083.00	−2.00				
	END	354,395.61	3,647,783.08	−2.00	N 87°22'23" E	700.82	2,119.88	1,114.72
20	BEGINNING	354,395.99	3,647,828.32	−1.57				
	PI 1	354,754.67	3,648,637.27	−2.07	N 66°05'17" E	884.90	1,097.37	638.75
	END	355,513.75	3,649,015.51	−2.00	N 26°29'11" E	848.10	3,836.56	1,446.38
21	BEGINNING	355,543.13	3,649,048.50	−1.82				
	PI 1	355,641.23	3,649,197.69	−2.00	N 56°40'23" E	178.55	499.34	215.13
	END	355,625.56	3,649,998.82	−1.80	S 88°52'46" E	801.28	2,233.75	951.11
22	BEGINNING	355,624.59	3,650,033.90	−2.10				
	END	355,608.85	3,651,020.52	−2.07	S 89°5'10" E	986.75	2,931.39	900.73
23	BEGINNING	355,607.61	3,651,057.24	−2.00				
	END	355,614.55	3,652,039.95	−1.89	N 89°35'43" E	982.73	2,929.00	1,074.18
24	BEGINNING	355,616.31	3,652,078.02	−2.00				
	PI 1	355,573.83	3,653,022.75	−1.60	S 87°25'31" E	945.68	579.12	289.05
	END	355,371.62	3,653,429.34	−1.27	S 63°33'27" E	454.10	2,489.24	1,590.74
					TOTAL ROCK DIKE EMBANKMENT		76,305.93 C.Y.	29,804.84 C.Y.
							114,458.90 TONS	44,707.26 TONS

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1943
(985) 868-1050 www.tbsmith.com

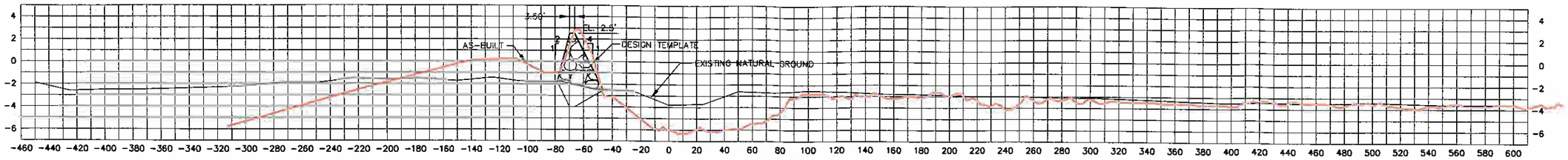
SCALE IN FEET
2,000 1,000 0 2,000

FILE NAME:	051460-P1
TBS NO.:	2005-1460
DATE:	09/29/05
PLOT SCALE:	2000
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

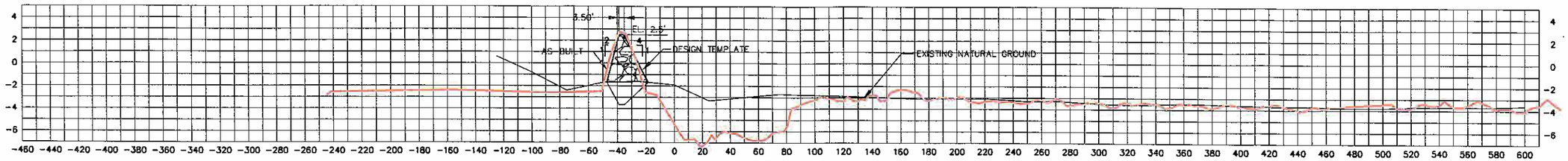
ADJUSTED ROCK DOCK ALIGNMENT
PLAN VIEW

LITTLE LAKE SHORELINE PROTECTION AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

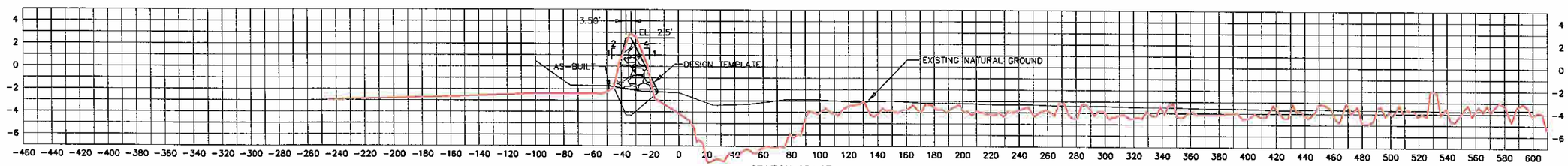
SHEET NO. 1 OF 15



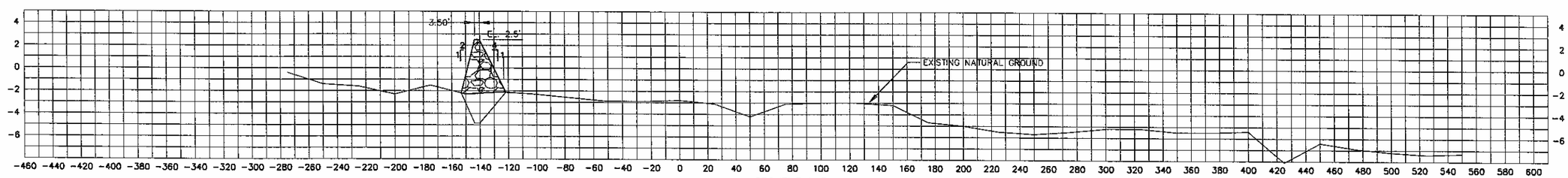
STATION 22+51
SEGMENT 2-PI



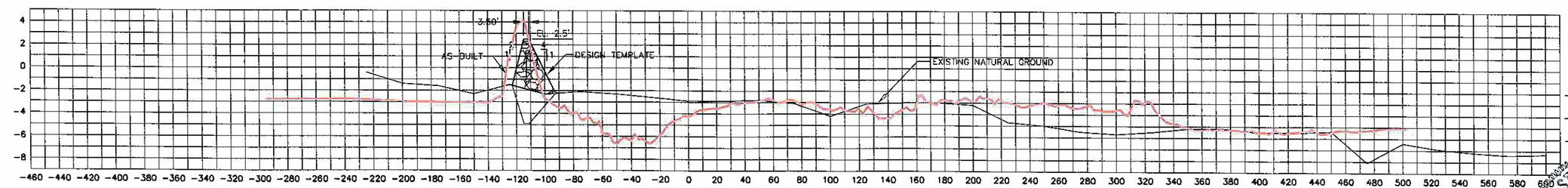
STATION 18+95
SEGMENT 2-BEGIN



STATION 18+47
SEGMENT 1-END



SEGMENT 1-PI



STATION 10+00
SEGMENT 1-BEGIN

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT - 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

SCALE: HORIZ 1"=40'
VERT 1"=5'

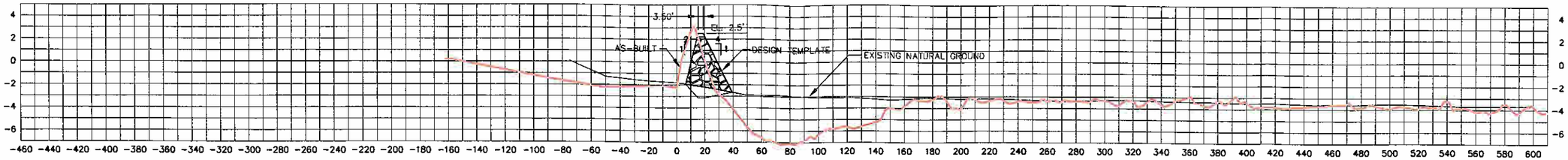
FILE NAME:	AB-XSECS
TBS NO.:	2005.1480
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	AOP
APPROVED:	PJT
MAP NO.	

ROCK DIKE CROSS SECTIONS

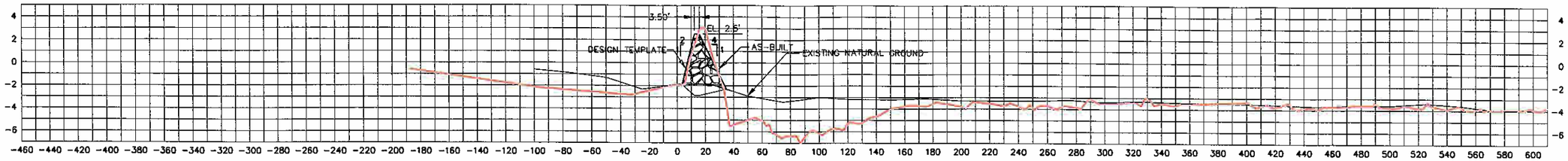
LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

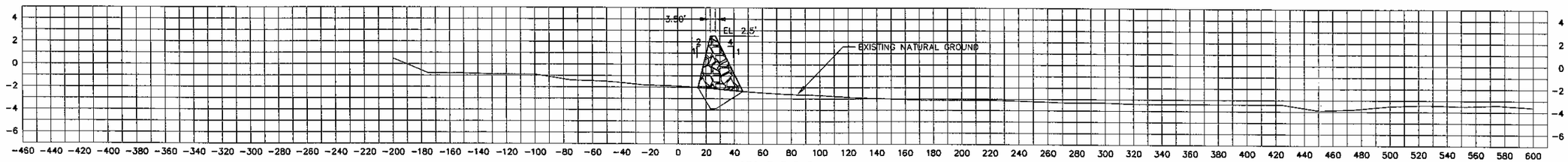
SHEET NO. 2 OF 15



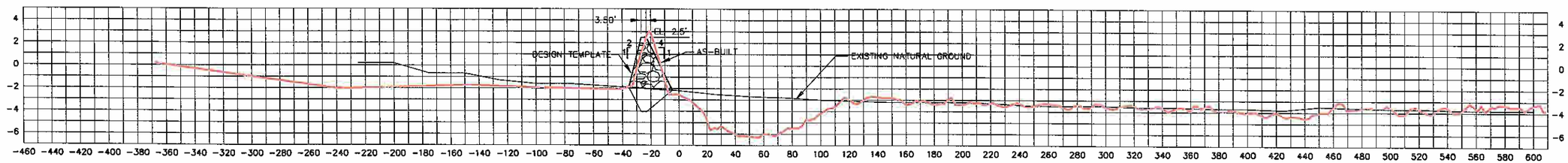
STATION 39+47
SEGMENT 4-BEGIN



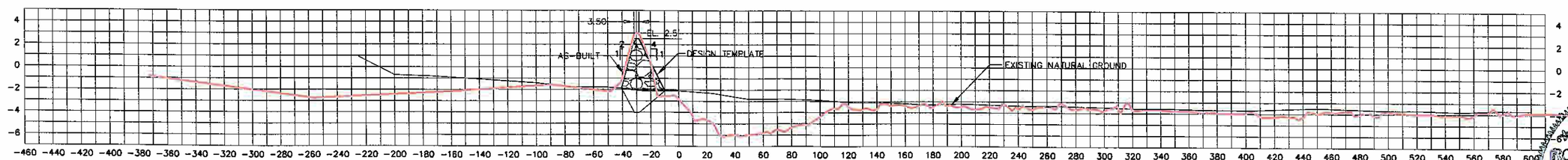
STATION 39+12
SEGMENT 3-END



SEGMENT 3-P1



STATION 29+33
SEGMENT 3-BEGIN



STATION 28+91
SEGMENT 2-END

NOTES:

LEGEND:
- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

SCALE: HORIZ 1"=40'
VERT 1"=5'

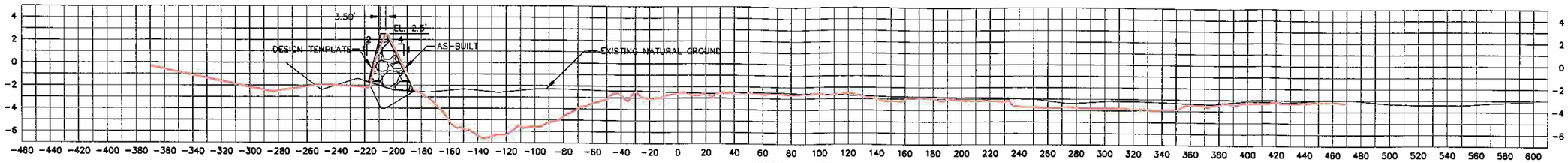
FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

ROCK DIKE CROSS SECTIONS

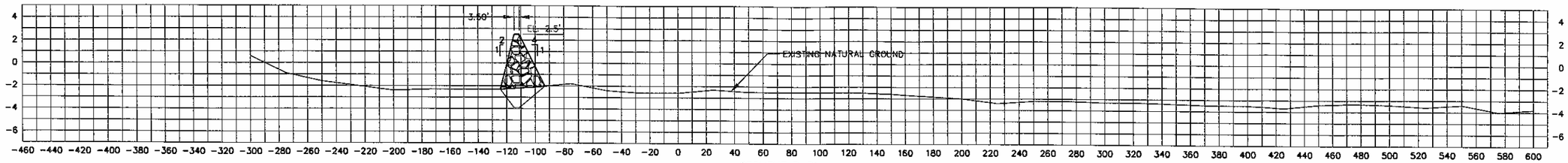
LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

SHEET NO. 15 OF

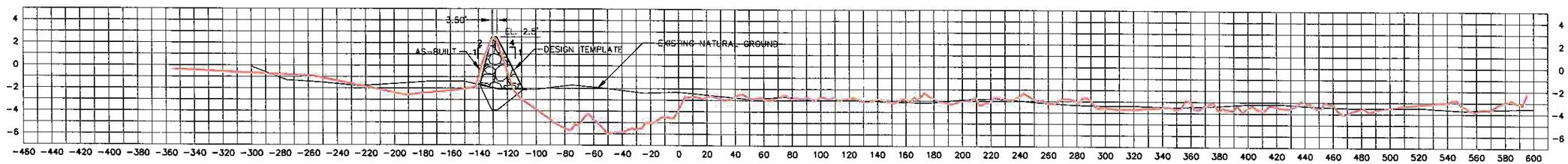
STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED
PROFESSIONAL
LAND SURVEYOR



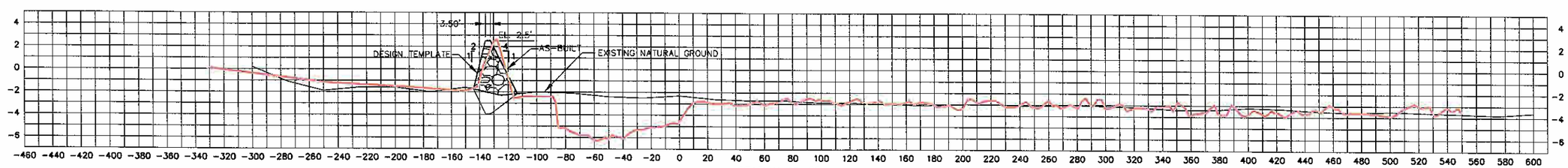
STATION 59+75
SEGMENT 5-END



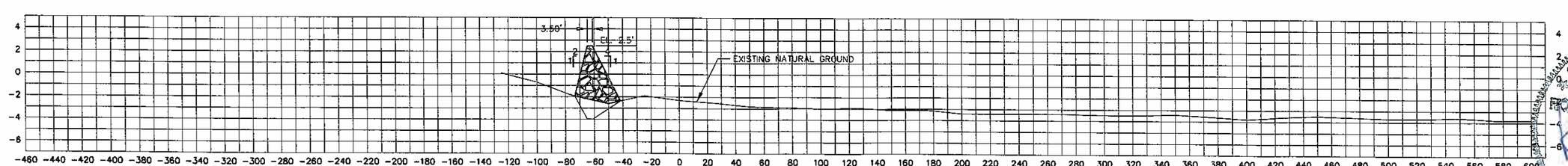
SEGMENT 5-PI



STATION 49+75
SEGMENT 5-BEGIN



STATION 49+35
SEGMENT 4-END



SEGMENT 4-PI

STATE OF LOUISIANA
RONALD W. MADDEN
REG. NO. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:
- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT - 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

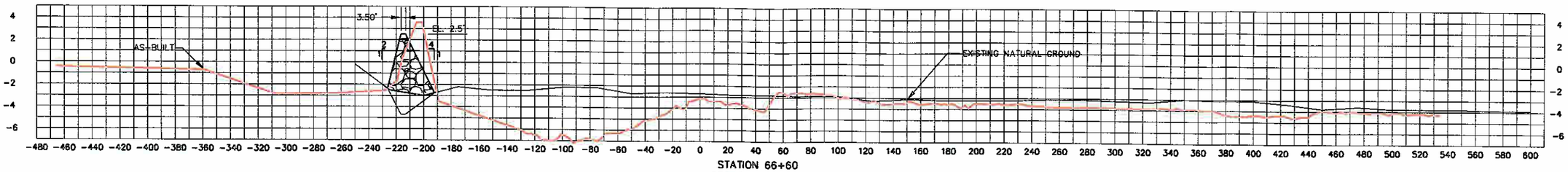
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

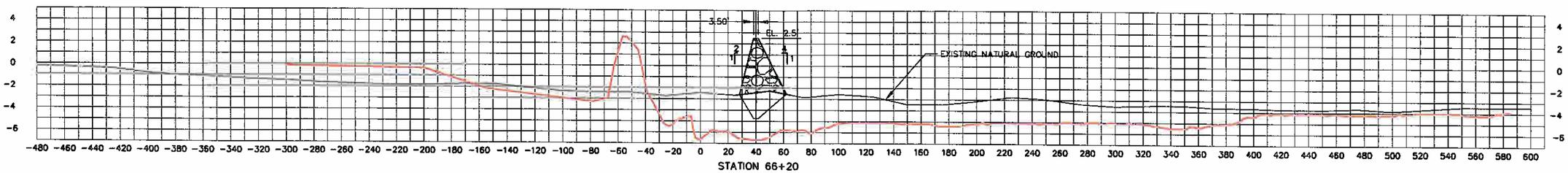
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

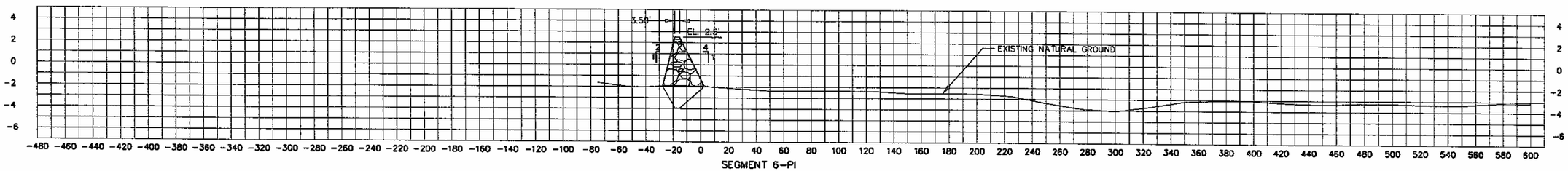
SHEET NO. 4 OF 15



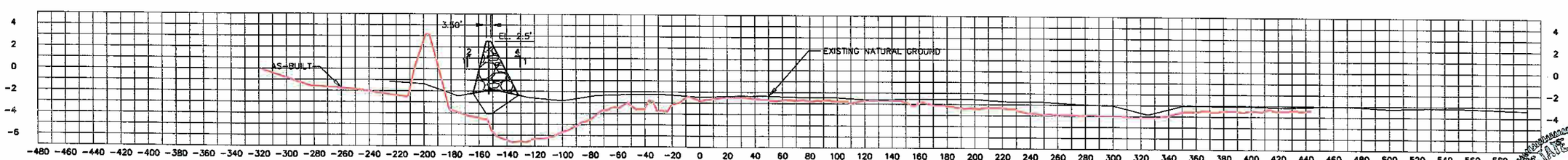
STATION 66+60
SEGMENT 7-BEGIN



STATION 66+20
SEGMENT 6-END



SEGMENT 6-PI



STATION 60+15
SEGMENT 6-BEGIN

STATE OF LOUISIANA
RONALD M. MADD
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:
- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/05	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

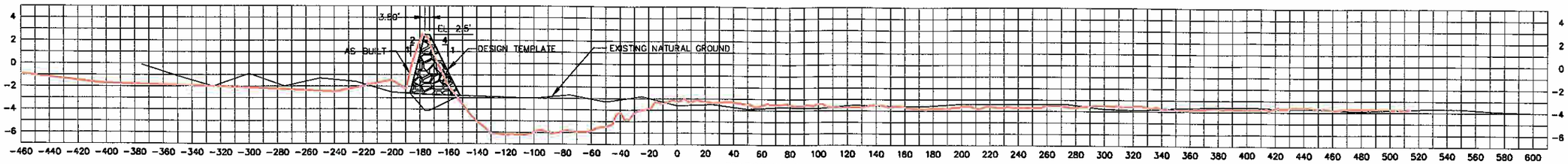
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

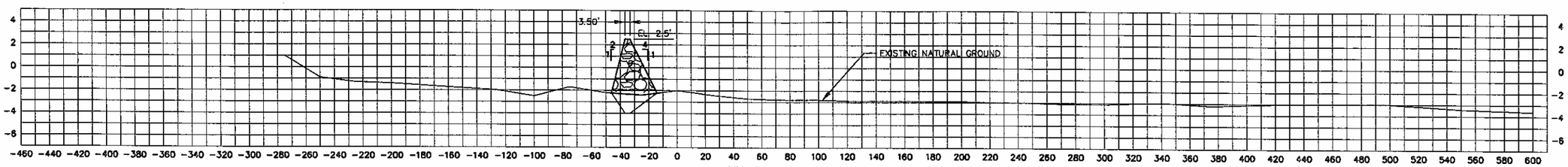
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

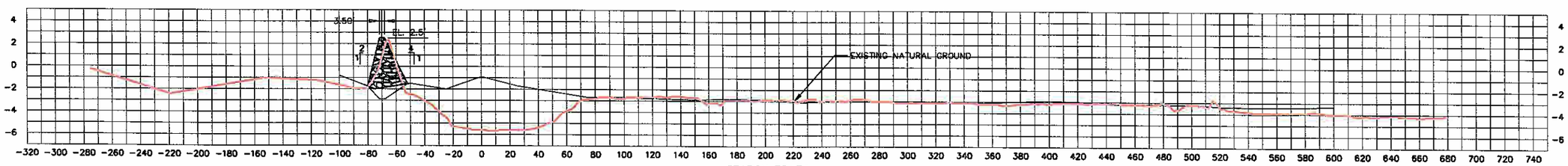
SHEET NO. 5 OF 15



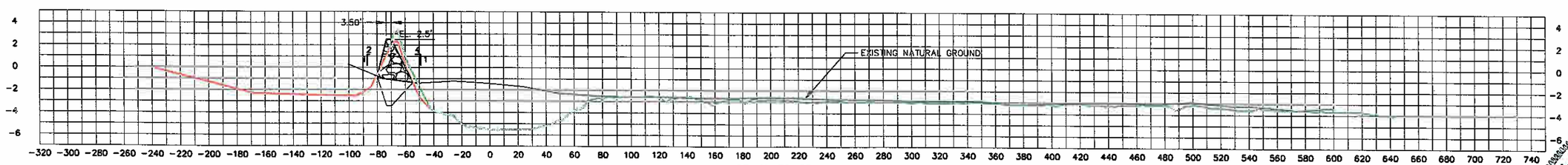
STATION 87+61
SEGMENT 8-END



SEGMENT 8-PI



STATION 76+74
SEGMENT 8-BEGIN



STAION 76+33
SEGMENT 7-END

STATE OF LOUISIANA
RONALD W. MADDEN
PLS No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:
- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

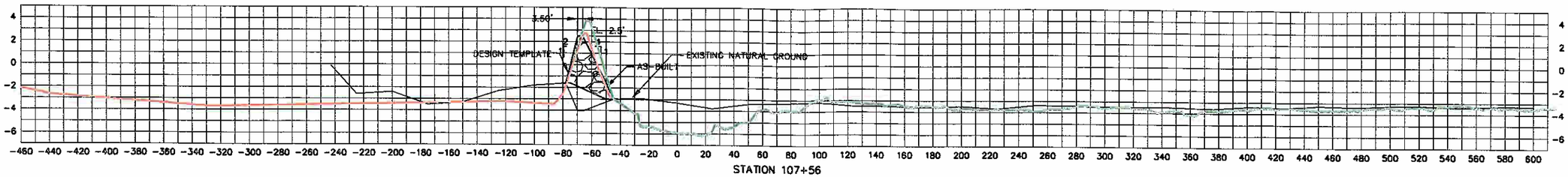
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1480
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

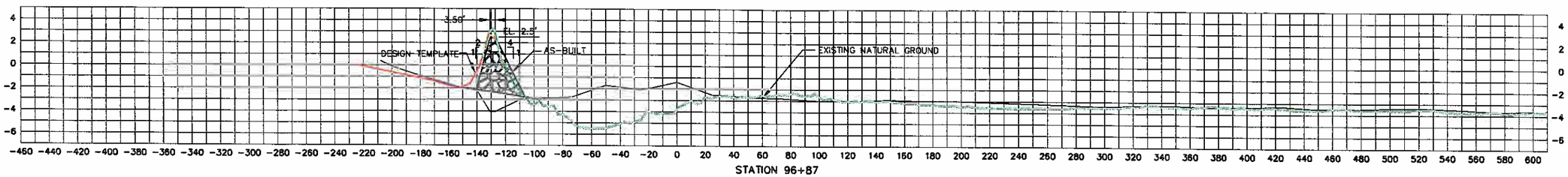
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

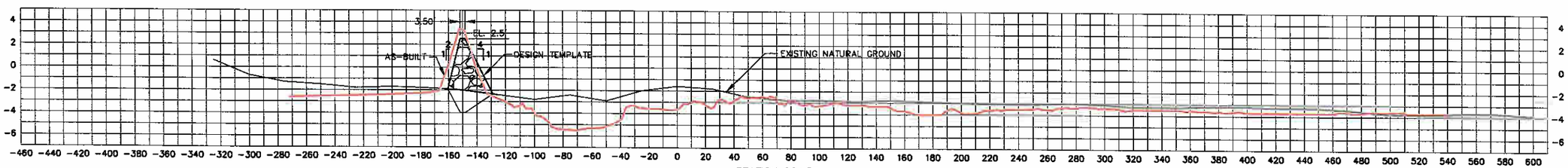
SHEET NO. 6 OF 15



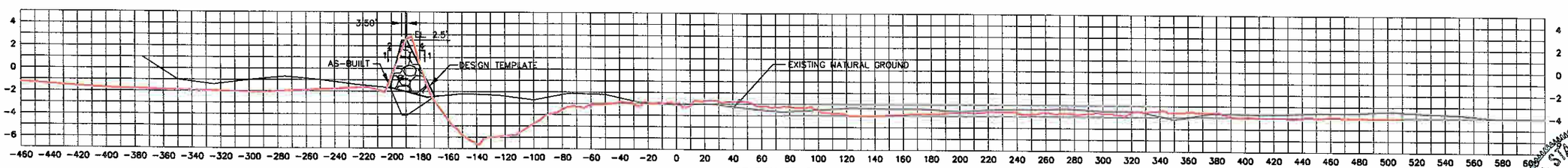
STATION 107+56



STATION 96+87



STATION 96+58
SEGMENT 9-END



STATION 88+06
SEGMENT 9-BEGIN

STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:
- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1912
(985) 868-1050 www.tbsmith.com

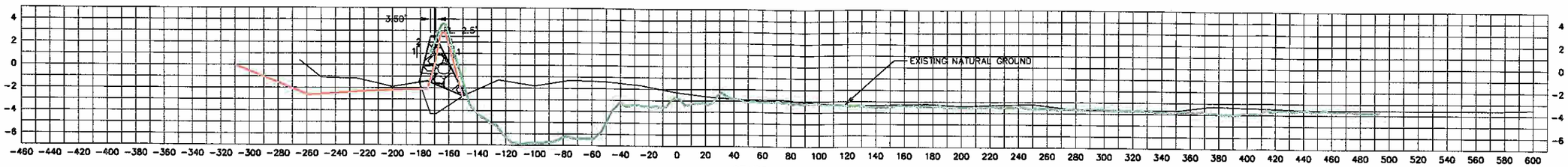
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

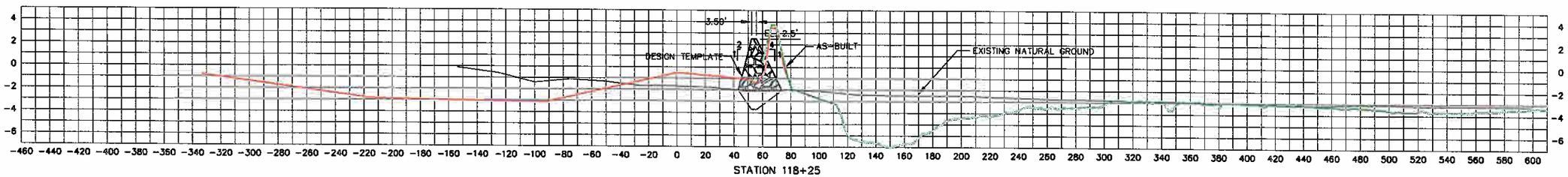
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

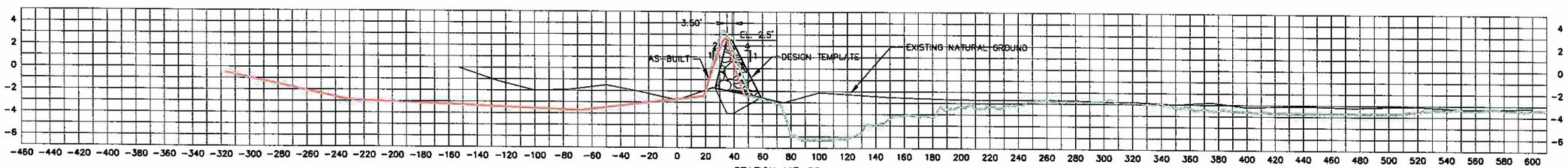
SHEET NO. 7 OF 15



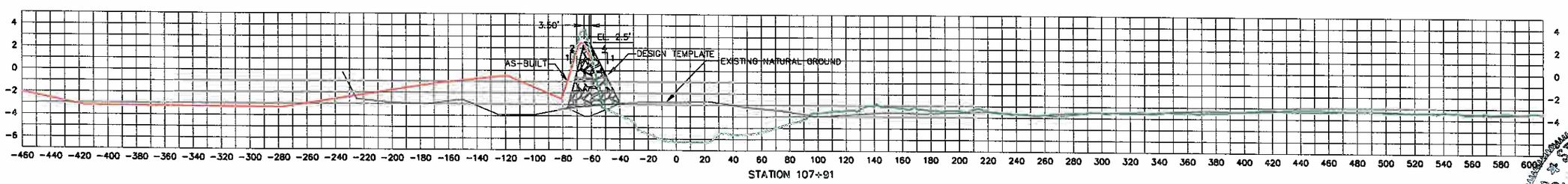
STATION 128+02



STATION 118+25



STATION 117+90



STATION 107+91

STATE OF LOUISIANA
RONALD M. MADDEN
REG. NO. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:
- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

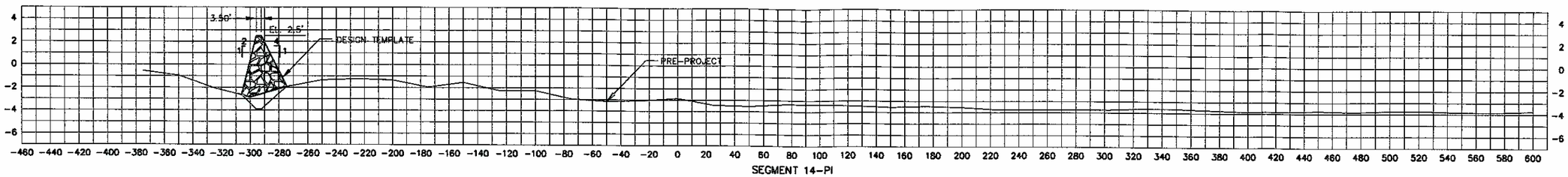
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

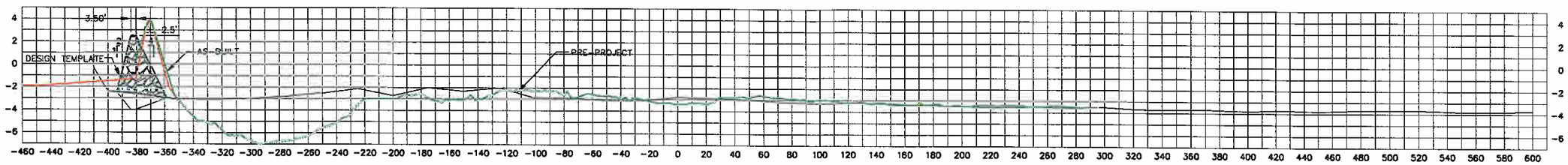
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

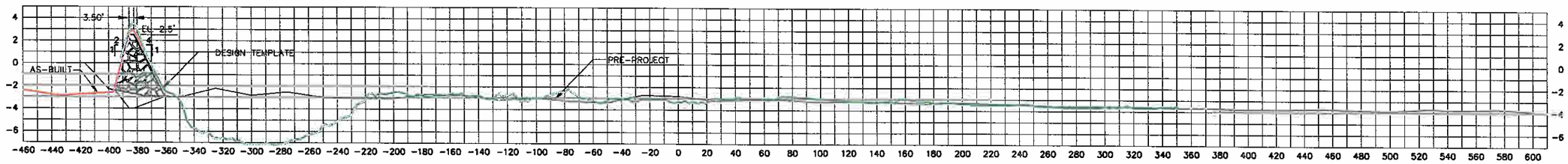
SHEET NO. 8 OF 15



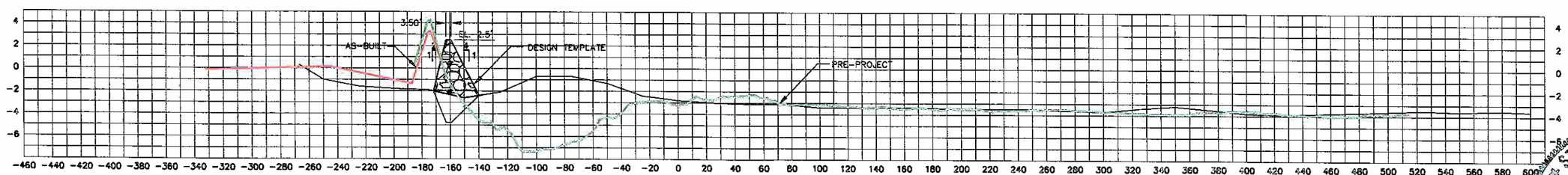
SEGMENT 14-PI



STATION 138+69



STATION 138+19



STATION 128+31

STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

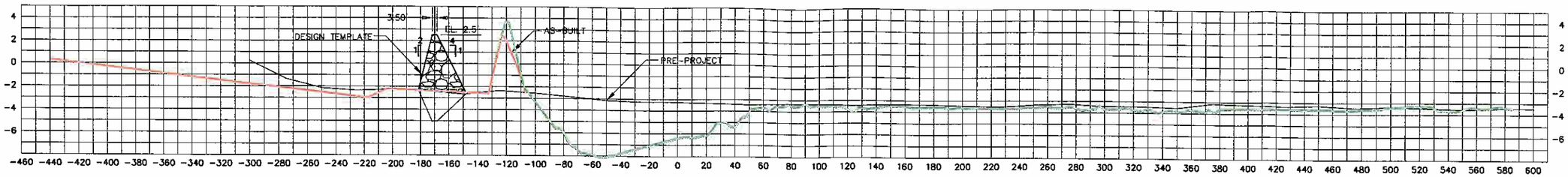
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

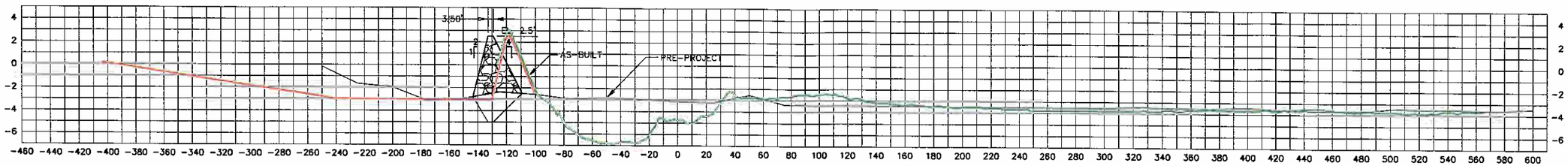
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

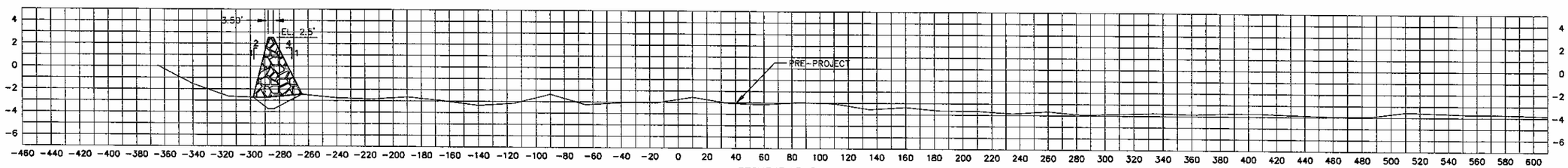
SHEET NO. 9 OF 15



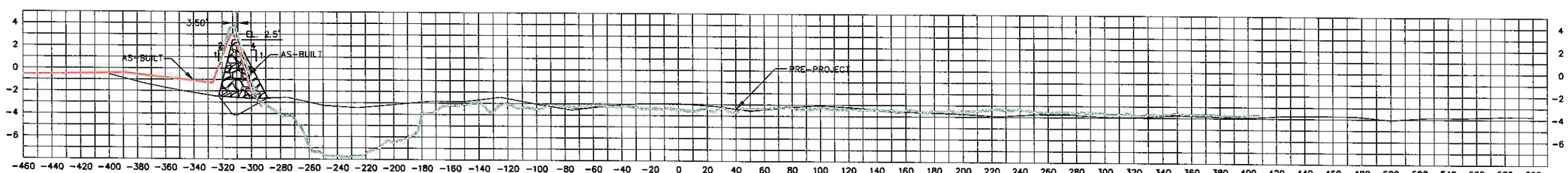
STATION 158+96



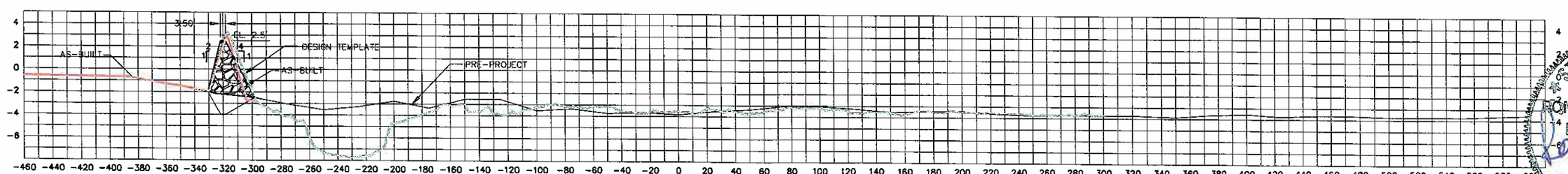
STATION 158+56



SEGMENT 15-PI



STATION 149+89



STATION 149+67

STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

TBS T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

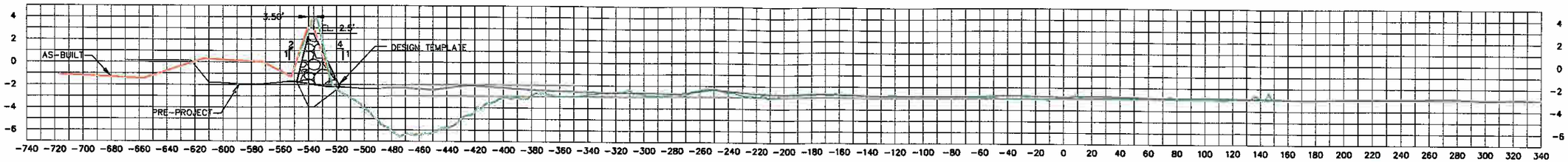
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1480
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

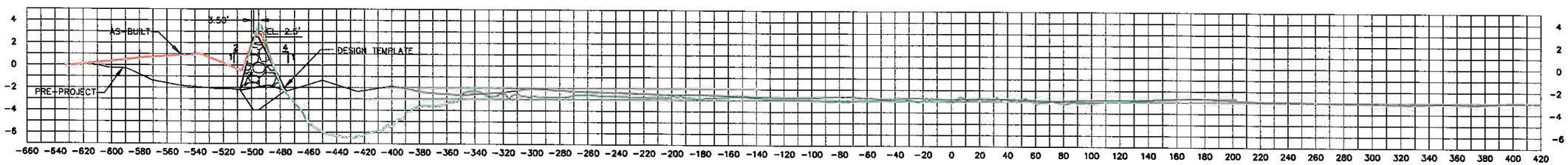
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

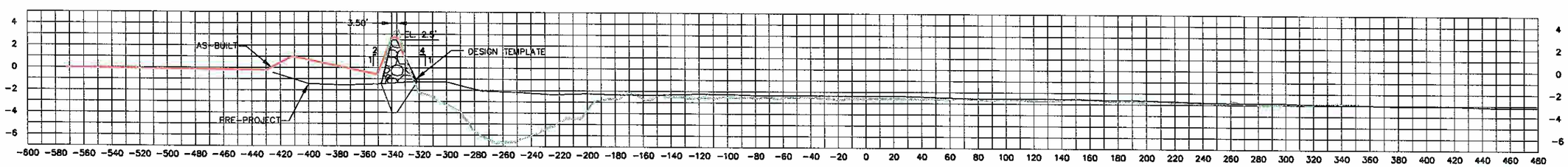
SHEET NO. 10 OF 15



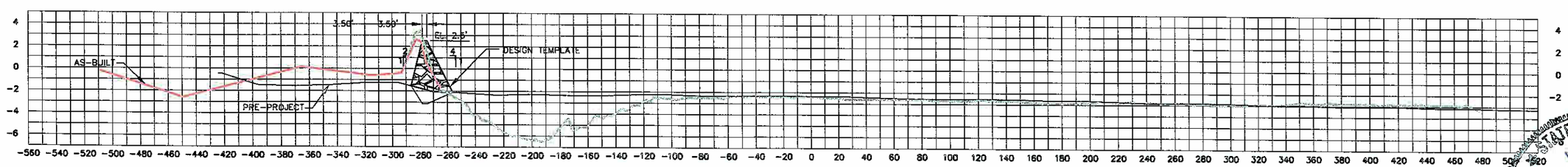
STATION 184+55



STATION 179+64



STATION 174+68



STATION 169+55

STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

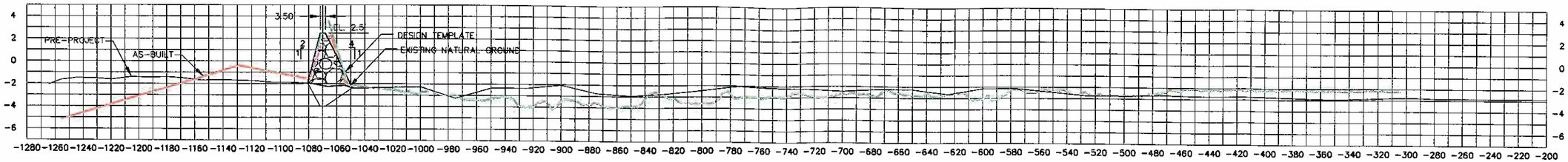
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

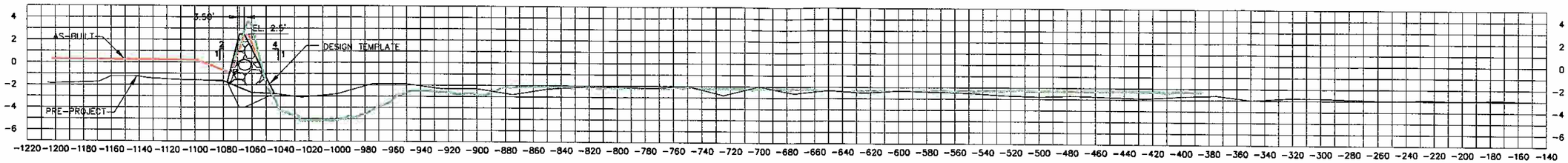
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

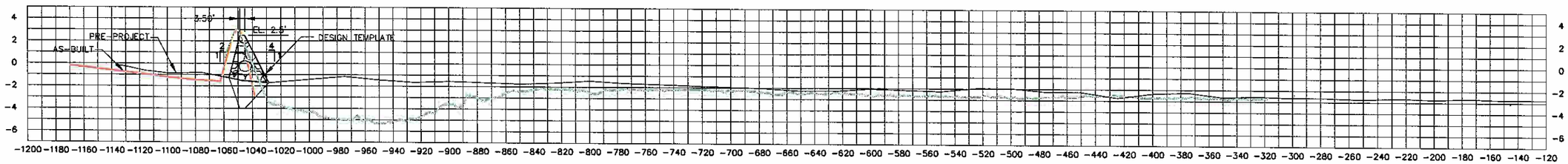
SHEET NO. 11 OF 15



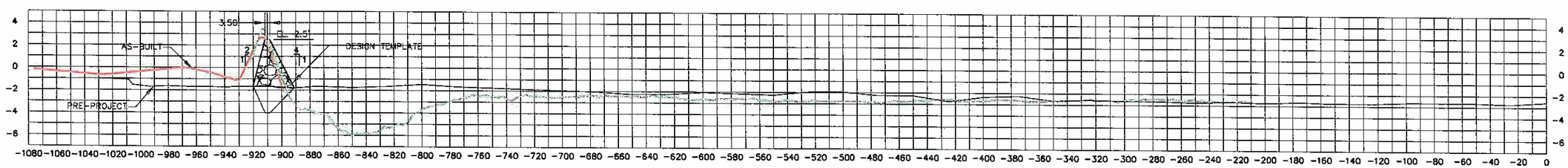
STATION 209+42



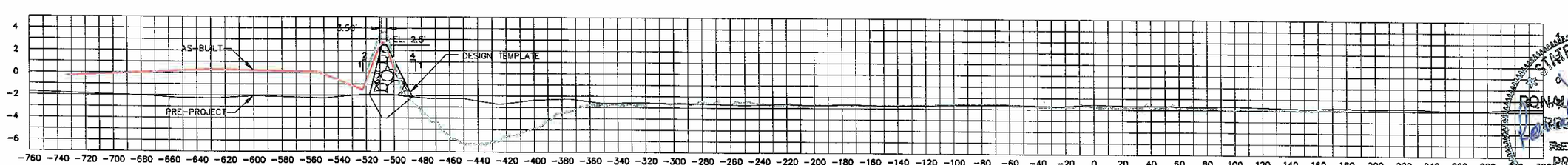
STATION 205+02



STATION 199+31



STATION 194+47



STATION 189+58

STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

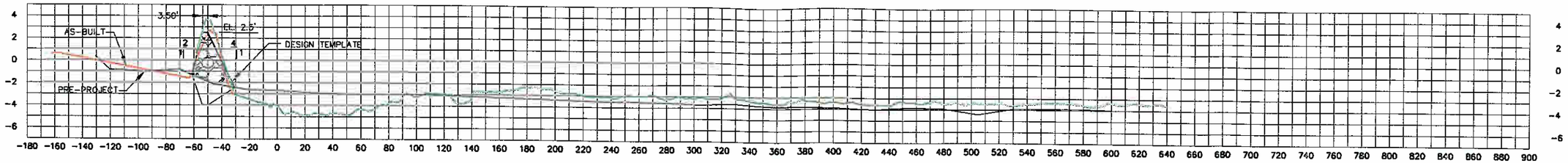
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

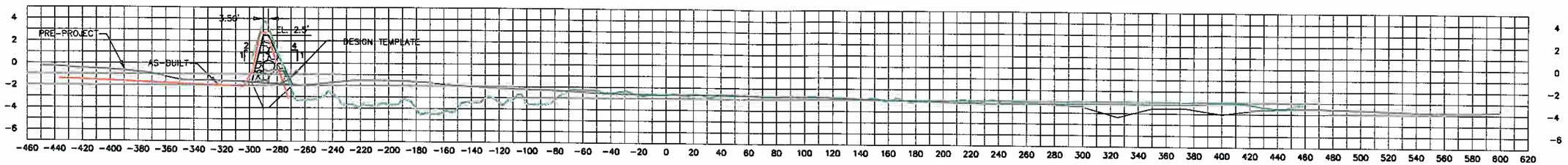
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

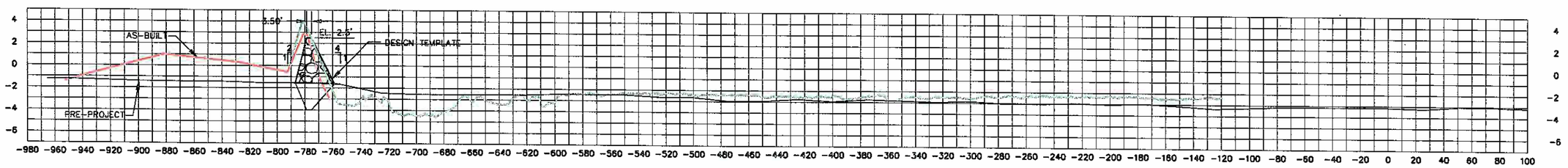
SHEET NO. 12 OF 15



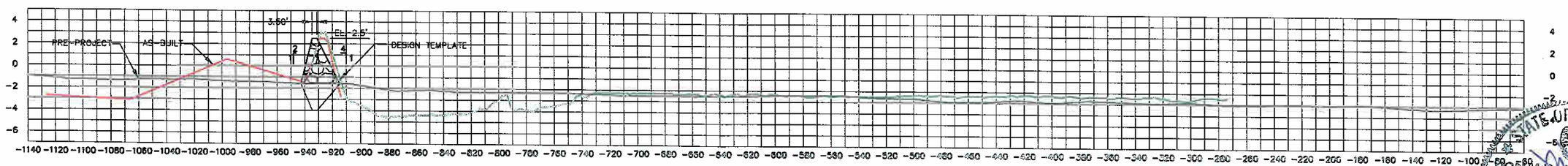
STATION 226+95



STATION 224+47



STATION 219+53



STATION 214+39

STATE OF LOUISIANA
RONALD M. MADDEN
REG. No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

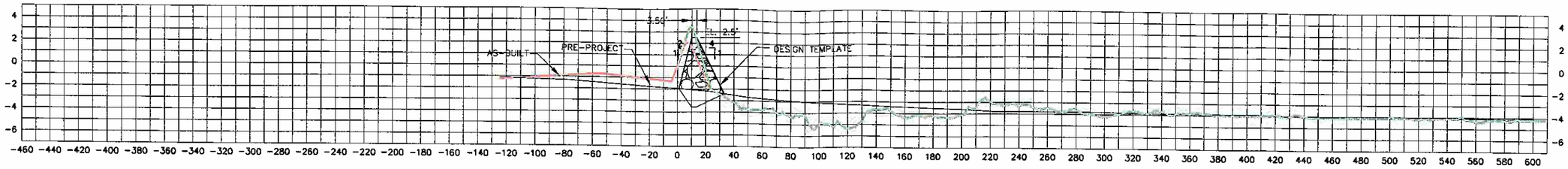
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

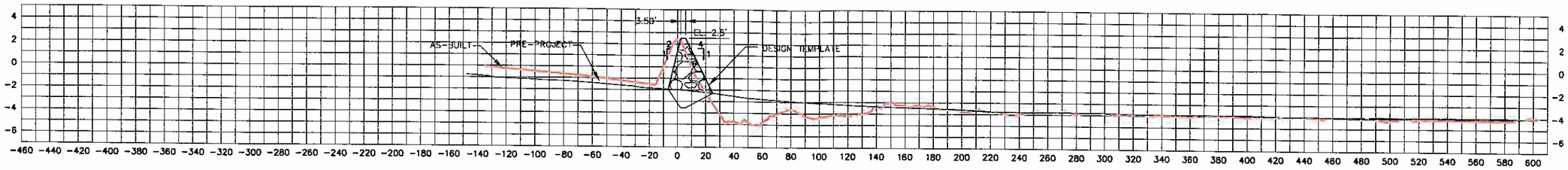
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

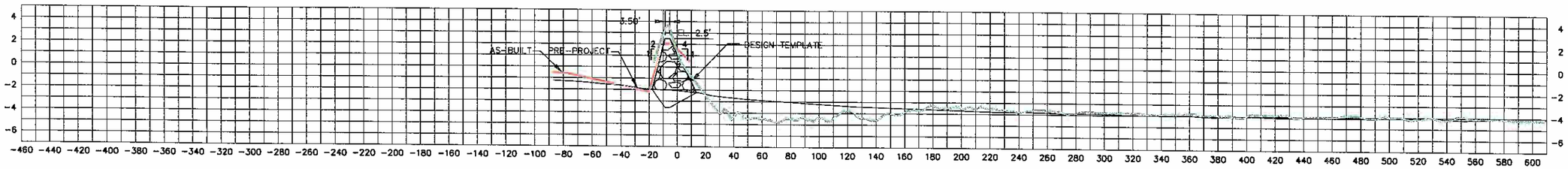
SHEET NO. 13 OF 15



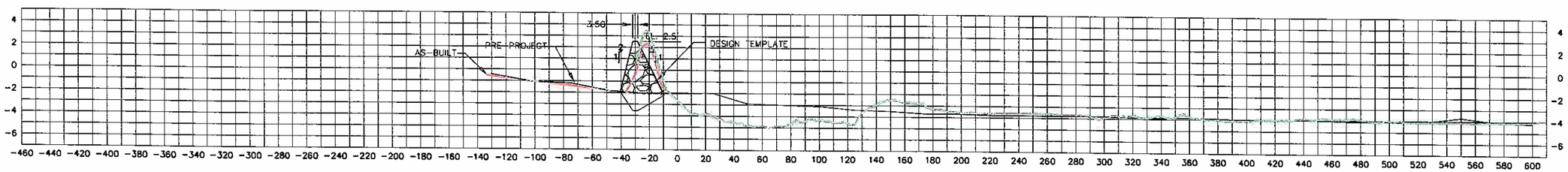
STATION 244+70



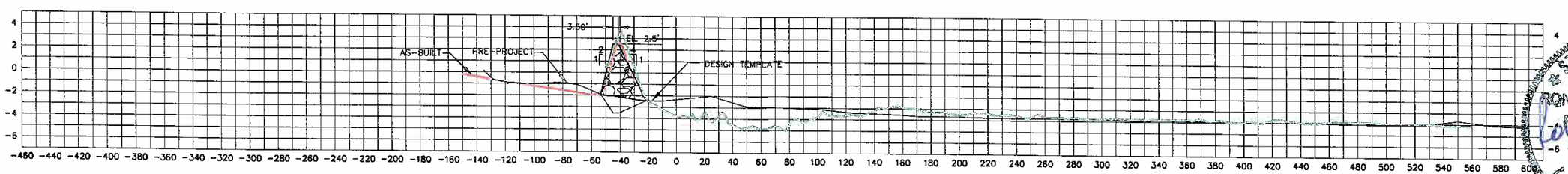
STATION 242+58



STATION 239+60



STATION 234+51



STATION 229+53

STATE OF LOUISIANA
RONALD M. MADDEN
LSPLS No. 4503
REGISTERED PROFESSIONAL LAND SURVEYOR

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

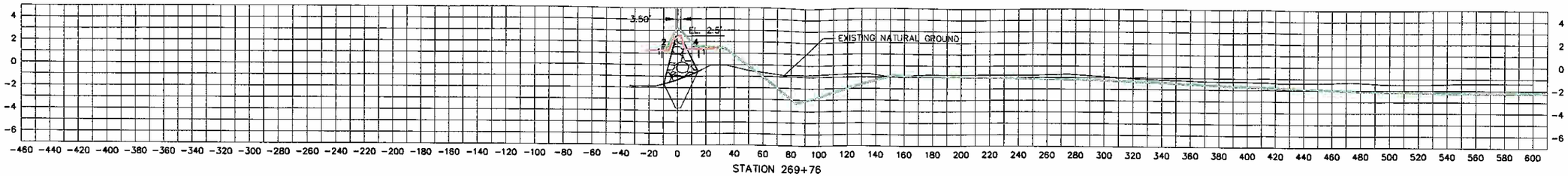
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

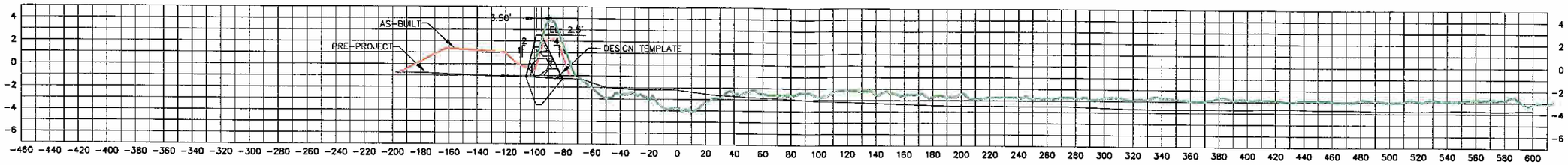
ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

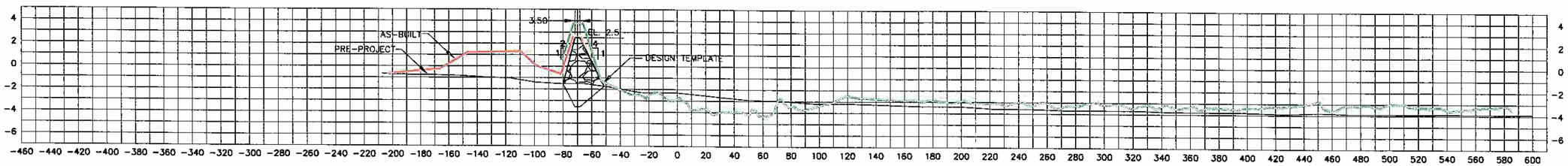
SHEET NO. 14 OF 15



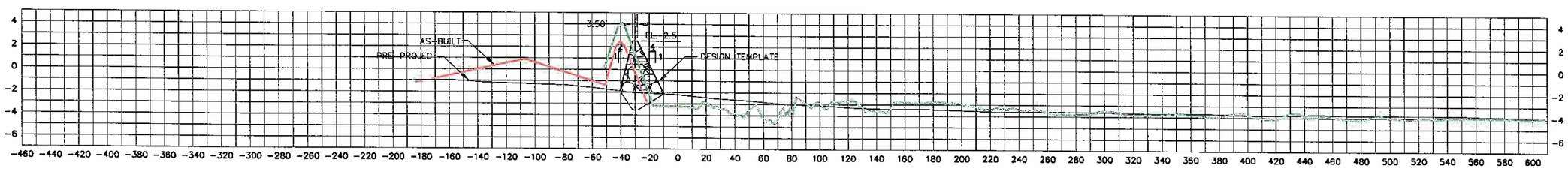
STATION 269+76



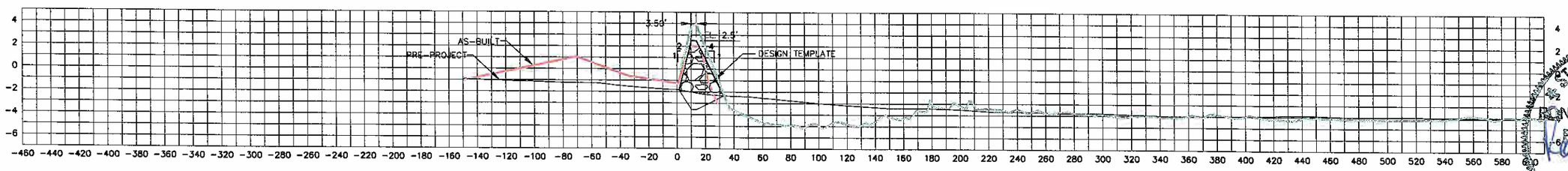
STATION 264+73



STATION 259+71



STATION 254+84



STATION 249+65

STATE OF LOUISIANA
RONALD M. AMBDEN
REG. No. 4503
REGISTERED
PROFESSIONAL
LAND SURVEYOR

NOTES:

LEGEND:

- PRE-PROJECT
- DESIGN TEMPLATE
- AS-BUILT
- AS-BUILT – 3rd LIFT

DATE	REVISIONS	DRAWN BY	APPROVED BY
03/19/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
02/14/07	AS-BUILT RECORD DRAWINGS	KSP	PJT
01/11/06	AS-BUILT RECORD DRAWINGS	KSP	PJT
10/18/06	AS-BUILT RECORD DRAWINGS	STB	PJT
01/09/05	REVISED MUDLINE ELVATIONS	KSP	DBR
11/15/05	REVISED PLAN VIEW	STB	PJT

REVISIONS

TBS T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

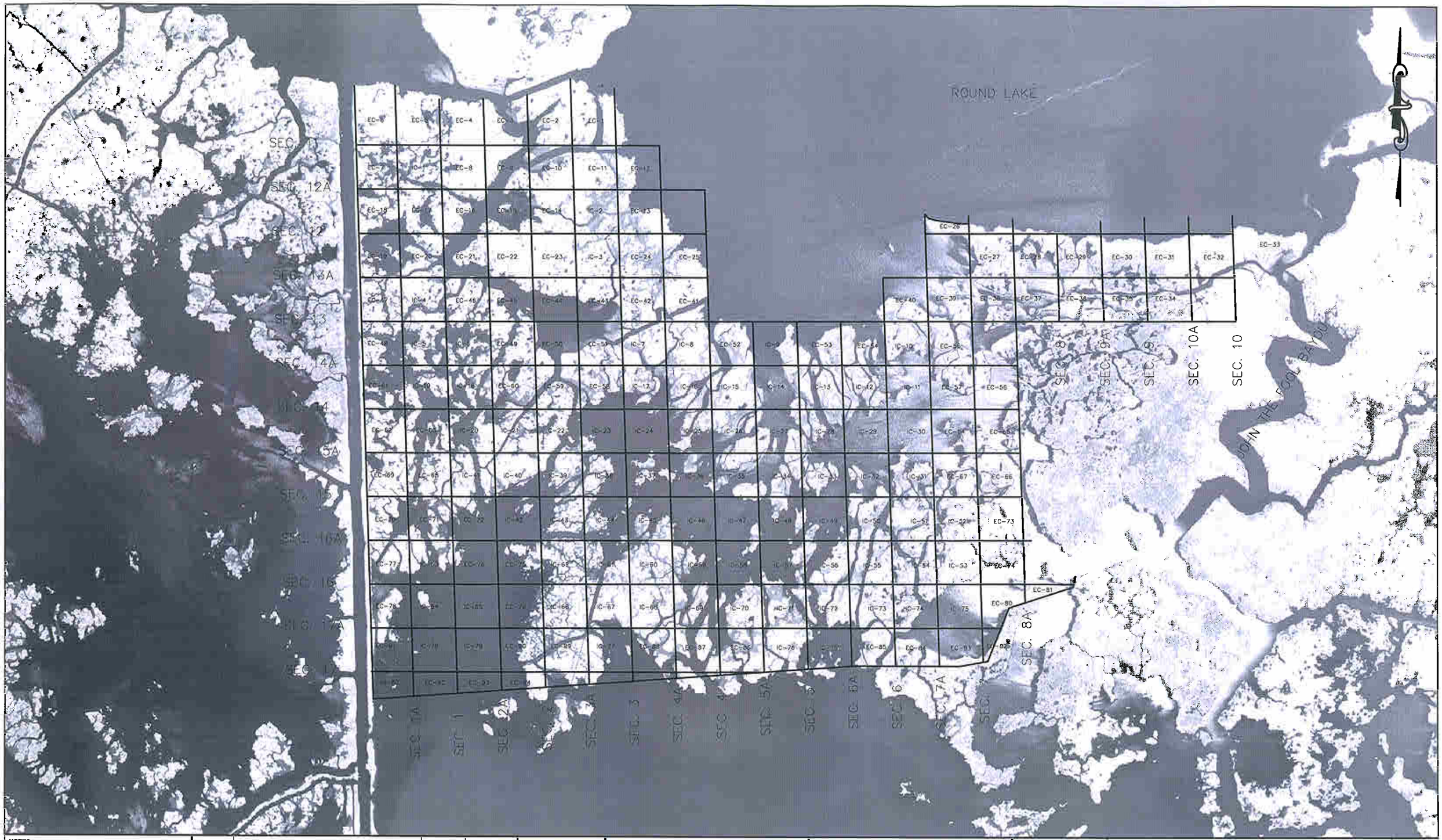
SCALE: HORIZ 1"=40'
VERT 1"=5'

FILE NAME:	AB-XSECS
TBS NO.:	2005.1460
DATE:	09/01/2005
PLOT SCALE:	40
DRAWN BY:	ADP
APPROVED:	PJT
MAP NO.	

ROCK DIKE CROSS SECTIONS

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

SHEET NO. 15 OF 15



NOTES:

AS BUILT PLANS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1919
(866) 866-1000 www.tbsmith.com

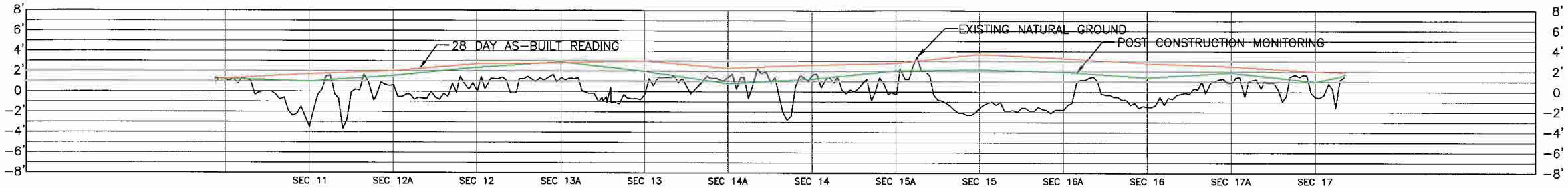
FILE NAME:	051460P01
TBS NO.:	2005.1460
DATE:	1/27/06
PLOT SCALE:	1"=1000'
DRAWN BY:	KSP
APPROVED:	DBR
MAP NO.	

MARSH TRANSECT PLAN VIEW

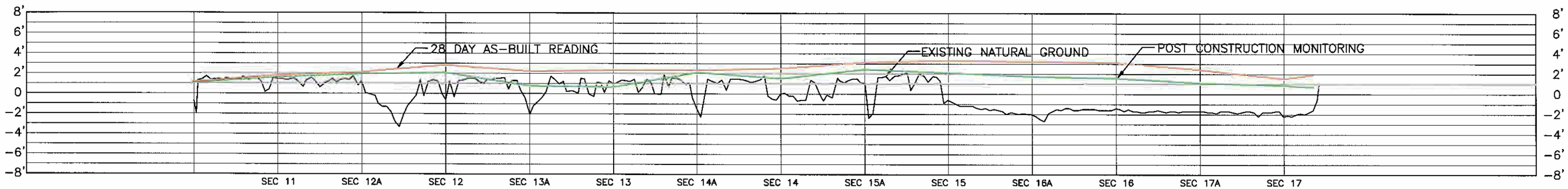
LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

SHEET NO.

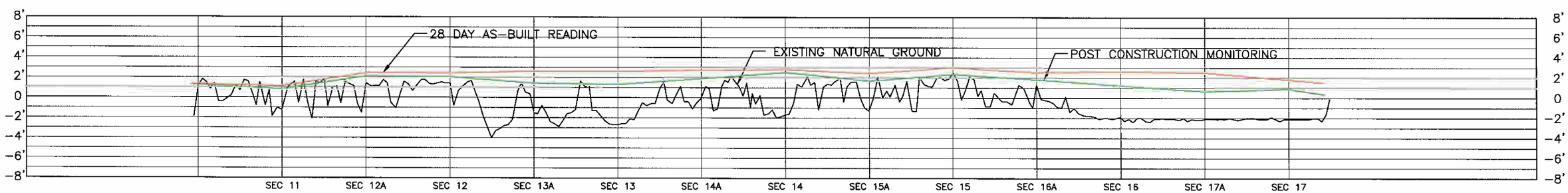
OF



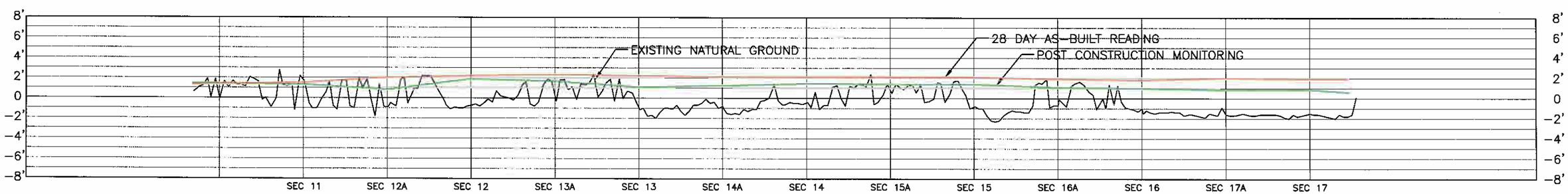
SECTION 2



SECTION 2A



SECTION 1



SECTION 1A

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

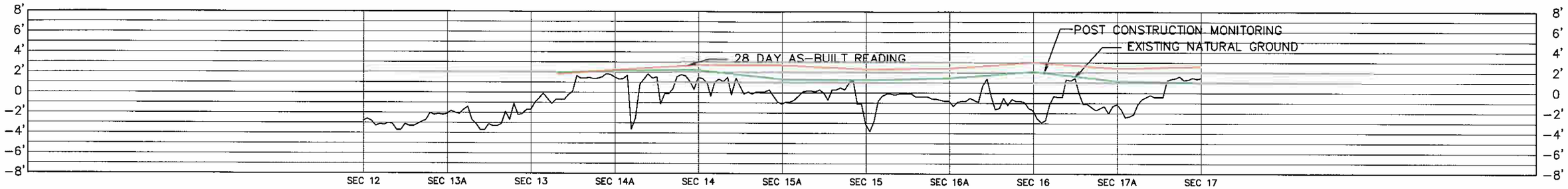
SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05.1460-X1
TBS NO.:	S2005-1460
DATE:	1/27/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

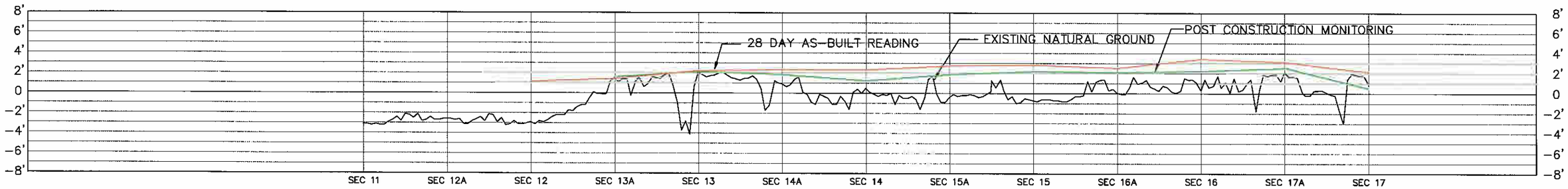
MARSH CROSS SECTIONS
SECTION 1A-2

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

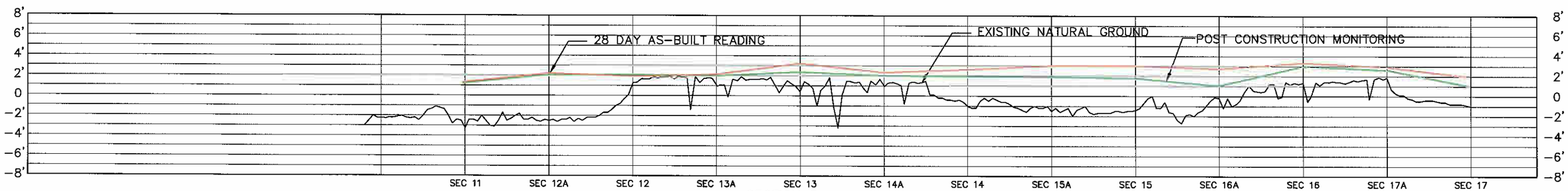
SHEET NO. 1 OF 8



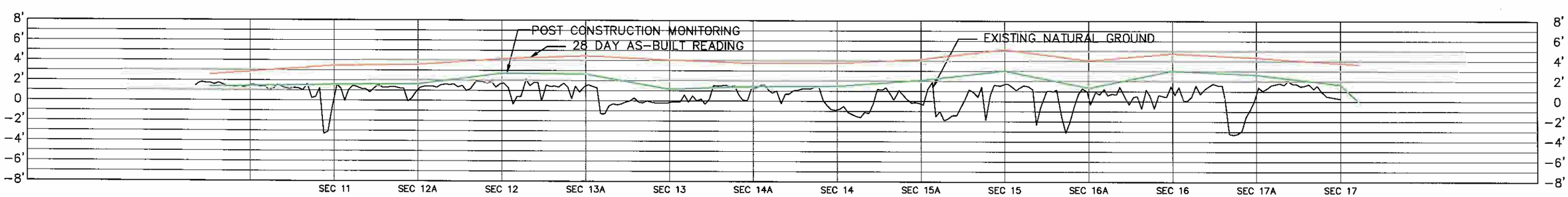
SECTION 4



SECTION 4A



SECTION 3



SECTION 3A

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1919
(985) 868-1050 www.tbsmith.com

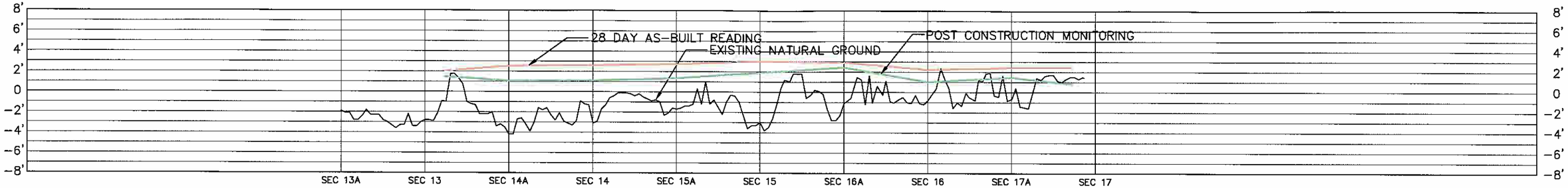
SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05-1460X2
TBS NO.:	S2005-1460
DATE:	1/26/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

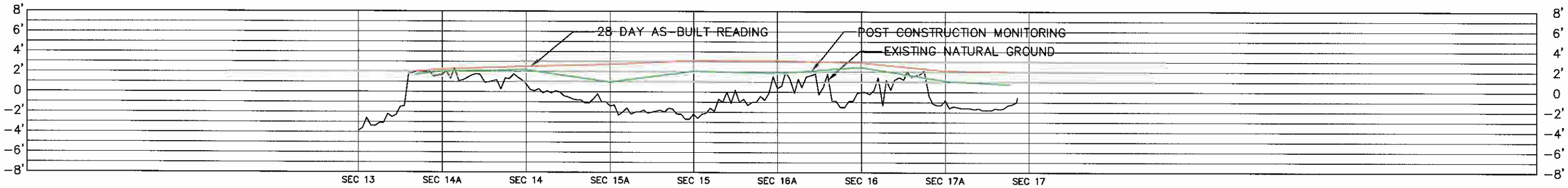
MARSH CROSS SECTIONS
SECTION 3A-4

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

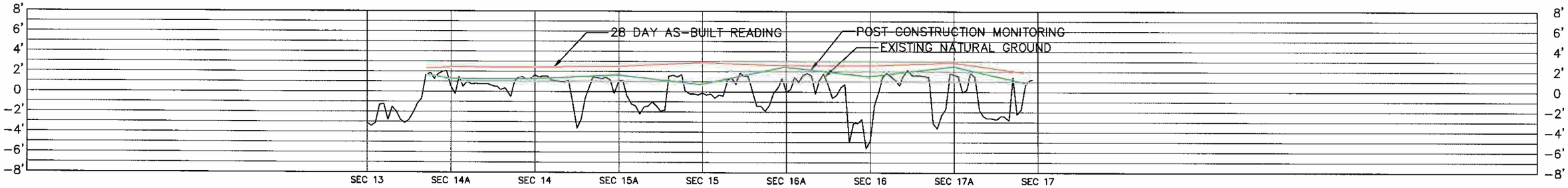
SHEET NO. 2 OF 8



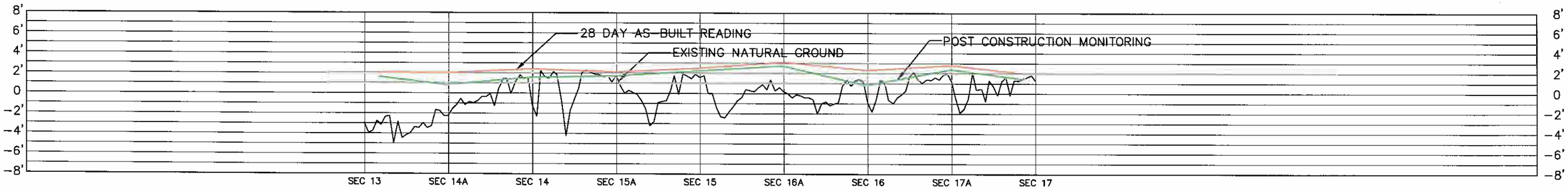
SECTION 6



SECTION 6A



SECTION 5



SECTION 5A

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY
	REVISIONS		

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

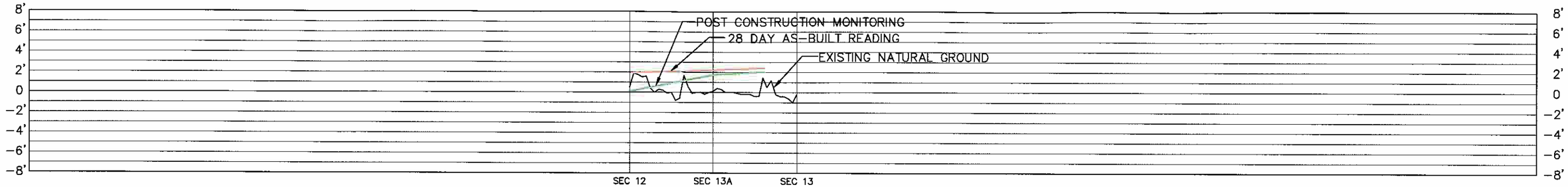
SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05-1460X3
TBS NO.:	S2005-1460
DATE:	1/26/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

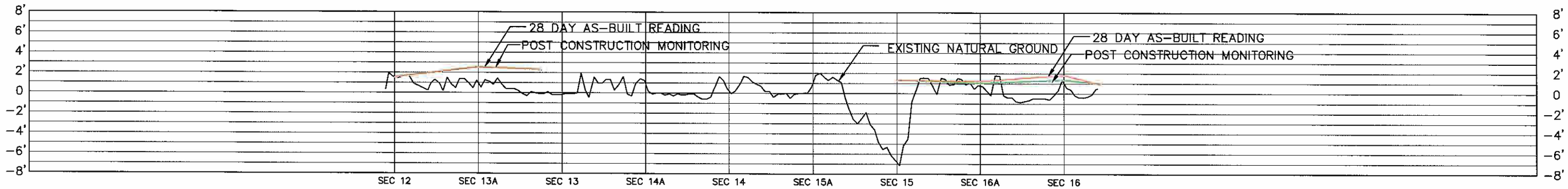
MARSH CROSS SECTIONS
SECTION 5A-6

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

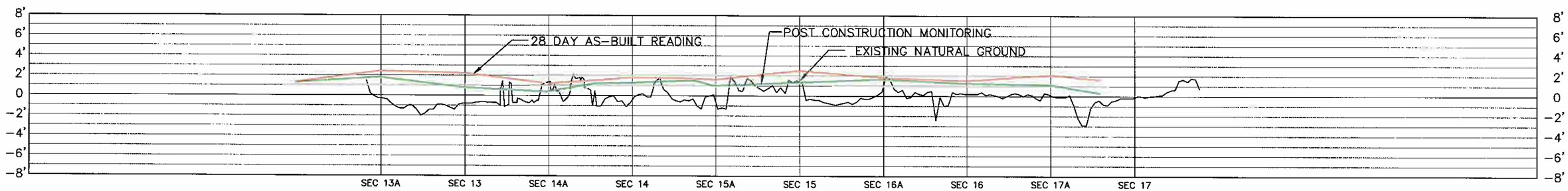
SHEET NO. 3 OF 8



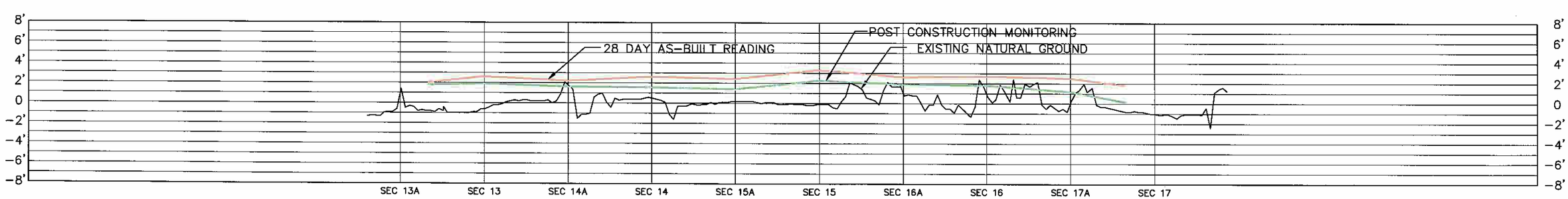
SECTION 8



SECTION 8A



SECTION 7



SECTION 7A

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

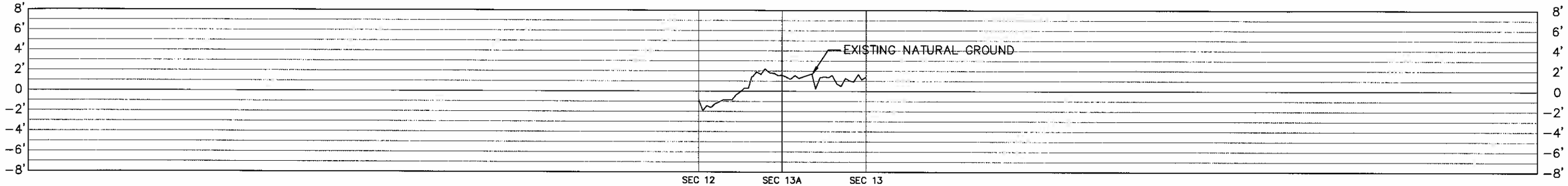
SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05-1460X4
TBS NO.:	E2005-1460
DATE:	1/26/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

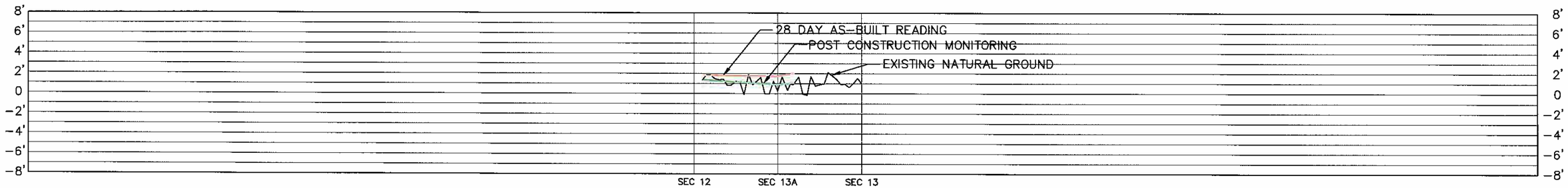
MARSH CROSS SECTIONS
SECTION 7A-8

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

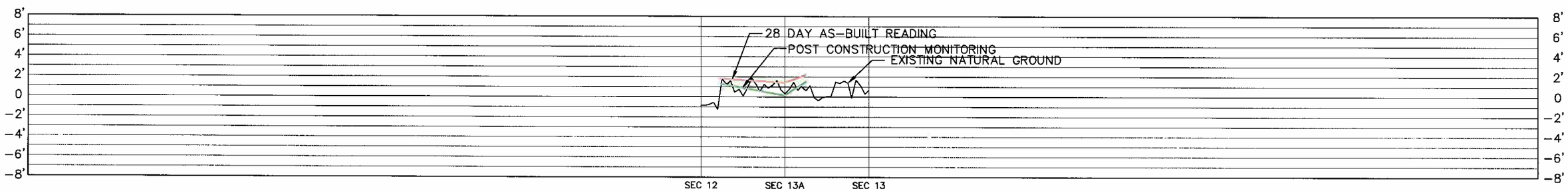
SHEET NO. 4 OF 8



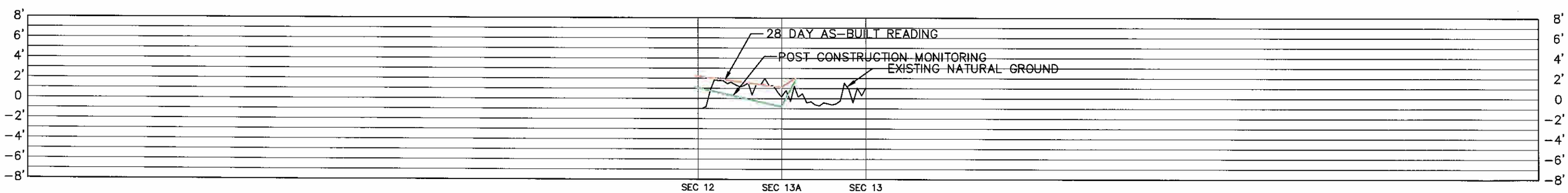
SECTION 10



SECTION 10A



SECTION 9



SECTION 9A

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY
	REVISIONS		

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

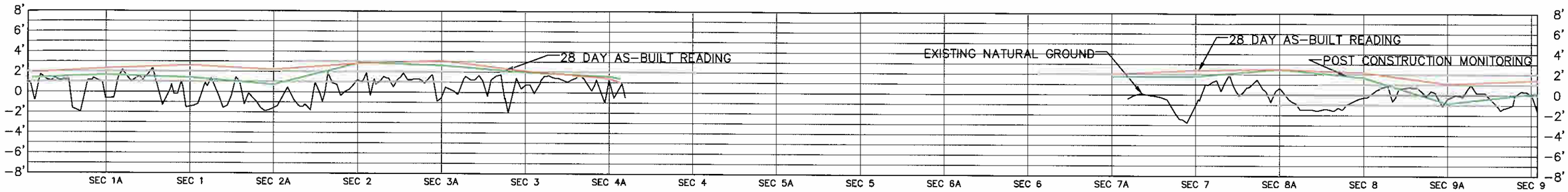
SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05-1460X5
TBS NO.:	S2005-1460
DATE:	1/26/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

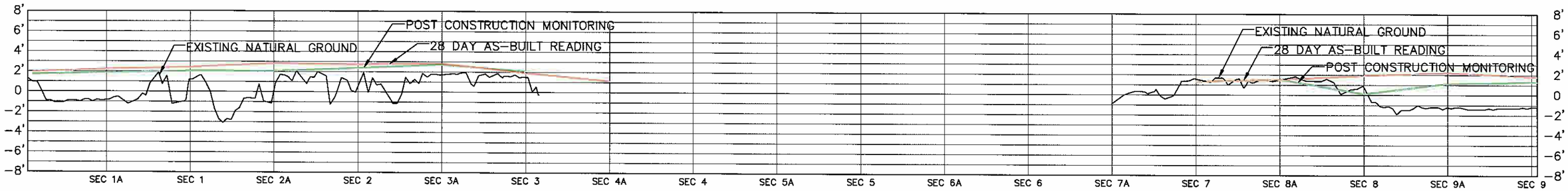
MARSH CROSS SECTIONS
SECTION 9A-10

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

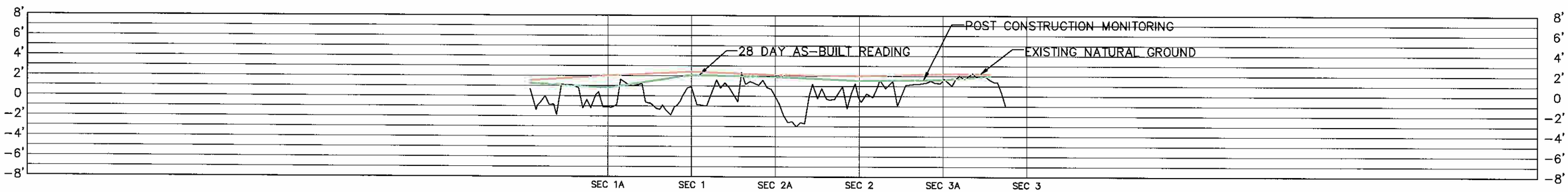
SHEET NO. 5 OF 8



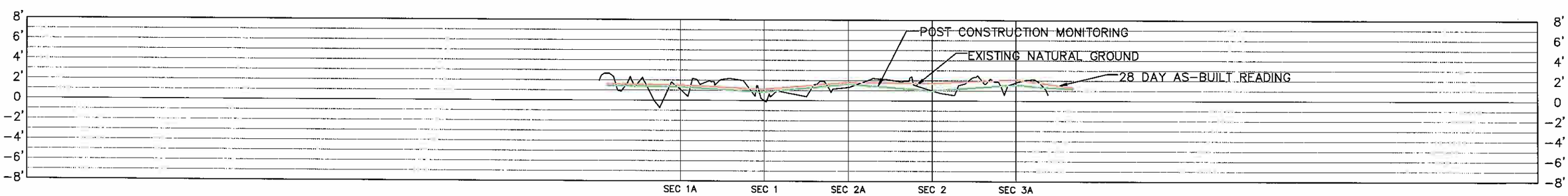
SECTION 13A



SECTION 12



SECTION 12A



SECTION 11

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

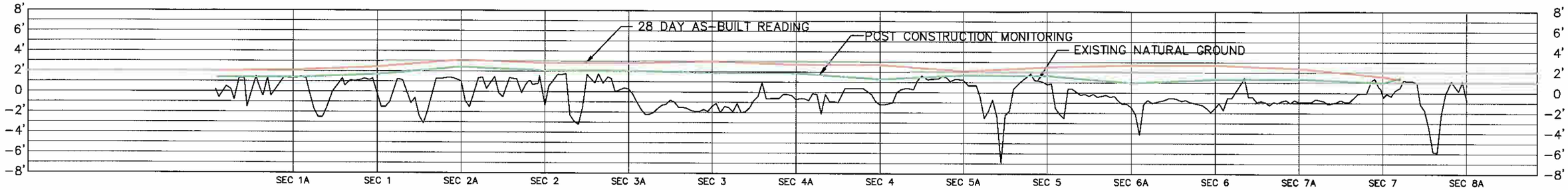
SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05-1460X6
TBS NO.:	S2005-1460
DATE:	1/26/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

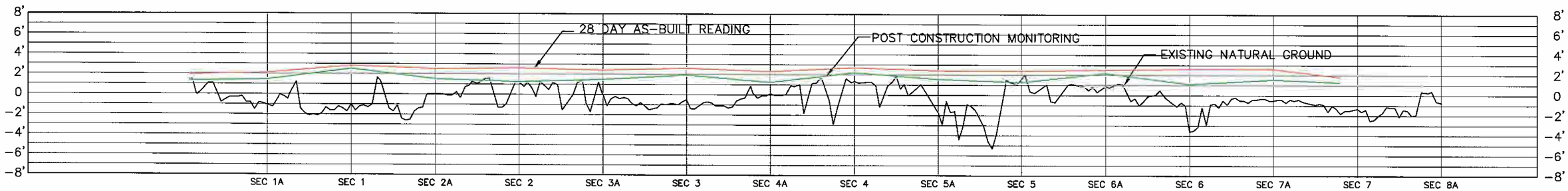
MARSH CROSS SECTIONS
SECTION 11-13A

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

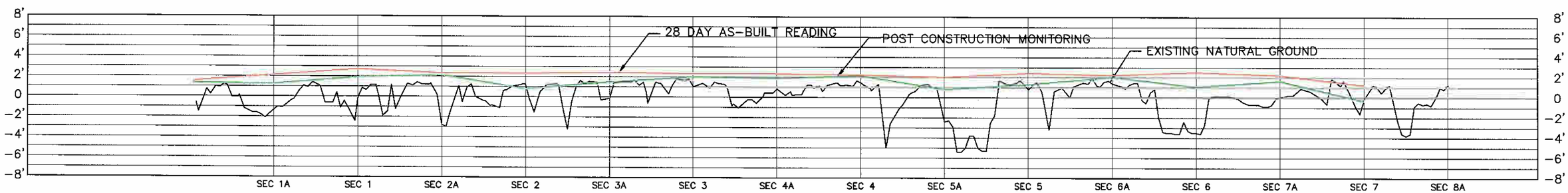
SHEET NO. 6 OF 8



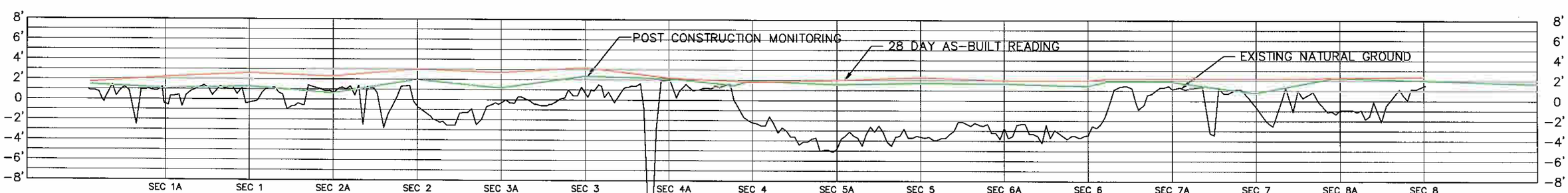
SECTION 15A



SECTION 14



SECTION 14A



SECTION 13

NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

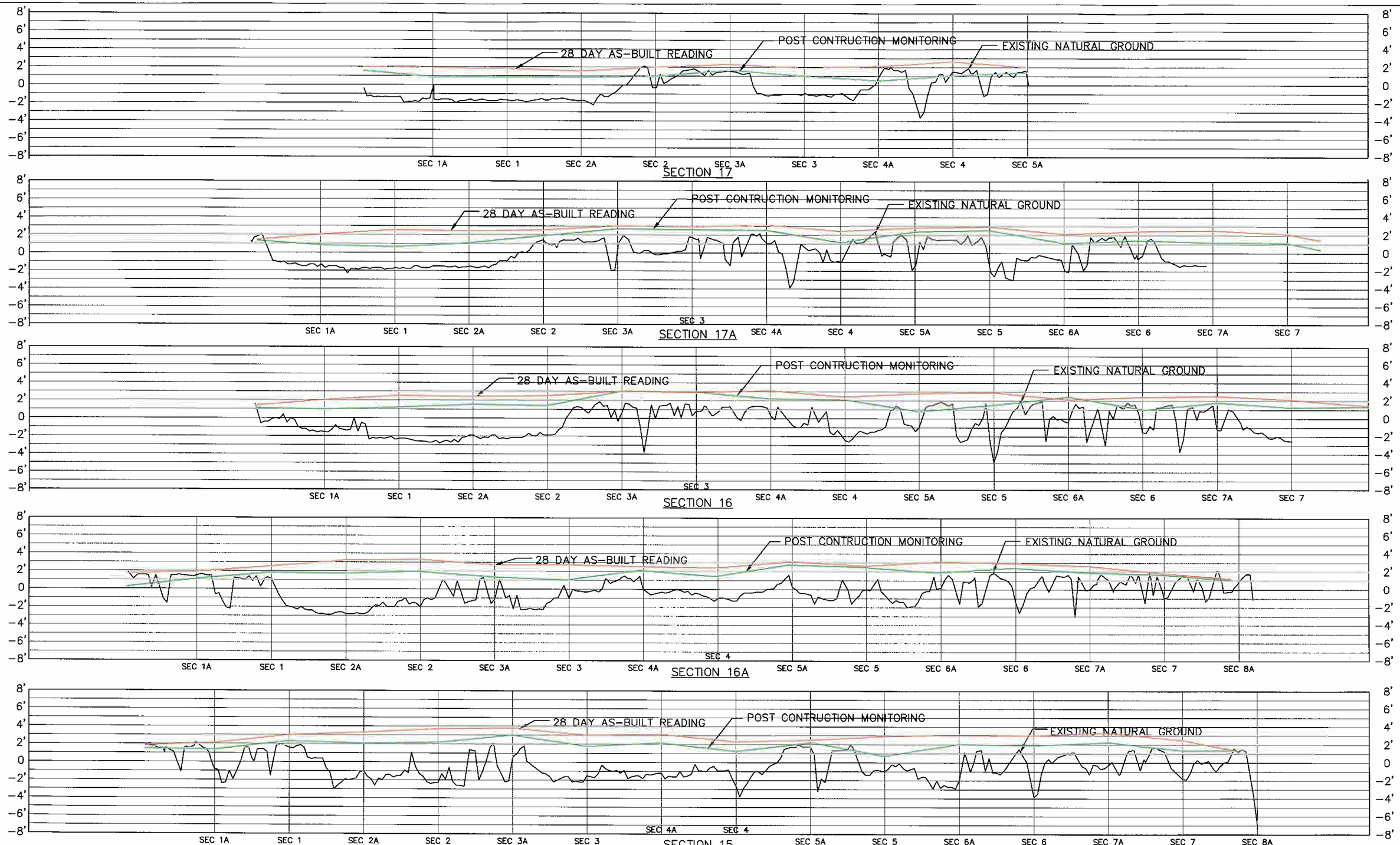
SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05-1460X7
TBS NO.:	S2005-1460
DATE:	1/26/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

MARSH CROSS SECTIONS
SECTION 13-15A

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

SHEET NO. 7 OF 8



NOTES:

AS BUILT PLANS

DATE	REVISIONS	DRAWN BY	APPROVED BY

REVISIONS

T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1913
(985) 868-1050 www.tbsmith.com

SCALE: HORIZ. 1"=600'
VERT. 1"=10'

FILE NAME:	05-1460X8
TBS NO.:	S2005-1460
DATE:	1/26/06
PLOT SCALE:	AS SHOWN
DRAWN BY:	STB
APPROVED:	DBR
MAP NO.	

MARSH CROSS SECTIONS
SECTION 15-17

LITTLE LAKE SHORELINE PROTECTION
AND MARSH CREATION
PINE BLUFF SAND & GRAVEL COMPANY

SHEET NO. 8 OF 8