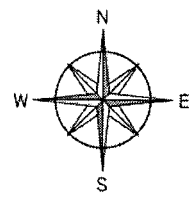


T 14 S



PROPOSED FLAP GATE
NORTH
LAT. = 29° 49' 54.01" N
LONG. = 92° 15' 39.18" W
(SEE SHEET 003)

POINT OF INFLECTION
LAT. = 29° 49' 52.07" N
LONG. = 92° 15' 30.07" W

BEGIN
LEVEE REBUILD
LAT. = 29° 49' 51.71" N
LONG. = 92° 15' 39.82" W

SEC. 16

R 2 E

PROPOSED LOCATION
OF LEVEE REBUILD PROJECT
TOTAL APPROX. LENGTH = 8165'

PROPOSED FLAP GATE
SOUTH
LAT. = 29° 49' 06.69" N
LONG. = 92° 15' 37.56" W
(SEE SHEET 004)

END
LEVEE REBUILD
LAT. = 29° 49' 03.93" N
LONG. = 92° 15' 58.45" W

POINT OF INFLECTION
LAT. = 29° 49' 04.07" N
LONG. = 92° 15' 29.71" W

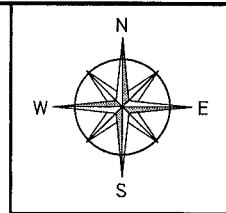
LEVEE REBUILD PROJECT

Figure 1 Aerial Map

SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA



SCALE: 1" = 500'
FEB. 1, 2012

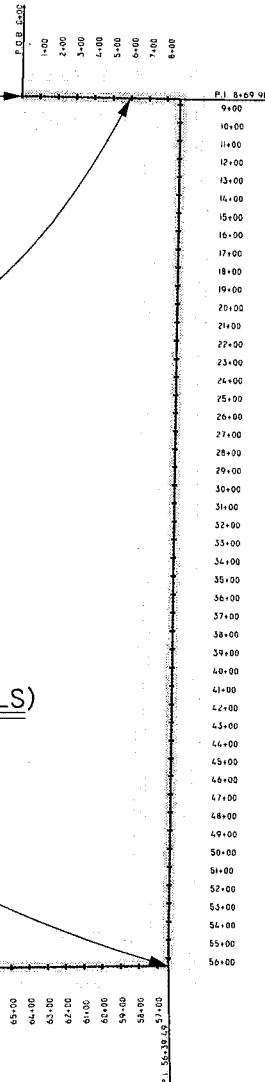


LEVEE ALIGNMENT
BEGIN TYPICAL SECTION (B)
STA. 0+00 (SEE SHEET 7 FOR DETAILS)

LEVEE ALIGNMENT
END TYPICAL SECTION (B)
BEGIN TYPICAL SECTION (A)
STA. 5+94.91 (SEE SHEET 7 FOR DETAILS)

LEVEE ALIGNMENT
END TYPICAL SECTION (A)
BEGIN TYPICAL SECTION (B)
STA. 56+39.49 (SEE SHEET 7 FOR DETAILS)

LEVEE ALIGNMENT
END TYPICAL SECTION (B)
STA. 81+65.87 (SEE SHEET 7 FOR DETAILS)



LEGEND

P.O.B. - POINT OF BEGINNING
P.I. - POINT OF INTERSECTION
P.O.E. - POINT OF END

NOTE:

- 1) ALL LINE WORK ON THIS SHEET IS APPROXIMATE.
- 2) ACCESS TO CONSTRUCTION AREA WILL BE BY FOOT ONLY. NO WATER ACCESS WILL TAKE PLACE.
- 3) SEE SHEET 007 FOR LEVEE REBUILD TYPICAL SECTIONS.

LEVEE REBUILD PROJECT

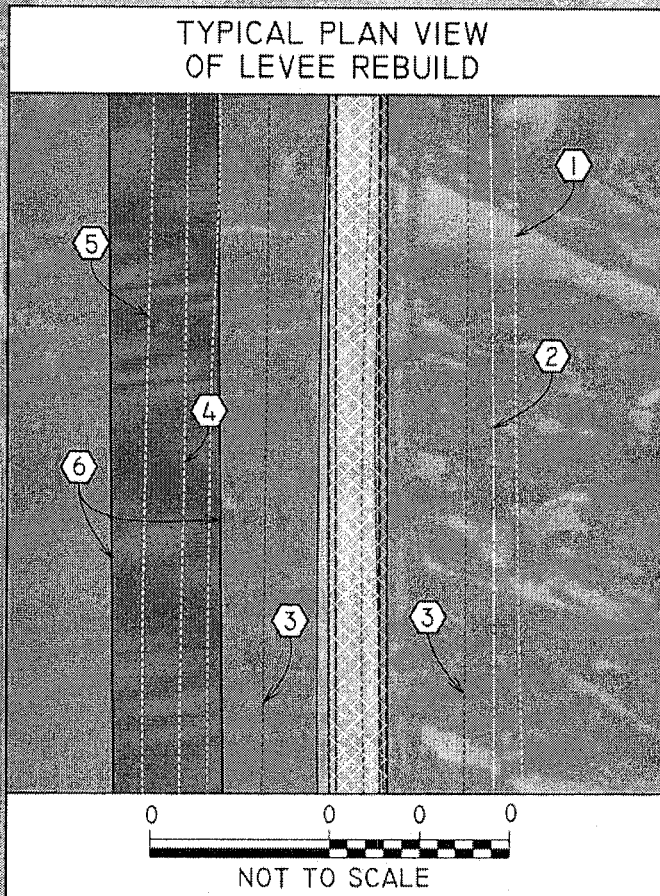
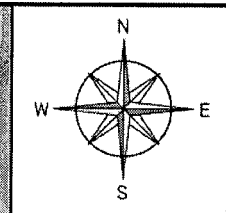
Figure 2 Project Alignment

SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA



SCALE: 1" = 1000'

FEB. 1, 2012



- ① TOP OF SMALL BORROW PIT
- ② CENTER LINE OF SMALL BORROW PIT
- ③ 57' LEVEE BASE
- ④ BOTTOM OF 28' BORROW PIT
- ⑤ BOTTOM OF 28' BORROW PIT
- ⑥ PROPOSED DREDGING LOCATION

LEGEND	
	PROPOSED LOCATION OF LEVEE
	PROPOSED MAXIMUM DREDGING LIMITS
	EXISTING LEVEE

NOTE:
1) ALL LINE WORK ON THIS SHEET IS APPROXIMATE.
2) ACCESS TO CONSTRUCTION AREA WILL BE BY FOOT ONLY. NO WATER ACCESS WILL TAKE PLACE.

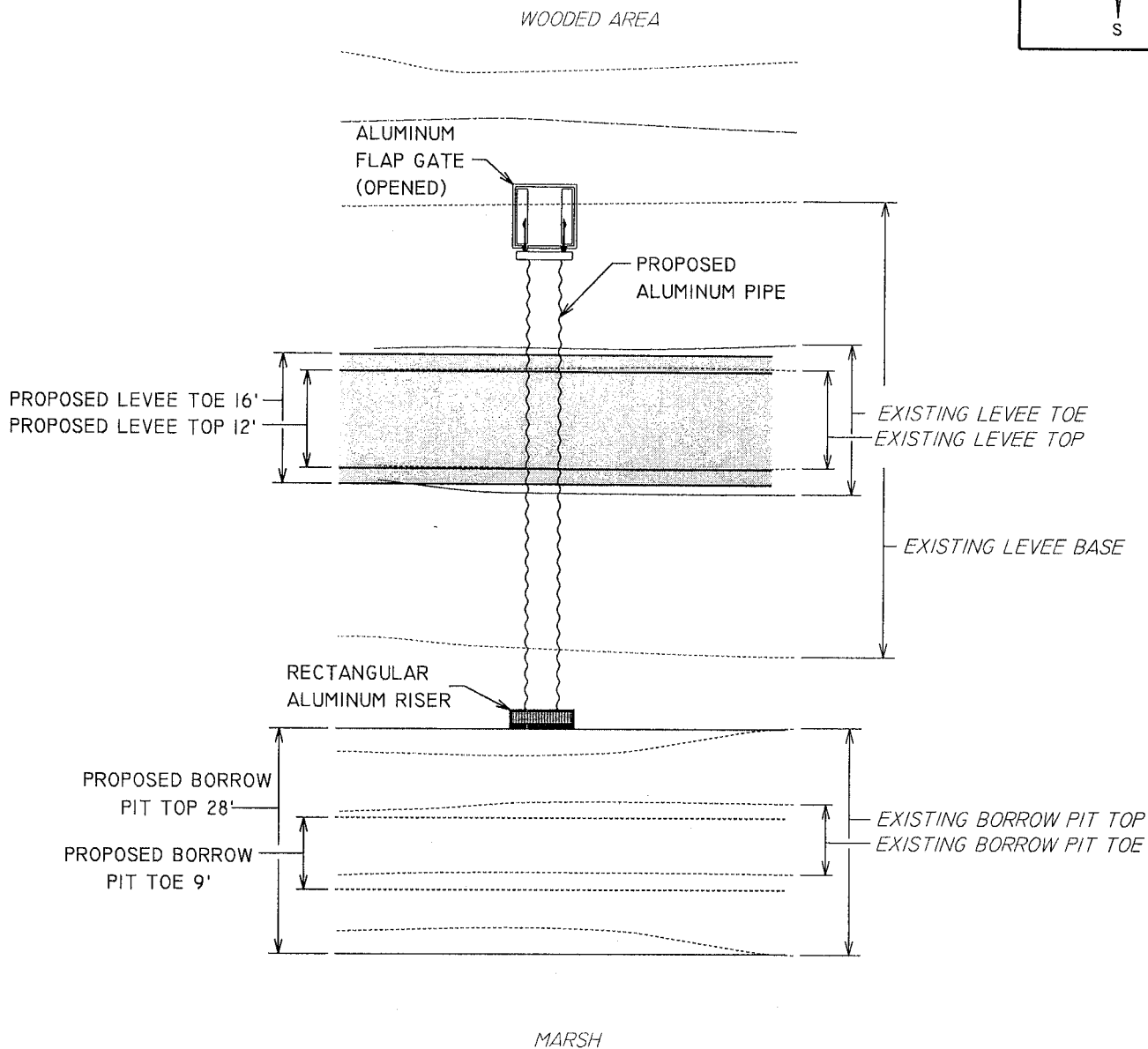
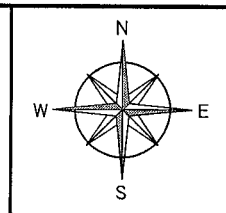
LEVEE REBUILD PROJECT


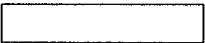
Figure 3
Plan View

SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA

1000' 0 500' 1000'

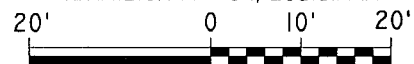
SCALE: 1"= 1000'
FEB. 1, 2012



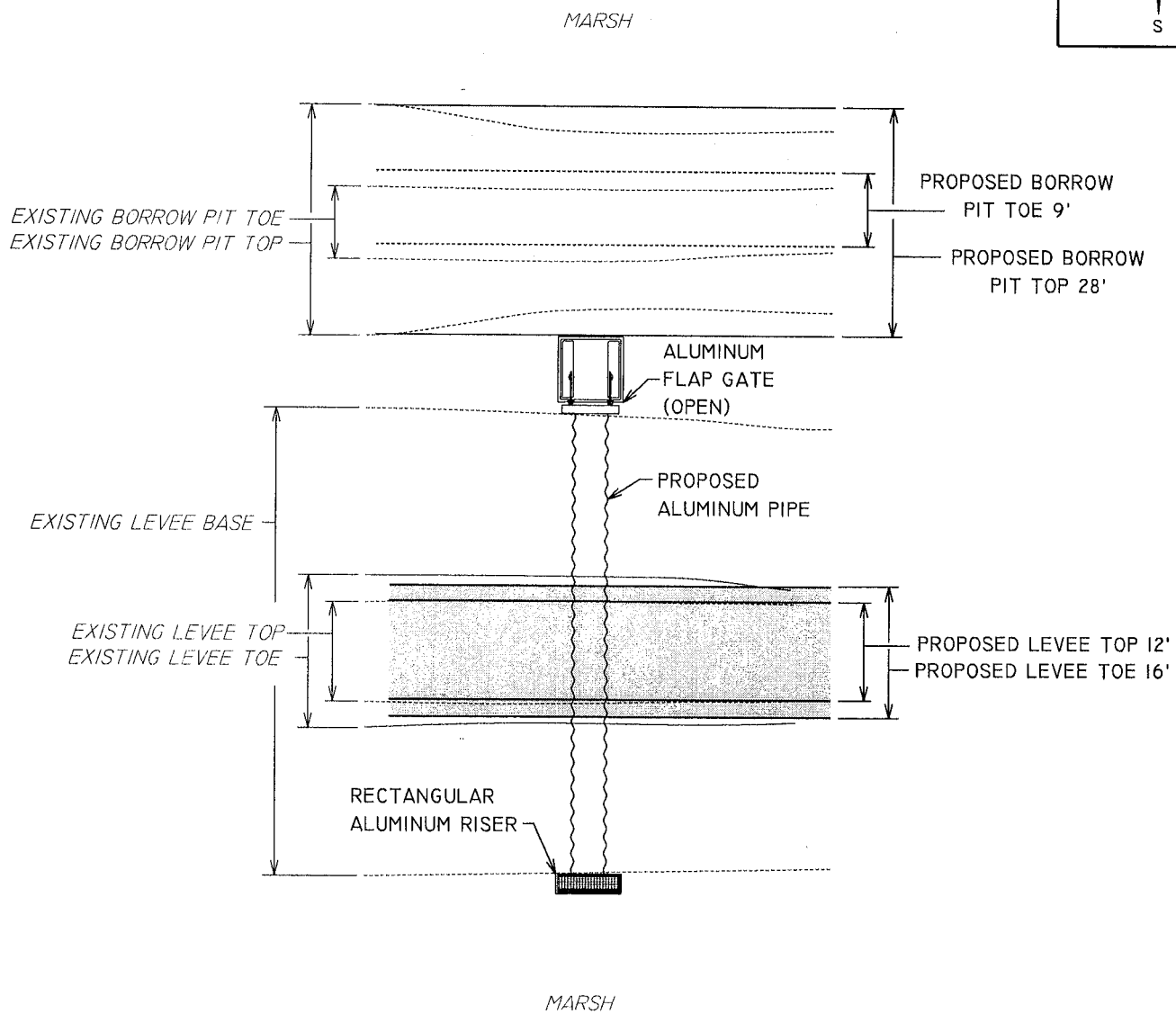
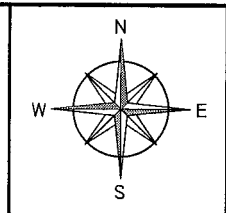
LEGEND	
PROPOSED FILL AREA	
PROPOSED MAXIMUM LIMITS OF DREDGING AREA	

NOTE:
1) ALL FLAP GATE DETAILS CAN BE FOUND ON FIGURES 006, 007 AND 008
2) ACCESS TO CONSTRUCTION AREA WILL BE BY FOOT ONLY. NO WATER ACCESS WILL TAKE PLACE.

LEVEE REBUILD PROJECT
Figure 4
Flap Gate North
Plan View
SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA



SCALE: 1"= 20'
FEB. 1, 2012



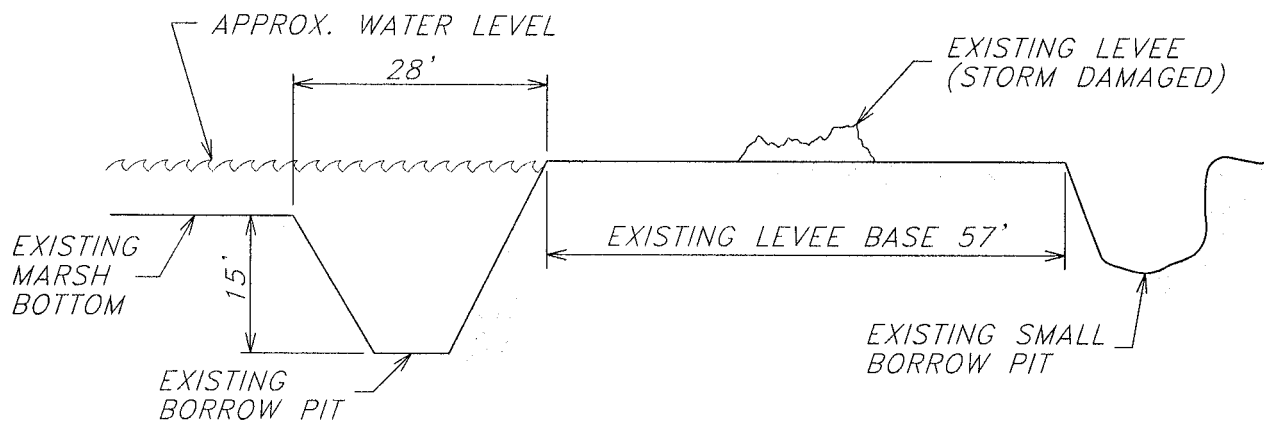
LEGEND	
PROPOSED FILL AREA	
PROPOSED MAXIMUM LIMITS OF DREDGING AREA	

NOTE:
1) ALL FLAP GATE DETAILS CAN BE FOUND ON FIGURES 006, 007 AND 008
2) ACCESS TO CONSTRUCTION AREA WILL BE BY FOOT ONLY. NO WATER ACCESS WILL TAKE PLACE.

LEVEE REBUILD PROJECT
Figure 5
Flap Gate South
Plan View
SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA

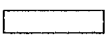
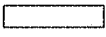
20' 0 10' 20'

SCALE: 1"= 20'
FEB. 1, 2012



TYPICAL SECTION OF EXISTING LEVEE

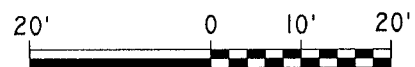
SCALE: 1" = 20'

LEGEND	
	EXISTING LEVEE TO BE REMOVED
	EXISTING EARTH

LEVEE REBUILD PROJECT

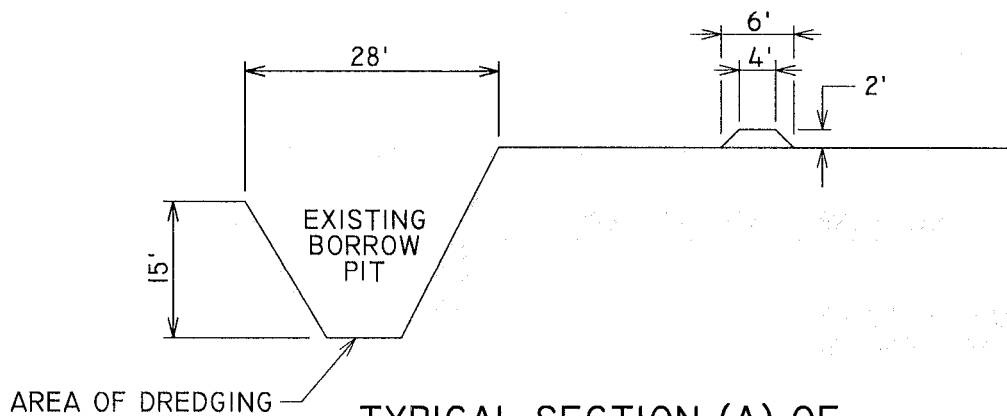
Figure 6 Typical Section

SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA



SCALE: 1" = 20'

FEB. 1, 2012

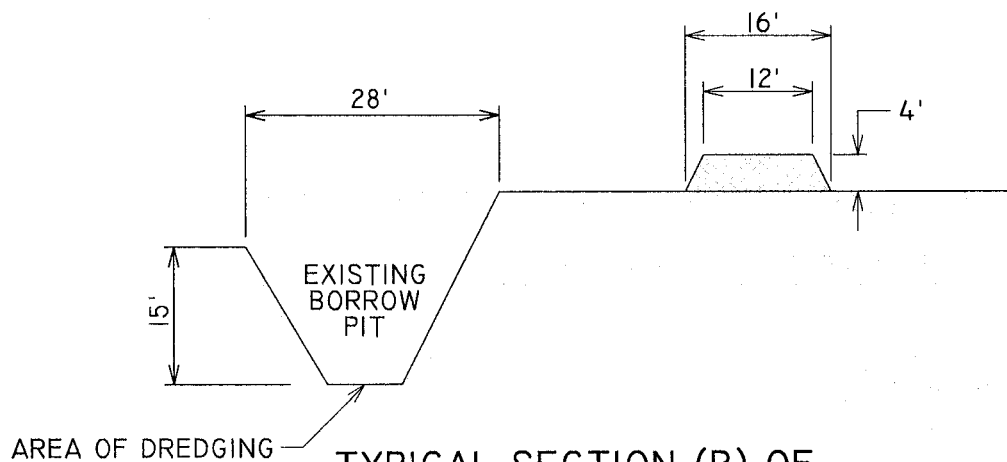


**TYPICAL SECTION (A) OF
PROPOSED LEVEE**

SCALE: 1" = 20'

STA. 1+69.03 TO 17+27.56

NOTE:
MAXIMUM DREDGE TO BE 28'
OF THE EXISTING BORROW PIT



**TYPICAL SECTION (B) OF
PROPOSED LEVEE**

SCALE: 1" = 20'

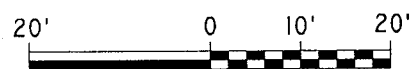
STA. 0+00.00 TO 1+68.03
STA. 17+27.56 TO 24+98.24

NOTE:
MAXIMUM DREDGE TO BE 28'
OF THE EXISTING BORROW PIT

LEGEND	
	PROPOSED LEVEE
	EXISTING EARTH

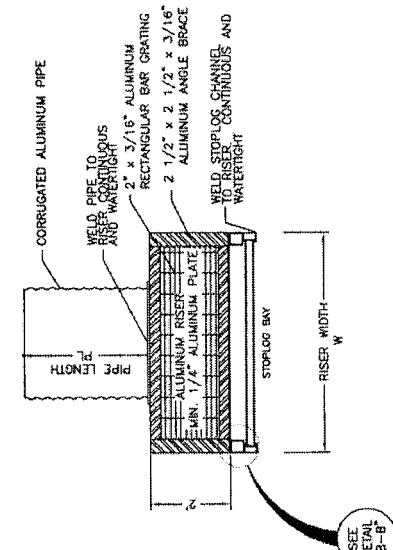
LEVEE REBUILD PROJECT
Figure 7
Proposed Typical Sections

SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA

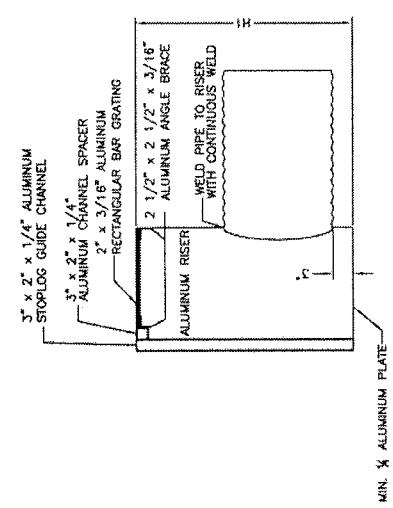


SCALE: 1" = 20'

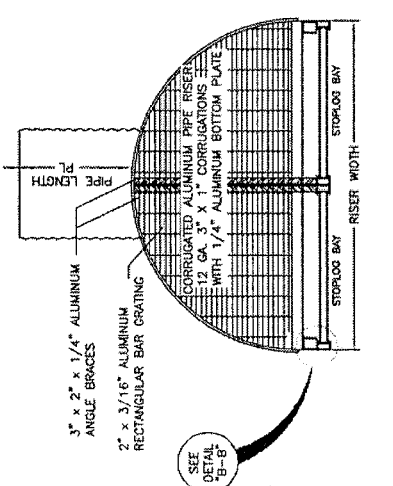
FEB. 1, 2012



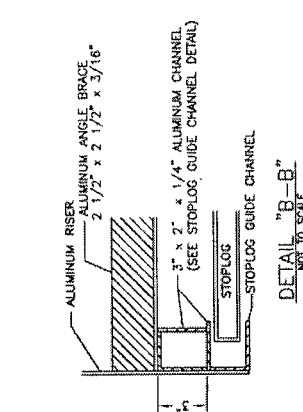
RECTANGULAR RISER PLAN VIEW
NOT TO SCALE



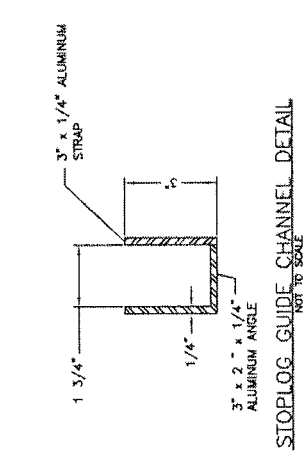
RISER SIDE VIEW
NOT TO SCALE



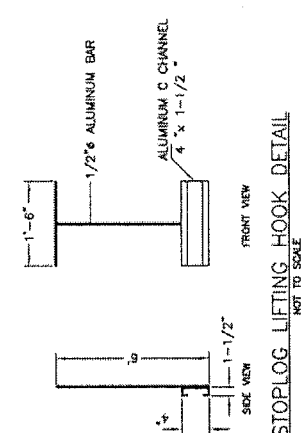
HALF-ROUND RISER PLAN VIEW
NOT TO SCALE



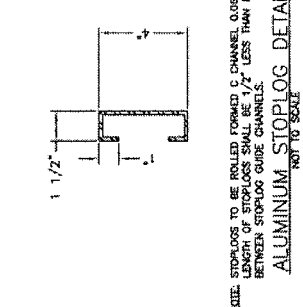
DETAIL "B-B"
NOT TO SCALE



STOPLOG GUIDE CHANNEL DETAIL
NOT TO SCALE

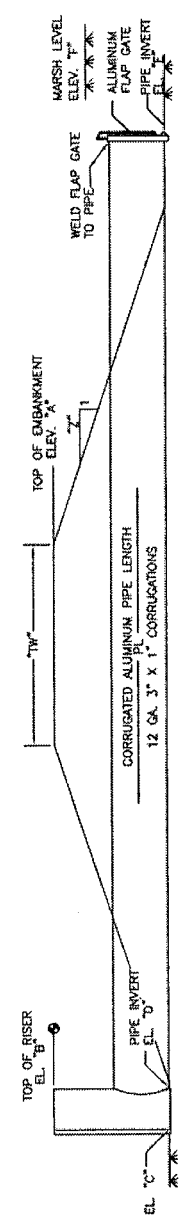


STOPLOG LIFTING HOOK DETAIL
NOT TO SCALE



ALUMINUM STOPLOG DETAIL
NOT TO SCALE

NOTE: STOPLOGS TO BE ROLLED FORMED C CHANNEL 0.06\"/>



WATER CONTROL STRUCTURE TABLE

STRUCTURE	PIPE DIA.	PIPE LENGTH GA.	PIPE WIDTH W	RISER HEIGHT H1	EL. \"A\"	EL. \"B\"	EL. \"C\"	EL. \"D\"	EL. \"E\"	MARSH LEVEL EL. \"F\"	TOP WIDTH \"TW\"	SLOPES \"Z\"	NO. OF STOPLOGS
1 BAY RISER	36"	12	40	2'	X	X	X	X	X	X	X	X	15
2 BAY RISER	48"	12	40	6'	X	X	X	X	X	X	X	X	18

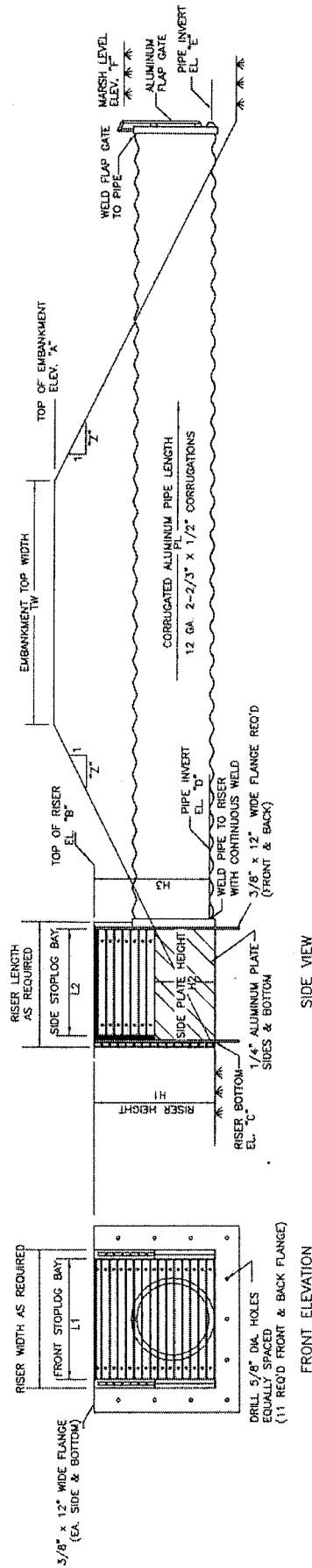
LEVEE REBUILD PROJECT Figure 8 Aluminum Riser Permit

SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA



NOT TO SCALE
FEB. 1, 2012

ALL DRAWINGS ON THIS SHEET WERE PREPARED BY AN OUTSIDE PARTY.
BOB DEW WITH DUCKS UNLIMITED IS HEADING THIS PROJECT.



WATER CONTROL STRUCTURE TABLE

STRUCTURE	PIPE DIA.	PIPE GA.	PIPE LENGTH	* STOPLOG BAY	RISEY HEIGHT	EL. "A"	EL. "B"	EL. "C"	EL. "D"	EL. "E"	MARSH LEVEL EL. "F"	TOP WIDTH "TW"	SLOPES "S"	NO. OF STOPLOGS
				L1	L2	H1	H2	H3						FRONT
				5'	4'	5'	2.5'	4'-8"	X	X	X	X	X	15
3 BAY RISER	36"	12	40	5'	4'	5'	2.5'	4'-8"	X	X	X	X	X	14

* STOPLOGS SHALL BE A MINIMUM OF 2' WIDER THAN THE BAY WIDTH

LEVEE REBUILD PROJECT

Figure 9

Aluminum Riser Permit

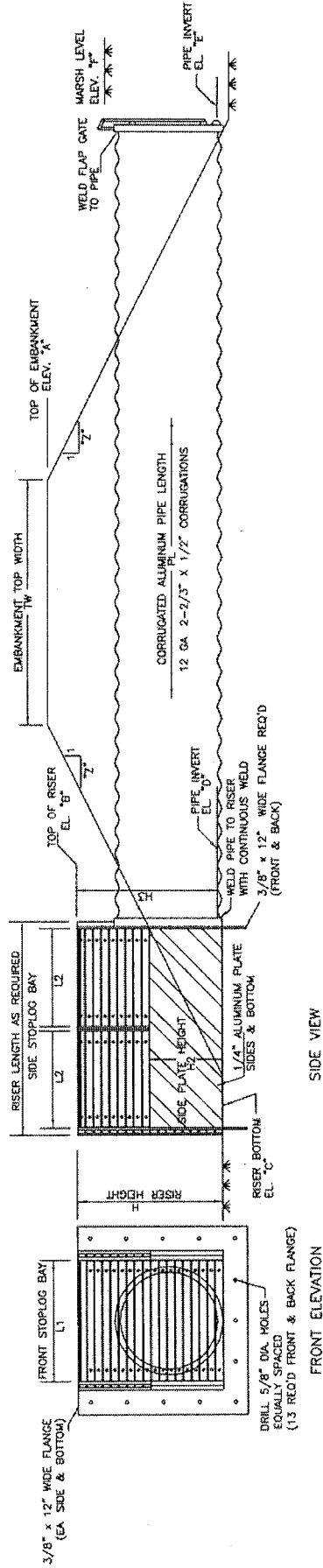
SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA

0 0 0 0 0

NOT TO SCALE

FEB. 1, 2012

ALL DRAWINGS ON THIS SHEET WERE PREPARED BY AN OUTSIDE PARTY.
BOB DEW WITH DUCKS UNLIMITED IS HEADING THIS PROJECT.



5 BAY ALUMINUM RISER STRUCTURE
NTS

WATER CONTROL STRUCTURE TABLE

WATER CONTROL STRUCTURAL TABLE																										
STRUCTURE	PIPE DIA.	PIPE GA.	PIPE LENGTH	• STOPLOG BAY		RISER HEIGHT		EL. "A"	EL. "B"	EL. "C"	EL. "D"	EL. "E"	MARSH LEVEL EL. "F"	TOP WIDTH TW	SLOPES Z	NO. OF STOPLOGS										
				1	2	H1	H2									H3	FRONT	SIDES								
5 BAY RISER	48"	12	40	5	4	6	3	X	X	X	X	X	X	X	X	X	18	38								

* STOPLOGS SHALL BE A MINIMUM OF 2" WIDER THAN THE BAY WIDTH

MULTI-BAY ALUMINUM RISER
WATER CONTROL STRUCTURE

LEVEE REBUILD PROJECT Figure 10 Aluminum Riser Permit

SECTION 16, T14S-R2E
VERMILION PARISH, LOUISIANA



NOT TO SCALE
FEB. 1, 2012

ALL DRAWINGS ON THIS SHEET WERE PREPARED BY AN OUTSIDE PARTY.
BOB DEW WITH DUCKS UNLIMITED IS HEADING THIS PROJECT.

Management Plan for Duane Delhomme Project

Alicia Wiseman, Biologist, Ducks Unlimited, John Hetherwick, Regional Engineer, Ducks Unlimited, Site visit: Wednesday, April 13, 2011,

Considering site characteristics, condition of existing marsh, and the goals for the property, this plan is provided through the cooperation of the Louisiana Waterfowl Project South (LWPS) program. The LWPS is a cooperative effort between Ducks Unlimited, Louisiana Department of Wildlife and Fisheries, Natural Resources Conservation Service, and U.S. Fish and Wildlife Service; and, contributes directly to the goals and objectives of the North American Waterfowl Management Plan, Gulf Coast Joint Venture: Chenier Plain Initiative and Mottled Duck Conservation Plans.

Site Description

The project site is located in Vermilion Parish Louisiana, north of the Intracoastal waterway, south of Hwy 82, between Forked Island and Esther (see vicinity map). This area is generally freshwater marsh, but is subject to tidal surges such as experienced during Hurricanes Rita (2005) and Ike (2008).

The project site includes a portion of Section 16 leased from the Parish school district. The entire section is approximately 640 acres; however, this plan only addresses the approximately 244 acres situated within the Northeast Unit (hereafter Unit). The remaining portion of section 16 is not considered in this plan.

Project Goal: Enhance/restore freshwater marsh habitats suitable for resident and migratory waterfowl, shorebirds, and waterbirds.

Objective 1: maintain proper water depths

Objective 2: maintain freshwater foraging habitats

Objective 3: reduce or eliminate undesirable/ invasive species

The project objectives can be accomplished through a combination of active water management, fire, and herbicide. In order to achieve active water management, proper management infrastructure is required. The 244 acre project unit currently has a semi-functioning levee system and water control structure. The levee system should be refurbished and water control structure(s) replaced.

The management regime for the 244 acre unit should target a dynamic wetland management regime. Additionally, current weather conditions should be considered and utilized when necessary (i.e., initiate drawdowns during dry years or take advantage of frequent rainfall).

Below is a management scenario that illustrates the desirable dynamic wetland management regime.

In winter, target water levels of 4-16 inches. It is not recommended to have water depths greater than 18" as this may impact food availability for target species. If necessary as winter progress, slowly lower water as submerged aquatic vegetation becomes less available. This will allow wintering waterfowl to access more vegetation and seeds.

Hold the water to 4-16 inches through April 15. After April 15, release water until 10% -30% of the ponds are in mud-flat state. These mud flats will provide great feeding habitat for wading birds, shorebirds and other migrating waterbirds. Hold the water to this level until mid-May or June and begin catching rainwater to slowly raise the water levels back in time for fall migration and molting mottled ducks.

During some years, a complete drawdown may be necessary to manage cattails, maidencane and floating marsh. This will probably be necessary every 3 – 5 years but specific dates can be adjusted to respond to marsh conditions. A drawdown will allow for necessary removal of cattail and maidencane keeping ponds from becoming overgrown. In years when drawdown is necessary, a slow drawdown beginning February 1 is recommended. **If a burn is warranted, it will be conducted between the months of October and March** as requested by the permitting agency. The burn will remove dead cattail and maiden cane and stimulate growth of desirable annual plant communities. **As requested by the permitting agency, burn shall not be conducted when the ground is dry – the roots and soil must be saturated with water.** This will not be as effective in removing cattail as burning with a dry ground, but we can work within the regulations set by the permitting agency through the use of herbicides.

Approximately 3 weeks after the burn or once the vegetation begins to re-grow, follow up with herbicide application in targeted areas of pond edges, boat trails and canals as needed. Herbicide should be applied after burned vegetation has begun to re-sprout, while re-growth is still tender and young (approximately 3 weeks after the burn).

After herbicide application, it may be desirable to hold water over the entire unit to the deepest depth possible. Increased water depth will discourage the re-growth of cattails and increase the effectiveness of burning and herbicide application. This process should not be conducted more than every 3-5 years unless circumstances when all ponds close from the presence of cattails.

In the year after the burn, the above management outline should be followed to encourage the re-establishment of submerged aquatic vegetation. Submerged aquatic vegetation may return the same year the burn and herbicide application is conducted if water depths are managed correctly. Submerged aquatic vegetation abundance will be high the second year after the burn because of the newly opened ponds.

As requested by the permitting agency, monitoring reports will be sent to LDNR on an annual basis documenting the amount of emergent vegetation vs. open water in the area managed.

Duane Delhomme Project
16th Section
Vermilion Parish, LA



Project boundary
(244 acres)

0 500 1,000 2,000 Feet



Imagery Date: Oct 30, 2010

© 2011 Google

29°49'42.73"N 82°14'56.73"W elev. 2 ft