CONTRACT ADMINISTRATION OFFICE RECORD

CONTRACTOR	CONTRACT #
CONTRACTING OFFICER'S REPRESENTATIVE	SCHEDULED DELIVERY DATE / TELEPHONE NO.

DATE	NATURE OF ACTION.	
8/12/88	Letter from Mr. Chatry to M&M—review Comments of NOD on T-wall	41
8/17/88	M&M to Mr. Romero on design criteria of Cantilever F/w for Lake Pontchartrain	42-44
8/21/88	Letter from chief Des/Br. to Des Svcs Br—Add'l. Comments on Orleans Parish Levee.	45
8/9/88	Letter from Mar[illegible] to F&M to check the Stability of Exist. Levee.	46
10/11/88 / 8/29	Letter from Des Svc Br. to Chief Des. Br. for Comments / Letter from F&M, No Seepage Cutoff is Req'd.	47-48 / 49
10/21/88	Letter from Chatry to M&M—review Comments by NOD on 17th St.	50-51
10/18/88	Letter from M&M to ED-DD, Req. to reuse sheet piling.	52
11/1/88	Letter from Chatry to M&M about Reusing the exist. sheet piling	53
10/25/88	Letter from Cindy McWilliams to ED-DD about Ped. w/w of sign (ADA 98)	54
11/3/88	Letter from Chatry to Ms. Cindy McWilliams on Bucktown Pedestrian w/w	55A
7/10/89	Letter from M&M to Mr. Chatry for review Comm. on final Plans	55
7/17/89	Letter from C/Des Svcs Br. to get review Comm. on Dwgs from M/M	56
8/16/89	Letter to C/Des. Svcs Br. from ED-DD, no comments.	57
9/29/89	Letter from Picciola in regard to [illegible] of tip [illegible] T-wall	58-59
9/18/89	Letter from Picciola to C/Des Br.—Approval of alignment	60-61
10/17/89	Letter from Shelton to C/Des [illegible] F&M to furnish Rev. Comments	62
10/19/88	Letter from LMNED-DD to C/Des. Svcs [illegible]—no review [illegible]	63

CONTRACT ADMINISTRATION OFFICE RECORD	CONTRACT N	
CONTRACTOR		
CONTRACTING OFFICER'S REPRESENTATIVE	SCHEDULED DELIVERY DATE	TELEPHONE NO.

DATE	NATURE OF ACTION.	
—	ORLEANS Levee Board Specs for 17th Street Canal	1-13
11/2/87	Letter from M&M to Chief Engr of Levee bd - 2 copies of Problem Pile	14-15
—	" " Picciola in reg: to Sheet Pile Analysis - 6 Enclosures	16 - (16-6)
11/20/87	Review comments on P&S (Letter from Picciola)	17
6/4/87	B-Files on orleans side to HAMMOND Highway (From K.V.)	18 - (18-6)
—	Preliminary Cost Estimate	19
—	Slope stability Analyses for orleans side (636 to 638+31)	20 - (20-5)
11/[illegible]/87	letter from M&M to Mr. Chatry - Geotech info. for Hammond Hwy.	21-22
01-04-88	Letter from chatry to M&M (change of F.S.) (13-Ends)	23-24
5/10/88	" " Picciola to Des. Br. on Rev. des. of I-Wall criteria	25
6/22/88	MFR by Mr. Romero on Cost Est. on Ret. wall on East Bank	26
7/18 to 7/21	Letter of transmittal from S&WB drainage Pumpst. to NOD.	27-28
7/21/88	" from CELMN-ED-HC on Riprap des. for 17th St Canal	29-30
8/9/88	" " CELMN-ED-DD on site conditions @ P/S #6 (Encl-4)	31
—	orleans Levee Dist. Specs for Excav. & Flood Protection	32 - (32-12)
—	DINQ. for TOE-Wall @ Pumpst. No. 6	33-34
8/1/88	M&M to orleans Levee bd - deliver Plans to NOD	35
8/1/88	Memo from LMNED-DD to F&M for reviewing Plans of P/S #6	36
8/2	" " Picciola - No Comments on Toe wall @ P/S #6	37-38
8/12	" from chatry to M&M - revising the end of Conc. Cap	39
8/[illegible]	" " M/M to Levee bd in reg: to delivering the drawings to them & NOD	40

A0006598

CELMN-ED-DD (ED-SP/17 OCt 89) 1st End Desai/cm/2657
SUBJECT: Lk Pont, LA & Vic, 17th St. Canal Parallel Flood Protection, Phase 1B-Hammond Hwy. to So. Railroad, OLD Project No. 2043-0207

CELMN-ED-D 19 Oct 89

FOR C/Des Svcs Br

We have reviewed the subject P&S and have no comments.

Encl
wd all encl

DANIEL A. MARSALONE
Chief, Design Branch

63

CELMN-ED-SP (1110-2-1150a) 17 Oct 89
Mr. Stutts/dg/2614

MEMORANDUM FOR: C/Design Br
C/F&M Br

Subject: Lake Pontchartrain La & Vic ALP 17th Street Canal Parallel Flood Protection Phase 1B Hammond Highway To Southern Railroad OLB Project NO. 2043-0207

1. Enclosed is a copy of a 10 Oct 89 letter from Mr. Barney T. Martin; Jr. of Modjeski and Masters Consulting Engineering.

2. Mr. Martin requests our review of the final plans and specification furnished with his 10 Oct 89 letter. To expedite our response to Mr. Martin, copies of the plans and specifications were hand carried to your respective study principals.

3. Please review this material and furnish your comments by 19 Oct 89.

George R Gratt
for CALVIN W. SHELTON
Chief, Design Services Br

Encl
as

62

MODJESKI AND MASTERS
CONSULTING ENGINEERS
Founded 1893

1055 ST. CHARLES AVE.
NEW ORLEANS, LA. 70130
TELEPHONE 504 · 524-4344

October 10, 1989

Mr. Frederick M. Chatry
Chief, Engineering Division
New Orleans District
Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

JN 0908A

RE: 17TH STREET CANAL PARALLEL FLOOD PROTECTION
PHASE 1B - HAMMOND HIGHWAY TO SOUTHERN RAILROAD
OLB DESIGN PROJECT NO. 2043-0207

Dear Mr. Chatry:

Reference your August 22, 1989 letter concerning the referenced project.

We have attached 3 copies of the final plans and specifications for the referenced project with the following responses to your comments:

a) Sheets 22, 23, 34, 35, 37, and 38 have had a note added to the stone revetment - "not to scale". All rip rap has been deleted.

b) Sheet 25, Station 570+00 - the levee crown is shown degraded to elevation 5.5 as shown in the design analyses.

c) Sheet 41, Station 657+00 - the new I-wall B/L offset hs been corrected to agree with sheet 17.

d) Specifications, pg. 4-6, par. 4-03.4.4. This section of the specification has been modified to addressed your comments.

You will note that the title sheet of the plans and specifications does not reflect a construction project number. The Levee Board has yet to set a number. As soon as they do, we will notify you.

If you find the attached satisfactory, we request that a letter-of-no-objection be sent at your earliest convenience.

Should there be any question, please call.

Very truly yours,

MODJESKI AND MASTERS

Barney T. Martin, Jr.

BTM:jrb
Attachments
cc: Mr. C. E. Bailey - OLB
Mr. John Holtgreve - DEI

_____ MARSALONE

_____ GUIZERIX

_____ CINDY

_____ DD

_____ DE

_____ DG

_____ DL

_____ DR

_____ DW

_____

_____

_____

_____

_____ SUSPENSE

_____ DISTRIBUTE

_____ RELEASE

_____ FILE

_____ DESTROY

CELMN-ED-FS 18 Sept 89

MEMORANDUM FOR Chief, Design Branch

SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project - 17th Street Outfall Canal

1. The alignment for the Orleans Parish side of the 17th St. Canal presented in the GDM will be the same alignment shown in the Orleans Parish Levee Board plans (by Modjeski & Masters).

2. Point of contact is Frank Vojkovich, ext. 1034.

RODNEY P. PICCIOLA
Chief, Foundations & Materials Branch

CELMN-ED-FS 18 Sept 89

MEMORANDUM FOR Chief, Design Branch

SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project - 17th Street Outfall Canal

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2. Point of contact is Frank Vojkovich, ext. 1034.

RODNEY P. PICCIOLA
Chief, Foundations & Materials Branch

_____ MARSALONE

_____ GUIZERIX

_____ CINDY

_____ DD ROMERO

_____ Specs Unit

_____ DG

_____ DL

_____ DR

_____ DW

_____

_____

_____

_____

_____ SUSPENSE

_____ DISTRIBUTE

_____ RELEASE

_____ FILE

_____ DESTROY

_____ ROUTE

CELMN-ED-FS (1110-2-1150a) 29 Sep 89

MEMORANDUM FOR Chief, Design Branch

SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project - 17th Street Outfall Canal

1. The new I-Wall tip elevations (and Q-Files for the governing design case) Encl 1 have been hand carried to Mr. Desai of your office. The tip elevations are based on the latest change of criteria (24 Jul 89) from LMVD.

2. This completes our input to your office for the 17th Street Outfall Canal GDM. If any further work is needed by your office, please notify us.

3. P.O.C. is Frank Vojkovich, ext. 1034.

rab

Encl (handcarried)

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

CF:
Des Svcs Br

CELMN-ED-FS (1110-2-1150a) 29 Sep 89

MEMORANDUM FOR Chief, Design Branch .

SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project - 17th Street Outfall Canal

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3. P.O.C. is Frank Vojkovich, ext. 1034.

Encl (handcarried)

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

CF:
Des Svcs Br

CELMN-ED-DD (ED-SP/17 Jul 89) 1st End Mr. Desai/dn/2657
SUBJECT: Lake Pontchartrain, LA and Vicinity 17th Street Canal Parallel Flood Protection Phase 1B-Hammond Highway to Southern Railroad OLB Project No. 2043-0207

CELMN-ED-D 16 Aug 89

FOR C/Des Svcs Br

We have reviewed the subject plans and specifications and have no comments.

DANIEL A. MARSALONE
Chief, Design Branch

CELMN-ED-SP (1110-2-1150a) 17 July 1989

MEMORANDUM FOR: C/Design Br
C/F&M Br

SUBJECT: Lake Pontchatrain, LA and Vicinity 17th Street Canal Parallel Flood Protection Phase 1B-Hammond Highway to Southern Railroad OLB Project no. 2043-0207.

1. Enclosed please find a 10 July 1989 letter from Modjeski and Masters, Engineers, which transmitted plans and design calculations for the subject project.

2. You are requested to review the reference letter and provide your comments to this office ASAP but NLT COB 16 Aug 1989.

3. Questions concerning this request should be directed to Mr. Vann Stutts ext. 2614.

Thomas E. Harrington

THOMAS E. HARRINGTON JR.
Chief, Design Services Branch

PARTNERS
W. B. CONWAY
H. H. SNYDER
C. F. COMSTOCK
J. J. SCHERRER
J. M. KULICKI

SENIOR ASSOCIATES
R. W. CHRISTIE
C. T. FORTRAN
H. E. WALDNER

CONSULTANTS
T. R. KEALEY
R. E. FELSBURG

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CONSULTING ENGINEERS
Founded 1893

1055 ST. CHARLES AVE.
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ASSOCIATES
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T. Y. SOONG
J. E. PRICKETT
B. P. STRAIN, JR.
D. F. SORGENFREI
B. T. MARTIN, JR.
J. L. MCKENNEY
G. A. MURRAY
D. H. LEROY
R. A. LITTLE
L. V. BORDEN
E. W. ROHRBAUGH

July 10, 1989

Mr. Frederick M. Chatry
Chief of Engineering Division
New Orleans District
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Jn-0908A

RE: 17TH STREET CANAL PARALLEL FLOOD PROTECTION
PHASE 1B - HAMMOND HIGHWAY TO SOUTHERN RAILWAY
OLB PROJECT NO. 2043-0207

Dear Mr. Chatry:

Please find transmitted herewith three final review sets of plans for the above referenced project. Specifications, which are still being typed, will be transmitted in another week to ten days.

All comments made in your letter of April 25, 1989, have been addressed and the plans modified accordingly. The revised slope stability and sheet pile design calculations are attached.

If you have any questions regarding this submission, please contact us. Your timely review and comments are appreciated.

Very truly yours,

MODJESKI AND MASTERS
Engineers

Barney T. Martin

BTM:jrb
cc: Mr. Ed Bailey - Orleans Levee Board
Mr. G. J. Sullivan - Sewerage & Water Board of N.O.
Mr. John Holtgreve - Design Engineering Inc.

Romero,

Levee on that side of 17th St. Canal is a federal levee. Get with Wayne Borne. It seems that some type of permit is needed. He may be able to tell us the procedures we can follow since the letter was sent to us.

Carl G.

Mr. Romero/cn/2645

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

November 3, 1988

Engineering Division
Structural Design Section

Ms. Cindy McWilliams
Gregory C. Rigamer & Associates, Inc~~orporation~~
3230 West Esplanade Avenue, Suite A
Metairie, Louisiana 70002

Dear Ms. McWilliams:

Reference is made to your letter of October 25, 1988 to Mr. Carl Guggenheimer of this office, concerning the proposed Bucktown Pedestrian Plan, Jefferson Parish, Louisiana.

We have completed the review of the plans for the subject project and have no additional comments than those provided to you by Messrs. Guggenheimer and Romero of this office during the October 25 meeting, namely, not extending the proposed pedestrian walkway into the Jefferson Parish Lakefront Levee and avoiding interference with our future floodwall in this area. The floodwall will be a part of the 17th Street Outfall Canal Flood Protection, a feature of the Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project, High Level Plan.

Since the Bucktown Pedestrian Plan is within the scope of the previously permitted drainage improvements along the 17th Street Canal by the Sewerage and Water Board of New Orleans, a supplemental permit will not be required.

Please provide this office with three (3) sets of the final plans and specifications for pedestrian plan when they become available.

If we can be of further assistance on this matter, please let us know.

Sincerely,

Frederic M. Chatry
Chief, Engineering Division

CF: CELMN-OD-OF

GUGGENHEIMER
CELMN-ED-DD

MARSALONE
CELMN-ED-D

HARRINGTON
CELMN-ED-S

CHATRY
CELMN-ED

1 SCHO
CELMN-OD

gregory c. rigamer & associates, inc.
3230 west esplanade avenue, suite a
metairie, louisiana 70002
(504) 836-6166

October 25, 1988

5:11|3

Mr. Carl R. Guggenheimer, Chief
Structural Design Section
United States Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

G.C.R. File No. 60034 Bucktown Pedestrian Plan

Dear Mr. Guggenheimer:

Thank you for the time that you and Mr. Romero spent in reviewing our proposed pedestrian plan and aesthetic improvements for the Bucktown area. I am enclosing an amended set of plans for your review.

As you requested, I have delineated the preliminary plans you provided for the Orpheum Avenue floodgate on our drawing to compare the relationship between the floodgate and the proposed access drive we discussed today. I highlighted the major components on the enclosed blueprint. It appears that the gate will easily clear the access drive and associated parking area. Please note that the parking area we propose is a simple reconfiguration from parallel to angle parking. We have not increased the width or total area to be paved.

The sign we propose is of simple frame construction which will require a 2'x2'x6" slab for a foundation. If construction of this sign is allowed at this location, we will be prepared to move it when the floodgate is installed since the floodgate structure will block the view of the sign.

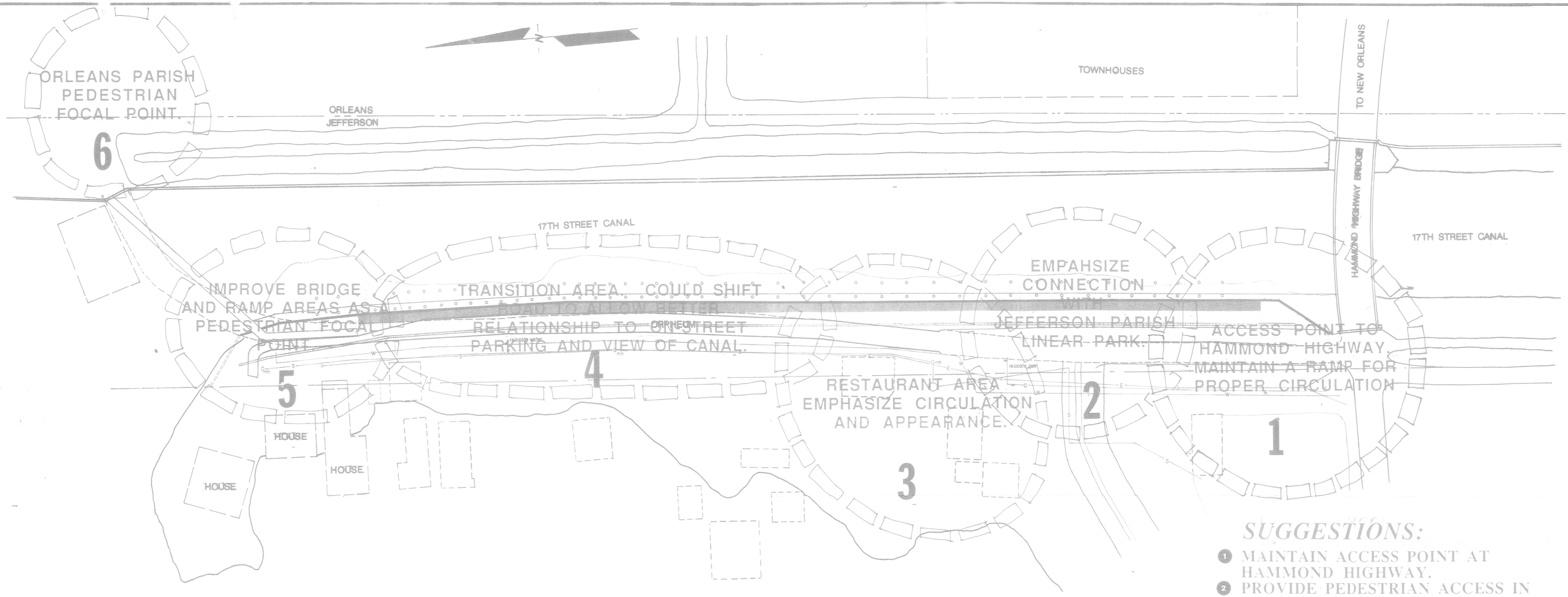
Our recommendations for a pedestrian plan have been developed at the request of the Jefferson Parish Department of Roads and Bridges. We have worked closely with Ms. Martha Sternitzke of Modjeski and Masters Engineers to ensure that our proposed improvements do not change any of the structural elements of the project as it is currently permitted. We hope that this conservative approach will result in aesthetic improvements which complement the engineering design that has been developed over a number of years.

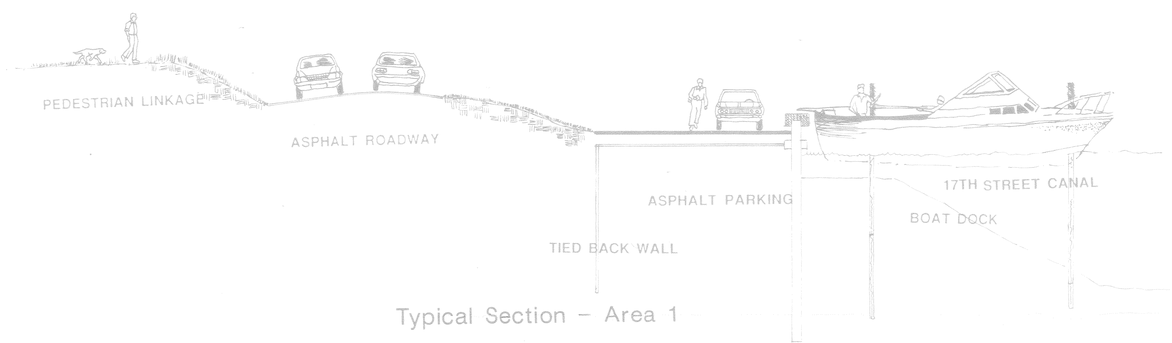
I appreciate the prompt scheduling of our meeting today. I know that you understand the urgency of reviewing these plans because the project is now under construction. If a supplemental permit will be required, we need to start the application process as soon as possible. We will appreciate hearing the results of your evaluation at your earliest possible convenience.

Sincerely,

Cindy McWilliams

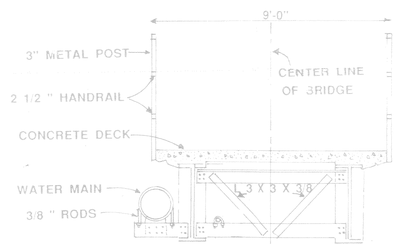
CM:jlg
Enclosures





Typical Section – Area 1

Typical Section – Area 5



PROPOSED BRIDGE SECTION (TYP.)

SUGGESTIONS:

1. MAINTAIN ACCESS POINT AT HAMMOND HIGHWAY.
2. PROVIDE PEDESTRIAN ACCESS IN BUCKTOWN.
3. CONNECT BUCKTOWN PEDESTRIAN ACCESS TO JEFFERSON PARISH LINEAR PARK SYSTEM.
4. IMPROVE PARKING CONFIGURATION IS TOO CLOSE TO SHEET PILE WALL.
5. IMPROVE BRIDGE AND ORPHEUM AVENUE TRANSITION.
6. PROVIDE A PEDESTRIAN FOCAL POINT AT THE BRIDGE.
7. IMPROVE THE APPEARANCE OF THE BRIDGE PAVING AND HANDRAIL.
8. PROVIDE ELECTRICAL OUTLETS AT THE RATE OF 1 PER 400 FEET.
9. PROVIDE HOSE BIBBS AT THE RATE OF 1 PER 400 FEET.
10. PROVIDE LIGHTING- 24 STANDARDS AT THE RATE OF 1 PER 50 FEET.

BUCKTOWN PEDESTRIAN PLAN
JEFFERSON PARISH

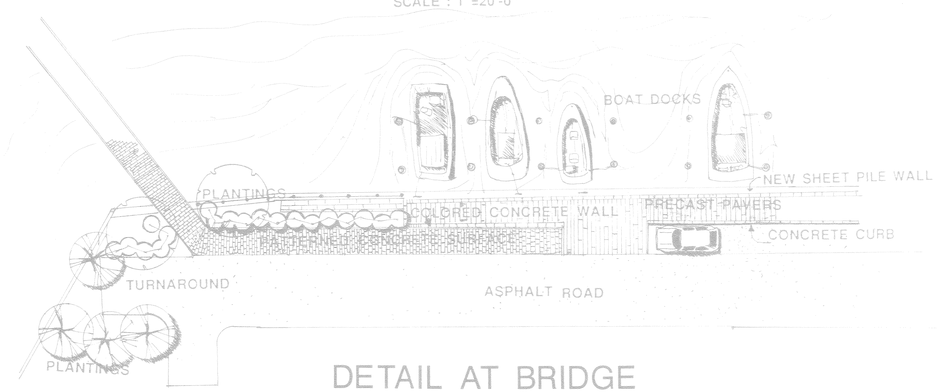
ANALYSIS OF CURRENT PROPOSAL

50' 25' 0' 50'

prepared by: g.c.r. & associates, inc.

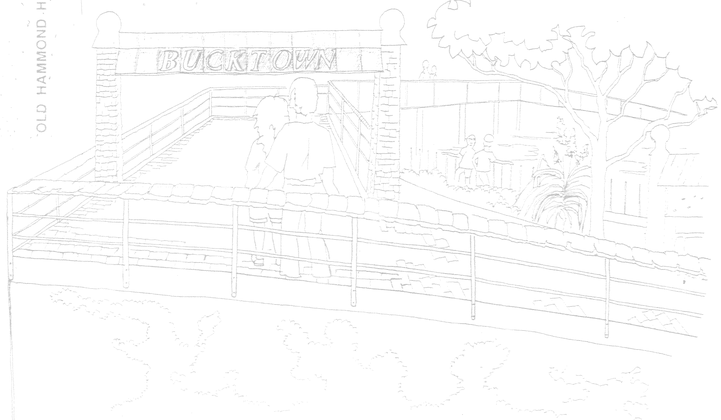
DETAIL AT ENTRY

SCALE : 1"=20'-0"



DETAIL AT BRIDGE

SCALE 1"=20'-0"



Perspective at Bridge

Perspective at Entry

BUCKTOWN PEDESTRIAN PLAN
JEFFERSON PARISH

RECOMMENDED PEDESTRIAN PLAN

50' 25' 0' 50'

prepared by: g.c.r. & associates, inc.

Mr. Desai/cn/2657

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

November 1, 1988

Engineering Division
Structural Design Section

Mr. Barney T. Martin
Modjeski and Masters
Consulting Engineers
1055 St. Charles Avenue
New Orleans, Louisiana 70130

Dear Mr. Martin:

Reference is made to your October 18, 1988 letter, concerning the 17th Street Canal Parallel Flood Protection Phase 1B, in which you proposed the reuse of some of the existing sheet piling between station 627+28 and station 638+31 and between station 643+00 and station 670+62.90. Reference is also made to our October 21, 1988 letter, concerning the same project, in which we provided our comments concerning the alignment and stability of the subject floodwall.

We do not have any objections to reusing the existing sheet piling, provided our October 21, 1988, comments are resolved to satisfy Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection, Project, High Level Plan, design criteria.

If you have any questions concerning the above, please contract Mr. Desai at telephone number 862-2657.

Sincerely,

Frederic M. Chatry
Chief, Engineering Division

GUGGENHEIMER
CELMN-ED-DD

MARSALONE
CELMN-ED-D

CHATRY
CELMN-ED

MODJESKI AND MASTERS
CONSULTING ENGINEERS
Founded 1893

1055 ST. CHARLES AVE.
NEW ORLEANS, LA. 70130
TELEPHONE 504 · 524-4344

October 18, 1988

JN-0908

Mr. Jorge Romero
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Dear Jorge:

As I mentioned in our telephone conversation last week, we have discovered that due to the most recent changes in sheet pile design criteria for the Lake Pontchartrain Flood Protection Plan, it may now be possible to reuse some of the existing sheet pile on the Orleans levee of the 17th Street Canal for the High Level Flood Protection Plan. According to the enclosed drawing, dated 1964, the existing sheet pile on the Orleans levee between Hammond Highway and a point south of Veterans Highway is copper bearing, type M-115, and has a length of 20'. (The specifications for this type of sheet pile are enclosed.)

We are proposing to have the Contractor pull sheet pile from the area defined above and reuse some of it between Stations 627+28 and 638+31 and between Stations 643+00 and 670+62.9. Only about one-half of the existing sheets will need to be reused. Those that are, will of course be blasted and coated along the required length.

Our calculations show that type M-115 sheet pile has an adequate section modulus, based on an allowable stress of 0.45Fy, to resist the design bending moments specified in Eustis' geotechnical analysis (31 August 1988). In addition, the deflection obtained by using the pressure diagram resulting from a factor of safety of 1.0 applied to the Q-case soil strengths with a high water level 2 feet above SWL is well under the allowable 1.5 inches.

We would appreciate any comments you might have on this matter. If you require any further information or have any questions, please do not hesitate to call.

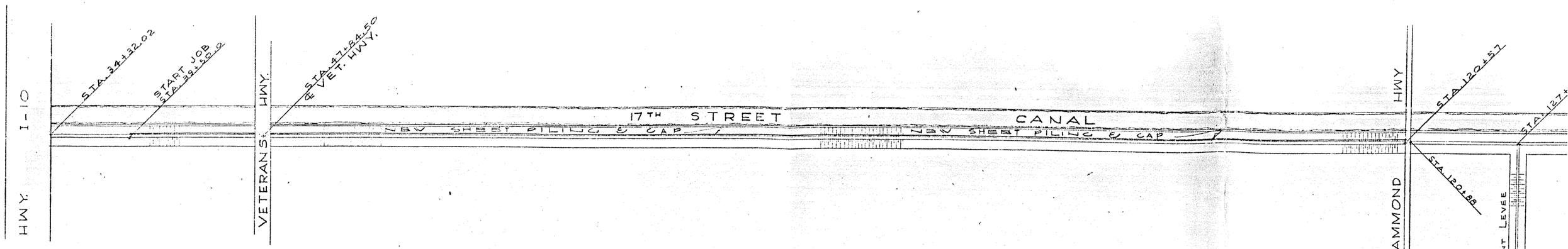
Very truly yours,

MODJESKI AND MASTERS
Engineers

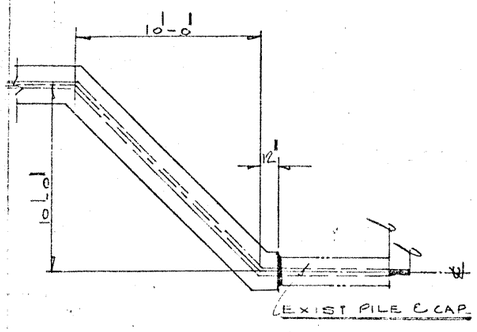
Barney T. Martin
BARNEY T. MARTIN

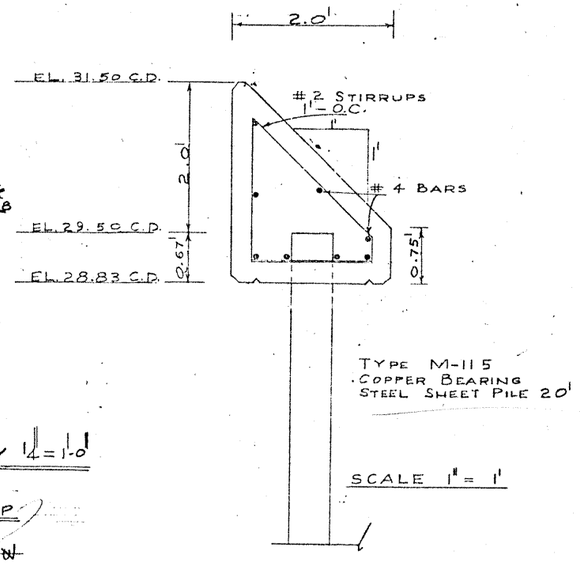
BTM:jrb
Enclosure

NORTH



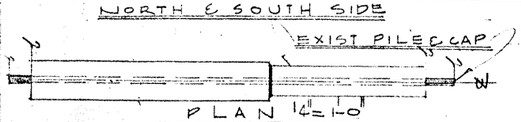
PLAN 1" = 300'

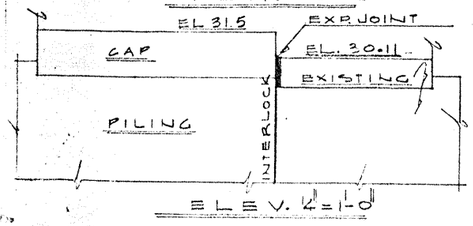




CAP DETAIL

DETAILS FOR TIE-IN, VETERANS HWY 1/4"=1'-0"
NORTH & SOUTH SIDE





DETAILS FOR TIE-IN, SOUTH SIDE HAMMOND HWY

THEORETICAL SECTION

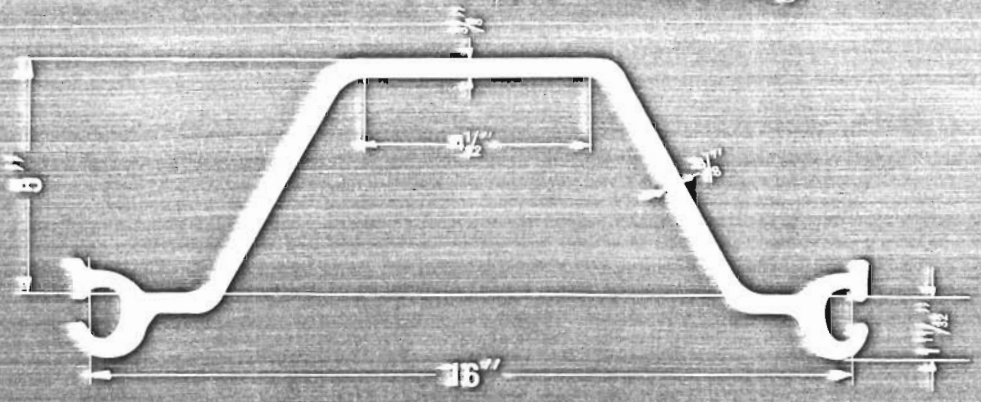
SCALE: 1" = 10'

FROM STATION	TO STATION	WORK ITEMS
39+50	120+57	STEEL SHEET PILE CONCRETE CAP RAISING & RESHAPING LE
120+88	133+60	RAISING & RESHAPING LE

105-C-12 1/13

BOARD OF LEVEE COMMISSIONER
OF THE
ORLEANS LEVEE DISTRICT
STEEL SHEET PILE BULKHEAD
REINFORCED CONCRETE CAP
RAISING AND RESHAPING
FROM I-10 TO BUCKTOWN BRIDGE
EAST SIDE 17TH STREET CANAL
DATE: 11-19-64 APPR. [signature]
CHIEF ENG. LA. DEPT. C
DWG. NO. 105-(

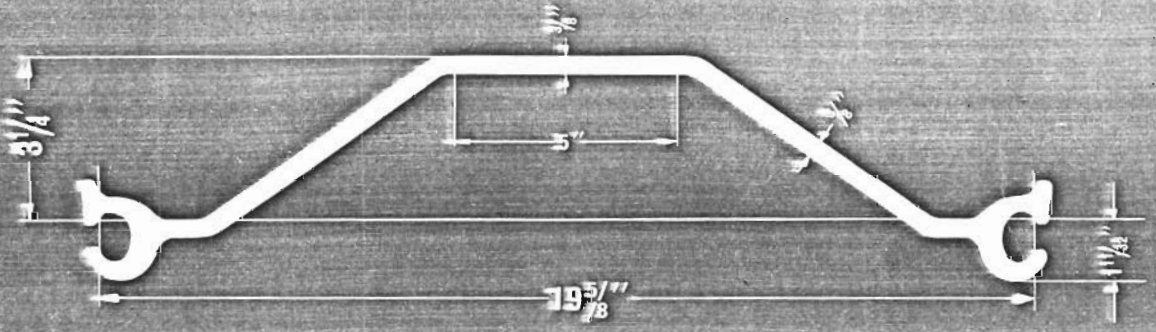
Section MP-116 — 5" Arch, ⅜" Web and Flange



WEIGHT PER FOOT - - - - - - - - - 36.0 POUNDS
WEIGHT PER SQUARE FOOT OF WALL - - 27.0 POUNDS

To obtain number of pieces required multiply length of wall in feet by .75. See table page 38.

Section MP-115 — 3¼" Arch, ⅜" Web and Flange



WEIGHT PER FOOT - - - - - - - - - 36.0 POUNDS
WEIGHT PER SQUARE FOOT OF WALL - - 22.0 POUNDS

Section Number	Driving Distance Per Pile	Web and Flange Thickness	Weight		Section Modulus		Area	Moment of Inertia Per Pile
			Per Lineal Foot of Pile	Per Square Foot of Wall	Per Pile	Per Foot of Wall		
	Inches	Inches	Pounds	Pounds	Inches³	Inches³	Square Inches	Inches⁴
MP-116	16	⅜	36.0	**27.0**	14.3	**10.7**	10.59	53.0
MP-115	19⅝	⅜	36.0	**22.0**	8.8	**5.4**	10.59	22.4

To obtain number of pieces of MP-115 required for any length of wall in feet, see page 39. For MP-116, see page 38.

USS Piling Sections MP-110, MP-112, MP-113, MP-115 and MP-116 interlock with each other.

All corners and standard fabricated connections for MP-115 and MP-116 are made from Plain Piling Sections MP-112 or MP-113. Special Tee and Cross pieces can be fabricated from Sections MP-115 and MP-116 or a combination of these sections with half-sections of MP-112 or MP-113.

For bent and fabricated corners, see page 34.
For standard fabricated connections, see pages 35 and 36.
For cofferdam combinations, see page 46.
For standard handling and pulling holes, see page 59.

OFFICE CORRESPONDENCE

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO ATTENTION OF

October 21, 1988

Engineering Division
Projects Engineering Section

Mr. Barney T. Martin, Jr.
Modjeski and Masters
1055 St. Charles Avenue
New Orleans, Louisiana 70130

Dear Mr. Martin:

Reference is made to your September 21, 1988, letter concerning the 17th Street Canal Parallel Flood Protection Phase 1B - Hammond Highway to Southern Railway, OLB Project No. 2043-0207.

We have reviewed the preliminary plans and have the following comments:

a. The following stations should have the protected side (P.S.) crown width degraded as shown in the stability analysis by Eustis Engineering. The P.S. slope should be degraded to El. 0.0 or natural ground, whichever is higher.

STATION	EXISTING P.S. CROWN WIDTH	RECOMMENDED BY EUSTIS ENGR P.S. CROWN WIDTH
558+00	12.5'	11.5'
564+00	14'	11.5'
568+00	11'	10'
578+00	11'	10'
580+00	13'	10'
582+00	11'	10'
586+00	13'	10'

b. The following reaches should have the I-wall stability analyses based on the minimum crown width or have the wall alignment changed to match the minimum sheet pile requirements:

REACH	STATION	MINIMUM EXISTING CROWN WIDTH
STA. 589+00 to 614+00	596+00	8'
STA. 614+00 to 625+00	616+00	5'
STA. 625+00 to 634+00	634+00	4'
STA. 625+00 to 634+00	627+28	6'

c. Sta. 643+00 to Sta. 663+00. The stability analysis by Eustis Engineering had a 1V on 3H levee slope on the canal side. This reach was dredged by a contractor. At Sta. 659+00 and Sta. 651+00, the distance from the levee crown to El. -10.0 (67.5') is less than a 1V on 3H slope. Since the shear strength along the failure surface is dependent on the ground surface profile above EL. -10.0, a ground surface below a 1V on 3H slope at 67.5' away from the levee crown will result in a lower factor of safety.

d. Sta. 663+00 to Sta. 669+87. The sections shown on the plans do not correspond to the stability analyses presented for this reach. At sta. 663+00 and sta. 669+87, the distance from the crown of the levee to El. -16.5 is 90' in the plans (not 93' as shown in the stability analysis). At sta. 669+87, due to the actual levee slope profile below water which was overdredged by the contractor, approximately 98' is needed from the crown to El. -16.5. At sta. 663+00, 97' is required from the crown to El. -16.5.

If you have any questions concerning the above review comments, please contact Mr. **Vann Stutts**, phone (504) 862-2614.

Sincerely,

Frederic M. Chatry
Chief, Engineering Division

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-SP (1110-2-1150a)	Lake Pontchartrain La & Vic 17th St. Outfall Canal Parallel Flood Protection Phase 1B - Hammond Highway to Southern Railway OLB Proj. NO. 2043-

TO	FROM	DATE	CMT 1
C/F&M Br C/Des Br	C/Des Svcs Br	26 Sep 88 Stutts/saj/2614	

1. Reference the enclosed letter form Modjeski and Masters Engineers concerning the subject preliminary plans and outline specifications for the subject project.

2. Each of your offices is requested to review the subject plans relative to your area of expertise. Please provide your comments ASAP but NLT COB 13 Oct 88. Should you have any questions concerning this request, please contact Mr. Vann Stutts ext. 2614.

Thomas E. Harrington

Encl
(Hand-Carried)

THOMAS E. HARRINGTON, JR.
Chief, Design Services Branch

CELMN-ED-DD

TO	FROM	DATE	CMT 2
C/Des Svcs Br	C/Des Br	11 Oct 88 Mr. Desai/cn/2657	

As requested we reviewed the subject: Preliminary Plans and Specifications. Our comments are as follows:

a. At several locations the proposed floodwall alignment, levee setback and levee crown elevations depart from the design sections furnished to this office by F&M Branch for preparing the GDM for the subject canal. Since the sheet pile size and penetration are dependent on the soil stability, approval of the proposed plans should be based on comments from F&M Branch.

b. Should F&M Branch provides comments requiring revision to the sheet piling penetration, this office must reevaluate these sheet pile size.

DANIEL A. MARSALONE
Chief, Design Branch

29

_____ MARSALONE

_____ GUIZERIX

_____ CINDY

_____ DD

_____ DE

_____ DG

_____ DL

_____ DR

_____ DW

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_____ SUSPENSE

_____ DISTRIBUTE

_____ RELEASE

_____ FILE

_____ DESTROY

CELMN-ED-FS
SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project, (HLP), 17th Street Canal, Levee at Old Pumping Station #6

TO C/Des Br FROM C/F&M Br DATE 29 Aug 88 CMT 2
Mr. Vojkovich/cl/1034
FV JR

1. The existing levee over the discharge tubes can be used for mainline flood protection. No seepage cutoff is required, but we recommend the slab on levee slope as shown in your encl 2.

2. As requested by telephone conversation, pile load tests on timber piles with a tip EL. of -16.75 Cairo Datum and ground surface elevation of 23.0 C.D. were made in 1984 for the existing floodwall at Pump Station No. 6. The ultimate compression load was 28 tons and the ultimate tension load was 25.5 tons.

ENCLS
wd

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

CELMN-ED-FS
SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project, (HLP), 17th Street Canal, Levee at Old Pumping Station #6

TO C/Des Br FROM C/F&M Br DATE 29 Aug 88 CMT 2
Mr. Vojkovich/cl/1034

1. The existing levee over the discharge tubes can be used for mainline flood protection. No seepage cutoff is required, but we recommend the slab on levee slope as shown in your encl 2.

2. As requested by telephone conversation, pile load tests on timber piles with a tip EL. of -16.75 Cairo Datum and ground surface elevation of 23.0 C.D. were made in 1984 for the existing floodwall at Pump Station No. 6. The ultimate compression load was 28 tons and the ultimate tension load was 25.5 tons.

ENCLS
wd

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-DD	Lake Pont. LA & Vic Hurricane Prot. Pros., HLP, 17th St. Outfall Canal - P&S by Modjeski and Masters

TO	FROM	DATE	CMT 1
C/Des Svcs Br.	C/Des Br.	21 Aug 87 Mr. Romero/x2645	

1. Reference is made to your multiple DF, dated 13 Aug 87, subject as above.

2. We review the subject P&S for the reach of the canal from Lake Pont. to Hammond Hwy. All of our previous comments have been incorporated into the P&S. However we have an additional comment. We recommend that the elevation of the Orleans Parish levee crown as shown on sheet 6 be annotated with "(Protected Side)" to avoid future confusion on this elevation since the flood side levee crown elevation is lower than the elevation shown on the subject drawing.

CF: CELMN-ED-FS

WALTER D. TUDCIN, III
Chief, Design Branch

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-DD	Lake Pontchartrain, La. & Vicinity Hurricane Protection Project, (HLP), 17th Street Canal, Levee at old Pumping Station #6

TO	FROM	DATE	CMT 1
C/F & M Br. 8/10	C/ Des. Br.	9 Aug. 1988	

Mr. Desai/2657

1. The existing site conditions at the old pumping station #6 are shown in the attached sketches (Encl. 1 through 4)

2. It is requested that you evaluate the stability of the existing levee for the high level hurricane flood conditions and provide your recommendation for utilizing the levee for providing the main line flood protection at this station.

3. Additionally, it is requested that you evaluate the seepage cut-off requirement at this location for the existing site conditions and for the modified site conditions with a slab on the levee slope as shown on enclosure 2.

4. Please provide your recommendations as soon as possible but no later then 26 August 1988

Encl. As.

Daniel A. Marsalone
Chief, Design Branch

4L

DA FORM AUG 80 2496 PREVIOUS EDITIONS WILL BE USED GPO : 1987 O - 172-428

PARTNERS
W. B. CONWAY
H. H. SNYDER
C. F. COMSTOCK
J. J. SCHERRER
J. M. KULICKI

SENIOR ASSOCIATES
R. W. CHRISTIE
C. T. FORTRAN
H. E. WALDNER

CONSULTANTS
T. R. KEALEY
R. E. FELSBURG

MODJESKI AND MASTERS
CONSULTING ENGINEERS
Founded 1893

1055 ST. CHARLES AVE.
NEW ORLEANS, LA. 70130
TELEPHONE 504 - 524-4344

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B. P. STRAIN, JR.
D. F. SORGENFREI
B. T. MARTIN, JR.
J. L. MCKENNEY
G. A. MURRAY
D. H. LEROY
R. A. LITTLE
L. V. BORDEN
E. W. ROHRBAUGH

August 17, 1988

Mr. Jorge Romero
Engineering Division
New Orleans District,
Corps of Engineers
Post Office Box 60267
New Orleans, LA 70160

RE: 17TH STREET CANAL PARALLEL FLOOD PROTECTION
OLB PROJECT NO. 2043-2027

Dear Jorge:

We would like to thank you for meeting with us yesterday to clarify some of the recent changes to the Corps design criteria for cantilever flood walls for the Lake Pontchartrain Flood Protection Plan. We understand that the criteria discussed in our meeting only applies to flood protection around Lake Pontchartrain and does not necessarily apply to any other locations. As a matter of confirmation, I have listed our understanding of the new criteria as presented to us in the meeting.

DETERMINATION OF SHEET PILE PENETRATION

"Q" CASE

Factor of Safety = 1.5, with water to SWL and landside water at el. 0.0.

Factor of Safety = 1.25, with SWL and wave load and landside water at el. 0.0. (No wave load to be considered in 17th Street Canal)

Factor of Safety = 1.0, with water to SWL plus 2.0 feet and land side water at el. 0.0.

"S" CASE

Factor of Safety = 1.2, with SWL and plus wave load and landside water at el. 0.0. (No wave load to be considered in 17th Street Canal)

"S" CASE (CONTINUED)

Factor of Safety = 1.5, with water at SWL and landside water at el 0.0 or a penetration to head ratio equal to 3:1, whichever results in the least penetration.

Our analysis approach for the "S" Case will be to first check the penetration required for a facotr of safety of 1.5. This penetration will be compared with the penetration required to meet the 3:1 penetration to head ratio. If the 3:1 ratio requires a deeper penetration than the factor of safety of 1.5, the penetration required by the factor of safety of 1.5 will be used. If the 3:1 ratio results in a penetration less than the factor of safety of 1.5, then the factor of safety of 1.2 will be checked. If the factor of safety of 1.2 results in a penetration greater than the 3:1 check, then the penetration required by the factor of safety of 1.2 will be used. If the 3:1 requirement is deeper than the factor of safety of 1.2, then the 3:1 requirement will be used.

DETERMINATION OF BENDING MOMENT

To determine the bending moment in the sheet pile, the pressure diagram resulting from the "Q" or "S" Case dictating the penetration will be used. For example, if the "S" Case using a factor of safety of 1.2 applied to the soil determines the penetration, the pressure diagram resulting from that factor of safety will be used to determine the bending moment. The exception to this is when the 3:1 case governs. Then a trial and error approach will be used to determine what factor of safety needs to be applied to the soil to result in that penetration. This factor of safety will then be used to determine the pressure diagram that will be used to generate the bending moment. Obviously some judgement can be used here. If the penetration of the 3:1 case is close to that of the factor of safety case of 1.5 or 1.2 then those pressure diagrams could be used. This allowable stress in the sheet pile will still be kept at .45 fy.

DETERMINATION OF DEFLECTION

To determine deflection, only one case is to be checked. That case will be the pressure diagram resulting from the "Q" Case using a factor of safety of 1.0 with water to SWL plus 2.0 feet and landside water at el 0.0. The allowable deflection is still 1.5".

If we have misunderstood any of your directions, please let us know. If we do not hear from you, we will assume our understanding is correct and will proceed using the approach outlined above.

Very truly yours,

MODJESKI AND MASTERS
Engineers

Barney T. Martin
BARNEY T. MARTIN

BTM:jrb

cc: Mr. Ed Bailey - Board of Levee Commissioners
Mr. John Holtgreve - Design Engineering Inc.
Mr. Berkeley Traughber

M. Desai/cm/2657

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF

August 12, 1988

Engineering Division
Structural Design Section

Mr. Barney Martin
Modjeski and Masters
Consulting Engineers
John Hancock Building
Room 510
1055 St. Charles Avenue
New Orleans, Louisiana 70113

Dear Mr. Martin:

Reference is made to a copy of your letter dated August 1, 1988, addressed to Mr. C. E. Bailey, Chief Engineer of the Orleans Levee District, furnished to this office in which you requested our review of the contract plans and specifications for the 17th Street Canal Toe-Wall at Pumping Station Number 6.

The design of the toe-wall is satisfactory. However, we recommend that the end of the concrete cap be revised as shown on the attached sketches. This revision is required to facilitate transitioning the proposed flood protection at the pumping station into the floodwall along the east bank of the canal to be constructed under the Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project, High Level Plan.

Sincerely,

Frederic M. Chatry
Chief, Engineering Division

Enclosure

GUGGENHEIMER
CELMN-ED-DD

MARSALONE
CELMN-ED-D

CHATRY
CELMN-ED

41

~~Messrs. Seale~~ MKB
~~Chabraj~~

Mr. Marsalus

S: 08-16-88

E-5478

Enclosures were
hand delivered
to
Mr. Jorge Romero

MODJESKI AND MASTERS
CONSULTING ENGINEERS
Founded 1893

1055 ST. CHARLES AVE.
NEW ORLEANS, LA. 70130
TELEPHONE 504 - 524-4344

August 1, 1988

JN-0650

Mr. C. E. Bailey
Chief Engineer
Board of Levee Commissioners
Orleans Levee District
Suite 202, Administration Bldg.
New Orleans Lakefront Airport
New Orleans, LA 70126

RE: 17TH STREET CANAL
TOE - WALL AT PUMP STATION NO. 6

Dear Mr. Bailey:

Please find transmitted herewith one review set of plans and specifications for the above referenced project.

By copy of this letter, we are delivering two sets of plans and specifications to the Corps of Engineers for their review.

Upon receipt of all comments, we will expedite any necessary changes and have the final plans and specifications to you immediately thereafter.

If we can be of any further assistance at this time, please let us know.

Very truly yours,

MODJESKI AND MASTERS
Engineers

Martha L Sternitzke
MARTHA L. STERNITZKE

MLS:jrb
Enclosures
cc: Mr. Fred Chatry - U.S. Army Corps of Engineers
Mr. John Holtgreve - Design Engineering Inc.

40

Mr. Desai's
FILE COPY

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

August 12, 1988

Engineering Division
Structural Design Section

Mr. Barney Martin
Modjeski and Masters
Consulting Engineers
John Hancock Building
Room 510
1055 St. Charles Avenue
New Orleans, Louisiana 70113

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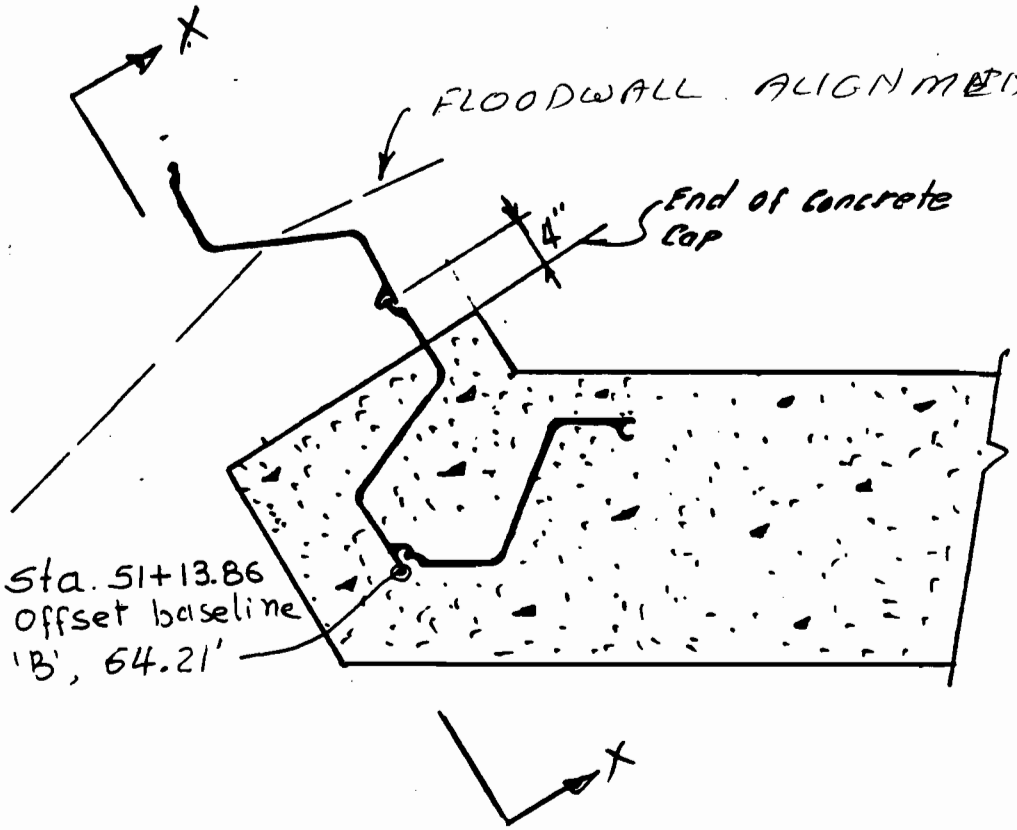
Sincerely,

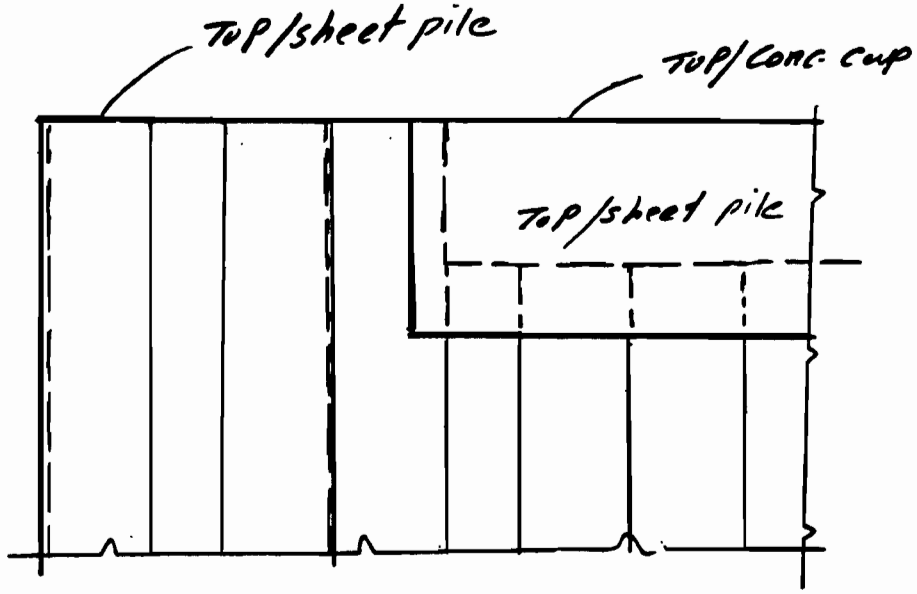
Frederic M. Chatry
Chief, Engineering Division

Enclosure

37



DETAIL A



SECTION X-X.

CELMN-ED-FS
SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project, (HLP) 17th Street Canal, Toe Wall at Pumping Station #6

TO C/Des Br FROM F&M Br DATE 3 Aug 88 CMT 2
Mr. Vojkovich/aah/1034
FV JR

We have reviewed the plans and specifications for the pile braced toe-wall at Pump Sta. No. 6 and have no objections.

RPP

Encl
wd

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

3

CELMN-ED-FS
SUBJECT: Lake Pontchartrain, LA & Vicinity Hurricane Protection Project, (HLP) 17th Street Canal, Toe Wall at Pumping Station #6

TO C/Des Br FROM F&M Br DATE 3 Aug 88 CMT 2
Mr. Vojkovich/aah/1034

We have reviewed the plans and specifications for the pile braced toe-wall at Pump Sta. No. 6 and have no objections.

Encl
wd

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-DD	Lake Pontchartrain, La. & Vicinity Hurricane Protection Project (HNP) 17th street Canal, Toe wall at Pumping Station #6,

TO	FROM	DATE	CMT 1
C/F&M Br	C/Des Br.	1 Aug. 1988	

Mr. Desai/2657

Please review the attached set of plans and specifications for the above referenced subject and furnish your comment as soon as possible but no later than 4 August 1988.

for Daniel A Marsalone
Chief, Design Branch

Encl. as.

36

DA FORM AUG 80 2496 PREVIOUS EDITIONS WILL BE USED GPO : 1987 O - 172-428

MODJESKI AND MASTERS
CONSULTING ENGINEERS
Founded 1893

1055 ST. CHARLES AVE.
NEW ORLEANS, LA. 70130
TELEPHONE 504 - 524-4344

August 1, 1988

JN-0650

Mr. C. E. Bailey
Chief Engineer
Board of Levee Commissioners
Orleans Levee District
Suite 202, Administration Bldg.
New Orleans Lakefront Airport
New Orleans, LA 70126

RE: 17TH STREET CANAL
TOE - WALL AT PUMP STATION NO. 6

Dear Mr. Bailey:

Please find transmitted herewith one review set of plans and specifications for the above referenced project.

By copy of this letter, we are delivering two sets of plans and specifications to the Corps of Engineers for their review.

Upon receipt of all comments, we will expedite any necessary changes and have the final plans and specifications to you immediately thereafter.

If we can be of any further assistance at this time, please let us know.

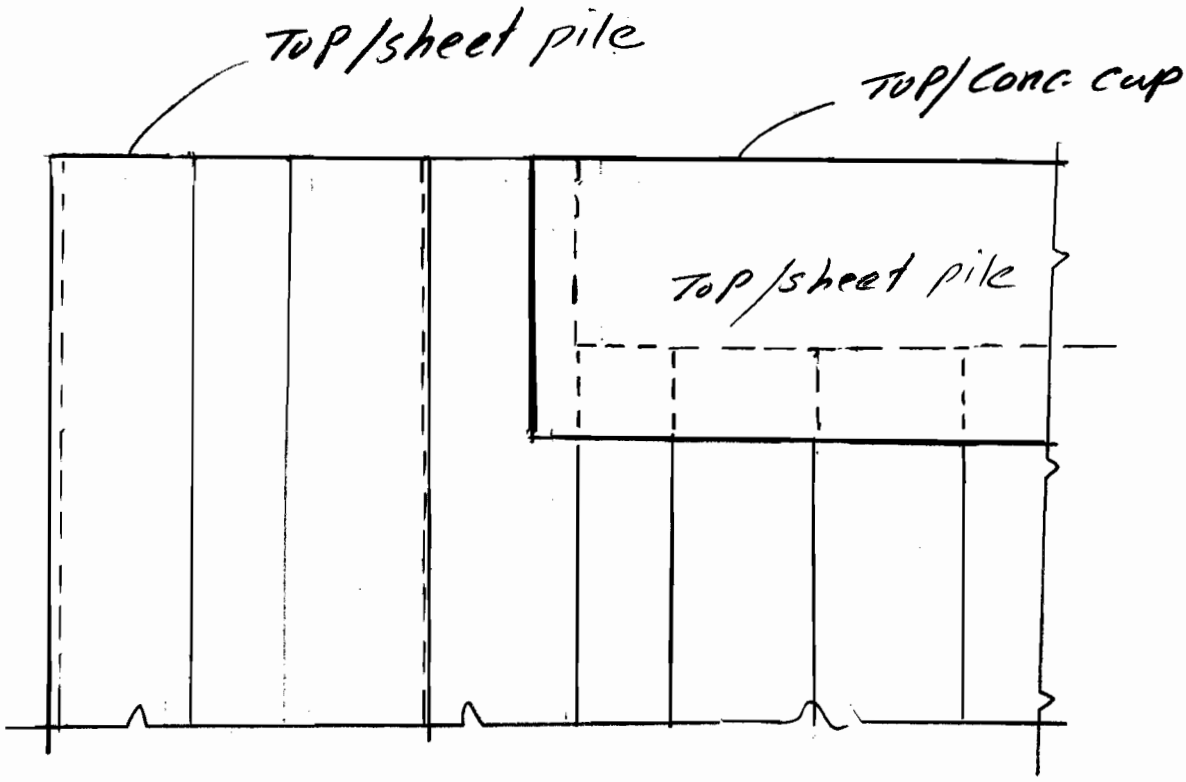
Very truly yours,

MODJESKI AND MASTERS
Engineers

Martha L Sternitzke
MARTHA L. STERNITZKE

MLS:jrb
Enclosures
cc: Mr. Fred Chatry - U.S. Army Corps of Engineers
Mr. John Holtgreve - Design Engineering Inc.

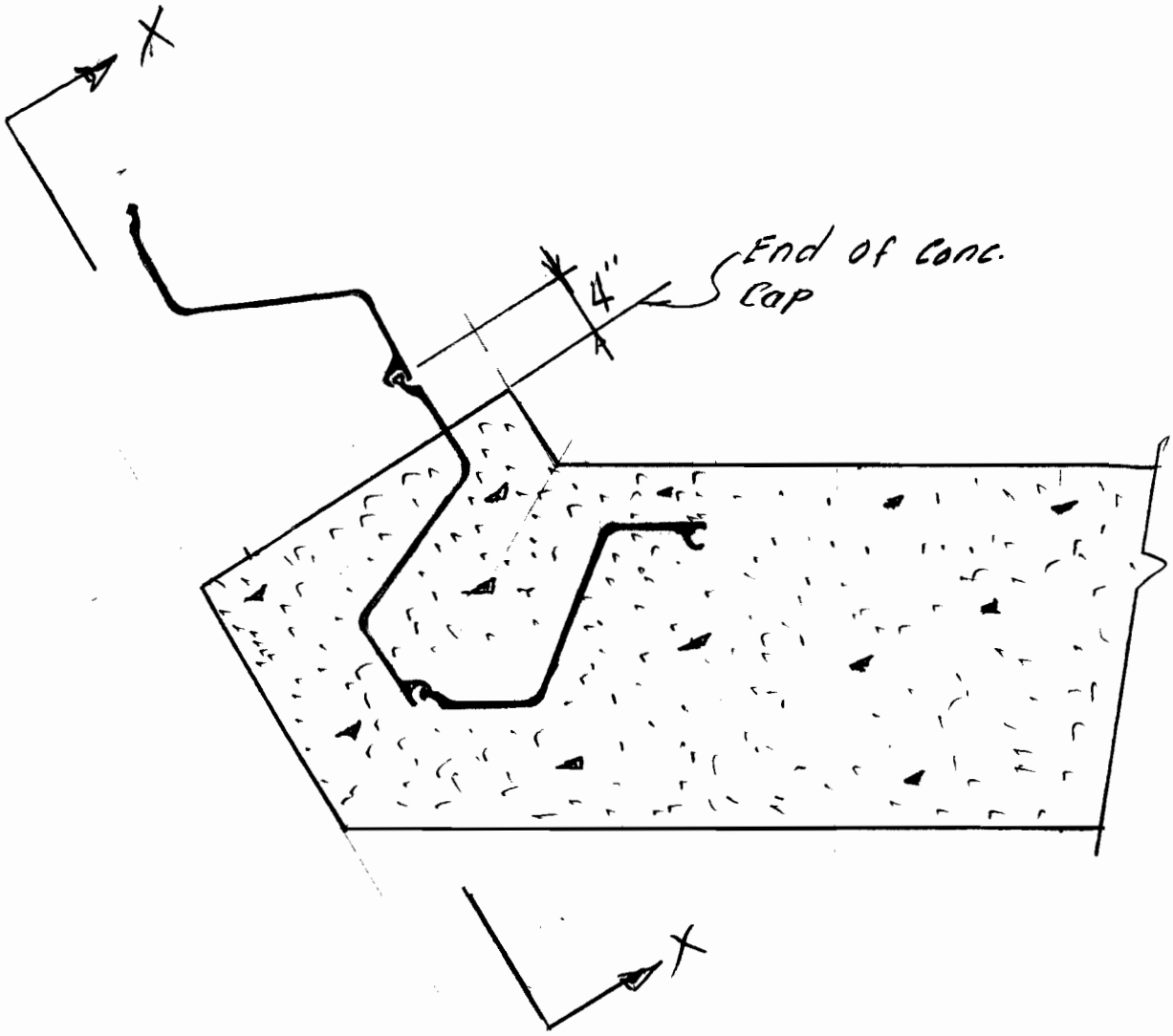
PROJECT 17th St. Canal	PAGE 2 OF 2	COMPUTED BY	DATE
SUBJECT Toe wall @ pump Sta #6		CHECKED BY	DATE



SECTION X-X.

COMPUTATION SHEET

PROJECT 17th St. Canal,	PAGE 1 OF 2	COMPUTED BY	DATE
SUBJECT Toe Wall @ Pump Sta. #5		CHECKED BY	DATE



DETAIL A

THE BOARD OF LEVEE COMMISSIONERS

OF THE

ORLEANS LEVEE DISTRICT

SPECIFICATIONS

FOR

EXCAVATION AND FLOOD PROTECTION OF THE 17TH STREET CANAL

PHASE IB
HAMMOND HIGHWAY BRIDGE TO PUMP STATION NO. 6

CONTRACT _____

_____, 1988

(32)

17TH STREET CANAL

PHASE II

CONTRACT _____

TABLE OF CONTENTS

CONTRACT _____

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GENERAL SPECIFICATIONS

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TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

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SECTION 4

DREDGING, DISPOSAL, AND LEVEE RECONSTRUCTION

SECTION 5

STEEL SHEET PILING

SECTION 6

TURFING

SECTION 7

MISCELLANEOUS SPECIFICATIONS

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BID PROPOSAL AND LIST OF EXPERIENCE

SPECIAL SPECIFICATIONS OUTLINE

****

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GENERAL PROVISIONS

2.01 Contract Documents
2.02 Extent of Work
2.03 Special Specifications
2.04 Bidders to Examine Locations and Plans
2.05 Qualifications of Bidders
2.06 License from Successful Contractor
2.07 Order to Purchase Materials and Start Work
2.08 Liquidated Damages for Failure to Start or Complete on Time
2.09 Payment and Retainers
2.10 Variation in Estimated Quantities - Dredging
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SECTION 3

DEMOLITION

SECTION 4

DREDGING, DISPOSAL, AND LEVEE RECONSTRUCTION

SECTION 5

STEEL SHEET PILING

SECTION 6

TURFING

SECTION 7

MISCELLANEOUS SPECIFICATIONS

SECTION 8

BID PROPOSAL AND LIST OF EXPERIENCE

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-DD	Lake Pontchartrain, La. & Vicinity Hurricane Protection Project, (HLP) 17th Street Canal, Levee at old Pumping Station #6

TO	FROM	DATE	CMT 1
C/F & M Br.	C/ Des. Br.	9 Aug. 1988 Mr. Desai/2657	

1. The existing site conditions at the old pumping station #6 are shown in the attached sketches (Encl. 1 through 4)

2. It is requested that you evaluate the stability of the existing levee for the high level hurricane flood conditions and provide your recommendation for utilizing the levee for providing the main line flood protection at this station.

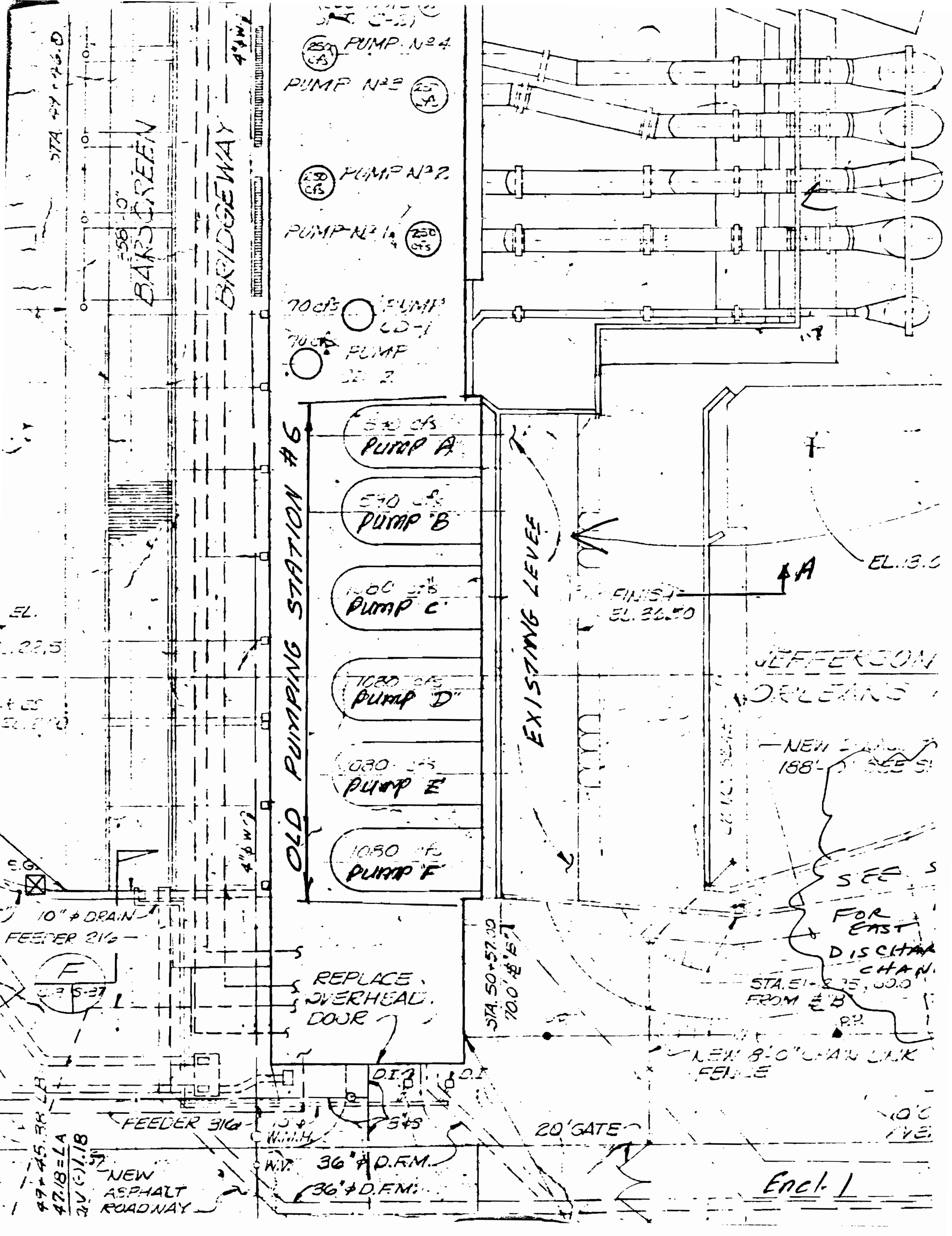
3. Additionally, it is requested that you evaluate the seepage cut-off requirement at this location for the existing site conditions and for the modified site conditions with a slab on the levee slope as shown on enclosure 2.

4. Please provide your recommendations as soon as possible but no later then 26 August 1988

Encl- As.

Carl R Guggenheimer
Chief, Design Branch

31


PUMP Nº 4
PUMP Nº 3
PUMP Nº 2
PUMP Nº 1
250 cfs
70 cfs PUMP CD-1
70 cfs PUMP CD-2
OLD PUMPING STATION #6
Pump A
Pump B
Pump C
Pump D
Pump E
1080 cfs
Pump F
EXISTING LEVEE
BARS GREEN
BRIDGEWAY
FINISH EL. 34.50
EL. 13.0
JEFFERSON
ORLEANS
NEW
SEE
FOR EAST DISCHARGE CHAN.
STA. 50+57.00
STA. 51+
FROM ℄ B
10" ϕ DRAIN
FEEDER 316
REPLACE OVERHEAD DOOR
NEW 8'-0" CHAIN LINK FENCE
20' GATE
36" ϕ D.F.M.
NEW ASPHALT ROADWAY
W.V.
Encl. 1

MATCH LINE (SEE Encl. 3)

3'-0"

26'-0"

27'-0" ±

2'

El. 14.50 ±

PROPOSED 6" th. conc. slab (CONTINUOUS)

DISCHARGE TUBE

SECTION A-A

El. 2.50 ±

El. -9.0 ±

3'-0"

26'-0"

27'-0" ±

DISCHARGE BASIN

A

A

EXPANSION JOINT (FOR DETAIL SEE DRAWING NO

SEE DRAWING NO. 5874-W-8 FOR DETAIL OF CASTING.

18 Dia Sump 6' Deep

Top of Slab El. 13.00

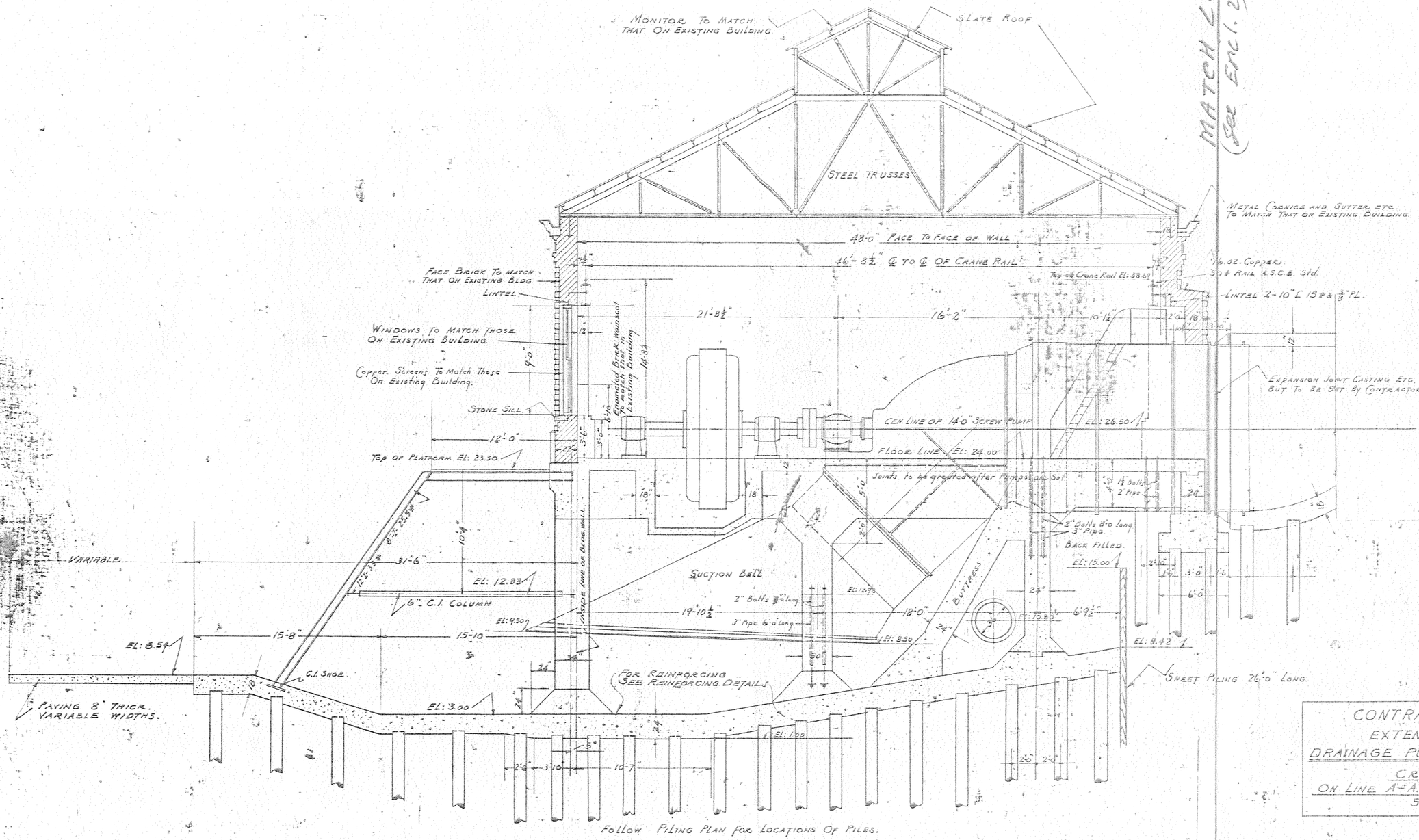
CONTRACT 103 - D.
EXTENSION TO
DRAINAGE PUMPING STATION NO. 6
DISCHARGE CONDUIT
PLAN AND SECTIONAL ELEVATION.
SCALE 1/2" = 1'-0"

SEWERAGE & WATER BOARD OF NEW ORLEANS, LA.
DEC. 13 1929. GEN. SUPT.
DRAWING No. 5874-W-18.

PLAN

Encl. 2

Note All elevations in red are on NGVD



SECTION A—A

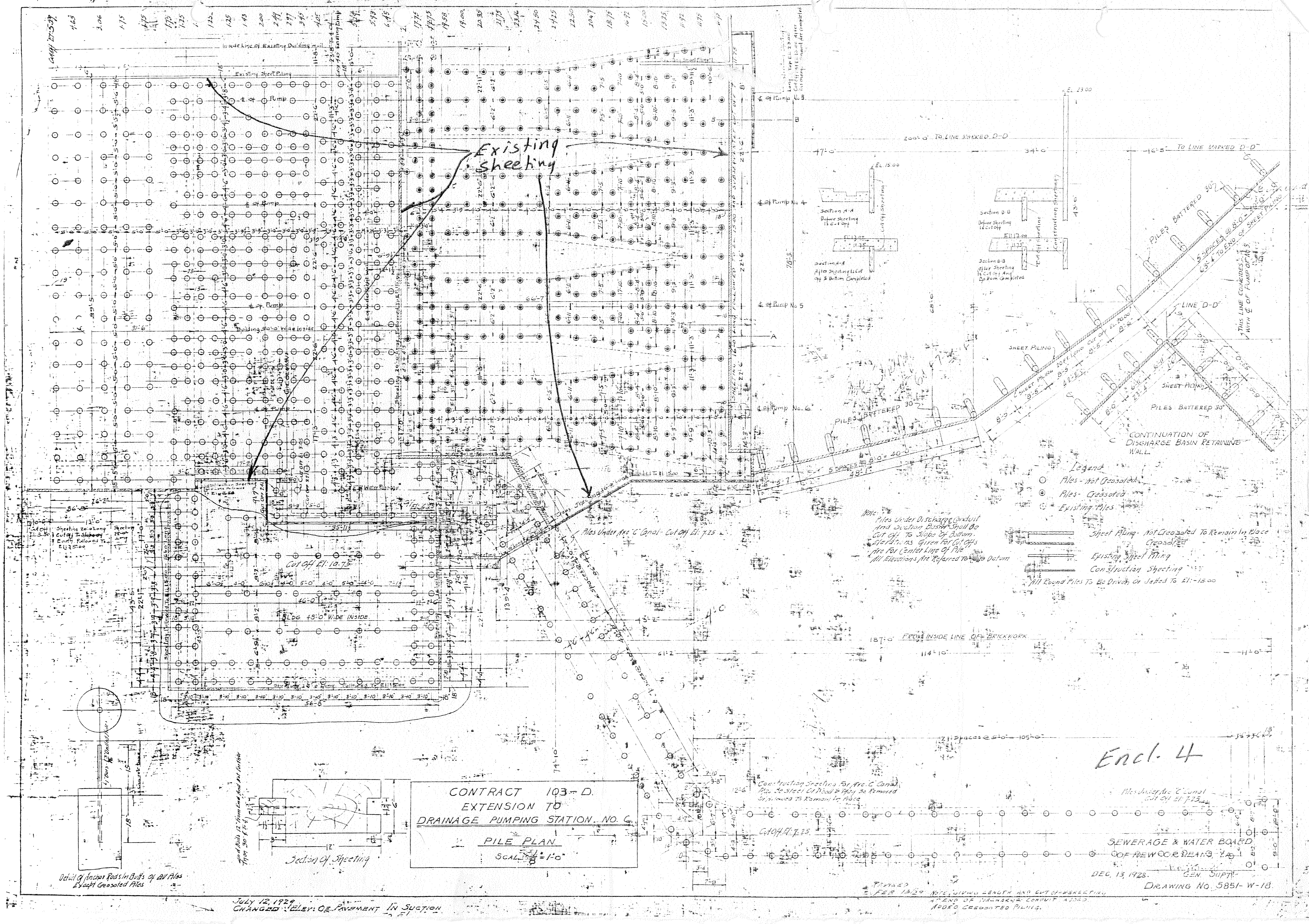
SCALE ¼"=1'-0"

CONTRACT 103-D.
EXTENSION TO
DRAINAGE PUMPING STATION NO. 6.
CROSS SECTION
ON LINE A-A. DRAWING NO. 5858-W-18
SCALE ¼"=1'-0"

Encl-3

SEWERAGE & WATER BOARD
OF NEW ORLEANS, LA.
DEC. 13 1928
GEN'L SUPT.
DRAWING NO. 5860-W-18

JULY 12, 1929.
CHANGED ELEV: OF PAVING IN SUCTION BASIN: FROM EL: 8.00 TO EL: 6.54



Existing Sheeting
Inside Line of Existing Building wall
Existing Sheet Piling
Building 50'-0" Wide Inside
BLDG 45'-0" WIDE INSIDE
Cut Off El: 10.75
To Line Marked D-D
LINE "D-D"
Piles Battered 30°
5 Spaces @ 8'-0" = 40'-0"
Sheet Piling
Continuation of Discharge Basin Retaining Wall
This Line Coincides With ℄ of Pump No. 5
Section A-A Before Sheeting Is Cut Off
Section A-A After Sheeting Is Cut Off & Bottom Completed
Section B-B Before Sheeting Is Cut Off
Section B-B After Sheeting Is Cut Off And Bottom Completed
Legend
Piles - Not Creosoted
Piles - Creosoted
Existing Piles
Sheet Piling - Not Creosoted To Remain In Place Creosoted
Existing Sheet Piling
Construction Sheeting
All Round Piles To Be Driven Or Jetted To El: -18.00
Note: Piles Under Discharge Conduit And Suction Basin Shall Be Cut Off To Slope Of Bottom. Elevations Given For Cut Offs Are For Center Line Of Pile. All Elevations Are Referred To Datum
Piles Under Arc "C" Canal - Cut Off El: 7.25
From Inside Line Of Brickwork
Construction Sheeting For Arc "C" Canal May Be Steel Or Wood & May Be Removed Or Allowed To Remain In Place
Section Of Sheeting
Detail Of Anchor Rods In Butts Of All Piles Except Creosoted Piles
CONTRACT 103-D.
EXTENSION TO
DRAINAGE PUMPING STATION NO. 6
PILE PLAN
SCALE 1/8" = 1'-0"
SEWERAGE & WATER BOARD OF NEW ORLEANS, LA.
DEC. 13, 1928. GEN. SUPT.
DRAWING NO. 5851-W-18.
Encl. 4
JULY 12, 1929 CHANGED ELEV. OF PAVEMENT IN SUCTION
REVISED FEB 13/29 NOTE, GIVING LENGTH AND CUT OFF SHEETING AT END OF DISCHARGE CONDUIT ADDED. ADDED CREOSOTED PILING.

_____ MARSALONE

_____ GUIZERIX

_____ CINDY

_____ DD

_____ DE

_____ DG

_____ DL

_____ DR

_____ DW

_____

_____

_____

_____

_____ SUSPENSE

_____ DISTRIBUTE

_____ RELEASE

_____ FILE

_____ DESTROY

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-HC	Lake Pontchartrain, La, and Vic. Hurricane Protection, HLP - 17th St. Canal

TO C/Des Br FROM C/H&H Br DATE 21 Jul 88 CMT 1

Ms. Hote/bl/2489

Reference a conversation between Mr. Desai of your branch and Ms. Hote of H&H Br. concerning the design of the riprap blanket to be placed on the degraded bank on the Orleans Parish side of the 17th St. Canal between Hammond Highway and Lake Pontchartrain. The purpose of this riprap blanket is to protect the degraded bank from erosion and thus ensure the stability of the floodwall. In this reach wave wash from small boat traffic will pose the largest erosion threat. Therefore, riprap was designed for a 2-foot boat wave. Riprap should be 16 inches thick and extend from top of bank at the floodwall, elevation +6 ft. NGVD, to -3 ft. NGVD. Riprap gradation is given on the enclosure. A suitable underlayer of filter fabric or oyster shell is also required.

Soileau

Encl
as

CECIL W. SOILEAU
Chief, Hydraulics & Hydrologic Branch

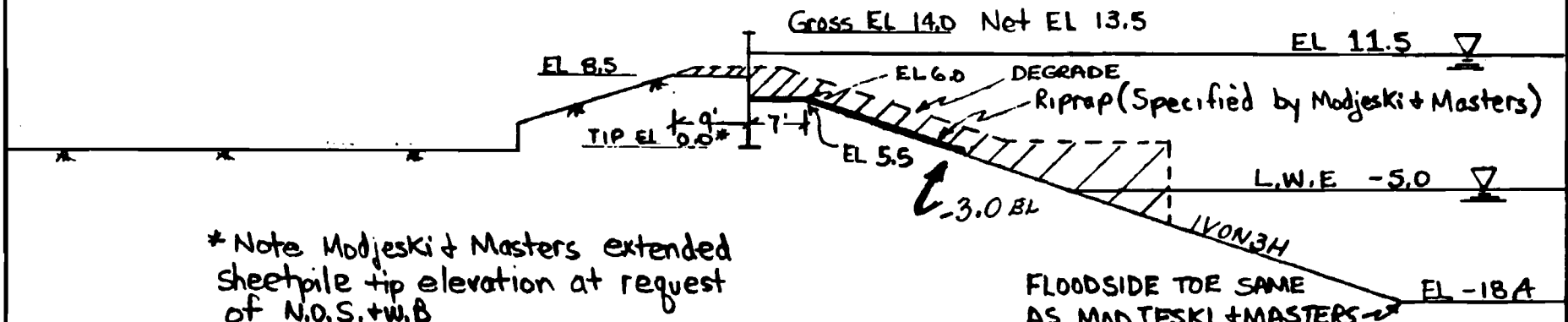
30

PROJECT 17th St Outfall Canal
SUBJECT STA 545+80 TO STA 552+70 Orleans
PAGE OF
COMPUTED BY MPJ
CHECKED BY
DATE 6/87
DATE

L. PONT TO HAMMOND HWY.

STA 545+80 TO STA 552+70

ORLEANS SIDE



* Note Modjeski & Masters extended sheetpile tip elevation at request of N.O.S. & W.B

SCALE 1" = 20'

ELEVATION IN FEET NGVD

Q FILES	F.S.	S.W.L.	CASE
Q5520A	1.0	11.5	S
* Q5520B	1.5	11.5	S
Q5520D	1.0	13.5	Q

RIPRAP (16")

% LIGHTER BY WEIGHT	WEIGHT LBS.
100	200-80
50	80-40
15	40-10

REVISED 4/88

_____ MARSALONE

_____ GUIZERIX

_____ CINDY

_____ DD

_____ DE

_____ DG

_____ DL

_____ DR

_____ DW

_____

_____

_____

_____

_____ SUSPENSE

_____ DISTRIBUTE

_____ RELEASE

_____ FILE

_____ DESTROY

Burk & Associates, Inc.
Engineers - Planners - Environmental Scientists
4176 Canal St. - New Orleans, LA 70119 - (504) 486-5901

LETTER OF TRANSMITTAL

B & A job no. 8 1 3 3 4 0 Date 7/21/88

Job title S&WB Drainage Pump Station No. 6

To New Orleans District Corps of Eng
P. O. Box 60267
New Orleans, La. 70160
attn. Desai CELMNED-DD

re: Floodwall Location DPS No. 6

From Michael Jackson

Sending [X] attached [ ] under seperate cover via

Description	copies	date	no.	description
	1	7/21/88		Blueline Prints of Floodwall Limits at DPS No. 6

[X] as requested [ ] approved as submitted [ ] copies submitted for distribution
[X] for your use [ ] approved as noted [ ] copies resubmitted for approval
[ ] for approval [ ] returned for corrections [ ] corrected prints returned
[ ] for review [ ] returned after loan to us [ ] for bids due _____ 19____
[ ] other _____

Remarks _____

Signature Michael R Jackson copies to _____

28

Memo to Files

6/22/88

As per Berney Smith of Modjeski & Masters The cost estimate provided by Atlas Const. for constructing the retaining wall on the east bank of the 17th. St. Canal, next to the Pumping Station is $ 248,963. This is approx. $ 125,000 less than the previous design. (would use PZ-27 sheet piling). The new design is currently under our review.

JN Romero

(2)

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-FS	GDM Design, 17th Street, Outfall Canal Lake Pontchartrain, LA & Vicinity Hurricane Protection Project HLP.

TO AC/Des Br FROM C/F&M Br DATE 10 May 88 CMT 1

Mr. Vojkovich/aah/1034

FV JR

1. Revised design sections, enclosures 1 thru 18, are provided for the new I-Wall criteria for the 17th St. Outfall Canal GDM parallel protection plan.

2. Encls 13, 15 and 18 are alternatives to the previously furnished sections (Encls 12, 14 and 17) for Sta. 625+19 to Sta. 635+00, Sta. 635+00 to Sta. 643+00 and Sta. 663+00 to Sta. 670+00 Jefferson side.

RPP

18 Encls
as
CF: Des Svcs Br
ED-SP w/o Encls

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

25

Burk & Associates, Inc.
Engineers - Planners - Environmental Scientists
4176 Canal St. - New Orleans, LA 70119 - (504) 486-5901

LETTER OF TRANSMITTAL

B & A job no. 8133 40 **Date** 7/18/88

Job title S&WB Drainage Pump Station No. 6

To New Orleans District Corps of Eng
P. O. Box 60267
New Orleans, La.
attn. Desai

re: As-Built Plans DPS No. 6

From Michael Jackson

Sending [X] attached [ ] under seperate cover via

Description

copies	date	no.	description
1			Blueline Prints of As-Built Plans DPS No. 6

[X] as requested [ ] approved as submitted [ ] copies submitted for distribution
[X] for your use [ ] approved as noted [ ] copies resubmitted for approval
[ ] for approval [ ] returned for corrections [ ] corrected prints returned
[ ] for review [ ] returned after loan to us [ ] for bids due _____ 19___
[ ] other _____

Remarks Please return prints to Burk & Associates as soon as you are finished reviewing them.

Signature Michael D Jackson copies to _____

January 4, 1988

Engineering Division
Structural Design Section

Mr. Harney T. Martin, Jr.
Modjeski and Masters
Consulting Engineers
1055 St. Charles Avenue
New Orleans, Louisiana 70130

Dear Mr. Martin:

Reference is made to your letter dated November 2, 1987 to Mr. Ed Bailey, Chief Engineer of the Orleans Levee District, and to your letter dated November 12, 1987 to this office, in which you requested our review of the in-progress plans and specifications for the 17th Street Canal, Parallel Flood Protection, Phase 1B, Hammond Highway to Southern Railway, OLD project number 2043-2047.

We are considering changes in the factors of safety used in determining penetration of I-wall sheet piling and changes in the method of determining I-wall deflections. We will let you know more by the end of January 1988. However, we have reviewed the subject plans and specifications based on present criteria and offer the following comments:

a. Sta. 636+00 to Sta. 638.31. Our preliminary analysis indicates that a higher tip penetration for the steel piling in this area can be obtained by applying submerged soil weight on the floodside of the floodwall and also by raising the levee crown to elevation 11.0 National Geodetic Vertical Datum.

b. A transition in sheet pile tip penetration is required for the sections between station 589+00 and station 590+00, station 614+00 and station 615+00, and between station 635+00 and station 636+00.

c. Station 625+00 to Sta. 635+00. Our preliminary analysis indicates that a lower tip penetration of the sheet piling than the penetration shown on the plan is required to satisfy the floodwall stability into the canal.

e. Based on the information presented in the typical sections, drawing number 3, a discontinuity in the sheetpile wall would occur at station 589+00. This should be clarified.

e. Our stability analysis of the floodwall reaches described in enclosures 1 through 8, indicates that a more economical design for the floodwall in those reaches can be obtained by using the floodwall layout depicted on the enclosures. It is recommended that you revise the subject plans to reflect the floodwall layout shown on the enclosures.

f. Since the dredging of the canal will not extend into the Jefferson Parish side, the potential for scour of the levee on this bank of the canal will exist. To be able to detect such scour, control lines, as shown on enclosures 9 through 13 will be required. These control lines should be added to the drawings. Additionally, survey cross-sections of the existing levee and canal bank, with initial cross-sections of the levee and dredged canal immediately after construction and cross-sectional surveys taken on a yearly basis thereafter, must be provided to this office. These surveys are required to detect erosion into the control lines, which if it occurs, could cause failure of the subject levee. Should erosion beyond the control lines occur, the Sewerage and Water Board of New Orleans will be responsible for taking corrective action at their own cost.

If there are any questions concerning our requirements, please let us know.

Sincerely

Frederic M. Chatry
Chief, Engineering
Division

Enclosures

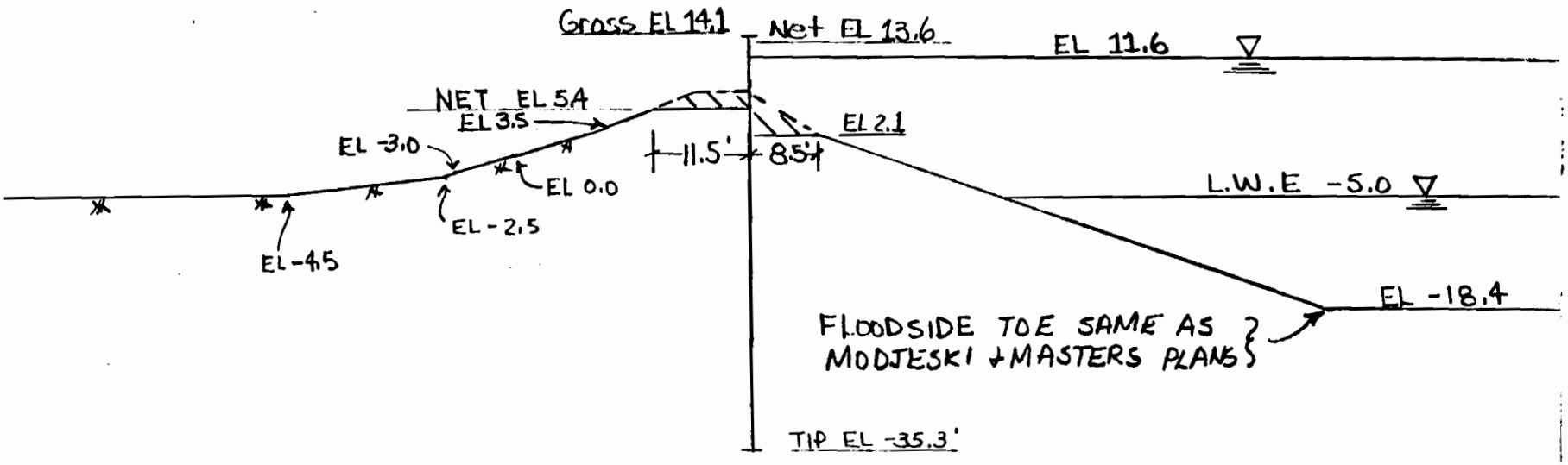
CELMN-ED-DD
GUGGENHEIMER

CELMN-ED-D
JUDLIN

CELMN-ED-FD
PICCIOLA

CELMN-ED
CHATRY

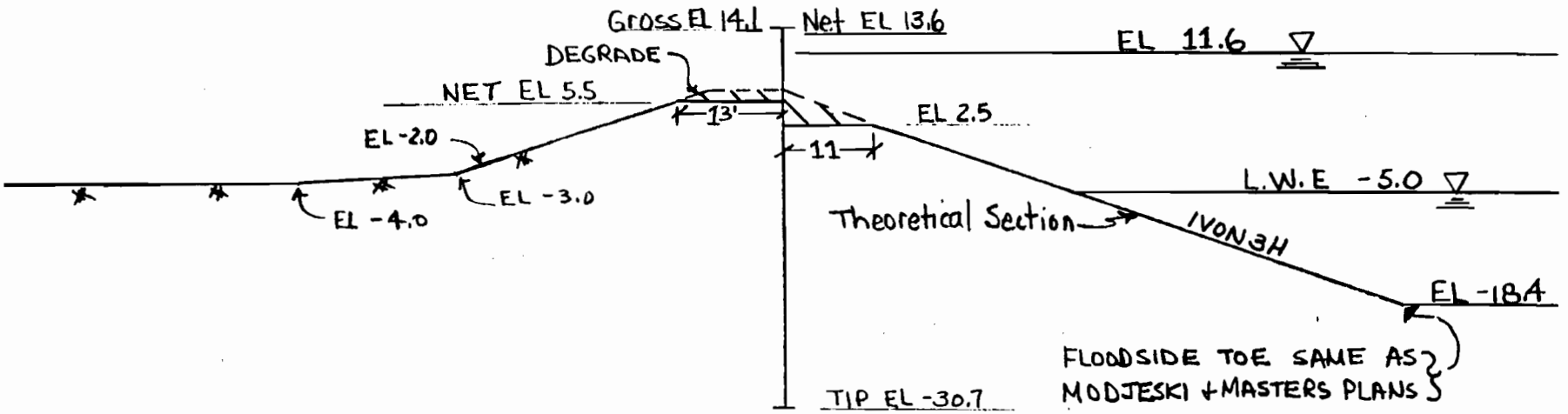
STA 553+70 TO STA 568+00
ORLEANS SIDE



SCALE : 1" = 20'

ENCL. 1

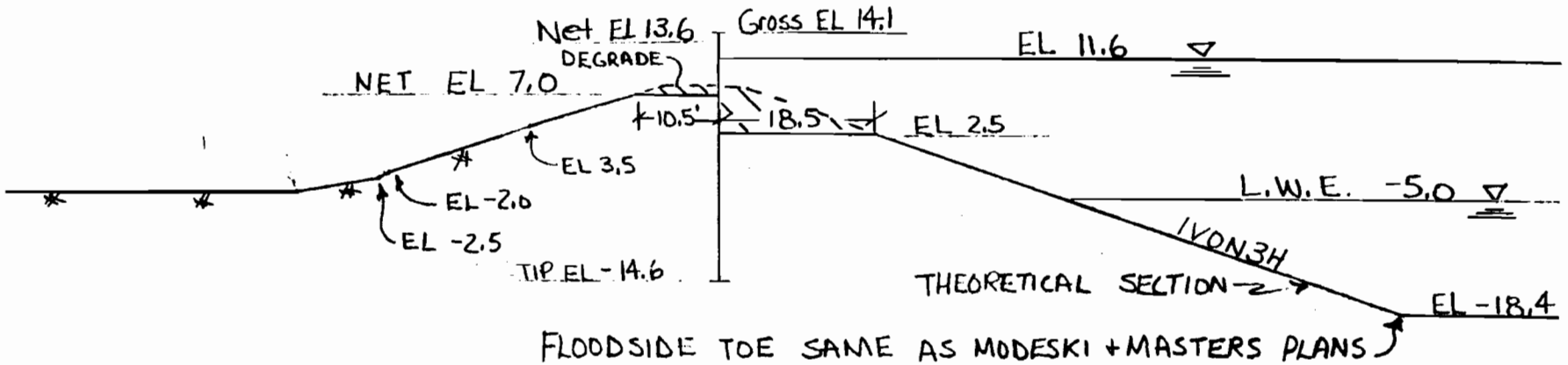
STA 568+00 TO STA 589+00
ORLEANS SIDE



SCALE 1" = 20'
ELEVATION IN FEET NGVD

ENCL. 2

STA 589+00 TO STA 614+00
ORLEANS SIDE

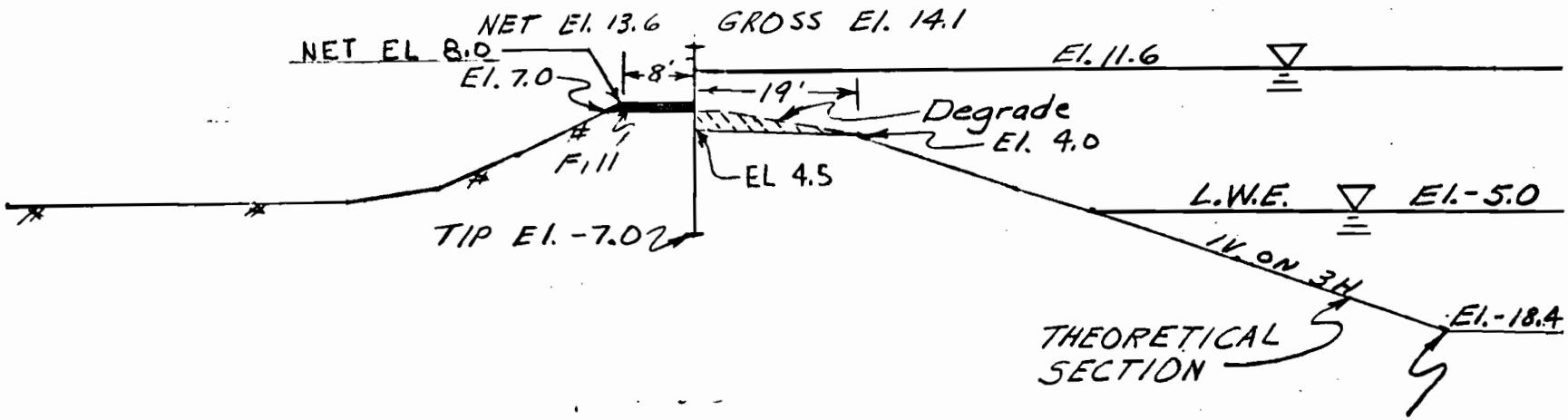


SCALE : 1" = 20'

ENCL. 3

STA. 614+00 TO STA. 625+00

ORLEANS SIDE



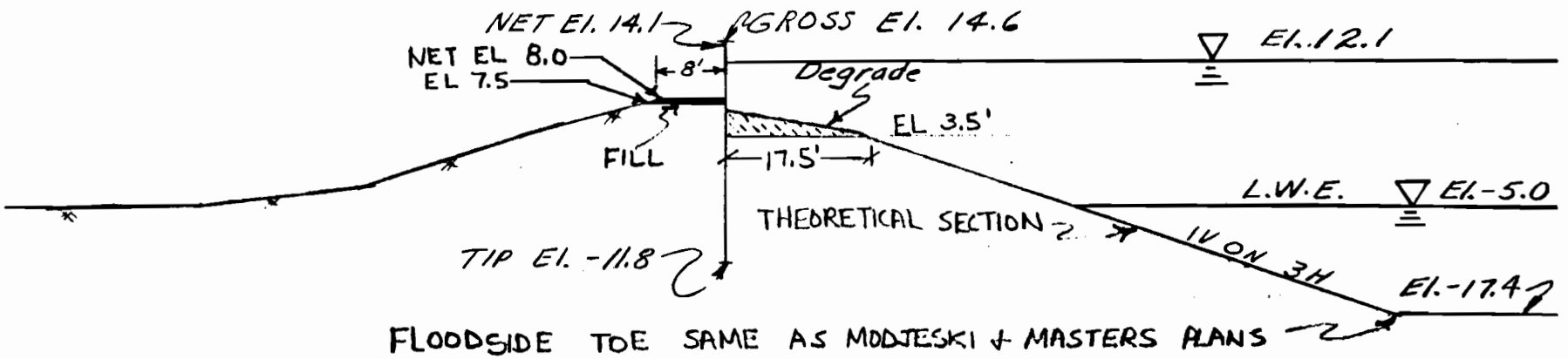
FLOODSIDE TOE SAME AS MODESKI & MASTERS PLAN

SCALE: 1" = 20'

ENCL-4

STA. 625+00 TO STA 635+00

ORLEANS SIDE

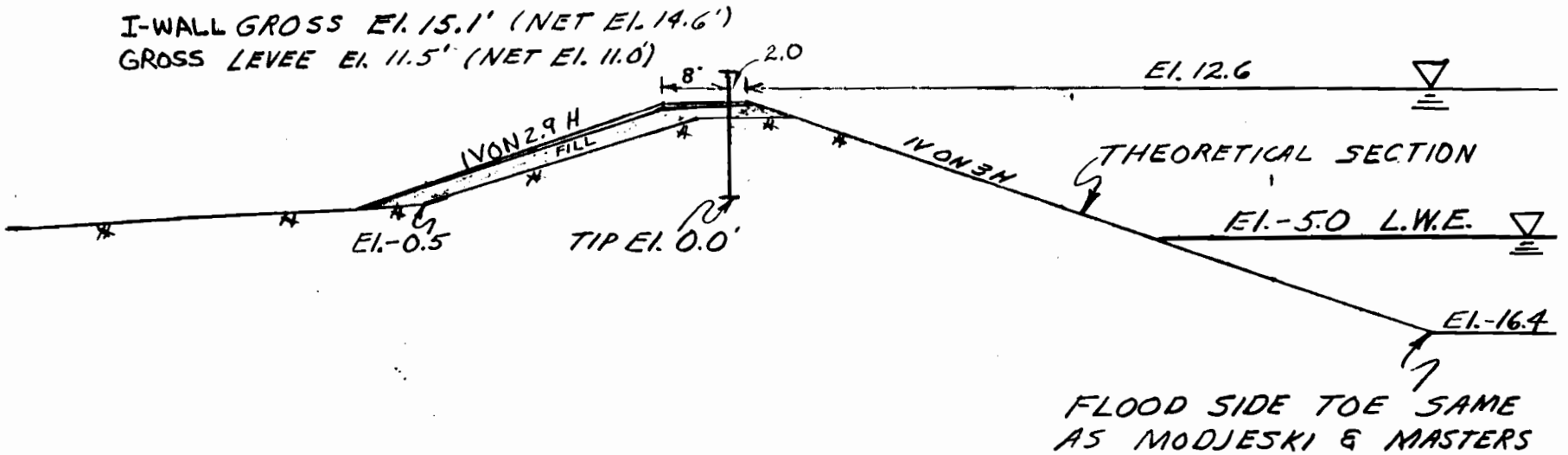


SCALE : 1" = 20'

FIG. 5

STA. 635+00 TO STA. 647+00

ORLEANS SIDE



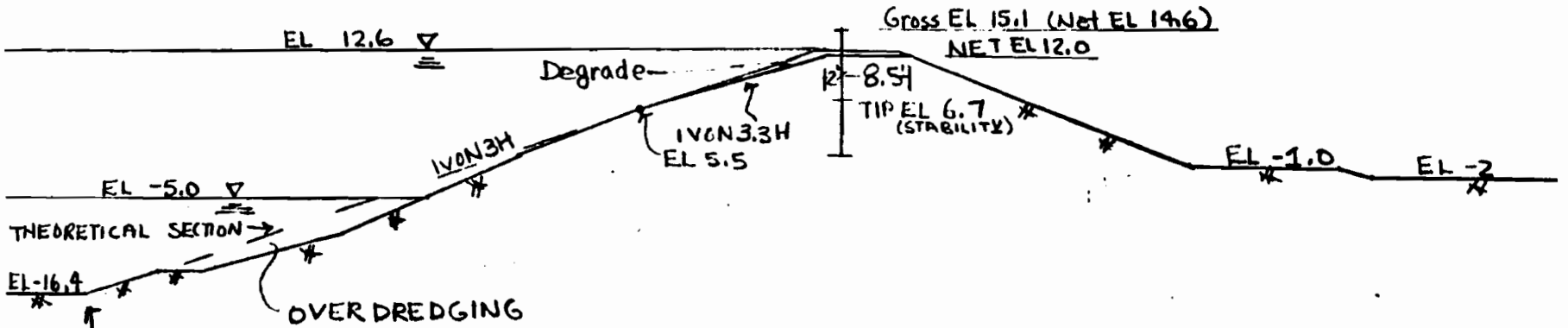
SCALE: 1" = 20'

ELEVATION IN FEET N.G.V.D.

Encl 6

STA 647+00 TO STA 663+00

ORLEANS AND JEFFERSON SIDE



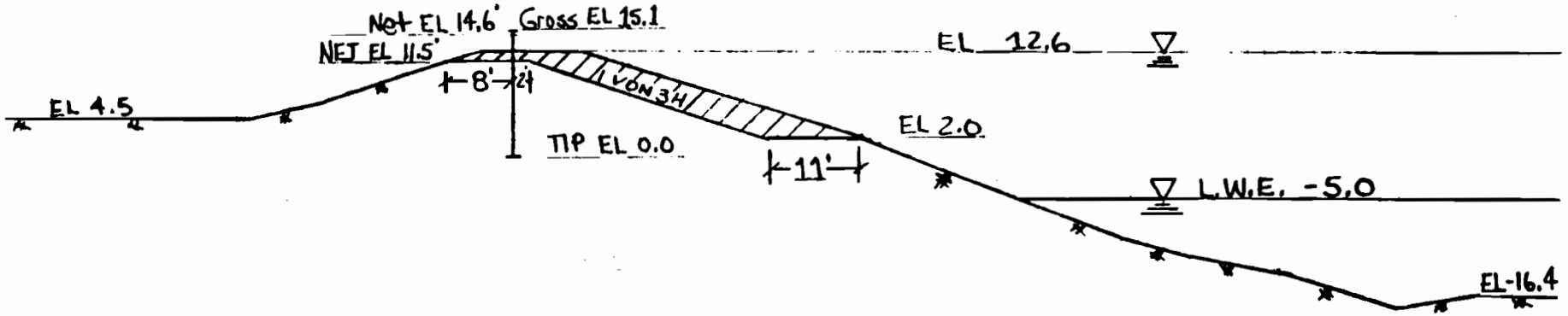
Scale: 1 = 20'

Elevations in Feet N.G.V.D.

Encl. 7

STA 663+00 TO STA 670+00

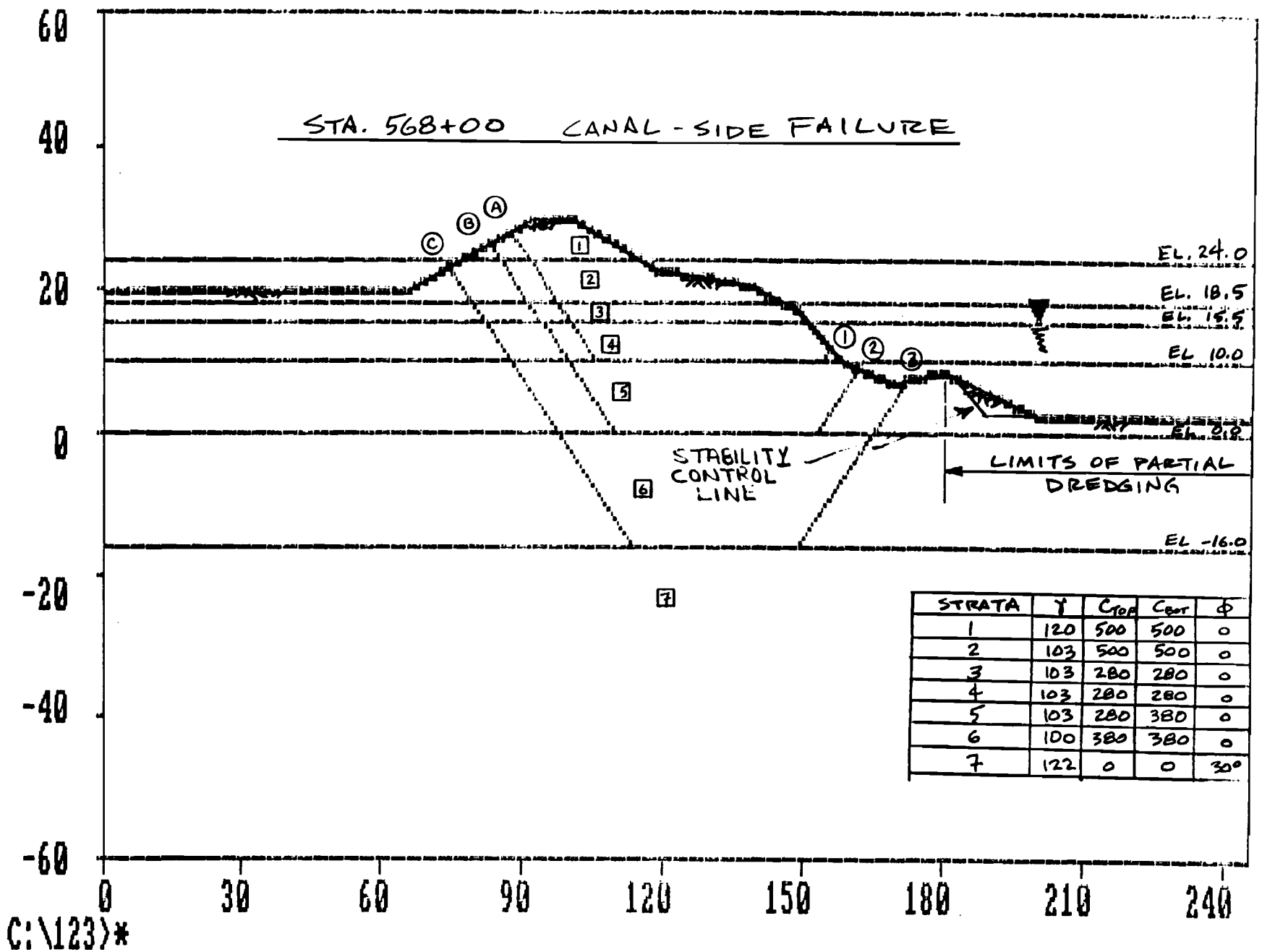
ORLEANS SIDE



SCALE 1" = 20'

ELEVATION IN FEET NGVD

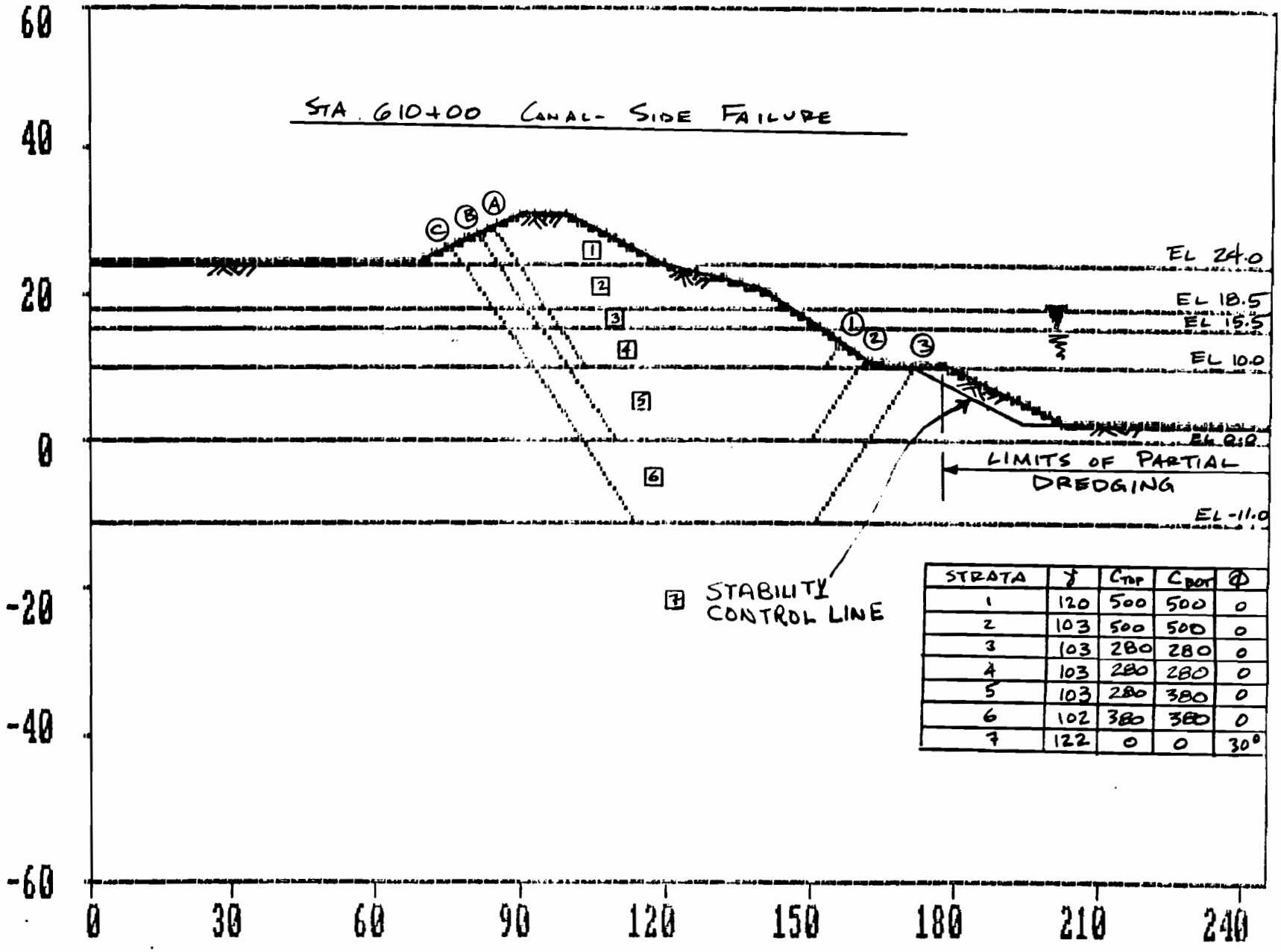
End. 8



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	100	380	380	0
7	122	0	0	30°

NOTE: ELEVATIONS REFER TO CAIRO DATUM

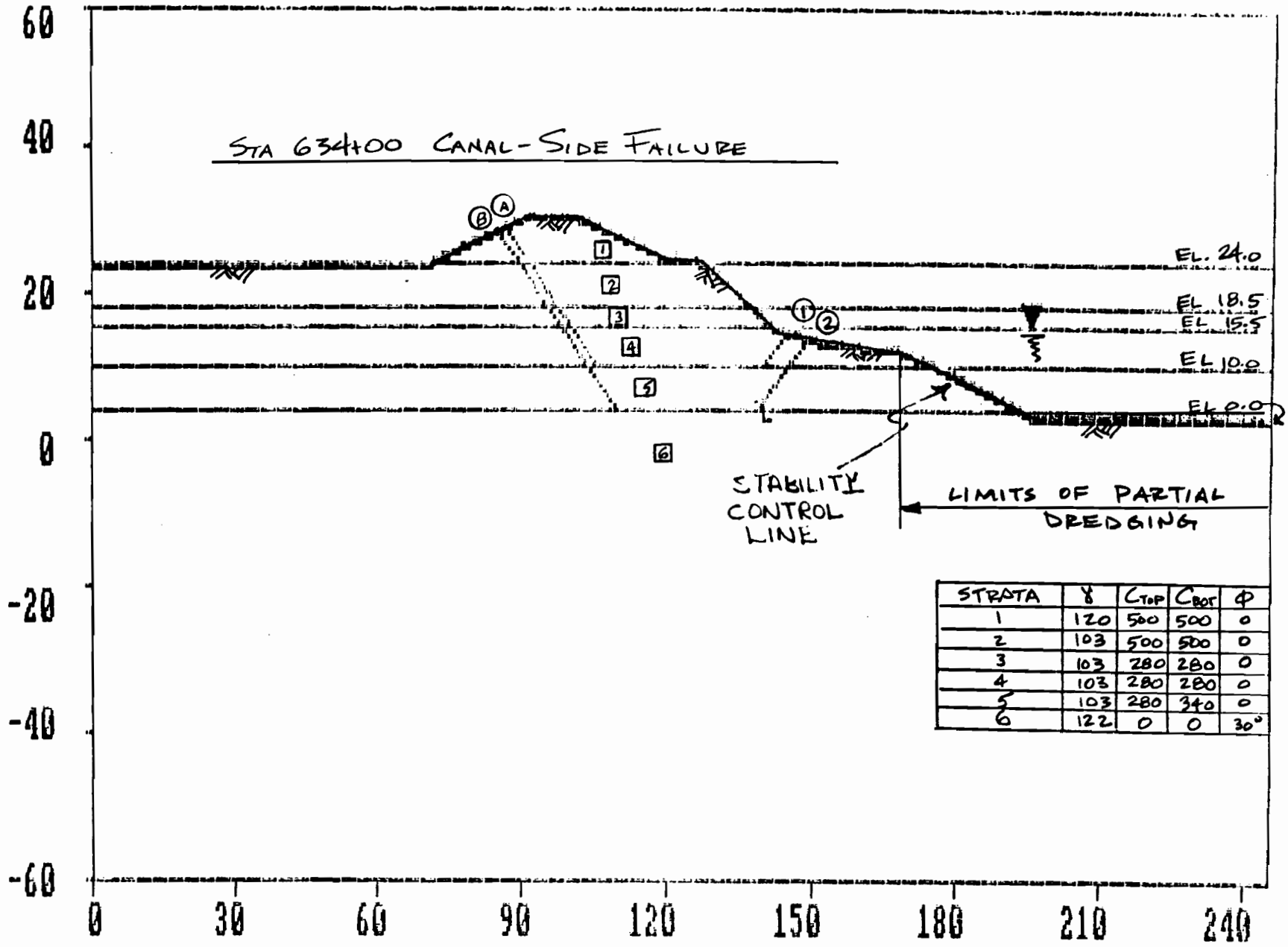
End. 9



STRATA	γ	C_{TOP}	C_{BOT}	Φ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	102	380	380	0
7	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

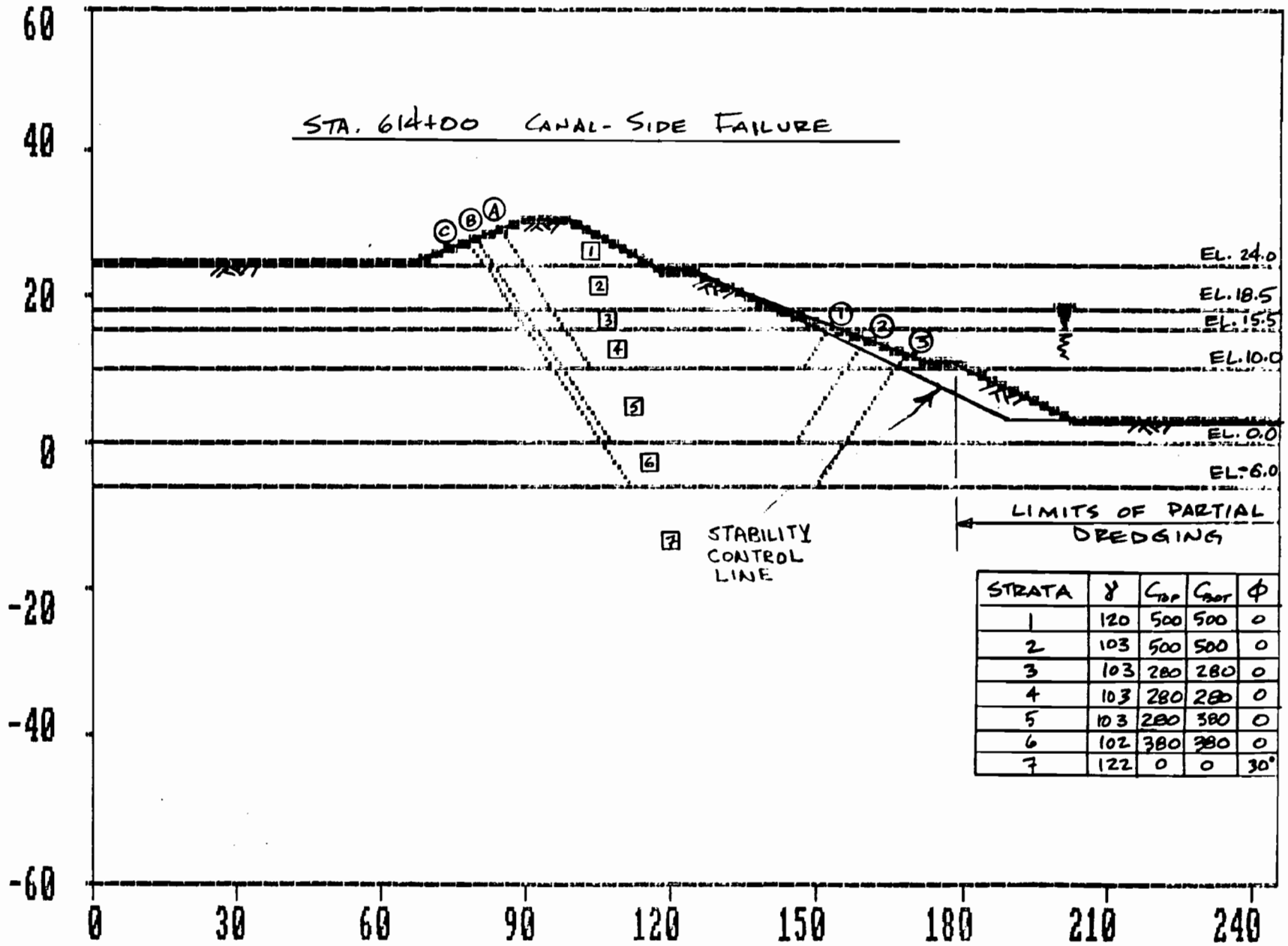
Encl. 10



STRATA	γ	C_{TOP}	C_{BOT}	Φ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	340	0
6	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

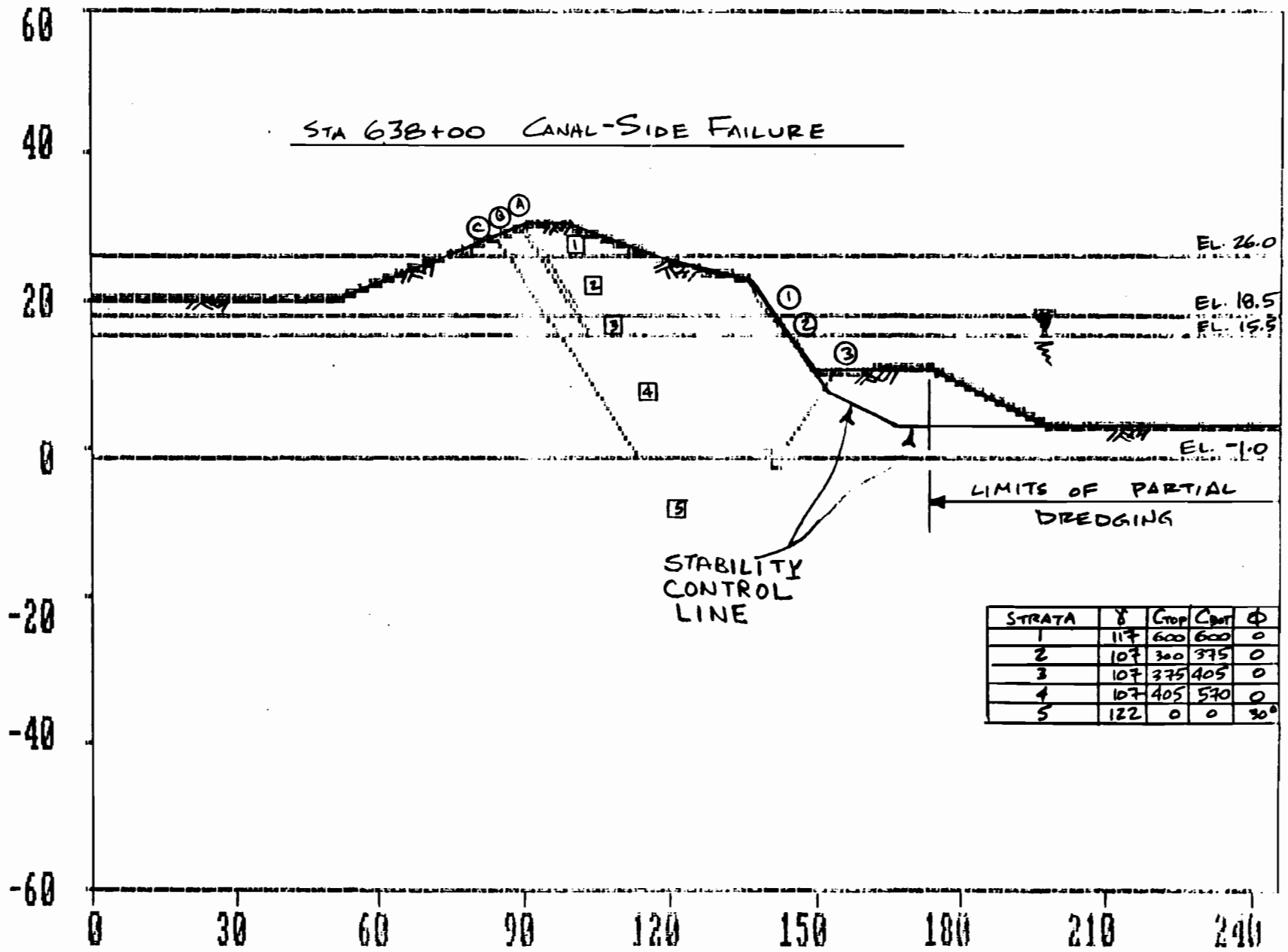
Encl. 11



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	102	380	380	0
7	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

Encl. 12



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	117	600	600	0
2	107	300	375	0
3	107	375	405	0
4	107	405	570	0
5	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

ENCL 13

5:12/4

Wm. Judkins

PARTNERS
W. B. CONWAY
H. H. SNYDER
C. F. COMSTOCK
J. J. SCHERRER
J. M. KULICKI

SENIOR ASSOCIATES
R. W. CHRISTIE
C. T. FORTRAN
H. E. WALDNER

CONSULTANTS
T. R. KEALEY
R. E. FELSBURG

MODJESKI AND MASTERS
CONSULTING ENGINEERS
Founded 1893

1055 ST. CHARLES AVE.
NEW ORLEANS, LA. 70130
TELEPHONE 504 · 524-4344

ASSOCIATES
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D. F. SORGENFREI
B. T. MARTIN, JR.
J. L. MCKENNEY
G. A. MURRAY
D. H. LEROY
R. A. LITTLE
P. C. PIERCE
L. V. BORDEN
E. W. ROHRBAUGH

November 12, 1987

JN 0908

Mr. Frederick M. Chatry,
Chief-Engineering Division
New Orleans District,
Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160

RE: 17TH STREET CANAL PARALLEL FLOOD PROTECTION
PHASE 1B - HAMMOND HIGHWAY TO SOUTHERN RAILWAY
OLB PROJECT NO. 2043-2027

Dear Mr. Chatry:

We have discovered that in our haste to deliver the 30% Plans and Specifications for the referenced project, we failed to provide some geotechnical information that we feel you will need to complete your review. Hence you will find herewith the following two items:

1. Land-side and Canal-side levee slope stability analyses for the reach of the canal from Station 636+00 to 638+31. We are sending this analyses because we have varied our cross section significantly from the earlier analyses that were performed by Eustis. This change in the cross section allowed us to move the canal more to the East in this reach and perform partial dredging of the canal without affecting the existing stability of the Jefferson side levee. Please note that we have discovered for this reach that our preliminary plans do not reflect the same sheet pile tip elevation as shown in the calculations. This has been corrected on our original set of plans.

2. We are also sending canal-side analyses for typical reaches of the Jefferson levee to show that the partial dredging shown in the plans does not adversely affect the factor of safety of that levee.

We have prepared the plans showing partial dredging, even though our permit was for completed dredging of the canal, due to no positive indications from the Jefferson Levee District that they will participate in the project. As you know, it is the wish of the Orleans Levee Board to improve flood protection along the 17th Street Canal as soon as possible. Because the Sewerage and Water Board can realize both drainage and financial benefits by partially dredging the canal at the same time as the levee work, they have decided to go ahead with the partial dredging. The Sewerage and Water Board will complete the dredging of the canal at the time the Jefferson Levee is modified.

We are also attaching the preliminary cost estimate for this phase of the project. Please note that this estimate assumes no work will be done to the bridges in the phase. It is the intention of the Orleans Levee Board to do all bridge work under a separate contract.

If your should have any questions regarding the attached analyses or the earlier submitted plans, please call.

Very truly yours,

MODJESKI AND MASTERS
Engineers

Barney T. Martin, Jr.

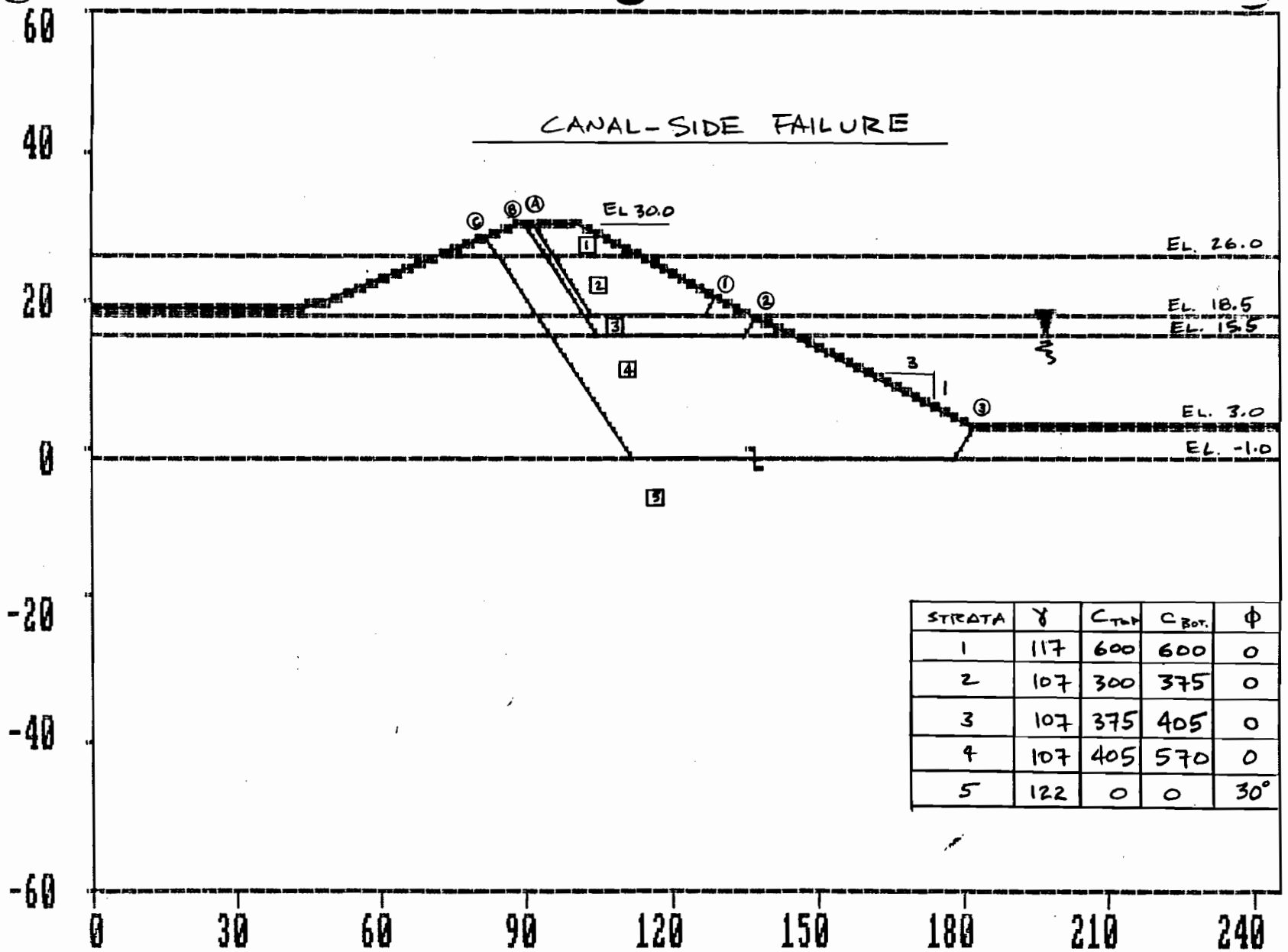
BTM:gls

cc: Mr. Ed Bailey
Mr. Joseph Sullivan
Mr. John Holtgreve

SUBJECT : SLOPE STABILITY ANALYSES FOR THE ORLEANS SIDE FROM STA. 636+00 TO STA. 638+31.

SOIL PARAMETERS : TAKEN FROM EUSTIS ENGINEERING'S REPORT ENTITLED "SUBSOIL INVESTIGATION — SEWERAGE AND WATER BOARD OF NEW ORLEANS — METAIRIE RELIEF CANAL — STATION 554+00 TO STATION 670+00 — ORLEANS AND JEFFERSON PARISHES, LOUISIANA" DATED 2 NOVEMBER 1981.

METHOD OF ANALYSES : CORPS OF ENGINEERS' METHOD OF PLANES.



STRATA	γ	C_{TOP}	$C_{BOT.}$	ϕ
1	117	600	600	0
2	107	300	375	0
3	107	375	405	0
4	107	405	570	0
5	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

MODJESKI & MASTERS
ENGINEERS

Proj) ( )

Subject

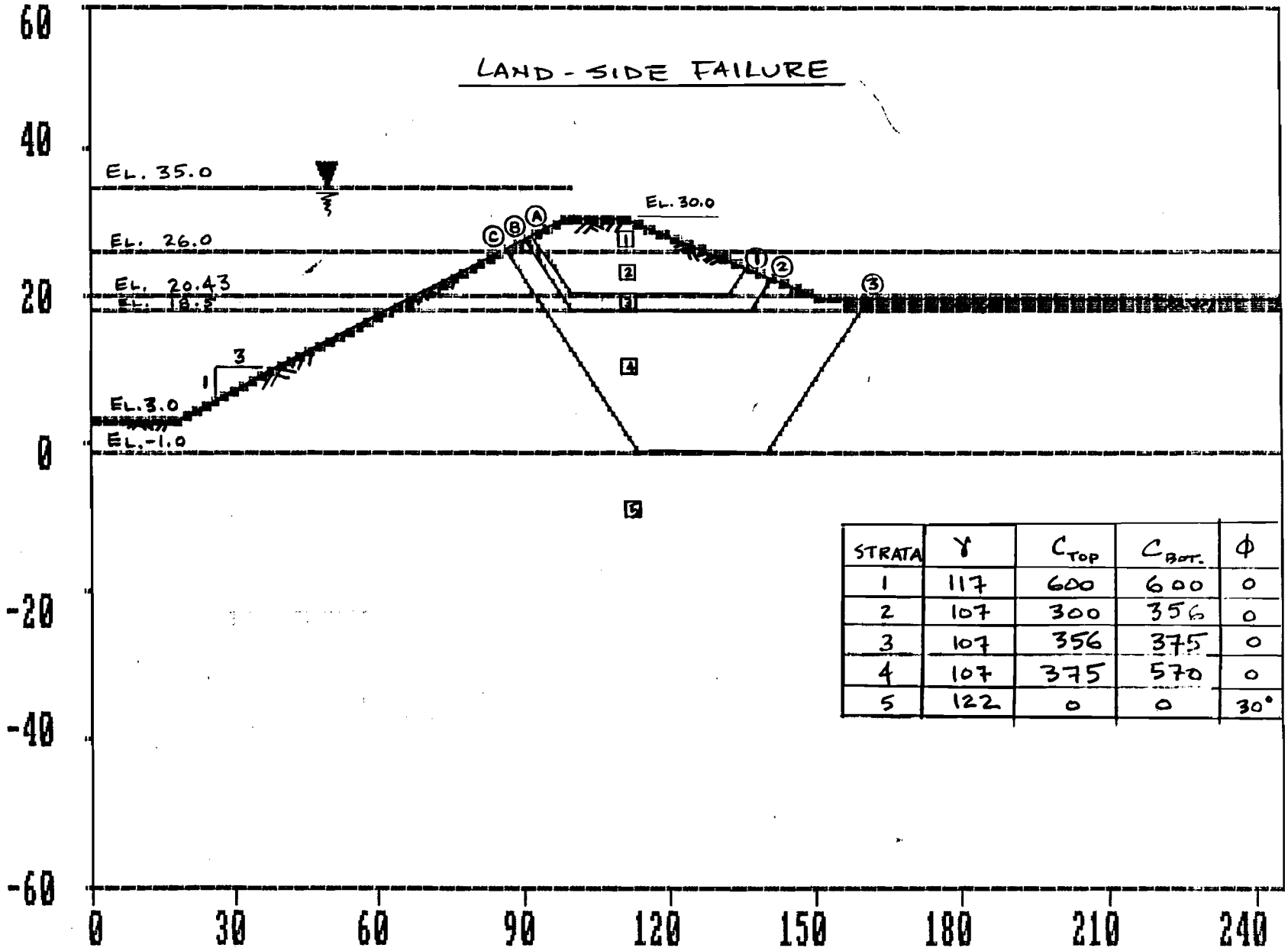
Made by Date

Checked by Date

Sheet No. of

CANAL - SIDE FAILURE

SLIP SURFACE		DRIVING FORCE			RESISTING FORCE				FACTOR OF SAFETY
No.	ELEV.	D_A	D_P	ΣD	R_A	R_B	R_P	ΣR	
A-1	18.5	7280	322	6958	9863	8625	1435	19923	2.86
B-2	15.5	11436	402	11034	12203	12150	1853	26206	2.38
C-3	-1.0	40934	476	40458	26313	27433	3902	57648	1.42



STRATA	γ	C_{TOP}	$C_{BOT.}$	ϕ
1	117	600	600	0
2	107	300	356	0
3	107	356	375	0
4	107	375	570	0
5	122	0	0	30°

*NOTE : ELEVATIONS REFER TO CAIRO DATUM *

MODJESKI & MASTERS
ENGINEERS

Subject _____ Proj _____ Made by _____

Checked by _____ Date _____

Sheet No. _____ of _____

LAND FAILURE :

SLIP SURFACE		DRIVING FORCE			RESISTING FORCE				FACTOR
No.	ELEV.	D_A	D_P	ΣD	R_A	R_B	R_P	ΣR	OF SAFETY
A-1	20.43	8467	755	7712	5881	11382	2200	19463	2.52
B-2	18.5	10955	895	10060	6713	13875	2691	23279	2.31
C-3	-1.0	42434	10735	31699	23492	14820	18754	57066	1.80

SUBJECT: SHEET PILE WALL ANALYSES FOR THE ORLEANS SIDE FROM STA. 636+00 TO STA 638+31.

SOIL PARAMETERS: TAKEN FROM EUSTIS ENGINEERING'S REPORT ENTITLED "SUBSOIL INVESTIGATION - SEWERAGE AND WATER BOARD OF NEW ORLEANS - METAIRIE RELIEF CANAL - STATION 554+00 TO STATION 670+00 - ORLEANS AND JEFFERSON PARISHES, LOUISIANA" DATED 2 NOVEMBER 1981.

METHOD OF ANALYSES: CORPS OF ENGINEERS' CRITERIA; APPLICATION OF FULL HYDROSTATIC PRESSURE WITHOUT DISSIPATION; EVALUATION USING "Q" AND "S" SOIL SHEAR STRENGTHS; A SAFETY FACTOR OF 1.5 APPLIED TO SOIL STRENGTHS FOR DETERMINATION OF THE REQUIRED EMBEDMENT; AND A SAFETY FACTOR OF 1.0 FOR DETERMINATION OF THE REQUIRED BENDING MOMENT.

```
10 1 1 0 0 1
30 17TH ST. CANAL - PHASE II - OLB - FILENAME : 04
30 ORLEANS SHEET PILE ANALYSIS - 635+00 TO I-10
40 35. 20.43 11.5 11. 35. 1.5 5 -10.
50 0. 0.
60 0. 0. 0. 0. 0. 0. 0. 0. 35.
70 23. 117. 0. 0. 23. 117. 0. 0. 30.
80 23. 107. 0. 0. 23. 107. 0. 0. 26.
90 23. 44.5 0. 0. 23. 44.5 0. 0. 20.43
130 30. 59.5 0. 0. 30. 59.5 0. 0. -1.
140 0. 35. 200. 35. 99999. 0.
150 0. 3. 18. 3. 99. 30. 110.1 30. 143. 22.79 153. 18.79
160 200. 18.79 99999. 0.
170 0. 3. 18. 3. 87. 26. 128.4 26. 143. 22.79 153. 18.79
180 200. 18.79 99999. 0.
190 0. 3. 18. 3. 70.29 20.43 148.9 20.43 153. 18.79 200. 18.79
200 99999. 0.
230 0. -1. 200. -1. 99999. 0.
240 0. -10. 200. -10. 99999. 0.
```

NOTE : ELEVATIONS REFER TO CAIRO DATUM

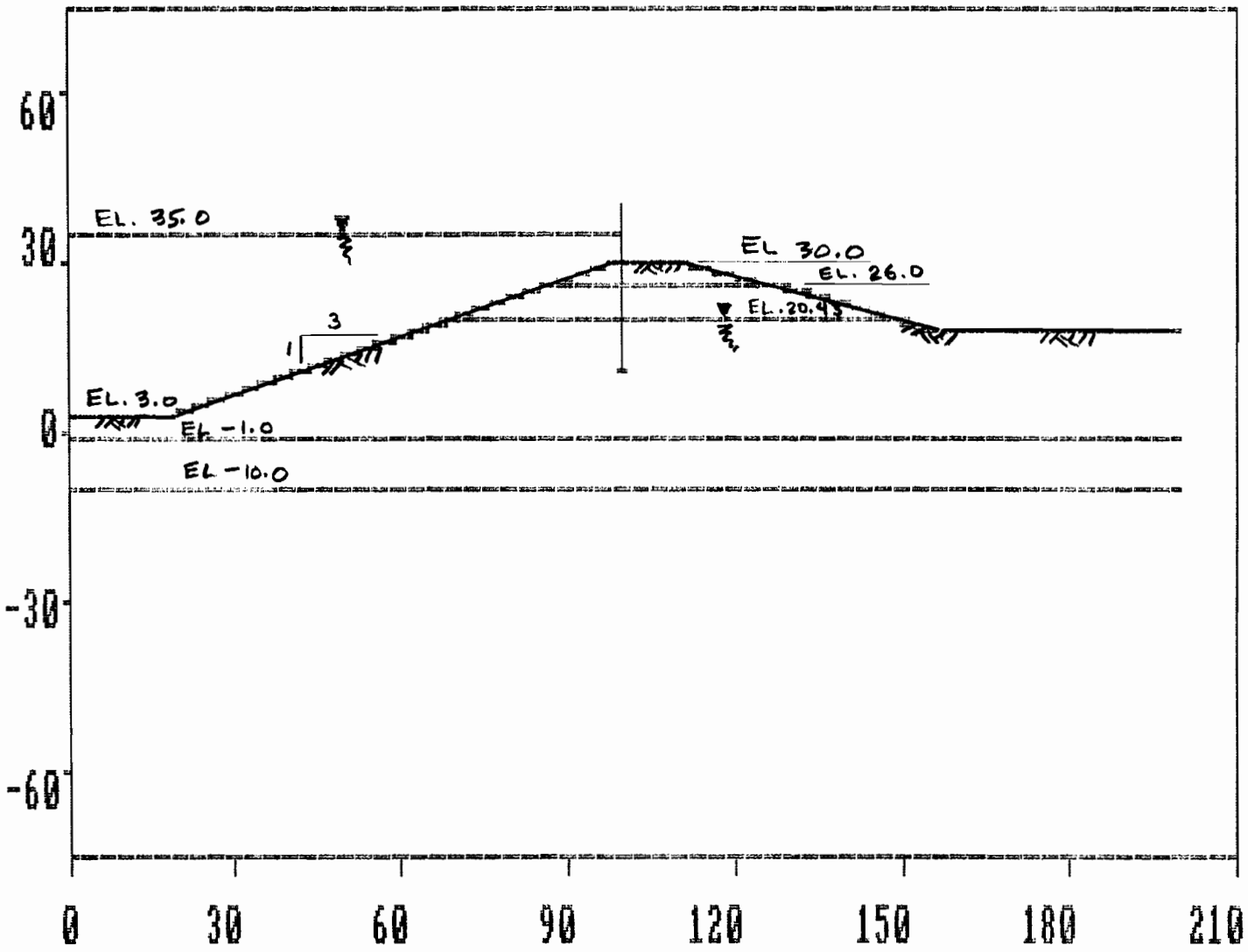
RESULTS

MINIMUM PENETRATION FOR A FACTOR OF SAFETY OF 1.5 : ELEV. 11.34

BENDING MOMENT FOR A FACTOR OF SAFETY OF 1.5 : 11,250 FT-LBS

$$\text{REQ'D SECTION MODULUS} = \frac{11{,}250^{1\text{-}\#} \times 12^{\#}_{1}}{20{,}000 \text{ ksi}} = 6.75 \text{ IN}^3/\text{F}$$

PZ 22 O.K. FOR F.S. = 1.5 ∴ IT IS ALSO O.K. FOR F.S. = 1.0.



NOTE: ELEVATIONS REFER TO CAIRO DATUM

A-7

ENTER NAME OF INPUT DATA FILE.

CANTILEVER RETAINING WALL STABILITY

LN	ICRACK	KOD	AEL	NTE	KOA
10	1	1	.0	0	1

17TH ST. CANAL - PHASE II - OLB - FILENAME : 04
ORLEANS SHEET PILE ANALYSIS - 635+00 TO I-10

HEAD WATER ELEV **	TAIL WATER ELEV **	UPPER RANGE **	LOWER RANGE **	HEAD WATER GROUND EL **	FS **	NUMBER STRATA
35.00	20.43	11.50	11.00	35.00	1.50	5

FLOODWALL ANALYSIS

AREA	SUM FORCE	MOM ARM	MOMENT
X(1)	1383.66	19.05	26363.37
X(2)	3674.73	7.77	28558.03
X(3)	2291.06	.96	2195.21

TRIAL ELEV= 11.50 SUM OF FORCES= .00 SUM OF MOM= 425.58

TRIAL ELEV= 11.00 SUM OF FORCES= .00 SUM OF MOM= -932.65

TRIAL ELEV= 11.34 SUM OF FORCES= .00 SUM OF MOM= 9.15

TRIAL ELEV= 10.34 SUM OF FORCES= .00 SUM OF MOM= -2846.48

DESIGN ELEV= 11.34 SUM OF FORCES= .00 SUM OF MOM= .55

ELEVATION	NET PRESSURES FLOOD	NET PRESSURES PROTECTED	FORCE OF WATER
35.00	.00	.00	.00
34.00	62.50	62.50	62.50
33.00	125.00	125.00	125.00
32.00	187.50	187.50	187.50
31.00	250.00	250.00	250.00
30.00	312.50	312.50	312.50
30.00	312.50	312.50	312.50
29.00	497.39	237.36	375.00
28.00	634.94	153.09	437.50
27.00	772.50	64.48	500.00
26.00	910.06	-24.13	562.50

25.00	1035.86	-100.97	625.00
24.00	1161.65	-177.82	687.50
23.00	1287.45	-254.67	750.00
22.00	1413.24	-314.90	812.50
21.00	1539.04	-345.79	875.00
20.43	1610.74	-363.39	910.63
20.43	1610.74	-363.39	910.63
19.43	1600.52	-383.26	910.63
18.43	1590.29	-403.12	910.63
17.43	1580.06	-422.99	910.63
16.43	1571.88	-442.85	910.63
15.43	1575.11	-462.72	910.63
14.43	1579.75	-482.59	910.63
13.43	1584.38	-502.45	910.63
12.43	1589.02	-522.32	910.63
11.43	1593.65	-542.18	910.63
10.43	1598.28	-562.05	910.63
9.43	1602.92	-581.91	910.63
8.43	1607.55	-601.34	910.63
7.43	1612.19	-620.05	910.63
6.43	1616.82	-638.77	910.63
5.43	1621.46	-657.48	910.63
4.43	1626.09	-676.55	910.63
3.43	1630.72	-699.20	910.63
2.43	1635.36	-721.86	910.63
1.43	1639.99	-744.51	910.63
.43	1644.63	-767.16	910.63
-.57	1649.26	-789.81	910.63
-1.00	1651.26	-799.55	910.63
-1.00	2192.77	-1461.96	910.63
-2.00	2224.09	-1513.18	910.63
-3.00	2297.56	-1564.41	910.63
-4.00	2371.04	-1615.64	910.63
-5.00	2444.51	-1666.86	910.63
-6.00	2517.98	-1718.09	910.63
-7.00	2591.45	-1769.32	910.63
-8.00	2664.92	-1820.54	910.63
-9.00	2738.39	-1869.53	910.63
-10.00	2811.87	-1890.42	910.63

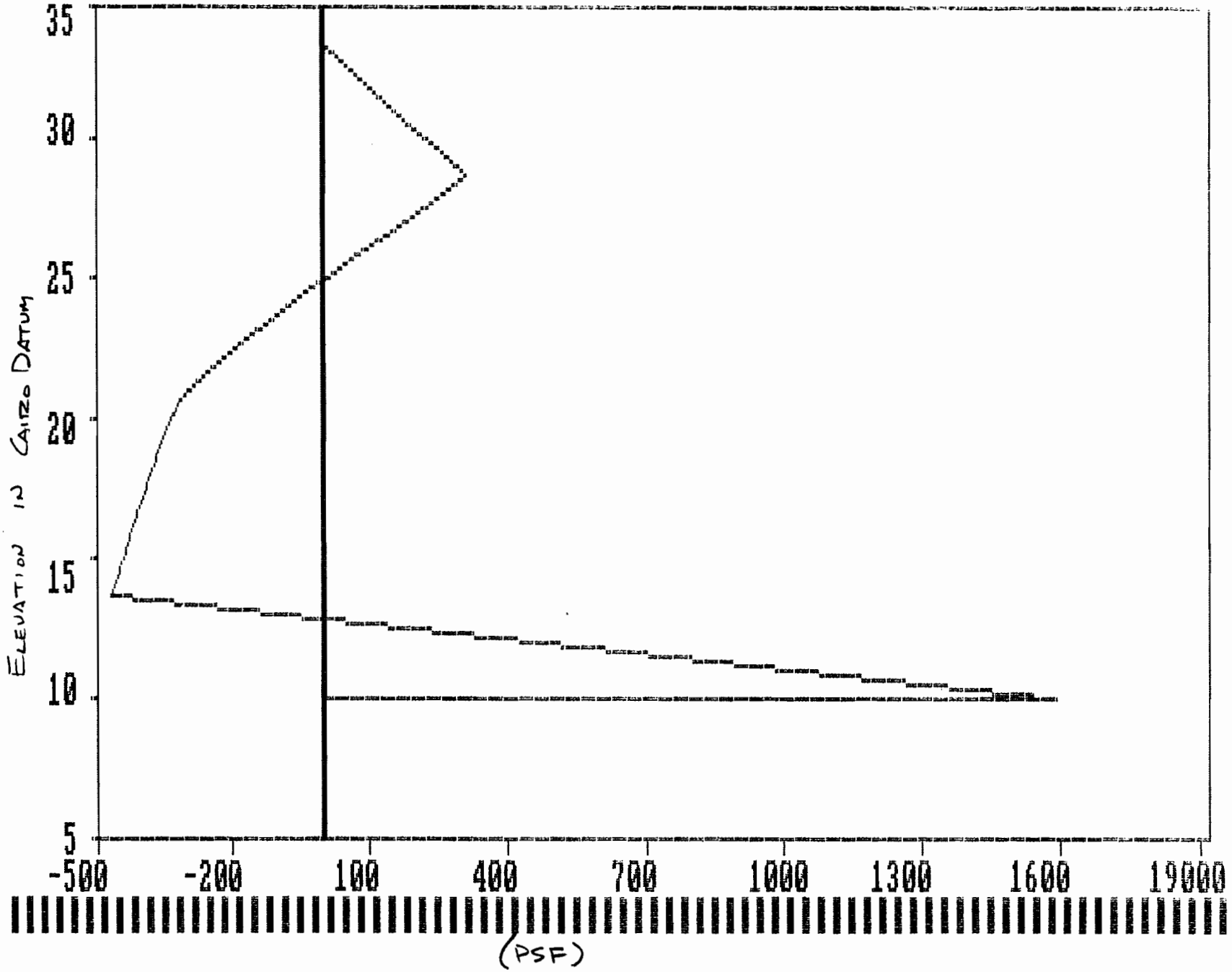
*** STEP 1 DIAGRAM ***

ELEVATION	NET DIAGRAM
35.00	.00
34.00	62.50
33.00	125.00
32.00	187.50
31.00	250.00
30.00	312.50
30.00	312.50
29.00	237.36
28.00	153.09
27.00	64.48
26.27	.00
26.00	-24.13
26.00	-24.13
25.00	-100.97
24.00	-177.82
23.00	-254.67
22.00	-314.90
21.00	-345.79
20.43	-363.39
20.43	-363.39

18.43	-403.12
17.43	-422.99
16.43	-442.85
15.43	-462.72
15.06	-470.03
14.21	.00
11.34	1594.07
11.34	.00

WORK FILE	NAME
PRINT FILE	W1
NET PRESSURE DIAGRAM	W2
DEFLECTION PROGRAM (MAX. PENETRATION)	W3

RUN COMPLETED
Stop - Program terminated.



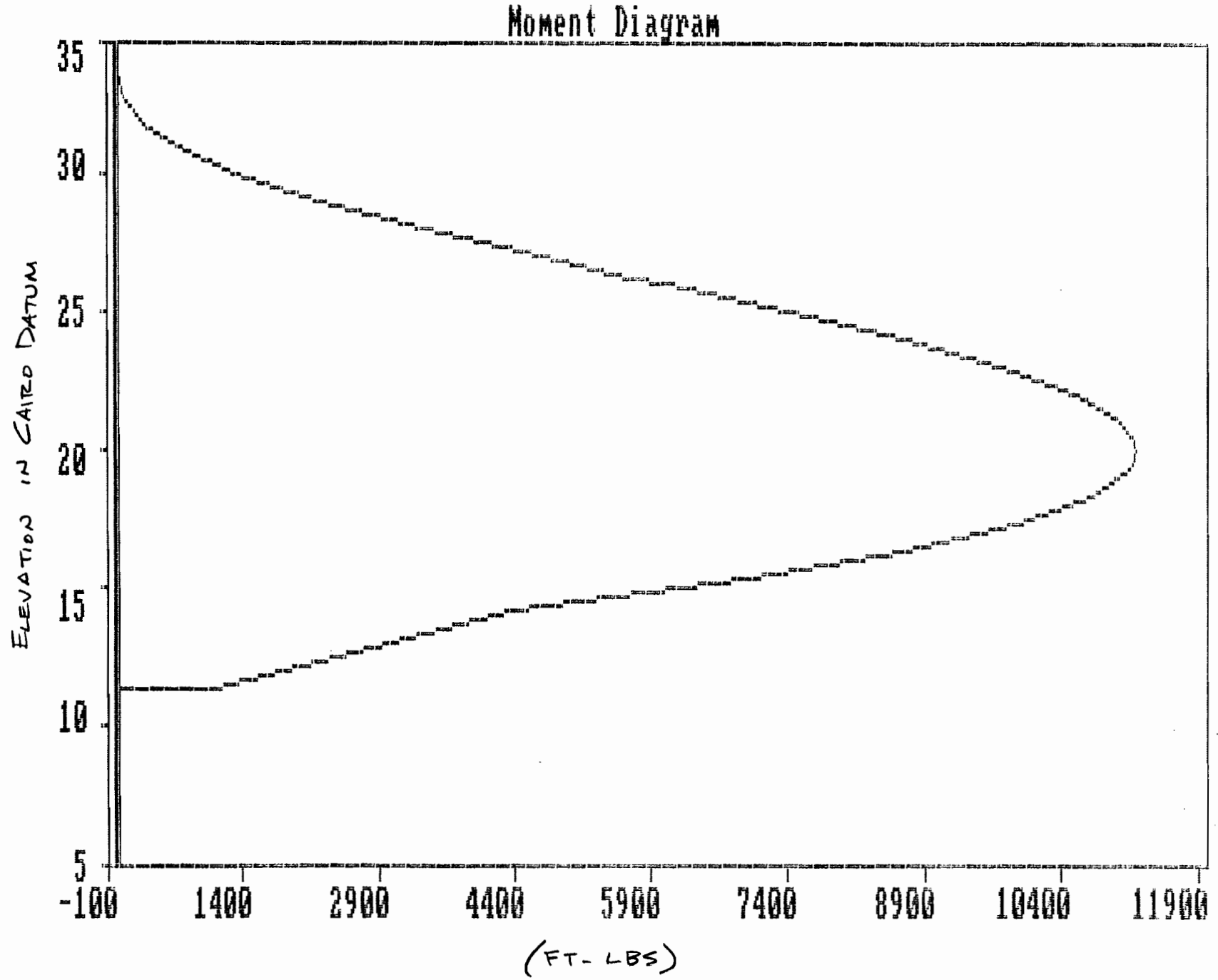
PRESSURE DIAGRAM

Anchor Elevation is 0.00
Anchor Force is 0.00

Elevation	Pressure	Shear Sum	Moment
35.00	0.00	0.00	0.00
34.00	62.50	31.25	15.63
33.00	125.00	125.00	93.75
32.00	187.50	281.25	296.88
31.00	250.00	500.00	687.50
30.00	312.50	781.25	1328.13
30.00	312.50	781.25	1328.13
29.00	237.36	1056.18	2246.84
28.00	153.09	1251.41	3400.64
27.00	64.48	1360.20	4706.44
26.27	0.00	1383.66	5704.84
26.00	-24.13	1380.38	6081.12
26.00	-24.13	1380.38	6081.12
25.00	-100.97	1317.83	7430.23
24.00	-177.82	1178.43	8678.36
23.00	-254.67	962.19	9748.67
22.00	-314.90	677.41	10568.47
21.00	-345.79	347.07	11080.71
20.43	-363.39	144.95	11220.94
20.43	-363.39	144.95	11220.94
19.43	-383.26	-228.38	11180.41
18.43	-403.12	-621.57	10755.44
17.43	-422.99	-1034.62	9927.34
16.43	-442.85	-1467.55	8676.26
15.43	-462.72	-1920.33	6982.32
15.06	-470.03	-2091.87	6244.45
14.21	0.00	-2291.06	4387.03
11.34	1594.07	-0.00	1094.21
11.34	0.00	-0.00	1094.21

Location of Maximum Moments

Elevation	Moment
20.04	11249.54


Moment Diagram
35
30
25
20
15
10
5
ELEVATION IN CAIRO DATUM
-100
1400
2900
4400
5900
7400
8900
10400
11900
(FT-LBS)

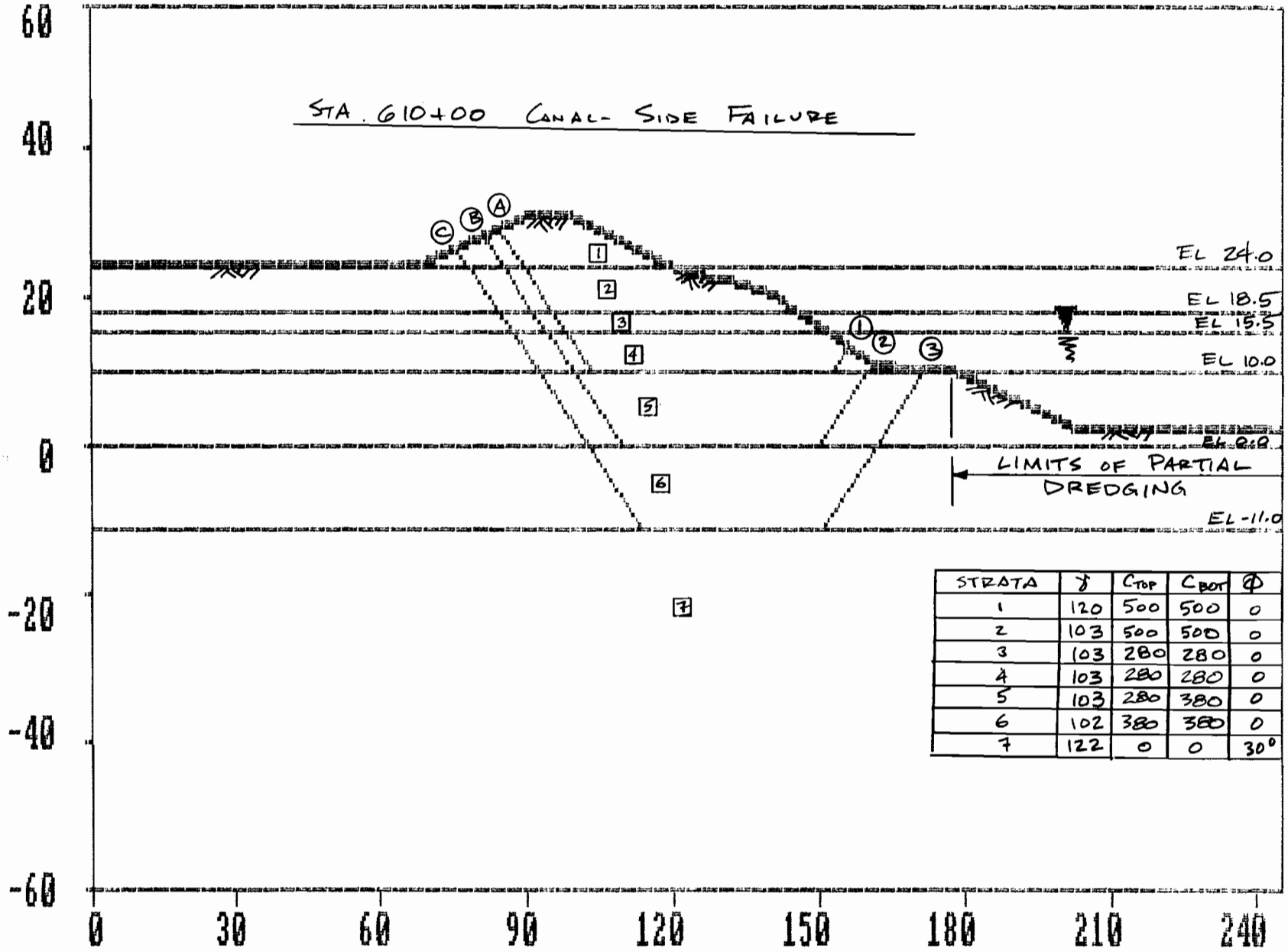
SUBJECT: SAMPLE SLOPE STABILITY ANALYSES FOR THE JEFFERSON SIDE FOR THE "PARTIAL DREDGING" CONDITION.

SOIL PARAMETERS: TAKEN FROM EUSTIS ENGINEERINGS' REPORT ENTITLED "SUBSOIL INVESTIGATION - SEWERAGE AND WATER BOARD OF NEW ORLEANS - METAIRIE RELIEF CANAL - STA 554+00 TO STA 670+00 - ORLEANS AND JEFFERSON PARISHES, LOUISIANA" DATED 2 NOVEMBER 1981.

METHOD OF ANALYSES: CORPS OF ENGINEERS' METHOD OF PLANES.

OBJECTIVE: TO VERIFY THAT "PARTIAL DREDGING" DOES NOT REDUCE THE EXISTING FACTOR OF SAFETY OF THE JEFFERSON LEVEE.

COMMENTS: BECAUSE THE CRITICAL PASSIVE WEDGES DO NOT FALL WITHIN THE LIMITS OF PARTIAL DREDGING, IT IS EVIDENT THAT PARTIAL DREDGING DOES NOT AFFECT THE EXISTING STABILITY OF THE JEFFERSON LEVEE.



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	102	380	380	0
7	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

ENGINEERS

Project 17TH ST. CANAL Made by MLS 11 Nov 87 Date

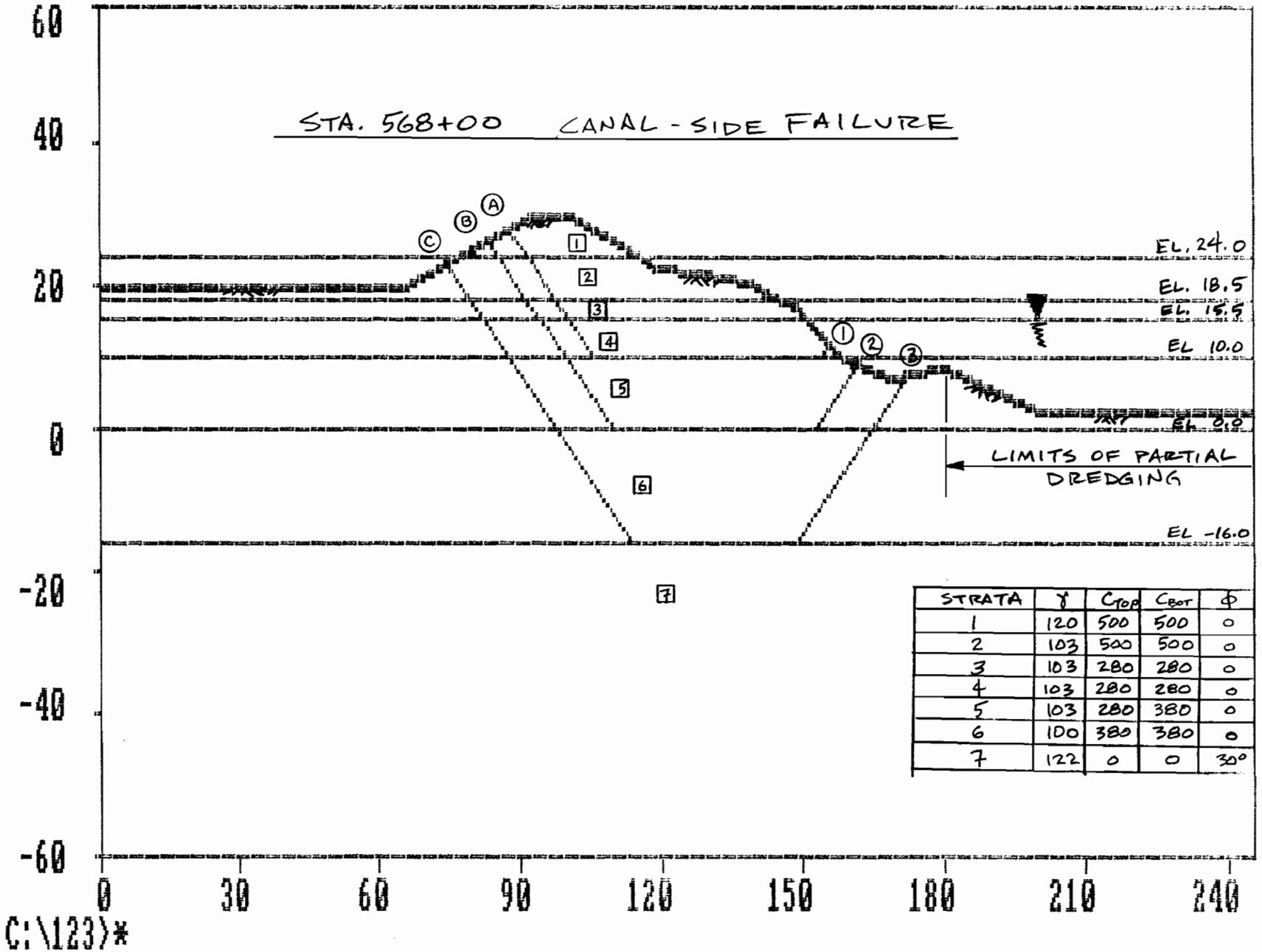
Subject PHASE II Checked by _____ Date

JEFFERSON SLOPE STABILITY Sheet No. _____ of _____

STA 589+00 TO STA 614+00

STA 610+00 CANAL - SIDE FAILURE

SLIP SURFACE		DRIVING FORCE			RESISTING FORCE				FACTOR OF SAFETY
No.	ELEV.	D_A	D_P	ΣD	R_A	R_B	R_P	ΣR	
A-1	10.0	22,218	335	21,883	15,302	13,720	18883	30,705	1.41
B-2	0.0	40,472	3,730	36,742	21,001	15,200	7251	43,452	1.18
C-3	-11.0	63,423	10,548	52,875	27,783	14,060	14,901	56,744	1.07



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	100	380	380	0
7	122	0	0	30°

* NOTE : ELEVATIONS REFER TO CAIRO DATUM *

ENGINEERS

Project 17TH ST. CANAL — Made by MLS 11Nov87 (Date)

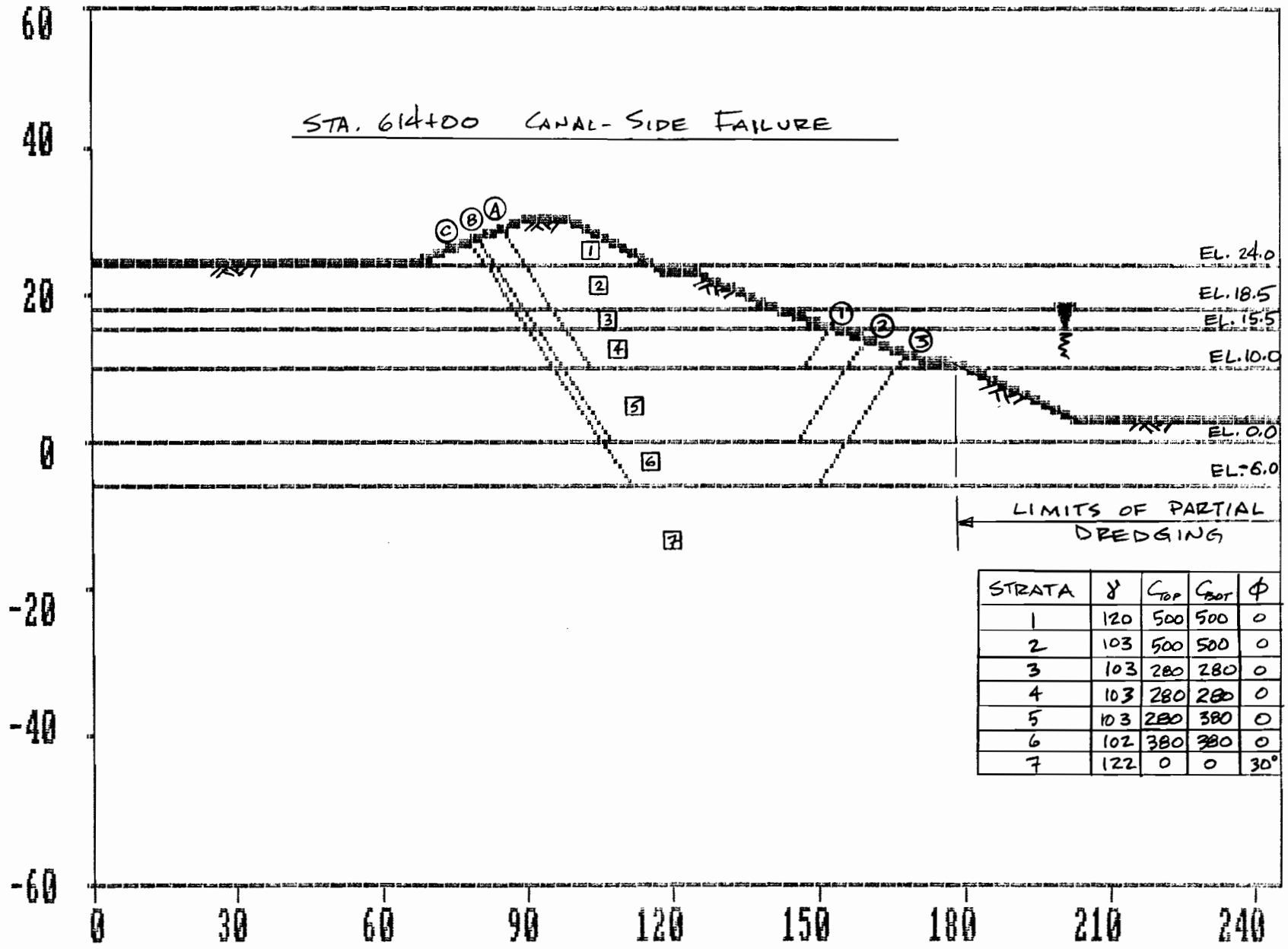
Subject PHASE III — Checked by _____ (Date)

JEFFERSON SLOPE STABILITY — Sheet No. _____ of _____

STA. 554+00 TO STA 589+00

STA 568+00 CANAL - SIDE FAILURE

SLIP SURFACE		DRIVING FORCE			RESISTING FORCE				FACTOR OF SAFETY
No.	ELEV.	D_A	D_P	ΣD	R_A	R_B	R_P	ΣR	
A-1	10.0	17,020	106	18,022	13,781	13,440	971	28,392	1.50
B-2	0.0	35,407	2273	33,224	18,940	16,340	5,785	41,065	1.24
C-3	-16.0	65,667	13,405	52,262	27,811	13,300	17,153	58,264	1.11



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	102	380	380	0
7	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

20-22

ENGINEERS

Subject: 17TH ST CANAL — PHASE II — JEFFERSON SLOPE STABILITY — STA. 614+00 TO STA 624+27

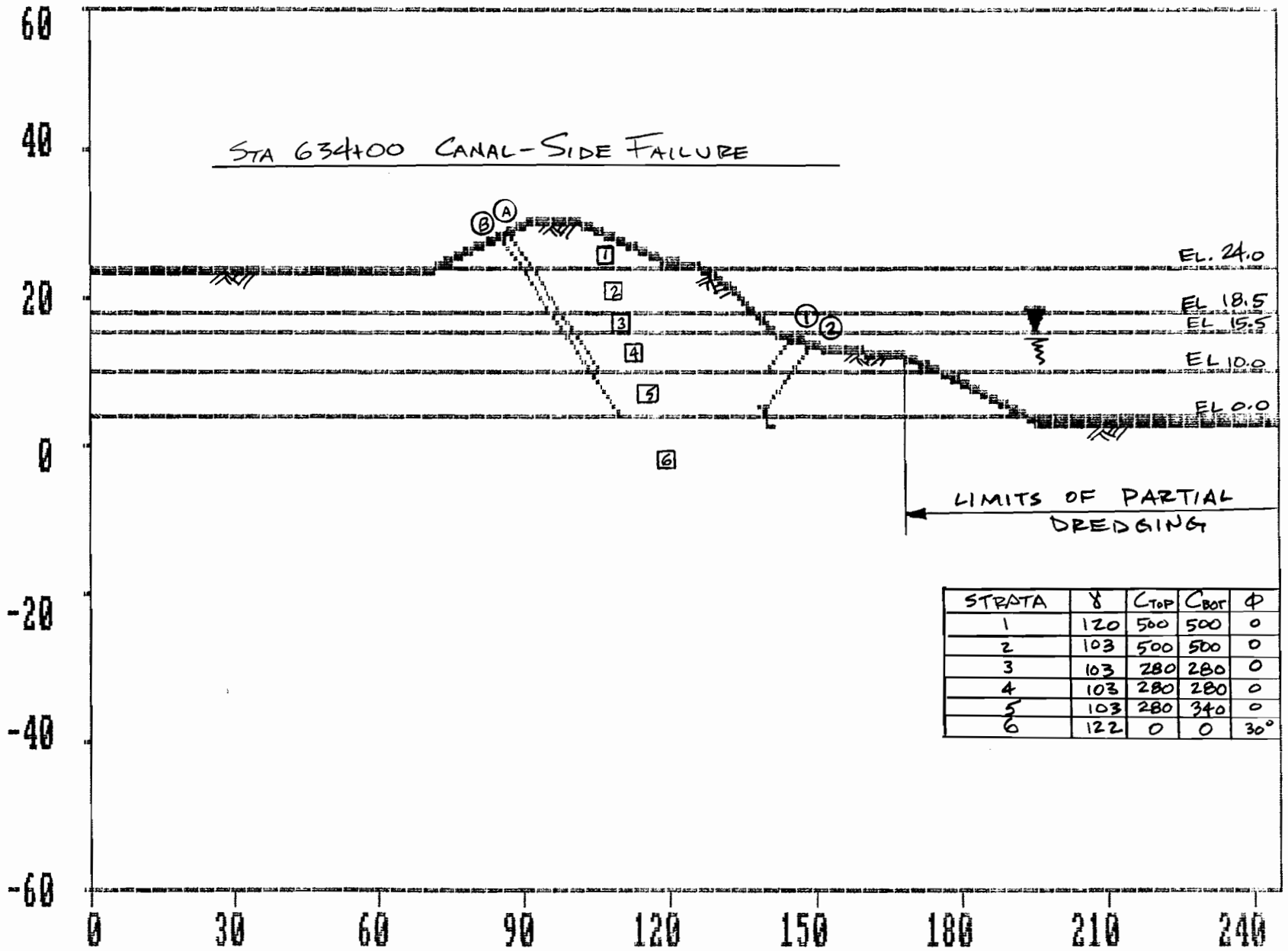
Made by MLS 11 Nov 87 (Date)

Checked by (Date)

Sheet No. _____ of _____

SLIP SURFACE No.	ELEV.	DRIVING FORCE D_A	D_P	ΣD	RESISTING FORCE R_A	R_B	R_P	ΣR	FACTOR OF SAFETY
A-1	10.0	20,690	957	19,733	14,980	12,040	3038	30,067	1.52
B-2	0.0	38,390	5033	33,357	20,360	14,440	8,696	43,496	1.30
C-3	-6.0	49,947	7,995	41,952	24,511	14,440	12,205	51,160	1.22

STA 614+00 CANAL-SIDE FAILURE



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	340	0
6	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

2.1.21

ENGINEERS

Project 17TH ST. CANAL — PHASE II

Made by MLS 11 Nov 87 (Date)

Subject JEFFERSON SLOPE STABILITY

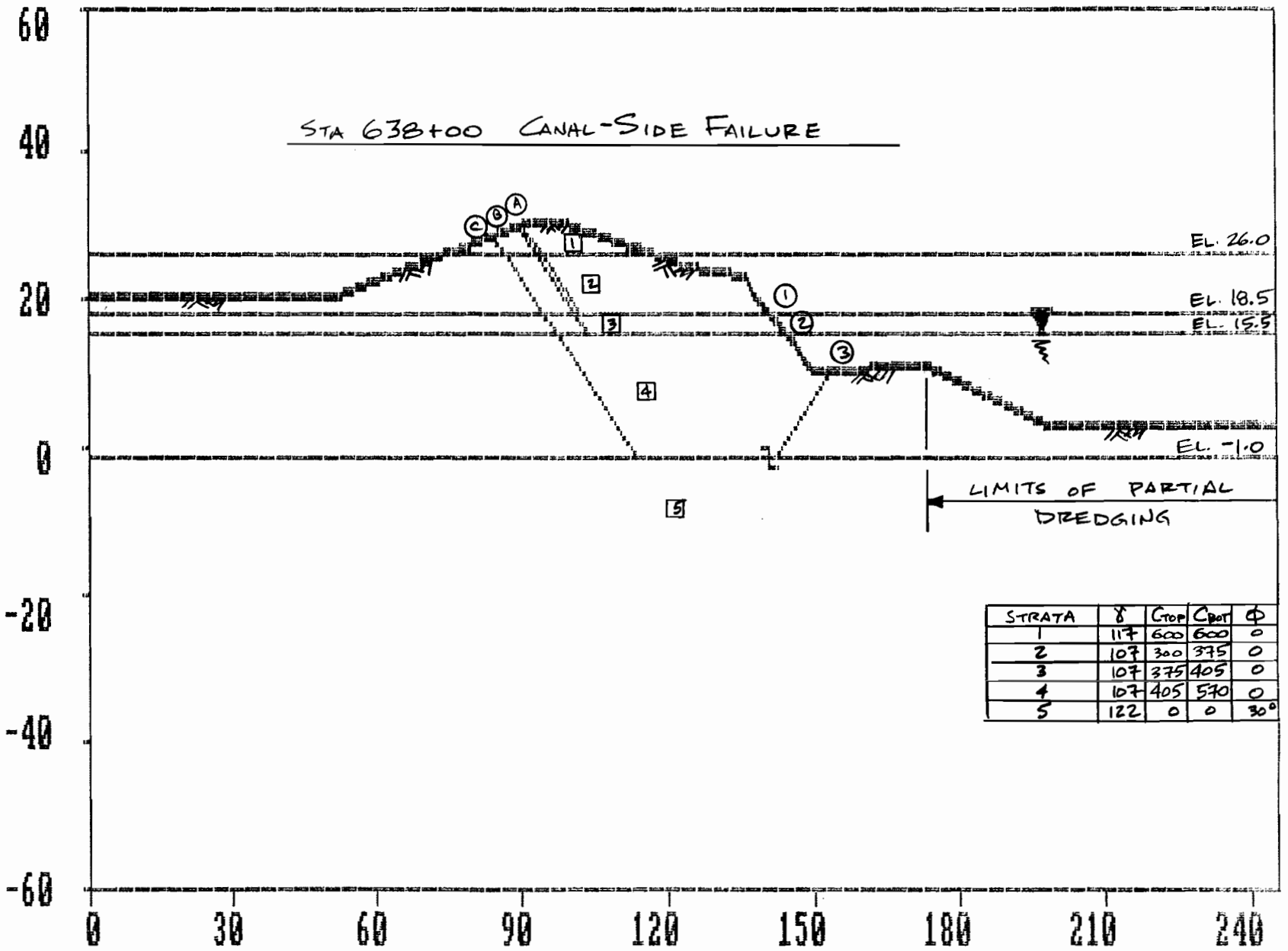
Checked by _____ (Date)

Sheet No. _____ of _____

STA 627+28 TO STA 634+00

STA. 634+00 CANAL-SIDE FAILURE

SLIP SURFACE No.	ELEV.	DRIVING FORCE D_A	D_P	ΣD	RESISTING FORCE R_A	R_B	R_P	ΣR	FACTOR OF SAFETY
A-1	10.0	21,709	588	21,121	15,274	9,520	2,491	27,285	1.29
B-2	4.0	32,316	2,501	29,815	18,482	9,860	5,764	34,106	1.14



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	117	600	600	0
2	107	300	375	0
3	107	375	405	0
4	107	405	570	0
5	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

ENGINEERS

Project 17TH ST. CANAL — Made by MLS 11Nov87 (Date)

Subject PHASE II — Checked by _____ (Date)

JEFFERSON SLOPE STABILITY — Sheet No. _____ of _____

STA. 636+00 TO STA 638+31

STA 638+00 CANAL SIDE FAILURE

SLIP SURFACE No.	ELEV.	DRIVING FORCE D_A	D_P	ΣD	RESISTING FORCE R_A	R_B	R_P	ΣR	FACTOR OF SAFETY
A-1	18.5	7,613	0	7,613	9,552	14,250	0	23,802	3.13
B-2	15.5	11,722	0	11,722	11,654	16,200	0	27,854	2.38
C-3	-1.0	40,725	4,205	36,520	26,193	15,949	11,130	53,272	1.46

2 of 5

17TH STREET CANAL
PHASE II
PRELIMINARY COST ESTIMATE

FN:PIICOSTS (MM9)

TOTAL

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	-----	-----	75,000
(2)	DEMOLITION AND REMOVAL OF EXISTING STRUCTURES AND OBSTRUCTIONS	LUMP SUM	-----	-----	10,000
(3)	REMOVAL OF EXISTING SHEET PILE WALL AND CONCRETE CAP	LINEAR FOOT	8,055	75.00	604,125
(4)	DREDGING AND REMOVAL OF MATERIAL	CUBIC YARD	160,425	15.00	2,406,375
(5)	LEVEE DEGRADING AND REMOVAL OF MATERIAL	CUBIC YARD	24,150	5.60	135,240
(6)	LEVEE RAISING	CUBIC YARD	1,950	2.80	5,460
(7)	FLOODWALL	LUMP SUM	-----	-----	5,643,700
(8)	TURFING	ACRE	5.25	2,300.00	12,075
(9)	MUCK RETAINER	EACH	4	10,000.00	40,000
(10)	COAL TAR EPOXY	SQUARE FOOT	249,400	1.00	249,400
(11)	MATTING (RIPRAP)	CUBIC YARD	2,875	35.00	100,625
				TOTAL	$9,282,000

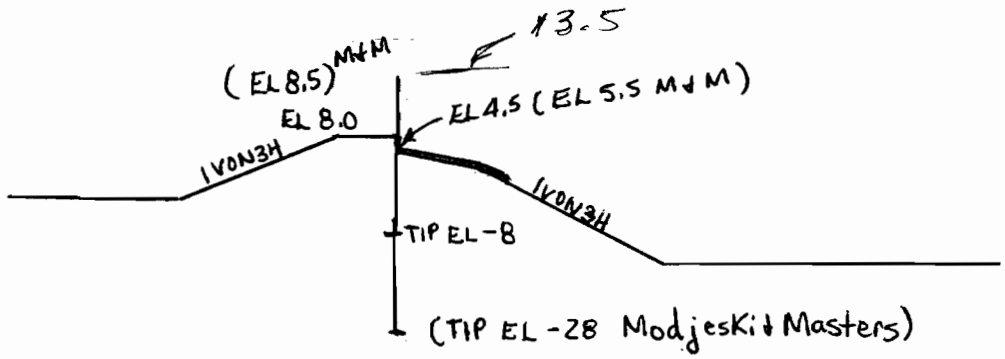
6/4/87

Des Br

Q Files for I-WALL on Orleans Parish side STA 546 TO HAMMOND Highway,

F.S. = 1.5 Q546D - 8.16
F.S. = 1.0 Q546OA

The above Q files are not for the section shown in the plans but for a ~~er~~ section proposed by HM Br.



Frank Vojkovich 1034

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LIST 05460
1 10001 17TH CANAL HLP STA 546 TO HAMMOND HIGHWAY
2 10002 I-WALL TOP EL. 13.5 BOTT. EL.-8.16 F.S.=1.5
3 10003                    3  0.13500000E+02  0.00000000E+01
4 10004                    3  0.12500000E+02  0.62500000E+02
5 10005                    3  0.11500000E+02  0.12500000E+03
6 10006                    3  0.10500000E+02  0.18750000E+03
7 10007                    3  0.95000000E+01  0.25000000E+03
8 10008                    3  0.85000000E+01  0.31250000E+03
9 10009                    3  0.80000000E+01  0.34375000E+03
10 10010                    3  0.80000000E+01  0.34375000E+03
11 10011                    3  0.70000000E+01  0.21043478E+03
12 10012                    3  0.60000000E+01  0.77119557E+02
13 10013                    3  0.54215247E+01  0.00000000E+01
14 10014                    3  0.50000000E+01 -0.56195665E+02
15 10015                    3  0.45000000E+01 -0.12285328E+03
16 10016                    3  0.45000000E+01 -0.12285328E+03
17 10017                    3  0.35000000E+01 -0.23294821E+03
18 10018                    3  0.35000000E+01 -0.21754912E+03
19 10019                    3  0.25000000E+01 -0.32358354E+03
20 10020                    3  0.15000000E+01 -0.40267850E+03
21 10021                    3  0.50000000E+00 -0.44880965E+03
22 10022                    3  0.00000000E+01 -0.47187522E+03
23 10023                    3  0.00000000E+01 -0.47187522E+03

24 10024                    3 -0.10000000E+01 -0.47123447E+03
25 10025                    3 -0.20000000E+01 -0.47059373E+03
26 10026                    3 -0.20000000E+01 -0.47059373E+03
27 10027                    3 -0.26731453E+01 -0.46258499E+03
28 10028                    3 -0.44468823E+01  0.00000000E+01
29 10029                    3 -0.81647477E+01  0.96960748E+03
30 10030                    4 -0.81647477E+01  0.00000000E+01
31 10031                    0 -0.81647477E+01  0.00000000E+01
32 10032  -0.81647477E+01 -0.29802322E-07  0.16176935E+02
EOT..
```

LIST Q54600

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH CANAL HLP STA 546 TO HAMMOND HIGHWAY
WAL

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 0.84 INCHES AND OCCURS AT MEMBER COORDINATE 13.50 FT.

Z-22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
-8.16	POINT LD	4.60 LBF
-8.16	COUPLE	-16.17 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
13.50	CONTN LD	0.00 LBF/SQ FT
12.50	CONTN LD	62.50 LBF/SQ FT
11.50	CONTN LD	125.00 LBF/SQ FT
10.50	CONTN LD	187.50 LBF/SQ FT
9.50	CONTN LD	250.00 LBF/SQ FT
8.50	CONTN LD	312.50 LBF/SQ FT
8.00	CONTN LD	343.75 LBF/SQ FT
8.00	CONTN LD	343.75 LBF/SQ FT
7.00	CONTN LD	210.43 LBF/SQ FT
6.00	CONTN LD	77.12 LBF/SQ FT
5.42	CONTN LD	0.00 LBF/SQ FT
5.00	CONTN LD	-56.20 LBF/SQ FT
4.50	CONTN LD	-122.85 LBF/SQ FT
4.50	CONTN LD	-122.85 LBF/SQ FT
3.50	CONTN LD	-232.95 LBF/SQ FT
3.50	CONTN LD	-217.55 LBF/SQ FT
2.50	CONTN LD	-323.58 LBF/SQ FT
1.50	CONTN LD	-402.68 LBF/SQ FT
0.50	CONTN LD	-448.81 LBF/SQ FT
0.00	CONTN LD	-471.88 LBF/SQ FT
0.00	CONTN LD	-471.88 LBF/SQ FT
-1.00	CONTN LD	-471.23 LBF/SQ FT
-2.00	CONTN LD	-470.59 LBF/SQ FT

```
60          -2.00   CONTN LD     -470.39 LBF/SQ FT
61          -2.67   CONTN LD     -462.58 LBF/SQ FT
62          -4.45   CONTN L         0.00 LBF/SQ FT
63          -8.16   CONTN L       969.61 LBF/SQ FT
64          -8.16   CONTN LD        0.00 LBF/SQ FT
65
66
67  Z-22          PROPERTIES ARE AS FOLLOWS.
68
69

70  MOMENT OF INERTIA=    84.38 IN. TO THE 4TH PER FOOT OF WALL
71  CROSS SECTIONAL AREA=    6.47 SQ IN.
72  ELASTIC MODULUS=  29000000. LBF/SQ IN.
73  DEFLECTION REFERENCE IS AT  -8.160
74
75
76   THE MAXIMUM BENDING MOMENT IS    9503.68 LBF-FT AND OCCURS AT     0.30
77   WHICH HAS THE SHEAR FORCE OF     4.86 LBF.
78
```

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
13.500	0.0	0.0	0.0	0.8401
13.499	0.0	0.0	0.0	0.8401
13.000	7.8	1.2	1.3	0.8070
12.000	70.3	10.9	35.2	0.7406
11.000	195.3	30.2	162.8	0.6743
10.000	382.8	59.2	446.6	0.6080
9.000	632.8	97.8	949.2	0.5422
8.000	945.3	146.1	1733.1	0.4770
7.000	1222.4	188.9	2828.0	0.4131
6.000	1366.2	211.2	4133.4	0.3512
5.422	1388.5	214.6	4932.3	0.3167
5.000	1376.6	212.8	5516.0	0.2923
4.000	1256.7	194.2	6842.8	0.2372
3.000	1032.0	159.5	7994.2	0.1870
2.000	711.7	110.0	8873.7	0.1424
1.000	313.2	48.4	9391.4	0.1039
0.302	4.9	0.8	9503.7	0.0810
0.000	-135.6	-21.0	9484.0	0.0721
-1.000	-607.2	-93.8	9112.6	0.0469
-2.000	-1078.1	-166.6	8269.9	0.0282
-3.000	-1529.5	-236.4	6959.9	0.0152
-4.000	-1776.4	-274.6	5285.3	0.0070
-4.446	-1802.4	-278.6	4485.5	0.0047
-4.448	-1802.4	-278.6	4481.9	0.0047
-5.000	-1762.5	-272.4	3494.0	0.0026
-6.000	-1487.9	-230.0	1847.1	0.0007
-7.000	-952.4	-147.2	605.2	0.0001
-8.000	-156.2	-24.1	29.1	0.0000
-8.159	-5.6	-0.9	16.2	0.0000
-8.160	-4.6	-0.7	16.2	0.0000

```
114
115

116
117  *RUN COMPLETED*
118
EOT..
```

```
LIST Q5460A
1 10001 17TH ST CANAL HLP STA 546 TO HAMMOND HIGHWAY
2 10002 I-WALL TOP EL. 13.5 BOTT EL. -8.16 F.S. =1.00
3 10003                    3  0.13500000E+02  0.00000000E+01
4 10004                    3  0.12500000E+02  0.62500000E+02
5 10005                    3  0.11500000E+02  0.12500000E+03
6 10006                    3  0.10500000E+02  0.18750000E+03
7 10007                    3  0.95000000E+01  0.25000000E+03
8 10008                    3  0.85000000E+01  0.31250000E+03
9 10009                    3  0.80000000E+01  0.34375000E+03
10 10010                    3  0.80000000E+01  0.34375000E+03
11 10011                    3  0.70000000E+01  0.15059623E+03
12 10012                    3  0.62203299E+01  0.00000000E+01
13 10013                    3  0.60000000E+01 -0.42557545E+02
14 10014                    3  0.50000000E+01 -0.23571132E+03
15 10015                    3  0.45000000E+01 -0.33228820E+03
16 10016                    3  0.45000000E+01 -0.33228820E+03
17 10017                    3  0.35000000E+01 -0.51067402E+03
18 10018                    3  0.35000000E+01 -0.49568827E+03
19 10019                    3  0.25000000E+01 -0.65030478E+03
20 10020                    3  0.15000000E+01 -0.73684033E+03
21 10021                    3  0.11850577E+01 -0.76409404E+03
22 10022                    3 -0.75140464E+00  0.00000000E+01
23 10023                    3 -0.36858365E+01  0.11578753E+04

24 10024                    4 -0.36858365E+01  0.00000000E+01
25 10025                    0 -0.36858365E+01  0.00000000E+01
26 10026  -0.36858365E+01  0.00000000E+01  0.37715838E+02
EOT..
```

LIST Q5460A0

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH ST CANAL HLP STA 546 TO HAMMOND HIGHWAY
WAL

THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS AS COUNTERCLOCKWISE.

THE MAXIMUM DEFLECTION IS 0.37 INCHES AND OCCURS AT MEMBER COORDINATE 13.50 FT.

Z-22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.

CALCULATED EXTERNAL LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
-3.69	POINT LD	0.00 LBF
-3.69	COUPLE	-37.72 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
13.50	CONTN LD	0.00 LBF/SQ FT
12.50	CONTN LD	62.50 LBF/SQ FT
11.50	CONTN LD	125.00 LBF/SQ FT
10.50	CONTN LD	187.50 LBF/SQ FT
9.50	CONTN LD	250.00 LBF/SQ FT
8.50	CONTN LD	312.50 LBF/SQ FT
8.00	CONTN LD	343.75 LBF/SQ FT
8.00	CONTN LD	343.75 LBF/SQ FT
7.00	CONTN LD	150.60 LBF/SQ FT
6.22	CONTN LD	0.00 LBF/SQ FT
6.00	CONTN LD	-42.56 LBF/SQ FT
5.00	CONTN LD	-235.71 LBF/SQ FT
4.50	CONTN LD	-332.29 LBF/SQ FT
4.50	CONTN LD	-332.29 LBF/SQ FT
3.50	CONTN LD	-510.67 LBF/SQ FT
3.50	CONTN LD	-495.69 LBF/SQ FT
2.50	CONTN LD	-650.30 LBF/SQ FT
1.50	CONTN LD	-736.84 LBF/SQ FT
1.19	CONTN LD	-764.09 LBF/SQ FT
-0.75	CONTN LD	0.00 LBF/SQ FT
-3.69	CONTN LD	1157.88 LBF/SQ FT
-3.69	CONTN LD	0.00 LBF/SQ FT

Z-22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= 6.47 SQ IN.
ELASTIC MODULUS= 29000000. LBF/SQ IN.
DEFLECTION REFERENCE IS AT -8.160

THE MAXIMUM BENDING MOMENT IS 6807.13 LBF-FT AND OCCURS AT 2.57
WHICH HAS THE SHEAR FORCE OF 15.29 LBF.

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
13.500	0.0	0.0	0.0	0.3682
13.499	0.0	0.0	0.0	0.3682
13.000	7.8	1.2	1.3	0.3505
12.000	70.3	10.9	35.2	0.3150
11.000	195.3	30.2	162.8	0.2795
10.000	382.8	59.2	446.6	0.2442
9.000	632.8	97.8	949.2	0.2092
8.000	945.3	146.1	1733.1	0.1749
7.000	1192.5	184.3	2818.1	0.1418
6.220	1251.2	193.4	3778.3	0.1174
6.000	1246.5	192.7	4053.7	0.1108
5.000	1107.4	171.2	5246.7	0.0826
4.000	776.9	120.1	6204.3	0.0581
3.000	276.7	42.8	6743.1	0.0380
2.569	15.3	2.4	6807.1	0.0307
2.000	-365.1	-56.4	6709.0	0.0225
1.000	-1093.7	-169.0	5983.2	0.0117
0.000	-1587.5	-245.4	4609.8	0.0051
-0.750	-1698.9	-262.6	3362.9	0.0023
-0.752	-1698.9	-262.6	3359.5	0.0023
-1.000	-1686.7	-260.7	2939.8	0.0017
-2.000	-1391.3	-215.0	1368.0	0.0003
-3.000	-701.3	-108.4	288.8	0.0000
-3.685	-1.2	-0.2	37.7	0.0000
-3.687	0.0	0.0	0.0	0.0000
-4.000	0.0	0.0	0.0	0.0000
-5.000	0.0	0.0	0.0	0.0000
-6.000	0.0	0.0	0.0	0.0000
-7.000	0.0	0.0	0.0	0.0000
-8.000	0.0	0.0	0.0	0.0000
-8.159	0.0	0.0	0.0	0.0000
-8.160	0.0	0.0	0.0	0.0000

RUN COMPLETED

EOT..

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
CELMN-ED-DD	17th St. Canal Parallel Flood Protection Phase 1B - Hammond Highway to Southern Railway OLB Project No. 2043-2027

TO	FROM	DATE	CMT 1
C/F & M Br. 11/3	C/[redacted] Des. Br.	3 Nov. 1987 Mr. Dascil/2657 ORIG	

It is requested you review the subject plans and specifications and provide your response no later than 13 Nov 1987

Encl. as
(handcarried)

Walter D. Judlin
Chief, Design Branch

CELMN-ED-FS

TO C/Des Br FROM C/F&M Br DATE 20 Nov 87 CMT 2
Mr. Vojkovich/cl/1034
FV JR

We have reviewed the plans and specifications and have the following comments:

a) The sheetpile analyses from Sta. 636+00 to Sta. 638+31 should have submerged weights on the floodside of the wall which results in a tip elevation of 15.0 CD. The stability analyses for Sta. 636+00 to Sta. 638+31 indicates that the levee crown elevation could be raised thereby decreasing the sheetpile tip penetration.

b) The sheetpile tip elevation should transition between Sta. 589+00 to Sta. 590+00, Sta. 614+00 to Sta. 615+00 and Sta. 635+00 to Sta. 636+00.

c) Furnished is a revised design section for Sta. 663+00 to Sta. 670+00, Orleans Parish side, based on the sections shown in the preliminary plans. See encl. 2.

d) The sheetpile tip elevation between Sta. ~~614+00~~ 625+00 to Sta. ~~625+00~~ 635+00 should be lowered based on a cantilever retaining wall analysis to be performed to the floodside for the section presented in the plans.

e) GDM design sections were previously furnished to your branch by DF's dated 24 Apr 87 and 30 June 87. The design sections should result in lower costs than the sections shown in the preliminary plans. We recommend that the GDM Design Sections be used.

f) Furnished as requested are stability control lines for the Jefferson levee under existing project requirements, encl 3-7.

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

Encls
wd Encls 1
added 6 Encls (2-7)
as

DA FORM AUG 80 2496 PREVIOUS EDITIONS WILL BE USED GPO : 1987 O - 172-42[illegible]

CELMN-ED-FS

TO C/Des Br FROM C/F&M Br DATE 20 Nov 87 CMT 2
Mr. Vojkovich/cl/1034

We have reviewed the plans and specifications and have the following comments:

a) The sheetpile analyses from Sta. 636+00 to Sta. 638+31 should have submerged weights on the floodside of the wall which results in a tip elevation of 15.0 CD. The stability analyses for Sta. 636+00 to Sta. 638+31 indicates that the levee crown elevation could be raised thereby decreasing the sheetpile tip penetration.

b) The sheetpile tip elevation should transition between Sta. 589+00 to Sta. 590+00, Sta. 614+00 to Sta. 615+00 and Sta. 635+00 to Sta. 636+00.

c) Furnished is a revised design section for Sta. 663+00 to Sta. 670+00, Orleans Parish side, based on the sections shown in the preliminary plans. See encl. 2.

d) The sheetpile tip elevation between Sta. 614+00 to Sta. 625+00 should be lowered based on a cantilever retaining wall analysis to be performed to the floodside for the section presented in the plans.

e) GDM design sections were previously furnished to your branch by DF's dated 24 Apr 87 and 30 June 87. The design sections should result in lower costs than the sections shown in the preliminary plans. We recommend that the GDM Design Sections be used.

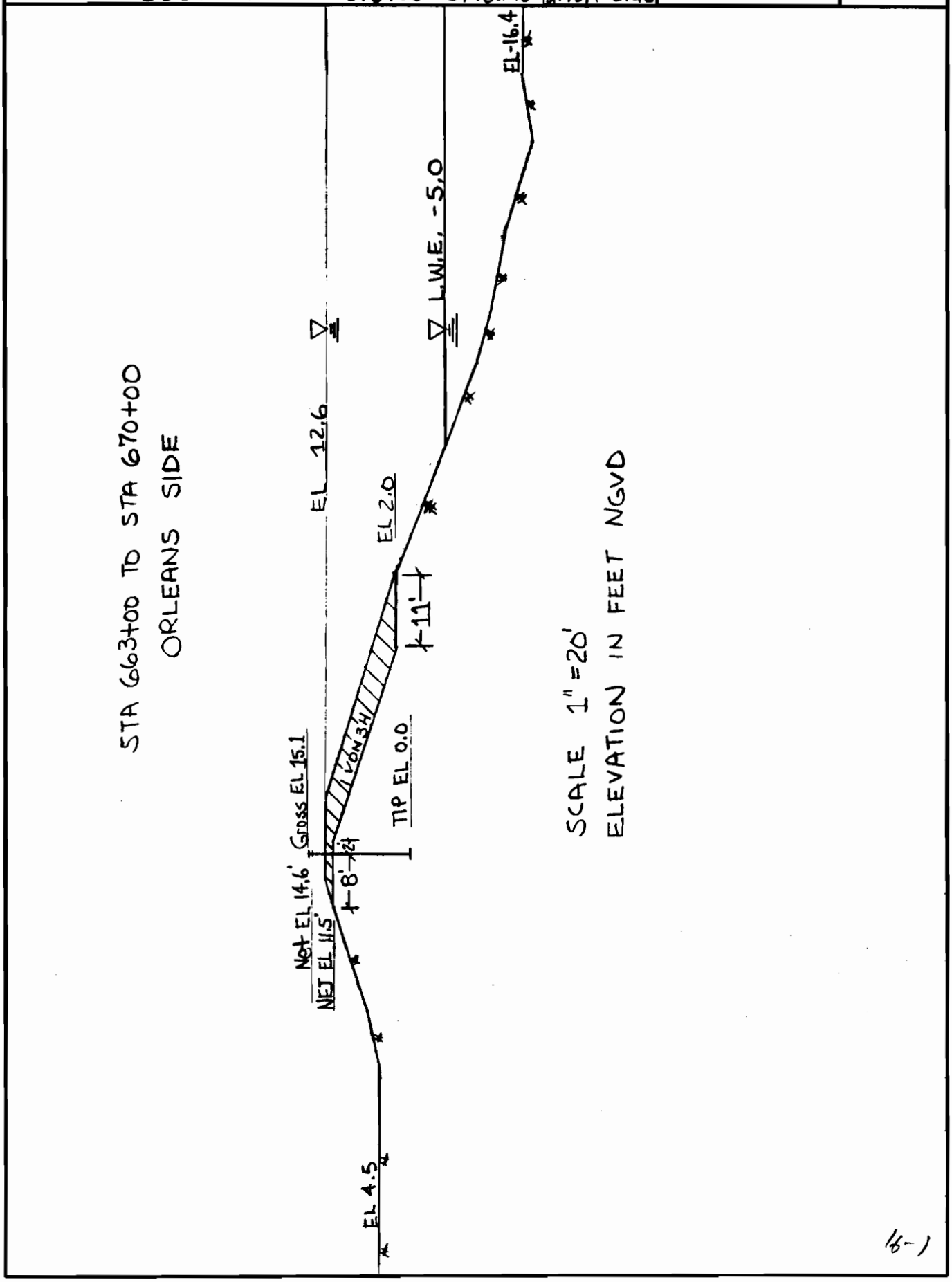
f) Furnished as requested are stability control lines for the Jefferson levee under existing project requirements, encl. 3-7.

Encls
wd Encls 1
added 6 Encls (2-7)
as

RODNEY P. PICCIOLA
Chief, Foundations and Materials Branch

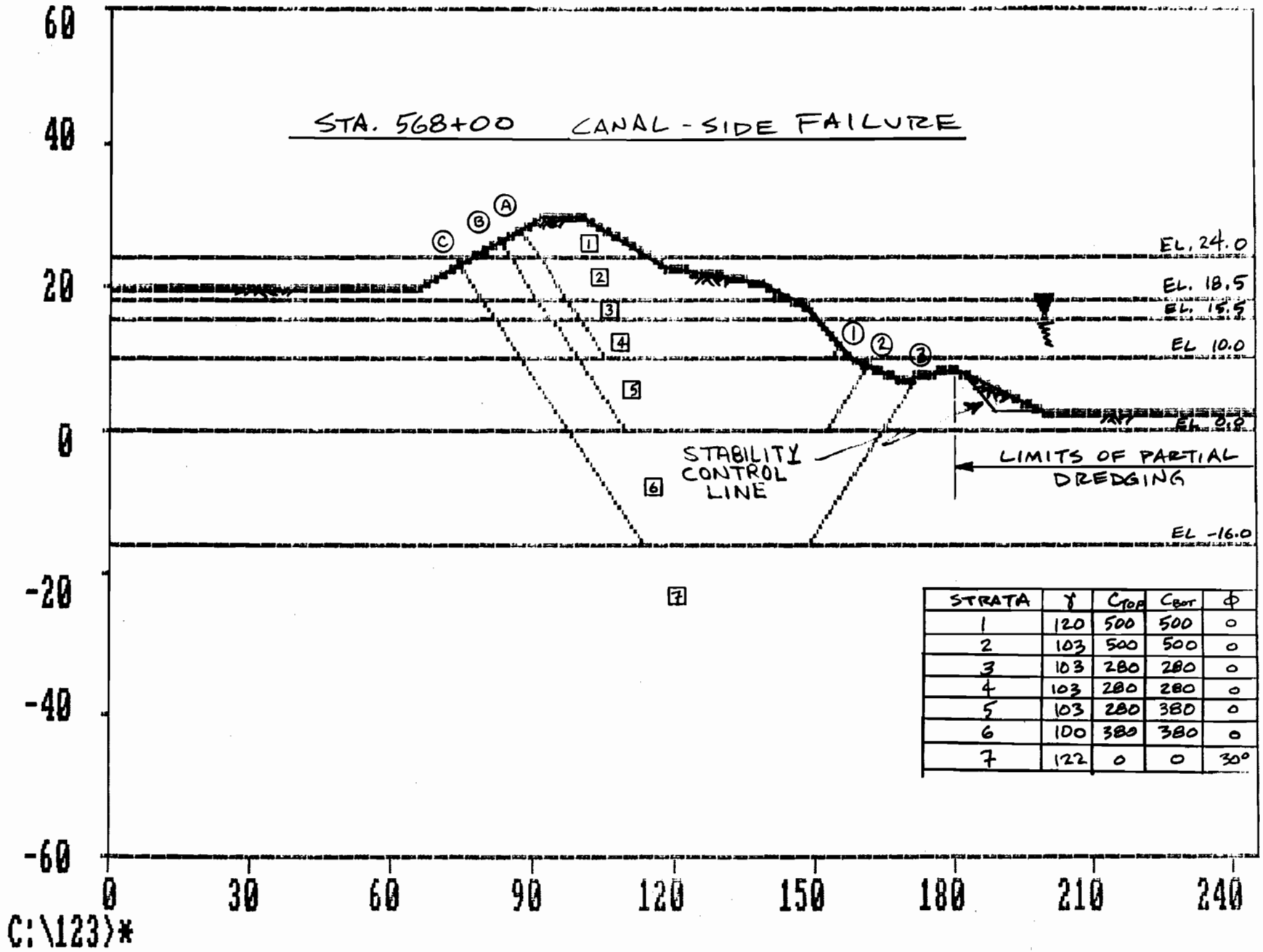
COMPUTATION SHEET

PROJECT 17th St Outfall Canal	PAGE OF	COMPUTED BY FJV	DATE 11/87
SUBJECT STA 663+00 TO STA 670+00 Orleans Parish Side		CHECKED BY	DATE



16-1

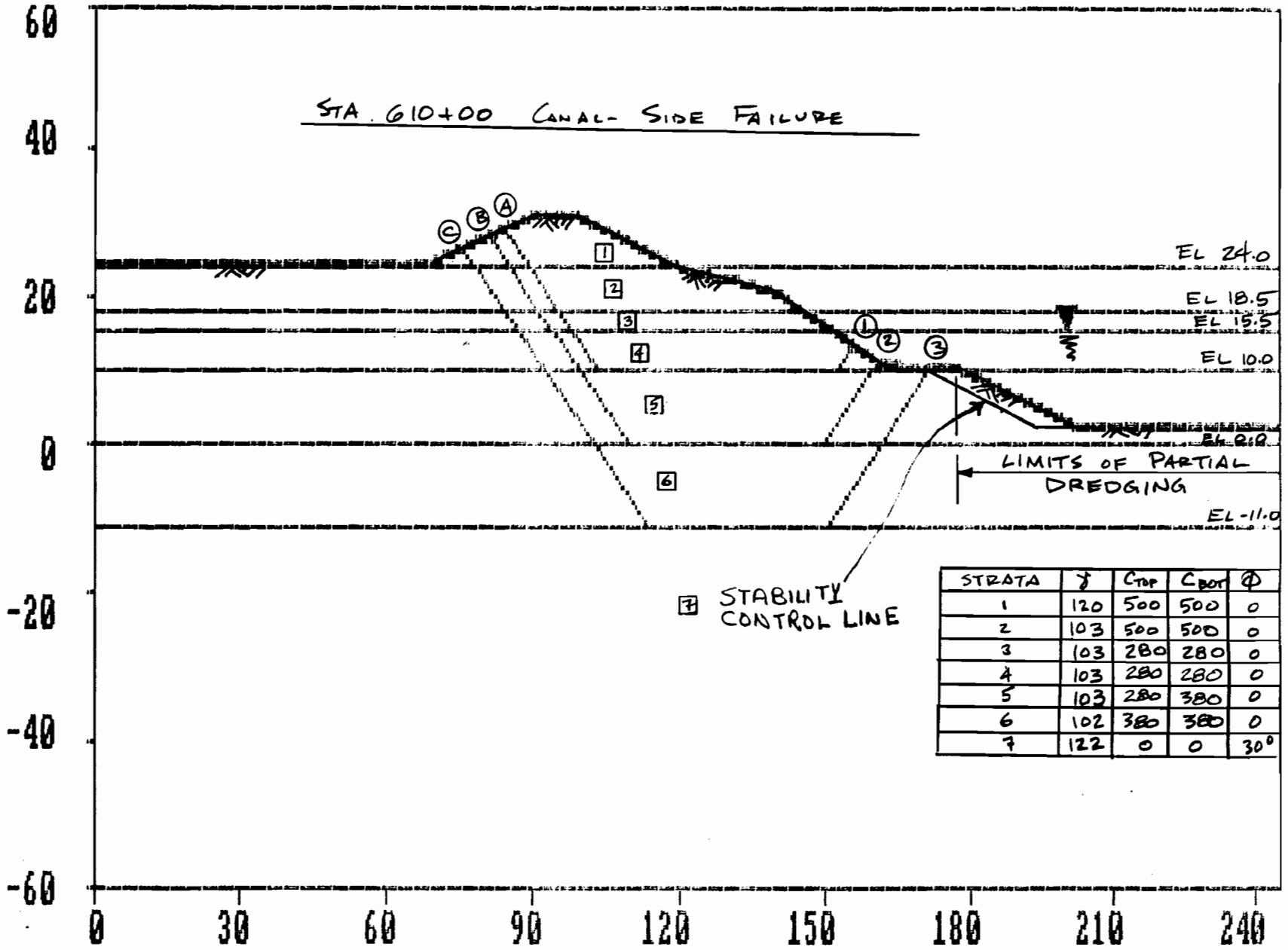
ENCL 2



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	100	380	380	0
7	122	0	0	30°

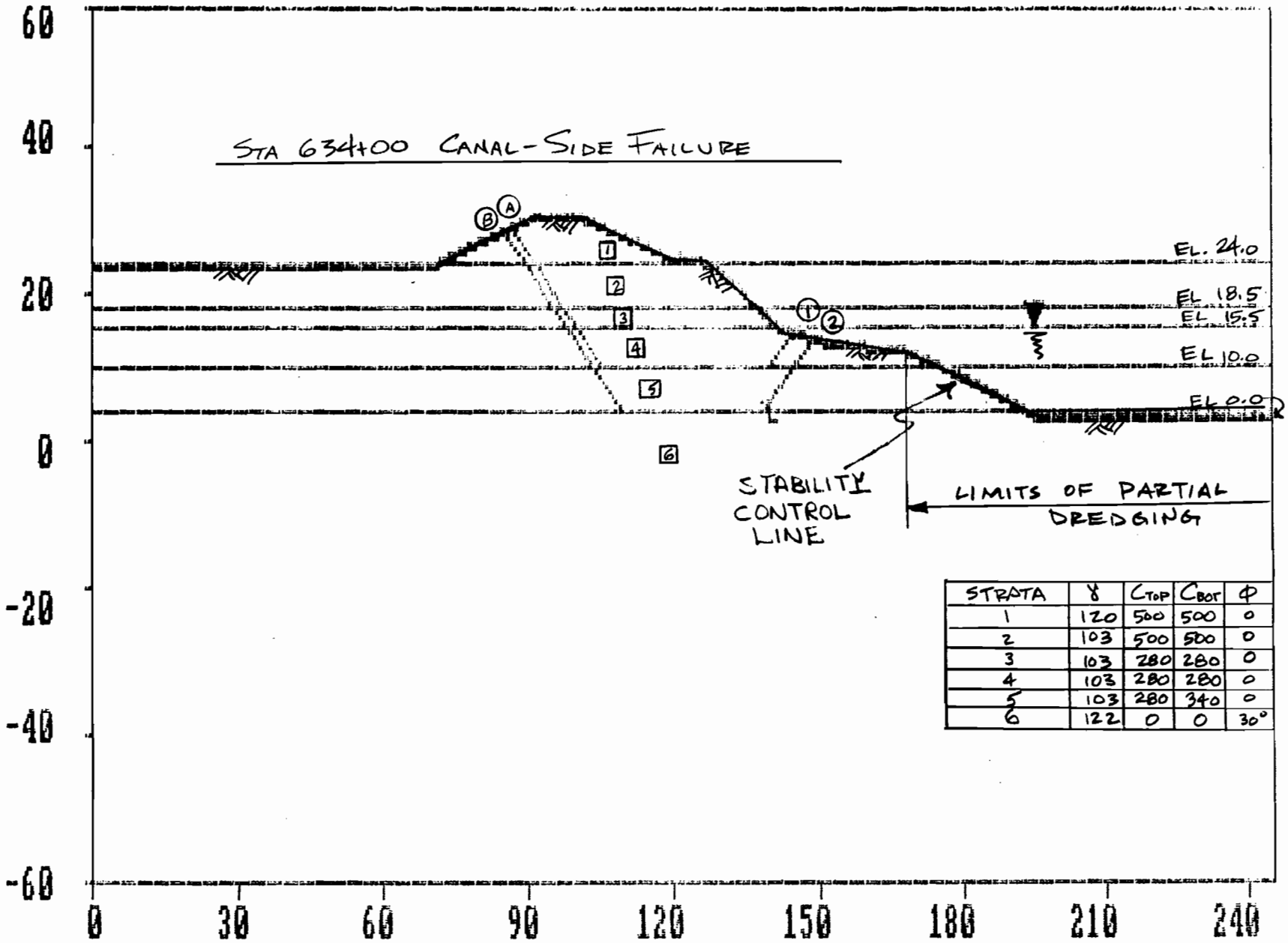
NOTE: ELEVATIONS REFER TO CAIRO DATUM

ENCL 4



STRATA	γ	C_{TOP}	C_{BOT}	Φ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	102	380	380	0
7	122	0	0	30°

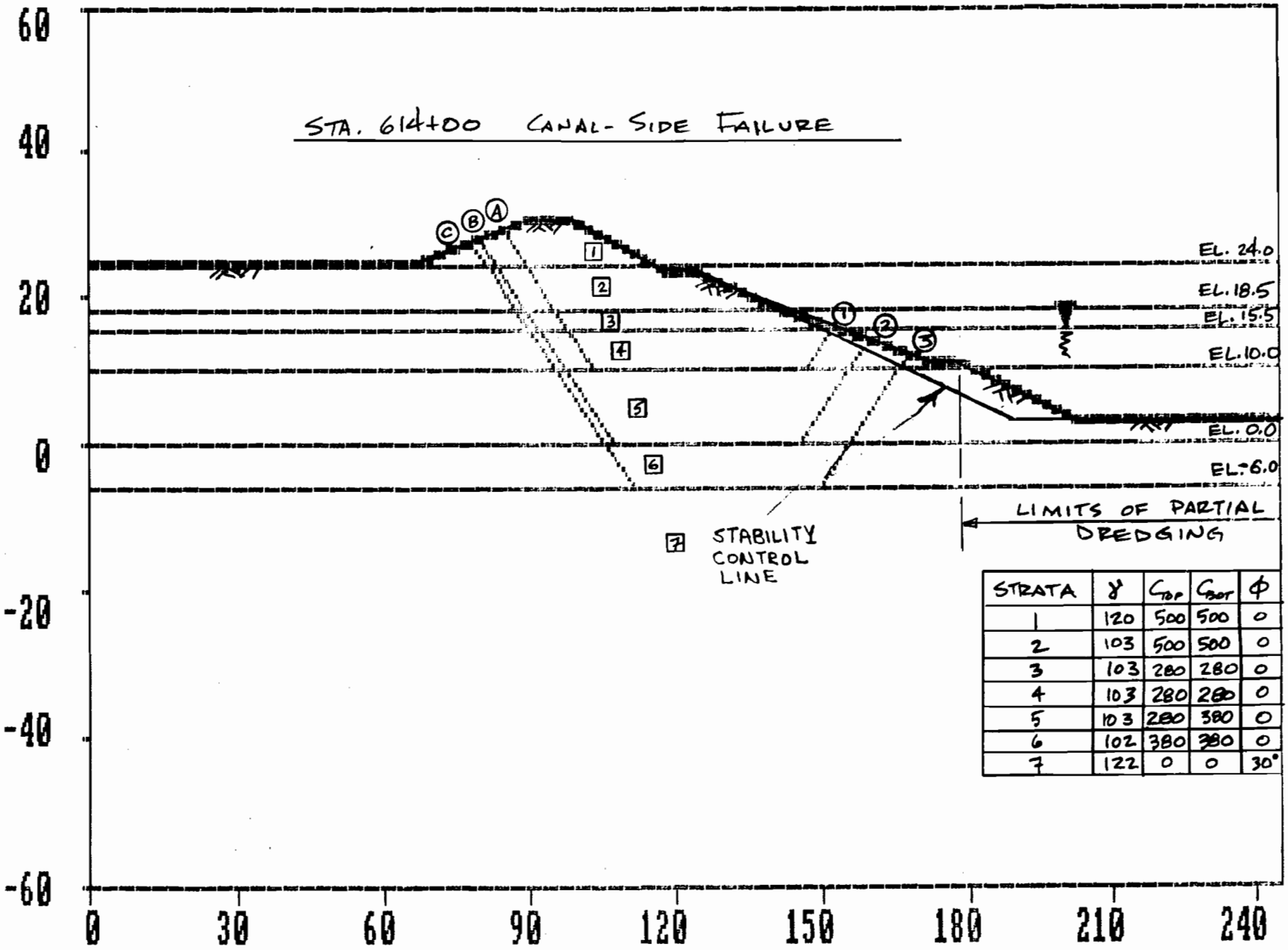
* NOTE: ELEVATIONS REFER TO CAIRO DATUM *



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	340	0
6	122	0	0	30°

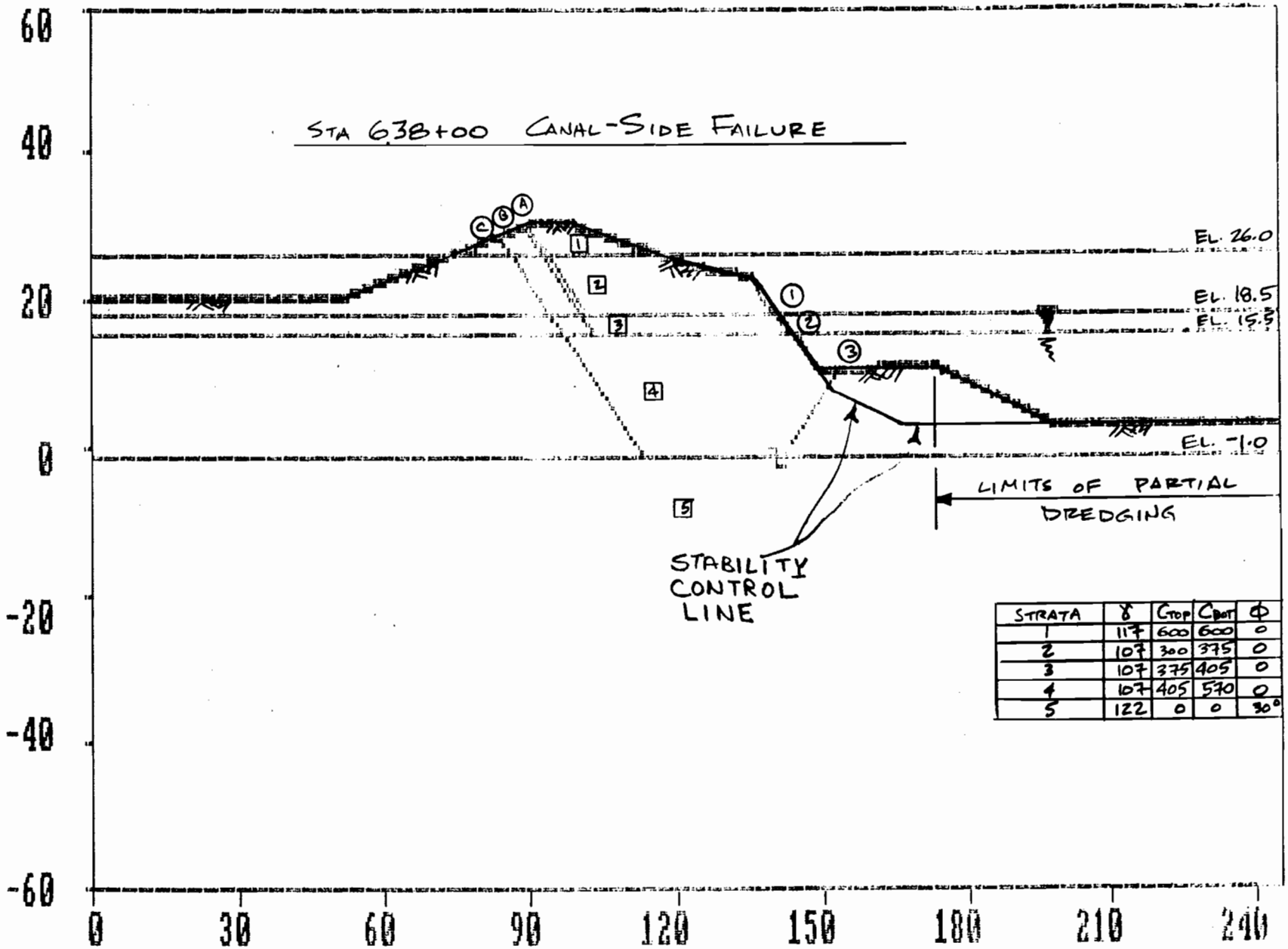
* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

ENCL 6



STRATA	γ	C_{TOP}	C_{BOT}	ϕ
1	120	500	500	0
2	103	500	500	0
3	103	280	280	0
4	103	280	280	0
5	103	280	380	0
6	102	380	380	0
7	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *



STRATA	γ	C_{TOP}	C_{BOT}	Φ
1	117	600	600	0
2	107	300	375	0
3	107	375	405	0
4	107	405	570	0
5	122	0	0	30°

* NOTE: ELEVATIONS REFER TO CAIRO DATUM *

JUDLIN

1 MARSALONE

CINDY

2 DD

DE

DG

DL

DR

DW 9 S

F-3192

SUSPENSE

RELEASE

FILE

DESTROY

5:11/17

Wm. Judkins

PARTNERS
F. B. CONWAY
H. H. SNYDER
C. F. COMSTOCK
J. J. SCHERRER
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P. C. PIERCE
L. V. BORDEN
E. W. ROHRBAUGH

November 2, 1987

Mr. Ed Bailey, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
Suite 202, Administration Bldg.
New Orleans Lakefront Airport
New Orleans, LA 70126

Re: 17th St. Canal Parallel Flood Protection J.N. 0908
Phase 1B-Hammond Highway to Southern Railway
OLB Project No. 2043-2027

Dear Mr. Bailey:

You will find herewith for your review two copies of Preliminary Plans and Outline Specifications for the referenced project. By copy of this letter we are also sending copies to the Corps of Engineers, the New Orleans Sewerage and Water Board, Design Engineering, Inc. and Mr. E. Berkley Traughber requesting that they too review the plans and make any comments they feel necessary. We are also sending an informational copy of the plans to LA. DOTD due to the relative proximity of the project to some of their facilities.

In order to complete the title sheet of the plans, we will need an OLB construction project number. We would appreciate it if you could provide this at your earliest convenience.

We trust you will find the attached information satisfactory and await your direction to proceed to final plans. If you should have any questions, please call.

E-3792

Mr. Ed Bailey,
New Orleans

Very truly yours,

MODJESKI AND MASTERS - Engineers

BARNEY T. MARTIN, JR.

BTMjr:bw

cc: Mr. Fred Chatry, w/ attachment
Mr. John Holtgreve, w/attachment
Mr. E. Berkley Traughber, w/attachment
Mr. G. Joseph Sullivan, w/attachment
Mr. Louis A. Garrido, w/attachment

THE BOARD OF LEVEE COMMISSIONERS

OF THE

ORLEANS LEVEE DISTRICT

SPECIFICATIONS

FOR

EXCAVATION AND FLOOD PROTECTION OF THE 17TH STREET CANAL

PHASE II
HAMMOND HIGHWAY BRIDGE TO PUMP STATION NO. 6

CONTRACT _____

_____, 1988

PRELIMINARY

17TH STREET CANAL

PHASE II

CONTRACT _____

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CONTRACT _____

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2.30 Drawings
2.31 As-Built Drawings
2.32 Traffic
2.33 Preconstruction Conference
2.34 Contractor's Access to Work Site
2.35 Signal Lights
2.36 Rights-of-Way
2.37 Working in the Vicinity of Existing Structures and Utilities
2.38 Sequence of Construction

SECTION 3

DEMOLITION

SECTION 4

DREDGING, DISPOSAL, AND LEVEE RECONSTRUCTION

SECTION 5

STEEL SHEET PILING

SECTION 6

TURFING