

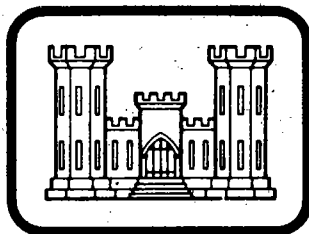
THIS COPY INCLUDES  
SUPPLEMENT "A"  
FOR PHASE II

REVISED

AS FINALLY APPROVED  
FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES

ITEM M-94.9 TO 94.6 -L  
CANAL-TOULOUSE ST. FLOODWALL

ORLEANS PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 65



**United States Army  
Corps of Engineers**

*... Serving the Army  
... Serving the Nation*

DEPARTMENT OF THE ARMY  
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS  
NEW ORLEANS, LOUISIANA

DEC 1982

Serial No.

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Dm 65  
1982  
REV.

LMNED-SR (NOV 10 Jul 84) *2d Ind*

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River  
Levees, Item M-94.9 to 94.6-1, Canal St. to Toulouse St. Floodwall,  
Orleans Parish, Louisiana, Relocation of Facilities, Design Mr. Gelpi/jes/2625  
Memorandum No. 65, Supplement A *JB*

DA, New Orleans District, Corps of Engineers, P.O. Box 60207, New Orleans,  
Louisiana 70160-0267 30 August 1984

TO: President, Mississippi River Commission, ATTN: RECORD-TO

1. The recommended disposition of 1st Ind comments is as follows:

a. Comment a. We concur. Paragraph 7.c.(2), page 5 has been revised in  
line with your recommendation.

b. Comment b. We concur. Table 8, page 6, has been duly corrected in  
line with comment b. and as further modified by comments d.(1) and d.(2). By  
coincidence, the current working estimate total in Table 8 remained the same  
as previously shown.

c. Comment c. We concur. Table D, inclosure 1, has been revised  
accordingly.

d. Comment d.(1) and d.(2). We concur with your recommendations and have  
revised Table E, Item S-2 in inclosure 1 accordingly.

e. Comment e. We concur with your recommendations concerning Tables C  
and H, inclosure 1, and have revised them accordingly.

2. The cost estimate tables were further revised to delete items W-2, W-3,  
and W-5 from Table E, these items properly belonged in Table H where they were  
already shown. In addition, items P-1A and B-2A were added to Tables E and F,  
respectively. These two items have been recently abandoned by the Sewerage  
and Water Board and the New Orleans Public Service Corporation. The text of  
Supplement A has been amended to include these two items.

3. We are inclosing one copy of pages 3, 4, 5, 6, 7, and 8 revised as  
described above.

FOR THE COMMANDER:

- 2 Incl
- Added 2 Incl
- 4. Revised Incl 1
- 5. Revised Supplement A  
pages 3, 4, 5, 6, 7 and 8

FREDERIC M. CHATRY  
Chief, Engineering Division

*J. Gelpi*  
GREEN  
LMNED-SR  
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GAGLIANO  
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*20137*  
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LMNED-S  
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SHELTON  
LMNED-P  
*R2*  
CHATRY  
LMNED  
*WED*

LMNED-D  
LMNED-PM  
LMNRE-A

MRCED-TD (NOD 10 Jul 84) 1st Ind  
SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River  
Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall,  
Orleans Parish, Louisiana, Relocation of Facilities, Design  
Memorandum No. 65, Supplement A

DA, Mississippi River Commission, Corps of Engineers, Vicksburg, MS 39180-0080  
14 AUG '84

TO: Commander, New Orleans District, ATTN: LMNED-SR *08/20/84*

The subject supplement is approved subject to the resolution of the following comments:

a. Para 7c(2), page 5. The electrical conductor that is to be relocated by the Government's Contractor should be de-energized by the Mississippi River Bridge Authority, and the coordination of the required de-energizing should be a responsibility of the Government, not the Government's Contractor.

b. Table 8, Cost Comparison Summary, page 8.

(1) The total cost in the Current Working Estimate column should be \$404,000 in lieu of the \$385,000 shown.

(2) Engineering and Design and S&A estimates are shown as \$24,000 each; however, the addition of all E&D and S&A costs on individual estimates total \$22,000 each. Table 8 should be revised to correct these discrepancies.

c. Table D, Inclosure 1. Relocations cost under the Owner Column is shown as \$24,816; however, the sum of this column totals 24,846. This change should be made and the contingencies should be changed to \$6,154 to agree with other figures shown.

d. Table E, Item S-2, Inclosure 1.

(1) The unit price for manhole should be \$2,120 to agree with the totals shown.

(2) The quantity times the unit price shown for the 8 inch clay sewer pipe does not agree with the totals shown. This discrepancy should be resolved.

e. Tables G and H, Inclosure 1. These tables should show separate subtotals for Feature 02.1 Roads, and Feature 02.7, Cemeteries, Utilities and Structures.

FOR THE PRESIDENT OF THE COMMISSION:

wd incl

*for* Robert J Kaufman, P.E.  
R. H. RESTA, P.E.  
Chief, Engineering Division



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

REPLY TO  
ATTENTION OF:

JUL 10 84

LMNED-SR

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

President  
Mississippi River Commission  
ATTN: MRCEd-TD

1. General. The information contained in this letter is presented as supplement A to the Canal St. to Toulouse St. Floodwall Relocations Design Memorandum No. 65.
2. Introduction. The 2d Indorsement to RDM 65, dated 5 Jul 83, stated that local interests had requested a 13-foot riverward shift in the floodwall alinement between Canal and Bienville Streets. This shift in alinement has been adopted by the District and this supplement addresses the effect of the shift in alinement on relocations. The Canal St. to Toulouse St. floodwall project was divided into two separate contracts in order to minimize delays in accomplishing the work:
  - a. Phase I (Bienville St. to Toulouse St.) was awarded on 23 September 1983 and it is scheduled for completion in September 1984.
  - b. Phase II (Canal St. to Bienville St.) is scheduled for award in March 1985. It is anticipated that additional funds may become available in FY 85 and that we would be in a position to advance the award of the contract to about November 1984. Contract duration is estimated at 270 calendar days.This supplement addresses major deletions to, additions of, and changes to items of relocation for the Canal St. to Bienville St. reach.
3. Purpose of Supplement A. This supplement is submitted as per DIVR 405-2-6 and to present changes in the scope of relocations, costs, and extent of Government participation in the costs, which were caused by the change in the floodwall alinement and by dividing the work into two separate contracts.

JUL 10 84

LMNED-SR

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

4. Description of Existing Facilities Affected by Change in Project.

a. Delete from relocation item list.

Roads. Item R-1, Canal St. - City of New Orleans Dept. of Streets.

Railroads. Item RR-1, River Main railroad track, New Orleans Public Belt Railroad (NOPBRR) and its replacement facilities Item RR-7 (new railroad track and sub-bed) and Item RR-6 (new railroad switch track).

Utilities. Item W-1, 6-inch cast iron water line.

b. Add to relocation item list.

Roads.

1. Item R-1A, ferry terminal access road - Mississippi River Bridge Authority (MRBA).

2. Item HR-1, ferry terminal handicapped ramp - MRBA.

3. Item SW-1, ferry terminal handicapped sidewalk - MRBA.

4. Item TB-1, ferry terminal traffic divider barrier - MRBA.

5. Item R-1B, wharf area access road - Dock Board.

6. Item R-4, wharf area parking area - Dock Board.

7. Item SW-2, sidewalk and curb at Dock Board Building - Dock Board.

Railroads. Item RR-8, River Main Railroad track, NOPBRR.

Utilities and Structures.

1. Item W-9, two 1-inch  $\emptyset$  water lines - MRBA.

2. Item W-10, three 1 1/2"  $\emptyset$  water lines - Sewerage and Water Board (S&WB).

3. Item W-11, water meter manhole - S&WB.

4. Item FH-1, 6-inch fire hydrant - S&WB.

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SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

5. Item EC-1, underground electric conduit and feeder - MRBA.
6. \* Items E-3 and E-2A, abandoned underground electric ductwork- NOPSI
7. \* Item P-1A, abandoned underground electric ductwork - S&WB
8. Item FH-2, 6-inch fire hydrant - Dock Board.

c. Amend Relocation Items List.

1. Item W-2, Owner unknown - 10-inch water line - to be cut and plugged by Government's contractor; change to read Item W-2 - Dock Board - 10-inch water line - to be passed through sleeve in floodwall's sheetpile by Government's contractor.

2. Items W-2 and W-5, Amend to reflect change in ownership, formerly S&WB, now Board of Commissioners of the Port of New Orleans.

5. Owner's Compensable Interest. The second supplemental attorney's report, which considers the compensable interest of the MRBA with respect to the ferry terminal and the compensable interest of the Dock Board with respect to their facilities is attached as an inclosure to this letter. The compensable interest of the NOPBRR and the S&WB is as stated in the attorney's report of the original RDM submittal.

6. Criteria for Relocated Facilities.

a. Roads.

(1) Item R-1A and R-1B. Both items are road extensions of Canal St. and the design criteria for the relocations caused by construction of floodwall gates will be in accordance with the provisions of the "General Specifications and Standard Plans for Street Paving and Temporary Surfacing of the City of New Orleans".

(2) Item R-4. This item is a shell parking area. The design criteria will be to restore the area to an equal pre-project condition, by the application of a 4-inch compacted shell surface in the area affected by floodwall construction and to shape the surfacing to provide surface drainage towards the floodwall and transversely sloped towards the catchbasins.

(3) Item TB-1. This item is a reinforced concrete traffic barrier. This item serves as a barrier rail to direct traffic toward the ferry landing and to delineate the ferry approach from the adjacent Dock Board parking lot. Portions of this concrete abutment barrier rail will be removed to provide a detour route to the ferry landing during the construction of the gate at Item R-1A. The design criteria will be to restore the barrier rail to a pre-project condition using the cross-sectional dimensions of the original item. The replacement barrier will be poured in-place and will utilize 5,000 psi concrete and 60,000 psi reinforcing steel.

\* Revision 1, 24 August 1984

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SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

(4) Item HR-1. This item is a reinforced concrete handicapped ramp. This item serves as a ramp access for handicapped individuals and their supporting equipment. The design criteria for the modifications will be requirements established in "American National Standards - ANSI A117.1 - 1980".

(5) Item SW-1. This item is a handicapped sidewalk. The existing sidewalk will be abandoned and a replacement facility will be provided in a new location. A stop log type gate opening shall be incorporated in the floodwall for this purpose. The design criteria for the new handicapped sidewalk will meet requirements established in "American National Standards - ANSI A-117.1 - 1980".

(6) Item SW-2. Portion of the sidewalk and curb at the Dock Board's Douglas Building will be demolished to widen the existing dock access road according to the project plans and specifications.

b. Railroads. Item RR-8. Review of the "American Railway Engineering Association (AREA) Manual for Railroad Engineering" and coordination with NOPBRR provided the basis for establishing design criteria for the temporary relocation of the subject trackage.

c. Utilities. Items W-2, EC-1, FH-2, W-9, and W-10. Relocations will be accomplished in accordance with the owner's design standards. The S&WB will relocate Items FH-1 and W-11 according to their individual criteria.  
\* Items E-3, E-2A and P-1A will be removed within the limits of the permanent servitude.

d. Betterments. It has been determined that the relocations modifications and/or alterations to existing facilities shown in this supplement do not contain any betterments.

## 7. Description of Proposed Relocations.

### a. Roads.

(1) Items R1-A and R1-B. Paving, base, and subgrade will be removed to accommodate the construction of the concrete gate sill monoliths. Following completion of the construction of the gate sill, the excavation will be backfilled, and compacted to previous subgrade elevation; then base and paving structure will be added to match the constructed sill elevation.

(2) Item TB-1. A portion of the barrier rail will be temporarily removed to make way for the detour road at the MRBA facility.

\* Revision 1, 24 August 1984

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SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

(3) Item HR-1, a portion of this ramp will be demolished by the Owner to make way for the storage of the gate at Canal St. The replacement facility will be built by the owner immediately riverward of the gate storage monolith.

(4) Item SW-1, will be relocated approximately 50 feet upstream of the present location. The sidewalk will be designed and constructed by the Owner. A stop-log gate will be provided in the floodwall at the sidewalk crossing.

(5) Item R-4. Upon completion of the sheetpile and concrete cap construction, the excavation will be backfilled and compacted to match existing subgrade elevation; and an application of 4-inches of compacted shell will complete the relocation.

(6) Item SW-2. A portion of the sidewalk will be removed to widen the dock access road at the location of the existing item.

b. Railroads.

(1) Item RR-8, at the location of Gate No. 3. The NOPBRR will temporarily remove and replace a short section of its "River Main Track" over falsework to be installed by the Government's contractor. The track will be permanently replaced upon completion of the gate sill.

c. Utilities.

(1) Item W-2. This 10-inch  $\emptyset$  cast iron water line will be uncovered, cut, passed through a steel sleeve in the floodwall's sheetpile and re-connected as part of the floodwall contract by the Government's contractor.

(2) Item EC-1. These underground electrical conductors and conduits will be uncovered, cut, passed through a steel sleeve in the floodwall's sheetpile and re-connected as part of the floodwall contract by the Government's contractor. Item EC-1 will be de-energized by its owner and the coordination of the required de-energizing will be a responsibility of the Federal Government.\*

(3) Item W-9, two 1-inch  $\emptyset$  water lines. These lines will be lengthened to accommodate the new location of W-11's replacement facility (water meter manhole) and passed through a steel sleeve in the floodwall's sheetpile and re-connected as part of the floodwall contract by the Government's contractor.

\*Revision 1, 24 August 1984



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SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

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\*Revision 1, 24 August 1984

JUL 10 84

LMNED-SR

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

this District to determine if they are compatible with floodwall plans. This district will prepare the detailed plans and specifications for the construction of the falsework required for the relocation of Item RR-8. The construction will be accomplished in accordance with this design memorandum and in conjunction with the floodwall construction contract. The falsework plans will be reviewed and approved by the railroad company.

(2) Reimbursement to the NOPBRR for their work during the relocation will be effected through the Orleans Levee District.

c. Utilities.

(1) Items W-2, W-9, W-10, EC-1, and FH-2, will be designed by the District and constructed by the Government's floodwall contractor.

(2) Items FH-1 and W-11, will be relocated by the S&WB concurrently with floodwall construction. Reimbursement will be effected through the Orleans Levee District.

\* (3) Items E-3, E-2A and P-1A, will be removed by the Government's contractor during the course of the construction of the floodwall.

d. No new right-of-way will be required for the road, railroad, or utility relocations.

9. Attitude of Owners. The affected facility owners have responded satisfactorily to all requests for information, and have indicated their willingness to cooperate in matters pertaining to the project.

10. Estimates of Cost. Estimates of cost for accomplishing the proposed relocations have been prepared in accordance with the policy set forth in ER 1180-1-1 and are based on plans for relocation, as proposed by or agreed to by the affected owners. The cost estimate appendix, specifically Table A, Table C, Table E, and Table F transmitted in the 2d Indorsement to the original RDM, have been revised to reflect the deletions and/or additions and changes to items stated in paragraph 4 of this supplement. Table D has been revised to reflect price level increases. Tables G and H have been prepared to reflect cost associated with relocation of MRBA and Dock Board facilities, respectively.

\* Revision 1, 24 August 1984

LMNED-SR

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

\* TABLE 8  
MISSISSIPPI RIVER LEVEE CONSTRUCTION  
COST COMPARISON SUMMARY

| Cost<br>Acct.<br>No. |             | (Approved 8 May 84)<br>For Phase II Only<br>PB-3<br>(\$1,000's) | Current Working<br>Estimate<br>For Phase II Only<br>(\$1,000's) | Difference<br>From PB-3<br>(\$1,000's) |
|----------------------|-------------|-----------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------|
| 02                   | Relocations |                                                                 |                                                                 |                                        |
| 0.1                  | Roads       | 72                                                              | 62                                                              | -10                                    |
| 0.4                  | Railroads   | 146                                                             | 102                                                             | -44                                    |
| 0.7                  | Utilities   | 171                                                             | 179                                                             | +8                                     |
|                      | Subtotals   | 389                                                             | 343                                                             | -46                                    |
| 30                   | E&D         | 24                                                              | 21                                                              | -3                                     |
| 31                   | S&A         | 24                                                              | 21                                                              | -3                                     |
|                      | Total       | 437                                                             | 385                                                             | -52                                    |

11. Justification for Cost Revisions.

a. Roads. The previous estimate was based on a tentative alinement that would have affected a large area of Canal Street. The present alinement no longer affects Canal Street, instead two minor access roads will be affected to a much lesser degree. This accounts for the decrease in cost.

b. Railroads. The present alinement no longer requires the re-routing of several hundred feet of track previously affected by the original tentative alinement. This is reflected in a decrease in cost over the prior estimate.

c. Utilities. The Mississippi River Bridge Authority and the Board of Commissioners of the Port of New Orleans are now affected by the present alinement. These two agencies have brought to our attention several utility items not previously affected by the original tentative alinement. These items account for the increase in the cost.

\*Revision 1, 24 August 1984

JUL 10 89

LMNED-SR

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65, Supplement A

12. Recommendation. It is recommended that this supplement to the original design memorandum be approved as the basis for reimbursing the Orleans Levee District and floodwall contractor for costs incurred in accomplishing the road, railroad and utility relocations herein described. It is further recommended that review and approval of this supplement be expedited so that the work may be available for award at the earliest opportunity.

FOR THE COMMANDER:



FREDERIC M. CHATRY  
Chief, Engineering Division

3 Incl

1. Tables A, B, C, D, E,  
F, G, & H
2. Attorney's Opinion
3. Revised Project Plates  
for Phase II Only

TABLE A - ESTIMATE OF COST  
CITY OF NEW ORLEANS - STREETS  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                    | Unit   | Qty. | Unit<br>Price | COST  |                            |
|----------------------|--------------------------------|--------|------|---------------|-------|----------------------------|
|                      |                                |        |      |               | Owner | Government's<br>Contractor |
| 02                   | Relocations*                   |        |      |               |       |                            |
| 0.1                  | Roads                          |        |      |               |       |                            |
|                      | Bienville St. (R-2) (Phase II) |        |      |               |       |                            |
|                      | 12" shell sub. base            | cu.yd. | 77   | \$ 32         | —     | 2,464                      |
|                      | 8" reinf. concrete slab        | cu.yd. | 51   | \$236         | —     | 12,036                     |
|                      | 3½" hot mix top                | tons   | 45   | \$ 64         | —     | 2,880                      |
|                      | Subtotal Bienville St.         |        |      |               |       | \$17,380                   |
|                      | Conti St. (R-3) (Phase I)      |        |      |               |       |                            |
|                      | 12" shell sub. base            |        |      |               |       |                            |
|                      | 8" reinf. concrete slab        |        |      |               |       |                            |
|                      | 3½" hot mix top                |        |      |               |       |                            |
|                      | Subtotal Conti St.             |        |      |               |       |                            |
|                      | Relocations Cost Phase II Only |        |      |               |       | \$17,380                   |
|                      | Contingencies (25%±)           |        |      |               |       | 4,620                      |
|                      | Subtotal                       |        |      |               |       | \$22,000                   |
| 30                   | E&D (6%+)                      |        |      |               |       | 1,500                      |
| 31                   | S&A (6%+)                      |        |      |               |       | 1,500                      |
|                      | Total                          |        |      |               |       | \$25,000                   |

NOTES:

Depreciation - none, based on ECI 73.209.3, 1 Jul 80.

Salvage - none; material removed and not re-used has zero salvage value.

Removal - no reimbursement; removal will be effected by Government's contractor.

Betterment - none.

\* All relocation items for both phases of the work are shown, but only Phase II items show cost data.

INCLOSURE 1

TABLE B - ESTIMATE OF COST  
SEABOARD SYSTEMS

| Cost<br>Acct.<br>No. | Description                                                                         | Unit | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|-------------------------------------------------------------------------------------|------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                     |      |      |               | Owner | Government's<br>Contractor |         |
| 02                   | Relocation                                                                          |      |      |               |       |                            |         |
| 0.4                  | Railroads<br>Item RR-3 (Phase I)                                                    |      |      |               |       |                            |         |
|                      | Cut/remove & replace<br>track section over<br>falsework                             |      |      |               |       |                            |         |
|                      | Temporarily remove/<br>replace track portion<br>to accommodate gate<br>construction |      |      |               |       |                            |         |
|                      | Permanently re-install<br>track section over new<br>ties & ballast                  |      |      |               |       |                            |         |
|                      | Weld track in place                                                                 |      |      |               |       |                            |         |
|                      | Temporary falsework<br>bridge                                                       |      |      |               |       |                            |         |
|                      | Relocation Cost                                                                     |      |      |               |       |                            |         |
|                      | Contingencies (25%)                                                                 |      |      |               |       |                            |         |
|                      | Subtotals                                                                           |      |      |               |       |                            |         |
| 30                   | E&D (6%+)                                                                           |      |      |               |       |                            |         |
| 31                   | S&A (6%+)                                                                           |      |      |               |       |                            |         |
|                      | TOTALS                                                                              |      |      |               |       |                            |         |

NOTES:

Depreciation - none; based on ECI 73.209.3, 1 Jul 80.

Salvage - none; materials removed shall be reused.

Removal - no reimbursement; removals if any will be effected by Government's Contractor.

Betterment - none.

No Phase II items shown.

INCLOSURE 1

TABLE C - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC BELT RAILROAD  
 (APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                   | Unit     | Qty. | Unit<br>Price | COST   |                            | Amounts |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------|----------|------|---------------|--------|----------------------------|---------|
|                      |                                                                                                                               |          |      |               | Owner  | Government's<br>Contractor |         |
| 02                   | Relocation*                                                                                                                   |          |      |               |        |                            |         |
| 0.4                  | Item RR-2 (Phase II)<br>Temporarily remove/<br>replace track section<br>over falsework to<br>accommodate gate<br>construction | LF       | 30   | 200           | 6,000  | —                          | 6,000   |
|                      | Permanently re-install<br>track section                                                                                       | LF       | 30   | 50            | 1,500  | —                          | 1,500   |
|                      | Temporary Falsework<br>bridge                                                                                                 | Lump Sum |      |               | —      | 20,000                     | 20,000  |
|                      | Item RR-4 (Phase I)<br>Permanently remove track<br>section                                                                    |          |      |               |        |                            |         |
|                      | Item RR-5 (Phase II)<br>Remove existing switch<br>track                                                                       | LF       | 200  | 21.20         | 4,240  | —                          | 4,240   |
|                      | Re-install switch<br>track in new location                                                                                    | LF       | 200  | 111.30        | 22,260 | —                          | 22,260  |
|                      | Item RR-8 (Phase II)<br>Temporarily remove/<br>replace track section<br>over falsework to<br>accommodate gate<br>construction | LF       | 30   | 200           | 6,000  | —                          | 6,000   |
|                      | Permanently re-install<br>track section                                                                                       | LF       | 30   | 50            | 1,500  | —                          | 1,500   |
|                      | Temporary falsework<br>bridge                                                                                                 | Lump Sum |      |               | —      | 20,000                     | 20,000  |

TABLE C - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC BELT RAILROAD  
 (APRIL 1984 PRICE LEVELS)

|    |                     |        |        |         |
|----|---------------------|--------|--------|---------|
|    | Relocation Cost     | 41,500 | 40,000 | 81,500  |
|    | Contingencies (25%) | 10,500 | 10,000 | 20,500  |
|    | Subtotals           | 52,000 | 50,000 | 102,000 |
| 30 | E&D (6%+)           | 3,000  | 3,000  | 6,000   |
| 31 | S&A (6%+)           | 3,000  | 3,000  | 6,000   |
|    | Totals              | 58,000 | 56,000 | 114,000 |

NOTES:

Depreciation - none; based on ECI 73.209.3, 1 Jul 80.

Salvage - none; materials removed shall be reused.

Removal - none; removals will be effected by the Government's Contractor.

Betterments - none.

\*All relocation items for both phases of the work are shown, but only Phase II items show cost data.



TABLE D - ESTIMATE OF COST  
SOUTH CENTRAL BELL TELEPHONE COMPANY  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                                                                                | Unit | Qty. | Unit<br>Price | COST   |                            | Amounts |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|--------|----------------------------|---------|
|                      |                                                                                                                                                                                            |      |      |               | Owner  | Government's<br>Contractor |         |
| 02                   | Relocations*                                                                                                                                                                               |      |      |               |        |                            |         |
| 0.7                  | Utilities & Structures                                                                                                                                                                     |      |      |               |        |                            |         |
|                      | <u>Item T-1 (Phase II)</u>                                                                                                                                                                 |      |      |               |        |                            |         |
|                      | 1. Jack & bore 30" diam.<br>steel casing                                                                                                                                                   | LF   | 40   | 106           | 4,240  | —                          | 4,240   |
|                      | 2. Install 9-4" PVC<br>conduit bank thru<br>steel casing, incl.<br>cable, waterproofing<br>& sealing                                                                                       | LF   | 40   | LS            | 14,246 | —                          | 14,246  |
|                      | 3. Provide telephone<br>manhole                                                                                                                                                            | Ea   | 1    | 6,360         | 6,360  | —                          | 6,360   |
|                      | 4. Cut & remove approx.<br>12' of existing facility,<br>plug ends; burn hole &<br>install 42" diam. x 30"<br>long steel sleeve in<br>sheetpile, place<br>waterproof packing &<br>boot seal | LS   | LS   | LS            | LS     | 2,290                      | 2,290   |
|                      | Relocation Cost                                                                                                                                                                            |      |      |               | 24,846 | 2,290                      | 27,136  |
|                      | Contingencies (25%+)                                                                                                                                                                       |      |      |               | 6,154  | 710                        | 6,864   |
|                      | Subtotals                                                                                                                                                                                  |      |      |               | 31,000 | 3,000                      | 34,000  |
| 30                   | E&D (6%+)                                                                                                                                                                                  |      |      |               | 2,000  | 500                        | 2,500   |
| 31                   | S&A (6%+)                                                                                                                                                                                  |      |      |               | 2,000  | 500                        | 2,500   |
|                      | Totals                                                                                                                                                                                     |      |      |               | 35,000 | 4,000                      | 39,000  |

NOTES:

Depreciation - none, based on ECI 73.209.3, 1 Jul 80.

Salvage - none, material removed and not reused has zero salvage value.

Removal - no reimbursement; removal will be effected by Government's contractor.

Betterment - none.

\*All relocation items for both phases of the work are shown, but only Phase II items show cost data.

INCLOSURE 1

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                       | Unit | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                                                   |      |      |               | Owner | Government's<br>Contractor |         |
| 02                   | Relocations*                                                                                                                      |      |      |               |       |                            |         |
| 0.7                  | Utilities & Structures                                                                                                            |      |      |               |       |                            |         |
|                      | <u>Item W-4 (Phase II)</u>                                                                                                        |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 8" CI<br>line, pass thru<br>floodwall sheetpile,<br>re-connect, sterilize<br>& test, backfill  |      |      | Lump Sum      | —     | 2,500                      | 2,500   |
|                      | 2. Burn hole & install<br>18" diam.x30" long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>& boot seal          |      |      | Lump Sum      | —     | 1,100                      | 1,100   |
|                      | Subtotals for W-4                                                                                                                 |      |      |               | —     | 3,600                      | 3,600   |
|                      | <u>Item W-6 (Phase I)</u>                                                                                                         |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 16" CI<br>line, pass thru<br>floodwall sheetpile,<br>re-connect, sterilize<br>& test, backfill |      |      |               |       |                            |         |
|                      | 2. Burn hole & install<br>24" diam.x30" long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>& boot seal          |      |      |               |       |                            |         |
|                      | Subtotals for W-6                                                                                                                 |      |      |               |       |                            |         |
|                      | ** <u>Item P-1A (Phase II)</u>                                                                                                    |      |      |               |       |                            |         |
|                      | 1. Excavate, cut a 12'<br>section of abandoned<br>powerline, plug cut<br>ends of conduits.                                        |      |      | Lump Sum      | --    | 1,500                      | 1,500   |

INCLOSURE 1

\*\*Revision 1, 24 August 1984

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                       | Unit | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                                                   |      |      |               | Owner | Government's<br>Contractor |         |
| 02                   | Relocations*                                                                                                                      |      |      |               |       |                            |         |
| 0.7                  | Utilities & Structures                                                                                                            |      |      |               |       |                            |         |
|                      | <u>Item W-8 (abandoned) (Phase I)</u>                                                                                             |      |      |               |       |                            |         |
|                      | Excavate, cut 12'<br>section of 8" CI<br>line, remove & plug<br>cut ends                                                          |      |      |               |       |                            |         |
|                      | <u>Item D-1 (Phase II)</u>                                                                                                        |      |      |               |       |                            |         |
|                      | Excavate and remove<br>25 LF of 12" storm<br>drain & one catchbasin                                                               |      |      | Lump Sum      | —     | 5,830                      | 5,830   |
|                      | <u>Item D-2 (Phase II)</u>                                                                                                        |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 10"<br>concrete drain pipe,<br>pass thru floodwall<br>sheetpile, re-connect,<br>test, backfill |      |      | Lump Sum      | —     | 2,120                      | 2,120   |
|                      | 2. Burn hole & install<br>18" diam.x30" long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>& boot seal          |      |      | Lump Sum      | —     | 1,060                      | 1,060   |
|                      | Subtotals for D-2                                                                                                                 |      |      |               | —     | 3,180                      | 3,180   |
|                      | <u>Item D-3 (Phase II)</u>                                                                                                        |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 10"<br>concrete drain pipe,<br>pass thru floodwall<br>sheetpile, re-connect,<br>test, backfill |      |      | Lump Sum      | —     | 2,120                      | 2,120   |

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TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                    | Unit | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                                                |      |      |               | Owner | Government's<br>Contractor |         |
| 02                   | Relocations*                                                                                                                   |      |      |               |       |                            |         |
| 0.7                  | Utilities & Structures                                                                                                         |      |      |               |       |                            |         |
|                      | <u>Item D-3 (Phase II)</u>                                                                                                     |      |      |               |       |                            |         |
|                      | 2. Burn hole & install<br>18" diam.x30" long<br>steel sleeve in sheet-<br>pile, place waterproof<br>packing & boot seal        |      |      | Lump Sum      | —     | 1,060                      | 1,060   |
|                      | Subtotals for D-3                                                                                                              |      |      |               | —     | 3,180                      | 3,180   |
|                      | <u>Item S-1 (Phase II)</u>                                                                                                     |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 8" clay<br>sewer pipe, pass<br>thru floodwall sheet-<br>pile, re-connect,<br>test, backfill |      |      | Lump Sum      | —     | 2,120                      | 2,120   |
|                      | <u>Item S-1 (Phase II)</u>                                                                                                     |      |      |               |       |                            |         |
|                      | 2. Burn hole & install<br>18" diam.x30" long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>& boot seal       |      |      | Lump Sum      | —     | 1,060                      | 1,060   |
|                      | Subtotals for S-1                                                                                                              |      |      |               | —     | 3,180                      | 3,180   |
|                      | <u>Item S-2 (Phase II)</u>                                                                                                     |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 8" clay<br>sewer pipe, pass<br>thru floodwall<br>sheetpile, re-connect,<br>test & backfill  |      |      | Lump Sum      | —     | 2,120                      | 2,120   |
|                      | 2. Provide manhole                                                                                                             | Ea   | 1    | 2,120         | —     | 2,120                      | 2,120   |
|                      | 3. Install additional<br>8" clay sewer pipe                                                                                    | LF   | 25   | 20            | —     | ** 500                     | 500     |

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\*\*Revision 1, 24 August 1984

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                 | Unit     | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|-------------------------------------------------------------------------------------------------------------|----------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                             |          |      |               | Owner | Government's<br>Contractor |         |
| 02                   | Relocations*                                                                                                |          |      |               |       |                            |         |
| 0.7                  | Utilities & Structures                                                                                      |          |      |               |       |                            |         |
|                      | <u>Item S-2 (Phase II) (continued)</u>                                                                      |          |      |               |       |                            |         |
|                      | 4. Remove affected section of existing facility (manhole & approx. 20 LF pipe)                              | Lump Sum |      |               | —     | 530                        | 530     |
|                      | 5. Burn hole & install 18" diam.x30" long steel sleeve in sheetpile, place waterproof packing and boot seal | Lump Sum |      |               | —     | 1,060                      | 1,060   |
|                      | Subtotal for S-2                                                                                            |          |      |               | —     | ** 6,330                   | 6,330   |
|                      | <u>Item P-1 (Phase I)</u>                                                                                   |          |      |               |       |                            |         |
|                      | 1. Opencut trench 18"x4'6"                                                                                  |          |      |               |       |                            |         |
|                      | 2. Opencut trench 18"x4'6" (repair pavement condition)                                                      |          |      |               |       |                            |         |
|                      | 3. Jack & bore 25" I.D. 1" wall thickness pipe                                                              |          |      |               |       |                            |         |
|                      | 4. Furnish & install 4-5" I.D. conduits inside R.conc. envelope                                             |          |      |               |       |                            |         |
|                      | 5. Furnish & install 4-5" I.D. conduits inside steel casing with concrete grout sealing all voids           |          |      |               |       |                            |         |
|                      | 6. Provide electrical manholes                                                                              |          |      |               |       |                            |         |
|                      | 7. Furnish & install electrical cable                                                                       |          |      |               |       |                            |         |
|                      | Subtotal for P-1                                                                                            |          |      |               |       |                            |         |

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\*\*Revision 1, 24 August 1984

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                                                                                                             | Unit     | Qty. | Unit<br>Price | COST  |                            | Amounts   |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------|---------------|-------|----------------------------|-----------|
|                      |                                                                                                                                                                                                                         |          |      |               | Owner | Government's<br>Contractor |           |
| 02                   | Relocations*                                                                                                                                                                                                            |          |      |               |       |                            |           |
| 0.7                  | Utilities & Structures                                                                                                                                                                                                  |          |      |               |       |                            |           |
|                      | <u>Item W-10 (Phase II)</u><br>Excavate, cut off 12'<br>section of each of the<br>3-1/2" $\phi$ water lines<br>pass thru sleeve in<br>floodwall's sheetpile,<br>re-connect, place<br>waterproof packing &<br>boot seals | Lump Sum |      |               | —     | 2,500                      | 2,500     |
|                      | <u>Item W-11 (Phase II)</u><br>Abandon existing water<br>meter manhole, build new<br>water meter manhole along<br>same taplines                                                                                         | Lump Sum |      |               | 2,120 | —                          | 2,120     |
|                      | <u>Item FH-1 (Phase II)</u><br>Remove existing 6" fire<br>hydrant re-install on<br>new location on same<br>tapline                                                                                                      | Lump Sum |      |               | 1,500 | —                          | 1,500     |
|                      | Relocation Cost                                                                                                                                                                                                         |          |      |               | 3,620 | 29,300                     | 32,920 ** |
|                      | Contingencies (25%±)                                                                                                                                                                                                    |          |      |               | 1,380 | 7,700                      | 9,080     |
|                      | Subtotals                                                                                                                                                                                                               |          |      |               | 5,000 | 37,000                     | 42,000    |
| 30                   | E&D (6%+)                                                                                                                                                                                                               |          |      |               | 500   | 2,000                      | 2,500     |
| 31                   | S&A (6%+)                                                                                                                                                                                                               |          |      |               | 500   | 2,000                      | 2,500     |
|                      | Totals                                                                                                                                                                                                                  |          |      |               | 6,000 | 41,000                     | 47,000    |

NOTES:

Depreciation - none, based on ECI 73.209.3, 1 Jul 80.

Salvage - none. Material removed and not reused has zero salvage value.

Removal - none. All removal to be effected by the Government's contractor.

Betterments - none.

\*All relocation items for both phases of the work are shown, but only Phase II items show cost data.

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\*\*Revision 1, 24 August 1984

TABLE F - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC SERVICE  
 (APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                 | Unit | Qty.     | Unit<br>Price | COST   |                            | Amounts |
|----------------------|-----------------------------|------|----------|---------------|--------|----------------------------|---------|
|                      |                             |      |          |               | Owner  | Government's<br>Contractor |         |
| 02                   | Relocations*                |      |          |               |        |                            |         |
| 0.7                  | Utilities & Structures      |      |          |               |        |                            |         |
|                      | Item E-1 (Phase II)         |      |          |               |        |                            |         |
|                      | a. Furnish & Install        |      |          |               |        |                            |         |
|                      | 4-4" Fibre conduit          |      |          |               |        |                            |         |
|                      | bank inside 20" steel       |      |          |               |        |                            |         |
|                      | casing                      | LF   | 250      | 148           | 37,000 | —                          | 37,000  |
|                      | b. Furnish & install        |      |          |               |        |                            |         |
|                      | electrical cable            | LF   | 3,000    | 6.10          | 18,300 | —                          | 18,300  |
|                      | c. Bum hole in sheet-       |      |          |               |        |                            |         |
|                      | pile, furnish &             |      |          |               |        |                            |         |
|                      | install 30" diam.x          |      |          |               |        |                            |         |
|                      | 24" long steel              |      |          |               |        |                            |         |
|                      | sleeve, waterproof          |      |          |               |        |                            |         |
|                      | packing & sealing           |      |          |               |        |                            |         |
|                      | boot, backfill              |      | Lump Sum |               | —      | 2,120                      | 2,120   |
|                      | Subtotal for E-1 (Phase II) |      |          |               | 55,300 | 2,120                      | 57,420  |
|                      | Item E-2 (Phase I)          |      |          |               |        |                            |         |
|                      | a. Temporary by-pass        |      |          |               |        |                            |         |
|                      | line                        |      |          |               |        |                            |         |
|                      | 1. 2-4" PVC conduit         |      |          |               |        |                            |         |
|                      | bank inside 12"             |      |          |               |        |                            |         |
|                      | steel casing                |      |          |               |        |                            |         |
|                      | 2. Furnish & install        |      |          |               |        |                            |         |
|                      | electrical cable            |      |          |               |        |                            |         |
|                      | inside conduit bank         |      |          |               |        |                            |         |
|                      | 3. Cut ditch & backfill     |      |          |               |        |                            |         |
|                      | 4. Furnish & install        |      |          |               |        |                            |         |
|                      | direct burial cable         |      |          |               |        |                            |         |
|                      | 5. Protective concrete      |      |          |               |        |                            |         |
|                      | envelope                    |      |          |               |        |                            |         |
|                      | b. Permanent Line           |      |          |               |        |                            |         |
|                      | 1. Removal &                |      |          |               |        |                            |         |
|                      | Re-installation of          |      |          |               |        |                            |         |
|                      | cable                       |      |          |               |        |                            |         |
|                      | 2. Remove & Replace         |      |          |               |        |                            |         |
|                      | 6-4" PVC conduit            |      |          |               |        |                            |         |
|                      | bank, 24" steel             |      |          |               |        |                            |         |
|                      | casing and concrete         |      |          |               |        |                            |         |
|                      | envelope                    |      |          |               |        |                            |         |

TABLE F - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC SERVICE  
 (APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                                     | Unit | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                                                                 |      |      |               | Owner | Government's<br>Contractor |         |
| 02                   | Relocations*                                                                                                                                    |      |      |               |       |                            |         |
| 0.7                  | Utilities & Structures                                                                                                                          |      |      |               |       |                            |         |
|                      | Item E-2 (Phase I)                                                                                                                              |      |      |               |       |                            |         |
|                      | c. Burn hole in sheet-<br>pile, furnish &<br>install 36" diam.<br>x24" long steel<br>sleeve, waterproof<br>packing & sealing<br>boot            |      |      |               |       |                            |         |
|                      | Subtotal for E-2 (Phase I)                                                                                                                      |      |      |               |       |                            |         |
|                      | Item G-1 (Phase II)                                                                                                                             |      |      |               |       |                            |         |
|                      | a. Remove & Replace<br>4" steel gas pipe,<br>protective asbestos<br>wrap & concrete<br>coating                                                  | LF   | 20   | Lump Sum      | 2,862 | —                          | 2,862   |
|                      | b. Burn hole in sheet-<br>pile, furnish &<br>install 12" diam.<br>x24" long steel<br>sleeve, waterproof<br>packing & sealing<br>boot            |      |      | Lump Sum      |       | 1,113                      | 1,113   |
|                      | Subtotal for G-1 (Phase II)                                                                                                                     |      |      |               | 2,862 | 1,113                      | 3,975   |
|                      | Item E-3 (abandoned (Phase II)<br>Uncover 30"x30" electrical<br>conduits and concrete envelope,<br>cut 12' section where affected<br>and remove |      |      | Lump Sum      |       | 1,500                      | 1,500   |

INCLOSURE 1



TABLE F - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC SERVICE  
 (APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                | Unit | Qty. | Unit<br>Price | COST   |                            | Amounts    |
|----------------------|--------------------------------------------------------------------------------------------|------|------|---------------|--------|----------------------------|------------|
|                      |                                                                                            |      |      |               | Owner  | Government's<br>Contractor |            |
| 02                   | Relocations*                                                                               |      |      |               |        |                            |            |
| 0.7                  | Utilities & Structures                                                                     |      |      |               |        |                            |            |
|                      | * * Item E-2A (Phase II)                                                                   |      |      |               |        |                            |            |
|                      | 1. Excavate, cut a 12'<br>section of abandoned<br>powerline, plug cut<br>ends of conduits. |      |      | Lump Sum      | --     | 1,500                      | 1,500      |
|                      | Relocation cost                                                                            |      |      |               | 58,162 | 6,233                      | 64,395 * * |
|                      | Contingencies (25%)                                                                        |      |      |               | 14,838 | 1,767                      | 16,605     |
|                      | Subtotals                                                                                  |      |      |               | 73,000 | 8,000                      | 81,000     |
| 30                   | E&D (6%+)                                                                                  |      |      |               | 4,000  | 500                        | 4,500      |
| 31                   | S&A (6%+)                                                                                  |      |      |               | 4,000  | 500                        | 4,500      |
|                      | Totals                                                                                     |      |      |               | 81,000 | 9,000                      | 90,000     |

NOTES:

Depreciation - none, based on ECI 73.209.3, 1 Jul 80.

Salvage

Removal - none

Betterment - none

\*All relocation items for both phases of the work are shown, but only Phase II items show cost data.

INCLOSURE 1

\*\*Revision 1, 24 August 1984

TABLE G - ESTIMATE OF COST  
MISSISSIPPI RIVER BRIDGE AUTHORITY  
(APRIL 1984 PRICE LEVELS)

| Cost Acct. No. | Description                                                                                                                                                                  | Qty/Unit | Unit Price | Amount |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|--------|
| 02             | Relocations*                                                                                                                                                                 |          |            |        |
| 0.1            | Roads                                                                                                                                                                        |          |            |        |
|                | <u>Item R-1A - Ferry Terminal Road</u>                                                                                                                                       |          |            |        |
|                | Restore affected portion of the ferry terminal's access road to match existing cross-section. (2" asphalt wearing course & 8" reinforced concrete over 12" compacted shell.) | 408/SF   | 5.00/SF    | 2,040  |
|                | <u>Item HR-1 - Handicapped Ramp</u>                                                                                                                                          |          |            |        |
|                | a. Remove pipe railing                                                                                                                                                       | 62/LF    | 3.00/LF    | 186    |
|                | b. Demolish existing reinforced concrete ramp (31' long x 7' wide x 30" high-tapers to ground level).                                                                        | 326/CF   | 4.00/CF    | 1,304  |
|                | c. Build reinforced concrete ramp #1 (39' long x 7' wide x 30" high-tapers to ground level)                                                                                  | 15/CY    | 200.00/CY  | 3,000  |
|                | d. Install pipe railing                                                                                                                                                      | 38/LF    | 15.00/LF   | 570    |
|                | <u>Item SW-1 - Handicapped Sidewalk</u>                                                                                                                                      |          |            |        |
|                | a. Build reinforced concrete ramp #2 (140' long x 7' wide x 10" average thickness)                                                                                           | 30/CY    | 200.00/CY  | 6,000  |
|                | b. Install pipe railing                                                                                                                                                      | 200/LF   | 15.00/LF   | 3,000  |
|                | <u>Item TB-1 - Traffic Barrier</u>                                                                                                                                           |          |            |        |
|                | Remove traffic barrier & store. Replace after gate construction phase and detour road is removed.                                                                            | 120/LF   | 42.00/LF   | 5,040  |
|                | Sub-total for Roads                                                                                                                                                          |          |            | 21,140 |

INCLOSURE 1

TABLE G - ESTIMATE OF COST  
MISSISSIPPI RIVER BRIDGE AUTHORITY  
(APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                                                                                                                                                                                | Qty/Unit | Unit Price | Amount |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|--------|
| 02                   | <u>Relocations</u>                                                                                                                                                                                                                                                                         |          |            |        |
| 0.7                  | <u>Utilities &amp; Structures (Phase II)</u>                                                                                                                                                                                                                                               |          |            |        |
|                      | <u>Item EG-1- Underground Electric<br/>Conduit &amp; Feeder</u> Remove feeder<br>cable, cut 12' length of conduit,<br>burn hole & install a 6" diam. x<br>30" long steel pipe sleeve in<br>sheetpile. Pass cut length thru<br>sleeve & boot seals. Pull feeder<br>cable thru & reactivate. |          | Lump Sum   | 1,500  |
|                      | <u>Item W-9 - 2-1" copper water pipes</u>                                                                                                                                                                                                                                                  |          |            |        |
|                      | a. Excavate, cut 12' section of<br>each of the 2-1" copper pipes,<br>pass thru floodwall sheetpile,<br>re-connect, sterilize & test,<br>backfill.                                                                                                                                          |          | Lump Sum   | 1,500  |
|                      | b. Burn hole & fabricate & install<br>8" x 18" x 30" long steel sleeve<br>in sheetpile, place water proof<br>packing & boot seals.                                                                                                                                                         |          | Lump Sum   | 1,500  |
|                      | Sub-total for Utilities & Structures                                                                                                                                                                                                                                                       |          |            | 4,500  |
|                      | Relocation Cost                                                                                                                                                                                                                                                                            |          |            | 25,640 |
|                      | Contingencies (25%±)                                                                                                                                                                                                                                                                       |          |            | 6,360  |
|                      | Sub-totals                                                                                                                                                                                                                                                                                 |          |            | 32,000 |
|                      | E&D (6%±)                                                                                                                                                                                                                                                                                  |          |            | 2,000  |
|                      | S&A (6%±)                                                                                                                                                                                                                                                                                  |          |            | 2,000  |
|                      | Total                                                                                                                                                                                                                                                                                      |          |            | 36,000 |

**NOTES:**

Depreciation - none. Based on ECI 73.209.3, 1 Jul 80.

Salvage - none. Material removed and not re-used has zero salvage value.

Removal - none. All removal to be effected by the Government's contractor.

Betterments - none.

\*All relocation items for both phases of the work are shown, but only Phase II items show cost data.

INCLOSURE 1

TABLE H - ESTIMATE OF COST  
 BOARD OF COMMISSIONERS  
 OF THE  
 PORT OF NEW ORLEANS  
 (APRIL 1984 PRICE LEVELS)

| Cost Acct. No. | Description                                                                                                                                                                                                                                                    | Qty/Unit  | Unit Price | Amount |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|--------|
| 02             | Relocations*                                                                                                                                                                                                                                                   |           |            |        |
| 0.1            | Roads (Phase II)                                                                                                                                                                                                                                               |           |            |        |
|                | <u>Item R-1B - Wharf Area Access Road.</u><br>Restore affected portion of wharf area's access road to match existing cross-section. (8" reinforced concrete pavement over 12" compacted shell.)                                                                | 720/SF    | 3.50/SF    | 2,520  |
|                | <u>Item R-4 - Parking area</u><br>Restore affected portion of wharf's parking area. (Spread & compact 6" of shell.)                                                                                                                                            | 12,330/SF | 0.50/SF    | 6,165  |
|                | <u>Item SW-2 - Sidewalk &amp; Curb</u>                                                                                                                                                                                                                         |           |            |        |
|                | a. Demolish & remove sidewalk                                                                                                                                                                                                                                  | 200/CF    | 4.00/CF    | 800    |
|                | b. Build new curb                                                                                                                                                                                                                                              | 50/LF     | 5.00/LF    | 250    |
|                | c. Pave with 8" reinforced concrete slab over 12" shell                                                                                                                                                                                                        | 8/CY      | 200/CY     | 1,600  |
|                | Sub-total for Roads                                                                                                                                                                                                                                            |           |            | 11,335 |
| 0.7            | Utilities & Structures (Phase II)                                                                                                                                                                                                                              |           |            |        |
|                | <u>Item W-2 - 10" Waterline</u><br>Excavate, cut 12' section of 10" CI pipe & pass thru floodwall sheetpile. Re-connect, sterilize, test & backfill. Burn hole & install 15" diam x 30" long steel sleeve in sheetpile, place waterproof packing & boot seals. |           |            |        |
|                |                                                                                                                                                                                                                                                                | Lump Sum  |            | 3,500  |
|                | <u>Item W-3 - 12" Waterline</u><br>Excavate, cut 12' section of 12" CI pipe. Burn hole & install 18" diam x 30" long steel sleeve in sheetpile. Pass cut section thru sleeve & re-connect. Sterilize & test. Place waterproof packing & boot seals.            |           |            |        |
|                |                                                                                                                                                                                                                                                                | Lump Sum  |            | 4,200  |
|                | <u>Item W-5 - 8" Waterline</u><br>Excavate, cut 12' section of 8" CI pipe. Burn hole & install 12" diam x 30" long steel sleeve in sheetpile. Pass cut section thru sleeve & re-connect. Sterilize & test. Place waterproof packing & boot seals.              |           |            |        |
|                |                                                                                                                                                                                                                                                                | Lump Sum  |            | 3,300  |

TABLE H - ESTIMATE OF COST  
 BOARD OF COMMISSIONERS  
 OF THE  
 PORT OF NEW ORLEANS  
 (APRIL 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                       | Qty/Unit | Unit Price | Amount |
|----------------------|---------------------------------------------------|----------|------------|--------|
|                      | <u>Item FH-2 - 6" Fire Hydrant</u>                |          |            |        |
|                      | a. Remove fire hydrant.                           |          |            |        |
|                      | b. Extend - 6" CI line for an<br>additional 10'.  |          |            |        |
|                      | c. Re-install 6" fire hydrant<br>at new location. |          |            |        |
|                      |                                                   | Lump Sum |            | 1,500  |
|                      | Sub-total for Utilities & Structures              |          |            | 12,500 |
|                      | Relocation Cost                                   |          |            | 23,835 |
|                      | Contingencies (25%±)                              |          |            | 6,165  |
|                      | Subtotal                                          |          |            | 30,000 |
|                      | E&D (6%±)                                         |          |            | 2,000  |
|                      | S&A (6%±)                                         |          |            | 2,000  |
|                      | Total                                             |          |            | 34,000 |

NOTES:

Depreciation - none. Based on ECI 73.209.3, 1 Jul 80.

Salvage - none. Material removed and not re-used has zero salvage value.

Removal - none. All removal to be effected by the Government's contractor.

Betterments - none.

\*All relocation items for both phases of the work are shown, but only Phase II items show cost data.

INCLOSURE 1

REVISED SECOND SUPPLEMENTAL ATTORNEY'S REPORT  
OF  
COMPENSABLE INTEREST

Item M-94.9 to 94.6-L  
Canal - Toulouse Street Floodwall - Phase II  
Mississippi River Levees  
Orleans Parish, Louisiana

This supplemental investigation and report is made in accordance with DIVR 1110-2-2 (see also DIVR 1110-2-1, 29 January 1968) and ER 11180-1-1, Section 73, Part 3, 73-203 and 73-204 on the following facilities which will be affected by the subject project:

See attached schedule A.

I

COMPENSABLE INTEREST  
OF  
MISSISSIPPI RIVER BRIDGE AUTHORITY (MRBA)

The Mississippi River Bridge Authority is a sub-agency of the Department of Transportation and Development, see LA. REV. STAT. ANN. 36:509(E)(2). As such, it is authorized "[t]o acquire by purchase, lease or otherwise, and to construct, improve, maintain, repair and operate toll bridges and ferries." LA. REV. STAT. ANN. 48:1093(4). They are also vested with the power of eminent domain. LA. REV. STAT. ANN. 48:1093(11).

The facilities listed on schedule A are owned and maintained by MRBA. MRBA's facilities are located both inside and outside of the existing levee right-of-way.

Where the facilities are located outside the existing levee right-of-way, MRBA has a real right in these facilities. There has been no evidence furnished to date that the property was purchased from the fee owner. However, a political subdivision through the power of eminent domain possesses a vested right in the facility in need of relocation, even without the use of conventional negotiation and acquisition through the Doctrine of Unopposed Use. See LA. REV. STAT. ANN. 48:441 and 19:14.

Therefore, where the facilities are located outside of the existing levee right-of-way, MRBA does have a compensable interest.

Where MRBA's facilities are within existing levee right-of-way, they are located there through permission of the local levee authority. Because the facilities are only there through permission, the Mississippi River Bridge Authority does not have a real right to this property. Because it does not have the real right to this property, it does not have a compensable interest to these facilities.

The Mississippi River Bridge Authority is, however, operating this facility pursuant to the authority granted to it by the State of Louisiana. Because the facilities are serving a valid governmental interest, their relocation are authorized by applicable Federal Law.

## II

### COMPENSABLE INTEREST OF THE BOARD OF COMMISSIONERS PORT OF NEW ORLEANS (Board)

The Board of Commissioners for the Port of New Orleans is authorized pursuant to authority granted in LA. REV. STAT. ANN. 34:1. It is a political subdivision of the State of Louisiana and is charged with regulating commerce and traffic in the port and harbor of New Orleans. LA. REV. STAT. ANN. 34:21. Pursuant to this authority it is charged with providing light, water, police protection and other services for wharves, landing sheds, and other structures as it deems advisable, LA. REV. STAT. ANN. 34:21. It also has the power of eminent domain, LA. REV. STAT. ANN. 34:23.

The facilities owned by the Board are located outside the existing levee right-of-way. There has been no evidence furnished to date that the Board owns fee title to these facilities. However, a political subdivision having the right of eminent domain acquires a real right to the property due to consent or acquiescence of the landlord by virtue of the provisions of LA. REV. STAT. ANN. 33:4621 and 19:14. Thus, the Board has a compensable interest in the facilities where they are located outside the existing levee right-of-way.

## III

### AUTHORITY AND OBLIGATION

Authority for the construction, enlargement, or improvement of mainline Mississippi River Levees, including berms, is contained in the Act of 15 May 1928 (Public Law No. 391, 70th Congress), as amended. The furnishing of right-of-way for levee foundations and levees on the mainline Mississippi River, except levee setbacks, is an obligation of local interest (See Section 3, Act of 15 May 1928). The replacement or relocation of public roads, highways, railroads, public utilities, and pipelines required for the construction of mainline Mississippi River Levees will be accomplished at Federal expense. Reimbursement of costs to local cooperating agencies in perfecting relocation of interfering facilities may be made pursuant to the Act of 23 April 1934 (Public Law No. 171, 73rd Congress).

Under the provisions of Section III of 72 Stat. 303, as amended by Section 309 of 79 Stat. 1094 (33 U.S.C. 633), the Chief of Engineers may, in civil works projects, protect, alter, reconstruct, relocate or replace any structure

or facility owned by an agency of Government (State, county, city, or town or any legally created subdivision thereof) and utilized in the performance of a governmental function.

IV

SUMMARY

The revised and supplemental Attorney's Investigation and Report of Compensable Interest are modified to reflect the views herein expressed, but remain otherwise unchanged.

12 April 1984

DATE

Randy D. Florent

RANDY D. FLORENT

Attorney-Advisor

U. S. Army Engineer District

New Orleans



SCHEDULE A

LIST OF FACILITIES BY OWNERS

A. The Board of Commissioners, Port of New Orleans owns facilities affected by the project's construction as listed below.

| <u>Item</u> | <u>Type</u>                | <u>Location</u><br>(Wall Line Station) | <u>Plate</u> |
|-------------|----------------------------|----------------------------------------|--------------|
| W-2         | 10" cast-iron water line   | 1+37                                   | 1            |
| R-1B        | Road approach to dock area | 2+08 to 2+68                           | 1            |
| R-4         | Parking area               | 2+68 to 10+78                          | 1 & 2        |

B. The Mississippi River Bridge Authority owns facilities affected by the project's construction as listed below.

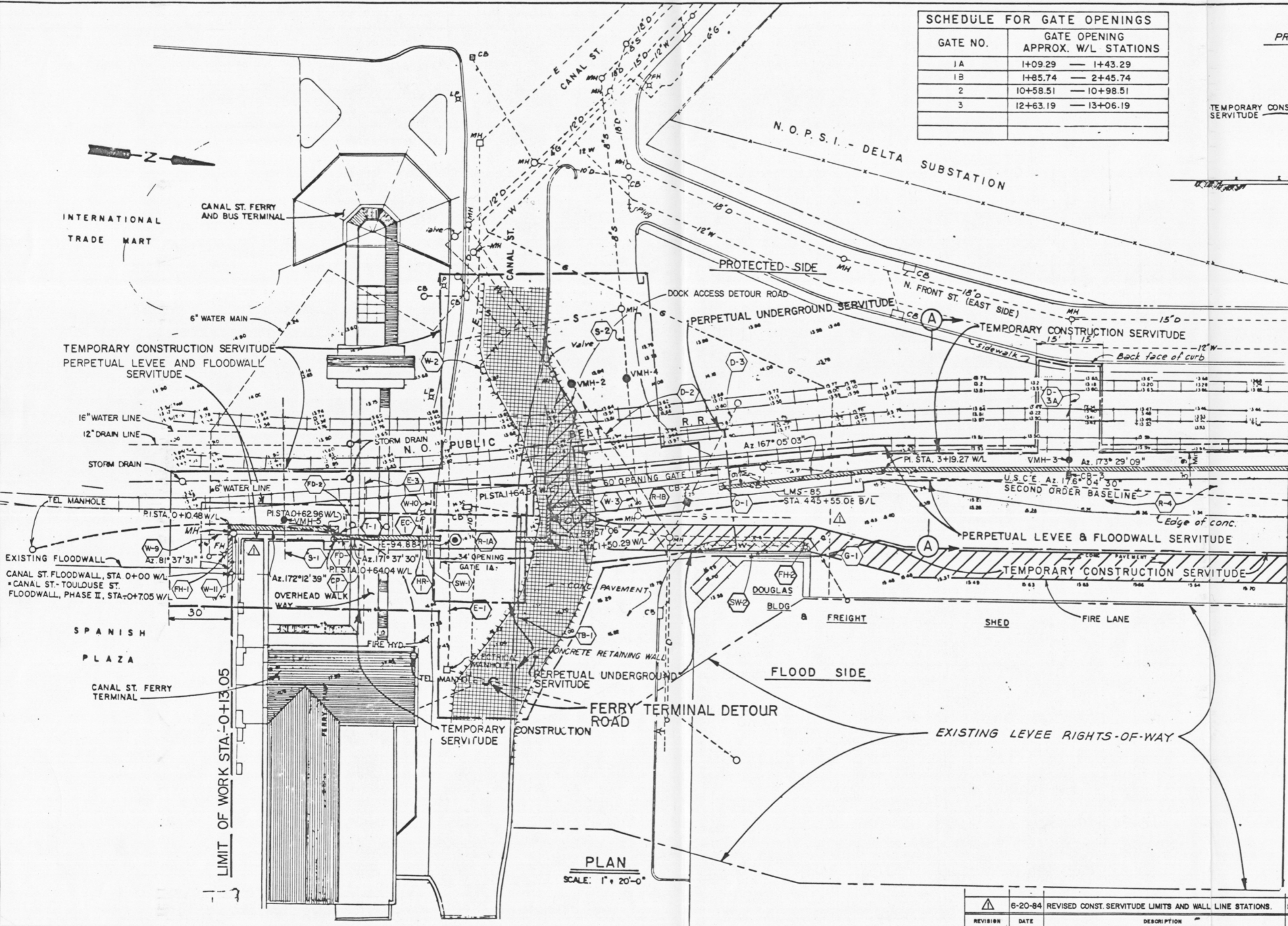
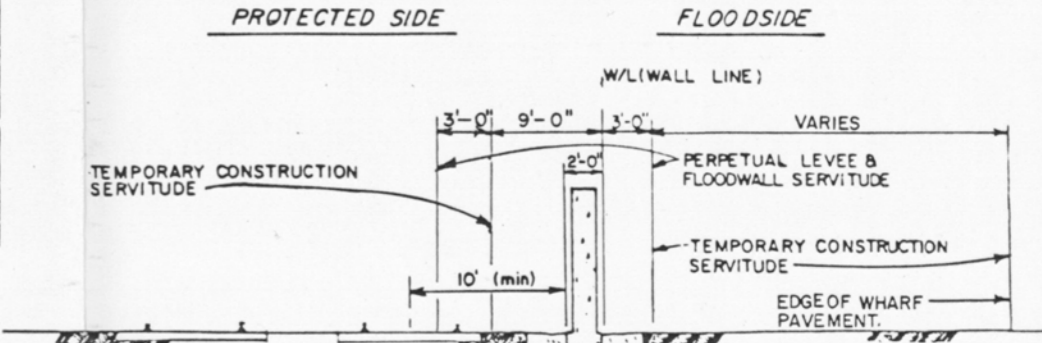
| <u>Item</u> | <u>Type</u>                 | <u>Location</u><br>(Wall Line Station) | <u>Plate</u> |
|-------------|-----------------------------|----------------------------------------|--------------|
| R-1A        | Canal Street access ramp    | 1+21 to 1+55                           | 1            |
| HR-1        | Handicap ramp               | 0+95 to 1+21                           | 1            |
| TB-1        | Concrete traffic barrier    | 1+55                                   | 1            |
| EC-1        | Underground electric feeder | 1+10                                   | 1            |
| SW-1        | Handicap sidewalk           |                                        |              |

add  
SW-2  
FH-2

Franks,  
1) We can ask for  
Revised given after  
see submit report  
or during local review

Tony

| SCHEDULE FOR GATE OPENINGS |                                   |          |
|----------------------------|-----------------------------------|----------|
| GATE NO.                   | GATE OPENING APPROX. W/L STATIONS |          |
| 1A                         | 1+09.29                           | 1+43.29  |
| 1B                         | 1+85.74                           | 2+45.74  |
| 2                          | 10+58.51                          | 10+98.51 |
| 3                          | 12+63.19                          | 13+06.19 |



| NEW FACILITIES |                     |          |              |                                   |
|----------------|---------------------|----------|--------------|-----------------------------------|
| ITEM NO        | DESCRIPTION         | STA. W/L | OWNER        | DISPOSITION                       |
| VMH-5          | SEWER VALVE MANHOLE | 0+34     | S.&W.B. N.O. | TO BE CONSTRUCTED BY GOV'T CONTR. |
| VMH-2          | DRAIN VALVE MANHOLE | 2+09     | " "          | " "                               |
| VMH-4          | SEWER VALVE MANHOLE | 2+05     | " "          | " "                               |
| CB-2           | CATCH BASIN         | 2+31     | " "          | " "                               |
| D-3A           | 12" STORM DRAIN     | 4+03     | " "          | " "                               |
| VMH-3          | DRAIN VALVE MANHOLE | 4+03     | " "          | " "                               |
| CB-3           | CATCH BASIN         | 4+03     | " "          | " "                               |

| EXISTING FACILITIES |                                       |               |              |                                  |
|---------------------|---------------------------------------|---------------|--------------|----------------------------------|
| ITEM NO             | DESCRIPTION                           | STA. W/L      | OWNER        | DISPOSITION                      |
| SW-2                | SIDEWALK                              | 2+24 TO 2+82  | DOCK BOARD   | REMOVED BY GOV'T CONTR.          |
| FH-2                | 6" FIRE HYDRANT                       | 2+80          | " "          | RELOCATED BY GOV'T CONTR.        |
| SW-1                | HANDICAPPED SIDEWALK                  | 1+03 TO 1+10  | MRBA.        | RELOCATED BY OWNER               |
| S-1                 | 8" SEWER LINE                         | 0+34          | S.&W.B. N.O. | RELOCATED BY GOV'T CONTR.        |
| FD-1                | FACADE FOUNDATION                     | 0+64 TO 0+69  | MRBA         | " "                              |
| T-1                 | UNDERGROUND TELEPHONE CABLE           | 0+10 TO 0+80  | SCB          | RELOCATED BY GOV'T CONTR.        |
| HR-1                | HANDICAPPED RAMP                      | 0+74 TO 1+05  | MRBA         | RELOCATED BY GOV'T CONTR.        |
| CP-1                | FACADE PROTECTOR                      | 0+67          | " "          | " "                              |
| EC-1                | UNDERGROUND ELECTRIC CONDUIT & FEEDER | 1+06          | " "          | " "                              |
| E-1                 | " "                                   | 1+11.74       | N.O.P.S.I.   | RELOCATED BY GOV'T CONTR.        |
| W-10                | 3-1 1/2" PLASTIC PIPES (WATER)        | 1+08          | S.&W.B. N.O. | RELOCATED BY GOV'T CONTR.        |
| R-1A                | FERRY TERMINAL ACCESS ROAD            | 1+09 TO 1+33  | MRBA         | " "                              |
| R-1B                | DOCK BOARD ACCESS ROAD                | 2+46 TO 2+48  | DOCK BOARD   | " "                              |
| W-2                 | 10" WATER LINE                        | 1+28          | " "          | " "                              |
| S-2                 | 8" SEWER LINE                         | 2+05          | S.&W.B.      | " "                              |
| W-3                 | 12" WATER LINE                        | 2+03          | DOCK BOARD   | " "                              |
| D-2                 | 10" STORM DRAIN                       | 2+09          | S.&W.B. N.O. | " "                              |
| D-3                 | 10" " "                               | 2+31          | " "          | " "                              |
| D-1                 | 10" " " & CATCH BASIN                 | 2+29 TO 2+56  | " "          | REMOVE & PLUG BY GOV'T CONTR.    |
| G-1                 | 4" STEEL GAS LINE                     | 2+95          | N.O.P.S.I.   | RELOCATED BY OWNER               |
| R-4                 | WHARF PARKING AREA                    | 3+19 TO 10+51 | DOCK BOARD   | RELOCATED BY GOV'T CONTR.        |
| TB-1                | TRAFFIC BARRIER                       | 1+47          | M.R.B.A.     | RELOCATED BY GOV'T CONTR.        |
| E-3                 | UNDERGROUND ELECTRICAL DUCTWORK       | 0+77          | N.O.P.S.I.   | ABANDON & REMOVE BY GOV'T CONTR. |
| W-9                 | 2-1" WATER LINES                      | 0+11          | M.R.B.A.     | RELOCATED BY GOV'T CONTR.        |
| FH-1                | 6" FIRE HYDRANT                       | 0+02          | S.&W.B. N.O. | RELOCATED BY OWNER               |
| W-11                | WATER METER MANHOLE                   | 0+11          | " "          | " "                              |
| FD-2                | OVERHEAD W'KWAY FOUND.                | 0+74          | M.R.B.A.     | RELOCATED BY GOV'T CONTR.        |

MISSISSIPPI RIVER LEVEES CRELENS LEVEE DISTRICT  
 ITEM M-949 TO 946-L  
**CANAL ST. TO TOULOUSE ST. FLOODWALL-PHASE II**  
 SUPPLEMENT A  
**DESIGN MEMORANDUM NO. 65**  
**RELOCATION OF FACILITIES**  
 PROJECT PLAN  
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 DATE MAY 1984 DWG. 1 OF 3 FILE NO H-4-29641  
 SUPERSEDES FILE NOS. H-4-2926 & H-8-28779

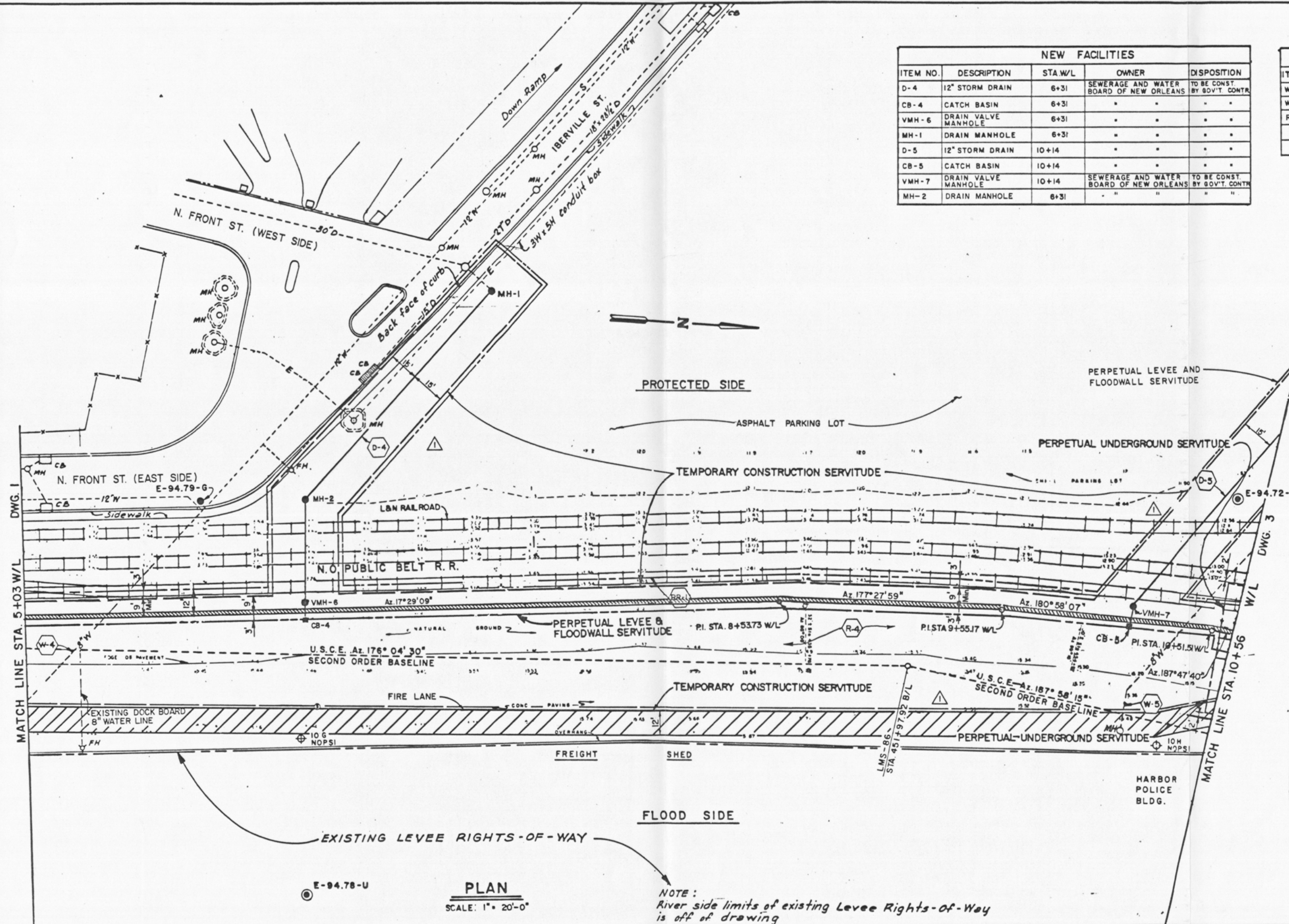
| REVISION | DATE    | DESCRIPTION                                             | BY     |
|----------|---------|---------------------------------------------------------|--------|
| △        | 6-20-84 | REVISED CONST. SERVITUDE LIMITS AND WALL LINE STATIONS. | S.J.M. |

| NEW FACILITIES |                     |          |                                         |                              |
|----------------|---------------------|----------|-----------------------------------------|------------------------------|
| ITEM NO.       | DESCRIPTION         | STA. W/L | OWNER                                   | DISPOSITION                  |
| D-4            | 12" STORM DRAIN     | 6+31     | SEWERAGE AND WATER BOARD OF NEW ORLEANS | TO BE CONST. BY GOV'T CONTR. |
| CB-4           | CATCH BASIN         | 6+31     | "                                       | "                            |
| VMH-6          | DRAIN VALVE MANHOLE | 6+31     | "                                       | "                            |
| MH-1           | DRAIN MANHOLE       | 6+31     | "                                       | "                            |
| D-5            | 12" STORM DRAIN     | 10+14    | "                                       | "                            |
| CB-5           | CATCH BASIN         | 10+14    | "                                       | "                            |
| VMH-7          | DRAIN VALVE MANHOLE | 10+14    | SEWERAGE AND WATER BOARD OF NEW ORLEANS | TO BE CONST. BY GOV'T CONTR. |
| MH-2           | DRAIN MANHOLE       | 6+31     | "                                       | "                            |

| EXISTING FACILITIES |               |               |                                         |                           |
|---------------------|---------------|---------------|-----------------------------------------|---------------------------|
| ITEM NO.            | DESCRIPTION   | STA. W/L      | OWNER                                   | DISPOSITION               |
| W-4                 | 8" WATER LINE | 5+46          | SEWERAGE AND WATER BOARD OF NEW ORLEANS | RELOCATED BY GOV'T CONTR. |
| W-5                 | 8" WATER LINE | 10+38         | DOCK BOARD                              | RELOCATED BY GOV'T CONTR. |
| R-4                 | PARKING AREA  | 3+19 TO 10+51 | "                                       | RESTORE BY GOV'T CONTR.   |

**LEGEND**

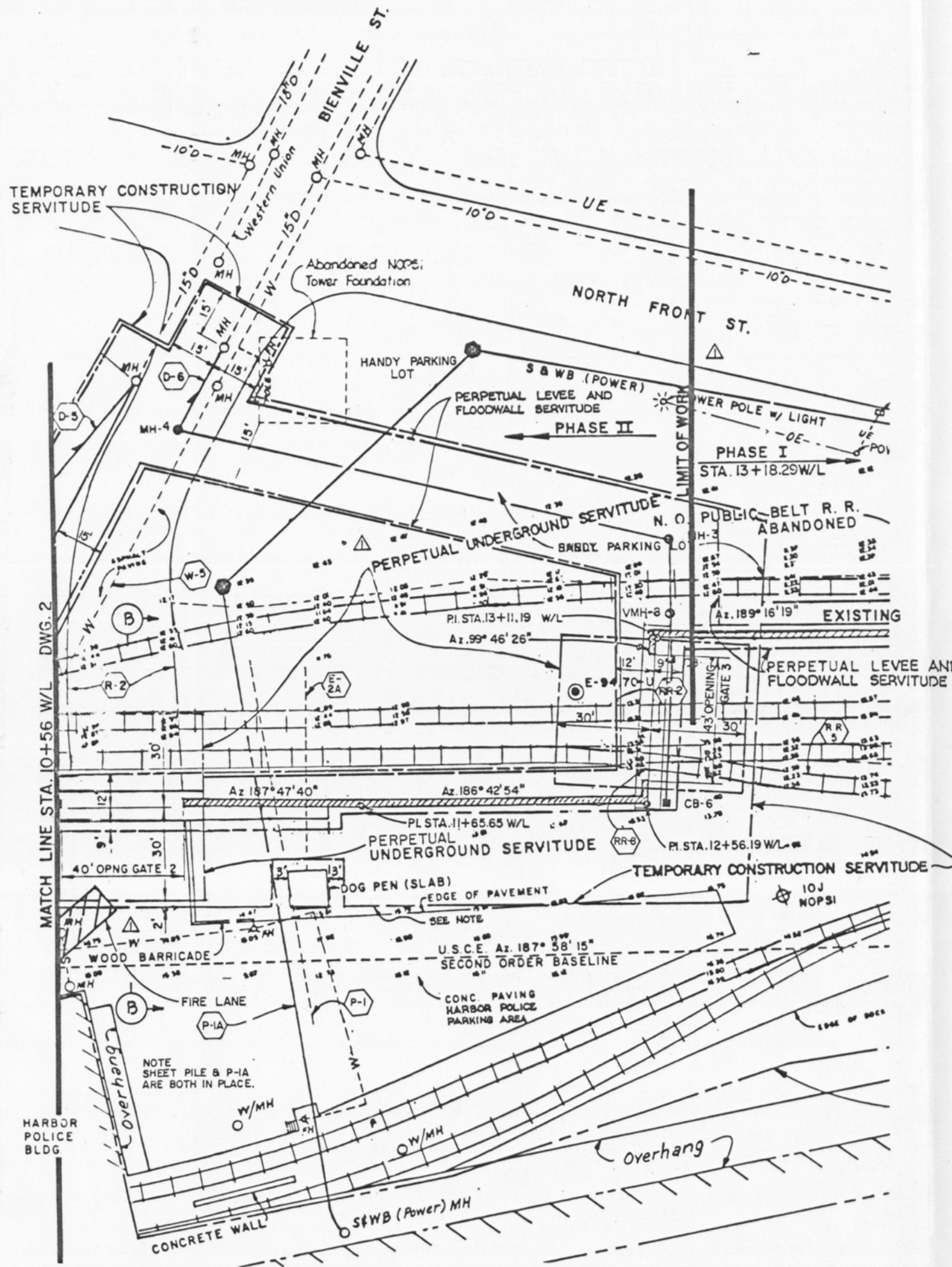
- (D-I) UTILITY IDENTIFICATION
- CB NEW CATCH BASIN
- MH NEW MANHOLE
- VMH NEW VALVE MANHOLE
- PMH NEW POWER MANHOLE
- CB EXISTING CATCH BASIN
- MH EXISTING MANHOLE
- △ FH EXISTING FIRE HYDRANT
- ⊠ LP EXISTING LIGHT POLE
- NEW UNDERGROUND UTILITY LINE
- - - - - EXISTING UNDERGROUND UTILITY LINE
- E-94.79-G GENERAL TYPE BORING
- E-94.72-U UNDISTURBED TYPE BORING
- 15.22 EXISTING GRADE OR R/R RAIL ELEVATION
- I-TYPE FLOODWALL**
- - - - - PERPETUAL LEVEE AND FLOODWALL SERVITUDE LIMITS AND INNER LIMITS OF TEMPORARY CONSTRUCTION SERVITUDE.
- - - - - TEMPORARY CONSTRUCTION SERVITUDE OUTER LIMITS (SEE SECTION (A) DWG. 1 FOR CLARIFICATION).
- T-TYPE FLOODWALL AND GATE MONOLITHS**
- - - - - PERPETUAL LEVEE AND FLOODWALL SERVITUDE LIMITS, INNER LIMITS OF PERPETUAL UNDERGROUND SERVITUDE AND TEMPORARY CONSTRUCTION SERVITUDE.
- - - - - PERPETUAL UNDERGROUND SERVITUDE OUTER LIMITS.
- - - - - TEMPORARY CONSTRUCTION SERVITUDE OUTER LIMITS (SEE SECTION (B) DWG. 3 FOR CLARIFICATION).



**PLAN**  
SCALE: 1" = 20'-0"

NOTE: River side limits of existing Levee Rights-Of-Way is off of drawing

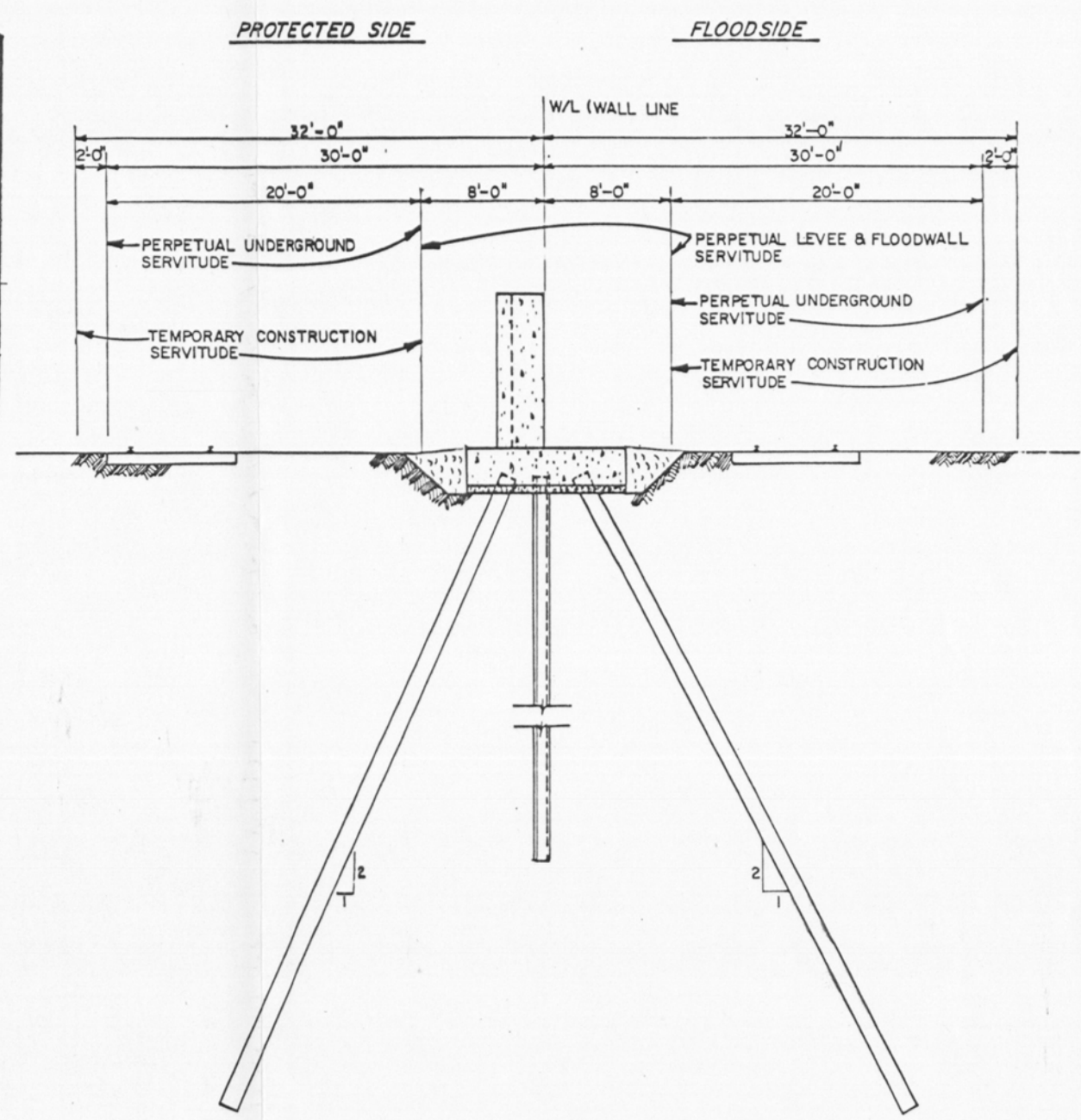
|                                                 |            |                                                                    |        |
|-------------------------------------------------|------------|--------------------------------------------------------------------|--------|
| △                                               | 6-20-84    | REVISED LOCATION OF DRAIN LINES AND CONSTRUCTION SERVITUDE LIMITS. | S.J.M. |
| SUPERSEDES FILE NOS. H-4-29269 & H-8-28779      |            |                                                                    |        |
| REVISION                                        | DATE       | DESCRIPTION                                                        | BY     |
| MISSISSIPPI RIVER LEVEES ORLEANS LEVEE DISTRICT |            |                                                                    |        |
| ITEMM-94.9 TO 94.6-L                            |            |                                                                    |        |
| CANAL ST. TO TOULOUSE ST. FLOODWALL-PHASE II    |            |                                                                    |        |
| SUPPLEMENT A                                    |            |                                                                    |        |
| DESIGN MEMORANDUM NO. 65                        |            |                                                                    |        |
| RELOCATION OF FACILITIES                        |            |                                                                    |        |
| PROJECT PLAN                                    |            |                                                                    |        |
| U.S. ARMY ENGINEER DISTRICT NEW ORLEANS         |            |                                                                    |        |
| CORPS OF ENGINEERS                              |            |                                                                    |        |
| DATE MAY 19:4                                   | FIG 2 OF 3 | FILE NO H-4-29641                                                  |        |



| EXISTING FACILITIES |                             |                |                                |                               |
|---------------------|-----------------------------|----------------|--------------------------------|-------------------------------|
| ITEM NO.            | DESCRIPTION                 | STA. W/L       | OWNER                          | DISPOSITION                   |
| W 5                 | 8" WATER LINE               | 10+38          | DOCK BOARD                     | RELOCATED BY GOV'T CONTR.     |
| R 2                 | BIENVILLE ST.               | 10+51 TO 11+05 | CITY OF NO DEPT. OF STREET     | RELOCATED BY GOV'T CONTR.     |
| P 1                 | 6600 VOLT ELECTRIC FEEDER   | 11+36          | SEWERAGE & WATER BOARD OF N.O. | ABANDONED REMOVE - OWNER      |
| RR 2                | RAILROAD TRACK              | 12+84          | N.O. PUBLIC BELT RAILROAD      | RELOCATE BY OWNER             |
| P-1A                | 6600 VOLT ELECTRIC FEEDER   | 11+21.68       | S. & W.B. N.O.                 | CONC. CAP BY GOV'T CONTR.     |
| E-2A                | UNDERGROUND ELECTRIC CABLES | 11+47          | N.O. P.S.I.                    | ABANDONED REMOVE GOV'T CONTR. |
| RR-5                | RAILROAD SWITCH             | 12+26 TO 15+08 | N.O. PUBLIC BELT RAILROAD      | RELOCATED BY OWNER            |
| RR-8                | RAILROAD TRACK              | 12+71          | N.O. PUBLIC BELT RAILROAD      | RELOCATED BY OWNER            |

| NEW FACILITIES |                           |          |                                          |                               |
|----------------|---------------------------|----------|------------------------------------------|-------------------------------|
| ITEM NO.       | DESCRIPTION               | STA. W/L | OWNER                                    | DISPOSITION                   |
| P-1A           | 6600 VOLT ELECTRIC FEEDER | 11+21.61 | SEWERAGE AND WATER BOARD OF N.O. (POWER) | TO BE CONSTR. BY GOV'T CONTR. |
| D-6            | 12" STORM DRAIN           | 13+16    | SEWERAGE AND WATER BOARD OF NEW ORLEANS  | " " " "                       |
| CB-6           | CATCH BASIN               | 13+16    | " " " "                                  | " " " "                       |
| CB-7           | CATCH BASIN               | 13+16    | " " " "                                  | " " " "                       |
| VMH-8          | DRAIN VALVE MANHOLE       | 13+16    | " " " "                                  | " " " "                       |
| MH-3           | MANHOLE                   | 13+16    | " " " "                                  | " " " "                       |
| RR-5A          | RAILROAD SWITCH           |          | N.O. PUBLIC BELT RAILROAD                | TO BE CONSTR. BY OWNER        |
| MH-4           | DRAIN MANHOLE             | 13+16    | S. & W.B. N.O.                           | TO BE CONSTR. BY GOV. CONTR.  |

NOTE:  
Contractor shall provide a barrier to separate his construction servitude from the Harbor Police parking area. A minimum of 3' clearance shall be maintained between the construction servitude and the perimeter of the dog pen.



SECTION (B)  
SCALE: 3/16" = 1'-0"

|                                                 |                                       |                    |
|-------------------------------------------------|---------------------------------------|--------------------|
| 6-20-84                                         | REVISED CONSTRUCTION SERVITUDE LIMITS | SJM                |
| SUPERSEDES FILE NOS. H-4-29269 & H-8-28779      |                                       |                    |
| REVISION                                        | DATE                                  | DESCRIPTION        |
| MISSISSIPPI RIVER LEVEES ORLEANS LEVEE DISTRICT |                                       |                    |
| ITEM H-94.9 TO 94.8-L                           |                                       |                    |
| CANAL ST. TO TOULOUSE ST. FLOODWALL-PHASE I     |                                       |                    |
| SUPPLEMENT A                                    |                                       |                    |
| DESIGN MEMORANDUM NO. 65                        |                                       |                    |
| RELOCATION OF FACILITIES                        |                                       |                    |
| PROJECT PLAN                                    |                                       |                    |
| U.S. ARMY ENGINEER DISTRICT NEW ORLEANS         |                                       |                    |
| CORPS OF ENGINEERS                              |                                       |                    |
| DATE: MAY 1984                                  | DWG. 3 OF 3                           | FILE NO. H-4-29641 |

FLOOD CONTROL, MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-94.9 TO 94.6-L  
CANAL-TOULOUSE STREET FLOODWALL  
ORLEANS PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 65

REPLY TO  
ATTENTION OF:

14 DEC '82

LMNED-SR

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65

President  
Mississippi River Commission  
ATTN: MRCEd-TD

1. The subject design memorandum is submitted herewith for review and approval in accordance with the provisions of ER 1110-2-1150 dated 19 June 1970.
2. The final Environmental Impact Statement (EIS) for the Mississippi River Levees and Channel Improvements projects, which includes the Canal-Toulouse St. Floodwall was filed with the Council on Environmental Quality (CEQ) and the notice of its availability was published in the Federal Register on 16 April 1976. No inadequacies in the EIS were reported.
3. A cultural resources survey will be conducted prior to floodwall construction. The purpose of the cultural resources survey will be to ascertain the existence of archeological resources in the work area and to determine the applicable procedures to be followed to avoid damage to the archeological resources, if any are found. Additionally, specifications covering the work to be performed in constructing and maintaining the levees provide for preservation of any items of apparent historical or archeological interest which may be discovered in the course of construction activities. The specifications will require immediate notification of proper authorities if any items of this nature are encountered, and will further require that the work cease until the items can be classified and salvaged, if salvage is considered appropriate.
4. The Section 404 public notice for this reach of levee (Orleans Levee District) was issued on 20 October 1976. No adverse comments were received. In compliance with applicable regulations pursuant to Section 404(b) of Federal Water Pollution Control Act, a statement of findings covering proposed future construction of Mississippi River Levees within the New Orleans District was submitted to the Environmental Protection Agency (EPA) on 14 July 1978. The statement of findings was approved on 6 November 1978. A Section 404 Reevaluation in compliance with December 1980 EPA guidelines for Dredged Material Disposal will be completed by June 1983.

14 DEC 82

LMNED-SR

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65

5. Based on studies and investigations at this stage of design, the proposed action will not jeopardize the continued existence of any endangered species or threatened species or adverse modification of habitat of such species.

6. The latest PB-2A (OMB ER 013, run date 11 Sep 82, effective 15 Sep 82) shows total relocations cost of \$988,000, with \$561,000 and \$427,000 to be expended in FY 83 and FY 84, respectively. The current working estimate for all relocations is \$647,000. Based on the scheduled project award date of August 1983, we estimate obligations and expenditures of \$200,000 in FY 83 and \$447,000 in FY 84. The surplus of FY 83 funds (\$361,000) will be used elsewhere in the Mississippi Levees program. These changes will be reflected in the Current Year (Congressional Submission) program which is now being prepared. The proposed levels of expenditures for this item of work will contribute toward maintaining the currently estimated completion date for the overall Mississippi River Levee project.

7. Approval of the design memorandum is recommended.

1 Incl (11 Sets)  
Design Memorandum No. 65

ROBERT C. LEE  
Colonel, CE  
Commanding

*Gelpi*  
*10/28/82*

GREEN  
LMNED-SR  
*12/10/82*  
TICKNER

LMNED-SR  
*700/10*  
HARRINGTON

LMNED-S  
JUDLIN  
LMNED-D

*12/11*  
SHELTON  
LMNED-P

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CHATRY  
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MRCED-TD (NOD 14 Dec 82) 1st Ind

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi, River  
Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall,  
Orleans Parish, Louisiana, Relocation of Facilities,  
DM No. 65

DA, Mississippi River Commission, Corps of Engineers, Vicksburg, Mississippi 39180

07 MAR '83

TO: Commander, New Orleans District, ATTN: LMNED-SR

Approved, subject to the following comments:

- a. Para 6 of the forwarding letter states that estimated obligations and expenditures are \$200,000 in FY 83, and \$447,000 in FY 84. However the PB-2a (1 Jan 83-Congressional Submission) lists expenditures for FY 83 as \$128,000, with \$496,000 for FY 84, and \$23,000 for FY 85. This discrepancy should be resolved.
- b. Paras 4b and 8b and Plates 2, 3, and 4. If not previously accomplished, you should investigate the possibility of shifting the alignment of the floodwall slightly to the riverside. It appears this could be accomplished without jeopardizing the stability of the floodwall and would avoid relocation of at least a portion of the New Orleans Public Belt Railroad (NOPBRR).
- c. Para 4c(3), Page 5. The 3d column "Affected Length" should be "Design Life."
- d. Para 5d(2) and 7c. These paragraphs refer to relocation of item S-2 by the Government Contractor; however, this item has not been previously discussed in the report (Para 4c (3)). This apparent omission should be rectified.
- e. Paras 4d (2), 7c, and 9c (2). These paragraphs stipulate that the 6,600 volt underground feeder will be relocated by the Government Contractor according to plans and specifications prepared by the owner and under the supervision of the Government Inspection. The Government should not impose this requirement on the floodwall Contractor. The owner should be responsible for all aspects of moving this underground feeder except the installation of the concrete duct through the steel sheet piling (as depicted on plate 10). This work should be done under a cost-reimbursable contract with the Sewerage and Water Board of New Orleans. If that agency is not capable of such work, they should be responsible for subcontracting with a firm that is in the electrical business.
- f. Para 7b.

(1) Either the Government Contractor or the railroad should handle Items RR-2 and RR-3. Problems could develop with both working on same items.



MRCED-TD (NOD 14 Dec 82) 1st Ind

07 MAR '83

SUBJECT: Flood Control, Mississippi River & Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 65

(2) It is not apparent why the NOPBRR does not perform items RR-1 and RR-4. This should be explained.

g. Para 7c and Para 8. The Government should perform all coordination with the owners of facilities to be relocated under the floodwall contract. Also, the owners' plans and specifications should be reviewed and approved by the NOD and issued as part of the Government floodwall specifications.

h. Para 11, Estimate of Cost, pages 11 through 16.

(1) Note 2 at the bottom of each cost estimate table shows zero salvage value. This note should be supplemented with some explanation of why no salvage value is considered.


(2) Lump sum quantities are shown for all items of relocation. Lump sum items are not reviewable and not in accordance with ECI 73-301.1(1) and EM 1110-2-1301, Section 2-1. The lump sum items should be broken down by quantities and unit prices wherever possible, and adequate descriptions of plan of relocation should be furnished when lump sum items are used for minor relocation items.

i. The attorney's report cites that an ownership dispute is in being relative to a facility designated as W-2, a waterline, shown on Schedule A, para B, which crosses the proposed floodwall at Station 1+30 shown on Plate 1. Guidance as set forth by ER 1180-1-1, Section 73, para 73-204 requires that a compensable interest must be established prior to entering into negotiation for a contract for relocation of a utility adversely affecting the construction or operation of the project. Where there is no specific ownership established, as in the case at hand, it follows that no compensable interest has been established for W-2 waterline.

j. Refer to corrections in red on pages 4, 5, 8 and 9.

FOR THE COMMANDER:

1 Incl  
marked cy  
wd 10 cys Incl 1

  
R. H. RESTA, P.E.  
Chief, Engineering Division

LMNED-SR (NOD 14 Dec 82) 2d Ind

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River  
Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall,  
Orleans Parish, Louisiana, Relocation of Facilities, DM No. 65

DA, New Orleans District, Corps of Engineers, P.O. Box 60267, New Orleans,  
Louisiana 70160 5 July 1983

TO: President, Mississippi River Commission, ATTN: MRCED-TD

The recommended disposition of 1st Ind comments is as follows:

a. Comment a. Paragraph 6 of the forwarding letter includes estimated obligations and expenditures based on the 11 Sep 82 PB-2A. Your comment references the 1 Jan 83 PB-2A. This explains the differences in estimated obligations and expenditures designated for FY 83, FY 84, and FY 85.

b. Comment b. The Canal-Toulouse floodwall alinement, as shown in our Relocation Design Memorandum, was approved by the City of New Orleans Planning Commission on 6 August 1980 after a lengthy review by all concerned parties. By letter of 20 January 1983, the City of New Orleans asked this District to consider a 13-foot riverward shift in the floodwall alinement between Canal Street and Bienville Street to preserve options for possible installation of mass transit facilities in the area. Based upon coordination with numerous involved interests, the shift proposed by the city is apparently favored. It also involves additional costs estimated at \$258,000, which, since a prior alinement had been approved by the city, and since the proposed shift is to preserve future options for the city, must properly be borne by other than the Corps. In order to minimize delay in upgrading protection in this, the most critical reach on the New Orleans east bank, we have decided to construct the job in two phases, the first being the section between Toulouse and Bienville Streets, and the second the section between Bienville and Canal Streets. Plans are essentially complete for the first reach, the alinement is acceptable to all, and funds are available, so that we can proceed to construction this fiscal year, or at worst, early next fiscal year. Should the city be agreeable to providing the additional funds involved, we can complete designs for the Phase II work and have it under contract in about a year. If this alinement shift as proposed is approved, a supplement to RDM No. 65 will be issued.

c. Comment c. We concur. The 3d column heading on page 5 will be corrected to read "Design Life".

d. Comment d. We concur. The item shown as S-1 is mislabeled, it should be S-2. Item S-1 was left out. Item S-2 has been correctly labeled and Item S-1 has been inserted on page 4, paragraphs 4c(3).

e. Comment e. This District was requested by the Sewerage and Water Board of New Orleans (S&WB) to study the feasibility of the Government's Contractor executing the relocation work related to P-1. After consideration of the issues involved, this District feels that the relocation work could be coordinated better and could be performed at less cost by the Government's Contractor.

5 July 1983

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, DM No. 65

f. Comment f(1). The work procedure outlined for items RR-2 and RR-3 complies with the requirements set by the railroads in order to maintain both train traffic and traffic control at all times during floodwall construction. An intense coordination schedule will be developed in the P&S to alleviate problems.

Comment f(2). New Orleans Public Belt Railroad (NOPBRR) indicated that it lacked the personnel required to perform the relocations and requested that the Government's Contractor do the relocation work related to RR-1 and RR-4. This district agreed to accommodate the request.

g. Comment g. We concur. The statement: "The Government will perform all coordination with the owners of facilities to be relocated under the floodwall contract. Owners' plans and specifications, when required, shall be reviewed and approved by New Orleans District and issued as part of the Government floodwall specifications."; will be appended to paragraphs 7c and 8 of RDM No. 65.

h. Comment h. (1) and (2). We concur. We have inclosed a cost estimate appendix which gives specific details of cost to include the appropriate note covering salvage value conclusions and wherever possible lump sum items have been either broken down by quantities and unit prices or descriptions of plan of relocation furnished.

i. Comment i. We concur. NOD has asked the Orleans Levee Board to identify the owner of W-2. In the interim, item W-2 will be labeled "Owner unknown, disposition - cut and plug by Government's contractor." When the owner's identity is established, both RDM 65 and the attorney's opinion will be revised accordingly and a supplement to RDM 65 will be issued. Also see paragraph b. above.

j. Comment j. Typographical errors on pages 4, 5, 8, and 9 have been corrected.

k. Additional information recently made available on item P-1 (relocation of S&WB's 6.6 kV electrical feeders) has led to a revision of the previous cost estimate for this facility. Table E (S&WB Estimate of Cost) and Table 8 (Cost Comparison Summary) have been adjusted accordingly. See inclosure 2. The figure corresponding to the current working estimate for all relocations as shown on paragraph 6, second sentence, of document forwarding letter should now read \$708,400.

1. The following additional changes in RDM No. 65 are recommended:

1. On page B items RR-6 and RR-7 have been deleted since they are not existing facilities. They are the new replacement facilities for the existing item RR-1. Item D-1 has been re-identified as 10' storm drain and catch basin.

5 July 1983

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall, Orleans Parish, Louisiana, Relocation of Facilities, DM No. 65

2. On page 1, paragraph 2.b. was amended to read: "Local Cooperation. The furnishing of rights-of-way for floodwalls, levee foundations, and for levees except for levee setbacks (and floodwalls in setbacks) on the main stem Mississippi River is an obligation of local interests. (See Section 3, Act of 15 May 1928.)"

3. On page 3, items RR-6 and RR-7 have been properly identified by the insertion of the following line: "Items RR-6 and RR-7 are the replacement (new) facilities for the existing item RR-1."

4. On page 5, items RR-6 and RR-7 have been deleted from the first sentence of paragraph 5.c. as corollary to the changes made to pages B, 3, and 5.

5. On page 10, paragraph 9.d. has been amended to read: "Levee District Responsibility. The Orleans Levee District, as the local assuring agency, will be requested to effect railroad and utility relocations, except for the falsework and other relocation work to be performed by the Government's contractor, in accordance with this design memorandum and subject to reimbursement of allowable cost not to exceed a given dollar amount. Upon notification by the NOD Real Estate Division, the Levee District will advise the affected facility owners of the dollar limit available to accomplish relocation of their facilities. The dollar limit provided will be based on actual cost (less any betterments and salvage and plus removal cost, as applicable). Upon completion of the relocations for which reimbursements are to be made, the Orleans Levee District will furnish New Orleans District Real Estate Division with itemized billings which should include a copy of any contracts (including plans and specifications) covering work performed by others or itemized billings for labor and materials if the work was performed by the owner, and a copy of all cancelled checks covering related payments, prior to the Levee District's payment to the contractor and/or facility owners, for New Orleans District Engineering Division's review and approval. Further, all records related to the reimbursement request will be subject to audit by the Government and original time cards of payrolls, material records, and accounts for all charges and expenditures for which reimbursement will be claimed from the Government will be available at all reasonable times for Government inspection. Finally, as far as practicable, separate records will be maintained for all items and accounts constituting the basis of information from which the invoices are prepared. Variances between billings and the dollar limits available shall be resolved before payments are made. Upon New Orleans District Engineering Division's review and approval of the itemized billings submitted, New Orleans District Real Estate Division will instruct the Levee District to make payment. After payments are made the Levee District will furnish New Orleans District Real Estate Division with a reimbursement assembly consisting of a resolution of the Board of Levee Commissioners of the Orleans Levee District releasing the United States of America from all liabilities and claims, a billing, and a copy of the cancelled check with indorsement or receipt for check. Upon receipt and approval of the appropriate reimbursement assembly, reimbursement will be made."

LMNED-SR (NOD 14 Dec 82) 2d Ind

5 July 1983

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River  
Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall,  
Orleans Parish, Louisiana, Relocation of Facilities, DM No. 65

6. Disposition of items W-3, W-5, and W-6 has been changed from "relocate by  
Sewerage and Water Board" to "relocate by Government's Contractor". In  
addition items W-4 and W-8 have been abandoned and will be cut and plugged by  
the Government's contractor. These revisions are reflected in the inclosed  
Table E.

FOR THE COMMANDER:

1 Incl  
wd all incl  
Added 1 incl  
2. Cost Estimates Appendix

FREDERIC M. CHATRY  
Chief, Engineering Division

CF: w/o incl, w/1st Ind  
LMNED-D  
LMNRE-A

*TP*  
GREEN  
LMNED-SR  
*885*  
GAGLIANO  
LMNED-SR  
*7045*  
HARRINGTON  
LMNED-S  
CHATRY  
LMNED  
*6 CW5*  
SHELTON  
LMNED-P

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MRCED-TD (NOD 14 Dec 82) 3d Ind  
SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River  
Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall,  
Orleans Parish, Louisiana, Relocation of Facilities, DM No. 65

DA, Mississippi River Commission, Corps of Engineers, Vicksburg, MS 39180  
10 AUG '83

TO: Commander, New Orleans District, ATTN: LMNED-SR

Satisfactory subject to resolution of the following comments:

a. Para a. This office does not have an approved CYP dated 11 Sep 82. Cost estimates cited should refer to an approved CYP and should be compared in tabular form to the estimates contained on the latest approved PB-3.

b. Para b. Your response does not address the matter discussed in para b of the 1st Ind; i.e., can a riverward shift in alignment be accomplished without jeopardizing the stability of the floodwall but yet avoid relocation of a portion of the New Orleans Public Belt Railroad (NOPBRR). You should present the results of your investigations regarding this matter.

c. Para i. The establishment of the identity of the owner of the facility designated as W-2, a waterline; the revision of the attorney's opinion; the approval of the supplement to the RDM; and the acquiring of permission from the owner for the Government to cut and plug the said waterline, should be accomplished prior to advertisement of bids.

d. Appendix, Detailed Cost Estimates.

(1) Table C, 0.4 Railroads. Subtotal of facilities R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>6</sub>, and R<sub>7</sub>, show \$148,400, whereas the total of figures shown is \$127,400. This table should be corrected.

(2) Table E, 0.7 Utilities and Structures. Items W-1, W-2, W-3, and W-4 have errors in addition and/or transferring figures from owners cost to total costs. See comments in red on the inclosure (Incl 2).

(3) The cost tables should be resubmitted with corrections made. Costs should be summarized by cost account numbers and compared to latest approved PB-3 since the costs vary from those shown in Table 8 of the original submission.

FOR THE COMMANDER:

1 Incl  
nc

*for* Robert J. Kaufman, P.E.  
R. H. RESTA, P.E.  
Chief, Engineering Division

LMNED-SR (NOD 14 Dec 82) 4th Ind  
SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River  
Levees, Item #94.9 to 94.6-L, Canal-Toulouse Street Floodwall,  
Orleans Parish, Louisiana, Relocation of Facilities, DM No. 65

DA, New Orleans District, Corps of Engineers, P.O. Box 60267, New Orleans,  
Louisiana 70160 2 September 1983

TO: President, Mississippi River Commission, ATTN: MRCEB-TD

The recommended disposition of 3d Ind comments is as follows:

a. Comment a. Paragraph a. Follow-up coordination with facility owners and local interests, after submission of the RDM, resulted in a reevaluation of the scheduled timing of expenditures during FY 83 thru FY 85. The revisions were then reflected in the 1 Jan 83 Congressional submission which was to serve as the basis of the CYP. Since the CYP was last submitted, the project has been divided into two separate contracts. Phase I will be awarded in September 1983 and Phase II may be awarded in late FY 84 (the schedule is not firm at this time). These changes will be reflected in the September 1983 OMB submission. Table 8 of the report contains a cost estimate compared to the latest approved PB-3 of 29 Sep 82, effective 1 Oct 82. (Inclosed is revised Table 8 showing increase in current working estimate over the original submission.)

b. Comment b. Paragraph b. A 13-foot riverward shift in the floodwall alinement can be accomplished without jeopardizing the floodwall stability. A realinement of the floodwall would also avoid the relocation of a portion of the New Orleans Public Belt Railroad trackage, but more importantly, as explained in paragraph 5 of 2d Indorsement, local interests favor such a shift, which would involve added local costs. Again, as indicated in paragraph b, 2d Indorsement, should a firm commitment to provide those costs eventuate, we will provide the appropriate design and administrative documentation for the new alinement.

c. Comment c. Paragraph i. We concur.

d. Comment d. We concur. Cost tables have been corrected and are inclosed herein, together with Table 8.

FOR THE COMMANDER:

1 Incl  
wd all incl  
Added 1 incl  
3. Cost Estimates Appendix

FREDERIC M. CHATRY  
Chief, Engineering Division

GREEN  
LMNED-SR  
GAGLIANO  
LMNED-SR  
HARRINGTON  
LMNED-S  
JUDLIN  
LMNED-D  
PICCOLA  
LMNED-F  
SHELTON  
LMNED-FP  
CHATRY  
LMNED

MRCED-TD (NOD 14 Dec 82) 5th Ind

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River  
Levees, Item M-94.9 to 94.6-L Canal-Toulouse Street Floodwall  
Orleans Parish, Louisiana, Relocation of Facilities, Design  
Memorandum No. 65

DA, Mississippi River Commission, Corps of Engineers, Vicksburg, MS 39180

26 SEP '83

TO: Commander, New Orleans District, ATTN: LMNED-SR *By 30 Oct 83*

Information in the 4th Ind is satisfactory.

FOR THE PRESIDENT OF THE COMMISSION:

wd incl

*Robert J Kaufman, P.E.*  
*for* R. H. RESTA, P.E.  
Chief, Engineering Division



STATUS OF DESIGN MEMORANDUMS

| <u>Design<br/>Memo<br/>No.</u> | <u>Title</u>                                                                                                                                                                                   | <u>Actual (A) or<br/>Scheduled (S)<br/>Submission Date</u> |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 1                              | Flood Control, Mississippi River and Tributaries, Item M-25.0-R, Buras Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities                                                  | 23 Nov 70 (A)                                              |
| 2                              | Flood Control, Mississippi River and Tributaries, Item M-26.0-R, Upper Buras Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities                                            | 21 Jan 71 (A)                                              |
| 3                              | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, Louisiana Relocation of Facilities                 | 11 Jun 71 (A)                                              |
| 4                              | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-10.7-R, Venice Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities       | 6 Apr 71 (A)                                               |
| 5                              | Lower Red River -- South Bank Red River Levees, Item R-117.0-R (1957 Mileage), Levee Enlargement, Rapides-Cotton Bayou Levee, Rapides Parish, Louisiana, Relocation of Facilities              | 22 Jan 71 (A)                                              |
| 6                              | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-31.3-R, Tropical Bend Levee Setback, Plaquemines Parish, Louisiana Relocation of Facilities                 | 30 Mar 71 (A)                                              |
| 7                              | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-10.4-R, Lower Venice Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities | 27 Aug 71 (A)                                              |
| 8                              | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-18.9-R, Fort Jackson-Boothville Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities  | 30 Nov 72 (A)                                              |
| 9                              | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-21.5-R, Childress Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                | 23 Sep 71 (A)                                              |
| 10                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-23.2-R, Buras-Triumph Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities            | 31 May 73 (A)                                              |

STATUS OF DESIGN MEMORANDUMS (cont'd)

| <u>Design<br/>Memo<br/>No.</u> | <u>Title</u>                                                                                                                                                                                                               | <u>Actual (A) or<br/>Scheduled (S)<br/>Submission Date</u> |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 11                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-55.3-R, Upper Junior Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities                                             | 21 Jun 71 (A)                                              |
| 12                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-51.0-L, Gravolet Levee Enlargement and Setback, Plaquemines Parish, Louisiana Relocation of Facilities                                  | 14 Sep 72 (A)                                              |
| 13                             | Flood Control, Mississippi River and Tributaries, Lower Red River - South Bank Red River Levees, Item R-123.5-R (1957 Mileage), Scott Home-Bertrand Levee Enlargement, Rapides Parish, Louisiana, Relocation of Facilities | 15 Sep 72 (A)                                              |
| 14                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-96.9-R, Amelia Street Levee, Jefferson Parish, Louisiana, Relocation of Facilities                                                      | 31 Aug 71 (A)                                              |
| 15                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-41.7-R, Port Sulphur Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities                             | 28 Jan 74 (A)                                              |
| 16                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-33.4-R, Nairn Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                                                | 22 Dec 75 (A)                                              |
| 17                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-37.7-R, Homeplace Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                                            | 5 Jan 73 (A)                                               |
| 18                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-57.7-R, Myrtle Grove Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                                         | 31 Jan 73 (A)                                              |
| 19                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-28.0-R, Empire Levee Enlargement, Plaquemines Parish, Louisiana, Relocatio of Facilities                                                | 30 Aug 74 (A)                                              |

STATUS OF DESIGN MEMORANDUMS (cont'd)

| <u>Design<br/>Memo<br/>No.</u> | <u>Title</u>                                                                                                                                                                                   | <u>Actual (A) or<br/>Scheduled (S)<br/>Submission Date</u> |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 20                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-49.5-R, Woodland Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                 | 24 Aug 73 (A)                                              |
| 21                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-47.2-R, Nolan Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                    | 29 Jun 73 (A)                                              |
| 22                             | Flood Control, Mississippi River and Tributaries, Mississippi River levee, Item M-45.0-R, Socola Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                    | 28 Nov 72 (A)                                              |
| 23                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-75.0-L, Scarsdale Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities                    | 7 Dec 73 (A)                                               |
| 24                             | Flood Control, Mississippi River and Tributaries, Mississippi River levee, Item M-89.5-R, Cutoff Levee Setback, Orleans Parish, Louisiana, Relocation of Facilities                            | 20 Dec 74 (A)                                              |
| 25                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-130.0-L, Gypsy Levee Setback, St. Charles Parish, Louisiana, Relocation of Facilities                       | 30 Dec 74 (A)                                              |
| 26                             | Flood Control, Mississippi River and Tributaries, Atchafalaya River Levees, Item A-31.3-L, Cross Bayou Levee Setback, Pointe Coupee Parish, Louisiana, Relocation of Facilities                | 8 Nov 74 (A)                                               |
| 27                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M- 39.0-R, Freeport Levee Enlargement, Plaquemines Parish, Louisiana                                          | 27 Dec 74 (A)                                              |
| 28                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-30.2-R, Upper Empire Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities | 30 Apr 75 (A)                                              |

STATUS OF DESIGN MEMORANDUMS (cont'd)

| <u>Design<br/>Memo<br/>No.</u> | <u>Title</u>                                                                                                                                                                                                                                  | <u>Actual (A) or<br/>Scheduled (S)<br/>Submission Date</u> |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 29                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-63.0-L, Monsecour Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                                                               | 15 Oct 75 (A)                                              |
| 30                             | Flood Control, Mississippi River and Tributaries, Atchafalaya River Levees, Item A-25.5-R, Goudeau Levee Setback, St. Landry Parish, Louisiana, Relocation of Facilities                                                                      | 30 Jun 76 (A)                                              |
| 31                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-320 to 303-R, Fifth Louisiana Levee District Levee Enlargement, Concordia, West Feliciana, and Pointe Coupee Parishes, Louisiana, Relocation of Facilities | 30 Jun 75 (A)                                              |
| 32                             | Flood Control, Mississippi River and Tributaries, Atchafalaya River Levees, Item A-4.6-L, Legonier Levee Setback, Pointe Coupee Parish, Louisiana, Relocation of Facilities                                                                   | 30 Sep 75 (A)                                              |
| 33                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-35.0-R, Nairn Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities                                                                       | 22 Dec 75 (A)                                              |
| 34                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-99.0-L, Louisiana Avenue Floodwall, Orleans Parish, Louisiana, Relocation of Facilities                                                                    | 21 Oct 75 (A)                                              |
| 35                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-144.5-L, Angelina Levee Setback, St. John the Baptist Parish, Louisiana, Relocation of Facilities                                                          | 12 Dec 75 (A)                                              |
| 36                             | Flood Control, Mississippi River and Tributaries, Mississippi River levees, Item M-205.0-R, Point Pleasant Levee Setback, Iberville Parish, Louisiana, Relocation of Facilities                                                               | 29 Nov 76 (A)                                              |
| 37                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-58.0-L, St. Sophie Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                                                              | 15 Sep 75 (A)                                              |

STATUS OF DESIGN MEMORANDUMS (cont'd)

| <u>Design<br/>Memo<br/>No.</u> | <u>Title</u>                                                                                                                                                                                              | <u>Actual (A) or<br/>Scheduled (S)<br/>Submission Date</u> |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 38                             | Flood Control, Mississippi River and Tributaries, Atchafalaya River Levees, Item A-38.0-L, Holloway Lake Levee Setback, Pointe Coupee Parish, Louisiana<br>Relocation of Facilities                       | 26 Mar 76 (A)                                              |
| 39                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-90.5-L, Chalmette Slip Levee Enlargement, St. Bernard Parish, Louisiana<br>Relocation of Facilities                    | 5 May 77 (A)                                               |
| 40                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-95.5-L, Thalia-Poydras Levee Setback, Orleans Parish, Louisiana,<br>Relocation of Facilities                           | 10 Jun 76 (A)                                              |
| 41                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-217.5-L, Chariot Levee Setback, East Baton Rouge Parish, Louisiana,<br>Relocation of Facilities                        | 11 Jun 76 (A)                                              |
| 42                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-52.6-R and M-52.1-R<br>Junior and Lower Junior Levee Setbacks, Plaquemines Parish, Louisiana, Relocation of Facilities | 24 Jan 77 (A)                                              |
| 43                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-86.0-R, Stanton Levee Setback, Orleans Parish, Louisiana, Relocation of Facilities                                     | 10 Oct 78 (A)                                              |
| 44                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M- 215.3-L, Manchac Bend Levee Setback, East Baton Rouge Parish, Louisiana,<br>Relocation of Facilities                  | 23 Dec 76 (A)                                              |
| 45                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-28.5-R, Empire Levee Setback, Plaquemines Parish Louisiana, Relocation of Facilities                                   | 16 Dec 77 (A)                                              |
| 46                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-49.0-R, Woodland Levee Setback, Plaquemines Parish, Louisiana,<br>Relocation of Facilities                             | 28 Nov 77 (A)                                              |

STATUS OF DESIGN MEMORANDUMS (cont'd)

| <u>Design<br/>Memo<br/>No.</u> | <u>Title</u>                                                                                                                                                                                                                             | <u>Actual (A) or<br/>Scheduled (S)<br/>Submission Date</u> |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 47                             | Flood Control, Mississippi River and Tributaries,<br>Atchafalaya Basin Floodway, New Berwick Floodwall,<br>St. Mary Parish, Louisiana, Relocation of Facilities                                                                          | 14 Mar 79 (A)                                              |
| 48                             | Flood Control, Mississippi River and Tributaries,<br>Atchafalaya Basin Floodway, New Morgan City Floodwall,<br>St. Mary Parish, Louisiana, Relocation of Facilities                                                                      | 16 Mar 81 (A)                                              |
| 49                             | Flood Control, Mississippi River and Tributaries,<br>Atchafalaya Basin Floodway, New Tiger Island Floodwall,<br>St. Mary Parish, Louisiana, Relocation of Facilities                                                                     | 17 Oct 79 (A)                                              |
| 50                             | Flood Control, Mississippi River and Tributaries,<br>Mississippi River Levees, Item M-24.8-R, Buras-Triumph<br>Levee Setback, Plaquemines Parish, Louisiana, Relocation<br>of Facilities                                                 | 30 Sep 77 (A)                                              |
| 51                             | Flood Control, Mississippi River and Tributaries,<br>East Atchafalaya Basin Protection Levee, Item E-69.0<br>and E-73.3, Levee Enlargements, St. Martin and<br>Iberville Parishes, Louisiana, Relocation of Louisiana<br>State Route 997 | 3 Jun 77 (A)                                               |
| 52                             | Flood Control, Mississippi River and Tributaries,<br>Mississippi River Levees, Item M-100.0-L, Nashville-<br>Napoleon Floodwall, Orleans Parish, Louisiana<br>Relocation of Facilities                                                   | 25 Aug 77 (A)                                              |
| 53                             | Flood Control, Mississippi River and Tributaries,<br>Mississippi River Levees, Item M-88.0-R, Algiers Lock<br>Forebay Levee Enlargement, Orleans Parish, Louisiana,<br>Relocation of Facilities                                          | 1 Aug 77 (A)                                               |
| 54                             | Flood Control, Mississippi River and Tributaries,<br>Mississippi River Levees, Item M-29.4-R, Empire Lock<br>Modifications, Plaquemines Parish, Louisiana, Relocation<br>of Facilities                                                   | 19 May 78 (A)                                              |
| 55                             | Flood Control, Mississippi River and Tributaries,<br>West Atchafalaya Basin Protection Levee, Item W-86.0<br>Levee Enlargement, St. Mary Parish, Louisiana, Relocation<br>of Facilities                                                  | NOT SCHEDULED                                              |
| 56                             | Flood Control, Mississippi River and Tributaries,<br>East Atchafalaya Basin Protection Levee, Item E-89,<br>Driving Steel Sheet Piling and Levee Enlargement,<br>St. Mary Parish, Louisiana, Relocation of Facilities                    | 15 May 78 (A)                                              |

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| 57                             | Flood Control, Mississippi River and Tributaries, Algiers Point Setback, Levee Enlargement and Slope Pavement, Item M-94.3-R, Orleans Parish, Louisiana, Relocation of Facilities            | 8 Aug 79 (A)                                               |
| 58                             | Flood Control, Mississippi River and Tributaries, Item M-48.7-L, East Pointe-a-la-Hache Ferry Landing and Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities         | 2 Jun 78 (A)                                               |
| 59                             | Flood Control, Mississippi River and Tributaries, Jackson Avenue Floodgate, Item M-97.2-L, Orleans Parish, Louisiana, Relocation of Facilities                                               | 9 Jun 78 (A)                                               |
| 60                             | Flood Control, Mississippi River and Tributaries, Item M-303 to 293-R, Torras Levee Enlargement and Berm, Point Coupee Parish, Louisiana, Relocation of Facilities                           | 26 Jul 78 (A)                                              |
| 61                             | Flood Control, Mississippi River and Tributaries, East Atchafalaya Basin Protection Levee, Item E-36.0, Levee Enlargement, Iberville Parish, Louisiana, Relocation of Facilities             | 28 Mar 79 (A)                                              |
| 62                             | Flood Control, Mississippi River and Tributaries, Item M-292 to 283-R, Raccourci Levee Enlargement, Pointe Coupee Parish, Louisiana, Relocation of Facilities                                | 12 Jun 79 (A)                                              |
| 63                             | Flood Control, Mississippi River and Tributaries, West Atchafalaya Basin Protection Levee, Item W-85, Levee Enlargement, Iberia and St. Martin Parishes, Louisiana, Relocation of Facilities | 6 Oct 80 (A)                                               |
| 64                             | Flood Control, Mississippi River and Tributaries, Louisiana-Jackson Avenue Floodwall, Item M-98.2 to 97.2-L, Orleans Parish, Louisiana, Relocation of Facilities                             | 1 Jun 82 (A)                                               |
| 65                             | Flood Control, Mississippi River and Tributaries, Canal-Toulouse Street Floodwall, Item M-94.9-94.6-L, Orleans Parish, Louisiana, Relocation of Facilities                                   | Dec 82 (A)                                                 |
| 66                             | Flood Control, Mississippi River and Tributaries, West Atchafalaya Basin Protection Levee, Item W-117.0, Levee Enlargement, St. Mary Parish, Louisiana, Relocation of Facilities             | 15 Dec 80 (A)                                              |

STATUS OF DESIGN MEMORANDUMS (cont'd)

| <u>Design<br/>Memo<br/>No.</u> | <u>Title</u>                                                                                                                                                                                                              | <u>Actual (A) or<br/>Scheduled (S)<br/>Submission Date</u> |
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| 67                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-56.1-L, Harlem Levee Setback Plaquemines Parish, Louisiana, Relocation of Facilities                                                   | 17 Feb 82 (A)                                              |
| 68                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-71.0-L, Linwood Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities                                                 | 16 Mar 81 (A)                                              |
| 69                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-75.6 - 74.5-L, Scarsdale-Stella Levee Setback and Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities                 | 9 Jun 81 (A)                                               |
| 70                             | Flood Control, Mississippi River and Tributaries, West Atchafalaya Basin Protection Levee, Item W-68.0, Levee Enlargement & Berms, St. Martin Parish, Louisiana, Relocation of Facilities                                 | Mar 83 (S)                                                 |
| 71                             | Flood Control, Mississippi River and Tributaries, East Atchafalaya Basin Protection Levee, Item E-58.0A, Levee Enlargement & Berms, Iberville Parish, Louisiana, Relocation of Facilities                                 | 27 Mar 81 (A)                                              |
| 72                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.3-R and M-97.2-R, Algiers and Gretna Ferry Terminal Floodwalls, Orleans and Jefferson Parishes, Louisiana, Relocation of Facilities | 2 Nov 81 (A)                                               |
| 73                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.3, Algiers Point Setback and Floodwall, Orleans Parish, Louisiana, Relocation of Facilities                                         | Apr 83 (S)                                                 |
| 74                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-94.3-93.5-L, Barracks-Desire Street Floodwall, Orleans Parish, Louisiana, Relocation of Facilities                                     | Apr 84 (S)                                                 |
| 75                             | Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-93.5-92.8-L, Desire-IHNC Floodwall, Orleans Parish, Louisiana, Relocation of Facilities                                                | Apr 84 (S)                                                 |



FLOOD CONTROL, MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-94.9 TO 94.6-L  
CANAL-TOULOUSE STREET FLOODWALL  
ORLEANS PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 65

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APPENDIX A

REVISED ATTORNEY'S INVESTIGATION  
AND  
REPORT ON COMPENSABLE INTEREST

APPENDIX B

REVISED COST ESTIMATES

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## PERTINENT DATA

### Location:

The Canal St. to Toulouse St. Floodwall, Item M-94:9 to 94.6-L is located in Orleans Parish, Louisiana on the east bank of the Mississippi River between the levee stations 445+00 and 470+00 (approximate river miles 94.8 above the Head of Passes).

### Purpose:

The Mississippi River and Tributaries Flood control project embodies a plan to protect the Lower Mississippi Valley against the project design flood. The plan includes the use of levees, floodways, channel improvements and major tributary flood control improvements. Specifically, Item M-94.9 to 94.6-L is designed to provide flood protection to a portion of the Greater New Orleans Area.

### Authorization:

The Flood Control Act of 15 May 1928 (Public Law 391, 70th Congress), as amended, provides authorization for the project.

### Local Assuring Agency:

The local assuring agency for the Canal St. to Toulouse St. floodwall is the Board of Levee Commissioners of the Orleans Levee District.

### Description

The Canal St. to Toulouse St. floodwall is a proposed improvement to a reach of the main line levee on the east bank of the Mississippi River in the City of New Orleans, Orleans Parish, Louisiana, at approximate river mile 94.8 above the Head of Passes. The determination to construct a floodwall in the subject reach, is based on the lowest overall cost for the project after consideration is given to engineering, environmental, limitations of available rights-of-way, and the desirability of minimizing relocations. The proposed floodwall alinement results in the least disruption of the facilities located in the subject reach. The proposed improvement consists of 2,450 linear feet of concrete I-wall and 6 vehicular gates, of which 4 are for roads and 2 are for railroads. The proposed floodwall will top out at elevation 23.0 N.G.V.D., the Mississippi River and Tributaries project design grade.

LIST OF EXISTING FACILITIES

| ITEM  | OWNER                                     | DESCRIPTION                         | DISPOSITION | PLATE    |
|-------|-------------------------------------------|-------------------------------------|-------------|----------|
| R-1   | City of New Orleans (CNO)                 | Canal St.                           |             |          |
| R-2   | CNO                                       | Bienville St.                       | Relocate    | 2        |
| R-3   | CNO                                       | Conti St.                           | Relocate    | 4        |
|       |                                           |                                     | Relocate    | 4        |
| RR-1  | New Orleans Public Belt Railroad (NOPBRR) | Railroad Track                      | Relocate    | 2, 3 & 4 |
| RR-2  | NOPBRR                                    | Railroad Track                      | Relocate    | 4        |
| RR-3  | Louisville & Nashville Railroad (L&NRR)   | Railroad Track                      | Relocate    | 4        |
| RR-4  | NOPBRR                                    | Railroad Track                      | Relocate    | 4 & 5    |
| RR-5  | NOPBRR                                    | Switch                              | Relocate    | 4        |
| * *   |                                           |                                     |             |          |
| T-1   | South Central Bell (SCB)                  | Buried Telephone Cables             | Relocate    | 2        |
| E-1   | New Orleans Public Service (NOPSI)        | Buried Electric Cables              | Relocate    | 2        |
| E-2   | NOPSI                                     | Buried Electric Cables              | Relocate    | 4        |
| G-1   | NOPSI                                     | Buried 4" Gas Main                  | Relocate    | 2        |
| * D-1 | Sewerage & Water Board (S&WB) :           | 10" Storm Drain & Catchbasin        | Relocate    | 2        |
| D-2   | S&WB                                      | 10" Storm Drain & Manhole           | Relocate    | 2        |
| D-3   | S&WB                                      | 10" Storm Drain & Catch Basin       | Relocate    | 2        |
| S-1   | S&WB                                      | 8" Sewer Line                       | Relocate    | 2        |
| S-2   | S&WB                                      | 8" Sewer Line & Manhole             | Relocate    | 2        |
| W-1   | S&WB                                      | 6" Water Line, Fire Hydrant & Valve | Relocate    | 2        |
| W-2   | Owner Unknown                             | 10" Water Line                      | Abandoned   | 2        |
| W-3   | S&WB                                      | 12" Water Line                      | Relocate    | 2        |
| W-4   | S&WB                                      | 8" Water Line                       | Relocate    | 3        |
| W-5   | S&WB                                      | 8" Water Line                       | Relocate    | 3 & 4    |
| W-6   | S&WB                                      | 16" Water Line                      | Relocate    | 4        |
| W-8   | S&WB                                      | 8" Water Line                       | Relocate    | 6        |
| P-1   | S&WB                                      | 6.6 kV Electrical Feeders           | Relocate    | 4        |

\* REVISED 15 APRIL 1983 - LMNED-DD

\*\* ITEMS RR-6 & RR-7 DELETED, 15 APRIL 1983 - LMNED-PM

1. PURPOSE OF DESIGN MEMORANDUM. The purpose of this design memorandum is to present the plans for the relocation and alteration of facilities which will be affected by the construction of Item M-94.9 to 94.6-L, Canal St. to Toulouse St. Floodwall, hereinafter referred to as the Canal-Toulouse reach. It is being submitted in compliance with Part 3, Section LXXIII, ER 1180-1-1, dated 1 July 1980 and DIVR 1110-2-1, dated 29 January 1968. It establishes the necessity for the relocation of the facilities and the plan of relocation; it establishes the legal obligation of the Federal Government, and where appropriate, it will provide the basis for reimbursing the Orleans Levee District for costs incurred in accomplishing the relocations described herein.

2. PROJECT AUTHORIZATION.

a. Authorization. Authority for construction, enlargement, or improvement of main line Mississippi River levees and thereby, for the Canal St. to Toulouse St. Floodwall project, is contained in the Flood Control Act of 15 May 1928 (Public Law 391, 70th Congress), as amended. Authority for Federal reimbursement of costs to local cooperating agencies incurred in the course of accomplishing the relocation of interfering facilities is contained in the Act of 23 April 1934 (Public Law 171, 73d Congress). Pursuant to the provisions of DIVR 1110-2-1, which provides the policy for the relocation of public roads, highways, railroads, public utilities, structures, and public pipelines, as required for the construction of main line Mississippi River levees, all relocations will be accomplished at Federal expense.

\* b. Local Cooperation. The furnishing of rights-of-way for floodwalls, levee foundations, and for levees except for levee setbacks on the main stem Mississippi River is an obligation of local interests. (See Section 3, Act of 15 May 1928.)

3. AUTHORITY FOR ACCOMPLISHING RELOCATIONS. The Flood Control Act of 15 May 1928 (P.L. 391, 70th Congress) provides the authority for accomplishing the relocations described herein. Policy for relocations is provided by DIVR 1110-2-1. The legal obligations of the Federal Government regarding the affected facilities and the extent of authority for the relocations described herein are as established in the attorney's report which is attached as Appendix I.

4. DESCRIPTION OF EXISTING FACILITIES AFFECTED BY THE PROJECT.

a. Roads. The City of New Orleans, Department of Streets owns various streets which will be affected by the project. Canal Street consists of a 9" (approximate) thick reinforced concrete slab over compacted shell base with a bituminous wearing course of unknown thickness. Bienville and Conti Streets consist of a bituminous wearing course laid over paving cobblestones placed on a compacted shell base. Above described streets cross the proposed floodwall and extend riverward to the wharf line and are therefore affected by the floodwall.

\* REVISED 15 APRIL 1983 - LMNRE - P

| <u>Item</u> | <u>Description</u><br><u>Width</u><br><u>Condition</u> | <u>Wall Line Station</u>    |
|-------------|--------------------------------------------------------|-----------------------------|
| R-1         | Canal St.<br>75'<br>Good                               | Plate 2<br>* 1+19 to 2+63   |
| R-2         | Bienville St.<br>40'<br>Good                           | Plate 4<br>* 10+77 to 11+07 |
| R-3         | Conti St.<br>30'<br>Good                               | Plate 4<br>* 15+04 to 15+38 |

b. Railroads.

(1) The New Orleans Public Belt Railroad (NOPBRR) owns the following railroad tracks which will be affected by the project.

| <u>Item</u><br><u>Type</u>         | <u>Description</u><br><u>Condition</u>                                                                                      | <u>Affected Length</u> | <u>Wall Line Station</u><br><u>Plate</u> |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------|
| RR-1<br>Single<br>Mainline         | 80 lb, 39' Rails<br>7"x9"x8.5' Treated Crossties<br>23 Ties Per Rail<br>Crushed Rock Ballast<br>Fair                        | 1194 Linear Feet       | 0+31 to 12+25<br>Plates 2, 3 & 4         |
| RR-2<br>Single<br>Mainline         | 80 lb, 30' Rails<br>7"x9"x8.5' Treated Crossties<br>23 Ties Per Rail<br>Crushed Rock Ballast<br>Good                        | 80 Linear Feet         | 11+94 to 12+79<br>Plate 4                |
| RR-4<br>Single<br>Mainline         | 80 lb, 39' Rails<br>7"x9"x8.5' Treated Crossties<br>23 Ties Per Rail<br>Clam Shell and Crushed<br>Rock Ballast<br>Inactive  | 425 Linear Feet        | 15+85 to 19+75<br>Plates 4 & 5           |
| RR-5<br>Switch<br>To Be<br>Removed | 80 lb, 39' Curved Rails<br>7"x9"x8.5' Treated Crossties<br>23 Ties Per Rail<br>Clam Shell & Crushed Rock<br>Ballast<br>Good | 200 Linear Feet        | 12+46 to 14+46<br>Plate 4                |

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\* Items RR-6 and RR-7 are the replacement (new) facilities for the existing item RR-1.

| <u>Item Type</u>                     | <u>Description Condition</u>                                                                                               | <u>Length</u>    | <u>Wall Line Station Plate</u>                                      |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------|
| RR-6<br>Switch<br>To Be<br>Installed | 80 lb, 30" Curved Rails<br>7"x9"x8.5' Treated Crossties<br>23 Ties Per Rail<br>Clam Shell & Crushed Rock<br>Ballast<br>New | 200 Linear Feet  | To Be Located<br>Upstream of<br>Station 0+00 not<br>Shown on Plates |
| RR-7<br>New Track                    | 80 lb, 39' Curved Rails<br>7"x9"x8.5' Treated Crossties<br>Clam Shell & Crushed Rock<br>Ballast<br>New                     | 1045 Linear Feet | 3+40 to 14+46<br>Plates 2, 3 & 4                                    |

(2) The Louisville & Nashville Railroad Company owns the following railroad track which will be affected by the project.

| <u>Item Type</u>           | <u>Description Condition</u>                                                                                 | <u>Affected Length</u> | <u>Wall Line/Station Plate</u> |
|----------------------------|--------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------|
| RR-3<br>Single<br>Mainline | 100 lb, Continuous Rails<br>7"x9"x8.5' Treated Crossties<br>23 Ties Per Rail<br>Crushed Rock Ballast<br>Good | 80 Linear Feet         | 15+48 to 16+37<br>Plate 4      |

c. Utilities.

(1) South Central Bell Telephone Company (SCB) owns item T-1, shown on Plate 2, which will be affected by this project. Item T-1 represents buried telephone cables, consisting of one 1,200 pair, 24 guage cable and one 600 pair, 24 guage cable. This item consists of nine 4-inch-diameter PVC conduits which cross the floodwall alinement at wall line station 0+23 (Plate 2). All nine conduits are encased in concrete. Temporary relocation will be necessary due to the driving of the steel sheet piling and the floodgate bearing piles. Approximately 270 linear feet of each conduit and cable will be affected by construction of the floodwall. The installation date for this facility is 1973 and the facility is in good condition.

(2) New Orleans Public Service Incorporated (NOPSI) owns the powerline facilities which will be affected by the project. The NOPSI facilities are all underground facilities. Temporary relocation will be necessary due to the driving of the steel sheet piling and the floodgate bearing piles.

The facilities are in good condition. The design life for NOPSI facilities is estimated to be 50 years. The affected facilities are as follows.

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| <u>Item No.</u> | <u>Description<br/>Condition</u>                 | <u>Installation Date<br/>Design Life<br/>Affected Length</u> | <u>Wall Line Station<br/>Plate</u> |
|-----------------|--------------------------------------------------|--------------------------------------------------------------|------------------------------------|
| E-1             | 24 kV Underground<br>Electrical Conduit<br>Good  | 1980<br>50 Years<br>80 Linear Feet                           | * 1+28<br>Plate 2                  |
| E-2             | One 3-inch Underground<br>Electrical<br>Good     | Unknown<br>50 Years<br>17 Linear Feet                        | * 14+95<br>Plate 4                 |
| G-1             | One 4-inch Underground<br>Steel Gas Main<br>Good | 1966<br>50 Years<br>17 Linear Feet                           | 3+02<br>Plate 2                    |

(3) The Sewerage and Water Board of New Orleans (SWB) owns the storm drains, sewerlines, waterlines and an underground powerline which will be affected by the project. These facilities cross the floodwall at various locations. These facilities were installed in the early 1900's and are in good condition. The affected facilities are as follows:

| <u>Item No.</u> | <u>Description<br/>Condition</u>                                    | <u>Design Life</u> | <u>Wall Line Station<br/>Plate</u> |
|-----------------|---------------------------------------------------------------------|--------------------|------------------------------------|
| D-1             | * 10"-inch-diameter<br>Concrete Storm Drain<br>& Catchbasin<br>Good | 75 Years           | * 2+65<br>Plate 2                  |
| D-2             | 10-inch-diameter<br>Concrete Storm Drain<br>Good                    | 75 Years           | * 2+10<br>Plate 2                  |
| D-3             | 10-inch diameter<br>Concrete Storm Drain<br><br>Good                | 75 Years           | 2+48<br>Plate 2                    |
| * S-1           | 8-inch-diameter<br>Clay sewerline<br>Good                           | 75 Years           | * 0+55<br>Plate 2                  |
| * S-2           | 8-inch-diameter<br>Clay sewerline & Manhole<br>Good                 | 75 Years           | 2+16<br>Plate 2                    |
| W-1             | 6-inch-diameter<br>Cast Iron Waterline<br>Good                      | 75 Years           | * 0+08 to 0+39<br>Plate 2          |

| <u>Item Type</u> | <u>Description Condition</u>                     | <u>* * Design Life</u> | <u>Wall Line Station Plate</u> |
|------------------|--------------------------------------------------|------------------------|--------------------------------|
| W-3              | 12-inch-diameter<br>Cast Iron Waterline<br>Good  | 75 Years               | * 2+03<br>Plate 2              |
| W-4              | 8-inch-diameter<br>Cast Iron Waterline<br>Good   | 75 Years               | * 5+57<br>Plate 3              |
| W-5              | 8-inch-diameter<br>Cast Iron Waterline<br>Good   | 75 Years               | * 10+48<br>Plate 3             |
| W-6              | 16-inch-diameter<br>Cast Iron Waterline<br>Good  | 75 Years               | * 15+00<br>Plate 4             |
| W-8              | 8-inch-diameter<br>Cast Iron Waterline<br>Good   | 75 Years               | * 23+67<br>Plate 6             |
| P-1              | 6.6 kV Underground<br>Feeders #26 & #226<br>Good | 100 Years              | * 11+48 to 16+28<br>Plate 4    |

5. OWNER'S COMPENSABLE INTEREST.

a. General. The attorney's report, which considers the compensable interest of the owners of the facilities affected by the proposed project, is attached as Appendix I.

b. Roads. The attorney's report provides that the City of New Orleans, a governmental agency has a compensable interest in all of its facilities (Items R-1, R-2, & R-3). In accordance with the provisions of the attorney's opinion, the Federal Government is authorized and obligated to pay for the relocation of the roads dislocated by the project. The Federal Government will adjust these roads as a part of the floodwall contract.

c. Railroads. The attorney's report provides that L&NRR (Item RR-3) and NOPBRR (Items RR-1, RR-2, RR-4, and RR-5) have a compensable interest in their trackage, which is located outside the existing levee right-of-way. In accordance with the provisions of the attorney's opinion, the Federal Government is authorized and obligated to reimburse L&NRR and NOPBRR for the relocation of the railroad trackage in which they have a compensable interest when these facilities must be relocated as a project requirement.

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d. Utilities.

(1) The attorney's report provides that SCB (Item T-1) and NOPSI (Items E-1, E-2, and G-1) have a compensable interest in their facilities which are located outside the existing levee right-of-way. In accordance with the provisions of the attorney's opinion, the Federal Government is authorized and obligated to reimburse SCB and NOPSI for the relocation of the underground cables and lines in which they have a compensable interest, when these facilities must be relocated as a project requirement.

(2) The attorney's report provides that the Sewerage and Water Board (S&WB)-items W-1 thru W-6, D-1 thru D-3, S-1, S-2, & P-1 - has a compensable interest in their facilities and the Federal Government is authorized and obligated to acquire or relocate above facilities. The Government's contractor (GC) will relocate items W-2 thru W-6, W-8, D-1 thru D-3, S-1, S-2, and P-1 as part of the floodwall contract. Item W-1 will be relocated by the S&WB prior to the floodwall contract award.

6. FIELD RECONNAISSANCE AND INVESTIGATION. Field surveys, field inspection, consultations, and correspondence with the affected facility owners and the Orleans Levee District provided the basic information from which this design memorandum and the proposed relocation plans were prepared. This work was accomplished principally by NOD's Relocation Section.

7. CRITERIA FOR RELOCATED FACILITIES.

a. Roads. The design criteria for the relocation of R-1 thru R-3 as required at the gate openings will be in accordance with the provisions of the "General Specifications and Standard Plans for Street Paving and Temporary Surfacing of the City of New Orleans, Louisiana", adopted 28 November 1969. The design standards used for proposed street relocations are the typical design standards used by the City of New Orleans Department of Streets. The street alterations will be designed by NOD and will be constructed by the Government's contractor.

b. Railroads. Review of the "American Railway Engineering Association (AREA) Manual for Railroad Engineering" and coordination with both NOPBRR and L&NRR provided the basis for establishing design criteria for the relocation of the subject trackage. Items RR-1, RR-4 (removal of track) and RR-7 (construction of sub-base for relocated river main track) will be performed by the Government's contractor (GC) in accordance with the owner's specifications. Items RR-2 and RR-3 (temporary removal of tracks) will be executed jointly by the owner and the GC acting in concert. Items RR-5 and RR-6 (switch relocations) will be effected by the owner prior to contract award.

Items RR-5 thru RR-7 relocations are required by the project floodwall alignment which is coincident with NOPBRR's "river main line" from station 0+31 W/L to 12+25 W/L. The switches RR-5 and RR-6 reroute traffic to the existing "city main" while RR-7 provides new "river main" service to replace the existing "river main" service.

c. Utilities. The relocation of items W-2 thru W-6, W-8, D-1 thru D-3, S-1, S-2, and P-1 will be accomplished by the GC in accordance with the owner's standards. The owner's of W-1, T-1, E-1, E-2, and G-1 will prepare their relocation plan and specifications according to their individual design criteria and will relocate them in coordination with the GC wherever necessary. The owner of P-1 will provide the corresponding relocation plans and specifications for inclusion with the floodwall's contract documents. The Government will perform all coordination with the owners of facilities to be relocated under the floodwall contract. The owner's plans and specifications will be reviewed and approved by the NOD and issued as part of the Government's drawings and specifications.

d. Betterments. It has been determined that the relocations, modifications and/or alterations to existing facilities shown in this report do not contain any betterments.

## 8. DESCRIPTION OF PROPOSED RELOCATIONS.

a. Roads. Items R-1 thru R-3 will be relocated by the Government's contractor. The relocation will consist of reconstructing these affected roads to their original condition along the existing road alignment. The floodwall contractor will remove the affected portion of the existing roadways in order to facilitate the driving of the floodgate steel sheet piling in the area. The relocated roadway structure will match the existing street section as closely as possible providing a smooth transition from the top of the proposed gate sills to the existing streets.

### b. Railroads.

(1) Item RR-1: The Government's Contractor (GC) will remove approximately 1194 feet of rail track including ties and related hardware of "river main line", located between stations 0+31 W/L and 12+25 W/L. GC will store materials removed in a location within the immediate proximity of an NOPBRR active track to be designated by NOPBRR.

(2) Item RR-2: NOPBRR will temporarily remove and replace a short section of its "city main line" track at the crossover location of gate No. 4 (stations 11+94 W/L to 12+79 W/L) in coordination with GC, who will supply and install temporary falsework required for the operation of the track during the gate construction phase.

(3) Item RR-3, Louisville & Nashville Railroad Co. will temporarily remove and replace a short section of its "city main line" track at the crossover location of gate No. 6 (stations 15+48 to 16+37) in coordination with GC, who will supply and install temporary falsework required for the operation of the track during the gate construction phase.

(4) Item RR-4: GC will remove approximately 425 feet of rail track including ties and related hardware on NOPBRR's inactive line, located between stations 15+85 W/L and 19+75 W/L. GC will store materials removed in a location within the immediate proximity of an NOPBRR active track.

(5) Item RR-5: NOPBRR will remove a switch connecting its "river main" with the "Bienville Wharf line" located between stations 12+46 W/L and 14+46 W/L, and install a new switch, approximately between above stations, connecting its "city main" to the "Bienville Wharf line". RR-5 must be completed prior to floodwall construction start date.

(6) Item RR-6: NOPBRR will install a switch track connecting their "river main line" to their "city main line". This switch will be located upstream of station (0+00 W/L). RR-6 must be completed prior to floodwall construction start date.

(7) Item RR-7: GC will prepare (excavate, level and compact) the sub-base for the relocated "river main line" which will be re-positioned on the river side of the floodwall. The center line of the relocated "river main line" will be placed no closer than 10 feet from floodwall face and will extend approximately from station 3+40 W/L to 14+83 W/L where it will tie to existing "Bienville Street Wharf line". NOPBRR will furnish NOD the necessary alinement data for this work, and will install the ballast, ties, and rails to complete the relocation of this facility.

NOPBRR will designate which ties are to be salvaged, others will be turned over to GC for removal and disposal.

c. Utilities.

(1) South Central Bell. Relocation of T-1 will be concurrent with floodwall construction. SCB will uncover existing T-1 at proposed floodwall crossing point and inform the Government's Contractor (GC) of new T-1's floodwall crossing location. GC will drive sheet pile at designated location and provide an opening and sleeve in the sheet pile. GC will defer driving pile at existing T-1 location until SCB passes conduit thru sleeve, constructs new telephone manhole on the flood side of the wall, connects and activates new T-1 and deactivates existing T-1. GC will then cut thru abandoned T-1 and drive sheet pile at its location.

(2) New Orleans Public Service, Inc. The facilities to be relocated have been identified as:

a. E-1; underground conduit and cables at Canal Street, located at station 1+28 W/L.\*

b. F-2; underground conduit and cables at Conti Street, located at station 14+95 W/L.\*

c. G-1; 4" underground steel gas line, located at station 3+02 W/L.

The proposed relocations work sequence will be as follows:

a. E-1: The Government's contractor (GC) will uncover, note the elevation of, and protect existing E-1 at floodwall crossing; excavate and inspect the new E-1 floodwall crossing and if clear will drive sheet pile and provide an opening and sleeve at same elevation of existing E-1. NOPSI will then construct and activate new E-1, deactivate, pull out cables and abandon old E-1. GC will then cut through abandoned facility and drive sheet pile.

b. E-2: GC will excavate and inspect the floodwall crossing location for temporary E-2, if clear, GC will drive sheet pile and will leave a 24-inch gap in the sheet pile. GC will also uncover and protect existing E-2, deactivate and pull cables out of existing E-2. GC will then cut existing E-2 in a manner satisfactory to NOPSI, drive sheet piling thru and provide an opening and sleeve matching existing E-2 location. NOPSI will then restore and reactivate existing E-2 and deactivate and abandon temporary E-2. GC will cut thru temporary E-2 and drive sheet pile in its location.

c. G-1: GC will uncover G-1 at crossover point. NOPSI will disconnect, cut and remove the affected section of gas line. GC will drive sheet pile and provide an opening and sleeve. NOPSI then will reconnect and activate G-1.

(3) Sewerage & Water Board (S&WB). Items W-2 thru W-6, W-8, D-1 thru D-3, S-2, S-2, & P-1 will be relocated by the GC. Item W-1 will be relocated by the S&WB prior to the floodwall contract award. The Government will perform all required coordination with the owner of the facilities to be relocated under the floodwall contract. Whenever required the owner's relocation plan and specifications will be reviewed and approved by the NOD and issued as part of the floodwall drawings and specifications.

## 9. PROCEDURE FOR ACCOMPLISHING RELOCATIONS.

a. Roads. This district will prepare the detailed plans and specifications for the relocation of R-1 thru R-3 and will accomplish the adjustments in accordance with this design memorandum, and in conjunction with the floodwall construction contract. The City of New Orleans Street Department and the Dock board will review and approve the design of roadways. No new road right-of-way will be required.

b. Railroads. The NOPBRR and the L&NRR will prepare detailed plans and specifications for the relocation of their trackage (Items RR-1 thru RR-7) and will accomplish the relocations in accordance with this design memorandum, and in conjunction with the floodwall construction contract, except for the falsework and roadbed for RR-7. All relocation plans will be reviewed by this district to determine if they are compatible with floodwall plans. This district will prepare the detailed plans and specifications for the construction of the falsework required for the relocation of Items RR-2 and RR-3 and construction of railroad bed for RR-7. The construction will be accomplished in accordance with this design memorandum and in conjunction with the floodwall construction contract. The falsework

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plans will be reviewed and approved by the railroad companies. All railroad relocation work will be closely coordinated between the railroad companies and the floodwall contractor.

c. Utilities.

(1) South Central Bell Telephone Company and the New Orleans Public Service, Inc., will prepare detailed plans and specifications for the relocation of their facilities (Items T-1, E-1, E-2, and G-1), and will accomplish the relocations in accordance with this design memorandum and in conjunction with the floodwall construction contract. These relocation plans will be reviewed by this district to determine if the plans are compatible with the floodwall plans. All telephone and electric facility relocations will be closely coordinated between the facility owners and the Government's contractor.

(2) The Sewerage & Water Board (S&WB) will prepare drawings and specifications for item P-1 for inclusion with floodwall drawings and specifications. NOD will prepare drawings and specifications for the relocation of items W-2 thru W-6, D-1 thru D-3, S-1, and S-2. The relocation work for these items will be performed by the GC. Item W-1 will be relocated by S&WB prior to the floodwall contract award.

\* \* d. Levee District Responsibility. The Orleans Levee District, as the local assuring agency, will be requested to accomplish the railroad and utility relocations, except for the falsework and other relocation work to be performed by the Government's Contractor, in accordance with this design memorandum and subject to reimbursement of allowable cost not to exceed a given dollar amount. Upon notification by the NOD Real Estate Division, the Levee District will advise the affected facility owners of the dollar limit available to accomplish relocation of their facilities. The dollar limit provided will be based on the approved design memorandum; however, reimbursement will be based on actual cost (less any betterments and salvage and plus removal cost, as applicable). Upon completion of the relocations for which reimbursements are to be made, the Orleans Levee District will furnish New Orleans District Real Estate Division with itemized billings which should include a copy of any contracts (including plans and specifications) covering work performed by others or itemized billings for labor and materials if the work was performed by the owner, and a copy of all cancelled checks covering related payments, prior to the Levee District's payment to the contractor and/or facility owners, for New Orleans District Engineering Division's review and approval. Further, all records related to the reimbursement request will be subject to audit by the Government and original time cards of payrolls, material records, and accounts for all charges and expenditures for which reimbursement will be claimed from the Government will be available at all reasonable times for Government inspection. Finally, as far as practicable, separate records will be maintained for all items and accounts constituting the basis of information from which the invoices are prepared. Variances between billings and the dollar limits available shall be resolved before payments are made.

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Upon New Orleans District Engineering Division's review and approval of the itemized billings submitted, New Orleans District Real Estate Division will instruct the Levee District to make payment. After payments are made the Levee District will furnish New Orleans District Real Estate Division with a reimbursement assembly consisting of a resolution of the Board of Levee Commissioners of the Orleans Levee District releasing the United States of America from all liabilities and claims, a billing, and a copy of the cancelled check with indorsement or receipt for check. Upon receipt and approval of the appropriate reimbursement assembly, reimbursement will be made.

10. ATTITUDE OF OWNERS. All affected facility owners have responded satisfactorily to all requests for information and have indicated their willingness to cooperate in matters pertaining to the project.

11. ESTIMATE OF COST. Estimates of cost for accomplishing the proposed relocations have been prepared in accordance with the policy set forth in ER 1180-1-1, and are based on plans for relocation, as proposed by or agreed to by the affected owners. These estimates are presented in Tables 2 thru 8.

\* TABLE 2 - ESTIMATE OF COST  
CITY OF NEW ORLEANS - STREETS  
(NOVEMBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description         | Unit | Quantity | Lump<br>Sum<br>Cost (\$) |                            | Amounts   |
|----------------------|---------------------|------|----------|--------------------------|----------------------------|-----------|
|                      |                     |      |          | Owner                    | Government's<br>Contractor |           |
| 02                   | Relocations         |      |          |                          |                            |           |
| 0.1                  | Roads               |      |          |                          |                            |           |
|                      | Canal St. (R-1)     |      |          |                          |                            |           |
|                      | Bienville St. (R-2) |      |          |                          |                            |           |
|                      | and Conti St. (R-3) | LS   | LS       | -                        | \$83,300                   | \$ 83,300 |
|                      | Relocations Cost    |      |          |                          |                            | \$ 83,300 |
|                      | Contingencies (25%) |      |          |                          |                            | \$ 20,900 |
|                      | Subtotals.          |      |          |                          |                            | \$104,200 |
| 30                   | E&D (6%+)           |      |          |                          |                            | \$ 6,300  |
| 31                   | S&A (6%+)           |      |          |                          |                            | \$ 6,300  |
|                      | TOTALS              |      |          |                          |                            | \$116,800 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none.
- 3/ Removal - no reimbursement, removal will be effected by Government's contractor
- 4/ Betterment - none.

\* REFER TO COST ESTIMATE APPENDIX



\* TABLE 3 - ESTIMATE OF COST  
LOUISVILLE & NASHVILLE RAILROAD  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description          | Unit | Quantity | Lump<br>Sum<br>Cost (\$) |                            | Amounts  |
|----------------------|----------------------|------|----------|--------------------------|----------------------------|----------|
|                      |                      |      |          | Owner                    | Government's<br>Contractor |          |
| 02                   | Relocation           |      |          |                          |                            |          |
| 0.4                  | Railroads            |      |          |                          |                            |          |
|                      | Item RR-3            | LS   | LS       | 5,600                    | 16,400                     | 22,000   |
|                      | Relocation Cost      |      |          | 5,600                    | 16,400                     | 22,000   |
|                      | Contingencies (25%+) |      |          | 1,400                    | 4,100                      | 5,500    |
|                      | Subtotals            |      |          | 7,000                    | 20,500-                    | 27,500   |
| 30                   | E&D (6%+)            |      |          | 420                      | 1,230                      | 1,650    |
| 31                   | S&A (6%+)            |      |          | 420                      | 1,230                      | 1,650    |
|                      | TOTALS               |      |          | 7,840                    | 22,960                     | \$30,800 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none.
- 3/ Removal - no reimbursement, removal will be effected by Government's contractor.
- 4/ Betterment - none.

\* REFER TO COST ESTIMATE APPENDIX

\* TABLE 4 - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC BELT RAILROAD  
 (MARCH 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description          | Unit | Quantity | Lump<br>Sum<br>Cost (\$) |                            | Amounts   |
|----------------------|----------------------|------|----------|--------------------------|----------------------------|-----------|
|                      |                      |      |          | Owner                    | Government's<br>Contractor |           |
| 02                   | Relocation           |      |          |                          |                            |           |
| 0.4                  | Railroads            |      |          |                          |                            |           |
|                      | Item RR-1            | LS   | LS       |                          | 24,000                     | 24,000    |
|                      | Item RR-2            | LS   | LS       | 2,000                    | 20,000                     | 22,000    |
|                      | Item RR-4            | LS   | LS       |                          | 8,000                      | 8,000     |
|                      | Item RR-5            | LS   | LS       | 25,000                   | -                          | 25,000    |
|                      | Item RR-6            | LS   | LS       | 21,000                   | -                          | 21,000    |
|                      | Item RR-7            | LS   | LS       | 44,000                   | 4,400                      | 48,400    |
|                      | RELOCATION COST      |      |          | 92,000                   | 56,400                     | 148,400   |
|                      | Contingencies (25%+) |      |          | 23,000                   | 14,000                     | 37,000    |
|                      | Subtotals            |      |          | 115,000                  | 70,400                     | 185,400   |
| 30                   | E&D (6%+)            |      |          | 6,800                    | 4,200                      | 11,000    |
| 31                   | S&A (6%+)            |      |          | 6,800                    | 4,200                      | 11,000    |
|                      | TOTALS               |      |          | 128,600                  | 78,800                     | \$207,400 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none.
- 3/ Removal - no reimbursement, removal will be effected by Government's contractor
- 4/ Betterment - none.

\* REFER TO COST ESTIMATE APPENDIX

\* TABLE 5 - ESTIMATE OF COST  
SOUTH CENTRAL BELL TELEPHONE COMPANY  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description          | Unit | Quantity | Lump<br>Sum<br>Cost (\$) |                            | Amounts  |
|----------------------|----------------------|------|----------|--------------------------|----------------------------|----------|
|                      |                      |      |          | Owner                    | Government's<br>Contractor |          |
| 02                   | Relocations          |      |          |                          |                            |          |
| 0.7                  | Utilities            |      |          |                          |                            |          |
|                      | Item T-1             | LS   | LS       | 23,440                   | 2,160                      | 25,600   |
|                      | RELOCATION COST      |      |          | 23,440                   | 2,160                      | 25,600   |
|                      | Contingencies (25%+) |      |          | 5,860                    | 540                        | 6,400    |
|                      | Subtotals            |      |          | 29,300                   | 2,700                      | 32,000   |
| 30                   | E&D (6%+)            |      |          | 1,740                    | 160                        | 1,900    |
| 31                   | S&A (6%+)            |      |          | 1,740                    | 160                        | 1,900    |
|                      | TOTALS               |      |          | 32,780                   | 3,020                      | \$35,800 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none.
- 3/ Removal - no reimbursement, removal will be effected by Government's contractor.
- 4/ Betterment - none.

\* REFER TO COST ESTIMATE APPENDIX

\* TABLE 6 - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description            | Unit | Quantity | Lump<br>Sum<br>Cost (\$) |                            | Amounts   |
|----------------------|------------------------|------|----------|--------------------------|----------------------------|-----------|
|                      |                        |      |          | Owner                    | Government's<br>Contractor |           |
| 02                   | Relocations            |      |          |                          |                            |           |
| 0.7                  | Utilities & Structures |      |          |                          |                            |           |
|                      | Item W-1               | LS   | LS       | 10,200                   | 1,500                      | 11,700    |
|                      | Item W-2               | LS   | LS       | 3,000                    | 1,000                      | 4,000     |
|                      | Item W-3               | LS   | LS       | 3,200                    | 1,000                      | 4,200     |
|                      | Item W-4               | LS   | LS       | 2,300                    | 1,000                      | 3,300     |
|                      | Item W-5               | LS   | LS       | 2,300                    | 1,000                      | 3,300     |
|                      | Item W-6               | LS   | LS       | 3,900                    | 1,500                      | 5,400     |
|                      | Item W-8               | LS   | LS       | 2,300                    | 1,000                      | 3,300     |
|                      | Item D-1               | LS   | LS       | -                        | 5,500                      | 5,500     |
|                      | Item D-2               | LS   | LS       | -                        | 3,000                      | 3,000     |
|                      | Item D-3               | LS   | LS       | -                        | 3,000                      | 3,000     |
|                      | Item S-1               | LS   | LS       | -                        | 3,000                      | 3,000     |
|                      | Item S-2               | LS   | LS       | -                        | 6,000                      | 6,000     |
|                      | Item P-1               | LS   | LS       | -                        | ** 124,970                 | 124,970   |
|                      | RELOCATION COST        |      |          | 27,200                   | 153,470                    | 180,670   |
|                      | Contingencies (25%+)   |      |          | 6,800                    | 38,400                     | 45,200    |
|                      | Subtotals              |      |          | 34,000                   | 192,000                    | 226,000   |
| 30                   | E&D (6%+)              |      |          | 2,000                    | 11,500                     | 13,500    |
| 31                   | S&A (6%+)              |      |          | 2,000                    | 11,500                     | 13,500    |
|                      | TOTAL                  |      |          | 38,000                   | 215,000                    | \$253,000 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none.
- 3/ Removal - none.
- 4/ Betterment - none.

\* REFER TO COST ESTIMATE APPENDIX

\*\* REVISED 15 APRIL 1983 - LMNED-SR

\* TABLE 7 ESTIMATE OF COST  
NEW ORLEANS PUBLIC SERVICE, INC.  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description            | Unit | Quantity | Lump<br>Sum<br>Cost (\$) |                            | Amounts   |
|----------------------|------------------------|------|----------|--------------------------|----------------------------|-----------|
|                      |                        |      |          | Owner                    | Government's<br>Contractor |           |
| 02                   | Relocations            |      |          |                          |                            |           |
| 0.7                  | Utilities & Structures |      |          |                          |                            |           |
|                      | Item E-1               | LS   | LS       | 52,000                   | 2,000                      | 54,000    |
|                      | Item E-2               | LS   | LS       | 46,400                   | 2,600                      | 49,000    |
|                      | Item G-1               | LS   | LS       | 2,700                    | 1,050                      | 3,750     |
|                      | RELOCATION COST        |      |          | 101,100                  | 5,650                      | 106,750   |
|                      | Contingencies (25%+)   |      |          | 25,300                   | 1,300                      | 26,600    |
|                      | Subtotals              |      |          | 126,400                  | 6,950                      | 133,350   |
| 30                   | E&D (6%+)              |      |          | 7,600                    | 400                        | 8,000     |
| 31                   | S&A (6%+)              |      |          | 7,600                    | 400                        | 8,000     |
|                      | TOTALS                 |      |          | 141,600                  | 7,750                      | \$149,350 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none.
- 3/ Removal - none
- 4/ Betterment - none.

\* REFER TO COST ESTIMATE APPENDIX

12. COMPARISON WITH PRIOR COST ESTIMATES. The current working estimate of cost is summarized under the uniform cost classification for comparison with the latest approved cost estimate. The latest approved cost estimate is the PB-3 for the Mississippi River Levees project, New Orleans District, bearing an effective date of 1 October 1982 as approved 29 September 1982 for construction funds. Since the PB-3 contains the relocation cost estimates for the entire Mississippi River Levees project, the funds included for Item M-94.9 to 94.6-L. Canal-Toulouse St. Floodwall, have been broken out as follows for a suitable comparison.

APPENDIX A

REVISED ATTORNEY'S INVESTIGATION  
AND  
REPORT ON COMPENSABLE INTEREST

~~LMNRE-8~~ *dhb* JUL 01 1983

T13  
A19

# DISPOSITION FORM

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

REFERENCE OR OFFICE SYMBOL

SUBJECT

LMNED-SR

FCMR&T, Item M-94.4 to 94.6-L, Canal-Toulouse Floodwall  
Schedule A, Attorney's Report

TO C/Real Estate Div

FROM C/Engineering Div

DATE 1 Jul 83

CMT 1

Mr. Gelpi/jes/2625

*Jes* *J/J* *88*  
*79A*

Please revise the attorney's opinion and Schedule A - "List of Facilities by Owners" as shown in inclosures 1 and 2 and as explained below, at your earliest convenience.

a. The attorney's opinion should be amended by deleting in page 2 "Item II, The Compensable Interest of the Board of Commissioners, Port of New Orleans". Deletion of this item will resolve MRCED-TD's comment "i" shown in attached inclosure 3 and as explained by the next paragraph.

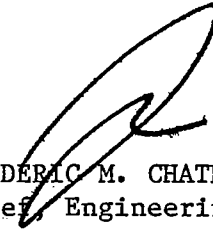
b. Schedule A should be revised by deleting item W-2, waterline. Ownership of this item has been disclaimed by the Sewerage and Water Board and by the Dock Board. We have asked the Orleans Levee Board for assistance in locating the owner of this facility, see inclosure 4. Until the owner of this facility is identified, W-2 will be considered as an "abandoned" item to be cut and plugged by the Government as part of the floodwall construction contract.

c. Other changes to Schedule A reflect changes in the wall line stationing of items W-1, W-3, W-4, W-5, W-6, W-8, D-2, S-1, P-1, E-1, E-2, R-1, R-2, and R-3 due to minor readjustments in wall alinement and gate locations.

d. In addition, the original item D-1, storm drain, will not be affected by the floodwall due to a modification in the wall foundation design. The label D-1 has been retained and now identifies a relocation item belonging to S&WB and not previously covered by Schedule A. This new D-1 is described as a 10-inch-diameter storm drain and catch basin located at station 2+65 WL.

e. The stationing for items D-3, S-2, T-1, G-1, RR-1, RR-2, RR-3, RR-4, and RR-5 remains unchanged.

4 Incl  
as

  
FREDERIC M. CHATRY  
Chief, Engineering Division

CF: w/o incl  
LMNED-DD  
LMNED-PM

REVISED  
ATTORNEY'S INVESTIGATION  
AND  
REPORT OF COMPENSABLE INTEREST

Item M-94.9 to 94.6-L  
Canal to Toulouse Street Floodwall  
Mississippi River Levees  
Orleans Parish, Louisiana

This investigation and report is made in accordance with DIVR 1110-2-2 (see also DIVR 1110-2-1, 29 January 1968) and ER 1180-1-1, Section 73, Part 3, 73-203 and 73-204, on the following facilities owned by various owners which will be affected by the subject project:

See attached Schedule A.

The above-mentioned facilities are located on plates 2 through 6 entitled "Relocation of Facilities, Project Plan Canal-Toulouse Street Floodwall, Item M-94.9 to 94.6-L, Mississippi River Levees."

I.  
COMPENSABLE INTEREST  
OF  
THE SEWERAGE AND WATER BOARD  
OF THE CITY OF NEW ORLEANS

The Sewerage and Water Board of the City of New Orleans is a subdivision of the State of Louisiana. It was authorized pursuant to the authority of LA. REV. STAT. ANN. 33:4093. It has the power of eminent domain through the authority granted by LA. REV. STAT. ANN. 19:1.

There has been no evidence furnished to date that the right-of-way for the facilities listed in Paragraph A of Schedule A belonging to the Sewerage and Water Board was purchased from the underlying fee owners. However, a political subdivision having the power of eminent domain acquires a real right in the real estate of the facilities to be located through the Doctrine of Unopposed Use. Under this Doctrine, when a political corporation constructs facilities upon, under, or over property with the consent or acquiescence of the owner of the property such owner shall deem to have waived his right to contest or object to the taking of such property for public purposes, LA. REV. STAT. ANN. 19:14 and 19:1.

Accordingly, the Sewerage and Water Board had the real right to these facilities regardless of the ownership of the underlying land. Because it has a real right to this property, it has a compensable interest to all the facilities listed in Paragraph A of Schedule A.



II.  
COMPENSABLE INTEREST  
OF  
SOUTH CENTRAL BELL TELEPHONE COMPANY

South Central Bell Telephone Company is a Delaware corporation licensed to do business in the State of Louisiana. The company is considered to be a public utility by virtue of LA. REV. STAT. ANN. 45:781. Pursuant to this authority, South Central Bell possesses the right of eminent domain, LA. REV. STAT. ANN. 19:2(6).

The facility listed in Paragraph B on Schedule A is located outside existing levee right-of-way. There is no evidence furnished to date that the right-of-way for this facility was purchased from the fee owners. However, a public utility having the right of eminent domain possesses a vested right in the right-of-way in need of relocation, even without the use of conventional negotiation and acquisition of the subject right-of-way through the Doctrine of Unopposed Use, LA. REV. STAT. ANN. 19:1(6) and 19:14.

Therefore, South Central Bell Telephone Company does have a compensable interest to this facility where it is located outside existing floodwall right-of-way.

III.  
COMPENSABLE INTEREST  
OF  
NEW ORLEANS PUBLIC SERVICE, INC.

New Orleans Public Service is a Louisiana public utility domiciled in Orleans Parish. It provides electric and gas service throughout the Parish of Orleans. It has the right of eminent domain, LA. REV. STAT. ANN. 19:2(7). The facilities listed in Paragraph C of Schedule A are owned and maintained by New Orleans Public Service, Inc. They are located outside the existing floodwall right-of-way. There has been no evidence furnished to date that the right-of-way in need of relocation was purchased from a fee owner. However, a public utility with the power of eminent domain possesses a real right in the right-of-way in need of relocation even without the use of conventional negotiation and acquisition of the subject right-of-way through the Doctrine of Unopposed Use, LA. REV. STAT. ANN. 19:14 and 19:2(7).

Accordingly, New Orleans Public Service, Inc., does have a compensable interest through this facility where it is located outside the existing floodwall right-of-way.

IV.  
COMPENSABLE INTEREST  
OF  
THE NEW ORLEANS PUBLIC BELT RAILROAD

The New Orleans Public Belt Railroad is operated by the City of New Orleans through a commission known as the Public Belt Railroad Commission, LA. REV. STAT. ANN. 33:4530. The City of New Orleans through the Commission

has the power to operate a railroad system within or without the Parish of Orleans, LA. REV. STAT. ANN. 33:4530(b). It also has the right of eminent domain, LA. REV. STAT. ANN. 19:2(3).

The facility listed in Paragraph D of Schedule A lies outside of existing floodwall right-of-way. There is no evidence furnished to date that the right-of-way for these facilities was purchased from the fee owner. However, a corporation having the power of eminent domain possesses a vested right in the right-of way in need of relocation, even without the use of conventional negotiation and acquisition of the subject right-of-way, LA. REV. STAT. ANN. 33:4530 and 19:14.

Accordingly, New Orleans Public Belt Railroad has a compensable interest to these facilities where they are located outside existing floodwall right-of-way.

V.  
COMPENSABLE INTEREST  
OF  
THE CITY OF NEW ORLEANS

The City of New Orleans is municipality of the State of Louisiana. As a municipality, it holds in trust for the public fee title to the streets of the city. As a municipality it is also vested with the right of eminent domain, LA. REV. STAT. ANN. 33:4621.

There has been no evidence furnished to date that the City of New Orleans owns fee title to the streets. However, a municipality having the right of eminent domain acquires a real right to property due to consent or acquiescence of the landowner by virtue of the provisions of LA. REV. STAT. ANN. 33:4621 and 19:14. Thus, the City of New Orleans has a real right to the streets affected by the project.

Accordingly, the City of New Orleans has a compensable interest for those portions of the streets listed in Paragraph E of Schedule A as being affected by the project.

VI.  
COMPENSABLE INTEREST  
OF  
LOUISVILLE & NASHVILLE RAILROAD COMPANY

Louisville & Nashville Railroad Company is a Kentucky corporation licensed to do business in the State of Louisiana. It operates railroad facilities throughout the state. It is classified as a public utility by virtue of LA. REV. STAT. ANN. 33:4161. It has the power of eminent domain through the authority granted by LA. REV. STAT. ANN. 19:2(2).

There has been no evidence furnished to date that the right-of-way for the facilities listed in Paragraph F of Schedule A as being owned by Louisville & Nashville Railroad are located outside existing floodwall right-of-way. No

evidence has been furnished to date as to whether the railroad purchased the right-of-way from the fee owners. However, a corporation having the power of eminent domain has a real right to right-of-way in need of relocation through the consent or acquiescence of the landowner by virtue of LA. REV. STAT. ANN. 19:14. Thus, Louisville & Nashville Railroad Company has a real right to the right-of-way being affected by the project.

Accordingly, Louisville & Nashville Railroad Company has a compensable interest in the facilities listed in Paragraph F of Schedule A as being affected by the project.

VII.  
AUTHORITY AND OBLIGATION

Authority for the construction, enlargement, or improvement of mainline Mississippi River Levees, including berms, is contained in the Act of 15 May 1928 (Public Law No. 391, 70th Congress), as amended. The furnishing of right-of-way for levee foundations and levees on the mainline Mississippi River, except levee setbacks, is an obligation of local interest (See Section 3, Act of 15 May 1928). The replacement or relocation of public roads, highways, railroads, public utilities, and pipelines required for the construction of mainline Mississippi River Levees will be accomplished at Federal expense. Reimbursement of costs to local cooperating agencies in perfecting relocation of interfering facilities may be made pursuant to the Act of 23 April 1934 (Public Law No. 171, 73rd Congress).

Pursuant to authority granted by Public Law No. 91-646, EP 405-1-2, Section 3, Paragraph 6-14(a)(6) allows for the removal, reinstallation, reestablishment, including such modification as deemed necessary by the District Engineer, and reconnection of utilities for machinery, equipment, appliances, or other items, not acquired as real property.

VIII.  
SUMMARY

It is the obligation of the Federal Government to relocate all of the facilities listed in Paragraphs A, B, C, D, E, and F of Schedule A. All facilities will be handled in a normal manner pursuant to Act of 23 April 1934 (Public Law 171, 73rd Congress). Any facility which is considered to be abandoned will be removed with just compensation being the cost of removal.

3 August 1983  
DATE

Randy D. Florent  
RANDY D. FLORENT  
Attorney-at-Law  
U. S. Army Engineer District  
New Orleans

Schedule A  
Lists of Facilities by Owners

A. The Sewerage and Water Board of New Orleans owns facilities which cross the proposed floodwall alinement as listed below.

| <u>Item</u> | <u>Type</u>              | <u>Wall Line Station</u> | <u>Plate</u> |
|-------------|--------------------------|--------------------------|--------------|
| D-1         | Storm Drain & Catchbasin | 2+65                     | 2            |
| W-1         | Waterline                | 0+08 to 0+39             | 2            |
| S-1         | Sewerline                | 0+55                     | 2            |
| W-3         | Waterline                | 2+03                     | 2            |
| S-2         | Sewerline                | 2+16                     | 2            |
| D-2         | Storm Drain              | 2+10                     | 2            |
| W-4         | Waterline                | 5+57                     | 3            |
| W-5         | Waterline                | 10+48                    | 3 & 4        |
| P-1         | Electric Feeder          | 11+48 to 16+28           | 4            |
| W-6         | Waterline                | 15+00                    | 4            |
| W-8         | Waterline                | 23+67                    | 6            |
| D-3         | Drain Line               | 2+48                     | 2            |

B. South Central Bell Telephone Co. owns a facility which crosses the proposed floodwall alinement as listed below.

| <u>Item</u> | <u>Type</u>        | <u>Wall Line Station</u> | <u>Plate</u> |
|-------------|--------------------|--------------------------|--------------|
| T-1         | Telephone Conduits | 0+23                     | 2            |

C. New Orleans Public Service, Inc., owns facilities which cross the proposed floodwall alinement as listed below.

| <u>Item</u> | <u>Type</u>         | <u>Wall Line Station</u> | <u>Plate</u> |
|-------------|---------------------|--------------------------|--------------|
| E-1         | Electrical Conduits | 1+28                     | 2            |
| G-1         | Gasline             | 3+02                     | 2            |
| E-2         | Electrical Conduits | 14+95                    | 4            |

D. The New Orleans Public Belt Railroad owns railroad tracks which interfere with the proposed floodwall alinement as listed below.

| <u>Item</u> | <u>Type</u>    | <u>Wall Line Station</u> | <u>Plate</u> |
|-------------|----------------|--------------------------|--------------|
| RR-1        | Railroad Track | 0+31 to 12+25            | 2, 3 & 4     |
| RR-2        | Railroad Track | 11+94 to 12+79           | 4            |
| RR-4        | Railroad Track | 15+85 to 19+75           | 4 & 5        |
| RR-5        | Railroad Track | 12+46 to 14+46           | 4            |

E. City of New Orleans, Department of Streets owns facilities which cross the proposed floodwall alinement as listed below.

| <u>Item</u> | <u>Type</u>      | <u>Wall Line Station</u> | <u>Plate</u> |
|-------------|------------------|--------------------------|--------------|
| R-1         | Canal Street     | 1+19 to 2+63             | 2            |
| R-2         | Bienville Street | 10+77 to 11+07           | 4            |
| R-3         | Conti Street     | 15+04 to 15+38           | 4            |

F. Louisville & Nashville Railroad Co. owns the facility which crosses the proposed floodwall alinement as listed below.

| <u>Item</u> | <u>Type</u>    | <u>Wall Line Station</u> | <u>Plate</u> |
|-------------|----------------|--------------------------|--------------|
| RR-3        | Railroad Track | 15+48 to 16+37           | 4            |

APPENDIX B

REVISED COST ESTIMATES

1. REVISED TABLE 8
2. TABLES A, B, C, D, E & F

TABLE 8  
MISSISSIPPI RIVER LEVEE CONSTRUCTION  
COST COMPARISON SUMMARY

| Cost Acct. No. |             | Latest PB-3 (\$1,000's) | Current Working Estimate (\$1,000's) | Difference From PB-3 (\$1,000's) |
|----------------|-------------|-------------------------|--------------------------------------|----------------------------------|
| 02             | Relocations |                         |                                      |                                  |
| 0.1            | Roads       | 45.0                    | 104.0                                | + 59.0                           |
| 0.4            | Railroads   | 273.0                   | 213.0                                | - 60.0                           |
| 0.7            | Utilities   | 606.0                   | 391.0                                | -215.0                           |
| 30             | E&D         | 55.0                    | 55.0                                 | 0                                |
| 31             | S&A         | 55.0                    | 55.0                                 | 0                                |
|                | TOTAL       | 1,034.0                 | 818.0                                | -216.0                           |

13. JUSTIFICATION FOR COST REVISIONS.

a. Roads. The PB-3 estimate for the relocation of roads was made prior to the determination of the modifications to streets necessitated by the utility relocations. The increase in cost is attributed to those previously unknown modifications.

b. Railroads. The PB-3 estimate for the relocation of railroads and the current working estimate compare favorably. The reduction in cost for railroad relocations is attributed to a more refined estimate of cost than that used in the PB-3 estimate.

c. Utilities. The PB-3 estimate for the relocation of utilities was based on a preliminary floodwall alignment without detailed inspection and knowledge of the number and extent of affected facilities. Detailed investigations and subsequent cost estimates revealed less extensive overall utility modifications.

14. RECOMMENDATION. It is recommended that this design memorandum be approved as the basis for reimbursing the Orleans Levee District and floodwall contractor for costs incurred in accomplishing the road, railroad and utility relocations herein described.

TABLE A - ESTIMATE OF COST  
CITY OF NEW ORLEANS - STREETS  
(NOVEMBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description             | Unit   | Qty. | Unit<br>Price | COST  |                            |
|----------------------|-------------------------|--------|------|---------------|-------|----------------------------|
|                      |                         |        |      |               | Owner | Government's<br>Contractor |
| 02                   | Relocations             |        |      |               |       |                            |
| 0.1                  | Roads                   |        |      |               |       |                            |
|                      | Canal St. (R-1)         |        |      |               |       |                            |
|                      | 12" shell sub. base     | cu.yd. | 243  | \$ 30         | —     | 7,290                      |
|                      | 9" reinf. concrete slab | cu.yd. | 184  | \$222         | —     | 40,848                     |
|                      | 4" hot mix top          | tons   | 160  | \$ 60         | —     | 9,600                      |
|                      | Subtotal Canal St.      |        |      |               |       | \$57,738                   |
|                      | Beirville St. (R-2)     |        |      |               |       |                            |
|                      | 12" shell sub. base     | cu.yd. | 77   | \$ 30         | —     | 2,310                      |
|                      | 8" reinf. concrete slab | cu.yd. | 51   | \$222         | —     | 11,322                     |
|                      | 3/2" hot mix top        | tons   | 45   | \$ 60         | —     | 2,700                      |
|                      | Subtotal Beirville St.  |        |      |               |       | \$16,332                   |
|                      | Conti St. (R-3)         |        |      |               |       |                            |
|                      | 12" shell sub. base     | cu.yd. | 43   | \$ 30         | —     | 1,290                      |
|                      | 8" reinf. concrete slab | cu.yd. | 29   | \$222         | —     | 6,438                      |
|                      | 3/2" hot mix top        | tons   | 25   | \$ 60         | —     | 1,500                      |
|                      | Subtotal Conti St.      |        |      |               |       | \$9,228                    |
|                      | Relocations Cost        |        |      |               |       | \$83,300                   |
|                      | Contingencies (25%)     |        |      |               |       | 20,900                     |
|                      | Subtotal                |        |      |               |       | \$104,200                  |
| 30                   | E&D (6%+)               |        |      |               |       | 6,300                      |
| 31                   | S&A (6%+)               |        |      |               |       | 6,300                      |
|                      | Total                   |        |      |               |       | \$116,800                  |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.  
 2/ Salvage - none; material removed and not re-used has zero salvage value.  
 3/ Removal - no reimbursement; removal will be effected by Government's contractor.  
 4/ Betterment - none.



TABLE B - ESTIMATE OF COST  
LOUISVILLE & NASHVILLE RAILROAD  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                          | Unit | Qty. | Unit<br>Price | COST    |                            | Amounts  |
|----------------------|--------------------------------------------------------------------------------------|------|------|---------------|---------|----------------------------|----------|
|                      |                                                                                      |      |      |               | Owner   | Government's<br>Contractor |          |
| 02                   | Relocation                                                                           |      |      |               |         |                            |          |
| 0.4                  | Railroads<br>Item RR-3                                                               |      |      |               |         |                            |          |
|                      | Cut/remove & replace<br>track section over<br>falsework                              | LF   | 20   | \$ 60         | 1,200   | —                          | 1,200    |
|                      | Temporarily remove/<br>replace track portion'<br>to accommodate gate<br>construction | LF   | 20   | \$ 60         | -1,200  | —                          | 1,200    |
|                      | Permanently re-install<br>track section over new<br>ties & ballast                   | LF   | 20   | \$ 85         | 1,700   | —                          | 1,700    |
|                      | Weld track in place                                                                  | each | 4    | \$375         | 1,500   | —                          | 1,500    |
|                      | Temporary falsework<br>bridge                                                        | LS   |      |               | —       | 16,400                     | 16,400   |
|                      | Relocation Cost                                                                      |      |      |               | 5,600   | 16,400                     | 22,000   |
|                      | Contingencies (25%)                                                                  |      |      |               | 1,400   | 4,100                      | 5,500    |
|                      | Subtotals                                                                            |      |      |               | 7,000   | 20,500                     | 27,500   |
| 30                   | E&D (6%+)                                                                            |      |      |               | 420     | 1,230                      | 1,650    |
| 31                   | S&A (6%+)                                                                            |      |      |               | 420     | 1,230                      | 1,650    |
|                      | TOTALS                                                                               |      |      |               | \$7,840 | \$22,960                   | \$30,800 |

1/ Depreciation - none; based on ECI 73.209.3, 1 Jul 80.

2/ Salvage - none; materials removed shall be reused.

3/ Removal - no reimbursement; removals if any will be effected by Government's Contractor.

4/ Betterment - none.

TABLE C - ESTIMATE OF COST  
NEW ORLEANS PUBLIC BELT RAILROAD  
(MARCH 1984 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                           | Unit     | Qty.  | Unit<br>Price | COST    |                            | Amounts |
|----------------------|-------------------------------------------------------------------------------------------------------|----------|-------|---------------|---------|----------------------------|---------|
|                      |                                                                                                       |          |       |               | Owner   | Government's<br>Contractor |         |
| 02                   | Relocation                                                                                            |          |       |               |         |                            |         |
| 0.4                  | Railroads                                                                                             |          |       |               |         |                            |         |
|                      | Item RR-1                                                                                             |          |       |               |         |                            |         |
|                      | Permanently remove<br>track section                                                                   | LF       | 1,200 | 20            | —       | 24,000                     | 24,000  |
|                      | Item RR-2                                                                                             |          |       |               |         |                            |         |
|                      | Temporarily remove/<br>replace track section<br>over falsework to<br>accommodate gate<br>construction | LF       | 20    | 50            | 1,000   | —                          | 1,000   |
|                      | Permanently re-install<br>track section                                                               | LF       | 20    | 50            | 1,000   | —                          | 1,000   |
|                      | Temporary Falsework<br>bridge                                                                         | Lump Sum |       |               | —       | 20,000                     | 20,000  |
|                      | Item RR-4                                                                                             |          |       |               |         |                            |         |
|                      | Permanently remove track<br>section                                                                   | LF       | 400   | 20            | —       | 8,000                      | 8,000   |
|                      | Item RR-5                                                                                             |          |       |               |         |                            |         |
|                      | Remove existing switch track                                                                          | LF       | 200   | 20            | 4,000   | —                          | 4,000   |
|                      | Re-install switch<br>track in new location                                                            | LF       | 200   | 105           | 21,000  | —                          | 21,000  |
|                      | Item RR-6                                                                                             |          |       |               |         |                            |         |
|                      | Install new switch track                                                                              | LF       | 200   | 105           | 21,000  | —                          | 21,000  |
|                      | Item RR-7                                                                                             |          |       |               |         |                            |         |
|                      | Prepare track sub-base                                                                                | LF       | 1,100 | 4             | —       | 4,400                      | 4,400   |
|                      | Install trackage                                                                                      | LF       | 1,100 | 40            | 44,000  | —                          | 44,000  |
|                      | Relocation Cost                                                                                       |          |       |               | 92,000  | 56,400                     | 148,400 |
|                      | Contingencies (25%)                                                                                   |          |       |               | 23,000  | 14,000                     | 37,000  |
|                      | Subtotals                                                                                             |          |       |               | 115,000 | 70,400                     | 185,400 |
| 30                   | E&D (6%+)                                                                                             |          |       |               | 6,800   | 4,200                      | 11,000  |
| 31                   | S&A (6%+)                                                                                             |          |       |               | 6,800   | 4,200                      | 11,000  |
|                      | TOTALS                                                                                                |          |       |               | 128,600 | 78,800                     | 207,400 |

- 1/ Depreciation - none; based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none; materials removed shall be reused.
- 3/ Removal - none; removals will be effected by the Government's Contractor.
- 4/ Betterments - none.

TABLE D - ESTIMATE OF COST  
SOUTH CENTRAL BELL TELEPHONE COMPANY  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                                                                                | Unit | Qty. | Unit<br>Price | COST   |                            | Amounts |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|--------|----------------------------|---------|
|                      |                                                                                                                                                                                            |      |      |               | Owner  | Government's<br>Contractor |         |
| 02                   | Relocations                                                                                                                                                                                |      |      |               |        |                            |         |
| 0.7                  | Utilities & Structures                                                                                                                                                                     |      |      |               |        |                            |         |
|                      | <u>Item T-1</u>                                                                                                                                                                            |      |      |               |        |                            |         |
|                      | 1. Jack & bore 30' diam.<br>steel casing                                                                                                                                                   | LF   | 40   | 100           | 4,000  | —                          | 4,000   |
|                      | 2. Install 9-4" PVC<br>conduit bank thru<br>steel casing, incl.<br>cable, waterproofing<br>& sealing                                                                                       | LF   | 40   | LS            | 13,440 | —                          | 13,440  |
|                      | 3. Provide telephone<br>manhole                                                                                                                                                            | Ea   | 1    | 6,000         | -6,000 | —                          | 6,000   |
|                      | 4. Cut & remove approx.<br>12' of existing facility,<br>plug ends; burn hole &<br>install 42" diam. x 30'<br>long steel sleeve in<br>sheetpile, place<br>waterproof packing &<br>boot seal | LS   | LS   | LS            | LS     | 2,160                      | 2,160   |
|                      | Relocation Cost                                                                                                                                                                            |      |      |               | 23,440 | 2,160                      | 25,600  |
|                      | Contingencies (25%+)                                                                                                                                                                       |      |      |               | 5,860  | 540                        | 6,400   |
|                      | Subtotals                                                                                                                                                                                  |      |      |               | 29,300 | 2,700                      | 32,000  |
| 30                   | E&D (6%+)                                                                                                                                                                                  |      |      |               | 1,740  | 160                        | 1,900   |
| 31                   | S&A (4%+)                                                                                                                                                                                  |      |      |               | 1,740  | 160                        | 1,900   |
|                      | Totals                                                                                                                                                                                     |      |      |               | 32,780 | 3,020                      | 35,800  |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.  
2/ Salvage - none, material removed and not reused has zero salvage value.  
3/ Removal - no reimbursement; removal will be effected by Government's contractor.  
4/ Betterment - none.

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                        | Unit | Qty. | Unit<br>Price | COST     |                            | Amounts |
|----------------------|--------------------------------------------------------------------------------------------------------------------|------|------|---------------|----------|----------------------------|---------|
|                      |                                                                                                                    |      |      |               | Owner    | Government's<br>Contractor |         |
| 02                   | Relocations                                                                                                        |      |      |               |          |                            |         |
| 0.7                  | Utilities & Structures                                                                                             |      |      |               |          |                            |         |
|                      | <u>Item W-1</u>                                                                                                    |      |      |               |          |                            |         |
|                      | 1. 6" CI waterline                                                                                                 | LF   | 170  | 16            | 2,720    | —                          | 2,720   |
|                      | 2. Jack & bore 12" steel casing                                                                                    | LF   | 60   | 60            | 3,600    | —                          | 3,600   |
|                      | 3. 6"x12" tapping tee & tap                                                                                        | Ea   | 1    | 1,000         | 1,000    | —                          | 1,000   |
|                      | 4. 6" valve box & assembly                                                                                         | Ea   | 1    | 800           | 800      | —                          | 800     |
|                      | 5. 6" water meter box & assembly                                                                                   | Ea   | 1    | 800           | 800      | —                          | 800     |
|                      | 6. Fire hydrant assembly                                                                                           | Ea   | 1    | 1,280         | 1,280    | —                          | 1,280   |
|                      | 7. Remove & dispose of approx. 40' of pipe, casing, manhole and plug ends                                          |      |      |               |          |                            |         |
|                      |                                                                                                                    |      |      |               | Lump Sum | 6,000                      | 6,000   |
|                      | Sub-totals for W-1                                                                                                 |      |      |               | 10,200   | 6,000                      | 16,200  |
|                      | <u>Item W-2 (abandoned)</u>                                                                                        |      |      |               |          |                            |         |
|                      | Excavate, cut 12' section of 10' CI line, remove and plug cut ends                                                 |      |      |               |          |                            |         |
|                      |                                                                                                                    |      |      |               | Lump Sum | 2,000                      | 2,000   |
|                      | <u>Item W-3</u>                                                                                                    |      |      |               |          |                            |         |
|                      | 1. Excavate, cut 12' section of 12" CI line, pass thru floodwall sheetpile, re-connect, sterilize & test, backfill |      |      |               |          |                            |         |
|                      |                                                                                                                    |      |      |               | Lump Sum | —                          | 3,200   |
|                      | 2. Burn hole & install 22" diam.x30' long steel sleeve in sheetpile, place waterproof packing & boot seal          |      |      |               |          |                            |         |
|                      |                                                                                                                    |      |      |               | Lump Sum | —                          | 1,000   |
|                      | Subtotals for W-3                                                                                                  |      |      |               |          | —                          | 4,200   |

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                       | Unit | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                                                   |      |      |               | Owner | Government's<br>Contractor |         |
|                      | <u>Item W-4 (abandoned)</u>                                                                                                       |      |      |               |       |                            |         |
|                      | Excavate, cut 12'<br>section of 8" CI<br>pipe, remove & plug<br>cut ends                                                          |      |      | Lump Sum      | —     | 2,000                      | 2,000   |
|                      | <u>Item W-5</u>                                                                                                                   |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 8" CI,<br>line, pass thru<br>floodwall sheetpile,<br>re-connect, sterilize<br>& test, backfill |      |      | Lump Sum      | —     | 2,300                      | 2,300   |
|                      | 2. Burn hole & install 18"<br>diam.x30' long steel<br>sleeve in sheetpile,<br>place waterproof<br>packing & boot seal             |      |      | Lump Sum      | —     | 1,000                      | 1,000   |
|                      | Subtotals for W-5                                                                                                                 |      |      |               | —     | 3,300                      | 3,300   |
|                      | <u>Item W-6</u>                                                                                                                   |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 16" CI<br>line, pass thru<br>floodwall sheetpile,<br>re-connect, sterilize<br>& test, backfill |      |      | Lump Sum      | —     | 3,900                      | 3,900   |
|                      | 2. Burn hole & install<br>24" diam.x30' long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>& boot seal          |      |      | Lump Sum      | —     | 1,500                      | 1,500   |
|                      | Subtotals for W-6                                                                                                                 |      |      |               | —     | 5,400                      | 5,400   |
|                      | <u>Item W-8 (abandoned)</u>                                                                                                       |      |      |               |       |                            |         |
|                      | Excavate, cut 12'<br>section of 8" CI<br>line, remove & plug<br>cut ends                                                          |      |      | Lump Sum      | —     | 2,000                      | 2,000   |

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                       | Unit | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                                                   |      |      |               | Owner | Government's<br>Contractor |         |
| <u>Item D-1</u>      |                                                                                                                                   |      |      |               |       |                            |         |
|                      | Excavate and remove<br>25 LF of 12" storm<br>drain & one catchbasin                                                               |      |      | Lump Sum      | —     | 5,500                      | 5,500   |
| <u>Item D-2</u>      |                                                                                                                                   |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 10'<br>concrete drain pipe,<br>pass thru floodwall<br>sheetpile, re-connect,<br>test, backfill |      |      | Lump Sum      | —     | 2,000                      | 2,000   |
|                      | 2. Burn hole & install<br>18" diam.x30' long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>& boot seal          |      |      | Lump Sum      | —     | 1,000                      | 1,000   |
|                      | Subtotals for D-2                                                                                                                 |      |      |               | —     | 3,000                      | 3,000   |
| <u>Item D-3</u>      |                                                                                                                                   |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 10'<br>concrete drain pipe,<br>pass thru floodwall<br>sheetpile, re-connect,<br>test, backfill |      |      | Lump Sum      | —     | 2,000                      | 2,000   |
|                      | 2. Burn hole & install<br>18" diam.x30' long<br>steel sleeve in sheet-<br>pile, place waterproof<br>packing & boot seal           |      |      | Lump Sum      | —     | 1,000                      | 1,000   |
|                      | Subtotals for D-3                                                                                                                 |      |      |               | —     | 3,000                      | 3,000   |
| <u>Item S-1</u>      |                                                                                                                                   |      |      |               |       |                            |         |
|                      | 1. Excavate, cut 12'<br>section of 8" clay<br>sewer pipe, pass<br>thru floodwall sheet-<br>pile, re-connect,<br>test, backfill    |      |      | Lump Sum      | —     | 2,000                      | 2,000   |

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                | Unit     | Qty. | Unit<br>Price | COST  |                            | Amounts |
|----------------------|----------------------------------------------------------------------------------------------------------------------------|----------|------|---------------|-------|----------------------------|---------|
|                      |                                                                                                                            |          |      |               | Owner | Government's<br>Contractor |         |
| <u>Item S-1</u>      |                                                                                                                            |          |      |               |       |                            |         |
| 2.                   | Burn hole & install<br>18" diam.x30' long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>& boot seal      | Lump Sum |      |               | ---   | 1,000                      | 1,000   |
|                      | Subtotals for S-1                                                                                                          |          |      |               | ---   | 3,000                      | 3,000   |
| <u>Item S-2</u>      |                                                                                                                            |          |      |               |       |                            |         |
| 1.                   | Excavate, cut 12'<br>section of 8" clay<br>sewer pipe, pass<br>thru floodwall<br>sheetpile, re-connect,<br>test & backfill | Lump Sum |      |               | ---   | 2,000                      | 2,000   |
| 2.                   | Provide manhole                                                                                                            | Ea       | 1    | 2,000         | ---   | 2,000                      | 2,000   |
| 3.                   | Install additional<br>8" clay sewer pipe                                                                                   | LF       | 25   | 20            | ---   | 500                        | 500     |
| 4.                   | Remove affected<br>section of existing<br>facility (manhole &<br>approx. 20 LF<br>pipe)                                    | Lump Sum |      |               | ---   | 500                        | 500     |
| 5.                   | Burn hole & install<br>18" diam.x30' long<br>steel sleeve in<br>sheetpile, place<br>waterproof packing<br>and boot seal    | Lump Sum |      |               | ---   | 1,000                      | 1,000   |
|                      | Subtotal for S-2                                                                                                           |          |      |               | ---   | 6,000                      | 6,000   |
| <u>Item P-1</u>      |                                                                                                                            |          |      |               |       |                            |         |
| 1.                   | Open cut trench<br>18"x4'6"                                                                                                | LF       | 400  | 30            | ---   | 12,000                     | 12,000  |
| 2.                   | Open cut trench<br>18"x4'6" (repair<br>pavement condition)                                                                 | LF       | 130  | 85            | ---   | 11,050                     | 11,050  |
| 3.                   | Jack & bore 25"<br>I.D. 1" wall<br>thickness pipe                                                                          | LF       | 140  | 460           | ---   | 64,400                     | 64,400  |
| 4.                   | Furnish & install<br>4-5" I.D. conduits<br>inside R.conc.<br>envelope                                                      | LF       | 530  | 30            | ---   | 15,900                     | 15,900  |

TABLE E - ESTIMATE OF COST  
SEWERAGE & WATER BOARD OF NEW ORLEANS  
(OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                | Unit | Qty.  | Unit<br>Price | COST   |                            | Amounts |
|----------------------|------------------------------------------------------------------------------------------------------------|------|-------|---------------|--------|----------------------------|---------|
|                      |                                                                                                            |      |       |               | Owner  | Government's<br>Contractor |         |
| <u>Item P-1</u>      |                                                                                                            |      |       |               |        |                            |         |
| 5.                   | Furnish & install<br>4-5" I.D. conduits<br>inside steel casing<br>with concrete grout<br>sealing all voids | LF   | 140   | 40            | —      | 5,600                      | 5,600   |
| 6.                   | Provide electrical<br>manholes                                                                             | Ea   | 4     | 3,000         | —      | 12,000                     | 12,000  |
| 7.                   | Furnish & install<br>electrical cable                                                                      | LF   | 1,340 | 3             | —      | 4,020                      | 4,020   |
|                      | Subtotal for P-1                                                                                           |      |       |               | —      | 124,970                    | 124,970 |
|                      | Relocation Cost                                                                                            |      |       |               | 10,200 | 170,370                    | 180,570 |
|                      | Contingencies (25%+)                                                                                       |      |       |               | 2,550  | 42,600                     | 45,150  |
|                      | Subtotals (rounded)                                                                                        |      |       |               | 12,750 | 212,970                    | 225,720 |
| 30                   | E&D (6%+)                                                                                                  |      |       |               | 2,000  | 11,500                     | 13,500  |
| 31                   | S&A (6%+)                                                                                                  |      |       |               | 2,000  | 11,500                     | 13,500  |
|                      | Total                                                                                                      |      |       |               | 16,750 | 235,970                    | 252,720 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage - none. Material removed and not reused has zero salvage value.
- 3/ Removal - none. All removal to be effected by the Government's contractor.
- 4/ Betterments - none.



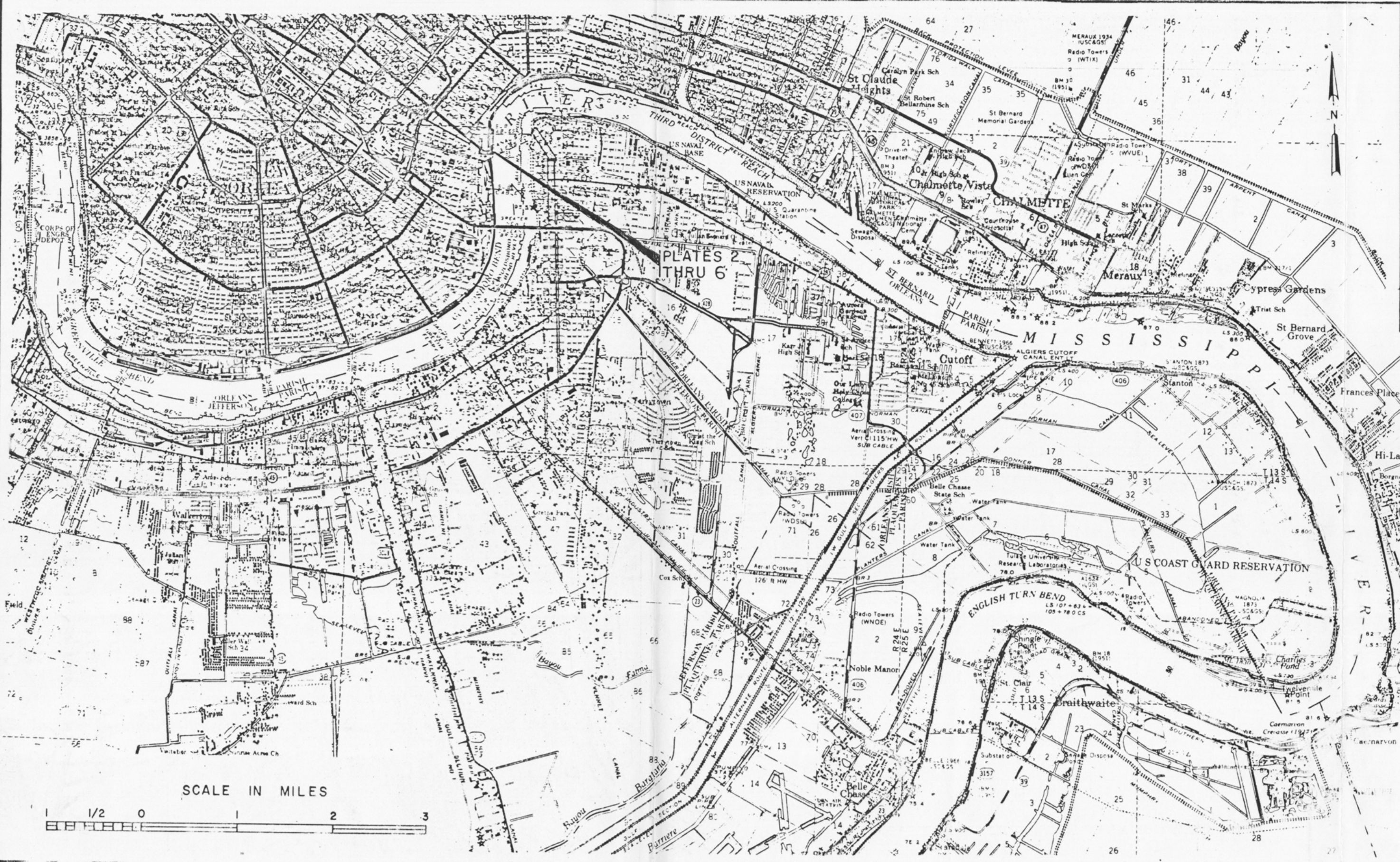
TABLE F - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC SERVICE  
 (OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                                    | Unit | Qty.  | Unit<br>Price | COST   |                            | Amounts |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|---------------|--------|----------------------------|---------|
|                      |                                                                                                                                                |      |       |               | Owner  | Government's<br>Contractor |         |
| 02                   | Relocations                                                                                                                                    |      |       |               |        |                            |         |
| 0.7                  | Utilities & Structures                                                                                                                         |      |       |               |        |                            |         |
|                      | Item E-1                                                                                                                                       |      |       |               |        |                            |         |
|                      | a. Furnish & Install<br>4-4" Fibre conduit<br>bank inside 20' steel<br>casing                                                                  | LF   | 250   | 139           | 34,750 | —                          | 34,750  |
|                      | b. Furnish & install<br>electrical cable                                                                                                       | LF   | 3,000 | 5.75          | 17,250 | —                          | 17,250  |
|                      | c. Burn hole in sheet-<br>pile, furnish &<br>install 30' diam.x<br>24" long steel<br>sleeve, waterproof<br>packing & sealing<br>boot, backfill |      |       | Lump Sum      | —      | 2,000                      | 2,000   |
|                      | Subtotal for E-1                                                                                                                               |      |       |               | 52,000 | 2,000                      | 54,000  |
|                      | Item E-2                                                                                                                                       |      |       |               |        |                            |         |
|                      | a. Temporary by-pass<br>line                                                                                                                   |      |       |               |        |                            |         |
|                      | 1. 2-4" PVC conduit<br>bank inside 12"<br>steel casing                                                                                         | LF   | 214   | 40            | 8,560  |                            | 8,560   |
|                      | 2. Furnish & install<br>electrical cable<br>inside conduit bank                                                                                | LF   | 1,300 | 4             | 5,200  |                            | 5,200   |
|                      | 3. Cut ditch & backfill                                                                                                                        | LF   | 275   | 8             | 2,200  |                            | 2,200   |
|                      | 4. Furnish & install<br>direct burial cable                                                                                                    | LF   | 1,650 | 4             | 6,600  |                            | 6,600   |
|                      | 5. Protective concrete<br>envelope                                                                                                             | CYD  | 10    | 150           | 1,500  |                            | 1,500   |
|                      | b. Permanent Line                                                                                                                              |      |       |               |        |                            |         |
|                      | 1. Removal &<br>Re-installation of<br>cable                                                                                                    | LF   | 1,700 | 9             | 15,300 | —                          | 15,300  |
|                      | 2. Remove & Replace<br>6-4" PVC conduit<br>bank, 24" steel<br>casing and concrete<br>envelope                                                  | LF   | 25    | Lump Sum      | 7,000  | —                          | 7,000   |

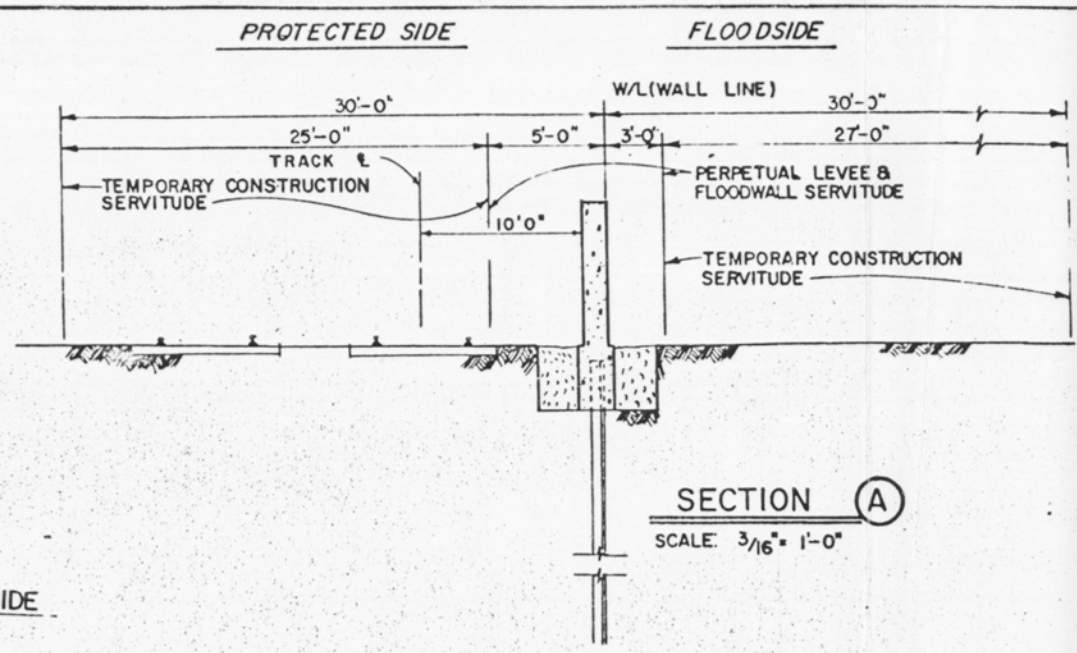
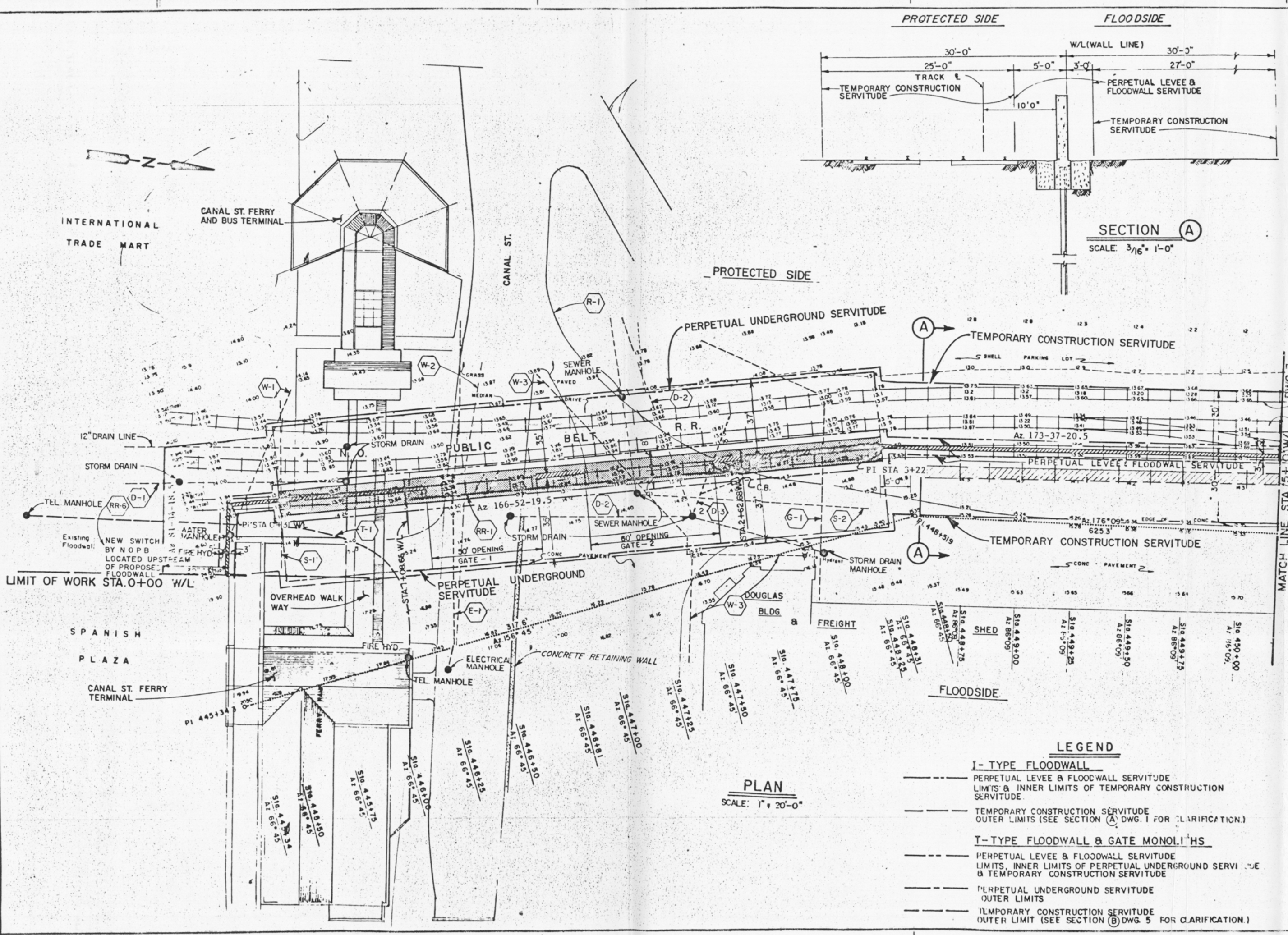
TABLE F - ESTIMATE OF COST  
 NEW ORLEANS PUBLIC SERVICE  
 (OCTOBER 1982 PRICE LEVELS)

| Cost<br>Acct.<br>No. | Description                                                                                                                          | Unit | Qty. | Unit<br>Price | COST    |                            |         |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|------|------|---------------|---------|----------------------------|---------|
|                      |                                                                                                                                      |      |      |               | Owner   | Government's<br>Contractor | Amounts |
|                      | c. Burn hole in sheet-<br>pile, furnish &<br>install 36" diam.<br>x24" long steel<br>sleeve, waterproof<br>packing & sealing<br>boot |      |      | Lump Sum      | —       | 2,600                      | 2,600   |
|                      | Subtotal for E-2                                                                                                                     |      |      |               | 46,400  | 2,600                      | 49,000  |
|                      | Item G-1                                                                                                                             |      |      |               |         |                            |         |
|                      | a. Remove & Replace<br>4" steel gas pipe,<br>protective asbestos<br>wrap & concrete<br>coating                                       | LF   | 20   | Lump Sum      | 2,700   |                            | 2,700   |
|                      | b. Burn hole in sheet-<br>pile, furnish &<br>install 12" diam.<br>x24" long steel<br>sleeve, waterproof<br>packing & sealing<br>boot |      |      | Lump Sum      |         | 1,050                      | 1,050   |
|                      | Subtotal for G-1                                                                                                                     |      |      |               | 2,700   | 1,050                      | 3,750   |
|                      | Relocation cost                                                                                                                      |      |      |               | 101,100 | 5,650                      | 106,750 |
|                      | Contingencies (25%)                                                                                                                  |      |      |               | 25,300  | 1,300                      | 26,600  |
|                      | Subtotals                                                                                                                            |      |      |               | 126,400 | 6,950                      | 133,350 |
| 30                   | E&D (6%+)                                                                                                                            |      |      |               | 7,600   | 400                        | 8,000   |
| 31                   | S&A (6%+)                                                                                                                            |      |      |               | 7,600   | 400                        | 8,000   |
|                      | TOTALS                                                                                                                               |      |      |               | 141,600 | 7,750                      | 149,350 |

- 1/ Depreciation - none, based on ECI 73.209.3, 1 Jul 80.
- 2/ Salvage
- 3/ Removal - none
- 4/ Betterment - none



MISSISSIPPI RIVER AND ADJACENCIES  
 MISSISSIPPI RIVER LEVEES  
 ITEM M-94.9-94.6-L  
 CANAL-TOULOUSE ST. FLOODWALL  
 DESIGN MEMORANDUM NO. 65  
 RELOCATION OF FACILITIES  
 LOCATION MAP  
 U S ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 14 Dec 82



| EXISTING FACILITIES |                                            |               |                                         |                     |
|---------------------|--------------------------------------------|---------------|-----------------------------------------|---------------------|
| ITEM NO             | DESCRIPTION                                | STA W/L       | OWNER                                   | DISPOSITION         |
| D-1                 | 10" STORM DRAIN                            | 2+65          | SEWERAGE AND WATER BOARD OF NEW ORLEANS | RELOCATE            |
| W-1                 | 6" WATER LINE                              | 0+08 TO 0+39  | "                                       | "                   |
| S-1                 | 8" SEWER LINE                              | 0+55          | "                                       | "                   |
| T-1                 | 9-4" PVC TELEPHONE CONDUITS W/ CABLES      | 0+23          | SOUTH CENTRAL BELL TEL. CO.             | "                   |
| W-2                 | 10" WATER LINE                             | 1+42          | SEWERAGE AND WATER BOARD OF NEW ORLEANS | "                   |
| E-1                 | 4-4" ELECTRICAL COND. INSIDE 20" PIPE CASG | 1+28          | NEW ORLEANS PUBLIC SERVICE, INC.        | "                   |
| RR-1                | RAILROAD TRACK                             | 0+31 TO 12+25 | NEW ORLEANS PUBLIC BELT RAILROAD        | "                   |
| W-3                 | 12" WATER LINE                             | 2+03          | SEWERAGE AND WATER BOARD OF NEW ORLEANS | "                   |
| S-2                 | 8" SEWER LINE                              | 2+16          | "                                       | "                   |
| R-1                 | CANAL STREET                               | 1+19 TO 2+63  | CITY OF NEW ORLEANS DEPT. OF STREETS    | "                   |
| D-2                 | 10" STORM DRAIN                            | 2+10          | SEWERAGE AND WATER BOARD OF NEW ORLEANS | "                   |
| G-1                 | 4" STEEL GAS LINE                          | 3+02          | NEW ORLEANS PUBLIC SERVICE, INC.        | "                   |
| D-3                 | 10" STORM DRAIN                            | 2+48          | SEWERAGE AND WATER BOARD OF NEW ORLEANS | REMOVE, CUT & PLUG. |

| NEW REPLACEMENT FACILITIES FOR RR-1 |               |               |                                  |                                |
|-------------------------------------|---------------|---------------|----------------------------------|--------------------------------|
| RR-6                                | NEW SWITCH    | OFFSITE       | NEW ORLEANS PUBLIC BELT RAILROAD | BY OWNER BEFORE CONTRACT AWARD |
| RR-7                                | TRACK SUB-BED | 3+40 TO 14+83 | NEW ORLEANS PUBLIC BELT RAILROAD | BY GOVT'S CONTRACTOR           |

**PLAN**  
SCALE: 1" = 20'-0"

- LEGEND**
- I-TYPE FLOODWALL
  - PERPETUAL LEVEE & FLOODWALL SERVITUDE
  - LIMITS & INNER LIMITS OF TEMPORARY CONSTRUCTION SERVITUDE
  - TEMPORARY CONSTRUCTION SERVITUDE OUTER LIMITS (SEE SECTION (A) DWG. 1 FOR CLARIFICATION.)
  - T-TYPE FLOODWALL & GATE MONOLITHS
  - PERPETUAL LEVEE & FLOODWALL SERVITUDE LIMITS, INNER LIMITS OF PERPETUAL UNDERGROUND SERVITUDE & TEMPORARY CONSTRUCTION SERVITUDE
  - PERPETUAL UNDERGROUND SERVITUDE OUTER LIMITS
  - TEMPORARY CONSTRUCTION SERVITUDE OUTER LIMIT (SEE SECTION (B) DWG. 5 FOR CLARIFICATION.)

REVISED 15 APRIL 1983

MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVES  
ITEM M-94.9-94.6-L

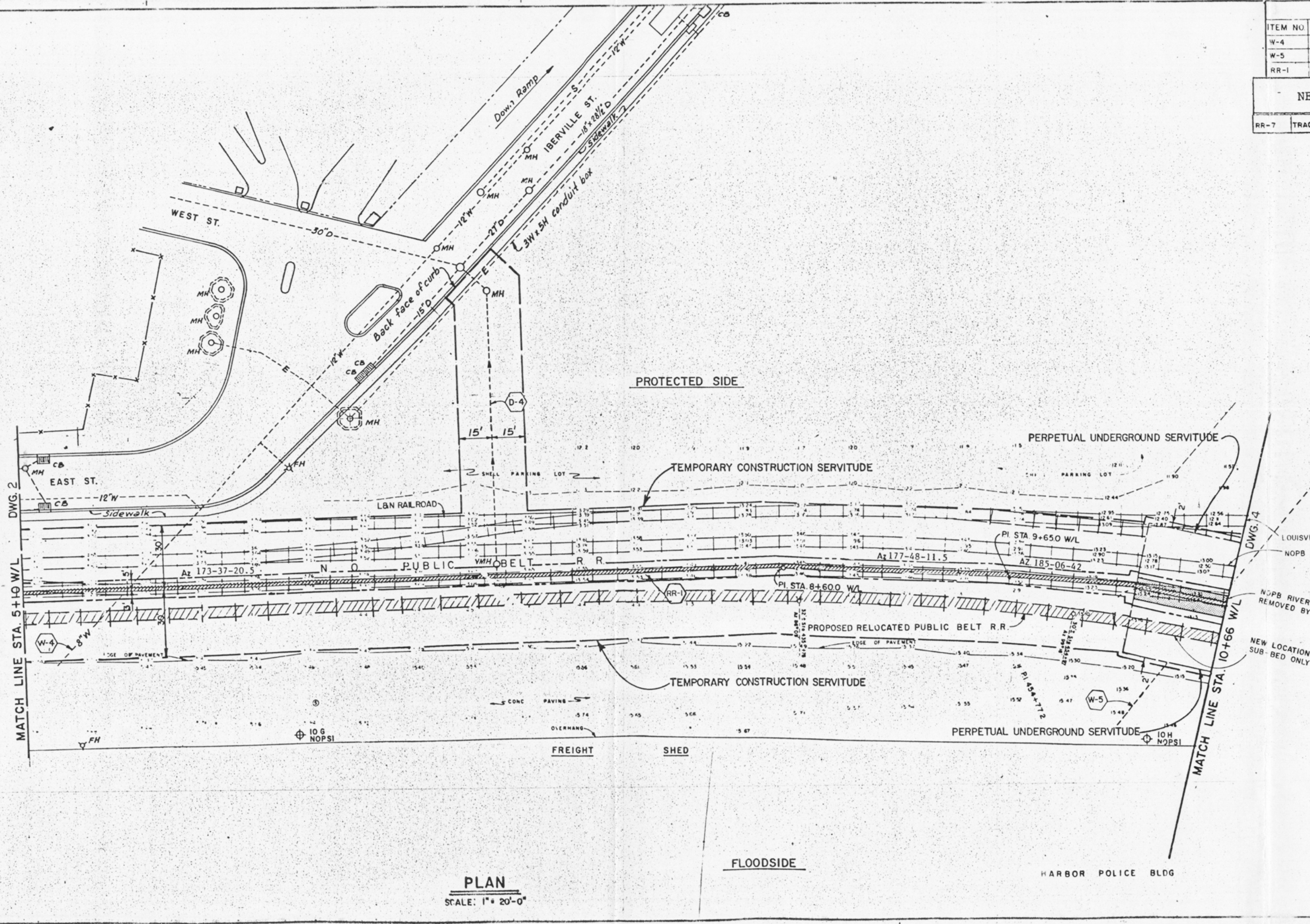
**CANAL-TOULOUSE ST. FLOODWALL  
DESIGN MEMORANDUM NO. 65  
RELOCATION OF FACILITIES  
PROJECT PLAN**

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

14 Dec 82 FILE NO. H-2-29388

| EXISTING FACILITIES |                |               |                                         |             |
|---------------------|----------------|---------------|-----------------------------------------|-------------|
| ITEM NO             | DESCRIPTION    | STA W/L       | OWNER                                   | DISPOSITION |
| W-4                 | 8" WATER LINE  | 5+57          | SEWERAGE AND WATER BOARD OF NEW ORLEANS | RELOCATE    |
| W-5                 | 8" WATER LINE  | 10+48         | " " " "                                 | "           |
| RR-1                | RAILROAD TRACK | 0+31 TO 12+25 | NEW ORLEANS PUBLIC BELT RAILROAD        | "           |

| NEW REPLACEMENT FACILITIES FOR RR-1 |               |               |                                  |                      |
|-------------------------------------|---------------|---------------|----------------------------------|----------------------|
| RR-7                                | TRACK SUB-BED | 3+40 TO 14+83 | NEW ORLEANS PUBLIC BELT RAILROAD | BY GOVT'S CONTRACTOR |

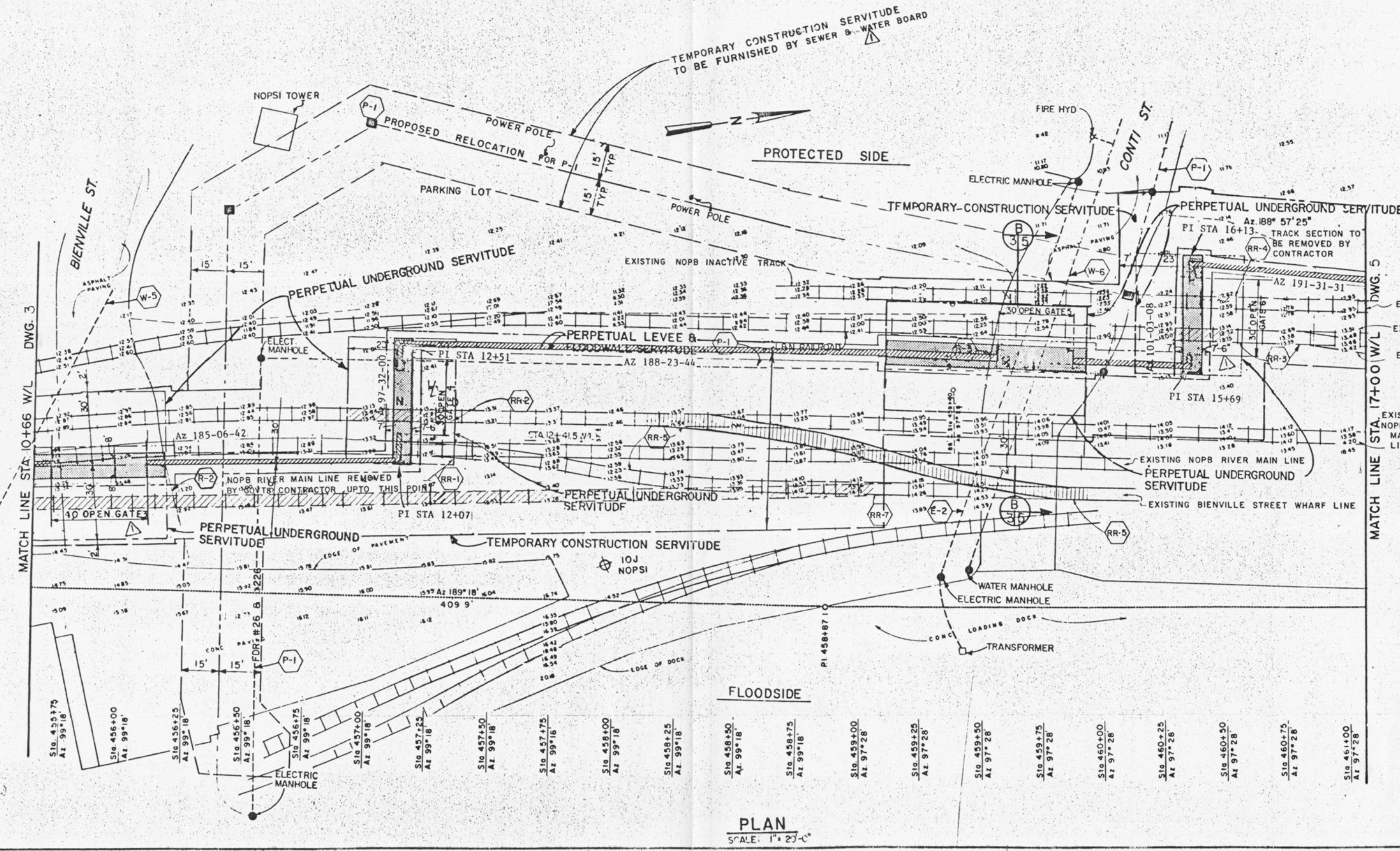


**PLAN**  
SCALE: 1" = 20'-0"

REVISED 15 APRIL 1983  
 MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 ITEM M-94.9-946-L  
**CANAL - TOULOUSE ST. FLOODWALL**  
**DESIGN MEMORANDUM NO. 65**  
**RELOCATION OF FACILITIES**  
 PROJECT PLAN  
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 14 Dec 82 FILE NO. H-2-29388

| EXISTING FACILITIES |                           |                |                                       |             |
|---------------------|---------------------------|----------------|---------------------------------------|-------------|
| ITEM NO.            | DESCRIPTION               | STA +/-L       | OWNER                                 | DISPOSITION |
| W-5                 | 8" WATER LINE             | 10+48          | SEWERAGE & WATER BOARD OF NEW ORLEANS | RELOCATE    |
| R-2                 | BIENVILLE ST.             | 10+77 TO 11+07 | CITY OF NO DEPT. OF STREETS           | "           |
| P-1                 | 6600 VOLT ELECTRIC FEEDER | 11+48 TO 16+28 | SEWERAGE & WATER BOARD OF N.O.        | "           |
| RR-1                | RAILROAD TRACK            | 0+31 TO 12+25  | NEW ORLEANS PUBLIC BELT RAILROAD      | "           |
| RR-2                | RAILROAD TRACK            | 11+94 TO 12+79 | N.O. PUBLIC BELT RAILROAD             | "           |
| R-3                 | CONTI ST.                 | 15+04 TO 15+38 | CITY OF N.O. DEPT. OF STREETS         | "           |
| W-6                 | 16" C.I. WATER LINE       | 15+00          | SEWERAGE & WATER BOARD OF N.O.        | "           |
| RR-3                | RAILROAD TRACK            | 15+48 TO 15+37 | LOUISVILLE & NASHVILLE RAILROAD CO.   | "           |
| E-2                 | ELECTRICAL CONDUIT        | 14+95          | N.O. PUBLIC SERVICE INC.              | "           |
| RR-4                | RAILROAD TRACK            | 15+85 TO 19+75 | N.O. PUBLIC BELT RAILROAD             | "           |
| RR-5                | EXISTING SWITCH           | 12+46 TO 14+46 | NEW ORLEANS PUBLIC BELT RAILROAD      | RELOCATE    |

| NEW REPLACEMENT FACILITIES FOR RR-1 |               |               |                                  |                      |
|-------------------------------------|---------------|---------------|----------------------------------|----------------------|
| RR-7                                | TRACK SUB-BED | 3+40 TO 14+83 | NEW ORLEANS PUBLIC BELT RAILROAD | BY GOVT'S CONTRACTOR |



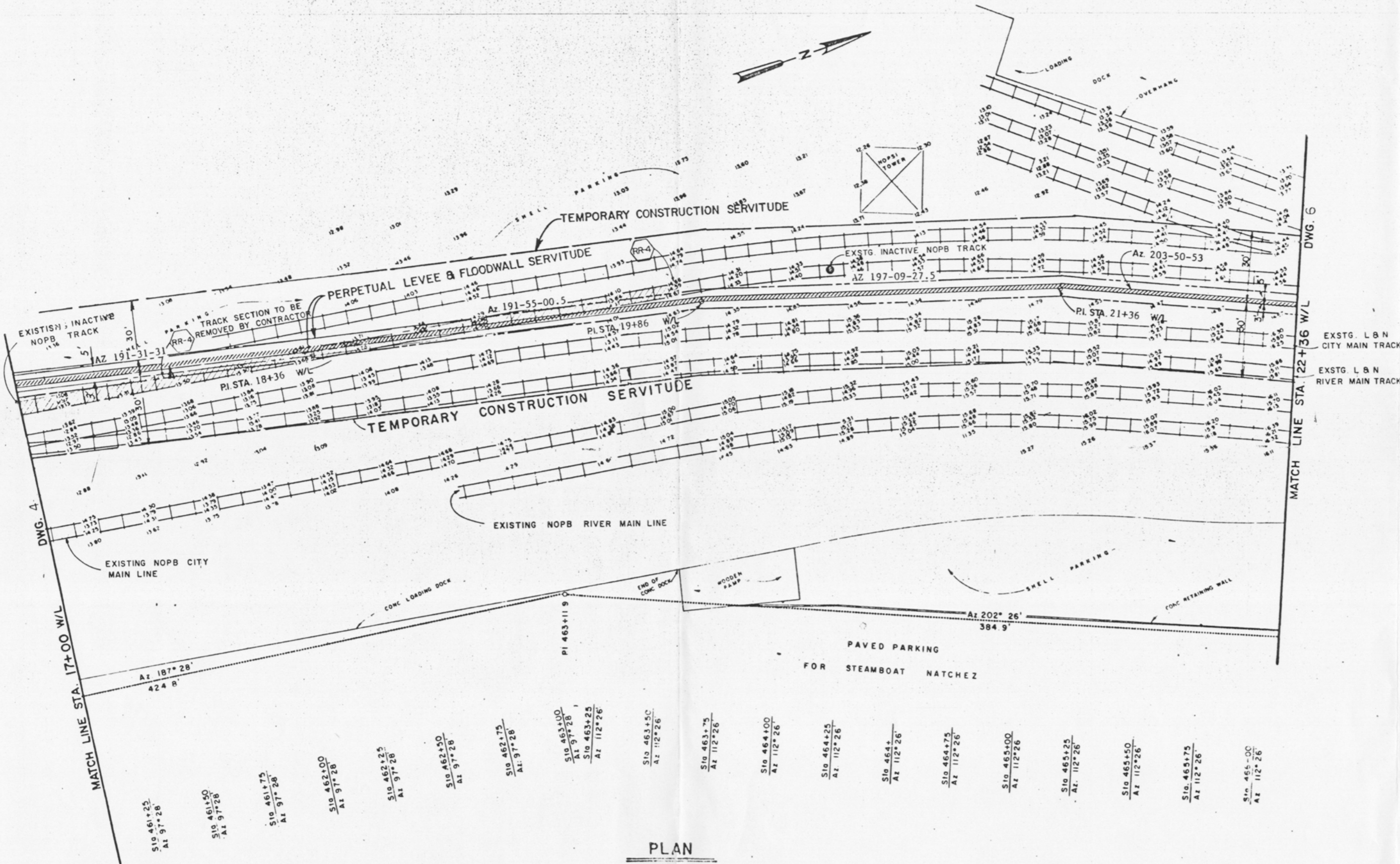
FLOODSIDE

PLAN  
SCALE: 1" = 20'-0"

REVISED 15 APRIL 1983

MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-94.9-946-L  
CANAL - TOULOUSE ST. FLOODWALL  
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U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
CORPS OF ENGINEERS  
14 Dec 82 FILE NO. H-2-29388

| EXISTING FACILITIES |                |                |                                 |             |
|---------------------|----------------|----------------|---------------------------------|-------------|
| ITEM NO             | DESCRIPTION    | STA W/L        | OWNER                           | DISPOSITION |
| RR-4                | RAILROAD TRACK | 15+85 TO 19+75 | NE ORLEANS PUBLIC BELT RAILROAD | RELOCATE    |



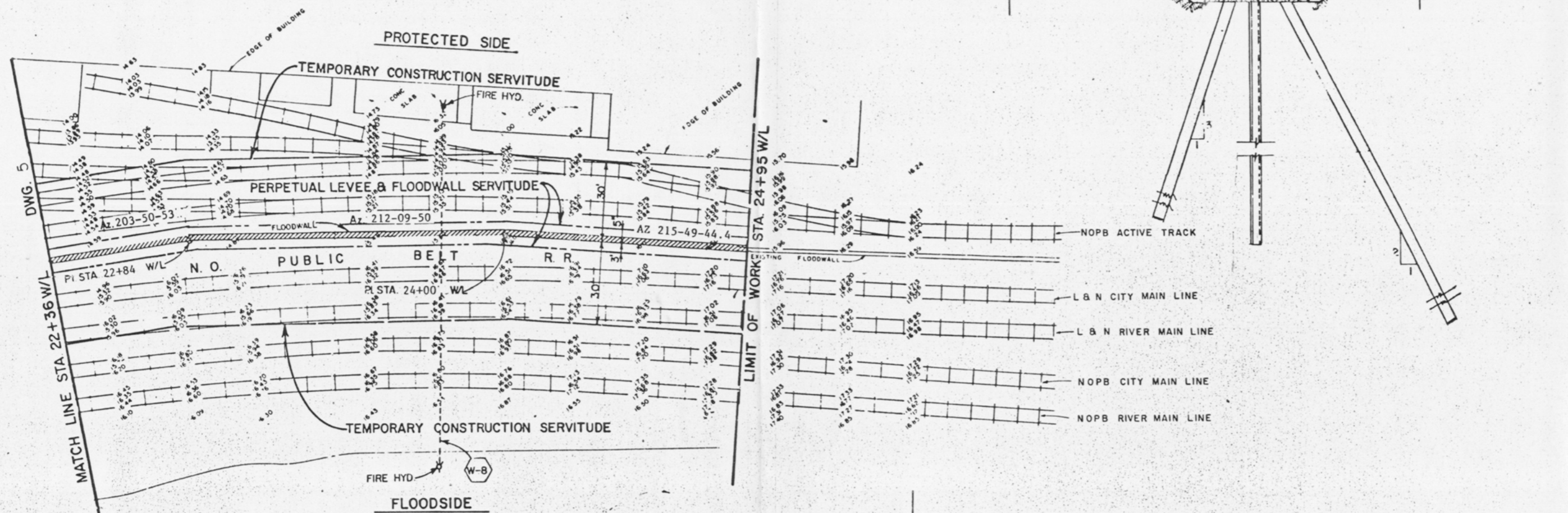
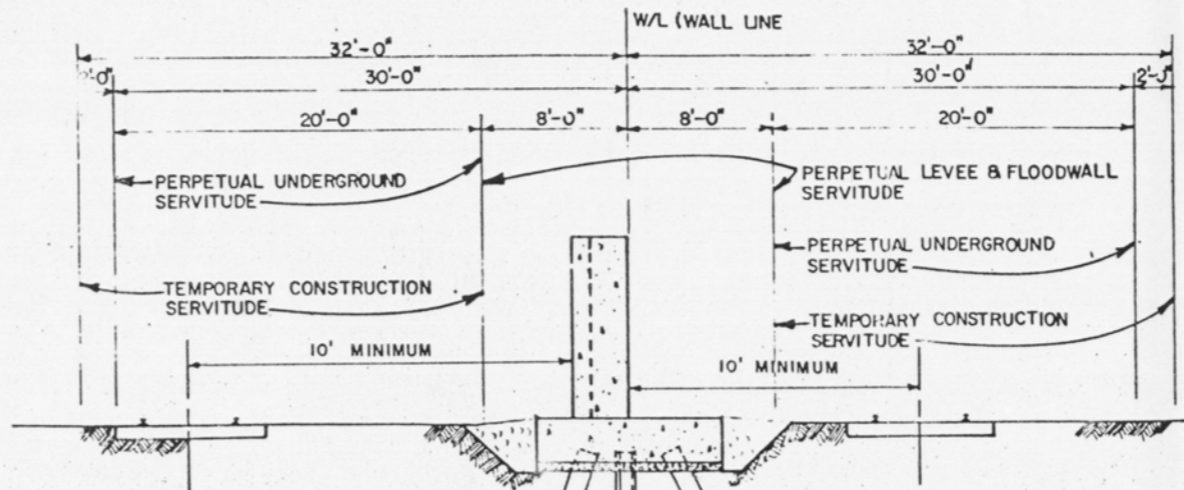
PLAN  
SCALE 1" = 20'-0"

REVISED 15 APRIL 1983  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-94.9-94.6-L  
**CANAL - TOULOUSE ST. FLOODWALL**  
**DESIGN MEMORANDUM NO. 65**  
**RELOCATION OF FACILITIES**  
PROJECT PLAN  
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
CORPS OF ENGINEERS  
14 Dec 82 FILE NO. H-2-29388

PROTECTED SIDE

FLOODSIDE

| EXISTING FACILITIES |                    |          |                                       |             |
|---------------------|--------------------|----------|---------------------------------------|-------------|
| ITEM NO.            | DESCRIPTION        | STA. W/L | OWNER                                 | DISPOSITION |
| W-8                 | 8" C.I. WATER LINE | 23+67    | SEWERAGE & WATER BOARD OF NEW ORLEANS | RELOCATE    |



DWG. 5  
MATCH LINE STA 22+36 W/L

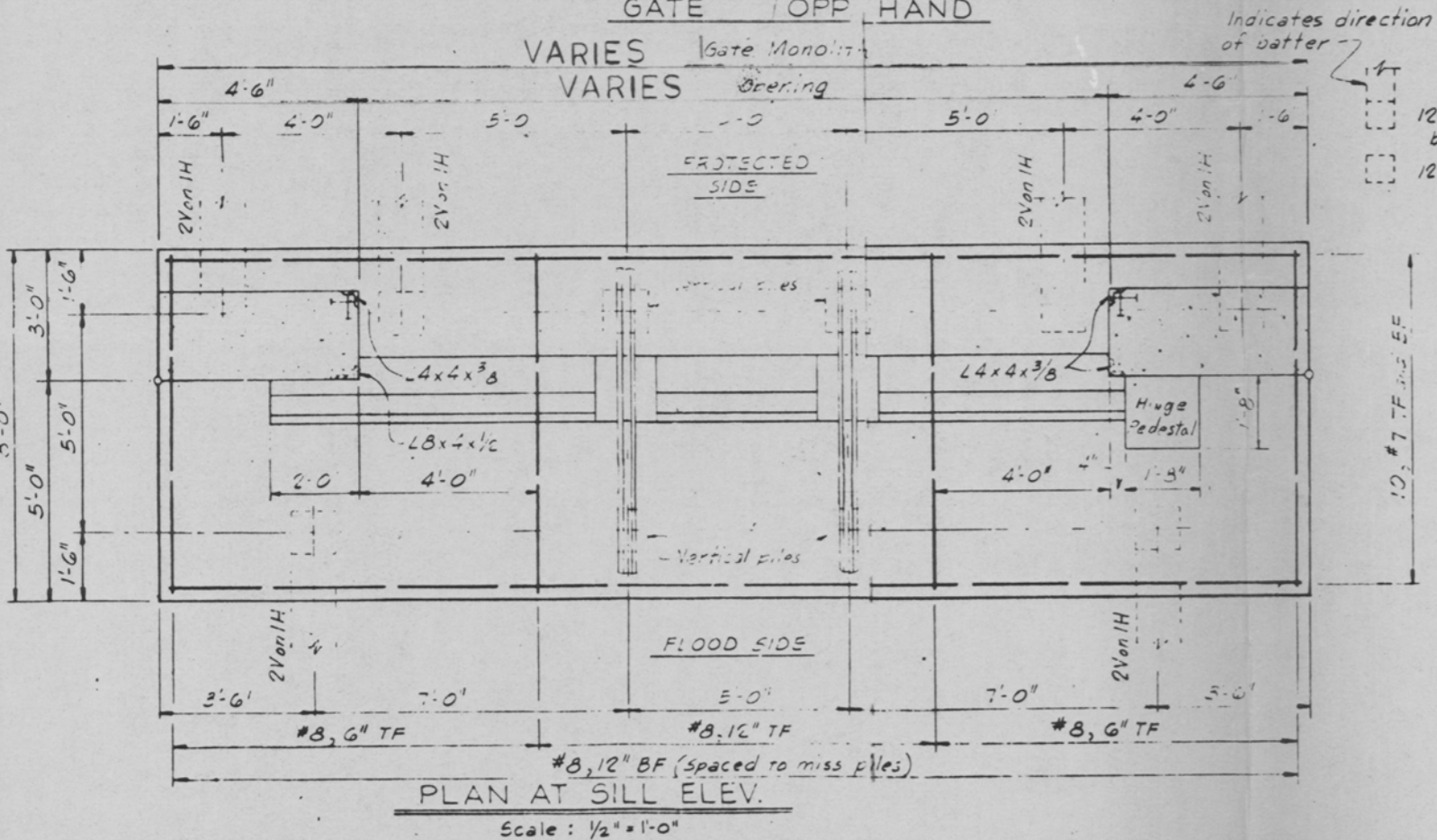
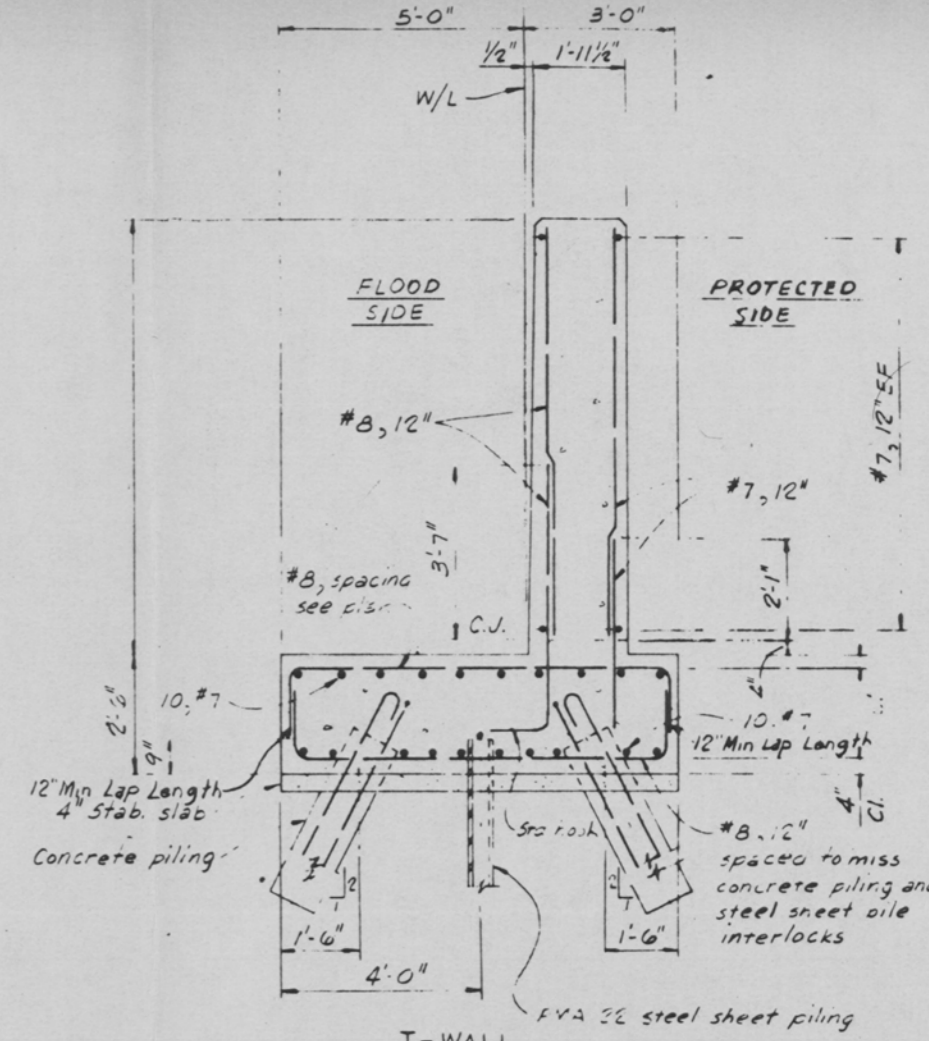
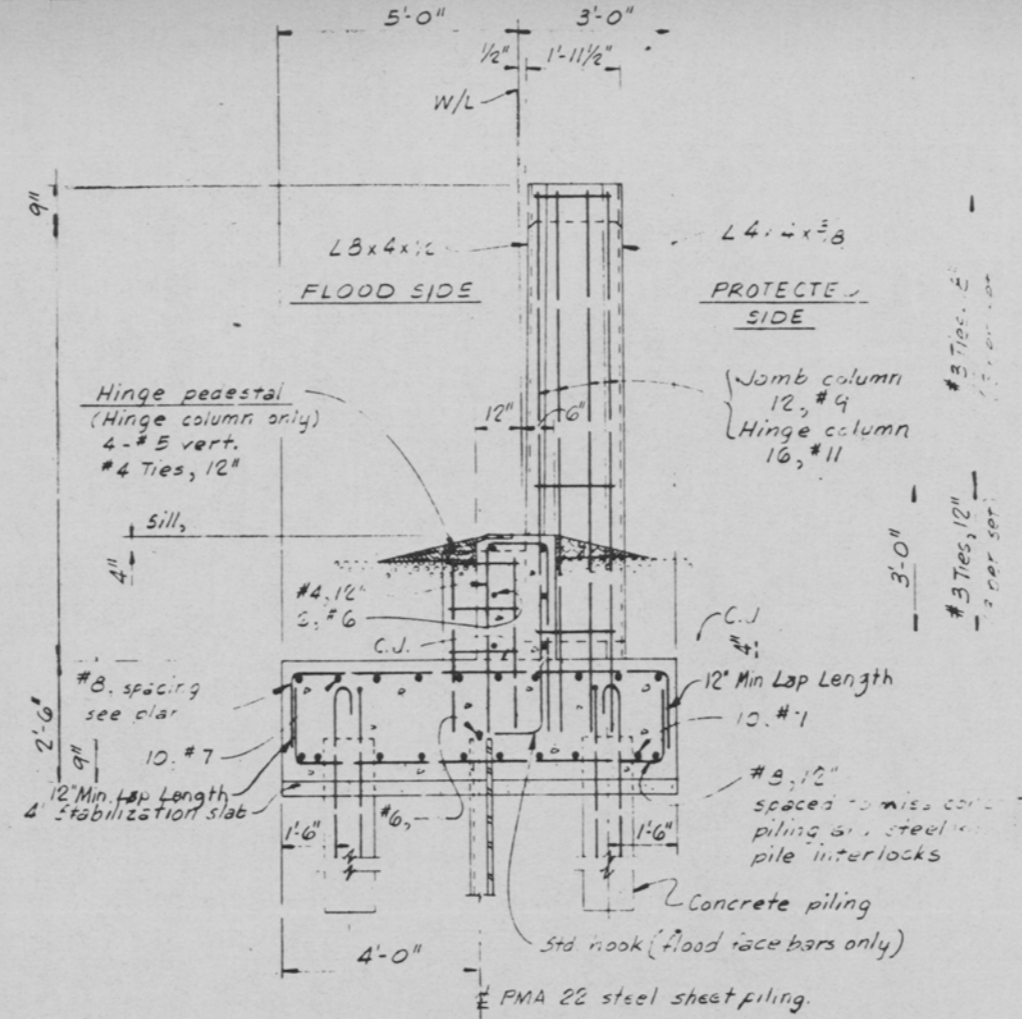
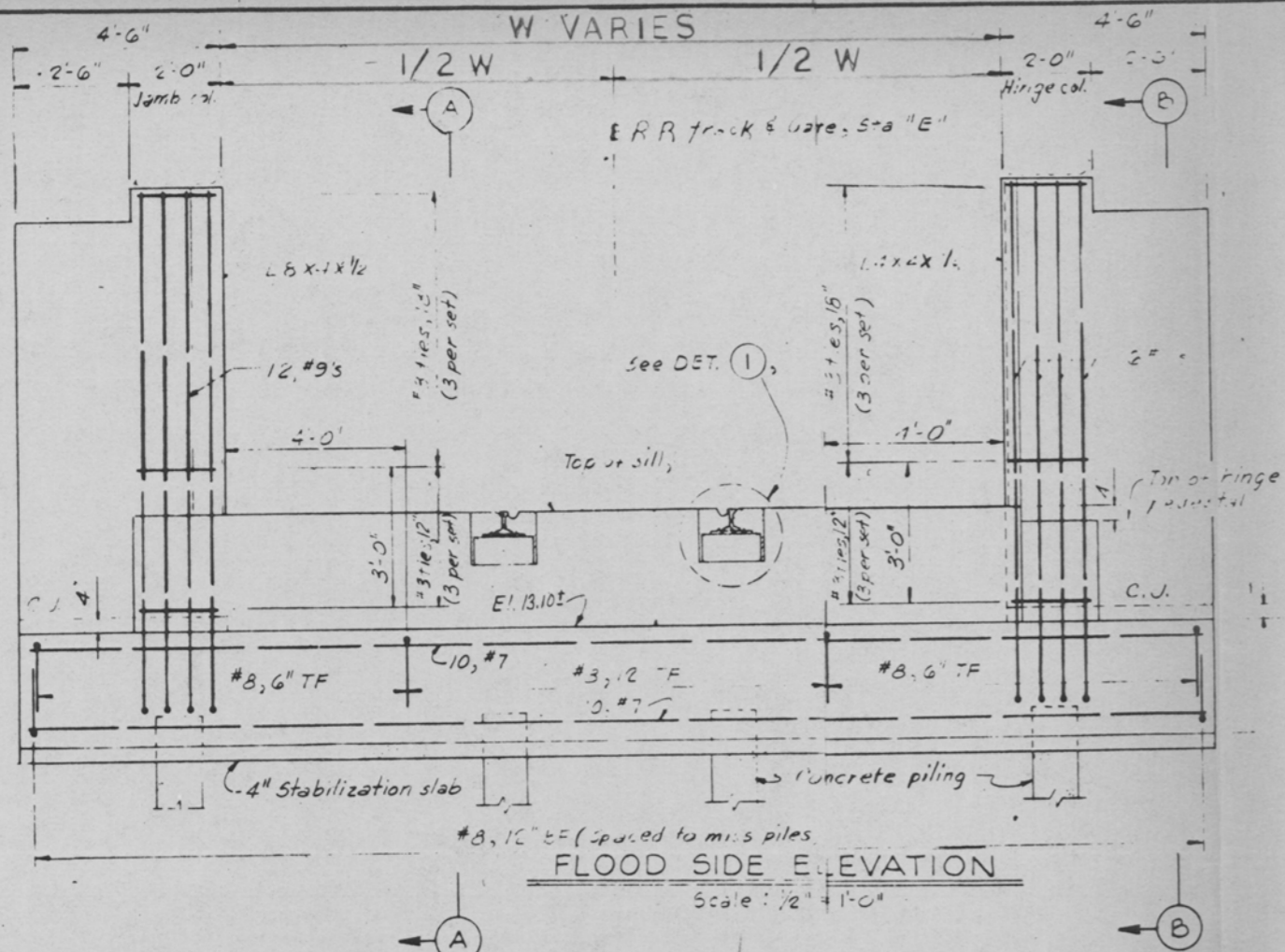
- Stn 466+25  
At 112° 26'
- Stn 466+50  
At 112° 26'
- Stn 466+75  
At 112° 26'
- Stn 467+00  
At 124° 29'
- Stn 467+25  
At 124° 29'
- Stn 467+50  
At 124° 29'
- Stn 467+75  
At 124° 29'
- Stn 468+00  
At 124° 29'
- Stn 468+25  
At 124° 29'
- Stn 468+50  
At 124° 29'
- Stn 468+75  
At 124° 29'
- Stn 469+00  
At 124° 29'

PLAN  
SCALE: 1" = 20'-0"

REVISED 15 APRIL 1983

MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 ITEM M-94.9-946-L  
**CANAL - TOULOUSE ST. FLOODWALL**  
**DESIGN MEMORANDUM NO. 65**  
**RELOCATION OF FACILITIES**  
 PROJECT PLAN  
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
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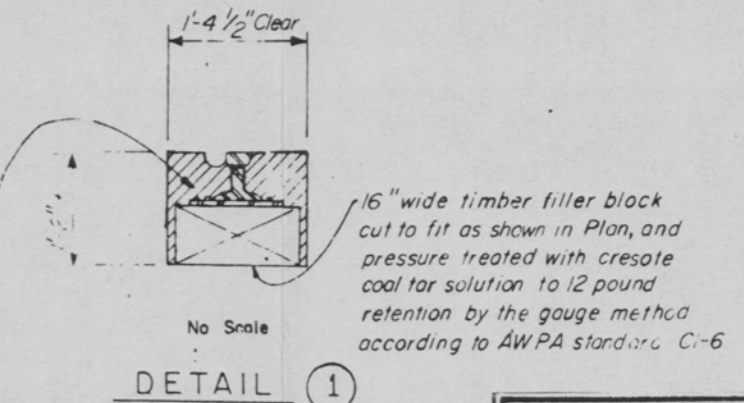




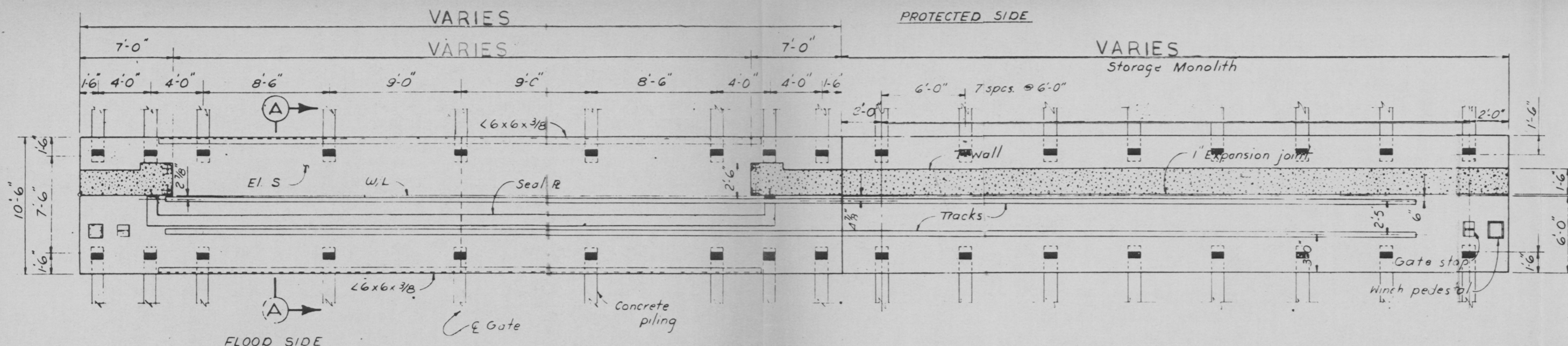
**LEGEND**  
 Scale: 1/2" = 1'-0"

- Indicates direction of batter
- 12" x 12" Prestressed concrete batter piles; batter slope, see PLAN.
- 12" x 12" Prestressed concrete vertical piles.

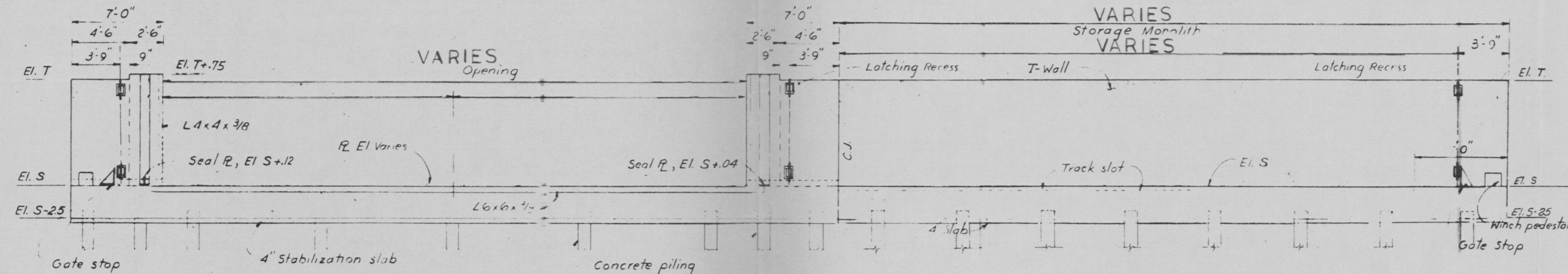
Fill sill void with asphaltic concrete pavement, type I base-course as described in "Standard Specifications For Roads and Bridges" published by the State of Louisiana Department of Highways.



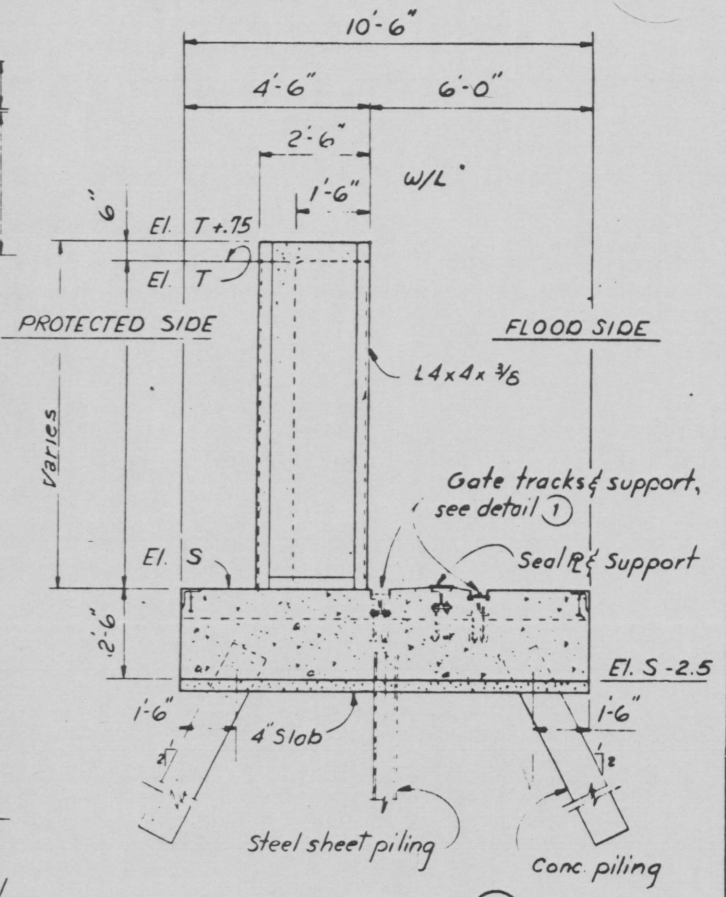
MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 ITEM M-94.9-94.6-L  
 CANAL-TOULOUSE ST. FLOODWALL  
 DESIGN MEMORANDUM NO. 65  
**RELOCATION OF FACILITIES**  
**TYPICAL SWING GATE DETAIL**  
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS



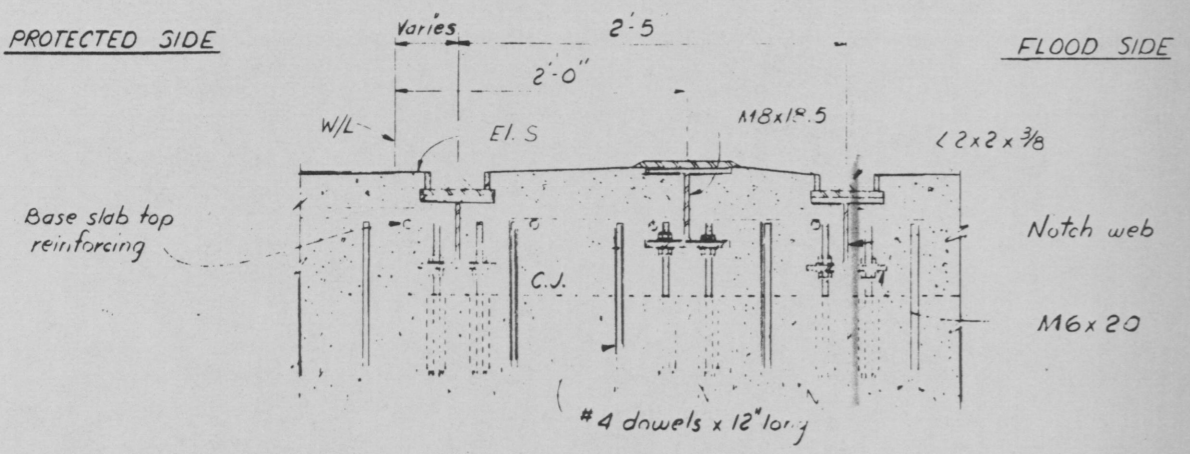
PLAN AT ELEVATION 6.0  
Scale: None



FLOOD SIDE ELEVATION  
Scale: None



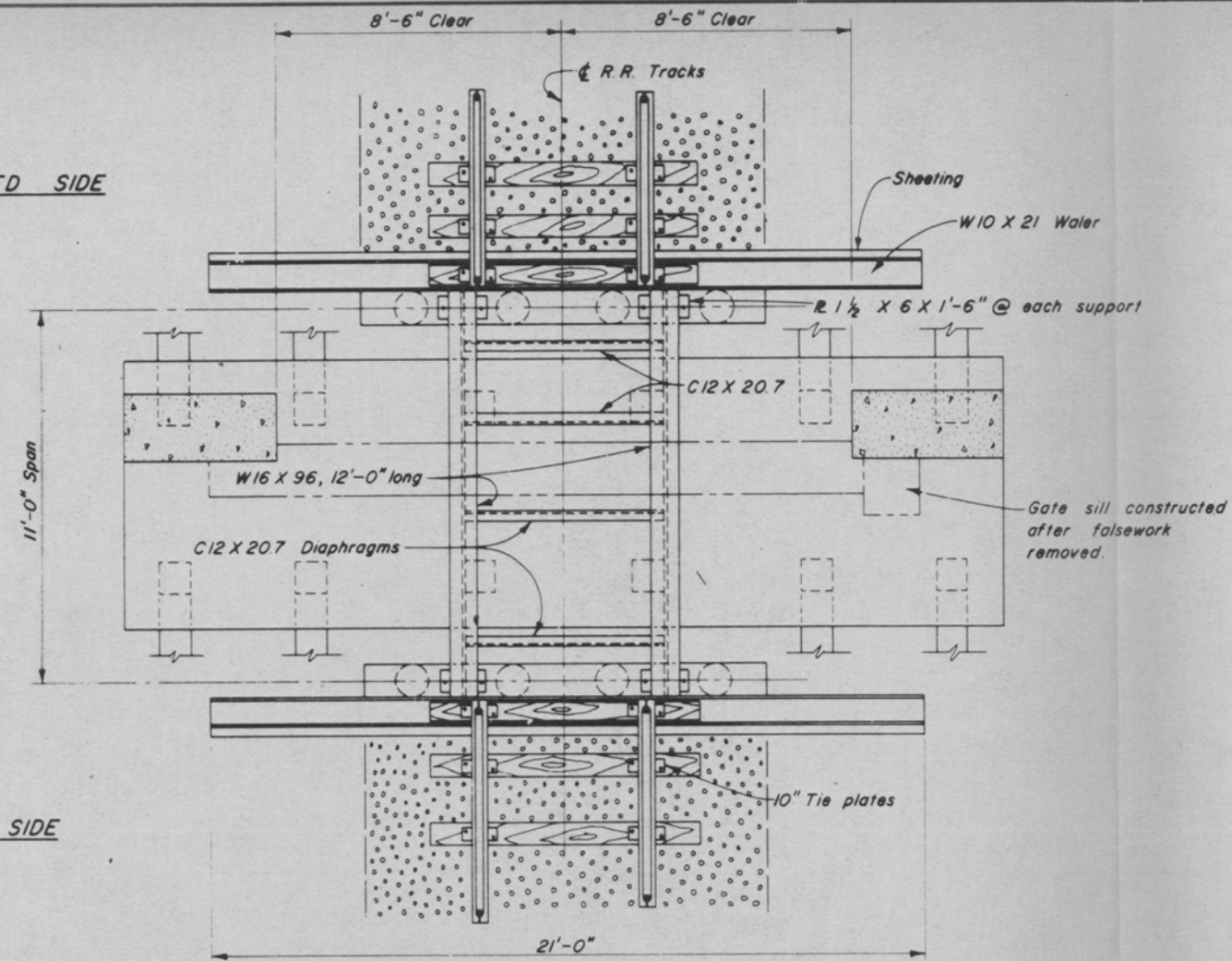
SECTION A  
Scale: 3/16" = 1'-0"



DETAIL 1  
Scale: 3/4" = 1'-0"

MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-94.9-94.6-L  
CANAL-TOULOUSE ST. FLOODWALL  
DESIGN MEMORANDUM NO. 65  
**RELOCATION OF FACILITIES**  
TYPICAL ROLLER GATE DETAIL  
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
CORPS OF ENGINEERS

PROTECTED SIDE



FLOOD SIDE

PLAN - FALSEWORK

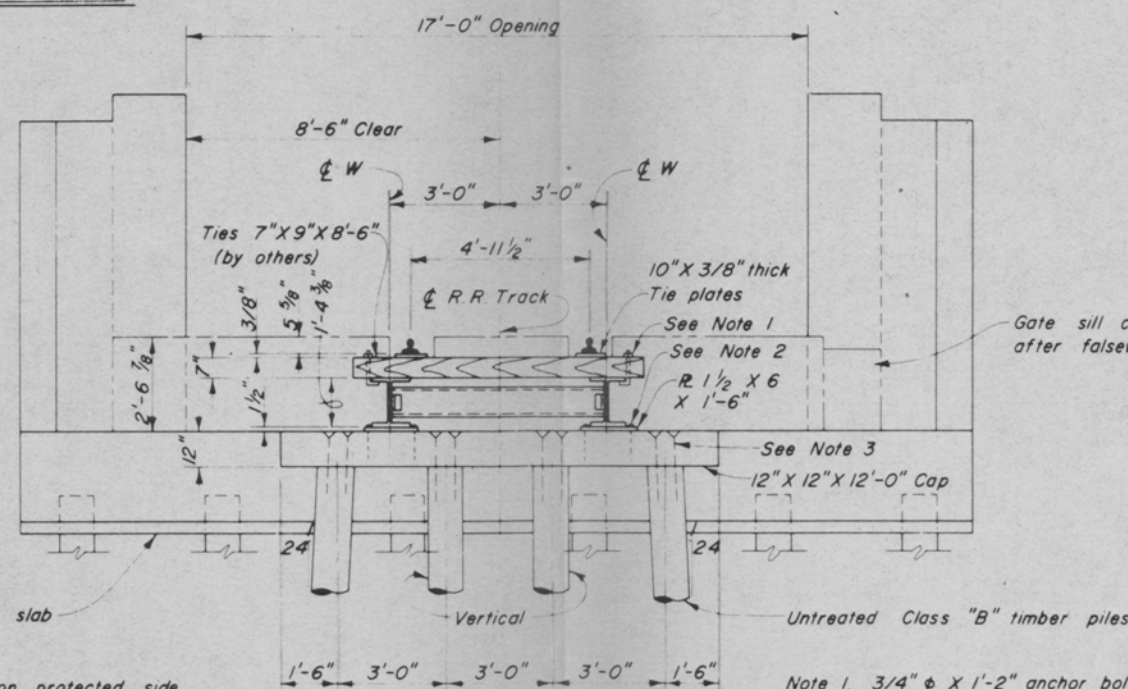
General = DESIGN CRITERIA =

The design of the temporary railroad bridge falsework was based on AREA specifications for the design of wood and steel structures. Each member was designed to support a railroad load and its own weight.

The following design criteria is given:

1. Live load: Cooper E-80 axle loading
  2. Dead load: Weight of Materials
    - a) Steel - 490 Lbs per cu ft
    - b) Timber - 60 Lbs per cu ft
    - c) Track rails & Fasteners - 200 Lbs per lin ft of track
    - d) Earth fill & Ballast - 120 Lbs per cu ft
  3. Unit Working Stress
    - a) Timber - Stress grade conforming to AREA specifications for Structural Lumber
    - b) Steel - Basic stress conforms to AREA specifications for ASTM A-36
    - c) Piling (timber) - Tension, 26 Kips per pile, Compression, 38 Kips per pile
- Corps of Engineers allowable

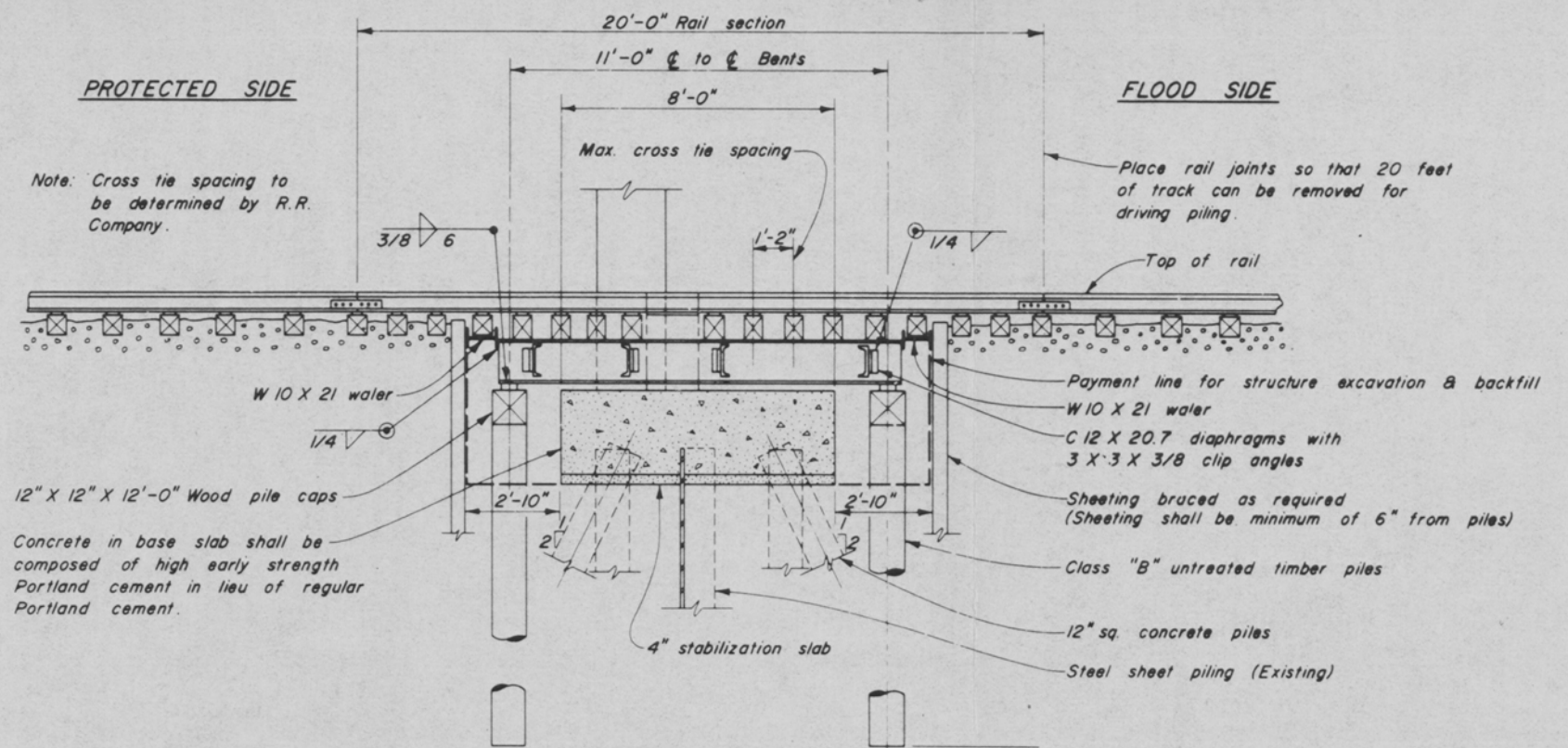
Note: Falsework bents on protected side are similar to those on flood side.



FLOOD SIDE ELEVATION - FALSEWORK BENTS

- Note 1. 3/4" φ X 1'-2" anchor bolts, threaded 3" W/3" φ flat washer.  
 Note 2. 3/4" φ X 1'-0" drift bolts W/button head and wedge point.  
 Note 3. 7/8" φ X 2'-0" drift bolts W/countersunk head and wedge point.

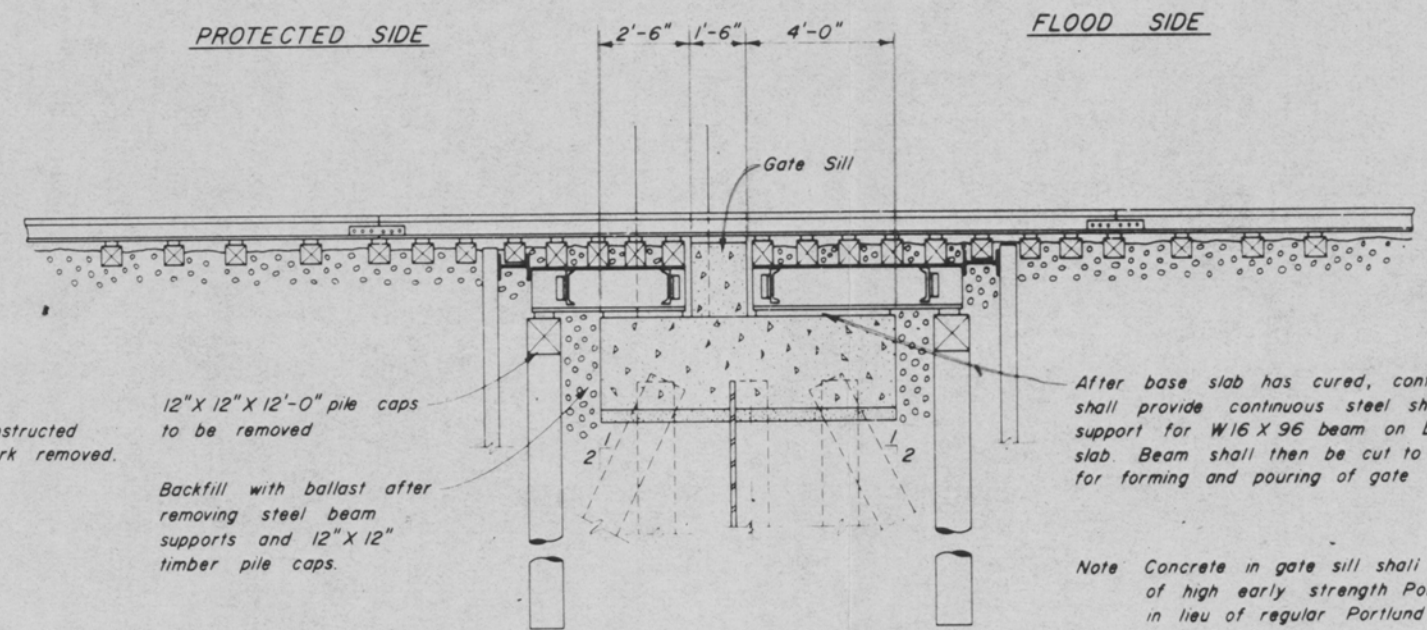
PROTECTED SIDE



FLOOD SIDE

SECTION (FALSEWORK SPAN)

PROTECTED SIDE



FLOOD SIDE

SECTION (FALSEWORK REMOVED)

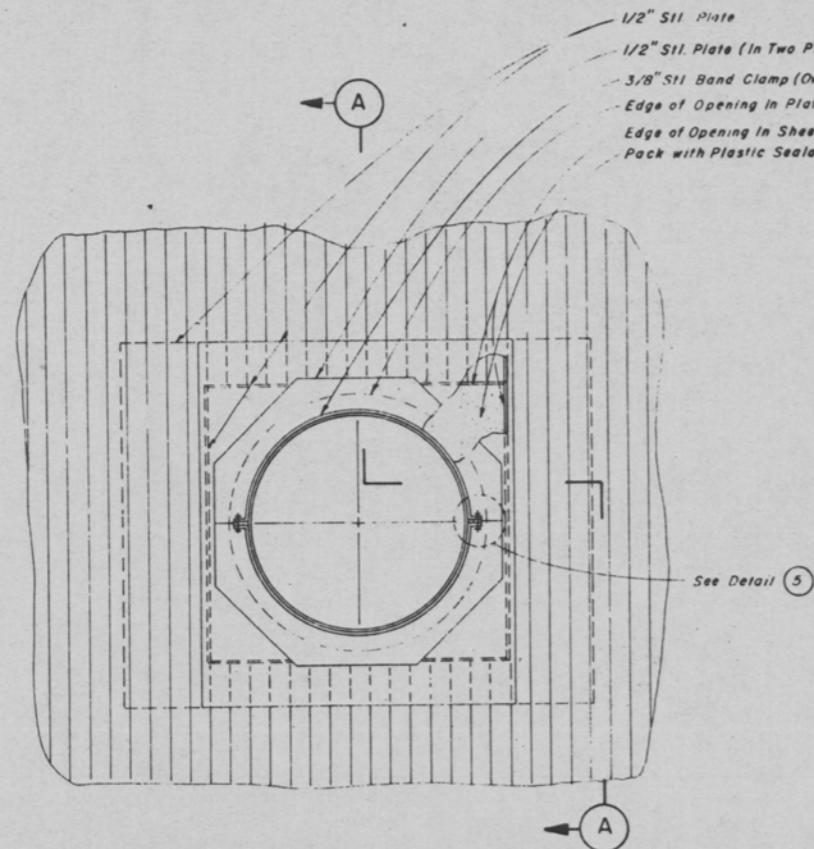
After base slab has cured, contractor shall provide continuous steel shim support for W16 X 96 beam on base slab. Beam shall then be cut to allow for forming and pouring of gate sill.

Note: Concrete in gate sill shall be composed of high early strength Portland cement in lieu of regular Portland cement

NOT TO SCALE

MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 ITEM M-94.9-94.6-L  
 CANAL-TOULOUSE ST. FLOODWALL  
 DESIGN MEMORANDUM NO.65  
 RELOCATION OF FACILITIES  
 RAILROAD FALSEWORK

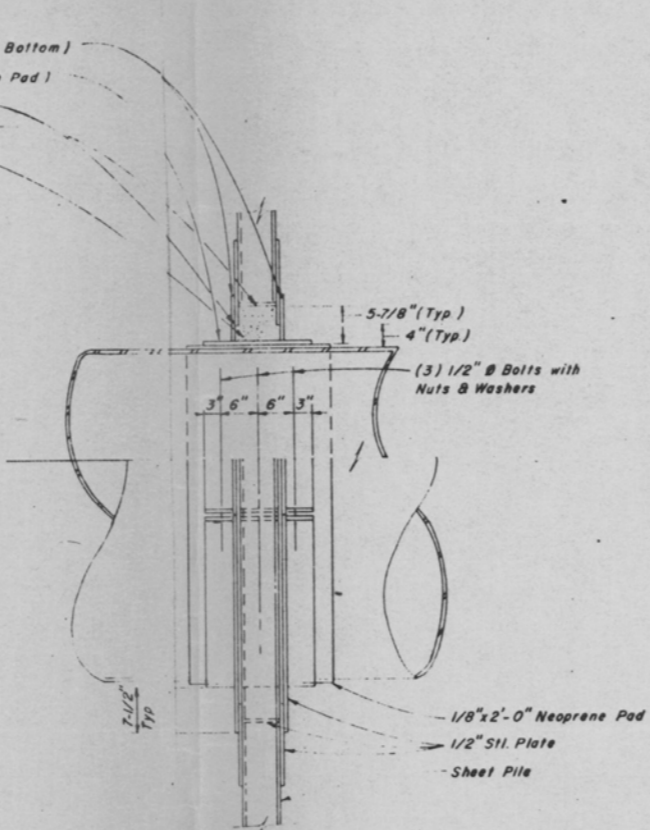
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS



ELEVATION

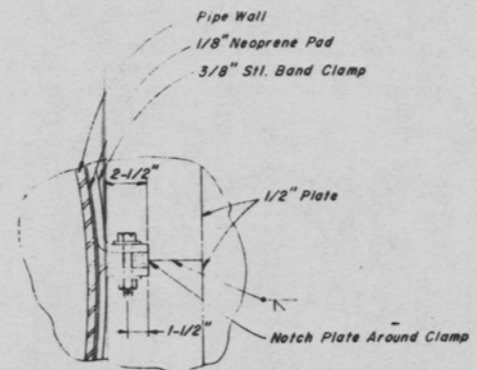
DETAIL OF 36" TO 66" DIAMETER PIPE THRU STEEL SHEET PILING (1)

SCALE: 1/2" = 1'-0"



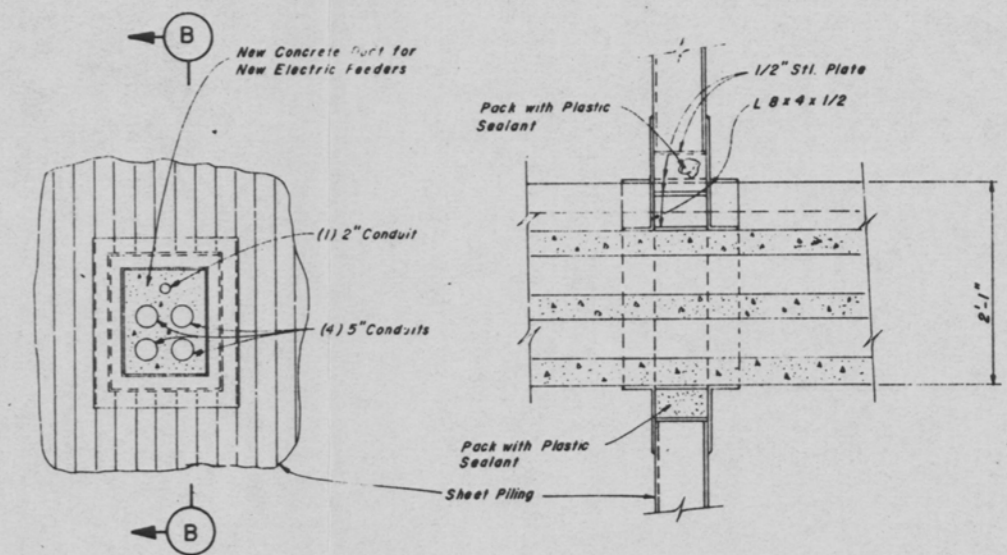
SECTION A

SCALE: 3/4" = 1'-0"



DETAIL 5

NTS



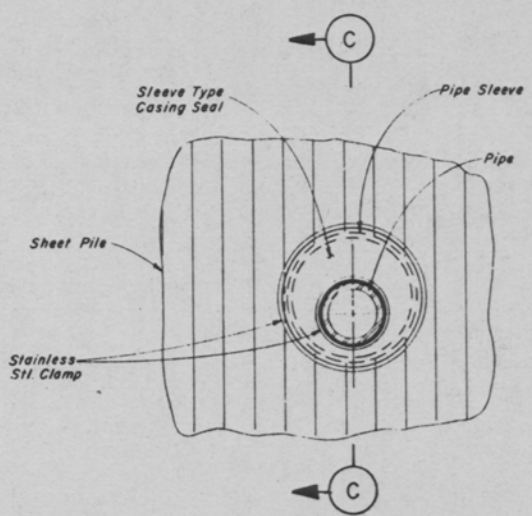
ELEVATION

DETAIL CONCRETE DUCT THRU STEEL SHEET PILING (2)

SCALE: 1/2" = 1'-0"

SECTION B

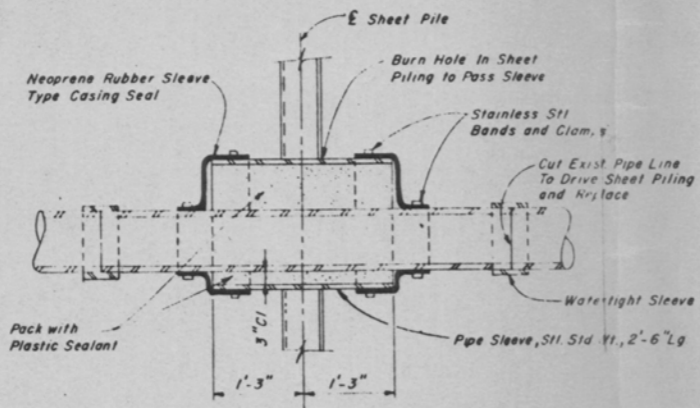
SCALE: 1" = 1'-0"



ELEVATION

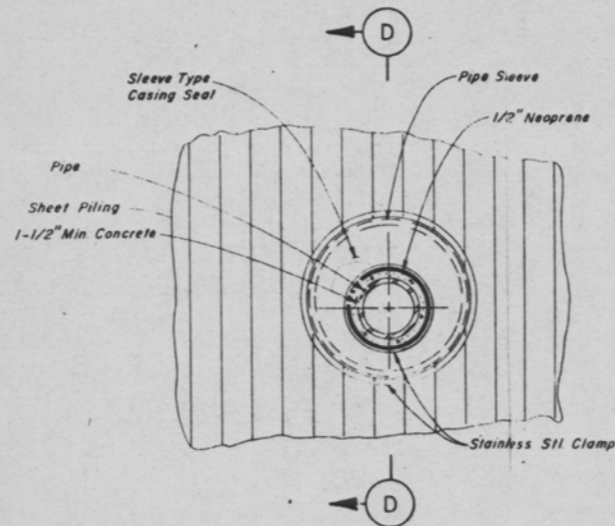
DETAIL PIPE LESS THAN 12" DIA THRU STEEL SHEET PILING (3)

SCALE: 3/4" = 1'-0"



SECTION C

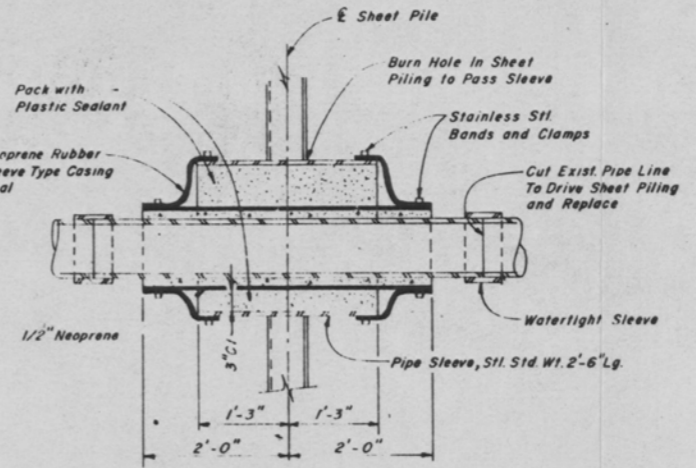
SCALE: 3/4" = 1'-0"



ELEVATION

DETAIL GAS PIPE THRU STEEL SHEET PILING (4)

SCALE: 3/4" = 1'-0"



SECTION D

SCALE: 3/4" = 1'-0"

MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
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CANAL-TOULOUSE ST. FLOODWALL  
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UTILITIES**  
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
CORPS OF ENGINEERS