

ORLEANS SIDE

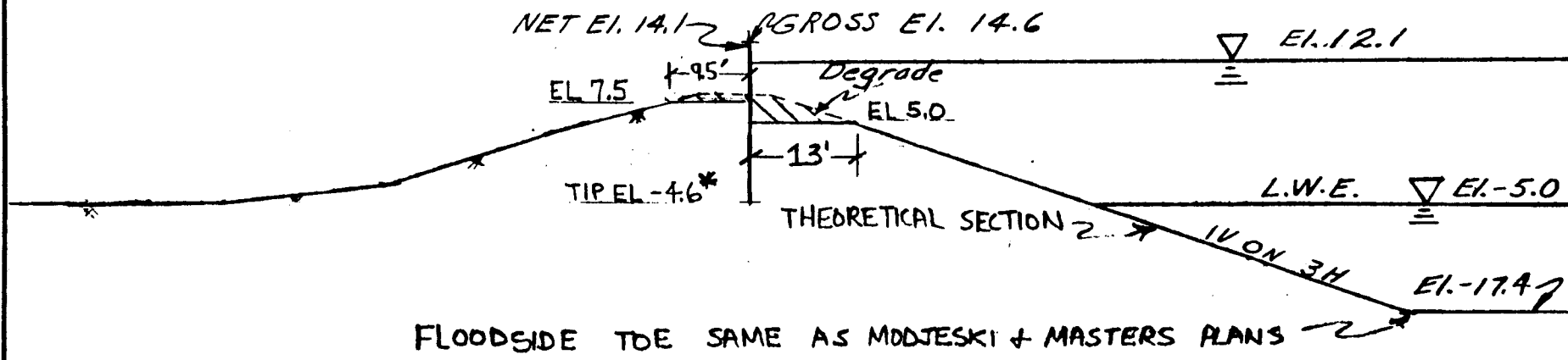
STA 635+00

TO

STA 643+00

PROJECT	17TH ST Outfall Canal	PAGE	OF	COMPUTED BY	F.J.V.	DATE	24 Apr 87
SUBJECT	STA 625+00 TO STA 635+00 ORLEANS SIDE	CHECKED BY				DATE	

STA. 625+00 TO STA 635+00
ORLEANS SIDE



FLOODSIDE TOE SAME AS MODJESKI + MASTERS PLANS

SCALE: 1" = 20'

NOTE: TRANSITION FROM STA 635+00 TO STA 636+00

ELEVATION IN FEET N.G.V.D.

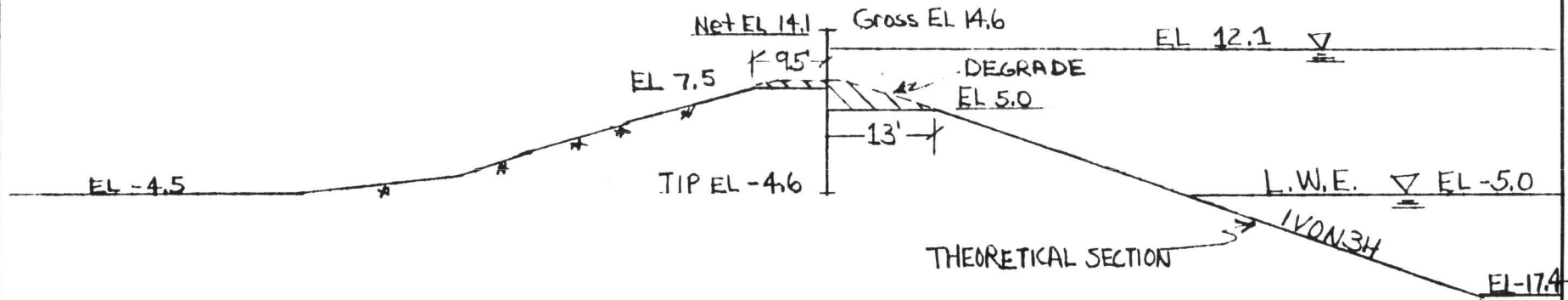
Q FILES	FS.	SWL	CASE
Q6350A	1.0	12.1	S
* Q6350B	1.5	12.1	S
Q6350D	1.0	14.1	Q

Handwritten: CWD 5/88

REVISED 3/88

PROJECT 1746 ST OUTFALL CANAL	PAGE OF	COMPUTED BY EJV	DATE 4/28/87
SUBJECT STA 625+00 TO 635+00 ORLEANS SIDE		CHECKED BY	DATE 3/28/88

STA 625+00 TO STA 635+00
ORLEANS SIDE



FLOODSIDE TOE SAME AS MODJESKI + MASTERS PLANS

SCALE : 1" = 20'

ELEVATION IN FEET NGVD

ADVANCED
 SUBJECT

Q FILES	F.S.	SWL	CASE
Q635 01	Q6350A	1.0	12.1 S
Q635 02	Q6350B	1.5	12.1 S
Q635 03	Q6350D	1.0	14.1 Q

QUAL #
 312BEC

REVISED 3/88

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH STR.-Q6350A-SWL=12.1-S CASE-FS=1.0
=1.

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 0.16 INCHES AND OCCURS AT MEMBER COORDINATE
14.10 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
-1.63	POINT LD	0.00 LBF
-1.63	COUPLE	-51.31 LBF-FT

$$I_F \approx \frac{1}{2} I_{P222}$$

$$\Delta_F \approx 3 \Delta_{P222}$$

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
12.10	CONTN LD	0.00 LBF/SQ FT
11.10	CONTN LD	62.50 LBF/SQ FT
10.10	CONTN LD	125.00 LBF/SQ FT
9.10	CONTN LD	187.50 LBF/SQ FT
8.10	CONTN LD	250.00 LBF/SQ FT
7.50	CONTN LD	287.50 LBF/SQ FT
7.50	CONTN LD	287.50 LBF/SQ FT
6.50	CONTN LD	76.09 LBF/SQ FT
6.14	CONTN LD	0.00 LBF/SQ FT
5.50	CONTN LD	-135.33 LBF/SQ FT
5.00	CONTN LD	-241.04 LBF/SQ FT
5.00	CONTN LD	-241.04 LBF/SQ FT
4.00	CONTN LD	-427.26 LBF/SQ FT
3.50	CONTN LD	-520.37 LBF/SQ FT
3.50	CONTN LD	-520.37 LBF/SQ FT
2.50	CONTN LD	-675.24 LBF/SQ FT
2.26	CONTN LD	-712.79 LBF/SQ FT
0.67	CONTN LD	0.00 LBF/SQ FT
-1.63	CONTN LD	1030.42 LBF/SQ FT
-1.63	CONTN LD	0.00 LBF/SQ FT

$$\Delta_F \approx 3 \times .16 < 1.5$$

58
 59 Z-22 PROPERTIES ARE AS FOLLOWS.

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 62 MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
 63 CROSS SECTIONAL AREA= ~~6.47~~ SQ IN. ~~3.38~~ 1.84
 64 ELASTIC MODULUS= 29000000. LBF/SQ IN.
 65 DEFLECTION REFERENCE IS AT -5.000

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 68 THE MAXIMUM BENDING MOMENT IS 3738.34 LBF-FT AND OCCURS AT 3.25
 69 WHICH HAS THE SHEAR FORCE OF 15.68 LBF.

74	DISTANCE	SHEAR FOR	SHEAR STR	BENDING MOM	DEFLECTION
75	(FEET)	(LBF)	(LBF/SQIN)	(LBF-FT)	FROM TANG.
76					THRU DEFLE
77					REFERENCE
78					(INCHES)
76	14.100	0.0	0.0	0.0	0.1603
77	14.099	0.0	0.0	0.0	0.1603
78	14.000	0.0	0.0	0.0	0.1588
79	13.000	0.0	0.0	0.0	0.1433
80	12.000	0.3	0.0	0.0	0.1278
81	11.000	37.8	5.8	13.9	0.1124
82	10.000	137.8	21.3	96.5	0.0969
83	9.000	300.3	46.4	310.3	0.0816
84	8.000	525.3	81.2	717.9	0.0664
85	7.000	778.6	120.3	1376.1	0.0518
86	6.140	856.7	132.4	2090.4	0.0401
87	6.000	854.7	132.1	2210.3	0.0383
88	5.000	719.3	111.2	3014.9	0.0262
89	4.000	385.2	59.5	3582.7	0.0163
90	3.254	15.7	2.4	3738.3	0.0105
91	3.000	-131.3	-20.3	3723.9	0.0088
92	2.000	-786.5	-121.6	3269.6	0.0040
93	1.000	-1159.8	-179.3	2259.1	0.0013
94	0.668	-1184.7	-183.1	1868.5	0.0008
95	0.666	-1184.7	-183.1	1866.1	0.0008
96	0.000	-1085.0	-167.7	1099.3	0.0003
97	-1.000	-562.0	-86.9	238.5	0.0000
98	-1.631	-1.0	-0.2	51.3	0.0000
99	-1.633	0.0	0.0	0.0	0.0000
100	-2.000	0.0	0.0	0.0	0.0000
101	-3.000	0.0	0.0	0.0	0.0000
102	-4.000	0.0	0.0	0.0	0.0000
103	-4.999	0.0	0.0	0.0	0.0000
104	-5.000	0.0	0.0	0.0	0.0000

11.7ksi

108 *RUN COMPLETED*

109
 EOT..

LIST DRW22A

1 00 1 14.1 -5.0 1 -5.0 0 -1
 2 00 PZ-22
 3 300 29000000 ~~6.47~~ 84.38

EOT..

~~3.38~~
 1.84

1
2
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BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH STR.-Q6350B-SWL=12.1-S CASE-FS=1.5

-1.

8 THE REFERENCE SYSTEM SELECTED DEFINES POSITIVE FORCES AS TO THE LEFT
9 INCREASING MEMBER COORDINATES AS UPWARD, AND POSITIVE MOMENTS
10 AS COUNTERCLOCKWISE.11
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17THE MAXIMUM DEFLECTION IS 0.32 INCHES AND OCCURS AT MEMBER COORDINATE
14.10 FT.

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

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20 THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.21
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CALCULATED EXTERNAL LOADS

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25	DISTANCE FROM	TYPE OF	MAGNITUDE OF
26	REFERENCE(FT)	LOAD	LOAD
28	-4.64	POINT LD	37.94 LBF
29	-4.64	COUPLE	-2.34 LBF-FT

30
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INPUTTED LOADS

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34	DISTANCE FROM	TYPE OF	MAGNITUDE OF
35	REFERENCE(FT)	LOAD	LOAD
37	12.10	CONTN LD	0.00 LBF/SQ FT
38	11.10	CONTN LD	62.50 LBF/SQ FT
39	10.10	CONTN LD	125.00 LBF/SQ FT
40	9.10	CONTN LD	187.50 LBF/SQ FT
41	8.10	CONTN LD	250.00 LBF/SQ FT
42	7.50	CONTN LD	287.50 LBF/SQ FT
43	7.50	CONTN LD	287.50 LBF/SQ FT
44	6.50	CONTN LD	140.20 LBF/SQ FT
45	5.55	CONTN LD	0.00 LBF/SQ FT
46	5.50	CONTN LD	-7.10 LBF/SQ FT
47	5.00	CONTN LD	-80.76 LBF/SQ FT
48	5.00	CONTN LD	-80.76 LBF/SQ FT
49	4.00	CONTN LD	-195.17 LBF/SQ FT
50	3.50	CONTN LD	-252.38 LBF/SQ FT
51	3.50	CONTN LD	-252.38 LBF/SQ FT
52	2.50	CONTN LD	-346.79 LBF/SQ FT
53	1.50	CONTN LD	-441.21 LBF/SQ FT
54	0.50	CONTN LD	-535.62 LBF/SQ FT
55	0.00	CONTN LD	-565.75 LBF/SQ FT
56	0.00	CONTN LD	-565.75 LBF/SQ FT
57	-0.01	CONTN LD	-565.75 LBF/SQ FT

58 -1.80 CONTN LD 0.00 LBF/SQ FT
 59 -4.64 CONTN LD 891.72 LBF/SQ FT
 60 -4.64 CONTN LD 0.00 LBF/SQ FT

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62

63 Z-22 PROPERTIES ARE AS FOLLOWS.

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65

66 MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
 67 CROSS SECTIONAL AREA= ~~6.47~~ SQ IN. ~~5.38~~ 1.84
 68 ELASTIC MODULUS= 29000000. LBF/SQ IN.
 69 DEFLECTION REFERENCE IS AT -5.000

70
71

72 THE MAXIMUM BENDING MOMENT IS 5115.71 LBF-FT AND OCCURS AT 1.58
 73 WHICH HAS THE SHEAR FORCE OF 11.50 LBF.

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75
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DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
80	14.100	0.0	0.0	0.3231
81	14.099	0.0	0.0	0.3231
82	14.000	0.0	0.0	0.3204
83	13.000	0.0	0.0	0.2934
84	12.000	0.3	0.0	0.2663
85	11.000	37.8	5.8	0.2393
86	10.000	137.8	21.3	0.2123
87	9.000	300.3	46.4	0.1853
88	8.000	525.3	81.2	0.1586
89	7.000	786.6	121.6	0.1324
90	6.000	926.8	143.2	0.1073
91	5.548	941.8	145.6	0.0964
92	5.000	919.7	142.1	0.0837
93	4.000	781.7	120.8	0.0623
94	3.000	531.8	82.2	0.0438
95	2.000	185.1	28.6	0.0286
96	1.581	11.5	1.8	0.0233
97	1.000	-256.2	-39.6	0.0169
98	0.000	-787.5	-121.7	0.0088
99	-1.000	-1198.4	-185.2	0.0038
100	-1.804	-1300.3	-201.0	0.0015
101	-1.806	-1300.3	-201.0	0.0015
102	-2.000	-1294.3	-200.1	0.0012
103	-3.000	-1075.3	-166.2	0.0002
104	-4.000	-541.4	-83.7	0.0000
105	-4.635	-38.8	-6.0	0.0000
106	-4.637	0.0	0.0	0.0000
107	-4.999	0.0	0.0	0.0000
108	-5.000	0.0	0.0	0.0000

109
110
111

11.7 hai

112 *RUN COMPLETED*

1.
EOT..
LIST DRW22A

1 100 1 14.1 -5.0 1 -5.0 0 -1
 2 200 PZ-22
 3 300 290000000 ~~6.47~~ 84.38
 EOT.. ~~3.38~~
 LIST Q63503 1.84

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH STR. -Q6350A-SWL=14.1-Q CASE-FS=1.0
 =1.

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 0.14 INCHES AND OCCURS AT MEMBER COORDINATE
 14.10 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
1.09	POINT LD	3.25 LBF
1.09	COUPLE	-29.76 LBF-FT

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
14.10	CONTN LD	0.00 LBF/SQ FT
13.10	CONTN LD	62.50 LBF/SQ FT
12.10	CONTN LD	125.00 LBF/SQ FT
11.10	CONTN LD	187.50 LBF/SQ FT
10.10	CONTN LD	250.00 LBF/SQ FT
9.10	CONTN LD	312.50 LBF/SQ FT
8.10	CONTN LD	375.00 LBF/SQ FT
7.50	CONTN LD	412.50 LBF/SQ FT
7.50	CONTN LD	0.00 LBF/SQ FT
7.50	CONTN LD	-587.50 LBF/SQ FT
6.50	CONTN LD	-645.00 LBF/SQ FT
5.50	CONTN LD	-702.50 LBF/SQ FT
5.00	CONTN LD	-731.25 LBF/SQ FT
5.00	CONTN LD	-731.25 LBF/SQ FT
4.00	CONTN LD	-788.75 LBF/SQ FT
3.52	CONTN LD	-816.49 LBF/SQ FT
2.81	CONTN LD	0.00 LBF/SQ FT

54 1.09 CONTN LD 1996.73 LBF/SQ FT
 55 1.09 CONTN LD 0.00 LBF/SQ FT

58 Z-22 PROPERTIES ARE AS FOLLOWS.

61 MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
 62 CROSS SECTIONAL AREA= ~~6.47~~ SQ IN. *1.84*
 63 ELASTIC MODULUS= 29000000. LBF/SQ IN.
 64 DEFLECTION REFERENCE IS AT -5.000

67 THE MAXIMUM BENDING MOMENT IS 4469.15 LBF-FT AND OCCURS AT 5.41
 68 WHICH HAS THE SHEAR FORCE OF 6.95 LBF.

73	DISTANCE	SHEAR FOR	SHEAR STR	BENDING MOM	DEFLECTION
74	(FEET)	(LBF)	(LBF/SQIN)	(LBF-FT)	FROM TANG.
75					THRU DEFLE
76					REFERENCE
77					(INCHES)
75	14.100	0.0	0.0	0.0	0.1404
76	14.099	0.0	0.0	0.0	0.1404
77	14.000	0.3	0.0	0.0	0.1387
78	13.000	37.8	5.8	13.9	0.1217
79	12.000	137.8	21.3	96.5	0.1047
80	11.000	300.3	46.4	310.3	0.0879
81	10.000	525.3	81.2	717.9	0.0712
82	9.000	812.8	125.6	1381.8	0.0551
83	8.000	1162.8	179.7	2364.4	0.0401
84	7.500	1361.2	210.4	2994.7	0.0331
85	7.000	1060.3	163.9	3600.7	0.0267
86	6.000	415.3	64.2	4343.3	0.0158
87	5.409	6.9	1.1	4469.2	0.0107
88	5.000	-287.2	-44.4	4412.2	0.0079
89	4.000	-1047.2	-161.9	3749.8	0.0030
90	3.000	-1701.6	-263.0	2326.8	0.0007
91	2.815	-1721.7	-266.1	2009.1	0.0005
92	2.813	-1721.7	-266.1	2005.6	0.0005
93	2.000	-1337.7	-206.7	710.5	0.0001
94	1.093	-5.2	-0.8	29.8	0.0000
95	1.091	0.0	0.0	0.0	0.0000
96	1.000	0.0	0.0	0.0	0.0000
97	0.000	0.0	0.0	0.0	0.0000
98	-1.000	0.0	0.0	0.0	0.0000
99	-2.000	0.0	0.0	0.0	0.0000
100	-3.000	0.0	0.0	0.0	0.0000
101	-4.000	0.0	0.0	0.0	0.0000
102	-4.999	0.0	0.0	0.0	0.0000
103	-5.000	0.0	0.0	0.0	0.0000

11.7 ksi

107 *RUN COMPLETED*

LIST DRW22A

1 100 1 14.1 -5.0 1 -5.0 0 -1

2 200 PZ-22

3 300 29000000 ~~6.47~~ 84.38

EOT..

~~3.58~~

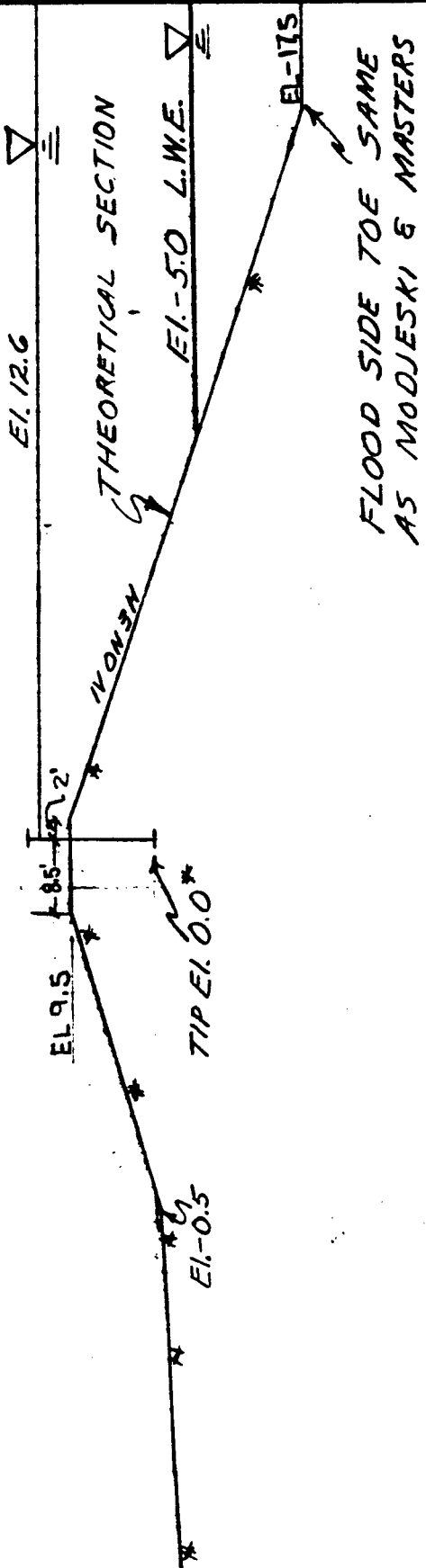
1.84

COMPUTATION SHEET

PROJECT <i>17TH ST. Outfall Canal</i>	PAGE OF	COMPUTED BY <i>F.J.V</i>	DATE <i>5 May 87</i>
SUBJECT <i>Sta. 635+00 to Sta 643+00 (Orleans side)</i>		CHECKED BY	DATE

*STA. 635+00 TO STA. 643+00
ORLEANS SIDE*

I-WALL GROSS EL. 15.1' (NET EL. 14.6')



SCALE: 1" = 20'
ELEVATION IN FEET N.G.V.D.

Q FILES	F.S.	SWL	CASE
Q6430A	1.0	12.6	S
Q6430B	1.5	12.6	S
Q6430D	1.0	14.6	Q

* SEEPAGE

CND

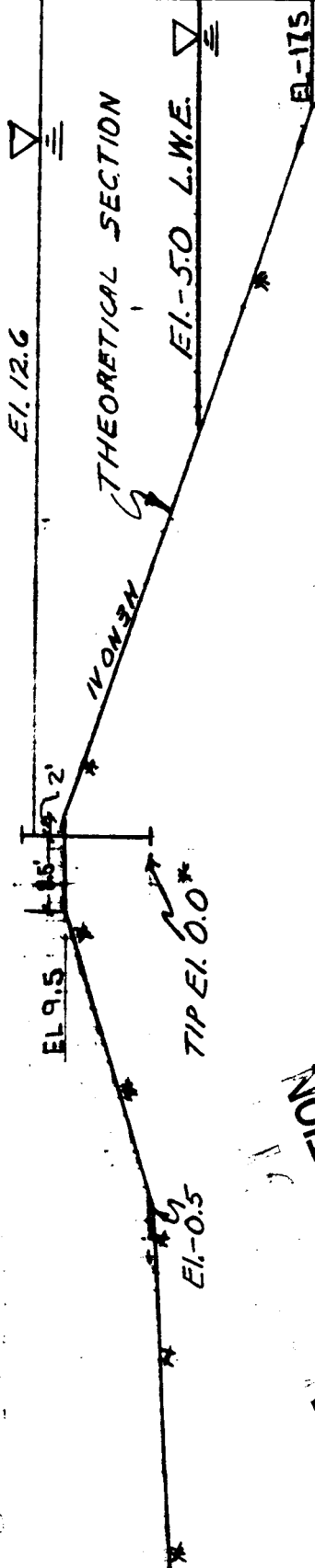
REVISED 4/88

COMPUTATION SHEET

PROJECT <i>17TH ST. Outfall Canal</i>	PAGE OF	COMPUTED BY <i>FJ.V</i>	DATE <i>5 May 87</i>
SUBJECT <i>Sta. 635+00 to Sta. 647+00 (Orleans side)</i>		CHECKED BY	DATE

STA 635+00 TO STA. 643+00

I-WALL GROSS EL. 15.1' (NET EL. 14.6')



NO CHANGES SUBJECT TO CORRECTION

SCALE: 1" = 20'

Q FILES	F.S.	SW	N.G.V.D.	CASE
Q64301	1.0	12.6		S
Q64302	1.5	12.6		S
Q64303	1.0	14.6		Q

* SEEPAGE

REVISED 4/88

LIST Q64301

BEAMS (SHEAR, MOMENT, DEFLECTION)

17TH STR. -Q6430A-SWL=12.6-S CASE-FS=1.0
=1.

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 0.03 INCHES AND OCCURS AT MEMBER COORDINATE
14.60 FT.

Z22 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
3.04	POINT LD	3.51 LBF
3.04	COUPLE	-2.77 LBF-FT

$I_F \approx \frac{1}{3} I_{P20}$

$\Delta_F \approx 3 \Delta_{P222}$

$\Delta = \approx 3 \times .03$
 $< 1.5 \checkmark$

INPUTTED LOADS

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
12.60	CONTN LD	0.00 LBF/SQ FT
11.60	CONTN LD	62.50 LBF/SQ FT
10.60	CONTN LD	125.00 LBF/SQ FT
9.60	CONTN LD	187.50 LBF/SQ FT
9.50	CONTN LD	193.75 LBF/SQ FT
9.50	CONTN LD	193.75 LBF/SQ FT
8.50	CONTN LD	13.06 LBF/SQ FT
8.43	CONTN LD	0.00 LBF/SQ FT
7.50	CONTN LD	-167.63 LBF/SQ FT
6.50	CONTN LD	-348.32 LBF/SQ FT
5.53	CONTN LD	-527.69 LBF/SQ FT
4.55	CONTN LD	0.00 LBF/SQ FT
3.04	CONTN LD	810.84 LBF/SQ FT
3.04	CONTN LD	0.00 LBF/SQ FT

Z22 PROPERTIES ARE AS FOLLOWS.

MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
CROSS SECTIONAL AREA= ~~6.47~~ SQ IN.

~~3.38~~
1.84

58 ELASTIC MODULUS= 29000000. LBF/SQ IN.
 59 DEFLECTION REFERENCE IS AT 0.000

60
 61
 62 THE MAXIMUM BENDING MOMENT IS 1275.93 LBF-FT AND OCCURS AT 6.37
 63 WHICH HAS THE SHEAR FORCE OF 21.34 LBF.

64	65	66	67	68	69	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)			
70	14.600	0.0	0.0	0.0	0.0291	
71	14.599	0.0	0.0	0.0	0.0291	
72	14.000	0.0	0.0	0.0	0.0269	
73	13.000	0.0	0.0	0.0	0.0232	
74	12.000	11.2	1.7	2.2	0.0195	
75	11.000	80.0	12.4	42.7	0.0158	
76	10.000	211.2	32.7	183.1	0.0121	
77	9.000	374.6	57.9	480.9	0.0086	
78	8.428	404.2	62.5	706.6	0.0068	
79	8.000	387.7	59.9	877.1	0.0055	
80	7.000	220.0	34.0	1196.0	0.0029	
81	6.369	21.3	3.3	1275.9	0.0017	
82	6.000	-128.8	-19.9	1256.9	0.0012	
83	5.000	-560.7	-86.7	894.7	0.0003	
84	4.548	-615.7	-95.2	624.9	0.0001	
85	4.546	-615.7	-95.2	623.7	0.0001	
86	4.000	-535.3	-82.7	302.0	0.0000	
87	3.038	-4.3	-0.7	2.8	0.0000	
88	3.036	0.0	0.0	0.0	0.0000	
89	3.000	0.0	0.0	0.0	0.0000	
90	2.000	0.0	0.0	0.0	0.0000	
91	1.000	0.0	0.0	0.0	0.0000	
92	0.001	0.0	0.0	0.0	0.0000	
93	0.000	0.0	0.0	0.0	0.0000	

11.7 ksi

97 *RUN COMPLETED*

98 EOT..

LIST DRW22B

1 100 1 14.6 0 1 0 0 -1

2 200 PZ22

3 300 29000000 ~~6.47~~ 84.38

EOT..

LIST Q64302

3.38
1.84

1

2 BEAMS (SHEAR, MOMENT, DEFLECTION)

3

4

5 17TH STR. -Q6430B-SWL=12.6-S CASE-FS=1.5

6 =1.

7

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

11
12
13 THE MAXIMUM DEFLECTION IS 0.07 INCHES AND OCCURS AT MEMBER COORDINATE
14 14.60 FT.
15

16
17
18 Z22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.
19
20 THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.
21
22

23 CALCULATED EXTERNAL LOADS

24
25 DISTANCE FROM TYPE OF MAGNITUDE OF
26 REFERENCE(FT) LOAD LOAD
27
28 0.60 POINT LD 7.52 LBF
29 0.60 COUPLE -31.22 LBF-FT
30
31

32 INPUTTED LOADS

33
34 DISTANCE FROM TYPE OF MAGNITUDE OF
35 REFERENCE(FT) LOAD LOAD
36
37 12.60 CONTN LD 0.00 LBF/SQ FT
38 11.60 CONTN LD 62.50 LBF/SQ FT
39 10.60 CONTN LD 125.00 LBF/SQ FT
40 9.60 CONTN LD 187.50 LBF/SQ FT
41 9.50 CONTN LD 193.75 LBF/SQ FT
42 9.50 CONTN LD 193.75 LBF/SQ FT
43 8.50 CONTN LD 82.87 LBF/SQ FT
44 7.75 CONTN LD 0.00 LBF/SQ FT
45 7.50 CONTN LD -28.02 LBF/SQ FT
46 6.50 CONTN LD -141.14 LBF/SQ FT
47 5.50 CONTN LD -258.30 LBF/SQ FT
48 5.50 CONTN LD -258.30 LBF/SQ FT
49 4.50 CONTN LD -363.69 LBF/SQ FT
50 3.71 CONTN LD -446.50 LBF/SQ FT
51 2.53 CONTN LD 0.00 LBF/SQ FT
52 0.60 CONTN LD 729.33 LBF/SQ FT
53 0.60 CONTN LD 0.00 LBF/SQ FT
54
55

56 Z22 PROPERTIES ARE AS FOLLOWS.
57
58

59 MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
60 CROSS SECTIONAL AREA= ~~6.47~~ SQ IN. *3.38184*
61 ELASTIC MODULUS= 29000000. LBF/SQ IN.
62 DEFLECTION REFERENCE IS AT 0.000
63
64

65 THE MAXIMUM BENDING MOMENT IS 1933.97 LBF-FT AND OCCURS AT 4.89
66 WHICH HAS THE SHEAR FORCE OF 5.09 LBF.
67
68

DEFLECTION

70	THRU DEFLE				
71	DISTANCE	SHEAR FOR	SHEAR STR	BENDING MOM	REFERENCE
72	(FEET)	(LBF)	(LBF/SQIN)	(LBF-FT)	(INCHES)
73	14.600	0.0	0.0	0.0	0.0678
74	14.599	0.0	0.0	0.0	0.0678
75	14.000	0.0	0.0	0.0	0.0634
76	13.000	0.0	0.0	0.0	0.0560
77	12.000	11.2	1.7	2.2	0.0487
78	11.000	80.0	12.4	42.7	0.0413
79	10.000	211.2	32.7	183.1	0.0340
80	9.000	383.3	59.2	482.4	0.0268
81	8.000	466.2	72.1	916.4	0.0200
82	7.753	469.6	72.6	1032.2	0.0184
83	7.000	437.9	67.7	1377.8	0.0139
84	6.000	296.3	45.8	1754.4	0.0087
85	5.000	39.4	6.1	1931.5	0.0047
86	4.892	5.1	0.8	1934.0	0.0044
87	4.000	-324.3	-50.1	1797.9	0.0021
88	3.000	-670.1	-103.6	1277.2	0.0006
89	2.534	-711.3	-109.9	952.0	0.0003
90	2.532	-711.3	-109.9	950.6	0.0003
91	2.000	-657.7	-101.7	581.9	0.0001
92	1.000	-267.4	-41.3	87.8	0.0000
93	0.604	-8.3	-1.3	31.2	0.0000
94	0.602	0.0	0.0	0.0	0.0000
95	0.001	0.0	0.0	0.0	0.0000
96	0.000	0.0	0.0	0.0	0.0000

11.7 ksi

100 *RUN COMPLETED*

101
EOT..
LIST DRW22B

1 100 1 14.6 0 1 0 0 -1
2 200 PZ22 *1.84*
3 300 290000000 *6.47* 84.38
EOT..
3-38

LIST Q64303

1
2 BEAMS (SHEAR, MOMENT, DEFLECTION)

5 17TH STR. -Q6430D-SWL=14.6-Q CASE-FS=1.0
6 =1.

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

13 THE MAXIMUM DEFLECTION IS 0.02 INCHES AND OCCURS AT MEMBER COORDINATE
14 14.60 FT.

18 Z22 HAS BEEN GIVEN TO SUPPORT THE LOAD SYSTEM.

19
 20 THE WEIGHT OF THIS VERTICAL MEMBER HAS BEEN NEGLECTED.
 21
 22

23 CALCULATED EXTERNAL LOADS

24
 25

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
5.59	POINT LD	0.00 LBF
5.59	COUPLE	459.48 LBF-FT

30
 31
 32 INPUTTED LOADS

33
 34

DISTANCE FROM REFERENCE(FT)	TYPE OF LOAD	MAGNITUDE OF LOAD
14.60	CONTN LD	0.00 LBF/SQ FT
13.60	CONTN LD	62.50 LBF/SQ FT
12.60	CONTN LD	125.00 LBF/SQ FT
11.60	CONTN LD	187.50 LBF/SQ FT
10.60	CONTN LD	250.00 LBF/SQ FT
9.60	CONTN LD	312.50 LBF/SQ FT
9.50	CONTN LD	318.75 LBF/SQ FT
9.50	CONTN LD	0.00 LBF/SQ FT
9.50	CONTN LD	-881.25 LBF/SQ FT
8.50	CONTN LD	-935.75 LBF/SQ FT
7.81	CONTN LD	-973.22 LBF/SQ FT
6.99	CONTN LD	0.00 LBF/SQ FT
5.59	CONTN LD	1650.13 LBF/SQ FT
5.59	CONTN LD	0.00 LBF/SQ FT

51
 52
 53 Z22 PROPERTIES ARE AS FOLLOWS.

54
 55
 56 MOMENT OF INERTIA= 84.38 IN. TO THE 4TH PER FOOT OF WALL
 57 CROSS SECTIONAL AREA= ~~6.47~~ SQ IN. ~~3.38~~ 1.84
 58 ELASTIC MODULUS= 29000000. LBF/SQ IN.
 59 DEFLECTION REFERENCE IS AT 0.000

60
 61
 62 THE MAXIMUM BENDING MOMENT IS 1749.76 LBF-FT AND OCCURS AT 8.61
 63 WHICH HAS THE SHEAR FORCE OF 6.49 LBF.

64
 65
 66
 67

DISTANCE (FEET)	SHEAR FOR (LBF)	SHEAR STR (LBF/SQIN)	BENDING MOM (LBF-FT)	DEFLECTION FROM TANG. THRU DEFLE REFERENCE (INCHES)
70 14.600	0.0	0.0	0.0	0.0205
71 14.599	0.0	0.0	0.0	0.0205
72 14.000	11.2	1.7	2.2	0.0183
73 13.000	80.0	12.4	42.7	0.0145
74 12.000	211.2	32.7	183.1	0.0108
75 11.000	405.0	62.6	486.0	0.0072

76	10.000	661.2	102.2	1013.9	0.0040
77	9.500	812.8	125.6	1381.8	0.0026
78	9.000	365.4	56.5	1676.9	0.0015
79	8.610	6.5	1.0	1749.8	0.0009
80	8.000	-570.4	-88.2	1578.9	0.0002
81	7.000	-1153.0	-178.2	628.4	-0.0001
82	6.989	-1153.0	-178.2	615.9	-0.0001
83	6.987	-1153.0	-178.2	613.6	-0.0001
84	6.000	-576.5	-89.1	-334.7	0.0000
85	5.592	-1.6	-0.3	-459.5	0.0000
86	5.590	0.0	0.0	0.0	0.0000
87	5.000	0.0	0.0	0.0	0.0000
88	4.000	0.0	0.0	0.0	0.0000
89	3.000	0.0	0.0	0.0	0.0000
90	2.000	0.0	0.0	0.0	0.0000
91	1.000	0.0	0.0	0.0	0.0000
92	0.001	0.0	0.0	0.0	0.0000

93	0.000	0.0	0.0	0.0	0.0000
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94

95

96

97 *RUN COMPLETED*

98

EOT..

LIST DRW22B

1 100 1 14.6 0 1 0 0 -1

2 200 PZ22

3 300 29000000 6.47 84.38

EOT..

~~3.38~~
1.84

11.7 ksi

ORLEANS SIDE

STA 625+00

TO

STA 635+00