VICINITY MAP

STATE OF LOUISIANA

COASTAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC.

12. ALL STRUCTURAL STEEL SHALL BE ASTM A-36, UNLESS OTHERWISE NOTED.

13. ALL WELDING SHALL BE ELECTRIC WELDING. WORKMANSHIP AND TECHNIQUE, WHERE APPLICABLE, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE.

14. WELDING SYMBOLS SHOWN ARE THOSE ADOPTED BY THE AMERICAN WELDING SOCIETY AND INDICATE ONLY SIZE AND TYPE OF WELDS REQUIRED. DETAILED INFORMATION SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED BY THE CONTRACTOR FOR APPROVAL.

15. STRUCTURAL STEEL FABRICATION AND ERECTION SHALL CONFORM TO THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION LATEST EDITION, UNLESS NOTED OTHERWISE.

16. THE SETTLEMENT PLATES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.

17. CONCRETE REVETMENT MATS SHALL HAVE A MINIMUM CONCRETE COMpressive STRENGTH OF 4,000 PSI.

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, EXISTING ELEVATIONS AND CONDITIONS SHOWN ON THE PLANS PRIOR TO ORDERING MATERIAL, COMMENCEMENT OF CONSTRUCTION, AND PREPARATION OF SHOP DRAWINGS. ENGINEER SHALL BE NOTIFIED OF ALL DISCREPANCIES.

2. THE CONTRACTOR SHALL DESIGN AND PROVIDE FOR ANY REQUIRED EXCAVATIONS AS SHOWN ON THE DRAWINGS AND INDICATED IN THE SPECIFICATIONS.

3. VERTICAL CONTROL: N.A.V.D. 88' DATUM

4. HORIZONTAL CONTROL: LOUISIANA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 83

5. DIMENSIONS AND/OR ELEVATIONS MARKED THUS (±) ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ACTUAL DIMENSIONS IN THE FIELD WITH THE PROJECT REPRESENTATIVE.

6. DETAILS MARKED (N.T.S.) ARE NOT SHOWN TO SCALE.

7. BENCHMARKS HAVE BEEN ESTABLISHED AT THE SITE BY THE OWNER. SEE SHEET 3 FOR BENCHMARK DESCRIPTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO ESTABLISH AND MAINTAIN TEMPORARY BENCHMARKS DURING CONSTRUCTION AS NEEDED.

8. LOCATION OF UTILITIES INDICATED ON THE PLAN SHEET ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED IN PART ON INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

9. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR'S NEGLIGENCE. THE DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

10. CONTRACTOR SHALL VISIT THE SITE OF WORK AND COMPLETELY INFORM HIMSELF RELATIVE TO CONSTRUCTION.


12. ALL STRUCTURAL STEEL SHALL BE ASTM A-36, UNLESS OTHERWISE NOTED.

13. ALL WELDING SHALL BE ELECTRIC WELDING. WORKMANSHIP AND TECHNIQUE, WHERE APPLICABLE, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE.

14. WELDING SYMBOLS SHOWN ARE THOSE ADOPTED BY THE AMERICAN WELDING SOCIETY AND INDICATE ONLY SIZE AND TYPE OF WELDS REQUIRED. DETAILED INFORMATION SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED BY THE CONTRACTOR FOR APPROVAL.

15. STRUCTURAL STEEL FABRICATION AND ERECTION SHALL CONFORM TO THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION LATEST EDITION. UNLESS NOTED OTHERWISE.

16. THE SETTLEMENT PLATES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.

17. CONCRETE REVETMENT MATS SHALL HAVE A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4,000 PSI.
### SUMMARY OF ESTIMATED QUANTITIES

#### BASE BID

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>ACTUAL</th>
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<tr>
<td>1</td>
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<td>2</td>
<td>Clamping &amp; Cutting the Desired to Hoopend</td>
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<td>3</td>
<td>Rough &amp; Finish Concrete Development Area</td>
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<td>4</td>
<td>Rough &amp; Parametric Concrete System (Perimeters/Columns System)</td>
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<td>6</td>
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### ALTERNATE NO. 1 BID

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TYPICAL SECTION
TREATMENT SYSTEM BETWEEN BANKS

NOTES:
1) CONSTRUCTION DRAWINGS ARE DEPICTED AT CONSTRUCTION ELEVATIONS.
2) ALL ELEVATION ARE IN NAVD 88
3) EXCAVATION MAY BE REQUIRED TO OBTAIN REQ'D. ELEVATIONS IN PLACEMENT OF CPE PIPE BUNDLES.

TYPICAL SECTION
TREATMENT SYSTEM TIE-IN TO BANKS

"AS-BUILTS"
1. THE CONTRACTOR SHALL BE ALLOWED TO REMOVE ONE MAT ELEMENT FOR THE PLACEMENT OF THE REVETMENT MAT OVER THE SETTLEMENT PLATE. (SEE DETAIL "A")

2. ONE SETTLEMENT PLATE SHALL BE INSTALLED ALONG THE CENTERLINE OF THE REVETMENT MAT STRUCTURE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT ENGINEER. APPROXIMATE LOCATIONS OF THE SETTLEMENT PLATES ARE SHOWN ON SHEETS 13, 14, & 15. ACTUAL LOCATIONS WILL BE DETERMINED IN THE FIELD. FOR INSTALLATION METHOD REFER TO THE PROJECT SPECIFICATIONS. SETTLEMENT PLATES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.

3. PIPE BUNDLES & MAT ENDS SHALL NOT END AT THE SAME LOCATION. MATS SHALL BE INSTALLED SO AS TO COVER THE AREAS WHERE PIPE BUNDLES MEET.

4. STAINLESS STEEL STRAPPING SHALL BE PLACED @ ENDS OF PIPES AND @ A MIN. OF 5' SPACING

5. PIPE JOINT LENGTH WILL BE AS AVAILABLE FROM MANUFACTURER.
1. The construction of the blowout treatments consists of woven geotextile fabric under concrete revetment mats (see sheets 13, 14, 15, 25, 26 & 27). Geotextiles shall be as per the technical specifications. Contractor shall place geotextiles in accordance with the technical specifications and as shown on the construction drawings.

2. Any seam parallel to blowout treatment centerline shall be sewn. The minimum overlap at the roll ends, perpendicular to breakwater centerline, shall be three feet for woven geotextiles. The typical geotextile width includes a 1' minimum overlap on each side of the breakwater.

All elevations are in NAVD 88.

*AS-BUILTS*
PLAN OF TYPICAL MODULE

DOUBLE SINUSOIDAL VINYL SHEET PILING

IN-FILL DREDGE MATERIAL TO ELEV. 1.0'

SCALE: 1" = 2'

DETAIL "A" PROFILE

SCALE: N.Y.S.

DETAIL "B" PLAN

SCALE: N.Y.S.

DETAIL "A" PLAN

SCALE: N.Y.S.

DETAIL "B" PLAN

SCALE: N.Y.S.

SLEEVE DETAIL

SCALE: N.Y.S.

TYPICAL ELEVATION

NOTE:

ALL ELEVATIONS ARE IN NAVD 88

"AS-BUILTS"
NOTES:

1. PLANTING TO BE (2) ROWS DEEP STAGGERED ROWS AS SHOWN.
2. EXACT LOCATION OF ALL PLANT ROWS WILL BE DETERMINED ON SITE BY DNR/CRD AND/OR ITS INSPECTOR.
3. ONE FERTILIZER TABLET SHALL BE PLACED APPROXIMATELY FOUR (4) TO SIX (6) INCHES TO THE SIDE OF EACH PLANT AS SPECIFIED.
4. TOP OF EACH PLANT'S ROOT MEDIA SHALL BE PLACED ONE INCH OR LESS BELOW THE FILL GRADE.
5. ALL DISTANCE MEASUREMENTS SHOWN ON THE PLANS ARE APPROXIMATE.
6. NO EQUIPMENT MAY ALTER THE EXISTING CONDITIONS OF THE AREA OR DISTURB EXISTING VEGETATION.
7. ALL ELEVATIONS ARE IN NAVD 88.
1) Exposed bolt threads shall be either tack welded to nuts, stripped, or damaged by other approved method to prevent easy removal.

2) Actual length will be determined by 8' fence sections.

3) All elevation are in NAVD 88.

4) Refer to sheet 9 for planting details.

TYPICAL SECTION
TREATMENT SYSTEM TIE-IN TO BANKS

TYPICAL FENCE DETAIL

G.I.W.W.

FENCING & PLANTING LAYOUT
1.) ALL ELEVATION ARE IN NAVD 88

2.) NAVIGATIONAL WARNING SIGN REQUIRED.

5' 7.5' 10'
2.5' 2.5'

SCALE: 1" = 5'

EXISTING CHANNEL BOTTOM (VARIES)

GEOTEXTILE FABRIC

GEOTEXTILE & GEOGRID OVERLAP BELOW CONCRETE REVETMENT MAT

3.) DREDGE MATERIAL TO BE CONSTRUCTED AT DIRECTION OF ENGINEER
2. ONE WARNING SIGN SHALL BE INSTALLED APPROXIMATELY 25 FEET IN FRONT OF EACH TREATMENT STRUCTURE (15 TOTAL) AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT ENGINEER. APPROXIMATE LOCATIONS OF THE WARNING SIGNS ARE SHOWN ON SHEETS 13 THRU 27. ACTUAL LOCATIONS WILL BE DETERMINED IN THE FIELD.

3. 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).

4. NEOPRENE WASHERS SHALL BE PLACED BETWEEN THE SIGN AND THE PILING AT ALL POINTS OF CONTACT.

5. HARDWARE FOR TIMBER CONNECTIONS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH SECTION 811.15 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS PUBLISHED BY THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, LATEST EDITION.

6. TIMBER PILES SHALL CONFORM TO SECTIONS 804 AND 1014 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS PUBLISHED BY THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, LATEST EDITION. PILES SHALL BE TREATED WITH A CREDOSOTE SOLUTION CONFORMING TO AWPA P2 TO A MINIMUM RETENTION OF 16 PCF.

7. TIMBER PILING SHALL BE 40 FEET IN LENGTH WITH A 12-INCH DIAMETER BUTT AND 7-INCH DIAMETER AT THE TIP.

8. EXPOSED BOLT THREADS SHALL BE EITHER TACK WELDED TO NUTS, STRIPPED, OR DAMAGED BY OTHER APPROVED METHOD TO PREVENT EASY REMOVAL.
G.I.W.W. BLOWOUT STRUCTURE NO. 2 (R2)
SEE SHEET NO. 14

G.I.W.W. BLOWOUT STRUCTURE NO. 1 (R1)
SEE SHEET NO. 13

REVETMENT MAT
EXISTING BOTTOM
MARSH

WARNING SIGN (TYP.)
SEE SHEET 12

STRAIGHT WALLED FIBERGLASS SHEET PILE SYSTEM
SEE SHEET 7 & 8

TREATMENT LIMITS
X = 3,456,528.65
Y = 376,649.38

TREATMENT LIMITS
X = 3,456,912.85
Y = 376,628.07

STRAIGHT WALLED FIBERGLASS SHEET PILE SYSTEM
ELEV. +2.0

WARNING SIGN (TYP.)
ELEV. +0.70' MLW

HIGH BANK ELEV.
BANK BOTTOM ELEV.
ELEVATION @ CENTER OF TEXT

EXISTING GROUND
MARSH
SPoil
TREES

VEGETATED BANK LINE
SCATTERED TREES

VEGETATED BANK LINE
EXISTING SCATTERED TREES

TREATMENT LENGTH 612.0'
±286'
20.0' (MIN.)

X = 3,455,912.85
Y = 376,628.07

X = 3,456,524.54
Y = 376,647.38

TOP OF BANK
BOTTOM OF BANK
EXISTING BOTTOM
EXISTING TIMBER
TREATED TIMBER
4X6' WALER

AS-BUILTS

DESIgned by:
DRAwN by:
CHECKED by:
DATE:

ENGINEERS - SCIENTISTS - PLANNERS - ENVIRONMENTAL CONSULTANTS

MAIN OFFICE LOCATION:
WITH OFFICES IN

STATE PROJECT NO. TE-41
TERREBONNE PARISH, LOUISIANA
MANDALAY BANK PROTECTION DEMO PROJECT
FEDERAL PROJECT NO. XTE-Demo
LOUISIANA DEPARTMENT OF NATURAL RESOURCES

SOLICITATION NO.
SUBMITTED BY:
DESIGN ENGINEER
MARK
DESCRIPTION

D.C.S.
J.M.P.
R.A.P.
NOV. 2001
1"=100'
12/03/01

1"=80'

HORIZONTAL SCALE: 1" = 80'
VERTICAL SCALE: 1" = 10'

0 40 80 120 160
0 5 10 15 20

+1.94'
+0.70' MLW
+1.07' MLW
+1.05' MHW
DOUBLE ROW 24" CONCRETE ARMOR UNITS

GIANT CUTGRASS

OFF-BANK TREATMENT NO. 2 (O2)
SEE SHEET NO. 20

ALL ELEVATIONS ARE IN NAVD 88

EXISTING BROKEN MARSH

CONCRETE ARMOR UNITS
OFF-BANK TREATMENT NO. 3 (O3)
SEE SHEET NO. 29

0.0 1.8 0.8

G.I.W.W.

"AS-BUILTS"

VEGETATED BANK LINE

+1.78' ELEVATION AT TOP OF ARMOR UNITS

WARNING SIGN

STATE PROJECT NO. TE-41
TERREBONNE PARISH, LOUISIANA
MANDALAY BANK PROTECTION DEMO PROJECT
FEDERAL PROJECT NO. XTE-Demo
LOUISIANA DEPARTMENT OF NATURAL RESOURCES
CONCRETE ARMOR UNITS
WITH GIANT CUTGRASS
OFF-BANK TREATMENT NO. 2 (F2)
SEE SHEET NO. 21
X = 3,449,489.63
Y = 376,343.58

GIANT CUTGRASS
SEE SHEET 9

VEGETATED BANK LINE

FENCING
SEE SHEET 10

EXISTING TREES

GIANT CUTGRASS
SEE SHEET 9

"AS-BUILTS"

X = 3,449,901.65
Y = 376,448.47

X = 3,449,853.55
Y = 376,428.42

+1.78' ELEVATION AT TOP OF FENCE

LEGEND

= EXISTING GROUND

= MARSH

= SPOIL

= TREES

= ELEVATION @ CENTER OF TEXT

= HIGH BANK ELEV.

= BANK BOTTOM ELEV.

= FENCING

= GIANT CUTGRASS

= WARNING SIGN

NOTE

ALL ELEVATIONS ARE IN NAVD 88

SCALE: 1" = 50'

DESIGNED BY: DRAWN BY: CHECKED BY: DATE: PLOTPLOT

SOLICITATION NO. DESIGN FILE NAME:

ENGINEERS - SCIENTISTS - PLANNERS - ENVIRONMENTAL CONSULTANTS

MAIN OFFICE LOCATION: WITH OFFICES IN

STATE PROJECT NO. TE-41
TERREBONNE PARISH, LOUISIANA
MANDALAY BANK PROTECTION DEMO PROJECT
FEDERAL PROJECT NO. XTE-Demo
LOUISIANA DEPARTMENT OF NATURAL RESOURCES

DESCRIPTION
APPR. DATE MARK
APPR. DATE

SUBMITTED BY: DESIGN ENGINEER

DESCRIPTION

"AS-BUILTS"
TIE-INTO CONCRETE ARMOR UNIT W/ GIANT CUTGRASS OFF-BANK TREATMENT NO. 3 (J3) SHEET NO. 21

8' X 20' REVETMENT MATS ELEV. +4.0' SEE SHEET 11

WARNING SIGN (TYP.) SEE SHEET 12

8' X 20' REVETMENT MATS ELEV. +3.5' SEE SHEET 11

WARNING SIGN (TYP.)

EXISTING BOTTOM

MARSH

TREATMENT

X = 3,449,280.50
Y = 376,095.94

X = 3,449,229.73
Y = 376,076.18

TIE-INTO FENCING W/ GIANT CUTGRASS OFF-BANK TREATMENT NO. 3 (F3) SHEET NO. 24

WARNING SIGN

EXISTING BOTTOM

MARSH

8' X 20' REVETMENT MATS ELEV. +3.5' SEE SHEET 11

WARNING SIGN (TYP.)

EXISTING BOTTOM

MARSH

TREATMENT

X = 3,449,096.19
Y = 376,015.63

X = 3,449,157.80
Y = 376,040.87

VEGETATED BANK LINE

G.I.W.W.

TIE-INTO CONCRETE ARMOR UNIT W/ GIANT CUTGRASS OFF-BANK TREATMENT NO. 3 (J3) SHEET NO. 21

8' X 20' REVETMENT MATS

WARNING SIGN

EXISTING BOTTOM

MARSH

TREATMENT

X = 3,449,280.50
Y = 376,095.94

X = 3,449,229.73
Y = 376,076.18

TIE-INTO FENCING W/ GIANT CUTGRASS OFF-BANK TREATMENT NO. 3 (F3) SHEET NO. 24

WARNING SIGN

EXISTING BOTTOM

MARSH

8' X 20' REVETMENT MATS ELEV. +3.5' SEE SHEET 11

WARNING SIGN (TYP.)

EXISTING BOTTOM

MARSH

TREATMENT

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Y = 376,015.63

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VEGETATED BANK LINE

G.I.W.W.

TIE-INTO CONCRETE ARMOR UNIT W/ GIANT CUTGRASS OFF-BANK TREATMENT NO. 3 (J3) SHEET NO. 21

8' X 20' REVETMENT MATS

WARNING SIGN

EXISTING BOTTOM

MARSH

TREATMENT

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8' X 20' REVETMENT MATS

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8' X 20' REVETMENT MATS

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TIE-INTO CONCRETE ARMOR UNIT W/ GIANT CUTGRASS OFF-BANK TREATMENT NO. 3 (J3) SHEET NO. 21

8' X 20' REVETMENT MATS

WARNING SIGN

EXISTING BOTTOM

MARSH

TREATMENT

X = 3,449,096.19
Y = 376,015.63

X = 3,449,157.80
Y = 376,040.87

VEGETATED BANK LINE

G.I.W.W.

TIE-INTO CONCRETE ARMOR UNIT W/ GIANT CUTGRASS OFF-BANK TREATMENT NO. 3 (J3) SHEET NO. 21

8' X 20' REVETMENT MATS

WARNING SIGN

EXISTING BOTTOM

MARSH

TREATMENT

X = 3,449,280.50
Y = 376,095.94

X = 3,449,229.73
Y = 376,076.18

VEGETATED BANK LINE

G.I.W.W.
STRAIGHT WALLED FIBERGLASS SHEET PILE SYSTEM
BLOW-OUT STRUCTURE NO. 3 (V3)
SEE SHEET NO. 1B

OPEN WATER

EXISTING TREES

G.I.W.W.

-2.7

-1.7

1.8

-0.3

1.6

-0.4

1.6

-0.2

1.9

0.1

1.8

-0.7

1.7

-1.1

2.8

1.7

0.9

2.3

-2.0

VEGETATED BANK LINE

WELL SLIP

WARNING SIGN

(TYP.)

WARNING SIGN (TYP.)

SEE SHEET 12

MARSH

TOP OF BANK

BOTTOM OF BANK

EXISTING BOTTOM

WARNING SIGN

(TYP.)

SEE SHEET 12

8' X 20' REVETMENT MATS

ELEV. +3.5'

SECTION B-B

SECTION A-A

EXISTING GROUND

MARSH

SPOIL

TREES

ELEVATION @ CENTER OF TEXT

HIGH BANK ELEV.

BANK BOTTOM ELEV.

WARNING SIGN

"AS-BUILTS"

NOTE

1. "AS-BUILT" SURVEY DATA FOR THIS STRUCTURE SUPPLIED BY CONTRACTOR.

2. ARMORED PLUG LAYOUT POSITIONING IS APPROXIMATE.

ALL ELEVATIONS ARE IN NAVD 88

"AS-BUILTS"
All elevations are in NAVD 88.
"AS-BUILTS"

NOTES:
- ALL ELEVATIONS ARE IN NAVD 88
LEGEND

BORROW AREAS FOR SHEET PILING DREDGE FILL.
BORROW AREAS TO BE NEAREST TO CENTER LINE OF G.I.W.W. AND NOT TO EXCEED 2.0' DEPTH
BORROW AREAS TO BE NEAREST TO CENTER LINE OF G.I.W.W. AND NOT TO EXCEED 7.0' DEPTH

2' DEPTH TO BE STRIPPED

EXISTING BOTTOM OF G.I.W.W.

"AS-BUILTS"

NOTE:
ALL ELEVATIONS ARE IN NAVD 88

VERTICAL SCALE: 1" = 6'
NOTES:

1) ALL ELEVATIONS ARE IN NAVD 88
2) ALL TREATMENT CONSTRUCTION SHALL BE ACCESSED DIRECTLY FROM G.I.W.W.
3) FLOATATION CHANNELS ARE ALLOWED FOR BLOWOUT TREATMENT AND ARMORED PLUG LOCATIONS ONLY. THESE INCLUDE SITES V1-V3, RI-R3, AND A1-A3. NO FLOATATION CHANNELS ARE TO BE DREDGED FOR OFF-BANK TREATMENT SITES.
4) ONE PERPENDICULAR AND ONE PARALLEL FLOATATION CHANNEL IS ALLOWED FOR SITES LISTED IN NOTE 3 AND AS SHOWN IN THE PLAN VIEW. THE PARALLEL CHANNEL MUST BE AT LEAST 40 FEET FROM THE EDGE OF THE STRUCTURE.
5) SHOULD THE CONTRACTOR REQUIRE FLOATATION CHANNEL, THE COST FOR THIS ITEM MUST BE INCLUDED IN THE COST OF THE STRUCTURE FOR EACH AND EVERY TREATMENT SITE AND/OR LOCATION THAT SHALL BE REQUIRED.
6) NO EMERGENT MARSH IS TO BE DAMAGED DURING DREDGING OPERATIONS.

TYPICAL SECTION A-A

"AS-BUILTS"