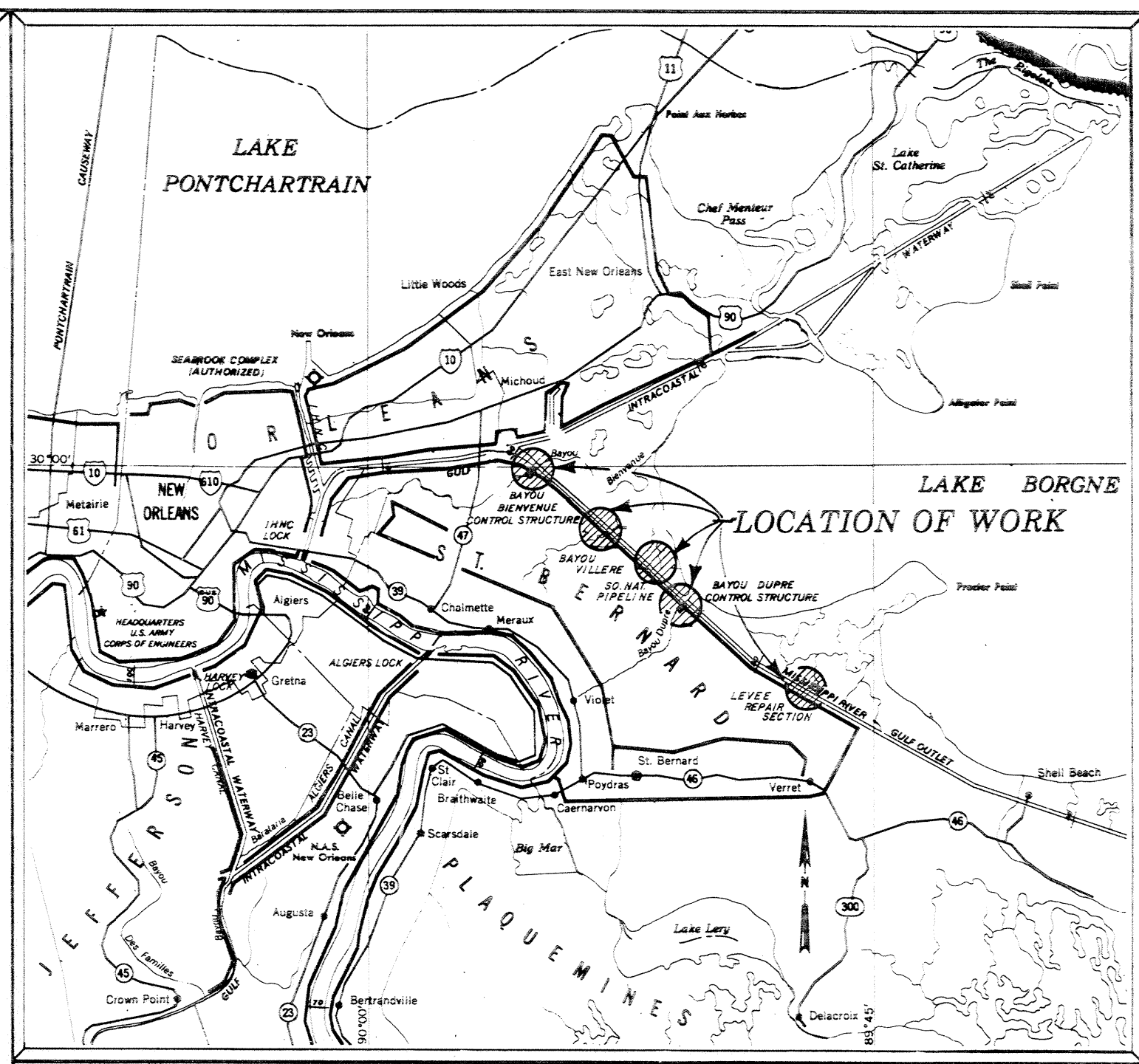


VICINITY MAP
SCALE 1:506,880
0 10 20 30 40 50 Miles

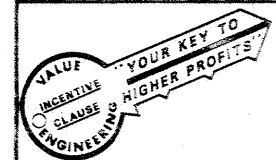


LOCATION MAP
SCALE OF MILES
0 2 4 6 8 10 Miles

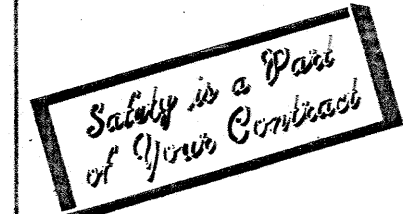
INDEX TO DRAWINGS	
DWG.	DESCRIPTION
1	INDEX TO DRAWING, LOCATION MAP & VICINITY MAP
2	PLAN & PROFILE STA. 367+60 B/L TO STA. 460+00 B/L
3	PLAN & PROFILE STA. 460+00 B/L TO STA. 600+00 B/L
4	PLAN & PROFILE STA. 600+00 B/L TO STA. 730+00 B/L
5	PLAN & PROFILE STA. 730+00 B/L TO STA. 870+00 B/L
6	PLAN & PROFILE STA. 870+00 B/L TO STA. 1005+49.18 B/L
7	AREA DETAIL - BAYOU BIENVENUE
8	AREA DETAIL - BAYOU VILLERE
9	AREA DETAIL - SOUTHERN NATURAL PIPELINE
10	AREA DETAIL - BAYOU DUPRE
11	AREA DETAIL - LEVEE REPAIR SECTION
12	DESIGN SECTIONS - BAYOU BIENVENUE
13	DESIGN SECTIONS - BAYOU VILLERE
14	DESIGN SECTIONS - SOUTHERN NATURAL PIPELINE
15	DESIGN SECTIONS - BAYOU DUPRE
16	DESIGN SECTIONS - LEVEE REPAIR SECTION
17	HYDROGRAPHS
18	SOIL BORING LOGS
18A	BORROW AREA BORINGS
19	SOIL BORING LEGEND

TABULATION OF BENCH MARK	
B. M.	EL. LOCATION AND DESCRIPTION
BB-3	5.62 MARK IS TOP OF A 1 1/2" GALVANIZED PIPE SET TO A DEPTH OF 105' ENCASED IN A 3" GALVANIZED PIPE MARK IS LOCATED 154' NORTHWEST OF BAYOU BIENVENUE CANAL 297' NORTHWEST OF STRUCTURE P.B.M. IS PROTECTED BY 3-1/2" GUARD PIPE PAINTED YELLOW. (SEE DWG. 7 FOR BENCH MARK LOCATION).
"TED" (1974)	7405 MARK IS TOP OF A 1 1/2" GALV. CAP SET ON A 1 1/2" PIPE DRIVEN TO A DEPTH OF 105 FT. ENCASED IN A 3" GALV. PIPE. MARK IS LOCATED 105 FT. EAST OF BAYOU DUPRE; 282 FT. SOUTH OF STRUCTURE, ON THE EAST BANK OF BAYOU DUPRE CANAL. MARK IS PROTECTED BY 3-1/2" GALV. PIPE PAINTED YELLOW.

NOTE:
DRAWINGS IN THIS FOLIO
HAVE BEEN REDUCED ONE
HALF THE ORIGINAL SCALE



CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES MR-GO B/L STA 367+60 TO 1005+49



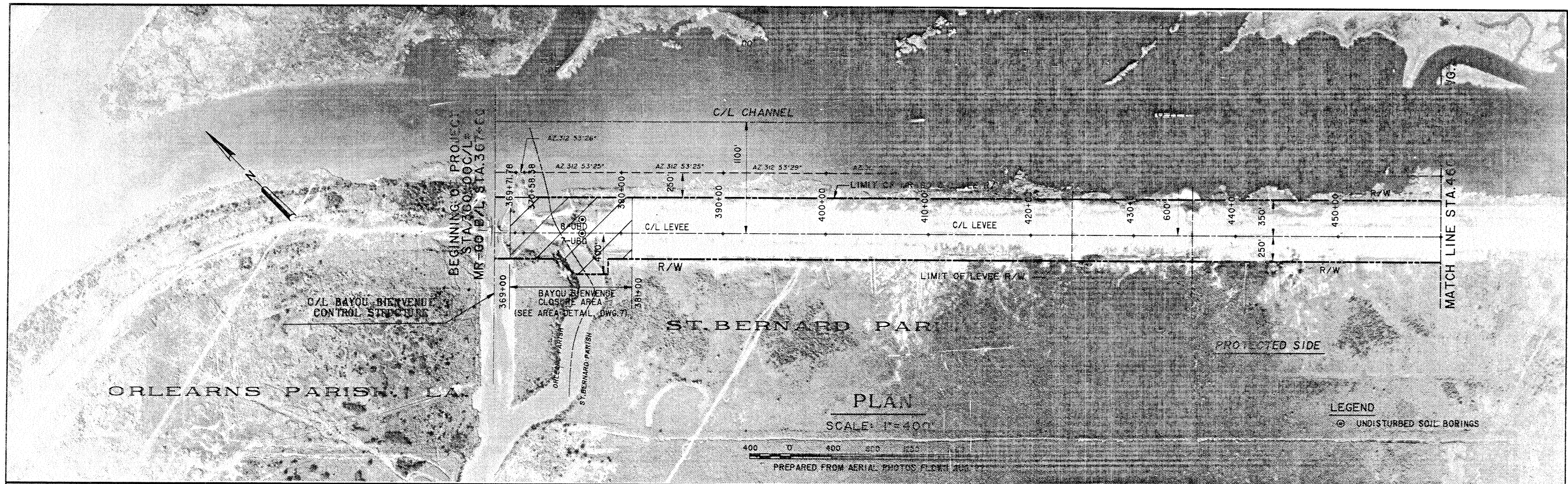
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LA.

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
CHALMETTE AREA PLAN
HURRICANE PROTECTION LEVEE CLOSURES
(MR-GO B/L STA 367+60 TO STA. 1005+49)
ST. BERNARD PARISH, LA.

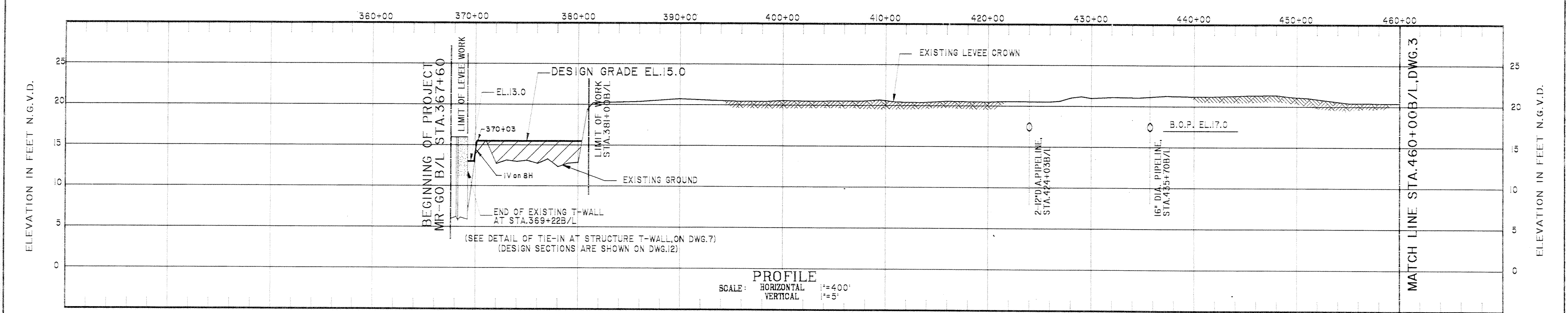
LOCATION MAP, VICINITY MAP
AND INDEX TO DRAWINGS

DESIGNED	DRAWN	CHECKED	DATE	SCALE	FILE NO.
T.W.W.	T.W.W.	R.P.L.	JAN. 1987	AS SHOWN	H-8-30139
SUPERVISOR	ENGINEER	ENGINEER			

DACW29-87-B-0014



PROFILE ALONG CENTERLINE OF LEVEE



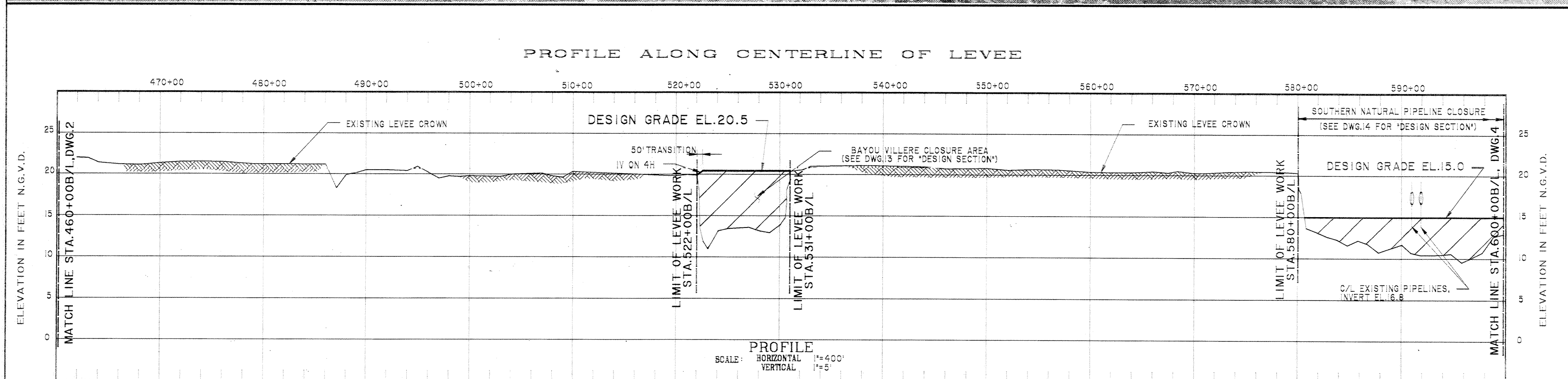
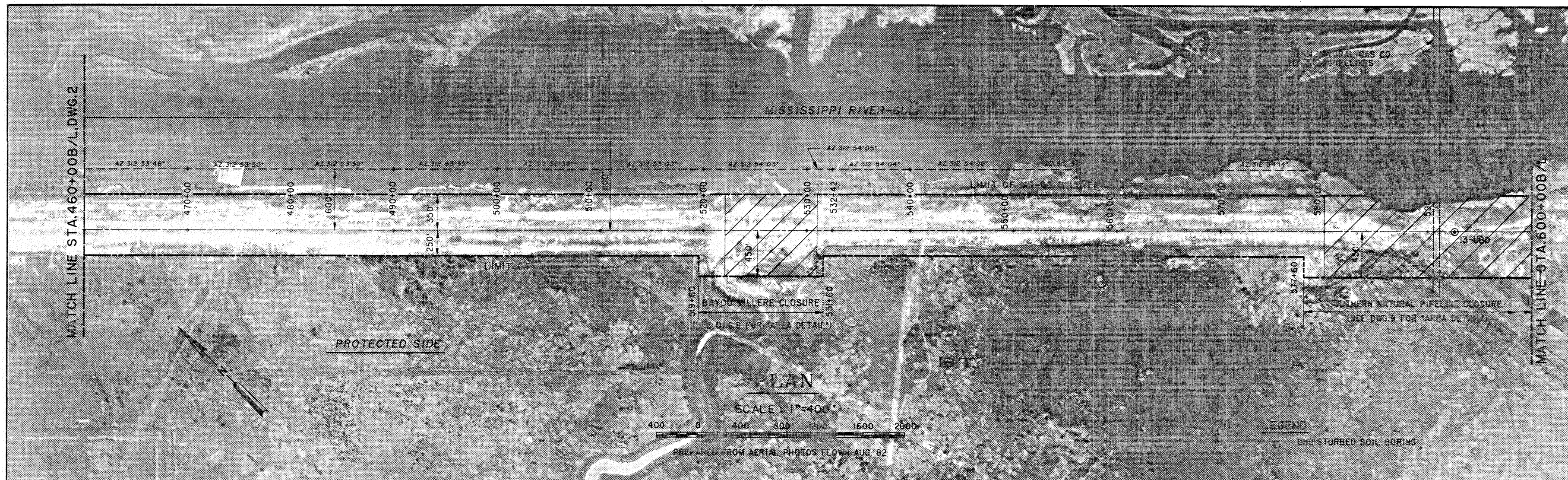
GENERAL NOTES

1. ALL AZIMUTHS ARE TRUE AZIMUTHS IN A CLOCKWISE DIRECTION FROM 0 (DUE SOUTH)
2. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE EXPRESSED IN FEET AND REFER TO NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.)
3. SEE DWG. 1 FOR THE DESCRIPTION AND LOCATION OF BENCH MARKS.
4. BORROW EXCAVATION SHALL START AT THE BACK SIDE OF THE BORROW AREA AND SHALL BE EXCAVATED IN SUCH A MANNER THAT NO AREA OF BORROW SHALL BE BY-PASSED OR ISOLATED. AFTER CONSTRUCTION IS COMPLETE, THE REMAINING BORROW WILL BE LEFT IN A UNIFORM ALIGNMENT THAT WILL BE EASILY ACCESSIBLE FOR FUTURE WORK. THE CONTRACTOR'S PLAN AND SEQUENCE OF BORROW EXCAVATION SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO ANY EXCAVATION.
5. ALL THE R/W AND BORROW AREA LINES ARE PARALLEL TO OR PERPENDICULAR WITH THE LEVEE C/L, UNLESS OTHERWISE INDICATED.
6. SOIL BORING LOGS ARE SHOWN ON DWG. 18
7. SETTLEMENT GAGE DETAIL IS SHOWN ON DWG. 16
8. FOR LIMITS OF AVAILABLE BORROW, SEE AREA DETAIL DWGS. 7 THRU 11
9. MR-60 BASELINE AND LEVEE CENTERLINE ARE PARALLEL AND THE STATIONS ARE THE SAME.
10. GROUND ELEVATIONS AT LEVEE CLOSURES WERE TAKEN FROM FIELD SURVEY JOB 85-79
11. MATERIAL IN THE BORROW AREA THAT IS FARTHEST FROM THE NEW LEVEE CENTERLINE SHALL BE EXCAVATED FIRST, AND EACH SUCCESSIVE BORROW CUT SHALL ADVANCE NEARER THE NEW LEVEE
12. CLOSURE CONSTRUCTION OPERATION MAY REQUIRE MULTIPLE HANDLING.

REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-60 B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA. PLAN AND PROFILE STA. 367+60B/L TO STA. 460+00B/L			
DESIGNED BY:	T. WRIGHT	DATE:	JAN. 1987
DRAWN BY:	T. WRIGHT	PLOT SCALE:	AS SHOWN
CHECKED BY:	R. P. LEE	DESIGN FILE:	H-8-30139
SUBMITTED:		SPEC. NO.	DACW29 87-B-0014
		FILE NO.	DWG. 2 OF 19

ACT PAR MOD. H-8-30139.PRP2
ACT DRA 1

COMPUTER
AIDED
DESIGN
DRAFTING

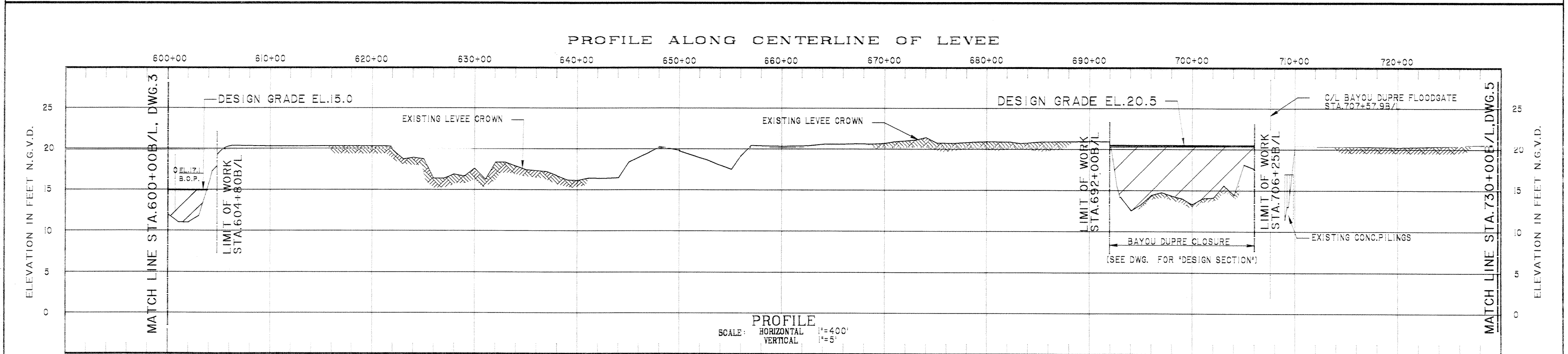
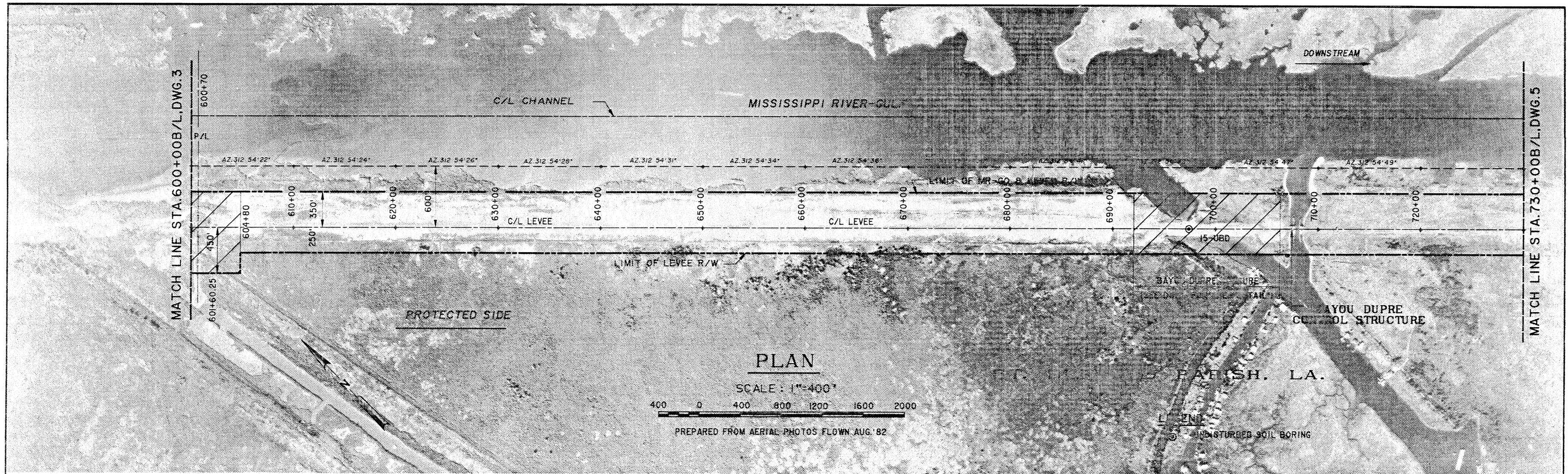


- NOTES:
1. FOR GENERAL NOTES, SEE DWG. 2
 2. FOR LIMITS OF AVAILABLE BORROW AREA, SEE DWGS. 8 AND 9
 3. SOIL BORING LOGS ARE SHOWN ON DWG. 18
 4. C/L PROFILE, EXCEPT AT GAP CLOSURES WAS EXTRACTED FROM LEVEE CONTRACT NO. 85-C-025 FINAL SECTIONS
 5. MAKE SMOOTH 50' TRANSITION BETWEEN DESIGN GRADE CHANGES AT SOUTHERN NATURAL PIPELINE CLOSURE

MOD. H-8-30139.P8P3B
ACT. DRA. 1

COMPUTER
AIDED
DESIGN
DRAFTING

REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA.			
PLAN AND PROFILE STA. 460+00B/L TO STA. 600+00B/L			
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30139
DRAWN BY: T. WRIGHT	DESIGN FILE:		
CHECKED BY: R. P. LEE	SPEC. NO. DACW29 87-B-0014		DWG. 3 OF 19

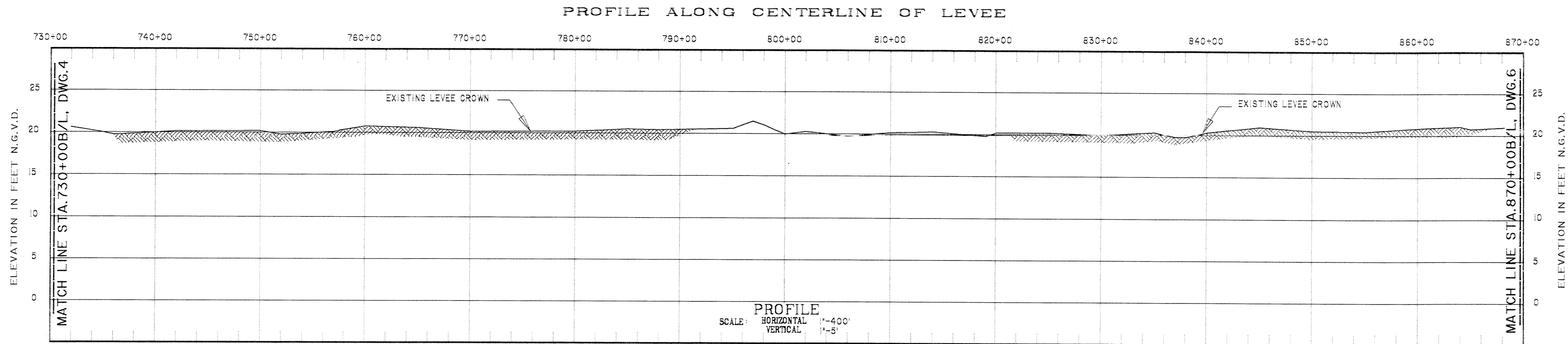
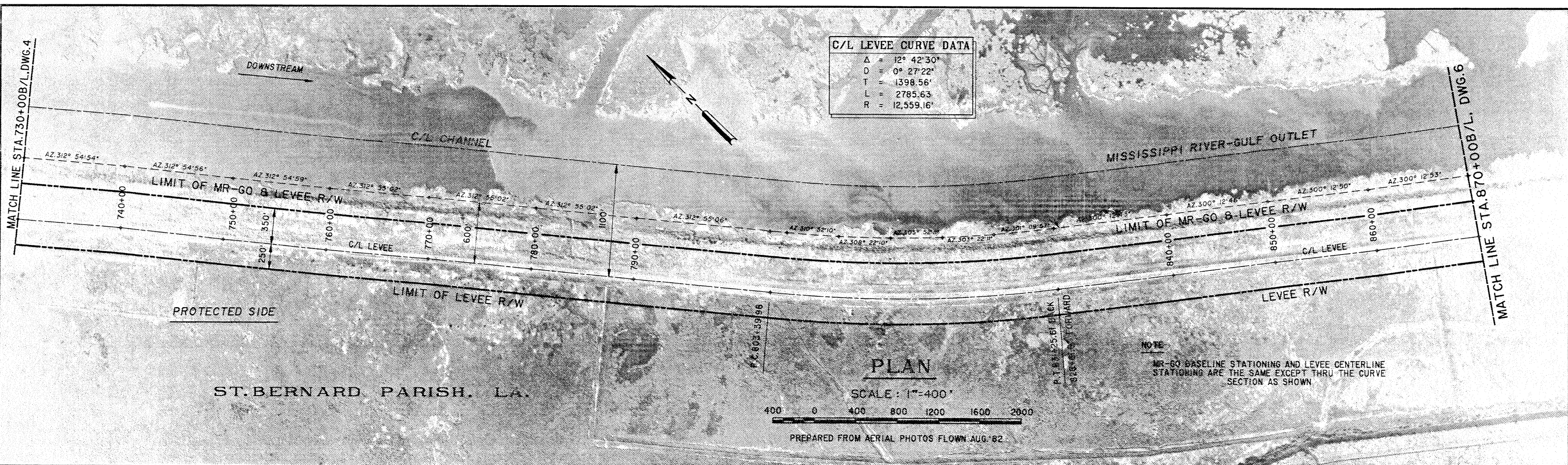


- NOTES:
1. FOR GENERAL NOTES, SEE DWG. 2
 2. FOR LIMITS OF AVAILABLE BORROW AREA, SEE DWG. 9 AND 10
 3. SOIL BORING LOGS ARE SHOWN ON DWG. 18
 4. SOUTHERN NATURAL PIPELINE CLOSURE WORK AREA IS ALSO SHOWN ON DWG. 3
 5. C/L PROFILE WAS EXTRACTED FROM CONTRACT NO. 85-C-0125 FINAL SECTIONS BETWEEN STAS. 604+00 TO 692+00

REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 36+00 TO STA. 973+00) ST. BERNARD PARISH, LA.			
PLAN AND PROFILE STA. 600+00B/L TO STA. 730+00B/L			
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30139
DRAWN BY: T. WRIGHT	CHECKED BY: R. P. LEE	DESIGN FILE:	
SUBMITTED:	SPEC. NO. DACW29 87-B-0014	DWG. 4	OF 19

ACT PAR MOD. H-8-30139.P8P4
ACT DRA 1



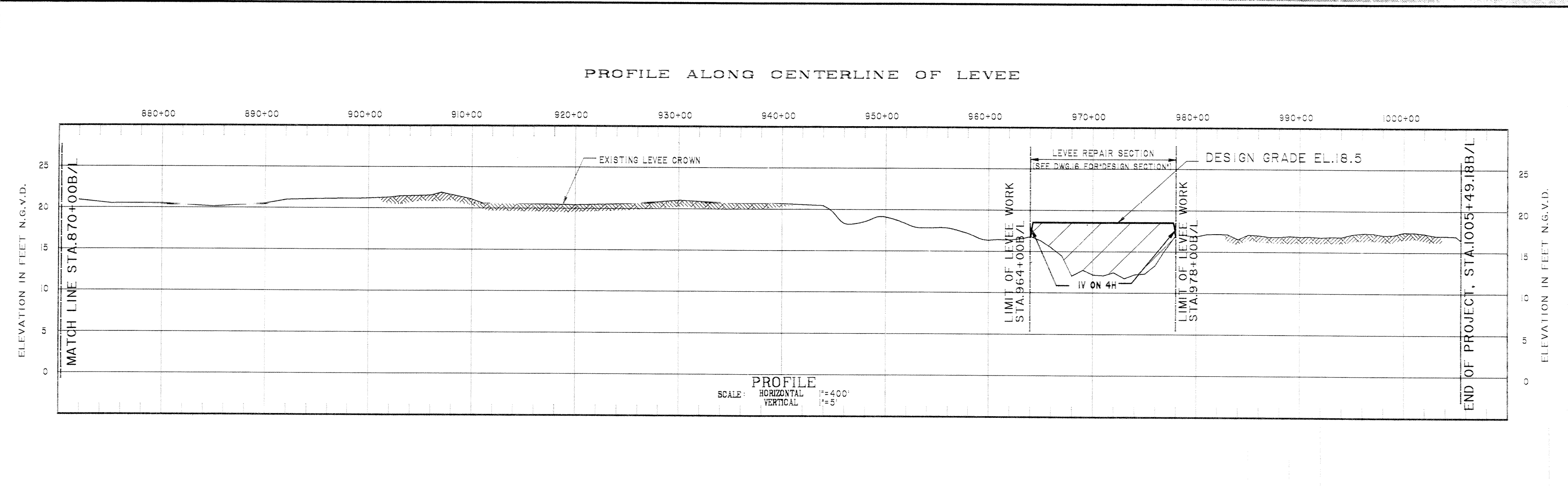
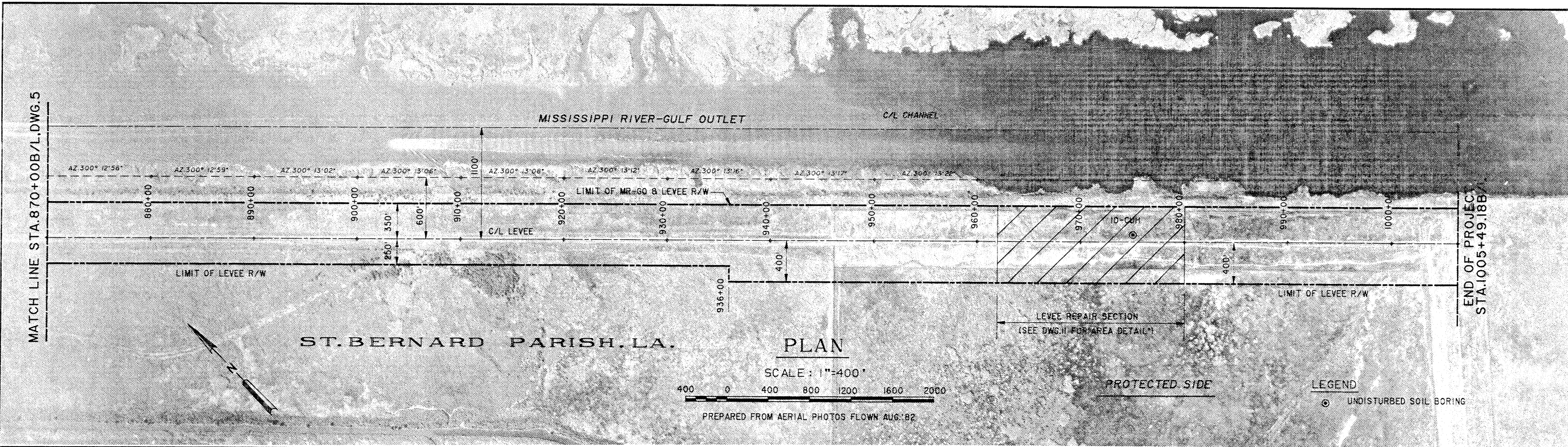


- NOTES:
1. FOR GENERAL NOTES, SEE DWG. 2
 2. NO WORK SITES ARE LOCATED WITHIN THESE STATIONS

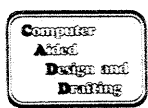
REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA.			
PLAN AND PROFILE STA. 730+00B/L TO STA. 870+00B/L			
DESIGNED BY:	T. WRIGHT	DATE:	JAN. 1987
DRAWN BY:	T. WRIGHT	PLOT SCALE:	AS SHOWN
CHECKED BY:	R. P. LEE	DESIGN FILE:	
SUBMITTED:		SPEC. NO.:	DACW 29 87-B-0014
			FILE NO. H-8-30139
			DWG. 5 OF 19

ACT PART MOD. H-8-30139.PRP-5
ACT DRA 1

COMPUTER
AIDED
DESIGN
DRAFTING

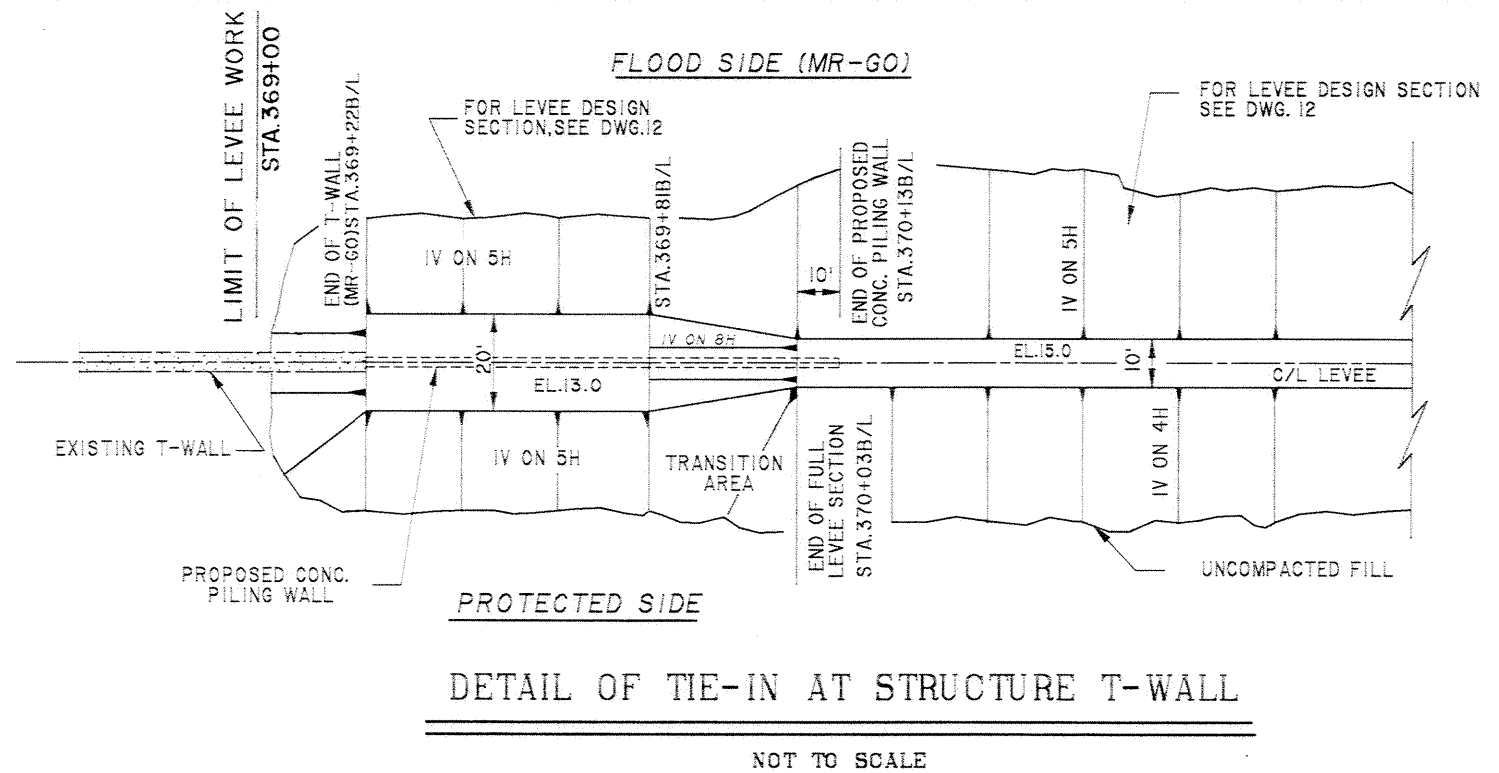
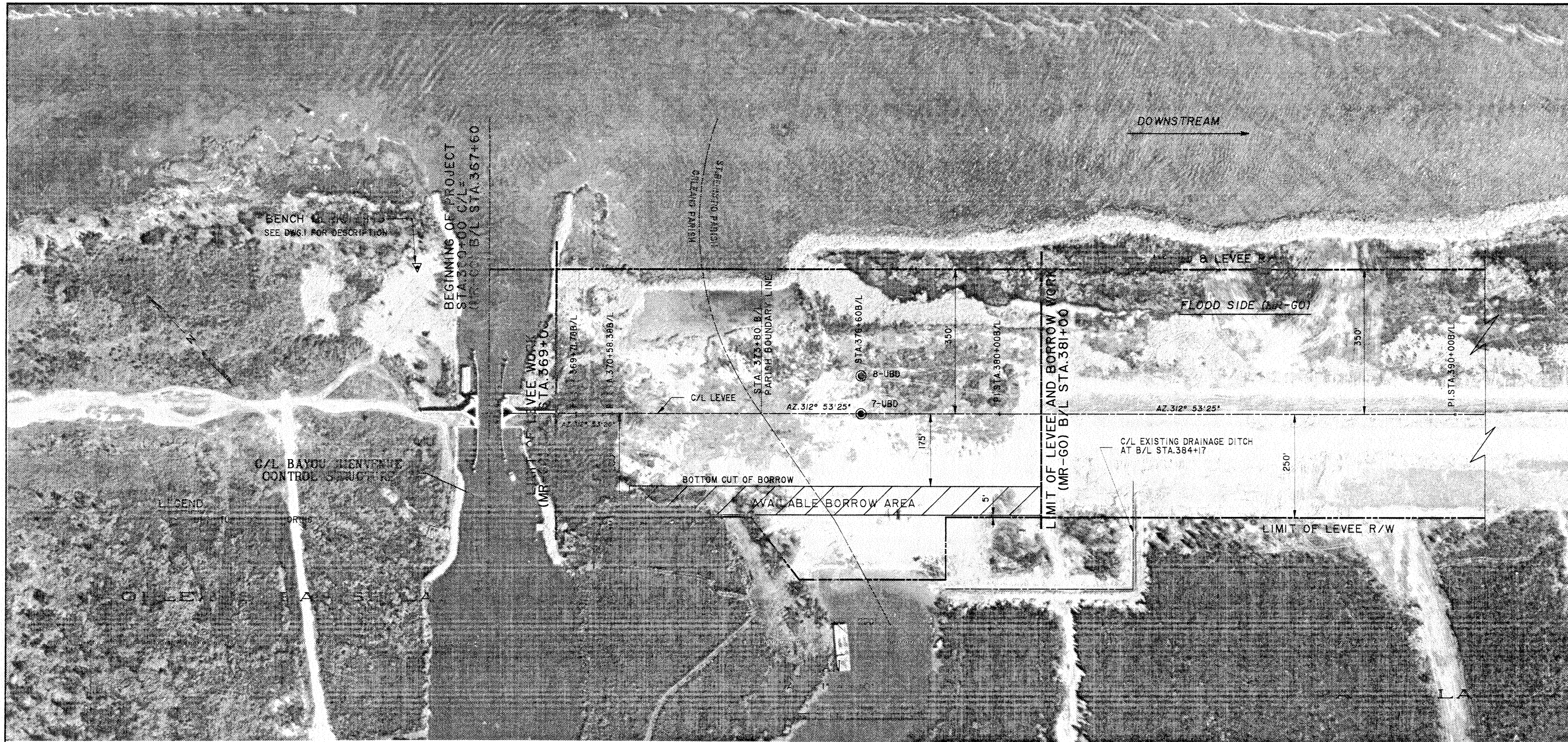


ACT PART MOD.H-8-30139.P81*6
ACT DRA 1



- FOR GENERAL NOTES, SEE DWG. 2
- SURVEY JOB 85-178 WAS USED FOR EXISTING GROUND PROFILE BETWEEN STAS. 945+00 TO 1005+00 INSERT

REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA.			
PLAN AND PROFILE STA. 870+00B/L TO STA. 1005+49.18B/L			
DESIGNED BY: T.WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30139
DRAWN BY: T.WRIGHT	CHECKED BY: R.P. LEE	DESIGN FILE:	
SUBMITTED:	SPEC. NO.:		
DACW29 87-B-0014			DWG. 6 OF 19

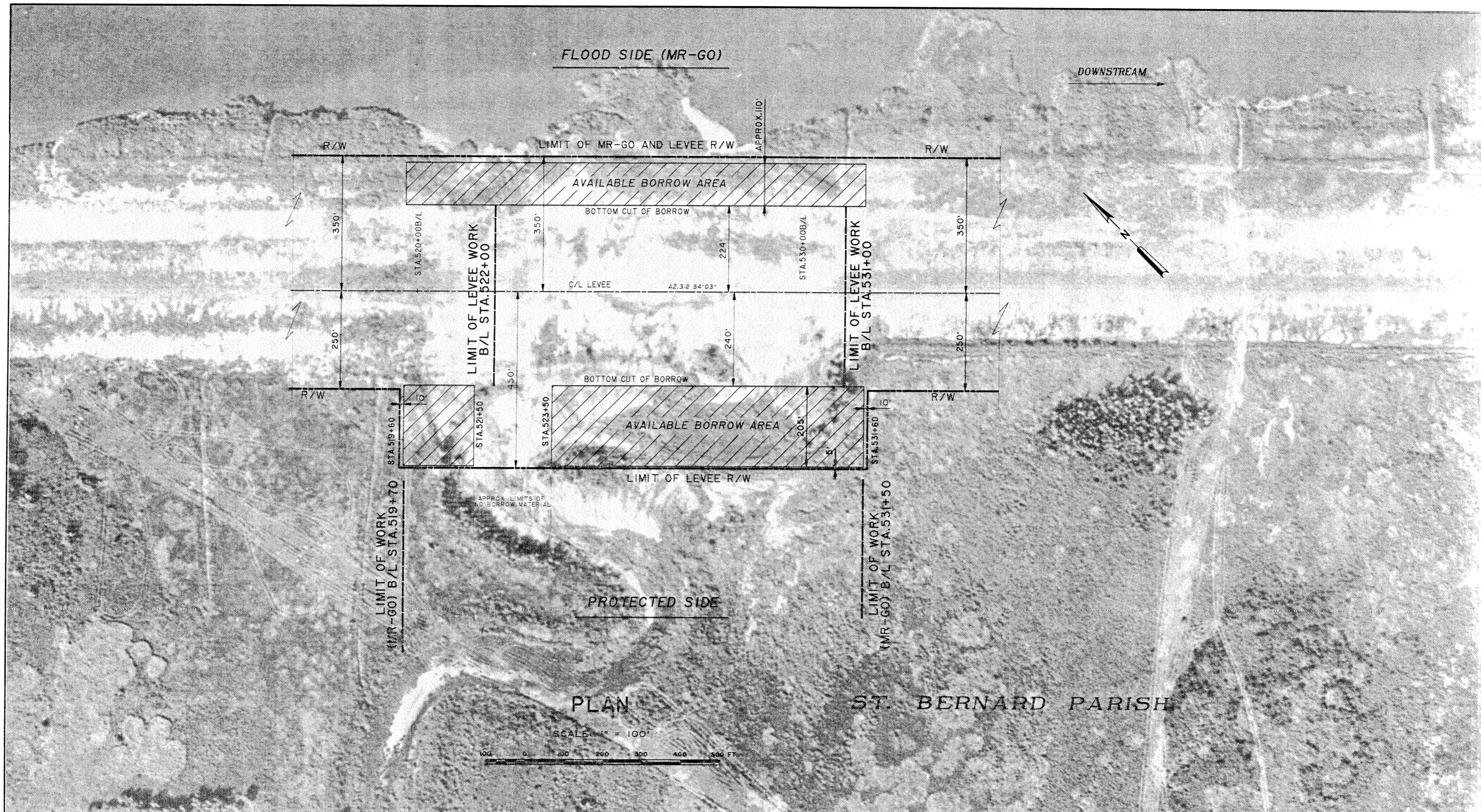


NOTE:
 THE CONTRACTOR, IN ORDER TO ELIMINATE PONDING IN THE BORROW AREA, SHALL CONSTRUCT AN INTERIOR DITCHING PATTERN THAT WILL PROVIDE DRAINAGE TO EITHER AN EXISTING CANAL OR TO THE LOWEST ELEVATION WITHIN THE BORROW R/W LIMITS.

ACT PART MOD. BIENVENUE PLAN
 ACT DRA 1



REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA BAYOU BIENVENUE CLOSURE (FIRST ENLARGEMENT) AREA DETAIL			
DESIGNED BY:	T. WRIGHT	DATE:	JAN. 1987
DRAWN BY:	T. WRIGHT	PLOT SCALE:	AS SHOWN
CHECKED BY:	R. P. LEE	DESIGN FILE:	H-8-30139
SUBMITTED:		SPEC. NO.:	DACW29 87-B-0014
		DWG. NO.:	7 OF 19



FLOOD SIDE (MR-GO)

DOWNSTREAM



PLAN

ST. BERNARD PARISH

SCALE 1" = 100'



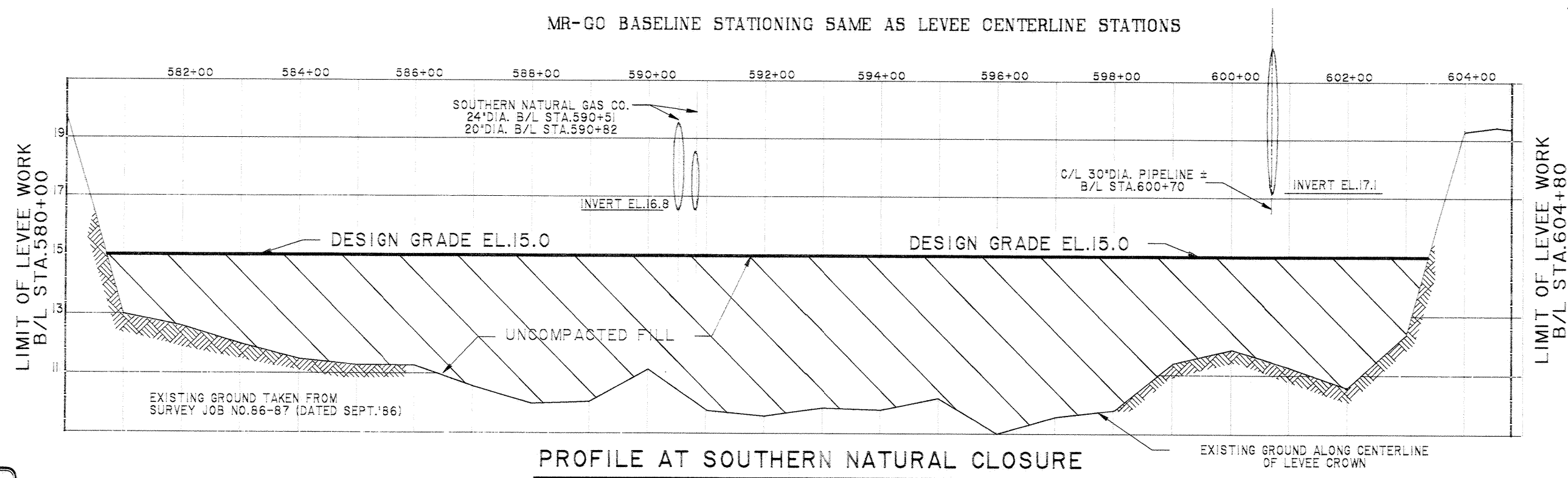
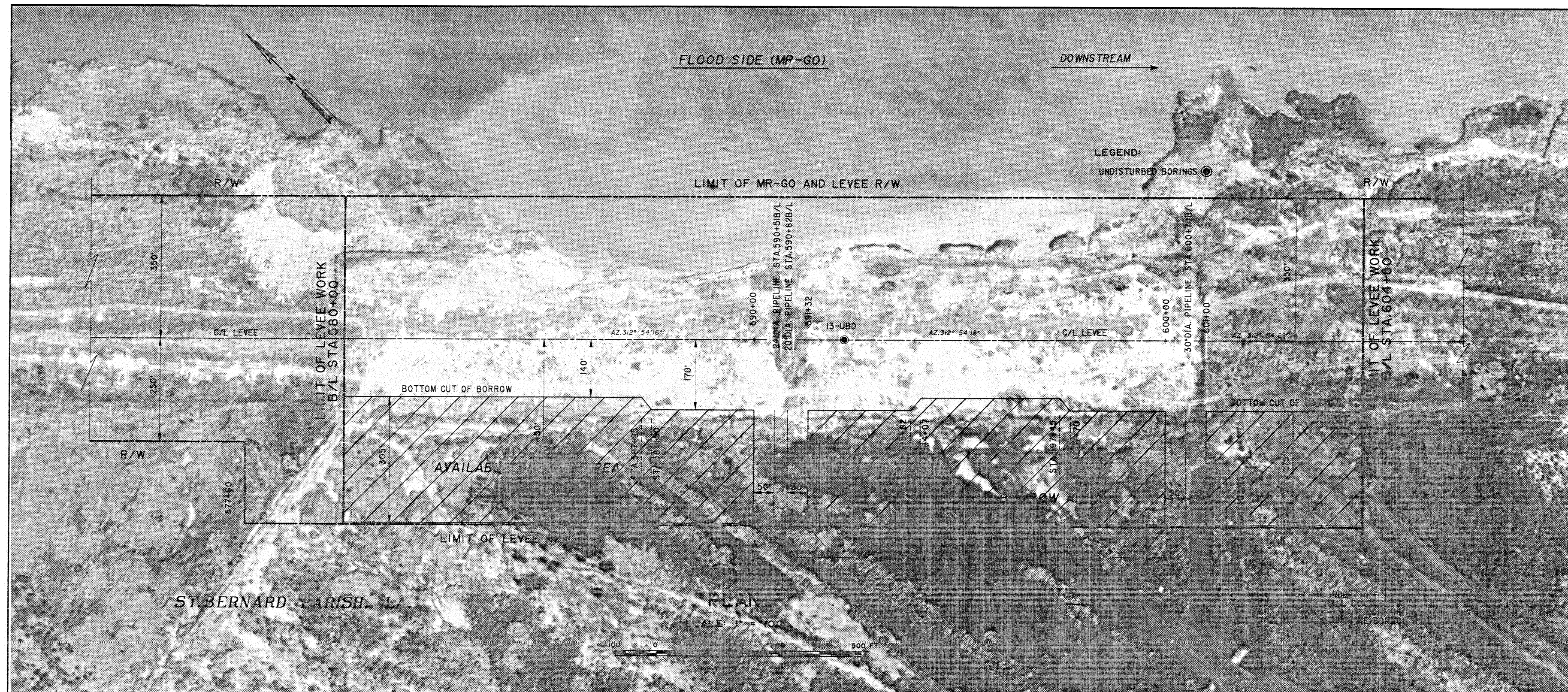
NOTE:

THE CONTRACTOR, IN ORDER TO ELIMINATE PONDING IN THE BORROW AREA, SHALL CONSTRUCT AN INTERIOR DITCHING PATTERN THAT WILL PROVIDE DRAINAGE TO EITHER AN EXISTING CANAL OR TO THE LOWEST ELEVATION WITHIN THE BORROW R/W LIMITS.

REVISION	DATE	DESCRIPTION
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA		
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+80 TO STA. 008+48) ST. BERNARD PARISH, LA. BAYOU VILLERE CLOSURE (FIRST ENLARGEMENT)		
AREA DETAIL		
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN
DRAWN BY: T. WRIGHT	CHECKED BY: R. P. LEE	DESIGN FILE: H-8-30139
SUBMITTED: 1/27/87		SPR. NO. DACW28 87-B-0014
		DWG. 8 OF 19

ACT PART MOD.VILLERE.PLAN
ACT DRA 1





NOTE: FILL ADJACENT TO PIPELINES AND PIPELINE SUPPORT STRUCTURES.

A. THE CONTRACTOR SHALL SUBMIT A PLAN OF OPERATION AND CONSTRUCTION FOR FILL ADJACENT TO THE PIPELINES AS SPECIFIED IN PARAGRAPH 5C-24 OF THE SPECIFICATIONS.

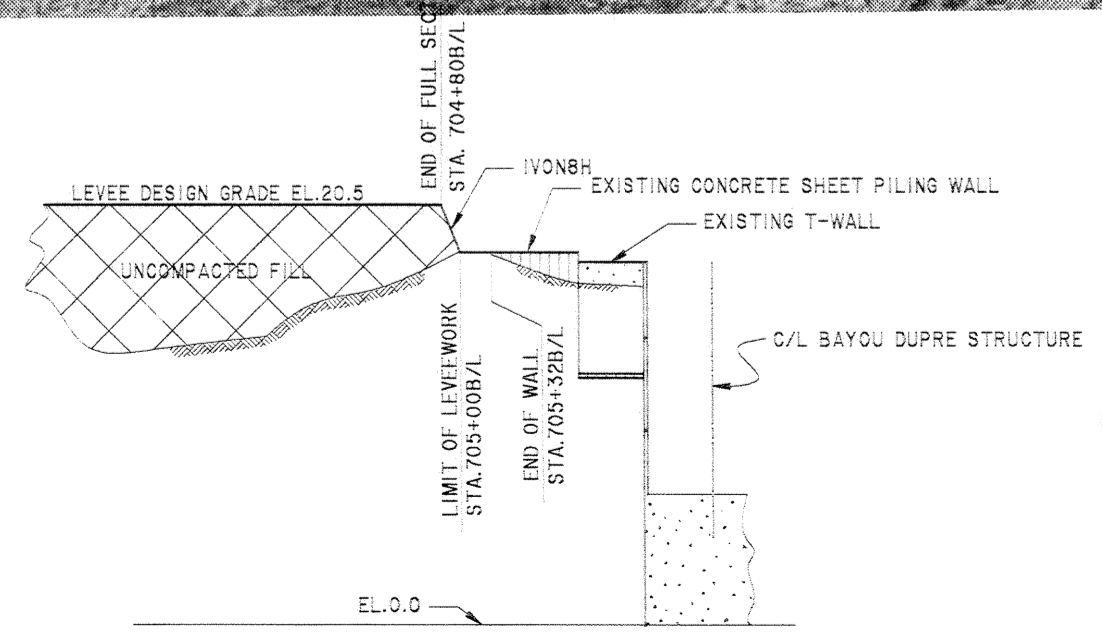
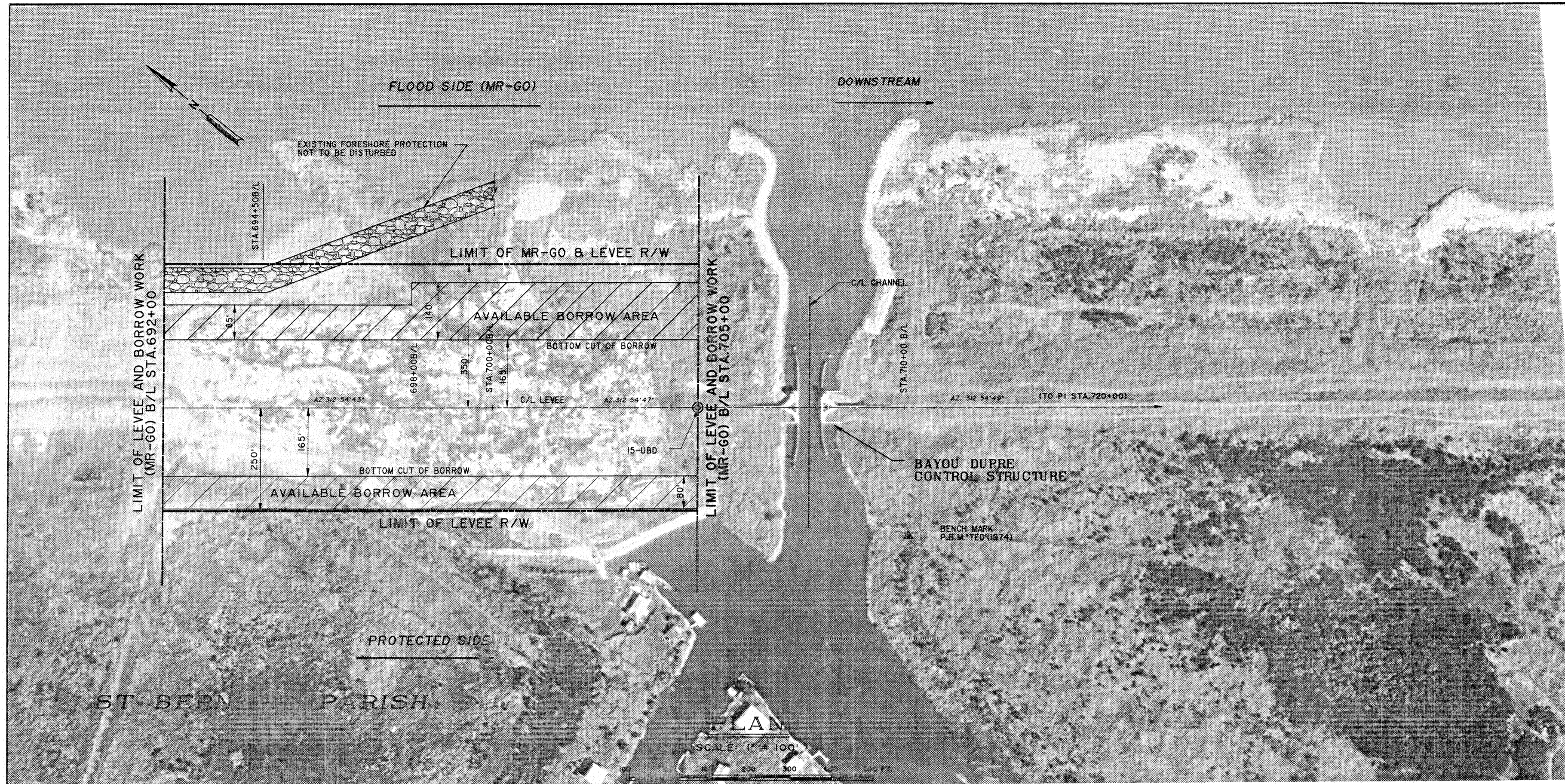
B. CARE SHALL BE EXERCISED IN PLACING FILL ADJACENT TO PIPELINES AND PIPELINE SUPPORT STRUCTURES TO PREVENT UNBALANCED SIDE PRESSURE. THE DIFFERENCE IN FILL HEIGHT BETWEEN ONE SIDE OF THE PIPE AND THE OTHER SIDE SHALL NOT EXCEED 2 FEET.

PROFILE AT SOUTHERN NATURAL CLOSURE
STATIONING FOR DESIGN GRADE AND SLOPE TRANSITIONS
NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA.			
SOUTHERN NATURAL PIPELINE CLOSURE (FIRST ENLARGEMENT) AREA DETAIL			
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30139
DRAWN BY: T. WRIGHT	DESIGN FILE: DACW29 87-B-0014	SPEC. NO. 9	OF 19
CHECKED BY: R. P. LEE			
SUBMITTED: [Signature]			

ACT PART MOD. SO. NAT. PLAN-15
ACT DRA 1

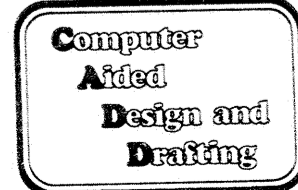




NOTE:
 THE CONTRACTOR, IN ORDER TO ELIMINATE PONDING IN THE BORROW AREA SHALL CONSTRUCT AN INTERIOR DITCHING PATTERN THAT WILL PROVIDE DRAINAGE TO EITHER AN EXISTING CANAL OR TO THE LOWEST ELEVATION WITHIN THE BORROW R/W LIMITS.

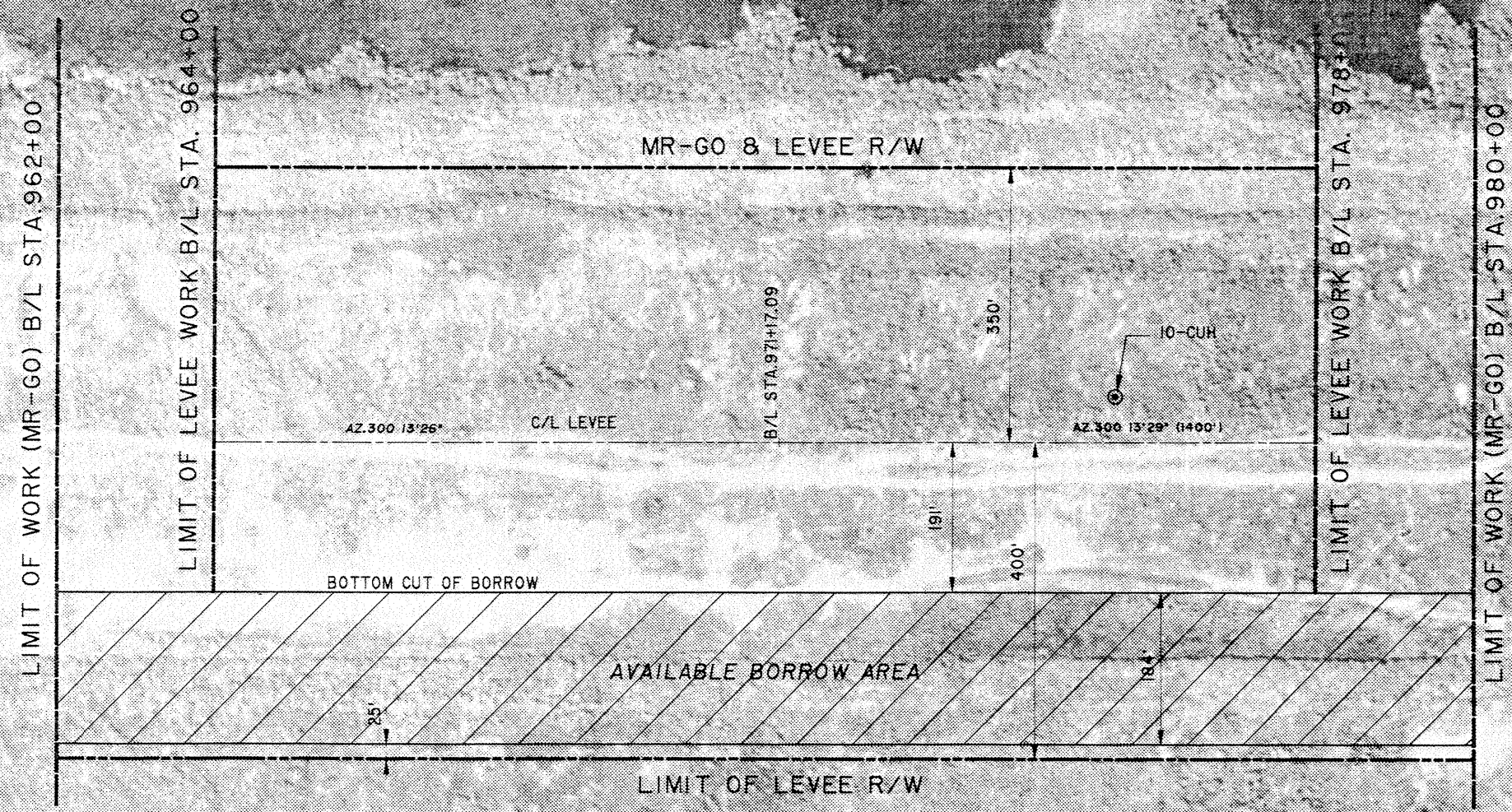
DETAIL OF LEVEE TIE-IN
 NOT TO SCALE

ACT PART MOD. BAYOU DUPRE PLAN
 ACT DRA 1



REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 361+00 TO STA. 973+00) ST. BERNARD PARISH, LA.			
BAYOU DUPRE CLOSURE (FIRST ENLARGEMENT) AREA DETAIL			
DESIGNED BY:	T. WRIGHT	DATE:	JAN. 1987
DRAWN BY:	T. WRIGHT	PLOT SCALE:	AS SHOWN
CHECKED BY:	R.P. LEE	DESIGN FILE:	H-8-30139
SUBMITTED:	<i>Randall Lee</i>	SPEC. NO.:	DAQW29 87-B-0014
		DWG. NO.:	10 OF 19

← TO BAYOU DUPRE



ST. BERNARD PARISH, LA.

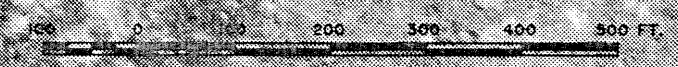
PROTECTED SIDE

LEGEND

UNDISTURBED SOIL BORING

PLAN

SCALE: 1" = 100'



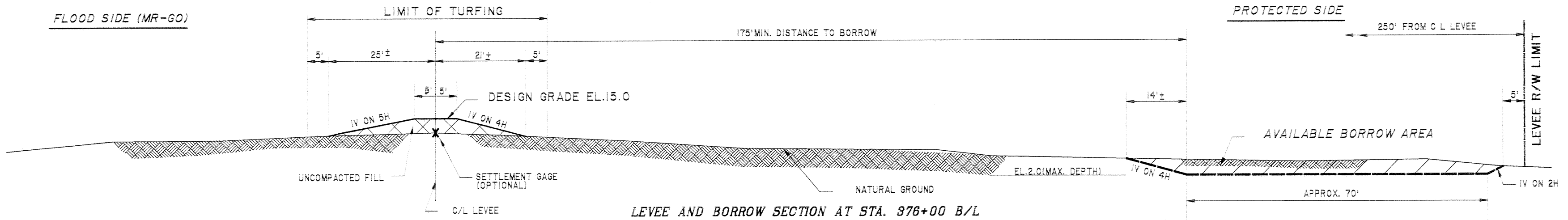
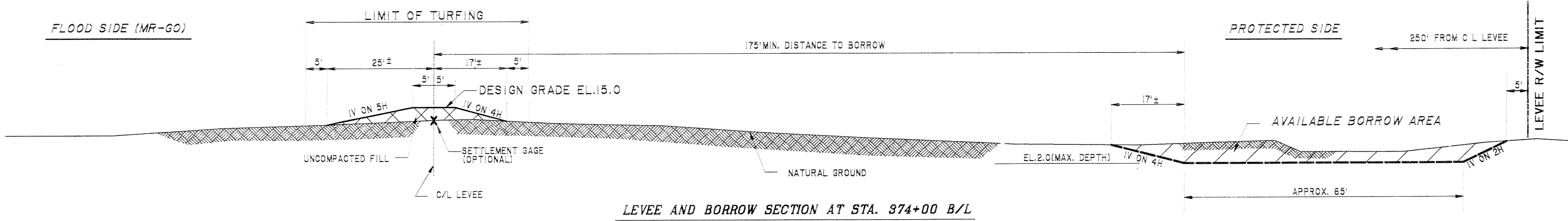
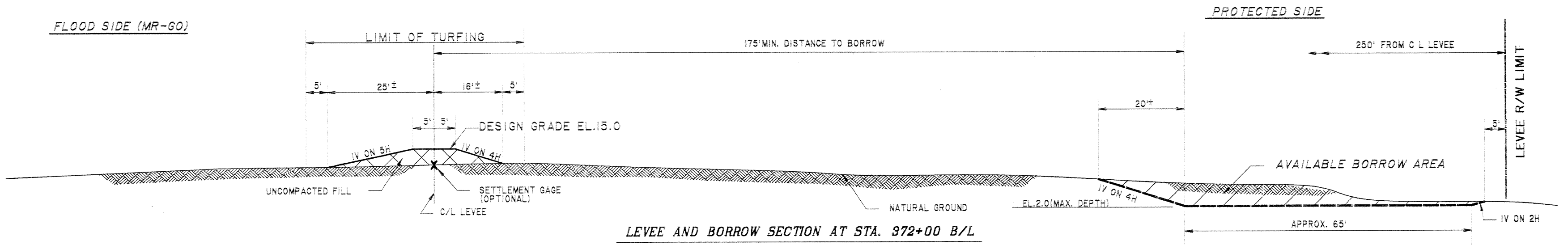
NOTE:

THE CONTRACTOR, IN ORDER TO ELIMINATE PONDING IN THE BORROW AREA, SHALL CONSTRUCT AN INTERIOR DITCHING PATTERN THAT WILL PROVIDE DRAINAGE TO EITHER AN EXISTING CANAL OR TO THE LOWEST ELEVATION WITHIN THE BORROW R/W LIMITS.

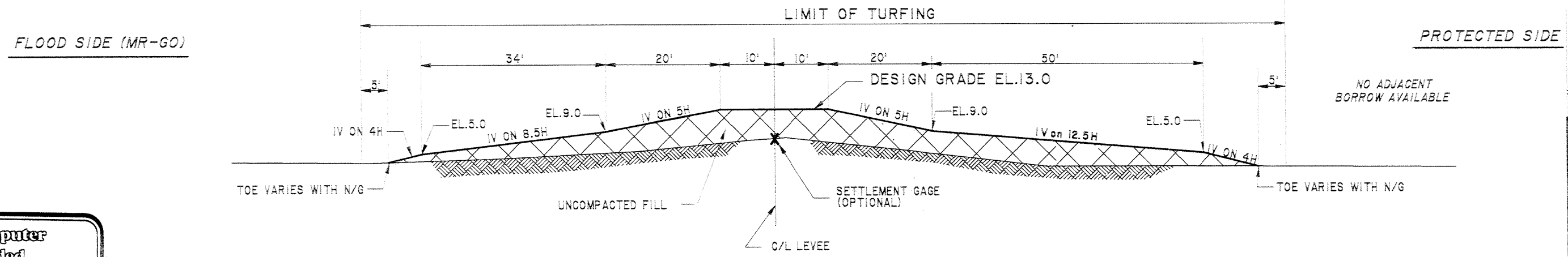
ACT PART MOD. FAILURE PLAN
 ACT DRA 1
 LO THRU 19



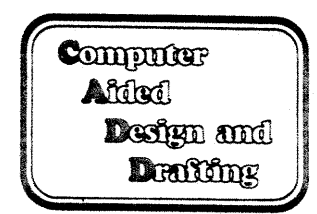
REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA. LEVEE REPAIR SECTION (FIRST ENLARGEMENT) AREA DETAIL			
DESIGNED BY:	T. WRIGHT	DATE:	JAN. 1987
DRAWN BY:	T. WRIGHT	PLOT SCALE:	AS SHOWN
CHECKED BY:	R. P. LEE	DESIGN FILE:	H-8-30139
SUBMITTED:		SPEC. NO.:	DAOW29 87-B-0014
			Dwg. 11 OF 19



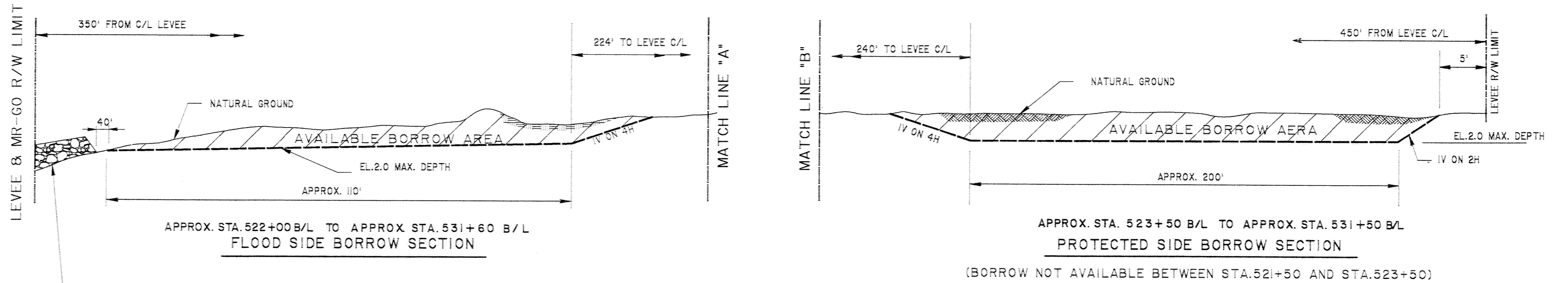
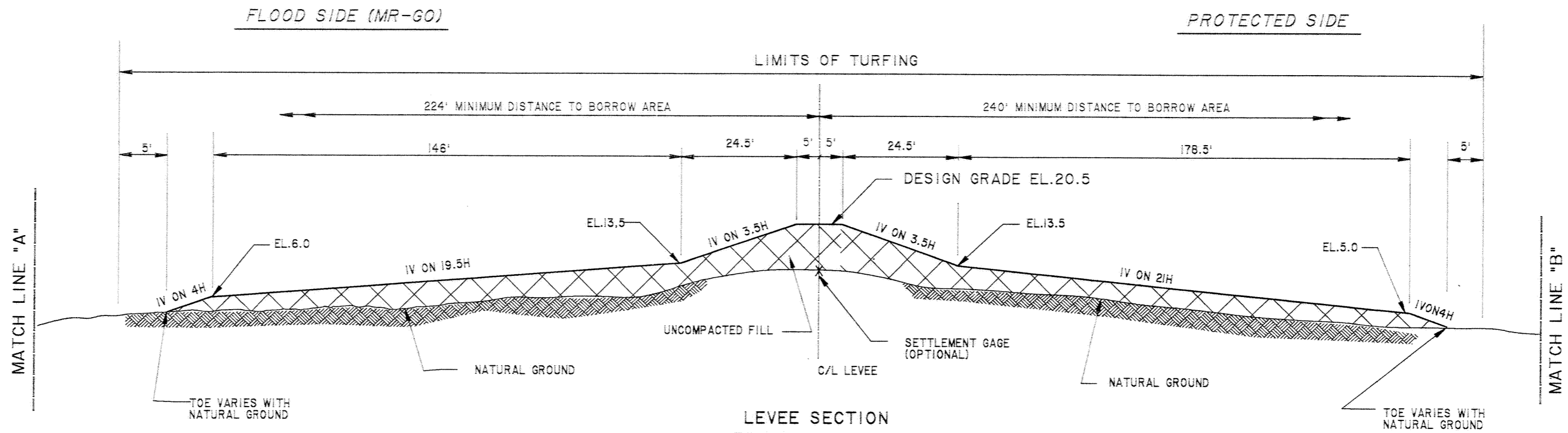
TYPICAL DESIGN SECTIONS
 APPROX. STA. 370+03B/L TO APPROX. STA. 381+00B/L
 (MAKE SMOOTH 22' TRANSITION BETWEEN STAS. 369+81 AND 370+03)
 NOT TO SCALE



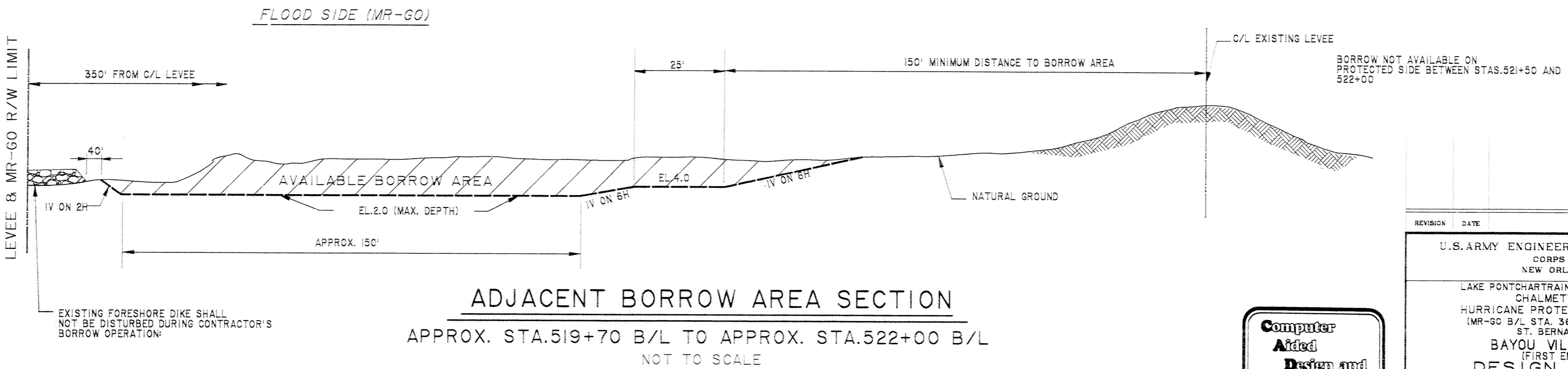
ACT PART MOD.BIENVENUE.DS
 ACT DRA 1



REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-60 B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA. BAYOU BIENVENUE CLOSURE (FIRST ENLARGEMENT) DESIGN SECTIONS			
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30139
DRAWN BY: T. WRIGHT	CHECKED BY: R. P. LEE	DESIGN FILE: DACW28 87-B-0014	DWG. 12 OF 19



TYPICAL DESIGN
 (BAYOU VILLERE CLOSURE)
 APPROX. STA. 522+00 B/L TO APPROX. STA. 531+00 B/L
 NOT TO SCALE

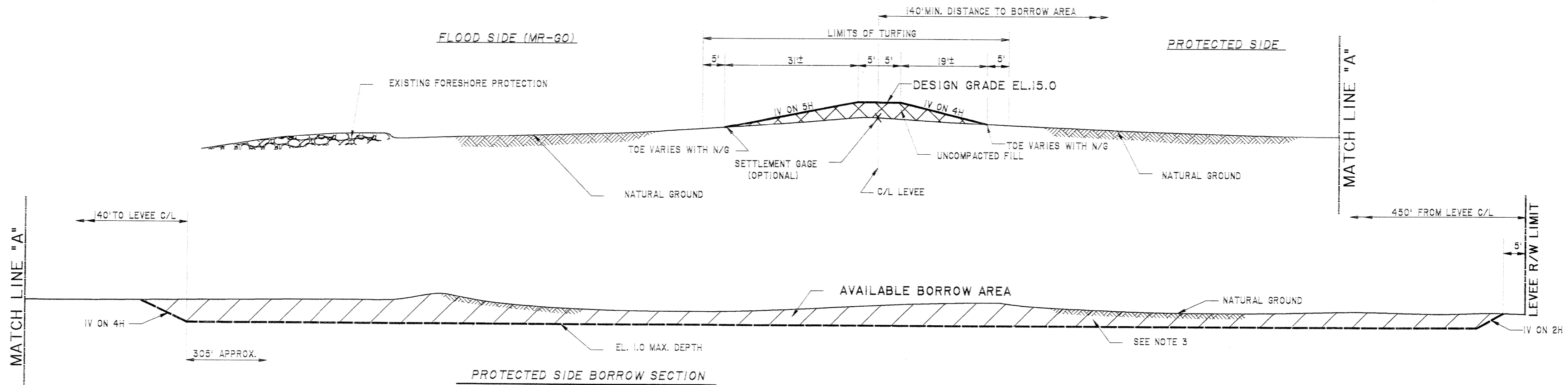


ADJACENT BORROW AREA SECTION
 APPROX. STA. 519+70 B/L TO APPROX. STA. 522+00 B/L
 NOT TO SCALE

ACT PAR MOD. VILLERE. CL OSURE-DS
 ACT. DRA L
 LT THRU L9



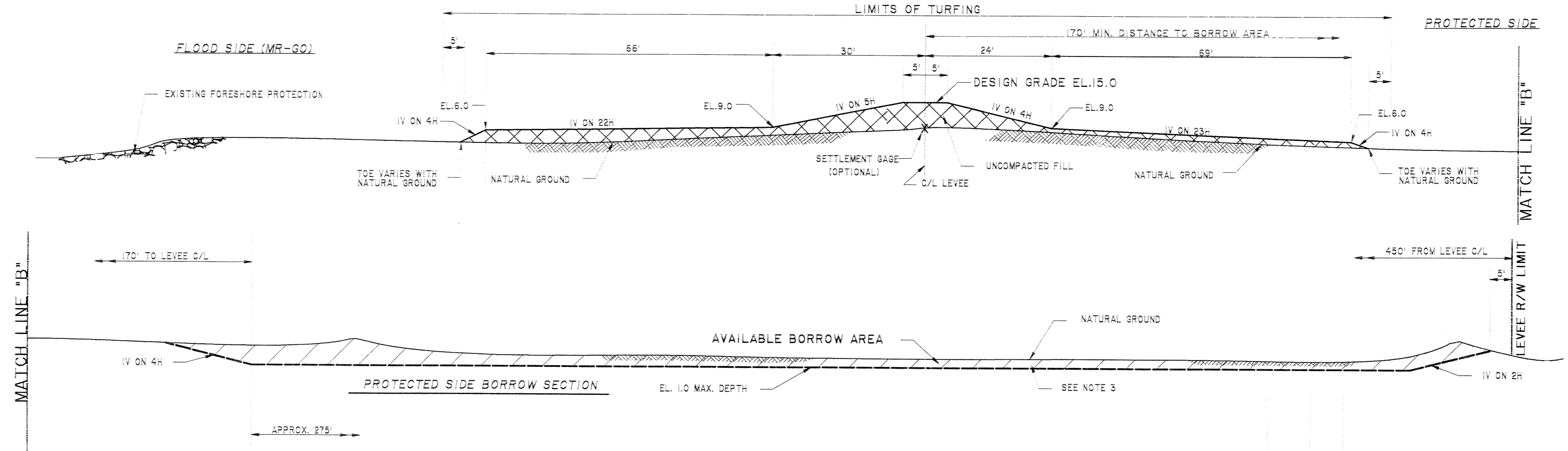
REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA. BAYOU VILLERE CLOSURE (FIRST ENLARGEMENT) DESIGN SECTIONS			
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30130
DRAWN BY: T. WRIGHT	CHECKED BY: R. LEE	DESIGN FILE: DACW29 87-B-0014	DWG. 13 OF 19



PROTECTED SIDE BORROW SECTION

TYPICAL DESIGN SECTION

APPROX. STA. 580+00 B/L TO APPROX. STA. 587+25 B/L
 APPROX. STA. 594+07 B/L TO APPROX. STA. 597+45 B/L
 (MAKE SMOOTH 25' TRANSITION BETWEEN STAS. 587+25 TO 587+50)
 NOT TO SCALE



PROTECTED SIDE BORROW SECTION

TYPICAL DESIGN SECTION

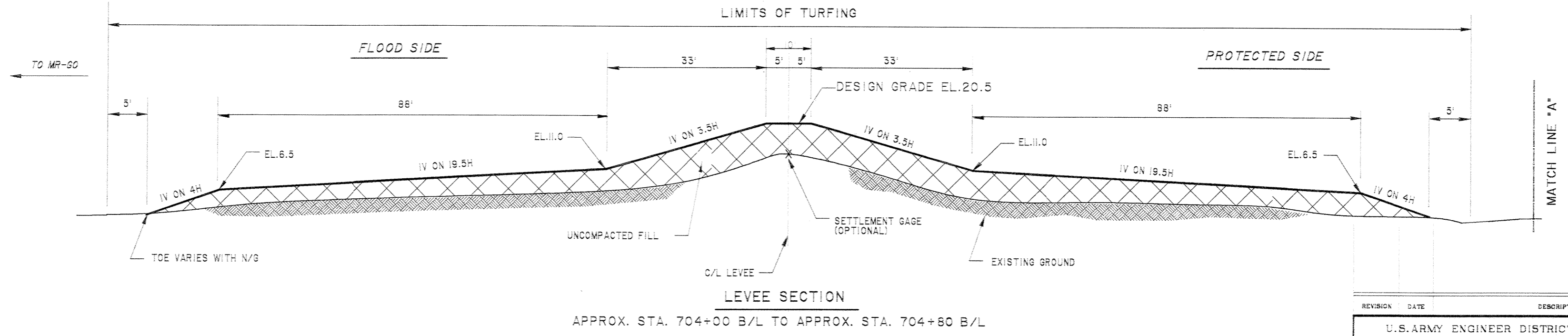
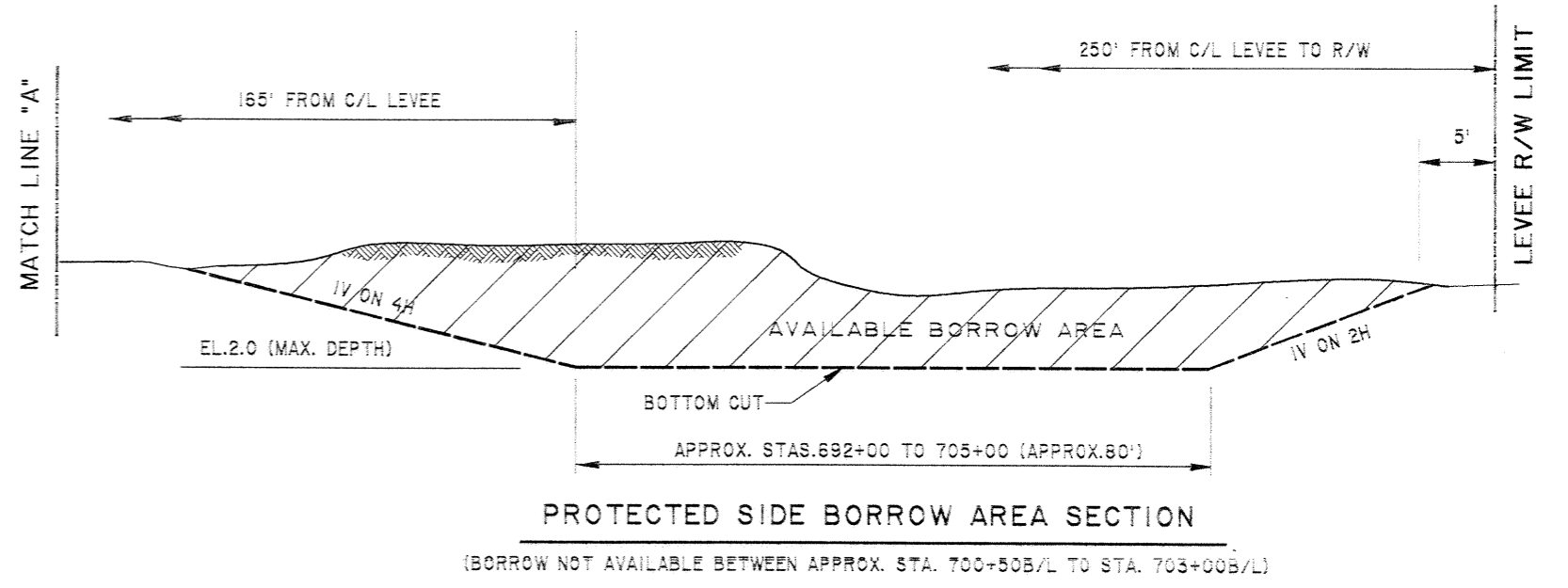
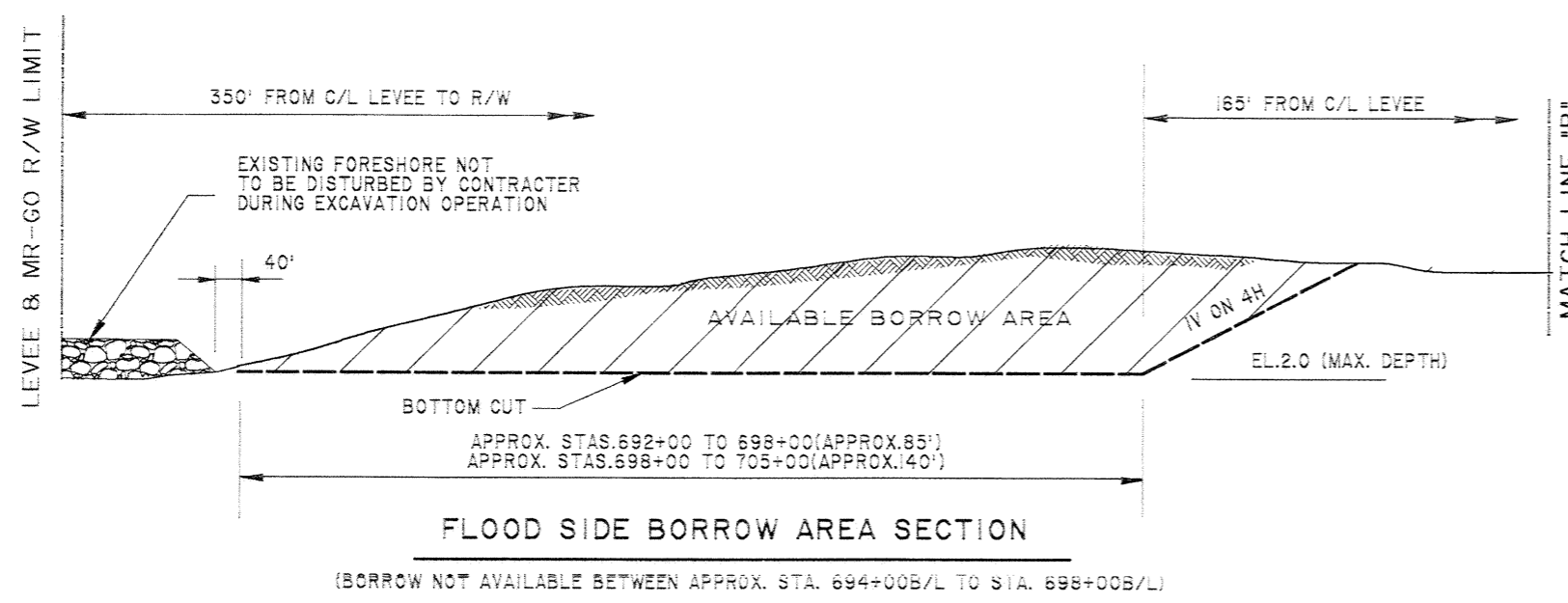
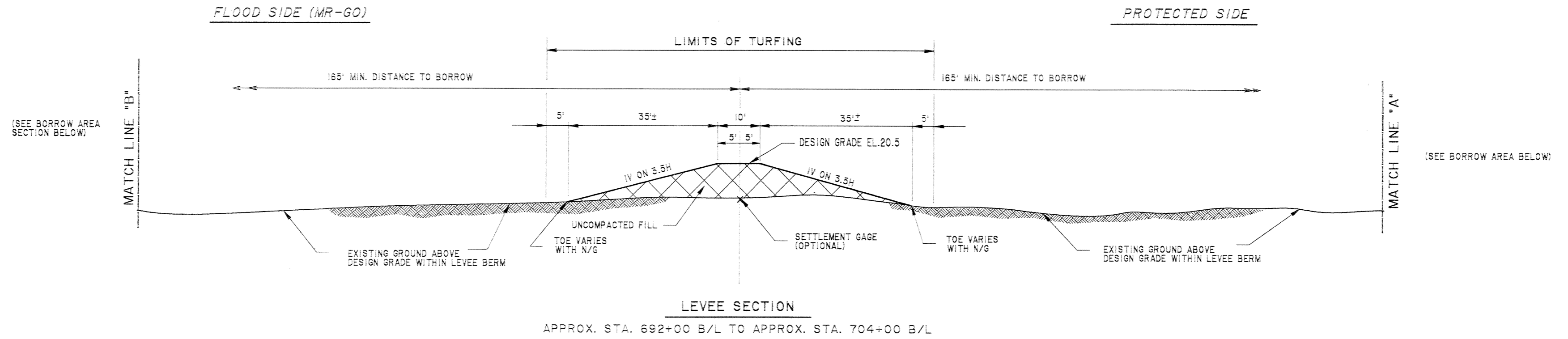
APPROX. STA. 587+50 B/L TO APPROX. STA. 593+82 B/L
 APPROX. STA. 597+70 B/L TO APPROX. STA. 604+00 B/L
 (MAKE SMOOTH 25' TRANSITION BETWEEN STAS. 593+82 TO 594+07)
 NOT TO SCALE

- NOTES:
1. FOR GENERAL NOTES, SEE DWG. 2.
 2. MAKE SMOOTH TRANSITION BETWEEN LEVEE DESIGN SECTIONS WITHIN 50 FEET.
 3. MATERIAL IN THE BORROW AREA THAT IS FARTHEST FROM THE NEW LEVEE CENTERLINE SHALL BE EXCAVATED FIRST, AND EACH SUCCESSIVE BORROW CUT SHALL ADVANCE NEARER THE NEW LEVEE. THIS OPERATION MAY REQUIRE MULTIPLE-HANDLING



REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA.			
SOUTHERN NATURAL PIPELINE CLOSURE (FIRST ENLARGEMENT) DESIGN SECTIONS			
DESIGNED BY:	T. WRIGHT	DATE:	JAN. 1987 AS SHOWN
DRAWN BY:	L. HUNTER	PLOT SCALE:	
CHECKED BY:	R. LEE	DESIGN FILE:	H-8-30130
SUBMITTED:	<i>[Signature]</i>	SPEC. NO.:	DAOW29 87-B-0014
		DWG. NO.:	14 OF 19

ACT PART MOD. SO. NAT. DS
 ACT DRA 1

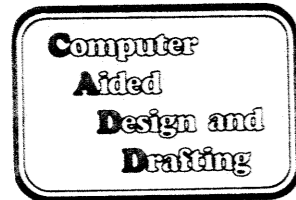


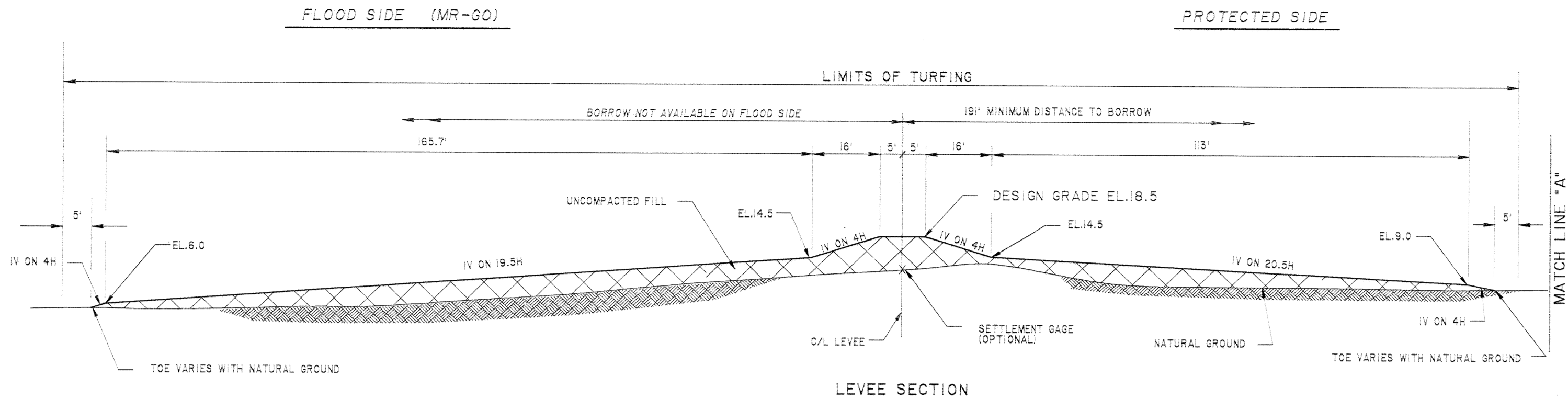
TYPICAL DESIGN SECTIONS
BAYOU DUPRE CLOSURE
 APPROX. STA. 692+00 B/L TO APPROX. STA. 705+00 B/L

NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-60 B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA BAYOU DUPRE CLOSURE (FIRST ENLARGEMENT)			
DESIGN SECTIONS			
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30139
CHECKED BY: R. LEE	DESIGN FILE:		
SUBMITTED: <i>Ronald Lee</i>	DACW29 87-B-0014	DWG. 15	OF 19

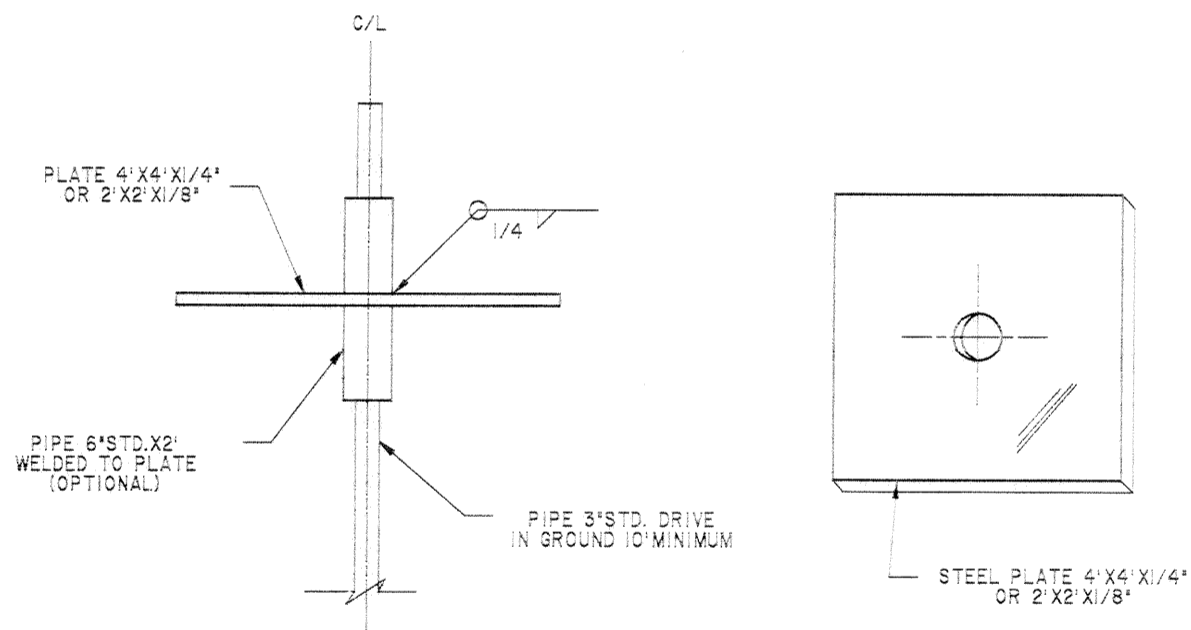
ACT PAR MOD. DUPRE CLOSURE-DS
 ACT DRA L
 LT THRU L6 AND L9 (SAME WIDTH)



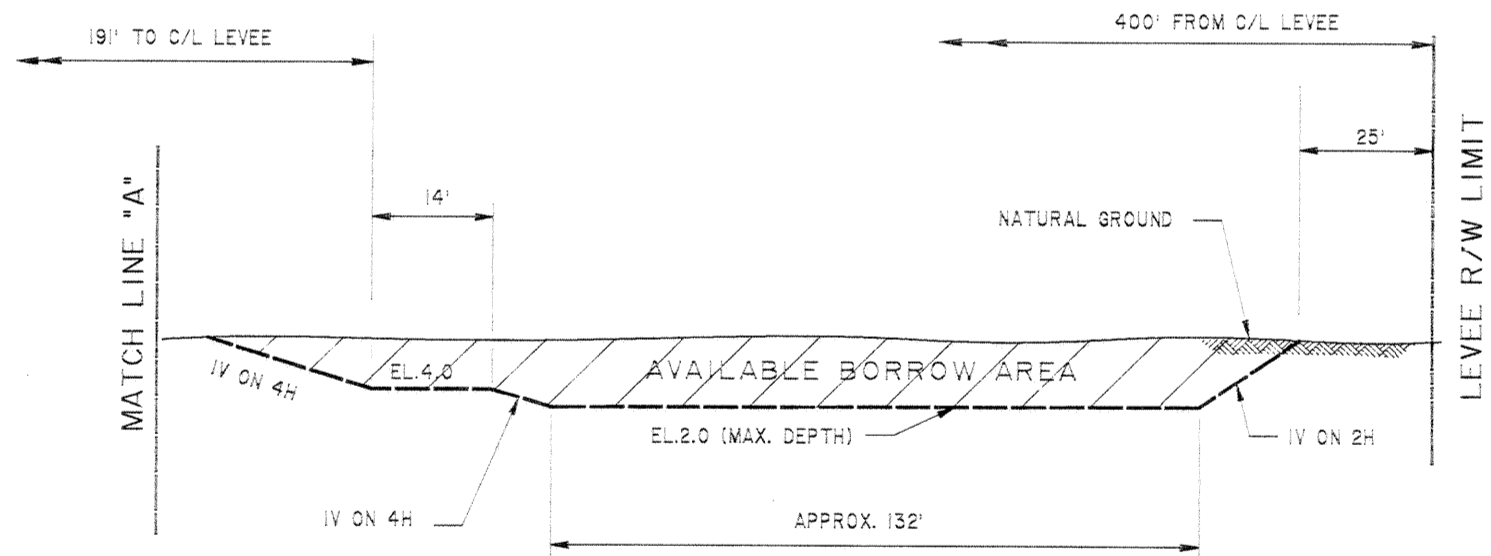


NOTE: BORROW NOT AVAILABLE ON FLOOD SIDE

TYPICAL REPAIR DESIGN SECTION
 APPROX. STA. 964+00 B/L TO APPROX. STA. 978+00 B/L
 NOT TO SCALE



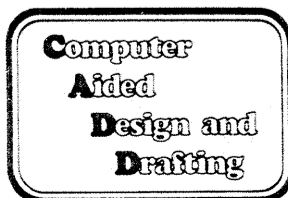
TYPICAL GAGE DETAIL
 NOT TO SCALE



PROTECTED SIDE BORROW SECTION
 APPROX. STA. 962+00 B/L TO APPROX. STA. 980+00 B/L

SETTLEMENT MEASUREMENT GAGES

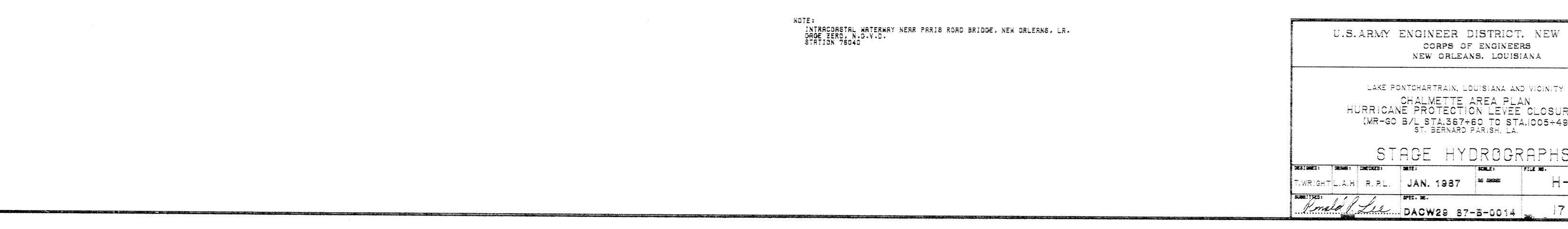
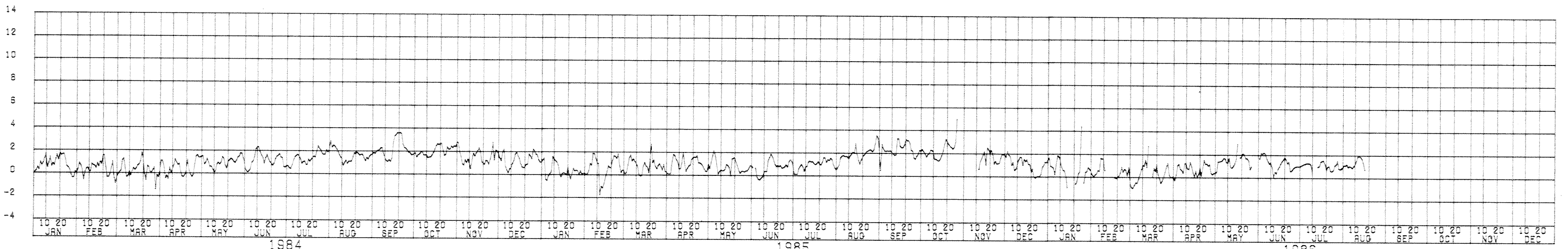
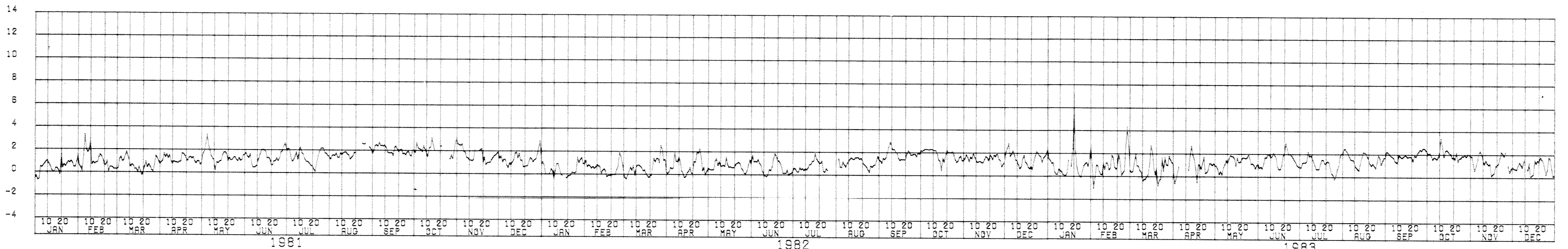
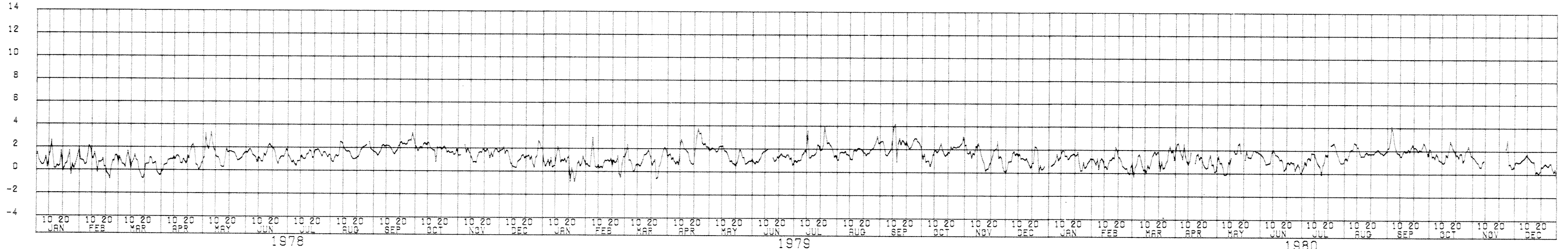
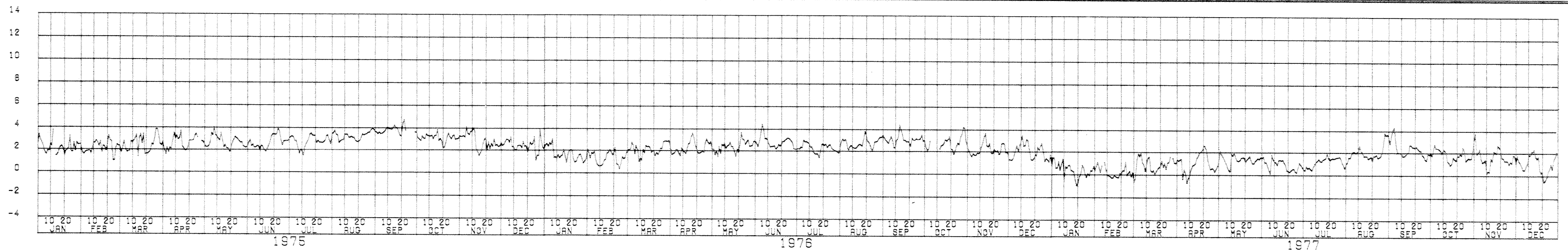
SHOULD THE CONTRACTOR DESIRE PAYMENT FOR PLACING ADDITIONAL FILL DUE TO FOUNDATION SETTLEMENT DURING CONSTRUCTION, HE SHALL FURNISH AND INSTALL SETTLEMENT GAGES AT LOCATIONS SHOWN ON THE DESIGN SECTION AND AS SPECIFIED IN THE CONTRACT SPECIFICATIONS. THE SETTLEMENT MEASUREMENT RANGE FOR EACH SETTLEMENT GAGE SHALL BE FOR A DISTANCE OF 150 FEET IN EACH DIRECTION FROM EACH SETTLEMENT GAGE MEASURED ALONG THE CENTERLINE OF THE LEVEE SECTION EXCEPT WHERE SETTLEMENT GAGES ARE PLACED AT LESS THAN 300 FOOT INTERVALS. IN WHICH CASE, THE SETTLEMENT MEASUREMENT RANGE SHALL BE TO A POINT 1/2 THE DISTANCE BETWEEN SETTLEMENT GAGES. RISER PIPES ARE PERMITTED ON SETTLEMENT GAGES. LOCATION OF SETTLEMENT GAGES MAY BE MOVED HORIZONTALLY ON THE EXISTING LEVEE CROWN AT CONTRACTOR'S OPTION WITH THE APPROVAL OF THE CONTRACTING OFFICER.



REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-60 B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA. LEVEE REPAIR SECTION (FIRST ENLARGEMENT)			
DESIGN SECTION			
DESIGNED BY: T. WRIGHT	DATE: JAN. 1987 AS SHOWN	PLOT SCALE:	FILE NO. H-8-30139
DRAWN BY: T. WRIGHT	CHECKED BY: R. LEE	DESIGN FILE:	
SUBMITTED:	SPEC. NO. DACW29 87-B-0014	DWG. NO. 16	OF 19

ACT PAR MOD. FAILURE-DS
 ACT PAR 1
 LAY 1 THRU 5,9 (SAME WIDTH)

GAGE READINGS IN FEET N.G.V.D.



GAGE READINGS IN FEET N.G.V.D.

NOTE:
 INTRACASTAL WATERWAY NEAR PARIS ROAD BRIDGE, NEW ORLEANS, LA.
 GAGE ZERO N.G.V.D.
 STATION 7604C

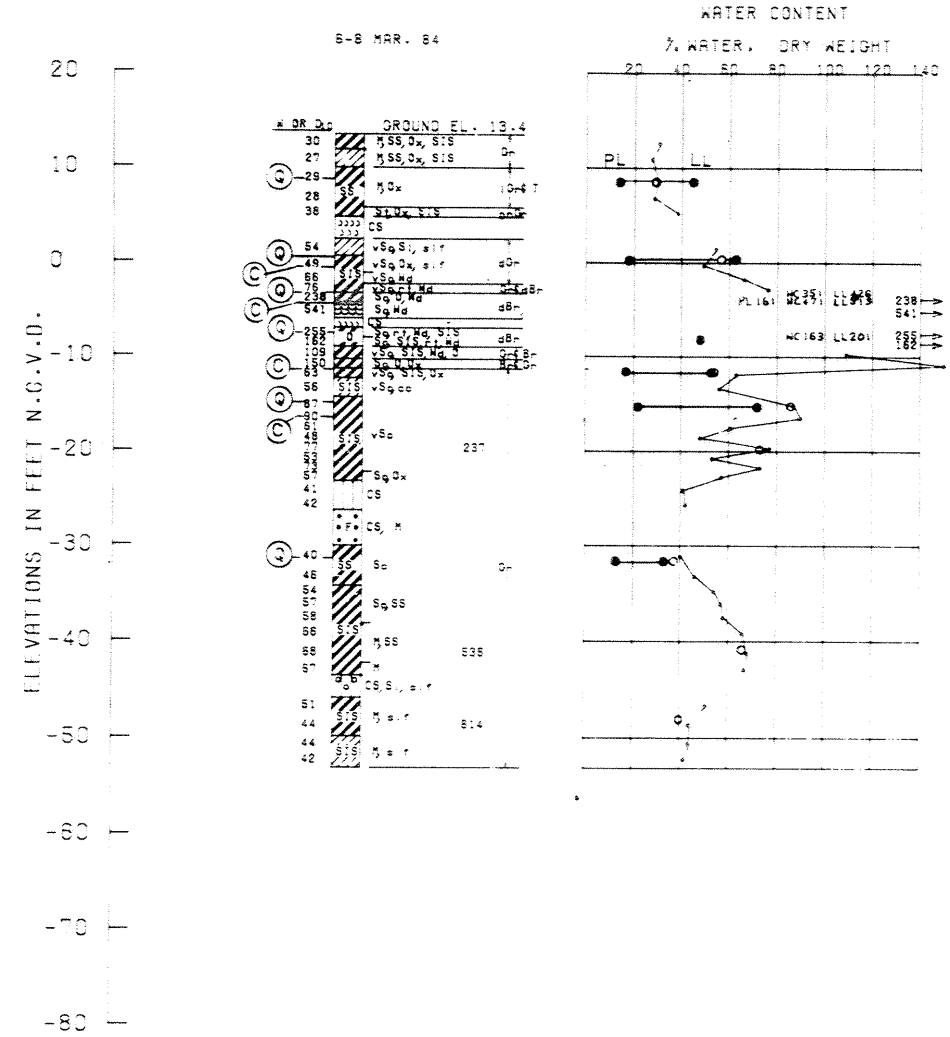
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 NEW ORLEANS, LOUISIANA

LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY
 CHALMETTE AREA PLAN
 HURRICANE PROTECTION LEVEE CLOSURES
 (MR-60 B/L STA. 367+60 TO STA. 1005+49)
 ST. BERNARD PARISH, LA.

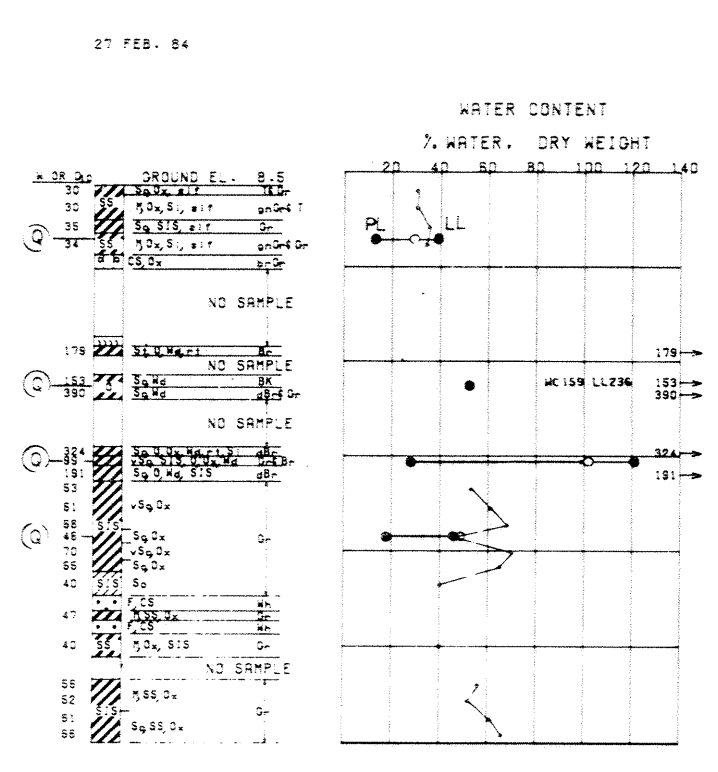
STAGE HYDROGRAPHS

DESIGNED BY	DRAWN BY	CHECKED BY	DATE	SCALE	FILE NO.
T. WRIGHT, L.A.H.	R. P.L.		JAN. 1987		H-8-30139
APPROVED BY					
<i>Ronald Lee</i>					
			DACW29 87-5-0014		17 19

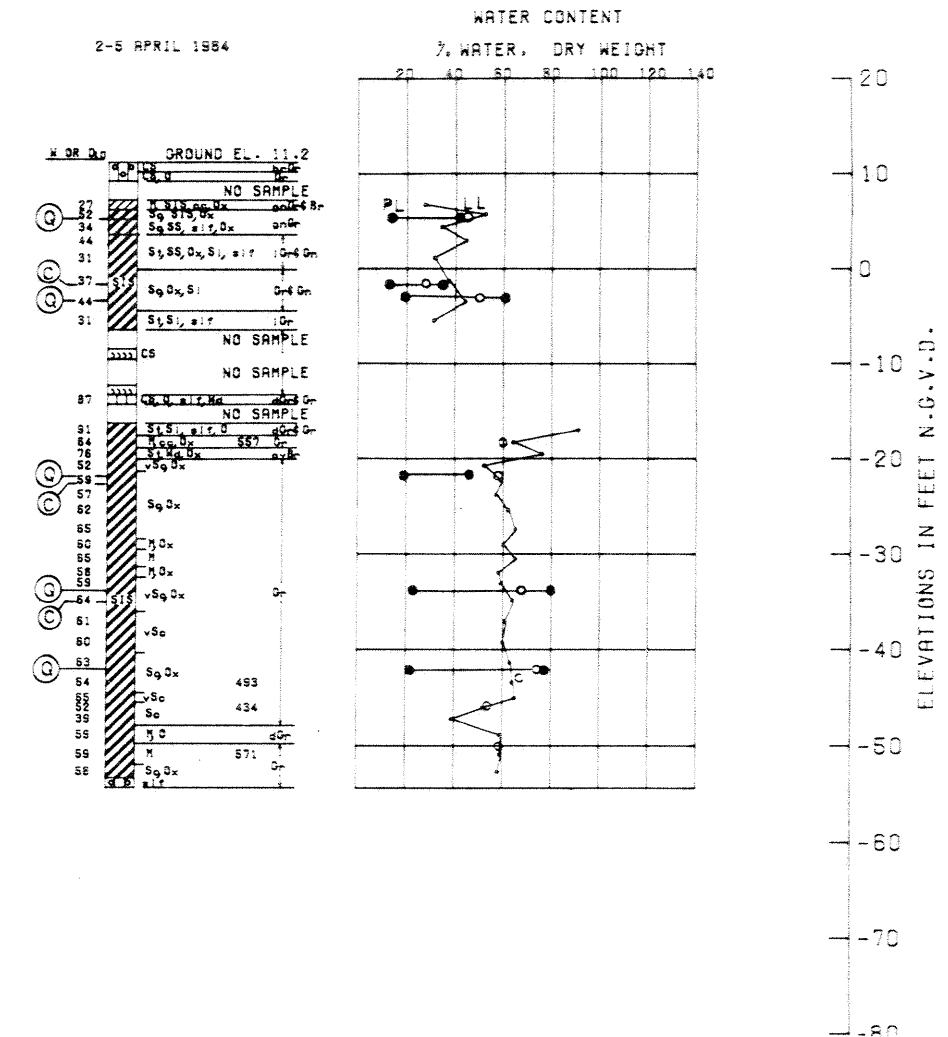
BOR. 7-UBD
M.R.G.O. B/L STA 376+00
C/L OF LEVEE



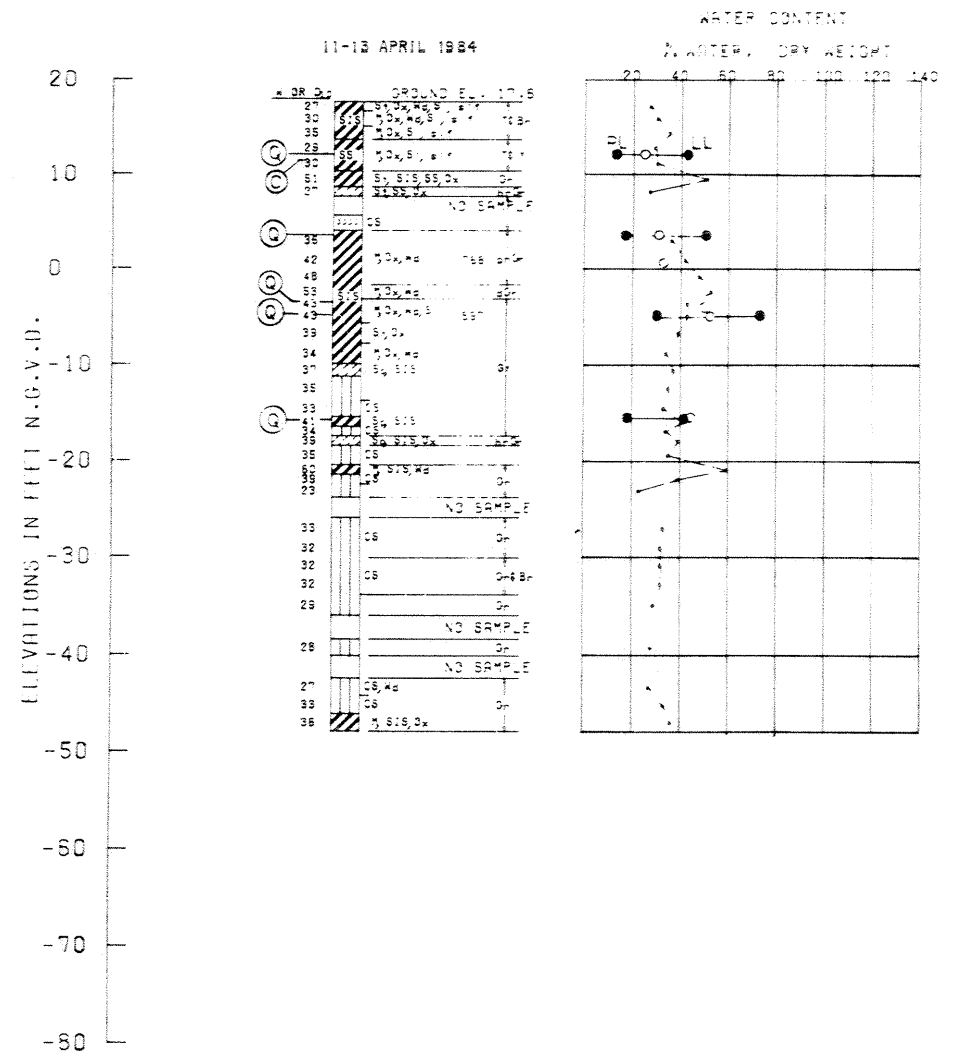
BOR. 8-UBD
M.R.G.O. B/L STA 376+00
50 FT. F/S.



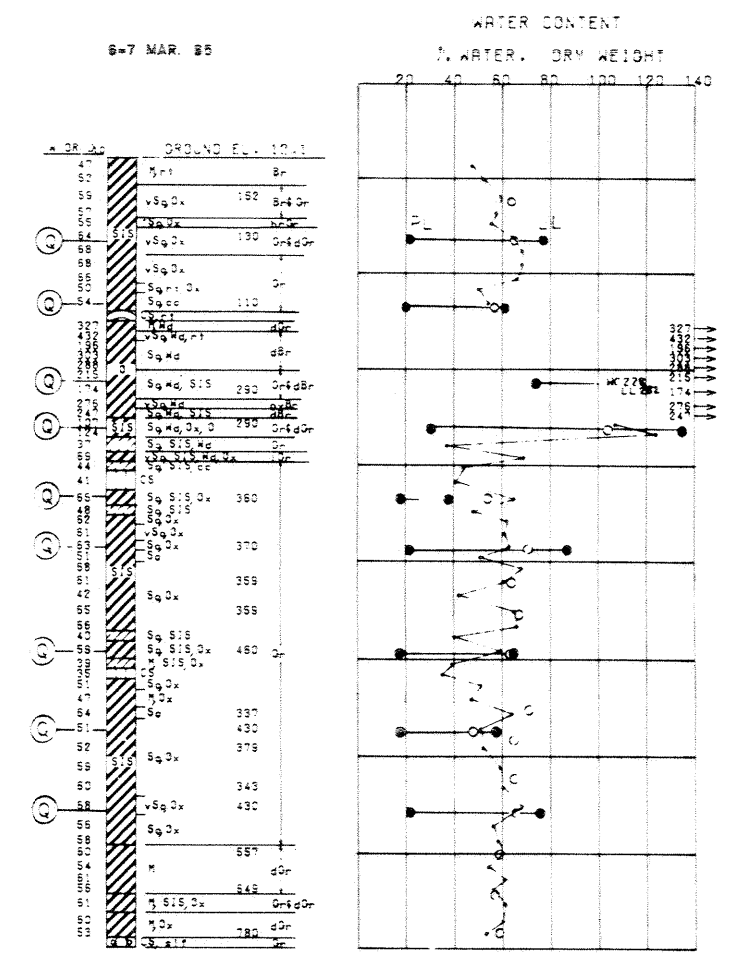
BOR. 13-UBD
M.R.G.O. B/L STA 592+00
C/L OF LEVEE



BOR. 15-UBD
M.R.G.O. B/L STA 705+00
C/L OF LEVEE

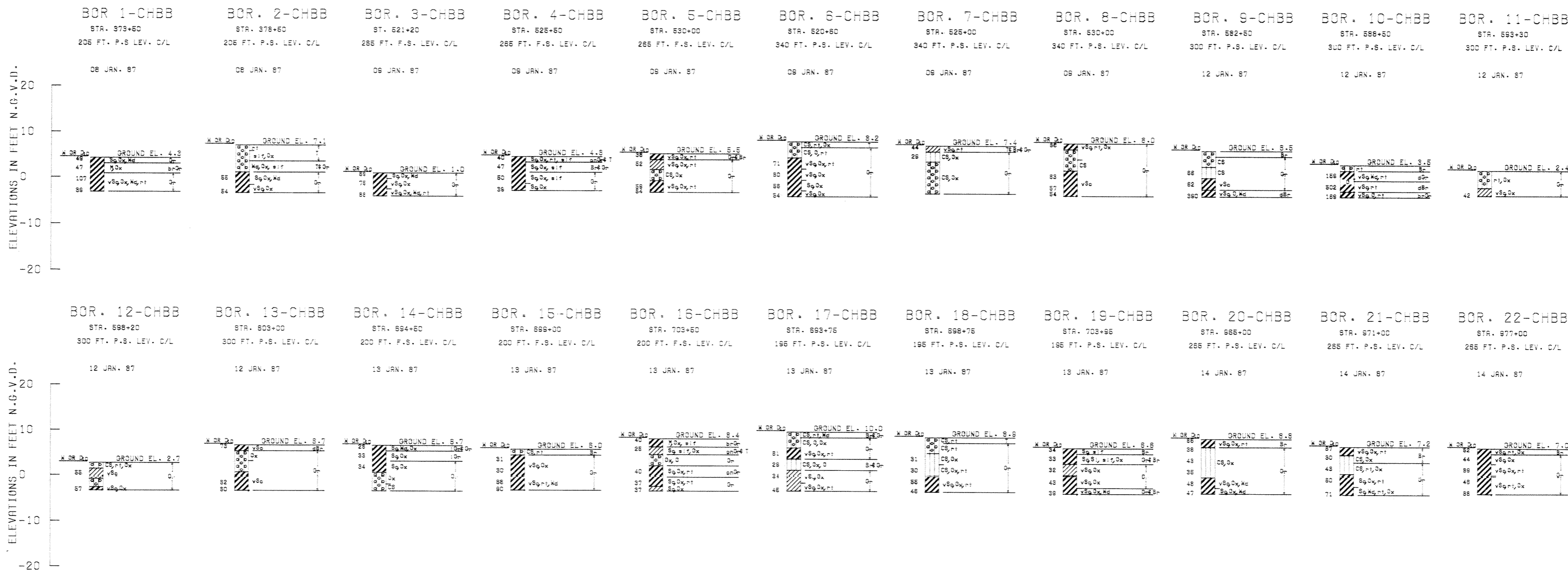


BOR. 10-CUH
M.R.G.O. B/L STA 975+00
50 FT. F/S. LEVEE C/L



ACT PAR NOB.50H..BORING.LOG
ACT DRA 1

REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA			
LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (M.R.G.O. B/L STA 361+00 TO STA. 973+00) ST. BERNARD PARISH, LA.			
SOIL BORING LOGS			
DESIGNED BY: T. W. G. T.	DATE: JAN. 1987	PLOT SCALE: AS SHOWN	FILE NO. H-8-30139
DRAWN BY: T. W. G. T.	CHECKED BY: R. P. LEE	DESIGN FILE:	
BL. 011111	SPEC. NO. DACW28 87-B-0014	DWG. 18	OF 19



REVISION	DATE	DESCRIPTION	BY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LOUISIANA LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEL CLOSURES (MR-60 B/L STA. 367+60 TO STA. 1005+49) ST. BERNARD PARISH, LA.			
BORROW AREA BORINGS			
DESIGNED BY:	T. WRIGHT	DATE:	JAN. 1987
DRAWN BY:	T. WRIGHT	PLOT SCALE:	AS SHOWN
CHECKED BY:	R. P. LEE	DESIGN FILE:	H-8-30139
SUBMITTED:		SPEC. NO.:	DACW29 87-B-0014
		DWG. NO.:	18A OF 19

UNIFIED SOIL CLASSIFICATION

MAJOR DIVISION	TYPE	LETTER SYMBOL	SYM BOL	TYPICAL NAMES	
COARSE-GRAINED SOILS More than half of material is larger than No. 200 sieve size.	GRAVELS (Little or No Fines)	CLEAN GRAVEL	GW	GRAVEL, Well Graded, gravel-sand mixtures, little or no fines	
		GRAVEL, Poorly Graded, gravel-sand mixtures, little or no fines	GP		
	GRAVEL WITH FINES (Appreciable Amount of Fines)	SILTY GRAVEL, gravel-sand-silt mixtures	GM		
		CLAYEY GRAVEL, gravel-sand-clay mixtures	GC		
	SANDS (Little or No Fines)	CLEAN SAND	SW	SAND, Well-Graded, gravelly sands	
		SAND, Poorly-Graded, gravelly sands	SP		
		SANDS WITH FINES (Appreciable Amount of Fines)	SM	SILTY SAND, sand-silt mixtures	
		CLAYEY SAND, sand-clay mixtures	SC		
	FINE-GRAINED SOILS More than half the material is smaller than No. 200 sieve size.	SILTS AND CLAYS (Liquid Limit < 50)	SILT & very fine sand, silty or clayey fine sand or clayey silt with slight plasticity	ML	
			LEAN CLAY, Sandy Clay, Silty Clay, of low to medium plasticity	CL	
ORGANIC SILTS and organic silty clays of low plasticity			OL		
SILTS AND CLAYS (Liquid Limit > 50)		SILT, fine sandy or silty soil with high plasticity	MH		
		FAT CLAY, inorganic clay of high plasticity	CH		
		ORGANIC CLAYS of medium to high plasticity, organic silts	OH		
HIGHLY ORGANIC SOILS		Pt	PEAT, and other highly organic soil		
WOOD		Wd	WOOD		
SHELLS		SI	SHELLS		
NO SAMPLE					

NOTE: Soils possessing characteristics of two groups are designated by combinations of group symbols

NOTES:

FIGURES TO LEFT OF BORING UNDER COLUMN "W OR D₁₀"
 Are natural water contents in percent dry weight
 When underlined denotes D₁₀ size in mm*

FIGURES TO LEFT OF BORING UNDER COLUMNS "LL" AND "PL"
 Are liquid and plastic limits, respectively

SYMBOLS TO LEFT OF BORING

∇ Ground-water surface and date observed
 (C) Denotes location of consolidation test**
 (S) Denotes location of consolidated-drained direct shear test**
 (R) Denotes location of consolidated-undrained triaxial compression test**
 (Q) Denotes location of unconsolidated-undrained triaxial compression test**
 (T) Denotes location of sample subjected to consolidation test and each of the above three types of shear tests**
 FW Denotes free water encountered in boring or sample

FIGURES TO RIGHT OF BORING

Are values of cohesion in lbs./sq. ft. from unconfined compression tests
 In parenthesis are driving resistances in blows per foot determined with a standard split spoon sampler (1 3/8" I.D., 2" O.D.) and a 140 lb. driving hammer with a 30" drop
 Where underlined with a solid line denotes laboratory permeability in centimeters per second of undisturbed sample
 Where underlined with a dashed line denotes laboratory permeability in centimeters per second of sample remoulded to the estimated natural void ratio

*The D₁₀ size of a soil is the grain diameter in millimeters of which 10% of the soil is finer, and 90% coarser than D₁₀
 **Results of these tests are available for inspection in the U.S. Army Engineer District Office, if these symbols appear beside the boring logs on the drawings

DESCRIPTIVE SYMBOLS

COLOR		CONSISTENCY FOR COHESIVE SOILS			MODIFICATIONS	
COLOR	SYMBOL	CONSISTENCY	COHESION IN LBS./SQ. FT. FROM UNCONFINED COMPRESSION TEST	SYMBOL	MODIFICATION	SYMBOL
TAN	T	VERY SOFT	< 250	vSo	Traces	Tr-
YELLOW	Y	SOFT	250 - 500	So	Fine	F
RED	R	MEDIUM	500 - 1000	M	Medium	M
BLACK	BK	STIFF	1000 - 2000	St	Coarse	C
GRAY	Gr	VERY STIFF	2000 - 4000	vSt	Concretions	cc
LIGHT GRAY	lGr	HARD	> 4000	H	Rootlets	rt
DARK GRAY	dGr				Lignite fragments	lg
BROWN	Br				Shale fragments	sh
LIGHT BROWN	lBr				Sandstone fragments	sds
DARK BROWN	dBr				Shell fragments	sif
BROWNISH-GRAY	br Gr				Organic matter	O
GRAYISH-BROWN	gy Br				Clay strata or lenses	CS
GREENISH-GRAY	gn Gr				Silt strata or lenses	SIS
GRAYISH-GREEN	gy Gn				Sand strata or lenses	SS
GREEN	Gn				Sandy	S
BLUE	Bl				Gravelly	G
BLUE-GREEN	Bl Gn				Boulders	B
WHITE	Wh				Slickensides	SL
MOTTLED	Mot				Wood	Wd
					Oxidized	Ox

PLASTICITY CHART
For classification of fine-grained soils

TYPICAL NOTES:

While the borings are representative of subsurface conditions at their respective locations and for their respective vertical reaches, local variations characteristic of the subsurface materials of the region are anticipated and, if encountered, such variations will not be considered as differing materially within the purview of clause 44 of the contract.

Ground-water elevations shown on the boring logs represents ground-water surfaces encountered in such borings on the dates shown. Absence of water surface data on certain borings indicates that no ground water data are available from the boring but does not necessarily mean that ground water will not be encountered at the locations or within the vertical reaches of such borings.

Consistency of cohesive soils shown on the boring logs is based on driller's log and visual examination and is approximate, except within those vertical reaches of the borings where shear strengths from unconfined compression tests are shown.



Safety is a Part of Your Contract

REVISION	DATE	DESCRIPTION	BY
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS CORPS OF ENGINEERS NEW ORLEANS, LA.			
LAKE PONCHARTRAIN, LOUISIANA AND VICINITY CHALMETTE AREA PLAN HURRICANE PROTECTION LEVEE CLOSURES (MR-GO B/L STA. 361+00 TO STA. 973+00) ST. BERNARD PARISH, LA.			
SOIL BORING LEGEND			
DESIGNED	DRAWN	CHECKED	DATE
T.W.W.	T.W.W.	R.P.LEE	JAN. 1987
SCALE		FILE NO.	
AS SHOWN		H-8-30139	
SUBMITTED		SPEC. NO.	
DACW29-87-B-0014		DWC 19 OF 19	