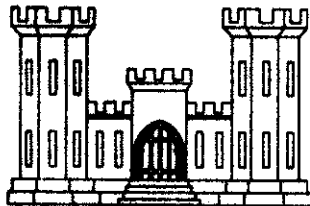


**FLOOD CONTROL
MISSISSIPPI RIVER AND TRIBUTARIES
MISSISSIPPI RIVER LEVEES**

**ITEM M-14.9-R
COMMANDER LEVEE ENLARGEMENT**

**PLAQUEMINES PARISH, LOUISIANA
RELOCATION OF FACILITIES
DESIGN MEMORANDUM NO. 3**



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

June 1971

Serial No. 32

LMVED-TD (NOD 11 Jun 71) 3d Ind
SUBJECT: Flood Control, Mississippi River and Tributaries,
Mississippi River Levees, Item M-14.9-R, Commander Levee
Enlargement, Plaquemines Parish, La., Relocation of
Facilities, Design Memorandum No. 3

DA, Mississippi River Commission, Corps of Engineers, Vicksburg,
Miss. 39180 8 Jun 72

TO: District Engineer, New Orleans, ATTN: LMNED-DG

1. The explanations furnished and actions proposed in the 2d Ind are satisfactory. The following comments require no further action.
2. Since 11 copies of the DM were furnished with the basic letter, 11 copies of all inclosures to the 2d Ind should have been furnished.
3. Detailed Cost Estimate. 15", 18", and 21" ABCMP (Item 13) should have been separated into three items.

FOR THE PRESIDENT:

wd all incl



A. J. DAVIS
Chief, Engineering Division

LMNED-DG (11 Jun 71) 2d Ind

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, La., Relocation of Facilities, Design Memorandum No. 3

DA, New Orleans District, Corps of Engineers, P. O. Box 60267, New Orleans, Louisiana 70160 5 May 1972

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

1. The paragraph numbers referenced below refer to those in the 1st Ind of this chain of correspondence. Proposed disposition of the 1st Ind comments is as follows:

a. Paragraph 2. Concur.

b. Paragraph 3. Concur. Accordingly, the following modifications to the design memorandum are required:

(1) Item C-13-1, Table 1, page C, should be described as follows:

C-13-1	Delta Gas Co.	Remove 1-inch pipeline	3.4 mi.	Plate 4-9
		Remove 3/4-inch diameter service connection	7,500 L.F.	(not shown)

(2) Insert the phrase (not shown on plates) between the words "lines" and "extending" in the first sentence of paragraph 4a(3)(b) on page 5.

(3) Paragraph 8d(9) on page 21 should be rewritten as follows:

Item C-13-1. This item represents the abandonment of approximately 19,120 linear feet of 1-inch diameter gas main which was parallel and adjacent to the former levee (see plates 4-9) and the abandonment of about 7,500 linear feet of 3/4-inch diameter laterals (not shown on plates). These laterals are service connections aligned perpendicular to the gas main and passing through the new levee right-of-way and the relocated road right-of-way. This distribution system has been abandoned in place by the owner and will not be replaced. That portion within the levee right-of-way has been removed by the levee contractor and that portion within the right-of-way for the relocated road will be removed by the road contractor.

c. Paragraph 4. Concur. A rewrite of paragraphs 14 and 15 of the design memorandum is also required by changes in the relocation plans for Parish Road #325 which have developed subsequent to the June 1971 submission of DM No. 4 and by a change in the contingency factors from 15 to 25 percent; these changes are noted and discussed in paragraphs

LMNED-DG (11 Jun 71) 2d Ind 5 May 1972

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, La., Relocation of Facilities, Design Memorandum No. 3

2 and 3 herein. Paragraphs 14 and 15 as rewritten are presented in paragraphs 4 and 5, respectively.

d. Paragraph 5. The third sentence of the rewrite of paragraph 10d as provided by the 1st Ind is misleading because it implies that the Commission Council would only be reimbursed a removal cost and not the total abandonment value as provided for in Table 4 of the design memorandum. The sentence should read:

"By the same authority, reimbursement for the abandonment of the buried cable, item C-15-3, will also be made to the Commission Council (ER 1180-1-1)."

The fourth sentence of the rewrite of paragraph 10e as provided by the 1st Ind is misleading in that the removal of the abandoned gasline has been accomplished in part by the levee contractor and because it implies that the Commission Council would only be reimbursed a removal cost and not the total abandonment value as provided for in Table 6 of the design memorandum. The sentence should read:

"Also, reimbursement for the abandonment of the gasline, item C-13-1, will be made to the Plaquemines Parish Commission Council pursuant to the authority cited in paragraph d above (ER 1180-1-1)."

e. Paragraph 6. Concur. The additional detail requested for the storm drainage system is provided in inclosure 2.

f. Paragraph 7. Concur. The "D" annotation on the heading: Facilities on Lateral Roads, on page D should be changed to a "C."

2. As noted in paragraph 10b of the design memorandum, local interests have proceeded with the preparation of construction plans for the relocation of Parish Road #325; these plans were completed subsequent to the original submission of this design memorandum. During final review of these plans and specifications, the Louisiana Department of Highways instituted considerable changes in the cross sections and in the bid item schedule. In addition to this, local interests have been approached by certain property owners who wish to reverse their original position of not desiring a road relocation (see paragraph 11a); therefore, the lower limit of the road relocation in the Commander Reach has been revised to approximate levee station 3559+00 (about a 407-foot increase). This extension of the proposed roadway was discussed with representatives of LMVD during a 16 February 1972

LMNED-DG (11 Jun 71) 2d Ind 5 May 1972

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, La., Relocation of Facilities, Design Memorandum No. 3

meeting at this District and was presented again to MRC by LMNED-DG radiogram dated 6 March 1972 (Modified Proposed Plan (Including La. 23), Loop I). This extension was approved, along with the alignments of the balance of the road relocations between Fort Jackson and Venice, by LMVED-TD-5 radiogram dated 10 March 1972, subject: Relocations - Mississippi River - Fort Jackson to Venice. These radiograms are provided as inclosures 3 and 4, respectively. While these changes increase the estimated cost of the relocation, they are within the design standard for the road and are considered to be within the provisions of paragraph 73-209.2(c) of ER 1180-1-1. These changes require the following modifications to the design memorandum:

a. Paragraph 8a(2) should be rewritten as shown in inclosure 5.

b. Table 2 should be revised as indicated in inclosure 6.

c. Appendix IV should be revised as indicated in inclosure 7.

A discussion of the revised appendix IV follows:

(1) Item 1, Mobilization was added as a separate line item by the Louisiana Department of Highways.

(2) Item 2, Clearing and grubbing: this function was included under item 5 of the original appendix IV.

(3) Item 3, Removal of structures and obstructions: this function was included under item 5 of the original appendix IV.

(4) Item 4, Excavation: this item was included under item 5 of the original appendix IV.

(5) Item 5, Cement-treated shell and sand base course: the base course was originally to have been a clam and reef shell mixture with cement and was provided for under items 3, 4, 7, and 8 of the original appendix IV.

(6) Item 6, Aggregate surface course for shoulders: this item was originally to have been a clam and reef shell mixture and was provided for under item 3 of the original appendix IV.

(7) Item 7, Asphaltic concrete binder and wearing course: this item was originally to have been a 3 5/8-inch asphaltic surface and was provided for under items 1 and 2 of the original appendix IV.

LMNED-DG (11 Jun 71) 2d Ind 5 May 1972

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, La., Relocation of Facilities, Design Memorandum No. 3

(8) Item 8, Manholes (R-CB-11): this item was provided for under item 12 of the original appendix IV.

(9) Item 9, Manhole adjustments: this item was provided for under item 12 of the original appendix IV.

(10) Item 10, Catch basins (R-CB-3 Modified): this item was included under item 12 of the original appendix IV.

(11) Item 11, Signs and barricades: this item was provided for under item 14 of the original appendix IV.

(12) ABCMP Arch (22" x 13"): the function provided by this item was provided for by asphalt-dipped galv. CMPA and RCP arch Class III, items 9 and 11 of the original appendix IV.

(13) Item 13, ABCMP (15", 18", 21"): this item was provided for as RCP ASTM Class III under item 10 of the original appendix IV.

(14) Item 14, Bedding material for pipes: this item was included under item 10 of the original appendix IV.

(15) Item 15, Fertilizing and seeding: no change.

(16) Item 16, Chain link fence: this item was provided for under item 13 of the original appendix IV.

d. On plates 4, 5, and 6, under the heading FACILITIES TO BE RELOCATED, the lower limit of item C-11 (Existing Road) should be changed from 3554+93.0 to 3559+00.

e. Plate 7 should be revised as shown in inclosure 8 to indicate the new limit of the road relocation.

f. On plates 8 and 9, under the heading FACILITIES TO BE RELOCATED, the upper limit of item C-11 (Existing Road) should be changed from station 3554+93.0 to 3559+00.

g. On plate 10, the lower limit of the existing road which is to be relocated and the upper limit of the existing road to be abandoned should be changed from 3554+93.0 to 3559+00.

LMNED-DG (11 Jun 71) 2d Ind 5 May 1972

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, La., Relocation of Facilities, Design Memorandum No. 3

h. Plates 11 and 12 of the original submission have been revised to reflect the new sections (see inclosures 9 and 10, respectively).


3. In accordance with LMVED-TD (NOD 6 Apr 71) 1st Ind dated 27 October 1971, subject: FCMR&T, Mississippi River Levees, Item M-10.7-R, Venice Levee Enlargement and Setback, Plaquemines Parish, La., Relocation of Facilities, DM No. 4, the contingency factor in tables 2, 4, 5, and 6 and in appendix IV should be increased from 15 percent to 25 percent (see inclosures 6, 11, 12, 13, and 7, respectively).

4. For the reasons noted in paragraph 1c herein, paragraph 14 should be rewritten as shown in inclosure 14.

5. For the reasons noted in paragraph 1c herein, paragraph 15 should be rewritten as shown in inclosure 15.

6. Approval of the disposition of the 1st Ind comments as proposed above and approval of the additional revisions necessitated by continued coordination with local interests is recommended.

FOR THE DISTRICT ENGINEER:


JEROME C. BAEHR
Chief, Engineering Division

15 Incl

Added 14 incl

2. Sketch of Drainage Requirements
3. LMNED-DG Radiogram dtd 6 Mar 72
4. LMVED-TD-5 Radiogram dtd 10 Mar 72
5. Rewrite: Para 8a(2)
6. Revised: Table 2
7. Revised: Appendix IV
8. Revised: Plate 7 (11 cys)
9. Revised: Plate 11 (11 cys)
10. Revised: Plate 12 (11 cys)
11. Revised: Table 4
12. Revised: Table 5
13. Revised: Table 6
14. Rewrite: Para 14
15. Rewrite: Para 15

DATE

DATE

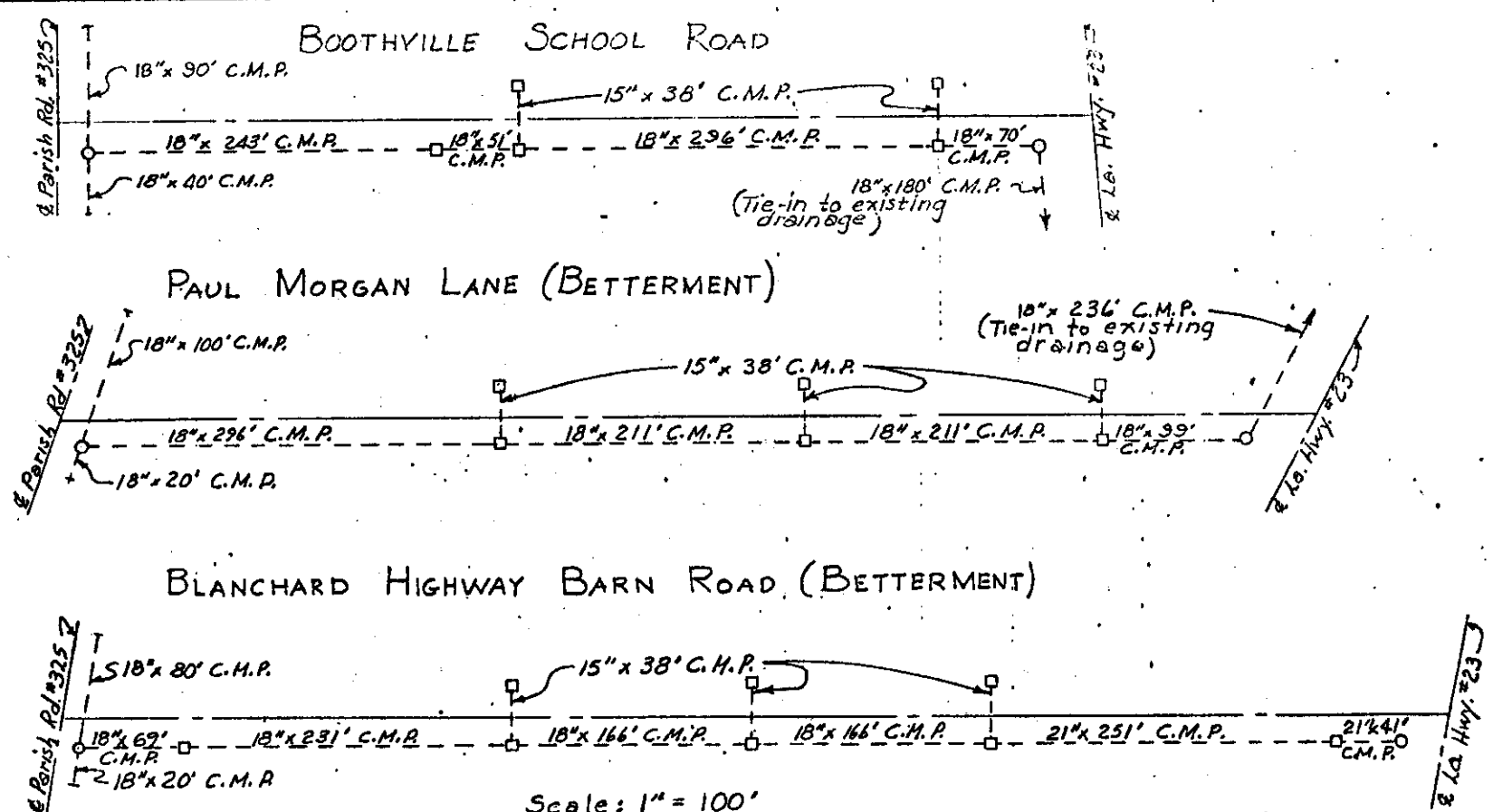
COMPUTED BY

CHECKED BY

Page of

PROJECT

SUBJECT



Note: In addition, Catch basins with 22" x 13" x 30" C.M.P.A. cross under Parish Road #325 at Stations 3471+80, 3480+20 and 3500+30.

Two additional catch basins included as contingency item (betterment)

Legend

- o Manhole
- Catch basin

R A D I O G R A M

6 March 1972

PRESIDENT, MRC
ATTN: LMVED
VICKSBURG, MISS

LMVED-DG

REFERENCE IS MADE TO THE FOLLOWING:

A. MEETING HELD AT NOD 16 FEB 72 ATTENDED BY REPRESENTATIVES OF LMVED,
SUBJECT: RELOCATION OF PARISH RD #325 BETWEEN FT. JACKSON-BOOTHVILLE AND
LOWER VENICE AND THE RELOCATION OF LA. STATE ROUTE 23 AT LOWER VENICE.

B. TELEPHONE CONVERSATION OF 28 FEB 72 BETWEEN MR. HART OF LMVED-DL AND
MR. MISKELLEY OF LMVED-TD SUBJECT: RELOCATION OF LA. 23 AT LOWER VENICE.

C. TELEPHONE CONVERSATION OF 29 FEB 72 BETWEEN MR. MISKELLY AND MR. HART
SUBJECT: RELOCATION LA. 23 AT LOWER VENICE.

D. LTR DATED 6 DEC 71 TO NOD FROM MR. C. O. PEREZ, PRESIDENT, PLAQ.
PARISH COMMISSION COUNCIL, SUBJECT: AN OFFER TO QUIT CLAIM TITLE TO PARISH RD
325 BELOW FT. JACKSON AND LA 23 AT THE JUMP IN RETURN FOR CONCURRENCE IN THE
PROPOSED ALIGNMENT FOR THE RELOCATION OF SAME.

2. AS PRESENTED DURING THE REFERENCED MEETING, THE PLAQUEMINES PARISH COMMISSION
COUNCIL ENJOYS A COMPENSABLE INTEREST IN 45,208 LINEAR FEET OF PARISH ROAD #325.
ALL OF THIS ROAD WILL BE DISLOCATED BY THE ENLARGEMENT OF THE MAIN LINE MISSISSIPPI
RIVER LEVEE AND THE FEDERAL GOVERNMENT IS OBLIGATED TO RELOCATE IT. A STRAIGHT
FORWARD RELOCATION OF RD # 325 WOULD BE ALIGNED PARALLEL AND ADJACENT TO THE NEW
LEVEE R/W FROM FT. JACKSON TO THE JUMP (THE INTERSECTION OF LA. 23 AND TIDELAND

R A D I O G R A M

ROAD) AT LOWER VENICE WITH A SINGLE LATERAL ROAD OUT TO LA. STATE ROUTE 23 AT FT. JACKSON (THE THEORETICAL PLAN PRESENTED DURING THE REFERENCED FEB MEETING). IN ADDITION, THE LA. DEPARTMENT OF HIGHWAYS ENJOYS A COMPENSABLE INTEREST IN LA. STATE ROUTE 23 AT ITS INTERSECTION WITH TIDELAND ROAD AND PARISH ROAD #325 AT THE JUMP. THIS PORTION OF LA 23 WILL BE DISLOCATED BY THE ENLARGEMENT OF THE MAIN LINE MISSISSIPPI RIVER LEVEE. A STRAIGHTFORWARD RELOCATION OF LA 23 WOULD INVOLVE RAMPING THE FOUR LANES OF LA 23 OVER THE PROPOSED LEVEE AND DOWN TO THE PREVIOUS INTERSECTION WITH RD # 325 AND TIDELAND ROAD. LOCAL INTERESTS HAVE DEFINITELY STATED THAT THEY DO NOT WANT AN INDEPENDENT RELOCATION OF LA. 23. LOCAL INTERESTS PREFER TO RELOCATE RD #325 BY CONSTRUCTING THREE LOOPS CONNECTING TO LA 23 AND TO INCORPORATE THE RELOCATION OF LA. 23 INTO THE THIRD LOOP (THE PROPOSED PLAN PRESENTED DURING THE FEB MEETING).

3. AT THE SUGGESTION OF LMVED, NOD ATTEMPTED TO DEVELOP A PLAN OF RELOCATION OF LA. 23 IN LOWER VENICE WHICH WOULD BE INDEPENDENT OF THE RELOCATION OF RD #325. THIS PLAN IN SIMPLE TERMS INVOLVED RAMPING THE FOUR LANES OF LA. 23 OVER THE MAIN LINE LEVEE TO INTERSECT A RAMPED TIDELAND RD AND A RAMPED RD # 325 AT THE JUMP. A STABILITY ANALYSIS OF THE CONFIGURATION DETERMINED THAT AT THE INTERSECTION OF THE LA 23 RAMP AND TIDELAND RE RAMP THE PROPOSED LEVEE WOULD HAVE TO BE SETBACK AN ADDITIONAL 25 FEET ^{OVER THAT IN THE ORIGINAL PLAN.} AN ESTIMATE WAS PREPARED FOR THIS ALIGNMENT (USING 5% SLOPE ON THE RAMPS) AND WAS DETERMINED TO COST APPROXIMATELY \$276,000 MORE THAN THE ALIGNMENT IN THE ORIGINALLY PROPOSED PLAN. THIS INCREASE IS DUE TO RELATED RELOCATIONS COSTS ON EITHER SIDE OF LA 23 (APPROXIMATELY \$370,000) NECESSITATED BY THE LA 23 RAMP. A REDUCTION IN THE % GRADE ON THIS RAMP WAS CHECKED WITH THE

R A D I O G R A M

LA. DEPARTMENT OF HIGHWAYS AND WAS REJECTED BY THAT AGENCY. THIS REJECTION WILL BE CONFIRMED BY A LETTER FROM THE DEPT OF HWYS AND WILL BE INCORPORATED INTO THE 2D IND TO THE LOWER VENICE DESIGN MEMORANDUM.

4. THE INFORMATION IN PARA 3 WAS RELAYED TO LMVED-TP BY THE TELEPHONE CONTACT REFERENCED IN 1B. SUBSEQUENTLY, MR. HART WAS ADVISED BY MR. MISKELLEY (REFERENCE 1C) THAT NOD SHOULD PROCEED WITH PLANNING FOR THE RELOCATION OF LA 23 AS ORIGINALLY PRESENTED IN THE LOWER VENICE RELOCATIONS DESIGN MEMORANDUM WITH THE EXCEPTION THAT THE NEW ROAD FROM THE EXISTING LA 23 TO THE BACK LEVEE AND THENCE TO TIDELAND RD SHOULD BE ALIGNED ATOP THE BACK LEVEE TO THE MAXIMUM EXTENT FEASIBLE (THE MODIFICATION SUGGESTED BY MR. FRANK WEAVER OF LMVED). THIS MODIFIED PROPOSED PLAN HAS BEEN DISCUSSED WITH LOCAL INTERESTS AND THEY HAVE AGREED TO THE ALIGNMENTS INVOLVED.

5. COMPARATIVE ESTIMATES OF COST FOR THE THEORETICAL PLAN (W/O THE RELOCATION OF LA 23), THE THEORETICAL PLAN (INCL THE RELOC OF LA 23), AND THE MODIFIED PROPOSED PLAN (INCL LA 23) ARE AS FOLLOWS:

I THEORETICAL PLAN (W/O LA 23).....	\$3,200,000
II THEORETICAL PLAN (MODIFIED TO INCL LA 23).....	\$3,770,000
III MODIFIED PROPOSED PLAN (INCL LA 23).....	\$2,525,000

BACK UP DATA

I THEORETICAL PLAN (w/o LA 23)

A. RD #325 ADJACENT TO LEVEE

44038 LF @ 36.00.....1,587,000

LATERAL AT FT. JACKSON

1170 LF @ 54.00.....63,000

RADIOGRAM

SUBTOTAL	1,650,000
CONTING (25%+)	<u>390,000</u>
	\$2,040,000

B. RIGHT-OF-WAY

2,700,780 SF @ 0.16.....	430,000
CONTING(100%)	<u>430,000</u>
	\$860,000

C. MODIFY PLAQ PARISH WATER RESERVOIR

LUMP SUM.....	<u>300,000</u>
---------------	----------------

TOTAL	\$3,200,000
-------	-------------

II. THEORETICAL PLAN (MODIFIED TO INCL LA 23)

A. PARISH RD 325:

PARISH RD 325 ADJACENT TO MAIN

LINE LEVEE	42,400 LP@36.00.....	1,526,000
LATERAL RD	1,170 LP@54.00.....	63,000
	CONTING(25%)+.....	397,000
R/W	2,599,780SF@0-16.....	416,000
	CONTING (100%).....	416,000

B. MODIFY PLAQ PARISH WATER RESERVOIR	LS.....	300,000
---------------------------------------	---------	---------

C. LA HWY 23 (INCORPORATING LMV SUGGESTIONS - REF LA & 1B above)

PORTION FROM EXIST LA 23 TO
MAIN LINE LEVEE THENCE ALONG

LE	LEVEE TO THE JUMP	2363 LP@ 54.00.....	127,600
----	-------------------	---------------------	---------

R A D I O G R A M

PORTION FROM EXIST LA 23 TO

BACK LEVEE THENCE ALONG BACK

LEVEE TO TIDELAND RD. 1900LF@ 54.00.....		102,600
---	--	---------

PORTION ALONG TIDELAND RD

FROM BACK LEVEE TO THE JUMP 1500LF@ 54.00.....		81,000
---	--	--------

RAMP CONSTRUCTION	LUMP SUM.....	150,000
-------------------	---------------	---------

		CONTING(25%)+		117,200
--	--	---------------	--	---------

R/W 229,968 SF@ 0.16				36,800
-----------------------------	--	--	--	--------

				CONTING(100%)	36,800
--	--	--	--	---------------	--------

				TOTAL.....	\$3,770,000
--	--	--	--	------------	-------------

III MODIFIED PROPOSED PLAN (INCL LA 23)

A. RELOCATION OF RD #325 (3 "LOOPS")

LOOP I

PARISH RD #325	18,833 LF@ 36.00			678,800
----------------	------------------	--	--	---------

LATERAL RDS	2,056 LF@ 54.00			111,000
-------------	-----------------	--	--	---------

				CONTING (25%+)	197,000
--	--	--	--	----------------	---------

R/W	1,192,640 SF@ 0.16			191,000
-----	--------------------	--	--	---------

				CONTING (100%)	<u>191,000</u>
--	--	--	--	----------------	----------------

				\$1,368,000
--	--	--	--	-------------

LOOP II

PARISH RD #325	1,491 LF@ 36.00			54,000
----------------	-----------------	--	--	--------

LATERAL RDS	1,570 LF@ 54.00			85,000
-------------	-----------------	--	--	--------

				CONTING (25%+)	35,000
--	--	--	--	----------------	--------

RADIOGRAM

R/W	145,460 SF @ 0.16	23,000
	CONTING (100%)	<u>\$23,000</u>
		\$220,000
LOOP III A		
PARISH RD # 325	3469 LF @ 36.00	125,000
LATERAL RD	760 LF @ 54.00	41,000
	CONTING (25%+)	41,000
R/W	246,140 SF @ 0.16	39,000
	CONTING (100%)	<u>39,000</u>
		\$285,000
RELOC OF RD # 325 SUBTOTAL.....		\$1,873,000
B. RELOCATION OF LA 23		
(SAME AS II C, ABOVE).....		652,000 ✓
	TOTAL	\$2,525,000

6. A COMPARISON OF THE THEORETICAL PLAN (MODIFIED TO INCLUDE LA 23) AT \$3,770,000 AND THE MODIFIED PROPOSED PLAN (INCLUDING LA 23) AT \$ 2,525,000 INDICATES A SAVINGS TO THE FEDERAL GOVERNMENT OF \$1,245,000 IF AN AGREEMENT ON THE MODIFIED PROPOSED PLAN CAN BE ACHIEVED WITH LOCAL INTERESTS.

7. WE REQUEST MRC CONCURRENCE IN NOD ACCOMPLISHING THIS BY NOD RESPONDING TO MR. C. O. PEREZ'S LETTER OF 6 DEC 71 (REFERENCE 1D). THIS RESPONSE WOULD AGREE TO THE TOTAL ALIGNMENT CONCEPT FOR THE RELOCATION OF RD #325 AND LA 23 AS DISCUS IN THE MODIFIED PROPOSED PLAN (INCL LA 23) PRESENTED HEREIN; THE DETAILS OF ROAD SECTION AND COST WOULD BE SUBJECT TO APPROVAL OF THE RESPECTIVE DESIGN MEMORANDUMS.

J. C. BAUER
Wet

R A D I O G R A M

DISTENGR, New Orleans
ATTN: LMNED-DG

10 Mar 72

LMVED-TD-5

WJH
Ammon/sf/25

Subj: Relocations - Mississippi River - Fort Jackson to Venice

References:

- a. Your Radiogram LMNED-DG, 6 Mar 72.
- b. DM 7, Relocation for Item M-10.4 R, Lower Venice.

RJK
KAUFMA

Your proposed action to resolve our comments on DM 7 (reference b) is satisfactory.

TJT
TORRE

Authority is granted to proceed with discussion with Plaquemines Parish Commission Council regarding road relocations based on their letter of 6 Dec 71.

GBD
GBDAVI

DIVENGR, LMVD

out RB
AJDAVI

OFFICIAL: *George B. Davis*
GEORGE B. DAVIS
Acting Chief, Engineering Division

mail
~~VXD Radio Room (Dupe)~~
Mr. Ammon
MRC Files

(2) Recommended plan. This plan for the relocation of Parish Road #325 retains the design standard of class 6, "C" system but provides for a discontinuous alignment consisting of three traffic "loops." The upriver portion of the relocation, the first "loop," will consist of a segment parallel and adjacent to the new levee right-of-way between levee baseline stations 3370+63.7 and 3559+00 and two laterals connecting with State Route 23 along the present alignments of Dead Man Lane and Boothville School Road (see plates 2 through 7). It is noted that Plaquemines Parish intends to provide additional lateral roads on the upriver loop as shown along the present alignments of Blanchard Highway Barn Road and Paul Morgan Lane; these improvements are betterments and as such as discussed in paragraph 9a of this design memorandum. In consideration of the limited usable land in the project area, the alignment of the roadway adjacent to the levee suggested that by allowing the precipitation runoff from the levee to drain across the road, the shallow collection ditch on the levee side could be deleted (see plate 11) allowing a reduction in the right-of-way requirement as discussed in paragraph 7.a.(1). Despite the requirement for drainage along both sides of the lateral roads, a like reduction in right-of-way was achieved on the layout for Boothville School Road. This was accomplished by providing a subsurface collection system on the upriver side and a shallow collection ditch with catch basins and crossover pipes on the donriver side. An evaluation of the relative cost of the recommended plan (60-foot right-of-way) and the design standard class 6, "C" system (80-foot right-of-way) indicates that the additional 20 feet

of right-of-way required by the latter offsets the cost of the subsurface drainage system called for in the recommended plan. This provision is not considered a betterment. The alignment between stations 3370+63.7 and 3445+26.8 (beginning of Commander Levee Enlargement) is delineated herein (plates 2, 3, and 4) solely for the purpose of presenting a complete "loop" for review and will not be included in the balance of the design memorandum. Instead, this portion of the first "loop" will be presented in Design Memorandum No. 8, Fort Jackson-Boothville Levee Enlargement, Item M-18.9-R, Relocation of Facilities. It is noted that certain temporary shell roads have been constructed to provide access to State Route 23 for those residences and places of business which lost access when the road atop the levee in the Commander Reach was destroyed. Project responsibility for these shell roads is limited to those providing access to areas which will be afforded permanent access by the relocation of Parish Road #325. The downriver portions of the relocation, the second and third "loops," will be presented in detail in the relocations design memorandum covering the levee reach in which each "loop" is to be constructed: DM No. 4, Venice Levee Enlargement and Setback, Item M-10.7-R, Relocation of Facilities and DM. No. 7, Lower Venice Levee Enlargement and Setback, Item M-10.4-R, Relocation of Facilities.

TABLE 2 - ESTIMATE OF COST
 PLAQUEMINES PARISH ROADS (1)
 (July 1971 Price Levels)

Cost	:	:	:	Unit	:
Account	:	:	:	Cost	Amount
No.	Description	Unit	Quantity	(\$)	(\$)
02	Relocations				
.1	Roads				
	Highway 325	foot	11,344	35.70	\$404,950
	Blanchard Highway				
	Barn Road	foot	988	54.15	53,500
	Paul Morgan Lane	foot	868	54.15	47,000
	Boothville School Road	foot	718	54.15	38,800
	Relocation Cost				544,250
	Less Cost of Betterments				100,500 (2)
	Subtotal				443,750 (3)
	Plus Removal Cost				-
	Subtotal				443,750
	Contingencies (25%+)				110,950
	Subtotal				554,700
30	E&D (6%+)				33,300
31	S&A (6%+)				33,300
	Subtotal				621,300 (4)
	R/W Cost				276,000
	Total				\$897,300

- (1) For detailed cost estimate, see Appendix IV.
- (2) Represents total cost of Blanchard Highway Barn Road and Paul Morgan Lane.
- (3) Removal cost is estimated to be \$10,000, but removal of the existing road will be included in the levee construction contract.
- (4) Includes \$253,000 for Highway 325 R/W covered by this memorandum, \$8,400 for Boothville School Road R/W, and \$14,600 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

APPENDIX IV
 DETAILED COST ESTIMATE
 PLAQUEMINES PARISH ROADS
 (July 1971 Price Levels)

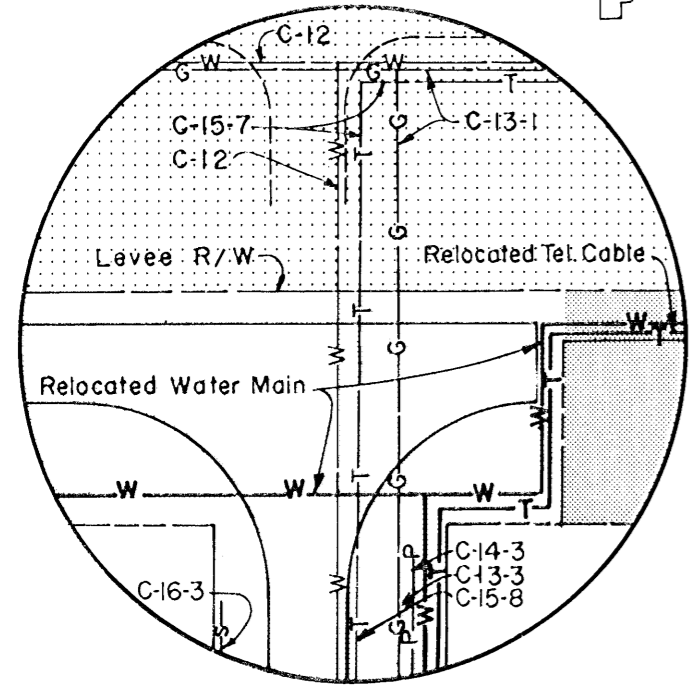
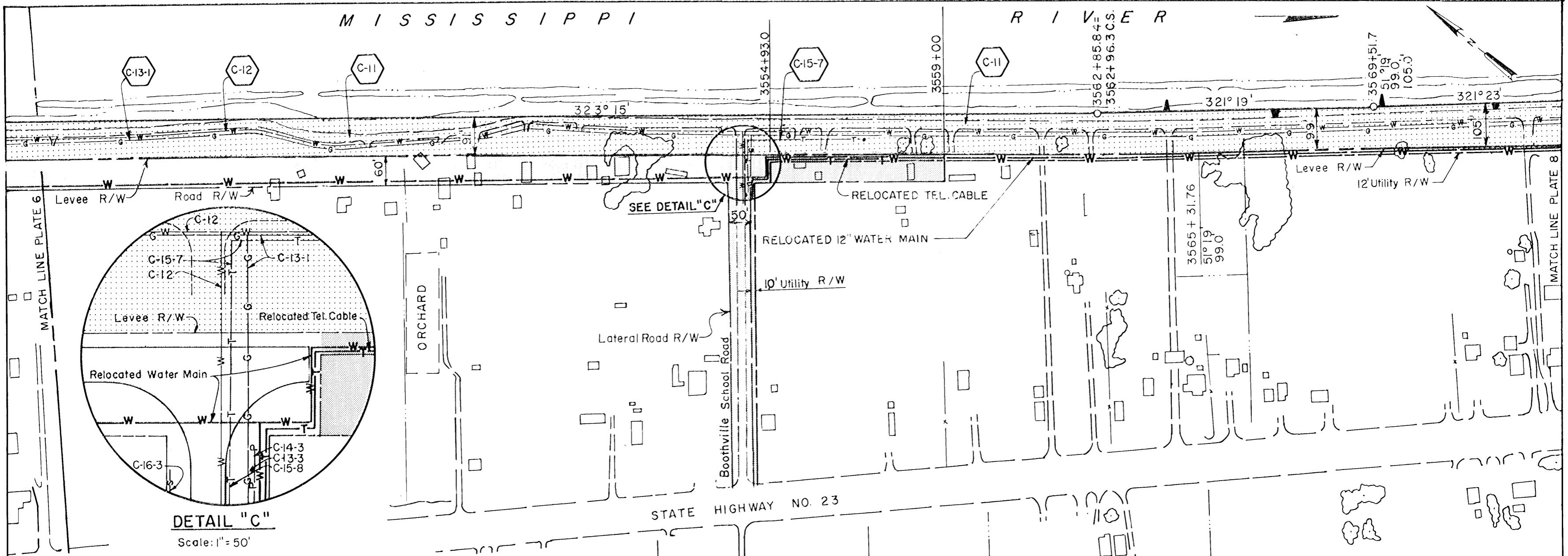
Item No.	Description	Unit	Quantity	Unit Cost (\$)	Amount (\$)
1	Mobilization and two field laboratories	Sum	Job	Sum	\$ 30,000
2	Clearing and grubbing	Sum	Job	Sum	6,000
3	Removal of structures and obstructions	Sum	Job	Sum	4,000
4	Excavation	C.Y.	20,000	2.00	40,000
5	Cement-treated shell and sand base course	C.Y.	15,400	6.00	92,400
6	Aggregate surface course for shoulders	C.Y.	19,700	9.00	177,300
7	Asphaltic concrete binder and wearing course	Ton	5,200	23.50	122,200
8	Manholes (R-CB-11)	Each	6	400.00	2,400
9	Manhole adjustments	Each	9	200.00	1,800
10	Catch basins (R-CB-3 modified)	Each	24	400.00	9,600
11	Signs and barricades	Sum	Job	Sum	12,000
12	ABCMP Arch (22" x 13")	L.F.	320	9.50	3,040
13	ABCMP (15", 18", and 21")	L.F.	3,470	9.00	31,230
14	Bedding material for pipes	C.Y.	490	8.00	3,920
15	Fertilizing and seeding	Sum	Job	Sum	2,000
16	Chain link fence	L.F.	1,060	6.00	6,360
	Relocation cost				544,250 ⁽¹⁾
	Less cost of betterments				100,500
	Subtotal				443,750 ⁽²⁾
	Plus removal cost				-
	Subtotal				443,750
	Contingencies (25%+)				110,950
	Subtotal				554,700
30	E&D (6%+)				33,300
31	S&A (6%+)				33,300
	Subtotal				621,300
	R/W Cost				276,000 ⁽³⁾
	Total				897,300

APPENDIX IV (cont'd)

- (1) Represents total cost of Blanchard Highway Barn Road and Paul Morgan Lane.
- (2) Removal cost is estimated to be \$10,000, but removal of the existing road will be included in the levee construction contract.
- (3) Includes \$253,000 for Highway 325 R/W covered by this memorandum, \$8,400 for Boothville School Road R/W and \$14,600 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

MISSISSIPPI

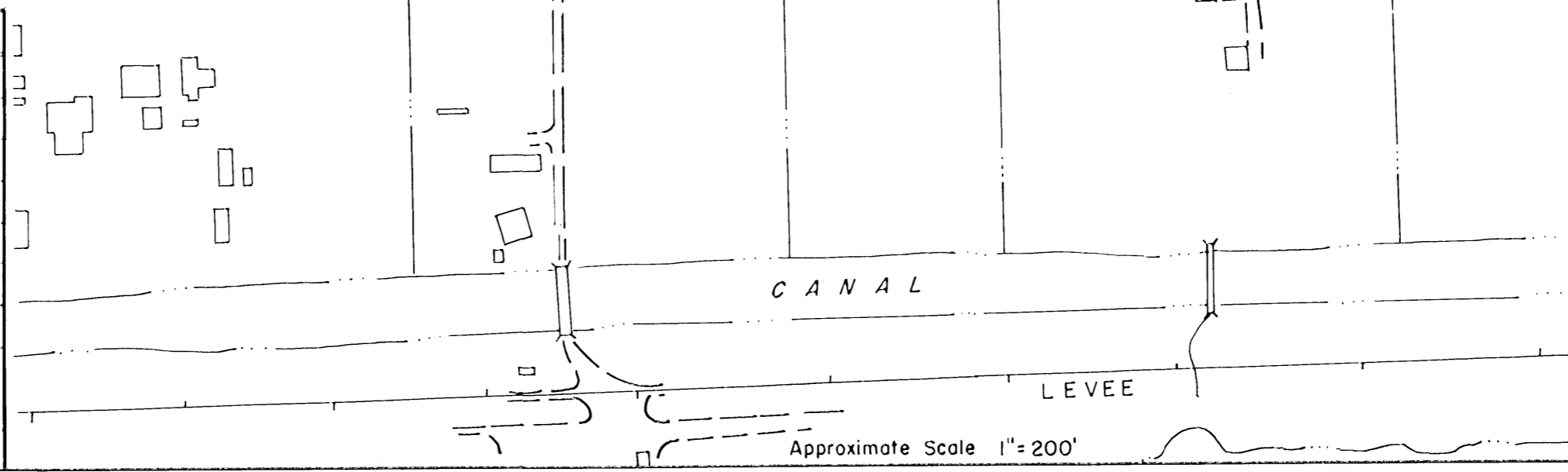
RIVER



DETAIL "C"
Scale: 1" = 50'

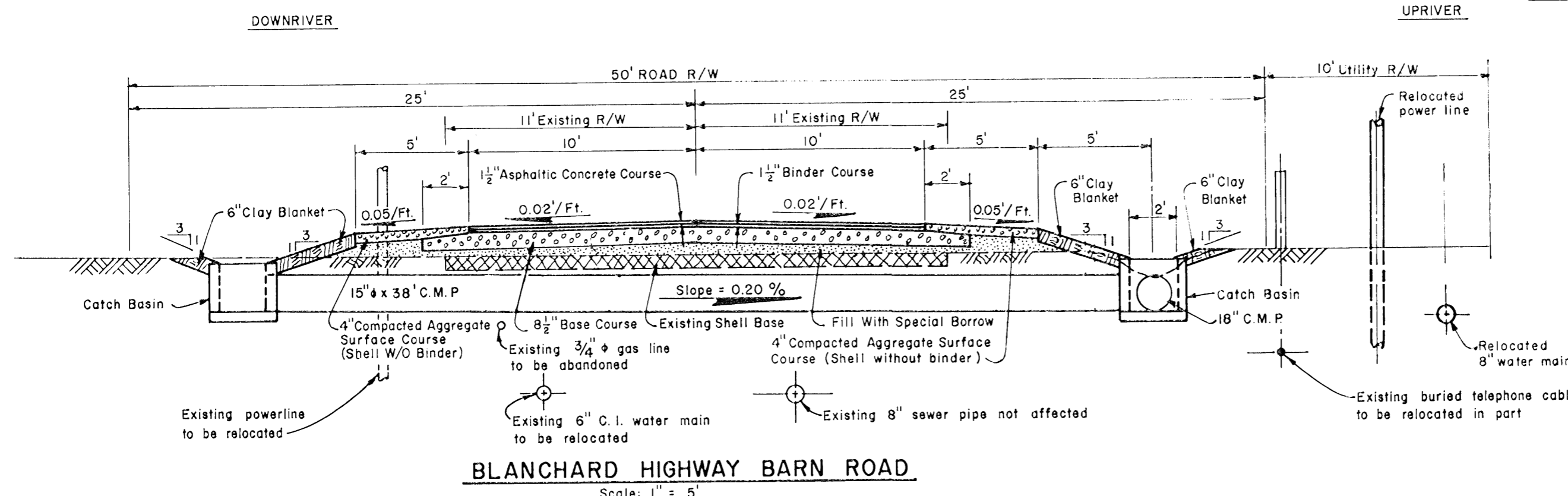
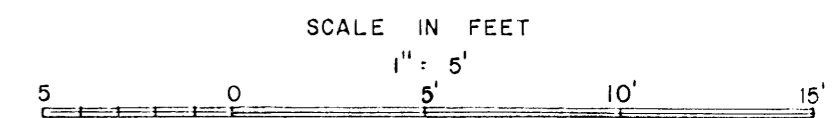
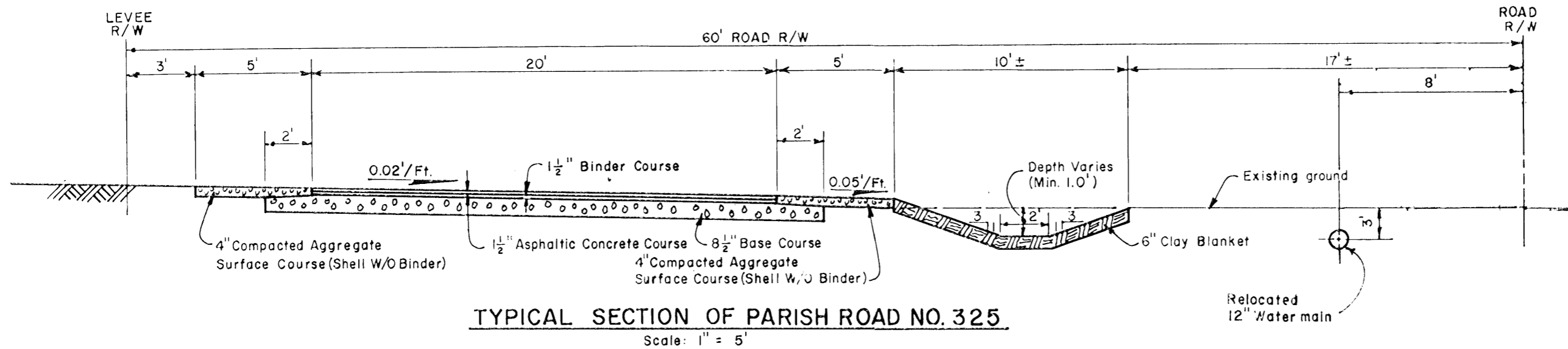
FACILITIES TO BE RELOCATED

ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-11	Existing Road	3445+26.8	Plaquemines Parish	Relocate
		3559+00		Remove
C-12	6" dia. Water Main	3445+26.8	Plaquemines Parish	Relocate
		3644+50.2		
C-13-1	1" dia. Gas Main	3445+26.8	Delta Gas Co.	Remove
		3644+50.2		
C-13-3		Boothville Sch. Road		Not Affected
C-14-3	Aerial Powerline	Boothville Sch. Road	La. Power & Light	Not Affected
C-15-7	Buried Tel. Cable	3554+50	So. Central Bell	Relocate
		3557+20		
C-15-8		Boothville Sch. Road		
C-16-3	8" dia. Sewer line	Boothville Sch. Road	Plaquemines Parish	Not Affected

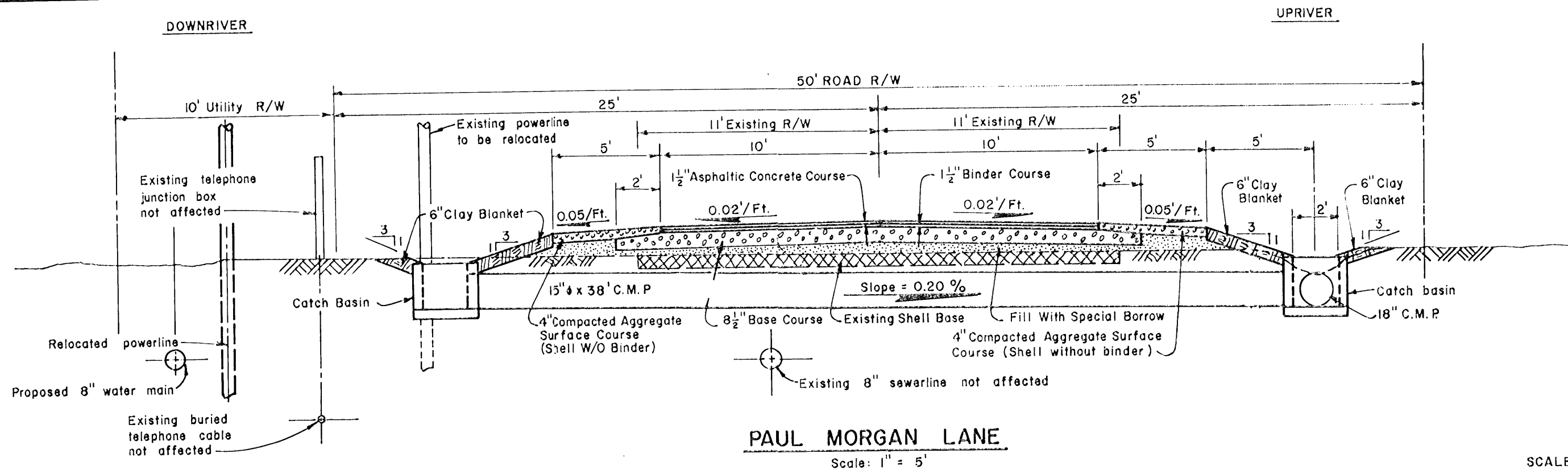


Approximate Scale 1" = 200'

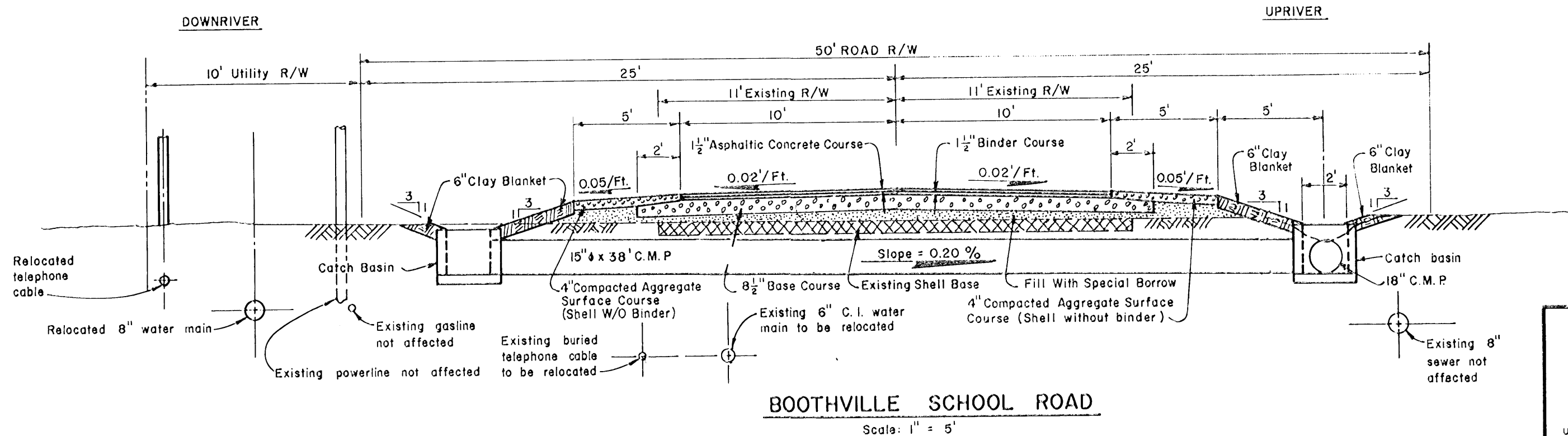
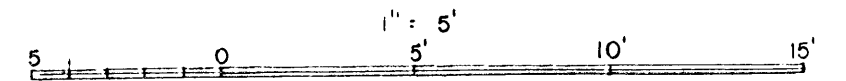
MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579



MISSISSIPPI RIVER MAINLINE LEVEES
COMMANDER LEVEE ENLARGEMENT
DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
TYPICAL SECTIONS
U. S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS
DATE APRIL 1971 FILE NO. H-2-25579



SCALE IN FEET



MISSISSIPPI RIVER MAINLINE LEVEES

COMMANDER LEVEE ENLARGEMENT

DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES

TYPICAL SECTIONS

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

DATE APRIL 1971

FILE NO. H-2-25579

REV. 5-72

PLATE 12

TABLE 4 - ESTIMATE OF COST
SOUTH CENTRAL BELL TELEPHONE COMPANY
(January 1971 Price Levels)

Cost	:	:	:	Unit	:		
Account	:	:	:	Cost	Amount		
No.	:	Description	:	Unit	Quantity	(\$)	(\$)
02		Relocations					
.3		Utilities					
		Item C-15-1, relocate					
		25 pr. buried					
		telephone cable	Foot	440	1.35	\$	600
		Item C-15-2, relocate					
		25 pr. buried					
		telephone cable	Foot	660	1.35		890
		Item C-15-3, abandon					
		50 pr. buried					
		telephone cable	Foot	90	1.35		120
		Item C-15-4, relocate					
		25 pr. buried					
		telephone cable	Foot	340	1.35		460
		Item C-15-6, Relocate					
		50 pr. buried					
		telephone cable	Foot	245	1.45		360
		Item C-15-7, relocate					
		50 pr. buried					
		telephone cable	Foot	375	1.45		540
		Item C-15-8, relocate					
		50 pr. buried					
		telephone cable	Foot	680	1.45		990
		Relocation cost					3,960
		Less cost of betterments					920 (1)
		Subtotal					3,040
		Less depreciation					100 (2)
		Subtotal					2,940
		Less salvage value					0
		Subtotal					2,940
		Plus removal cost					150
		Subtotal					3,090
		Contingencies (25%+)					760
		Subtotal					3,850
30		E&D (6%+)					200

TABLE 4 - ESTIMATE OF COST (cont'd)

Cost	:	:	:	Unit	:		
Account	:	:	:	Cost	Amount		
No.	:	Description	:	Unit	Quantity	(\$)	(\$)
31		S&A (6%+)					200
		Subtotal					4,250
		R/W Cost					850 (3)
		Total					5,100

- (1) Includes \$890 for relocation and \$30 for removal of Item C-15-2.
- (2) Based on 32-year life. Age of facilities is one year.
- (3) Represents R/W cost for Item C-15-8 on Boothville School Road.

TABLE 5 - ESTIMATE OF COST
 PLAQUEMINES PARISH PIPELINES
 (January 1971 Price Levels)

I. Item C-12

Cost	:	:	:	Unit	:
Account	:	:	:	Cost	Amount
No.	Description	Unit	Quantity	(\$)	(\$)
02	Relocations				
.3	Utilities				
	Relocate 6" diameter				
	water main				
	Highway 325	Foot	20,250	7.55	\$152,900
	Blanchard Highway				
	Barn Road	Foot	935	6.00	5,600
	Paul Morgan Lane	Foot	850	6.25	5,300
	Boothville School Road	Foot	645	6.50	4,200
	Relocation cost				168,000
	Less cost of betterments				72,600 (1)
	Subtotal				95,400
	Less depreciation				16,500 (2)
	Subtotal				78,900
	Less salvage value				0
	Subtotal				78,900 (3)
	Plus removal cost				-
	Subtotal				78,900
	Contingencies (25%+)				19,750
	Subtotal				98,650
30	E&D (6%+)				5,900
31	S&A (6%+)				5,900
	Subtotal				110,450 (4)
	R/W cost				22,250
	Total				132,700

(1) Includes cost differentials in placing 12" diameter pipe rather than 6" diameter pipe on Highway 325 (\$60,800) and 8" diameter pipe rather than 6" diameter pipe on Boothville School Road (\$900) and entire cost of placing 8" diameter pipe on Blanchard Highway Barn Road (\$5,600) and Paul Morgan Lane (\$5,300).

(2) Based on 75-year life, average age of facilities is 13 years.

TABLE 5 - ESTIMATE OF COST (cont'd)

- (3) Removal cost is negligible; removal will be included in contract for levee construction.
- (4) R/W cost includes \$17,000 for Item C-12 on Highway 325, \$850 for Item C-12 on Boothville School Road, and \$4,400 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

II. Item C-7

Cost	:	:	:	Unit	:
Account	:	:	:	Cost	Amount
No.	: Description	: Unit	: Quantity	(\$)	(\$)
02	Relocations				
.3	Utilities				
	Relocate 18" diameter				
	sewage discharge				
	pipeline	Sum	Job	Sum	\$10,500
	Relocation cost				10,500
	Less cost of betterments				0
	Subtotal				10,500 (1)
	Less depreciation				300
	Subtotal				10,200 (2)
	Less salvage value				0
	Subtotal				10,200 (3)
	Plus removal cost				0
	Subtotal				10,200
	Contingencies (25%+)				2,600
	Subtotal				12,800
30	E&D (6%+)				800
31	S&A (6%+)				800
	Total - Part II				\$14,400

- (1) Based on 75-year life, age of facility is 2 years.
- (2) Salvable material is to be reused.
- (3) Removal cost included in relocation cost.

TABLE 6 - ESTIMATE OF COST
DELTA GAS COMPANY
(January 1971 Price Levels)

Cost	Account	No.	Description	Unit	Quantity	Unit Cost (\$)	Amount (\$)
02			Relocations				
.3			Utilities				
			Item C-13-1, abandon				
			1" diameter gas main	Foot	19,120	1.65	\$31,550
			Item C-13-2, abandon				
			1" diameter gas main	Foot	910	1.65	1,500
			Relocation cost				33,050
			Less cost of betterments				1,500 (1)
			Subtotal				31,550
			Less depreciation				6,300 (2)
			Subtotal				25,250
			Less salvage value				0
			Subtotal				25,250 (3)
			Plus removal cost				-
			Subtotal				25,250
			Contingencies (25%+)				6,350
			Subtotal				31,600
30			E&D (6%+)				1,900
31			S&A (6%+)				1,900
			Total				\$35,400

- (1) Represents abandonment cost for Item C-13-2.
(2) Based on 30-year life, average age of facility is 6 years.
(3) Removal cost is negligible; majority of removal will be included in contract for levee construction.

14. COMPARISON WITH PRIOR COST ESTIMATE. The current working estimate of cost is summarized under the uniform cost classification for comparison with the latest approved Project Cost Estimate (PB-3) for the Mississippi River Levees project, New Orleans District, bearing an effective date of 1 July 1970 as approved 6 July 1970 and 4 January 1971. Since the PB-3 contains the relocation cost estimates for the entire Mississippi River Levees project, the portion included for the Commander Levee Enlargement has been broken out for a suitable comparison.

Cost Account No.	Item	Current Working Estimate (\$1,000's)	Diff. From PB-3 (\$1,000's)
02	Relocations		
.1	Roads	493.0 ⁽²⁾	554.7 ⁽³⁾ + 61.7
	R/W	125.0	276.0 +151.0
.3	Cemeteries and Utilities		
	Utilities	130.0 ⁽²⁾	170.0 ^{(3) (4)} + 40.0
30	Engineering and Design	38.0	42.1 + 4.1
31	Supervision and Administration	38.0	42.1 + 4.1
	Total	824.0	1,084.9 +260.9

(1) Effective date 1 July 1970; estimates shown represent that portion for the Commander Levee Enlargement.

(2) Includes 15%+ contingencies.

(3) Includes 25%+ contingencies.

(4) Includes \$23.1 for right-of-way.

15. JUSTIFICATION FOR COST REVISION.

a. Highway #325. The estimate of \$493,000 included in the PB-3 was based on typical sections for the proposed road. These sections were applied to an assumed alignment for the road and estimates of quantities and costs were developed. Continued coordination with local interests resulted in the refined alignment contained in this design memorandum. The \$61,700 increase in cost is due to the application of this refined alignment, the use of a 25 percent contingency factor rather than 15 percent, and the change in price levels from July 1970 to July 1971.

b. Highway #325 Right-of-Way. The estimate of \$125,000 for right-of-way for the relocated road was based on preliminary road alignment and gross appraisal without detailed inspection. As a result of continued coordination with local interests in an effort to obtain an alignment acceptable to local interests, a revised alignment was developed. The revised alignment, together with additional data furnished by the Commission Council as to utility house connections (after joint conference with LMVRE representatives) was the basis for a reappraisal of the required right-of-way. The increases applicable to these factors combined with the estimated cost of payments under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, equalled a current working estimate of \$276,000.

c. Utilities. The current working estimate of \$170,000 is \$40,000 greater than the PB-3 estimate. This difference is accounted for in that the PB-3 did not take into consideration the cost of utility rights-of-way and enactment of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970. In addition, the PB-3 included only a 15 percent contingency factor whereas 25 percent was used in the current working estimate.

LMVED-TD (NOD 11 Jun 71) 1st Ind

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, La., Relocation of Facilities, Design Memorandum No. 3


DA, Mississippi River Commission, Corps of Engineers, Vicksburg, Miss.
39180 2 Nov 71

TO: District Engineer, New Orleans, ATTN: LMNED-DG

1. The subject design memorandum is approved subject to the following comments.
2. Relocation of the nongovernmental owned facilities is subject to the guidance furnished in LMVED-TD letter, dated 21 Oct 71, subject: Relocation of Facilities for Future Modification of Mississippi River Levees.
3. Para 4a(3)(b), Item C-13-1, Page 5. Disposition of the 7,500 linear feet of 3/4-inch diameter gas service lines should be discussed.
4. Paras 14 and 15, Pages 40 and 41. These paragraphs compare the current cost estimate with the latest PB-2a (1 Jan 71). The PB-2a should not be referred to for this purpose. The work outlined is included in the Project Cost Estimates (PB-3) for the Mississippi River Levees project, New Orleans District, bearing an effective date of 1 Jul 70 and approved 6 Jul 70 and 4 Jan 71.
5. Para 10d & e, page 25, has been revised and a new page inserted.
6. Plates 11 and 12. More detail should be furnished for the storm drain system shown on the typical sections.
7. Minor comment marked in red on pertinent data, page D.

FOR THE PRESIDENT:

1 Incl
wd 10cy


A. J. DAVIS
Chief, Engineering Division

d. Telephone Lines. The Plaquemines Parish Commission Council has accepted the responsibility for effecting the relocation of items C-15-1, C-15-4, C-15-6, C-15-7 and C-15-8 in accord with the provisions of this design memorandum and subject to reimbursement of costs by this district. These payments will be made pursuant to authority contained in the Act of 15 May 1928, Public Law 391, 70th Congress, and the Act of 23 April 1934, Public Law 171, 73rd Congress. By the same authority, costs for removal of the abandoned buried cable, item C-15-3, will also be reimbursed to the Commission Council (ER 1180-1-1). The proposed relocation of item C-15-2 is not a requirement of this project; therefore, the procedure for accomplishing it will not be discussed.

e. Pipelines. Items C-2, C-3, C-4, C-5, C-6 and C-8 are abandoned facilities for which the Government has no financial obligation; at the request of the Plaquemines Parish Commission Council, these facilities have been removed from the levee right-of-way by the levee contractor. The Plaquemines Parish Commission Council has accomplished the relocation of item C-7 in full awareness that reimbursement of costs by this district, pursuant to the authority cited in paragraph d. above, is contingent upon review and approval of the design memorandum for relocations by higher authority. The relocation of item C-12 is being accomplished by the Plaquemines Parish Commission Council subject to the same provisions as item C-7. Also, reimbursement of costs for removal of the abandoned gas line, item C-13-1, will be made to the Plaquemines Parish Commission Council pursuant to the authority cited in paragraph d. above (ER 1180-1-1). The abandonment of item C-13-2 is not required by this project; therefore, the procedure for accomplishing it will not be discussed.



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

LMNED-DG

11 June 1971

SUBJECT: Flood Control, Mississippi River and Tributaries,
Mississippi River Levees, Item M-14.9-R, Commander Levee
Enlargement, Plaquemines Parish, La., Relocation of
Facilities, Design Memorandum No. 3

President
Mississippi River Commission
ATTN: LMVED-TD

1. The subject design memorandum is submitted herewith for review in accordance with the provisions of ER 1110-2-1150 dated 19 June 1970.
2. Approval of the subject design memorandum is recommended.

1 Incl
DM No. 3 (11 cys)

William E. Lee, Jr.
WILLIAM E. LEE, JR.
LTC, CE
Acting District Engineer

STATUS OF DESIGN MEMORANDA

<u>Design Memo No.</u>	<u>Title</u>	<u>Actual (A) or Scheduled (S) Submission Date</u>
1	Flood Control, Mississippi River and Tributaries, Item M-25.0-R, Buras Levee Setback, Plaquemines Parish, La., 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, La., 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, La., 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, La., 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, La., 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, La., 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, La., Relocation of Facilities	July 1971 (S)
8	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-18.9-R, Ft. Jackson-Boothville Levee Enlargement, Plaquemines Parish, La., Relocation of Facilities	January 1972 (S)

FLOOD CONTROL
MISSISSIPPI RIVER AND TRIBUTARIES
MISSISSIPPI RIVER LEVEES
ITEM M-14.9-R
COMMANDER LEVEE ENLARGEMENT
PLAQUEMINES PARISH, LOUISIANA
RELOCATION OF FACILITIES
DESIGN MEMORANDUM NO. 3

TABLE OF CONTENTS

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
	PERTINENT DATA	A
1	PURPOSE OF DESIGN MEMORANDUM	1
2	PROJECT AUTHORIZATION	1
	a. Project Authorization	1
	b. Local Cooperation	1
3	AUTHORITY FOR ACCOMPLISHING RELOCATIONS	1
4	DESCRIPTION OF EXISTING FACILITIES AFFECTED BY THE PROJECT	2
	a. Existing Facilities Affected by the Levee Enlargement	2
	(1) Roads	2
	(2) Telephone lines	3
	(3) Pipelines	4
	b. Existing Facilities Affected by the Relocation of Parish Road #325	7
	(1) Lateral roads	7
	(2) Powerlines	7
	(3) Telephone lines	8
	(4) Pipelines	9
5	OWNER'S COMPENSABLE INTEREST	10
	a. Roads	10
	b. Powerlines	10
	c. Telephone Lines	11
	d. Pipelines	11

TABLE OF CONTENTS (cont'd)

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
6	FIELD RECONNAISSANCE	13
7	CRITERIA FOR RELOCATED FACILITIES	13
	a. Design Standards	13
	b. Interference Among Relocations	14
8	DESCRIPTION OF PROPOSED RELOCATIONS	14
	a. Roads	14
	b. Powerlines	17
	c. Telephone Lines	17
	d. Pipelines	19
9	BETTERMENTS	22
	a. Roads	22
	b. Powerlines	22
	c. Telephone Lines	22
	d. Pipelines	22
10	PROCEDURE FOR ACCOMPLISHING THE RELOCATIONS	23
	a. General	23
	b. Roads	24
	c. Powerlines	24
	d. Telephone Lines	25
	e. Pipelines	25
11	ATTITUDE OF OWNERS	26
	a. Roads	26
	b. Powerlines	27
	c. Telephone Lines	27
	d. Pipelines	28

TABLE OF CONTENTS (cont'd)

<u>Paragraph</u>	<u>Title</u>	<u>Page</u>
12	UNAFFECTED FACILITIES	28
	a. Powerlines	28
	b. Telephone Lines	28
	c. Pipelines	28
13	COST ESTIMATES	29
14	COMPARISON WITH PRIOR COST ESTIMATE	40
15	JUSTIFICATION FOR COST REVISION	40
16	RECOMMENDATION	41

LIST OF TABLES

<u>Table No.</u>	<u>Description</u>	<u>Page</u>
1	PERTINENT DATA	B
2	ESTIMATE OF COST, PLAQUEMINES PARISH ROADS	30
3	ESTIMATE OF COST, LOUISIANA POWER & LIGHT CO.	32
4	ESTIMATE OF COST, SOUTH CENTRAL BELL TEL. CO.	33
5	ESTIMATE OF COST, PLAQUEMINES PARISH PIPELINES	35
6	ESTIMATE OF COST, DELTA GAS COMPANY	38

LIST OF PLATES

<u>Plate No.</u>	<u>Description</u>
1	RELOCATION OF FACILITIES, PROJECT MAP
2-9	RELOCATION OF FACILITIES, COMMANDER LEVEE ENLGT.
10-12	RELOCATION OF FACILITIES, TYPICAL SECTIONS

TABLE OF CONTENTS (cont'd)

LIST OF APPENDICES

<u>Appendix No.</u>	<u>Description</u>
I	ATTORNEY'S REPORTS
II	STATE OF LOUISIANA, DEPARTMENT OF HIGHWAYS' DESIGN STANDARDS
III	PERTINENT CORRESPONDENCE
IV	DETAILED COST ESTIMATE

PERTINENT DATA

General

Location:

The Commander Levee Enlargement, Item M-14.9-R, herein referred to as the Commander Reach, is located in Plaquemines Parish, Louisiana, on the west bank of the Mississippi River Main Line Levee between river miles 13.0 and 16.8 above the Head of Passes.

Purpose:

The project purpose is to increase MR&T grade and to increase freeboard on the Mississippi River Main Line Levees and thereby increase flood protection.

Authorization:

Flood Control Act of 15 May 1928 (Public Law 391, 70th Congress), as amended.

Description:

The Commander Levee Enlargement entails the raising of the existing levee between approximate baseline stations 3445+26.8 and 3644+50.2 or about 19,923.4 feet of levee to be raised (see plate 10). The levee will be raised an average of 4.3 feet. This requires approximately 250,000 cubic yards of uncompacted fill and 35 acres of fertilizing and seeding.

TABLE 1 - PERTINENT DATA

<u>Item No.</u>	<u>Owner</u>	<u>Description of Relocation</u>	<u>Location</u>
C-1	Reserved		
C-2	Plaquemines Parish	Remove 8-inch diameter pipeline	Plate 5
C-3	Unknown	Remove 10-inch diameter pipeline	Plate 5
C-4	Unknown	Remove 1 1/2-inch diameter pipeline	Plate 5
C-5	Norman Buras	Remove 3-inch diameter pipeline	Plate 8
C-6	Jos. H. Buras Estate	Remove 2-inch diameter pipeline	Plate 8
C-7	Plaquemines Parish	Raise 18-inch diameter pipeline	Plate 8
C-8	Dimitry Buras Estate	Remove 3-inch diameter pipeline	Plate 9
C-9	Reserved		
C-10	Reserved		

A. Facilities across Levee.

TABLE 1 - PERTINENT DATA (cont'd)

<u>Item No.</u>	<u>Owner</u>	<u>Description of Relocation</u>	<u>Length</u>	<u>Location</u>
C-11	Plaquemines Parish	Remove road atop levee	3.8 mi.	Plates 4-9
	Plaquemines Parish	Install new road	2.2 mi.	Plates 4-7
C-12	Plaquemines Parish	Relocate 6-inch diameter pipeline	3.8 mi.	Plates 4-9
C-13-1	Delta Gas Company	Remove 1-inch diameter pipeline	3.4 mi.	Plates 4-9
C-15-1	South Central Bell	Relocate telephone cable	515 ft.	Plate 4
C-15-3	South Central Bell	Abandon telephone cable	90 ft.	Plate 4
C-15-4	South Central Bell	Relocate telephone cable	420 ft.	Plate 5
C-15-6	South Central Bell	Relocate telephone cable	260 ft.	Plate 6
C-15-7	South Central Bell	Relocate telephone cable	370 ft.	Plate 7

B. Facilities along Levee.

TABLE 1 - PERTINENT DATA (cont'd)

<u>Item No.</u>	<u>Owner</u>	<u>Description of Relocation</u>	<u>Length</u>	<u>Location</u>
<u>D. Facilities on Lateral Roads.</u>				
C-12	Plaquemines Parish	Relocate 6-inch diameter pipeline	1,580 ft.	Plates 4 & 7
C-13-2	Delta Gas Company	Abandon 1-inch diameter pipeline	910 ft.	Plate 4
C-13-3	Delta Gas Company	Gasline - not affected	680 ft.	Plate 7
C-14-1	Louisiana Power & Light	Relocate powerline	900 ft.	Plate 4
C-14-2	Louisiana Power & Light	Relocate powerline	825 ft.	Plate 5
C-14-3	Louisiana Power & Light	Powerline - not affected	680 ft.	Plate 7
C-15-2	South Central Bell	Relocate in part telephone cable	935 ft.	Plate 4
C-15-5	South Central Bell	Telephone cable - not affected	850 ft.	Plate 5
C-15-8	South Central Bell	Relocate telephone cable	680 ft.	Plate 7
C-16-1	Plaquemines Parish	8-inch diameter sewer line not affected	935 ft.	Plate 4
C-16-2	Plaquemines Parish	8-inch diameter sewer line not affected	850 ft.	Plate 5
C-16-3	Plaquemines Parish	8-inch diameter sewer line not affected	680 ft.	Plate 7

1. PURPOSE OF DESIGN MEMORANDUM. This memorandum is submitted in compliance with Part 3, Section LXXIII, ER 1180-1-1, dated 1 December 1969 and DIVR 1110-2-1, dated 29 January 1968. It establishes the necessity for the relocation of the facilities and the legal obligations of the Government. It will also provide the basis for reimbursing the Plaquemines Parish Commission Council for costs incurred in accomplishing the relocations herein described.

2. PROJECT AUTHORIZATION.

a. Authorization. Authority for construction, enlargement, or improvement of Mississippi River Mainline Levees is contained in the Flood Control Act of 15 May 1928 (Public Law 391, 70th Congress), as amended. Pursuant to the requirements of DIVR 1110-2-1, the relocation of public roads, highways, railroads, public utilities, and public pipelines 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 171, 73d Congress).

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

3. AUTHORITY FOR ACCOMPLISHING RELOCATIONS. The authority for accomplishing the relocations necessitated by this project 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 are as established in the Attorney's Reports which are attached as Appendix I.

4. DESCRIPTION OF EXISTING FACILITIES AFFECTED BY THE PROJECT.

a. Existing Facilities Affected by the Levee Enlargement.

(1) Roads. A Plaquemines Parish road, designated as #325 by the Louisiana Department of Highways and located atop the existing Mississippi River Mainline Levee between Fort Jackson and the settlement known as The Jump (see plate 1), was continuous throughout this project, a distance of about 19,923 feet (see plates 4-10, item C-11), until construction of the Commander Levee Enlargement. Parish Road #325 has occupied a position atop the levee at least since 1928, and probably considerably before that (see appendix I, exhibit A). Through the use of Royalty Road Funds, the road was improved to a 20-foot wide bituminous roadway with a base course of approximately 22-inches of shell. This improvement was completed in 1958 and Plaquemines Parish and the Department of Highways now consider it to be a Class 6 roadway in the "C" system (see appendix III, exhibit A). The most recent traffic count available for Road #325 is from a 1966 traffic flow map prepared for the Plaquemines Parish roads by the Louisiana Department of Highways. It indicates 24-hour annual average traffic as follows: 120 in the vicinity of levee baseline station 3458+00; 280 in the vicinity of levee baseline station 3494+00; 330 in the vicinity of station 3553+00; 480 in the vicinity of station 3589+00; and 530 just upriver from the point of intersection with Louisiana 23 at The Jump. Considering escalation of traffic since 1966,

it is evident that the current average daily traffic on Parish Road #325 supports a classification of at least class 6 in the "C" system of the Louisiana Department of Highways Minimum Design Standards for Rural Highways and Roads (see appendix II). The condition of this roadway in the Commander Reach at the time of taking was poor. This condition was due to damage sustained during Hurricane Camille (17 August 1969) and is true of the entire length of the roadway. After the hurricane, the Louisiana Department of Highways queried this district as to the advisability of repairing the roadway and was dissuaded from doing so (see appendix III, exhibit B) due to the scheduled levee construction. It is noted that the roadway has been destroyed in the Commander Reach to allow the enlargement of the levee to proceed.

(2) Telephone lines. All telephone facilities dislocated by the levee enlargement are the property of the South Central Bell Telephone Company, a Delaware corporation domiciled in Wilmington, Delaware. A total of about 1350 linear feet of buried telephone cable, all of which was installed outside the existing levee right-of-way in 1969 and all of which is in excellent condition, is involved as follows:

(a) Item C-15-1. This item represents 515 linear feet of underground 25-pair, 26-gauge telephone cable, 455 linear feet of which has been dislocated by the levee enlargement between approximate levee baseline stations 3456+40 and 3460+75 (see plate 4).

(b) Item C-15-3. This item represents 90 linear feet of underground 50-pair, 26-gauge telephone cable, 30 linear feet of which has been dislocated by the levee enlargement at approximate levee baseline station 3463+00 (see plate 4).

(c) Item C-15-4. This item represents 420 linear feet of underground 25-pair, 26-gauge telephone cable, 360 linear feet of which has been dislocated by the levee enlargement between approximate levee baseline stations 3466+80 and 3470+00 (see plate 5).

(d) Item C-15-6. This item represents 260 linear feet of underground 50-pair, 26-gauge telephone cable, 200 linear feet of which has been dislocated by the levee enlargement between approximate levee baseline stations 3508+45 and 3510+25 (see plate 6).

(e) Item C-15-7. This item represents 370 linear feet of underground 50-pair, 26-gauge telephone cable, 310 linear feet of which has been dislocated by the levee enlargement between approximate levee baseline stations 3554+50 and 3557+20 (see plate 7).

(3) Pipelines.

(a) Item C-12. Plaquemines Parish owns and operates a 6-inch diameter potable water main parallel and adjacent to the existing levee, with occasional 6-inch diameter laterals out to Highway 23, between Fort Jackson and The Jump (approximate levee baseline stations 3358+85 to 3797+65. About 19,923 linear feet of the line adjacent to the levee has been dislocated due to the construction of the Commander Levee Enlargement (see item C-12, plates 4-9). The affected line was installed in 1957 and was in good condition at the time it was removed to facilitate the levee construction.

(b) Item C-13-1. Delta Gas Company, a Louisiana corporation with its principle office and place of business in New Orleans, Louisiana, owns and operates a 1-inch diameter gas pipeline parallel and adjacent to the existing levee between Fort Jackson and The Jump with numerous 3/4-inch diameter service lines extending out towards Highway 23 (approximate levee baseline stations 3362+80 to 3781+30). About 19,000 linear feet of the 1-inch diameter line and about 7,500 linear feet of the 3/4-inch diameter line have been dislocated by the construction of the Commander Levee Enlargement (see item C-13-1, plates 4-9). The lines in this reach were installed outside the former levee right-of-way in 1964 and were in good condition at the time of removal.

(c) Item C-2. Plaquemines Parish owned and operated an 8-inch diameter sewage discharge pipeline which crossed the former levee at approximate levee baseline station 3480+00 (see item C-2, plate 5) and which serviced the Boothville-Venice School. The line was installed in 1961 and was rendered inactive by the construction of the Boothville-Venice Sewage Treatment Plant in 1968. Though abandoned, item C-2 was in good condition at the time it was dislocated by the levee enlargement.

(d) Item C-3. A 10-inch diameter pipeline crossed the former levee at approximate levee baseline station 3487+78 (see item C-3, plate 5). There are no records or permits on file for this facility and the owner is unknown. Field investigation indicates that the line is inactive and abandoned.

(e) Item C-4. A 1½-inch diameter pipeline crossed the former levee at approximate levee baseline station 3499+50 (see item C-4, plate 5). There are no records or permits on file for this pipeline and the owner is unknown. Field investigation indicates that the line is inactive and abandoned.

(f) Item C-5. Mr. Norman Buras of Buras, Louisiana owned a 3-inch diameter pipeline which crossed the levee at approximate levee baseline station 3577+20 (see item C-5, plate 8). This pipeline served as a siphon to irrigate property owned by Mr. Buras and was installed without benefit of permit. The line had been inactive for some time prior to being displaced by the construction of the levee enlargement.

(g) Item C-6. The estate of Mr. Joseph H. Buras of Buras, Louisiana owned a 2-inch diameter pipeline which crossed the former levee at approximate levee baseline station 3583+93 (see item C-6, plate 8). This pipeline served as a siphon to irrigate property owned by Mr. Buras and was installed without benefit or permit. The line had been inactive for some time prior to being displaced by the construction of the levee enlargement.

(h) Item C-7. Plaquemines Prish owned and operated an 18-inch diameter sewage discharge pipeline which crossed the former levee at approximate levee baseline station 3587+13.8 (see item C-7, plate 8) and which served as an effluent line for the Boothville-Venice Sewage Treatment Plant. The line was installed in 1968 and was in excellent condition when dislocated to facilitate construction of the levee.

(i) Item C-8. The estate of Mr. Demitry Buras of Boothville, Louisiana owned a 3-inch diameter pipeline which crossed the former levee at approximate levee baseline station 3622+60 (see item C-8, plate 9). This pipeline served as a siphon to irrigate property owned by Mr. Buras and was installed without benefit of permit. The line had been inactive for some time prior to being displaced by the construction of the levee enlargement,

b. Existing Facilities Affected by the Relocation of Parish Road #325.

(1) Lateral roads. The proposed alignment for the relocation of Parish Road #325 will intersect numerous existing area streets several of which provided access from Road #325 and Highway 23 to properties adjacent to the levee. These laterals are generally 18 to 22 feet wide, shell or asphalt surfaced streets, and had ramp access to #325 atop the former levee. While all of the streets will be slightly affected by the alignment of #325, only Boothville School Road will involve extensive modification (see plate 7). Boothville School Road is an 18-foot wide, asphalt surface roadway, with open ditch drainage, which connected Highway 23 to Parish Road #325. The road is in fair condition. It is noted that Plaquemines Parish intends to upgrade Blanchard Highway Barn Road (see plate 4) and Paul Morgan Lane (see plate 5) concurrent with the relocation of Road #325. These improvements are considered to be betterments and will be discussed in paragraph 9a of this design memorandum.

(2) Powerlines. The relocation of Parish Road #325 will not affect the area powerlines. It is noted that the improvements to Blanchard Highway Barn Road and Paul Morgan Lane will dislocate certain powerlines; these relocations, necessitated by betterments, are discussed in paragraph

9b of this design memorandum.

(3) Telephone lines. All telephone facilities dislocated by the relocation of Parish Road #325 are the property of the South Central Bell Telephone Company. A total of about 980 linear feet of buried telephone cable, all of which was installed outside the existing levee right-of-way in 1969 and all of which is in excellent condition, is involved as follows:

(a) Item C-15-1. This item represents 515 linear feet of underground, 25-pair, 26-gauge telephone cable, 60 linear feet of which will be dislocated by Parish Road #325 at approximate levee baseline station 3460+75 (see plate 4).

(b) Item C-15-2. This item represents 935 linear feet of 25-pair, 26-gauge cable, 660 linear feet of which will be dislocated by the improvement of Blanchard Highway Barn Road (see plate 4, detail "A"). This improvement is a betterment and is discussed in paragraph 9c of this design memorandum.

(c) Item C-15-3. This item represents 90 linear feet of underground 50-pair, 26-gauge telephone cable, 60 linear feet of which will be dislocated by Parish Road #325 at approximate levee baseline station 3463+00 (see plate 4).

(d) Item C-15-4. This item represents 420 linear feet of underground 25-pair, 26-gauge telephone cable, 60 linear feet of which will be dislocated by Parish Road #325 at approximate levee baseline station 3466+80 (see plate 5).

(e) Item C-15-6. This item represents 260 linear feet of underground 50-pair, 26-gauge telephone cable, 60 linear feet of which will be dislocated by Parish Road #325 at approximate levee baseline station 3508+45 (see plate 6).

(f) Item C-15-7. This item represents 370 linear feet of underground 50-pair, 26-gauge telephone cable, 60 linear feet of which will be dislocated by Parish Road #325 at approximate levee baseline station 3554+50 (see plate 7).

(g) Item C-15-8. This item represents 680 linear feet of underground 50-pair, 26-gauge telephone cable which will be dislocated by the realignment of Parish Road #325 (see plate 7, detail "C").

(4) Pipelines.

(a) Item C-12. Plaquemines Parish owned and operated a 6-inch diameter potable water system which included occasional 6-inch diameter laterals along the connecting roads between Parish Road #325 and Highway 23. That portion of the relocation of Road #325 which will be parallel and adjacent to the enlarged levee will dislocate a total of about 120 linear feet of these laterals: 60 linear feet at Blanchard Highway Barn Road (see plate 4) and 60 linear feet at Boothville School Road (see plate 7). Further, that portion of the relocation of Road #325 which will be aligned generally along the existing Boothville School Road will dislocate an additional 645 linear feet of the lateral servicing properties fronting this road. It is noted that the upgrading of Blanchard Highway Barn Road will dislocate an additional 935 linear feet of lateral, the replacement of which is a betterment (see paragraph 9d of this design memorandum). The Plaquemines Parish water system was

installed in 1957 and these portions were in good condition at the time of taking by the levee enlargement.

(b) Item C-13-1. Delta Gas Company owned and operated a 1-inch diameter gas pipeline, with service lines, in the project area. That portion of the relocation of Parish Road #325 which will be parallel and adjacent to the enlarged levee will dislocate about 120 linear feet of this 1-inch diameter pipeline: 60 linear feet at Boothville School Road (see plate 7) and 60 linear feet at Blanchard Highway Barn Road. This facility was installed in 1964 and was in good condition at the time of taking by the levee enlargement. It is noted that the portion of Road #325 which will be aligned along the existing Boothville School Road will not disturb any additional gasline.

(c) Item C-13-2. It is noted that the upgrading of Blanchard Highway Barn Road will dislocate an additional 910 linear feet of the Delta Gas Company facility; the replacement of which will be a betterment (see paragraph 9d of this design memorandum).

5. OWNERS' COMPENSABLE INTEREST.

a. Roads. The Attorney's Report for Parish Road #325 (see appendix I, exhibit A) finds that Plaquemines Parish has a compensable interest in the subject road (item C-11) and that "the United States is authorized and obligated to pay or reimburse for the modification; relocation or alteration thereof as required to prevent interference with the project."

b. Powerlines. The relocation of items C-14-1 and C-14-2 are not required by the levee project and should not be accomplished at Government expense.

c. Telephone lines. The Attorney's Report which considers the compensable interest of South Central Bell Telephone Company (see appendix I, exhibit D) indicates that the company has a compensable interest in as much of the subject facility as exists outside the existing levee right-of-way and that the United States should assume the cost of the relocation as required by the construction of the levee project. Therefore, items C-15-1, C-15-3, C-15-4, C-15-6, C-15-7 and C-15-8 will be relocated at Government expense. The relocation of item C-15-2 is not required by the levee project and should not be accomplished at Government expense.

d. Pipelines.

(1) Item C-2. The Attorney's Report which considers the interest of Plaquemines Parish in the instance of the 8-inch diameter sewer line finds that the facility may be treated as abandoned with no compensation due to the owner (see appendix I, exhibit D).

(2) Item C-3. The Attorney's Report which considers this 10-inch diameter pipeline finds that the owner is unknown and that the facility may be treated as abandoned by the Plaquemines Parish Commission Council, the local cooperating agency, with no compensation due to the owner (see appendix I, exhibit C).

(3) Item C-4. This 1½-inch diameter pipeline was treated at the time, in the same manner and with the same conclusion as the preceding item (see appendix I, exhibit C).

(4) Item C-5. The Attorney's Report which considers this 3-inch diameter pipeline finds no compensable interest (see appendix I, exhibit C).

(5) Item C-6. The Attorney's Report which considers this 2-inch diameter pipeline finds no compensable interest (see appendix I, exhibit C).

(6) Item C-7. The Attorney's Report which considers the interest of Plaquemines Parish in the instance of the 18-inch diameter sewage discharge pipeline finds a compensable interest for the facility and determines that the United States should assume the cost of the relocation (see appendix I, exhibit B).

(7) Item C-8. The Attorney's Report which considers this 3-inch diameter pipeline finds no compensable interest (see appendix I, exhibit C).

(8) Item C-12. The Attorney's Report which considers the interest of Plaquemines Parish in the instance of the 6-inch diameter potable water main finds a compensable interest for the facility and indicates that where the facility is dislocated as a result of the construction of the levee enlargement, the Government should assume the cost of the relocation (see appendix I, exhibit B).

(9) Item C-13-1. The Attorney's Report which considers the interest of Delta Gas Company in the instance of the 1-inch diameter gas pipeline, originally thought to be a 4-inch diameter line and so called in the Attorney's Report (see appendix I, exhibit E) finds that where the facility is dislocated from an alignment outside the existing levee right-of-way as a result of the construction of the levee enlargement, it has a compensable interest and the Government should assume the cost of the relocation.

(10) Item C-13-2. This item represents that portion of the Delta Gas Company 1-inch diameter gas pipeline which is parallel to Blanchard Highway Barn Road. The relocation of this item is not required by the project and should not be accomplished at Government expense.

6. FIELD RECONNAISSANCE. Field surveys, field inspections, and consultations with the affected facility owners and with the Plaquemines Parish Commission Council provided the basic information from which this design memorandum was prepared.

7. CRITERIA FOR RELOCATED FACILITIES.

a. Design Standards.

(1) Roads. The Louisiana Department of Highways Minimum Design Standards for Rural Highways and Roads (see appendix II) and a 1966 traffic flow map prepared for the Plaquemines Parish road system by the Louisiana Department of Highways were utilized in establishing a design standard of Class 6, "C" system for the relocation of Parish Road #325. In applying this standard, it was determined that an exception to the right-of-way requirement was prudent and that a right-of-way of 60 feet would serve satisfactorily in lieu of the standard 80-foot width. The Plaquemines Parish Commission Council consulted with the Louisiana Department of Highways regarding this modification and it was approved. Regulatory justification for acceptance of this design standard is contained in paragraph 73-209.2(c)(i) of ER 1180-1-1.

(2) Powerlines. The Louisiana Power and Light Company facilities will be designed in accord with the standard procedures of that company

and in a manner which will eliminate interference with the road improvements proposed by local interests,

(3) Telephone lines. The South Central Bell Telephone Company facilities will be designed in accord with the standard procedures of that company and in a manner which will eliminate interference with the project.

(4) Pipelines. The owners of the facilities which are to be relocated will accomplish the design of their facilities to their individual standards and in a manner which will eliminate interference with the project. In the instance of Government financial participation in the alteration of a facility, this district will review the design of that alteration to include consideration of the design standard.

b. Interference Among Relocations. The relocation of Parish Road #325 necessitates the relocation of certain powerlines, telephone lines and pipelines as discussed in paragraph 4b of this design memorandum.

8. DESCRIPTION OF PROPOSED RELOCATIONS.

a. Roads.

(1) Initial plan. Early planning on the dislocation of Parish Road #325 from atop the existing levee between Fort Jackson and The Jump developed a plan for the construction of a class 6, "C" system road as replacement in kind. This plan advocated a continuous alignment parallel and adjacent to the new levee beginning at Fort Jackson, with a lateral road to State Route 23, and converging to a point of intersection with State Route 23 at The Jump. It was considered that this plan would serve nearly the identical function and nearly as well as the existing facility.

Ensuing coordination with local interest determined that while the preceding consideration was correct, the plan was not acceptable (see paragraph 11a).

(2) Recommended plan. This plan for the relocation of Parish Road #325 retains the design standard of class 6, "C" system but provides for a discontinuous alignment consisting of two traffic "loops." The upriver portion of the relocation, the first "loop", will consist of a segment parallel and adjacent to the new levee right-of-way between levee baseline stations 3372+43.7 and 3554+93.0 and two laterals connecting with State Route 23 along the present alignments of Dead Man Lane and Boothville School Road (see plates 2 through 7). It is noted that Plaquemines Parish intends to provide additional lateral roads on the upriver loop as shown along the present alignments of Blanchard Highway Barn Road and Paul Morgan Lane; these improvements are betterments and as such are discussed in paragraph 9a of this design memorandum. In consideration of the limited usable land in the project area, the alignment of the roadway adjacent to the levee suggested that by allowing the precipitation runoff from the levee to drain across the road, the shallow collection ditch on the levee side could be deleted (see plate 11) allowing a reduction in the right-of-way requirement as discussed in paragraph 7.a.(1). Despite the requirement for drainage along both sides of the lateral roads, a like reduction in right-of-way was achieved on the layout for Boothville School Road. This was accomplished by providing a subsurface collection system on the upriver side and a shallow collection ditch with catch basins and crossover pipes on the downriver side. An evaluation of the relative cost of the recommended plan (60 foot right-of-way) and the design standard class 6, "C" system (80 foot right-of-way) indicates

that the additional 20 feet of right-of-way required by the latter offsets the cost of the subsurface drainage system called for in the recommended plan. This provision is not considered a betterment. The alignment between stations 3372+70 (opposite Dead Man Lane) and 3445+26.8 (beginning of Commander Levee Enlargement) is delineated herein (plates 2, 3, and 4) solely for the purpose of presenting a complete "loop" for review and will not be included in the balance of the design memorandum. Instead, this portion of the "loop" will be presented in Design Memorandum No. 8, Fort Jackson-Boothville Levee Enlargement, Item M-18.9-R, Relocation of Facilities. It is noted that certain temporary shell roads have been constructed to provide access to State Route 23 for those residences and places of business which lost access when the road atop the levee was destroyed. Project responsibility for these shell roads is limited to those providing access to areas which will be afforded permanent access by the relocation of Parish Road #325. The downriver portion of the relocation, the second "loop", will consist of a single lateral road from State Route 23 to the new levee right-of-way; thence, generally parallel and adjacent to the new levee right-of-way converging on and intersecting State Route 23 at The Jump. This second "loop" is interrelated to the proposed relocation of State Route 23 as necessitated by the Lower Venice Levee Enlargement and Setback, Item M-10.4-R; therefore, it will be presented in Design Memorandum No. 7, Lower Venice Levee Enlargement and Setback, Item M-10.4-R, Relocation of Facilities and will not be discussed further in this design memorandum.

b. Powerlines.

(1) Item C-14-1. This item represents 900 linear feet of 20 KV overhead powerline which will be displaced by the proposed improvement to Blanchard Highway Barn Road. The facility will be relocated inside a new 10-foot right-of-way adjacent to the right-of-way for the road. This relocation is a betterment as discussed in paragraph 9b.

(2) Item C-14-2. This item represents the relocation of 825 linear feet of 20 KV overhead powerline which will be required by the proposed improvement to Paul Morgan Lane. The facility will be relocated inside a new 10 foot right-of-way adjacent to the right-of-way for the road. This relocation is a betterment as discussed in paragraph 9b.

c. Telephone lines.

(1) Item C-15-1. This item represents the relocation of 515 linear feet of 25-pair, 26-gauge buried telephone cable, 455 linear feet of which was located within the new levee right-of-way and 60 linear feet of which crosses the right-of-way proposed for Parish Road #325 adjacent to the new levee. This facility will be relocated with 440 linear feet of 25-pair, 26-gauge cable placed in the right-of-way proposed for the new road and will be aligned parallel to the new levee to a point of intersection with the relocated cable on Blanchard Highway Barn Road (see detail A, plate 4).

(2) Item C-15-2. This item represents the relocation of 935 linear feet of 25-pair, 26-gauge buried telephone cable which will be displaced by the proposed improvement to Blanchard Highway Barn Road. The facility will be relocated inside a new 10-foot right-of-way adjacent to the right-of-way for the road. This relocation is a betterment as discussed in paragraph 9c.

(3) Item C-15-3. This item represents 90 linear feet of 50-pair, 26-gauge buried telephone cable, 30 linear feet of which was located within the new levee right-of-way and 60 linear feet of which crosses the right-of-way proposed for Parish Road #325 adjacent to the new levee (see plate 4). This facility has been abandoned in place to be removed as required by the construction of the levee and road.

(4) Item C-15-4. This item represents 420 linear feet of 25-pair, 26-gauge buried telephone cable, 360 linear feet of which was located within the new levee right-of-way and 60 linear feet of which crosses the right-of-way proposed for Parish Road #325 adjacent to the new levee. This facility will be relocated with 340 linear feet of 25-pair, 26-gauge cable placed in the right-of-way proposed for the new road and will be aligned parallel to the new levee to approximate levee baseline station 3466+80 at which point it will be spliced into the existing cable (see plate 5).

(5) Item C-15-6. This item represents 260 linear feet of 50-pair, 26-gauge buried telephone cable, 200 linear feet of which was located within the new levee right-of-way and 60 linear feet of which crosses the right-of-way proposed for Parish Road #325 adjacent to the new levee. This facility will be relocated with 245 linear feet of 50-pair, 26-gauge cable placed in the proposed road right-of-way and will be aligned parallel to the new levee to approximate levee baseline station 3508+45 at which point it will be spliced into the existing cable (see plate 6).

(6) Item C-15-7. This item represents 370 linear feet of 50-pair, 26-gauge buried telephone cable, 310 linear feet of which was located within

the new levee right-of-way and 60 linear feet of which crosses the right-of-way proposed for Parish Road #325 adjacent to the new levee. This facility will be relocated with 375 linear feet of 50-pair, 26-gauge cable, part of which will be placed in the proposed right-of-way for the road adjacent to the levee and will be continued as Item C-15-8 along Boothville School Road, and part of which will be placed in a 12-foot-wide utility right-of-way aligned adjacent to the new levee downriver from levee baseline station 3554+93.0 (see plate 7). It is noted that this 12-foot-wide utility right-of-way is required by and provided for the relocation of Item C-12; a 6-inch diameter potable water main (see paragraph 11c).

(7) Item C-15-8. This item represents 680 feet of 50-pair, 26-gauge buried telephone cable which will be displaced by the improvement of Boothville School Road. This facility will be replaced with 680 linear feet of 50-pair, 26-gauge cable placed inside a new 10-ft. right-of-way adjacent to the right-of-way for the road (see detail "C", plate 7).

d. Pipelines.

(1) Item C-2. This item, an abandoned 8-inch diameter sewerline across the former levee at approximate station 3480+00 (see plate 5), has been removed from within the new levee right-of-way by the levee contractor and will be removed from the new road right-of-way by the road contractor. This facility will not be replaced.

(2) Item C-3. This item, an abandoned 10-inch diameter pipeline across the former levee at approximate station 3487+78 (see plate 5), has been removed from within the new levee right-of-way by the levee

contractor and will be removed from the new road right-of-way by the road contractor. This facility will not be replaced.

(3) Item C-4. This item, an abandoned 1½-inch diameter pipeline across the former levee at approximate station 3499+50 (see plate 5), has been removed from atop the former levee by the levee contractor and will not be replaced.

(4) Item C-5. This item, an abandoned 3-inch diameter siphon across the former levee at approximate station 3577+20 (see plate 8), has been removed from atop the former levee by the levee contractor and will not be replaced.

(5) Item C-6. This item, an abandoned 2-inch diameter siphon across the former levee at approximate station 3583+93 (see plate 8), has been removed from atop the former levee by the levee contractor and will not be replaced.

(6) Item C-7. This item, an 18-inch diameter sewage discharge pipeline across the former levee at approximate station 3587+13.8 (see plate 8), has been relocated. This relocation was accomplished by installing a temporary bypass line, removing the pipeline, building a portion of the levee to the new project grade, replacing the permanent line at the new grade and removing the bypass (see typical section on plate 10).

(7) Item C-8. This item, an abandoned 3-inch diameter pipeline across the levee at approximate station 3622+60 (see plate 9), has been removed from atop the former levee by the levee contractor and will not be replaced.

(8) Item C-12. That portion of this 6-inch diameter potable water main which was parallel and adjacent to the former levee has been removed from the new levee right-of-way by the levee contractor and temporary facilities for affected residents and businesses have been provided by Plaquemines Parish. The relocation of this portion will consist of the installation of 20,250 linear feet of 12-inch diameter potable water main approximately as follows: 11,000 linear feet aligned parallel to the new levee inside the new right-of-way for Parish Road #325 (see plates 4-7) and 9,250 linear feet aligned parallel and adjacent to the new levee inside a 12-foot-wide utility right-of-way provided for this specific facility (see plates 7-9). The 6-inch diameter potable water main existing along Blanchard Highway Barn Road will be replaced with 935 linear feet of 8-inch diameter water main (see plate 4). The portion of the 6-inch diameter potable water main which is existing along Boothville School Road will be replaced with 645 linear feet of 8-inch diameter water main (see plate 7). It is noted that Plaquemines Parish intends to install an 8-inch diameter potable water main adjacent to Paul Morgan Lane where there is none now (see plate 5). Betterments on the relocation of item C-12 are discussed in paragraph 9d.

(9) Item C-13-1. This item represents the abandonment of approximately 19,120 linear feet of 1-inch diameter gas main which was parallel and adjacent to the former levee by the owner, Delta Gas Company. This facility has been removed by the levee contractor and will not be replaced.

(10) Item C-13-2. This item represents the abandonment of approximately 910 linear feet of 1-inch diameter gas main existing along Blanchard Highway Barn Road by the owner, Delta Gas Company. This facility will be removed to facilitate the proposed improvement of this lateral road and will not be replaced. This item is a betterment as discussed in paragraph 9d.

9. BETTERMENTS.

a. Roads. The improvements to Blanchard Highway Barn Road and Paul Morgan Lane (see plates 4 and 5) planned by Plaquemines Parish are betterments, the total cost of which will be borne by local interests.

b. Powerlines. The relocations of items C-14-1 and C-14-2 as necessitated by the proposed improvements to Blanchard Highway Barn Road and Paul Morgan Lane are betterments, the cost of which will be borne by local interests.

c. Telephone Lines. The relocation of item C-15-2 as required by the proposed improvement of Blanchard Highway Barn Road is a betterment, the cost of which will be borne by local interests.

d. Pipelines.

(1) Item C-12. The installation of 20,250 linear feet of 12-inch diameter pipeline to replace the existing 6-inch diameter water main is a betterment to the extent that the increase in pipe diameter increases the cost of the relocation. This increase in cost is estimated at \$60,800 and will be borne by local interests. The total installation of 935 linear feet of 8-inch diameter pipeline to replace the existing 6-inch diameter water main on Blanchard Highway Barn Road (\$5,600) and the total installation of 850 linear feet of 8-inch diameter pipeline on Paul Morgan Lane (\$5,300)

are betterments, the cost of which will be borne by local interests. The installation of 645 linear feet of 8-inch diameter pipeline to replace the existing 6-inch diameter water main on Boothville School Road is a betterment to the extent that the increase in pipe diameter increases the cost of the relocation. This increase in cost is estimated at \$900 and will be borne by local interests.

(2) Item C-13-2. The abandonment of 910 linear feet of 1-inch diameter gas pipeline is required by the proposed improvement to Blanchard Highway Barn Road which is a betterment; therefore, the \$1,500 abandonment value of item C-13-2 is a local interest responsibility.

10. PROCEDURE FOR ACCOMPLISHING RELOCATIONS.

a. General. The procedure to be followed in effecting reimbursement for the relocations necessitated by the Commander project has been discussed with representatives of the Plaquemines Parish Commission Council and no difficulties are anticipated. Upon approval of this design memorandum and related Real Property Appraisal Reports where applicable, the Plaquemines Parish Commission Council will be requested to accomplish the relocations described herein in accordance with the approved design memorandum and subject to reimbursement of actual cost not to exceed a given dollar amount. The dollar limit provided will be based on the approved design memorandum; however, reimbursement will be based on actual cost (less depreciation and salvage and plus removal cost as applicable). Upon completion of the relocation, the Plaquemines Parish Commission Council will furnish a reimbursement assembly to this district consisting of: 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 canceled checks covering related payments. Further, all records related to the reimbursement request will be subject to audit by the Government and original time cards or 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, so far as practicable, separate records will be maintained for all items and accounts constituting the basis of information from which the reimbursement assembly is prepared.

b. Roads. Parish Road #325 atop the former levee in the Commander Levee Enlargement project area was destroyed during the construction of the levee. The Plaquemines Parish Commission Council has proceeded with the preparation of construction plans for the replacement of this facility and intends to effect the relocation as soon as these plans are complete. In order to allay difficulties in reimbursing local interest for work accomplished, this project has been closely coordinated and all phases of local interest plans have been reviewed by this district with the understanding that final approval and subsequent reimbursement would be contingent upon and subsequent to review and approval of the design memorandum for relocations by higher authority.

c. Powerlines. The proposed relocations of item C-14-1 and item C-14-2 are not a requirement of this project; therefore, the procedure for accomplishing them will not be discussed.

d. Telephone Lines. The Plaquemines Parish Commission Council has accepted the responsibility for effecting the relocation of items C-15-1, C-15-4, C-15-6, C-15-7 and C-15-8 in accord with the provisions of this design memorandum and subject to reimbursement by this district as authorized by the Flood Control Act of 1938. By the same authority the damages for item C-15-3, the abandoned length of buried cable, will also be reimbursed to the Commission Council. The proposed relocation of item C-15-2 is not a requirement of this project; therefore, the procedure for accomplishing it will not be discussed.

e. Pipelines. Items C-2, C-3, C-4, C-5, C-6 and C-8 are abandoned facilities for which the Government has no financial obligation; at the request of the Plaquemines Parish Commission Council, these facilities have been removed from the levee right-of-way by the levee contractor. The Plaquemines Parish Commission Council has accomplished the relocation of item C-7 in full awareness that reimbursement by this district as authorized by the Flood Control Act of 1938 is contingent upon review and approval of the design memorandum for relocations by higher authority. The relocation of item C-12 is being accomplished by the Plaquemines Parish Commission Council subject to the same provisions as item C-7. Reimbursement for the abandonment of item C-13-1 will be made to the Plaquemines Parish Commission Council as authorized by the Flood Control Act of 1938 and in accordance with the provisions of this design memorandum. The abandonment of item C-13-2 is not required by this project; therefore, the procedure for accomplishing it will not be discussed.

11. ATTITUDE OF OWNERS.

a. Roads.

(1) Initial plan. At a public hearing held in Plaquemines Parish and attended by representatives from this district, the plan for the relocation of Parish Road #325 was presented to the people of Plaquemines Parish. Considerable opposition to certain reaches of the proposed road was voiced by affected property owners. These owners noted that in their particular situations, the loss of property required for the road, although reimbursed by the Federal Government, would more than offset the advantages of having a road. Other property owners who favored the road for their respective areas noted that without this access they would be unable to utilize their properties. The Commission Council polled the concerned property owners and developed a proposal which would best meet the desires of the community (see paragraph 11a(2)).

(2) Recommended plan. This proposal has been the subject of intensive coordination with local interests throughout the concurrent preparation of the construction plans for the road and this design memorandum. The Plaquemines Parish Commission Council recognizes that this plan will provide less total roadway and serve less land area than the Old Parish Road #325, but in consideration of the extreme high feeling among property owners in the area who are concerned about the recognized shortage of usable land in Plaquemines Parish, this is the extent of the relocation desired. At the request of this district, the Plaquemines Parish Commission Council has abandoned that portion of the old Parish Road #325 atop the levee within the limits of the Commander Levee Enlargement Reach in return for the relocation to be provided by the plan

contained in this design memorandum. With regard to that portion of Road #325 below the Commander project, the Commission Council will abandon all prior, existing and future rights, titles and interests in the roadway when the second "loop" is finalized. In a continued effort to reduce the taking of land, the Commission Council enlisted the support of the Louisiana Department of Highways in the reduction of the right-of-way requirements for Parish Road #325 as described in paragraph 8a(2). The Commission Council recognizes the betterments involved in this relocation; therefore, no serious difficulties are anticipated.

b. Powerlines. Louisiana Power and Light Company recognizes that the Government is not responsible for the relocation of items C-14-1 and C-14-2; therefore, no difficulties are anticipated.

c. Telephone Lines. South Central Bell Telephone Company recognizes that the Government is not responsible for the relocation of item C-15-2 but that the total cost of relocating the balance of the telephone facilities, including damages for the abandonment of item C-15-3, will be reimbursed in accordance with the relocations design memorandum. Representatives of this company have cooperated fully with the Plaquemines Parish Commission Council to the extent that all facilities which interfered with the levee construction have been removed or abandoned. In addition, they have agreed to place their relocations of items C-15-1, C-15-3, C-15-4, C-15-6, C-15-8 and part of C-15-7 in the right-of-way for the relocation of Parish Road #325; the balance of item C-15-7 will be placed in the 12-foot right-of-way provided for the relocated 12-inch diameter potable water main, item C-12. No difficulties are anticipated as a result of these relocations.

d. Pipelines. Coordination with representatives of Delta Gas Company indicates that they recognize that the Government is not responsible for the abandonment of item C-13-2 but that damages for item C-13-1 will be paid in accordance with the relocations design memorandum; therefore, no difficulties are anticipated. Coordination with the Plaquemines Parish Commission Council indicates that there will be no problems with the balance of the pipeline dislocations.

12. UNAFFECTED FACILITIES.

a. Powerlines. Louisiana Power and Light Company owns a 20 KV overhead powerline along Boothville School Road which will not be affected (see item C-14-3 in detail "C" of plate 7 and the typical section on plate 12).

b. Telephone Lines. South Central Bell Telephone Company owns a 25-pair, 26-gauge buried telephone cable on Paul Morgan Lane which will not be affected (see item C-15-5 in Detail "B" of plate 5 and the typical section on plate 12).

c. Pipelines.

(1) Plaquemines Parish owns 8-inch diameter sewerlines on Blanchard Highway Barn Road (see item C-16-1 in detail "A" on plate 4), on Paul Morgan Lane (see item C-16-2 in detail "B" on plate 5) and on Boothville School Road (see item C-16-3 in detail "C" on plate 7), none of which will be affected by the project.

(2) Delta Gas Company owns a 1-inch diameter gas pipeline on Boothville School Road (see item C-13-3 in detail "C" on plate 7) which will not be affected by the project.

13. COST ESTIMATES. The Government estimates of cost for the proposed relocations have been computed in accordance with the policy set forth in ER 1180-1-1 and are presented in tables 2, 3, 4, 5 and 6. It is noted that funds for the provision of temporary facilities for Parish Road #325 as discussed in paragraph 8a(2) and for the potable water system as discussed in paragraph 8d(8) are anticipated to be nominal and as such will be reimbursed out of the contingency estimate for the respective items.

TABLE 2 - ESTIMATE OF COST
 PLAQUEMINES PARISH ROADS^{1/}
 (January 1971 Price Levels)

Cost Acct. No.	Description	Unit	Quantity	Unit Cost	Amount
02	Relocations			\$	\$
.1	Roads				
	Highway 325	foot	10,970	25.30	277,500
	Blanchard Hwy. Barn Rd.	foot	963	42.60	41,000
	Paul Morgan Lane	foot	868	42.60	37,000
	Boothville School Rd.	foot	718	42.60	30,500
	Relocation Cost				386,000
	Less Cost of Betterments				78,000 ^{2/}
	Subtotal				308,000
	Plus Removal Cost				- ^{3/}
	Subtotal				308,000
	Contingencies (15%±)				46,400
	Subtotal				354,400
30	E&D (6%±)				21,300
31	S&A (6%±)				21,300
	Subtotal				397,000
	R/W Cost				265,000 ^{4/}
	Total				\$662,000

^{1/} For detailed cost estimate, see Appendix IV

^{2/} Represents total cost of Blanchard Highway Barn Road and Paul Morgan Lane.

TABLE 2 (CONTINUED)

^{3/} Removal included in contract for levee construction.

^{4/} Includes \$243,000 for Highway 325 R/W covered by this memorandum, \$8,400 for Boothville School Road R/W, and \$13,600 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

TABLE 3 - ESTIMATE OF COST

LOUISIANA POWER AND LIGHT COMPANY
(January 1971 Price Levels)

Cost Account No.	Description	Unit	Quantity	Unit Cost	Amount
				\$	\$
02	Relocations				
.3	Utilities				
	Item C-14-1				
	Relocate 20 KV distribution line	foot	900	1.20	1,080
	Item C-14-2				
	Relocate 20 KV distribution line	foot	825	1.00	825
	Relocation Cost				1,905
	Plus Removal Cost				920
	Subtotal				2,825
	Less Cost of Betterments				2,825 ^{1/}
	Total				0

^{1/} Represents total cost of relocating items C-14-1 and C-14-2.

TABLE 4 - ESTIMATE OF COST

SOUTH CENTRAL BELL TELEPHONE COMPANY
(January 1971 Price Levels)

Cost Account No.	Description	Unit	Quantity	Unit Cost	Amount
02	Relocations			\$	\$
.3	Utilities				
	Item C-15-1 Relocate 25 pr. buried telephone cable	foot	440	1.35	600
	Item C-15-2 Relocate 25 pr. buried telephone cable	foot	660	1.35	890
	Item C-15-3 Abandon 50 pr. buried telephone cable	foot	90	1.35	120
	Item C-15-4 Relocate 25 pr. buried telephone cable	foot	340	1.35	460
	Item C-15-6 Relocate 50 pr. buried telephone cable	foot	245	1.45	360
	Item C-15-7 Relocate 50 pr. buried telephone cable	foot	375	1.45	540
	Item C-15-8 Relocate 50 pr. buried telephone cable	foot	680	1.45	990
	Relocation Cost				3,960
	Less Cost of Betterments				920 ^{1/}
	Subtotal				3,040

TABLE 4 (CONT'D)

Cost Account No.	Description	Unit	Quantity	Unit Cost	Amount
	Subtotal			\$	\$ 3,040
	Less Depreciation				100 ^{2/}
	Subtotal				2,940
	Less Salvage Value				0
	Subtotal				2,940
	Plus Removal Cost				150
	Subtotal				3,090
	Contingencies (15%±)				460
	Subtotal				3,550
30	E&D (6%±)				200
31	S&A (6%±)				200
	Subtotal				3,950
	R/W Cost				850 ^{3/}
	Total				\$4,800

^{1/} Includes \$890 for relocation and \$30 for removal of Item C-15-2.

^{2/} Based on 32-year life and age of facilities = 1 year.

^{3/} Represents R/W cost for Item C-15-8 on Boothville School Road.

TABLE 5 - ESTIMATE OF COST

PLAQUEMINES PARISH PIPELINES
(January 1971 Price Levels)

I. Item C-12

Cost Account No.	Description	Unit	Quantity	Unit Cost	Amount
02	Relocations			\$	\$
.3	Utilities				
	Relocate 6" dia. water main				
	Highway 325	foot	20,250	7.55	152,900
	Blanchard Hwy. Barn Rd.	foot	935	6.00	5,600
	Paul Morgan Lane	foot	850	6.25	5,300
	Boothville School Rd.	foot	645	6.50	4,200
	Relocation Cost				168,000
	Less Cost of Betterments				72,600 ^{1/}
	Subtotal				95,400
	Less Depreciation				16,500 ^{2/}
	Subtotal				78,900
	Less Salvage Value				0
	Subtotal				78,900
	Plus Removal Cost				- ^{3/}
	Subtotal				78,900
	Contingencies (15%±)				11,850
	Subtotal				\$ 90,750

TABLE 5 (CONT'D)

I. Item C-12

Cost Account No.	Description	Unit	Quantity	Unit Cost	Amount
	Subtotal			\$	\$ 90,750
30	E&D (6%±)				5,500
31	S&A (6%±)				5,500
	Subtotal				101,750
	R/W Cost				22,250 ^{4/}
	Total				\$124,000

^{1/} Includes cost differentials in placing 12" dia. pipe rather than 6" dia. pipe on Hwy. 325 (\$60,800) and 8" dia. pipe rather than 6" dia. pipe on Boothville School Road (\$900) and entire cost of placing 8" dia. pipe on Blanchard Highway Barn Road (\$5,600) and Paul Morgan Lane (\$5,300).

^{2/} Based on 75-year life.
Average age of facilities = 13 years.

^{3/} Removal to be included in contract for levee construction.

^{4/} R/W cost includes \$17,000 for Item C-12 on Highway 325, \$850 for Item C-12 on Boothville School Rd., and \$4,400 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

TABLE 5 (CONT'D)

II. Item C-7

Cost Account No.	Description	Unit	Quantity	Unit Cost	Amount
02	Relocations			\$	\$
.3	Utilities				
	Relocate 18" dia. sewage discharge pipeline	sum	job	sum	10,500
	Relocation Cost				10,500
	Less Cost of Betterments				0
	Subtotal				10,500
	Less Depreciation				300 ^{1/}
	Subtotal				10,200
	Less Salvage Value				0 ^{2/}
	Subtotal				10,200
	Plus Removal Cost				- ^{3/}
	Subtotal				10,200
	Contingencies (15%±)				1,400
	Subtotal				11,600
30	E&D (6%±)				700
31	S&A (6%±)				700
	Total - Part II				\$13,000

^{1/} Based on 75-year life.
Age of facility = 2 years.

^{2/} Salvable material to be re-used.

^{3/} Removal cost included in relocation cost.

TABLE 6 - ESTIMATE OF COST

DELTA GAS COMPANY
(January 1971 Price Levels)

Cost Account No.	Description	Unit	Quantity	Unit Cost	Amount
02	Relocations			\$	\$
.3	Utilities				
	Item C-13-1 Abandon 1" dia. gas main	foot	19,120	1.65	31,550
	Item C-13-2 Abandon 1" dia. gas main	foot	910	1.65	1,500
	Relocation Cost				33,050
	Less Cost of Betterments				1,500 ^{1/}
	Subtotal				31,550
	Less Depreciation				6,300 ^{2/}
	Subtotal				25,250
	Less Salvage Value				0
	Subtotal				25,250
	Plus Removal Cost				- ^{3/}
	Subtotal				25,250
	Contingencies (15%±)				3,750
	Subtotal				\$29,000

TABLE 6 (CONT'D)

Cost Account No.	Description	Unit	Quantity	Unit Cost \$	Amount \$
	Subtotal				29,000
30	E&D (6%±)				1,800
31	S&A (6%±)				1,800
	Total				\$32,600

1/ Represents abandonment cost for Item C-13-2.

2/ Based on 30-year life.
Average age of facility = 6 years.

3/ Removal to be included in contract for levee construction.

14. COMPARISON WITH PRIOR COST ESTIMATE. The current working estimate of cost is summarized under the uniform cost classification for comparison with the latest submitted cost estimate which is the FY 1972 Budget Program PB-2A.^{1/}

Cost Account No.	Item	Latest PB-2A ^{1/}	Current Working Estimate	Diff. From PB-2A
02	Relocations			
.1	Roads	\$493.0 ^{2/}	\$354,4 ^{2/}	\$(-138.6)
	R/W	125.0	265.0	+140.0
.3	Cemeteries and Utilities			
	Utilities	130.0 ^{2/}	158.0 ^{2/3/}	+28.0
30	Engineering and Design	38.0	29.5	(- 8.5)
31	Supervision and Administration	38.0	29.5	(- 8.5)
	Total	\$824.0	\$836.4	\$ +12.4

^{1/} Effective date 1 January 1971.

^{2/} Includes 15%± contingencies.

^{3/} Includes \$23.1 for right-of-way.

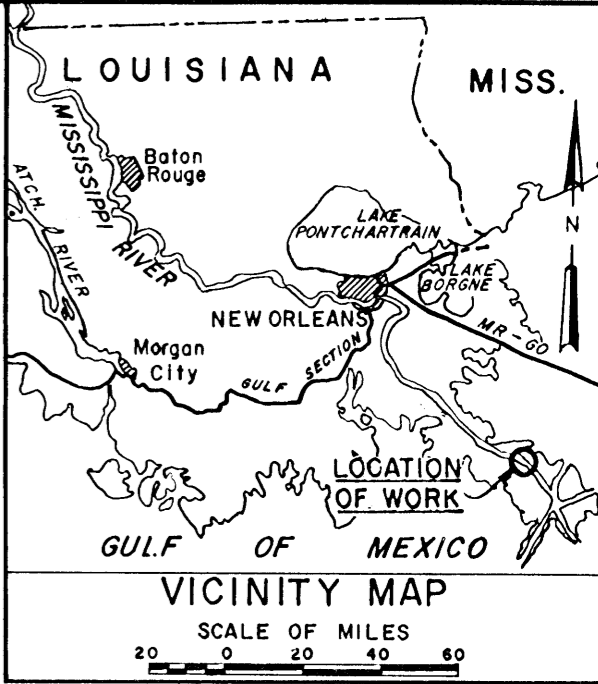
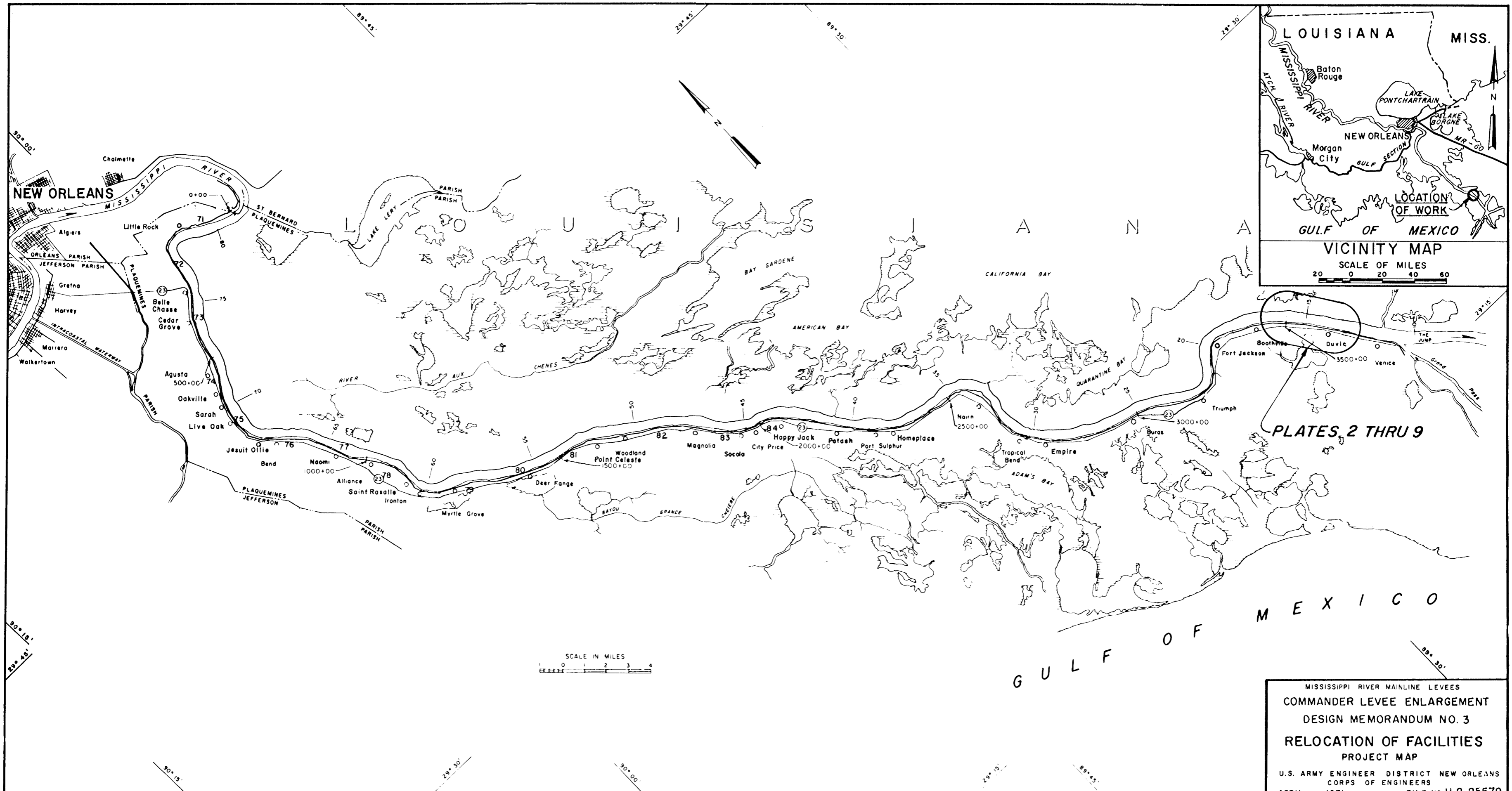
15. JUSTIFICATION FOR COST REVISION.

a. Highway #325. The estimate of \$493,000 programed in the FY 1972 Budget Program Detailed Project Schedule (PB-2A) for the Mississippi River Levees was based on typical sections for the proposed road. These sections were applied to an assumed alignment for the road and estimates of quantities and costs were developed. Continued coordination with local interests resulted in the refined alignment contained in this design memorandum and a subsequent reduction in cost to the current working estimate of \$354,400.

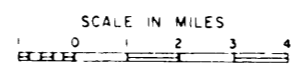
b. Highway #325 Right-of-Way. The estimate of \$125,000 for right-of-way for the relocated road was based on preliminary road alignment and gross appraisal without detailed inspection. As a result of continued coordination with local interest in an effort to obtain an alignment acceptable to residents in the area as well as the Plaquemines Parish Commission Council, a revised alignment was developed. The revised alignment, together with additional data furnished by the Commission Council as to utility house connections (after joint conference with LMVRE representatives) was the basis for a reappraisal of the required right-of-way. The increases applicable to these factors coupled with the estimated cost of payments under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, equalled a current working estimate of \$265,000.

c. Utilities. The current working estimate of \$158,000 is \$28,000 greater than the PB-2A estimate. The main portion of this difference is due to the fact that the original PB-2A did not take into consideration the cost of utility right-of-ways and enactment of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

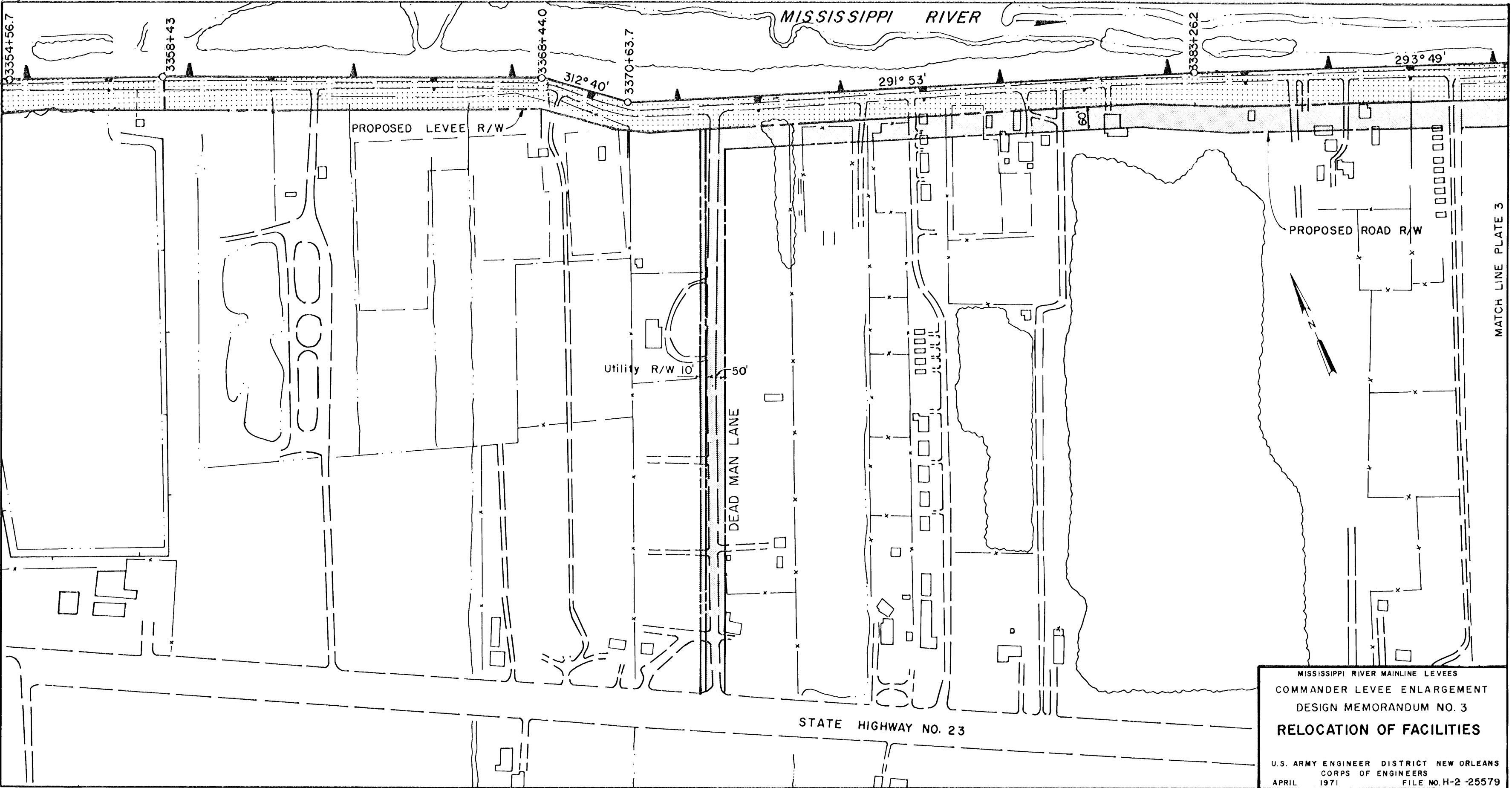
16. RECOMMENDATION. Recommend approval of this memorandum as the basis for reimbursing the Plaquemines Parish Commission Council for cost incurred in accomplishing the relocations herein described.



PLATES 2 THRU 9

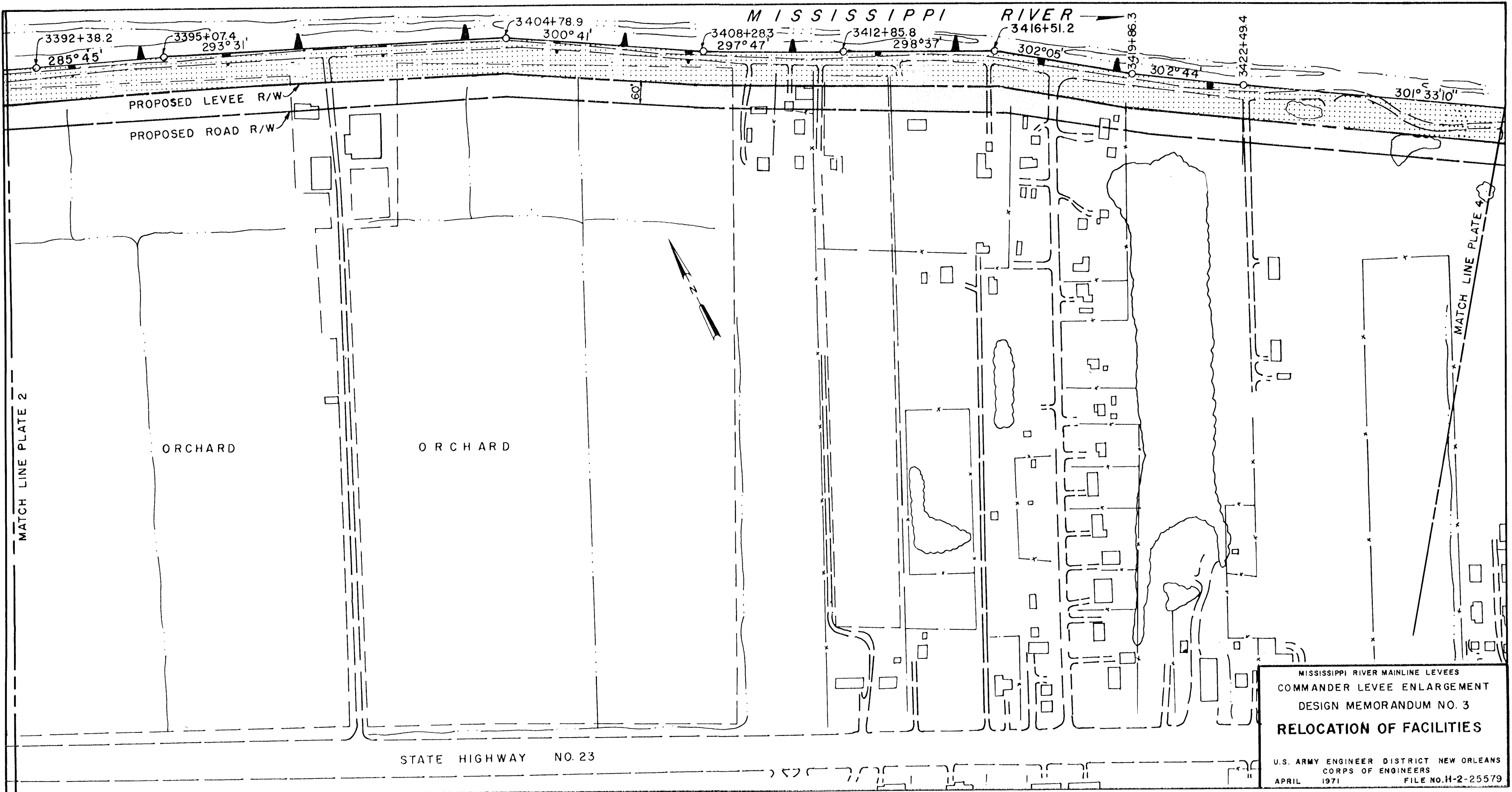


MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
 RELOCATION OF FACILITIES
 PROJECT MAP
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579



MATCH LINE PLATE 3

MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579



MISSISSIPPI RIVER

3392+38.2

3395+07.4
293°31'

3404+78.9
300°41'

3408+28.3
297°47'

3412+85.8
298°37'

3416+51.2
302°05'

3419+86.3

302°44'

3422+49.4

301°33'10"

PROPOSED LEVEE R/W

PROPOSED ROAD R/W

MATCH LINE PLATE 2

ORCHARD

ORCHARD

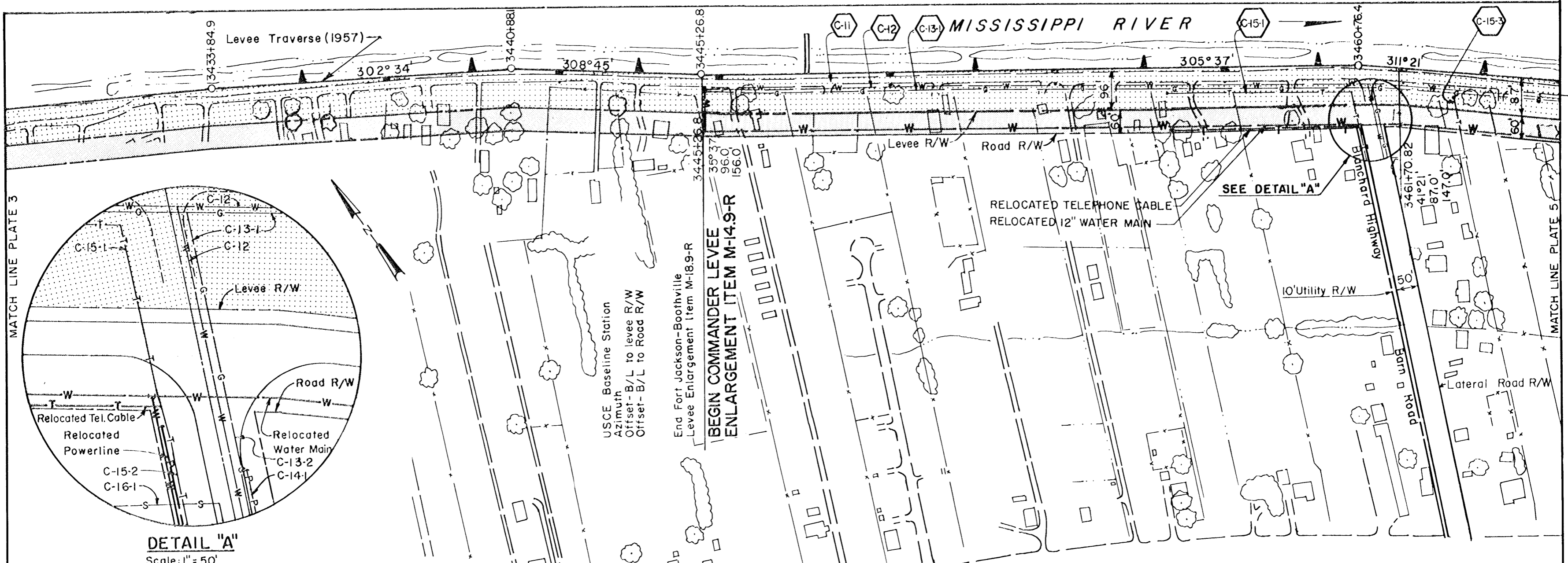
MATCH LINE PLATE 4



STATE HIGHWAY NO. 23

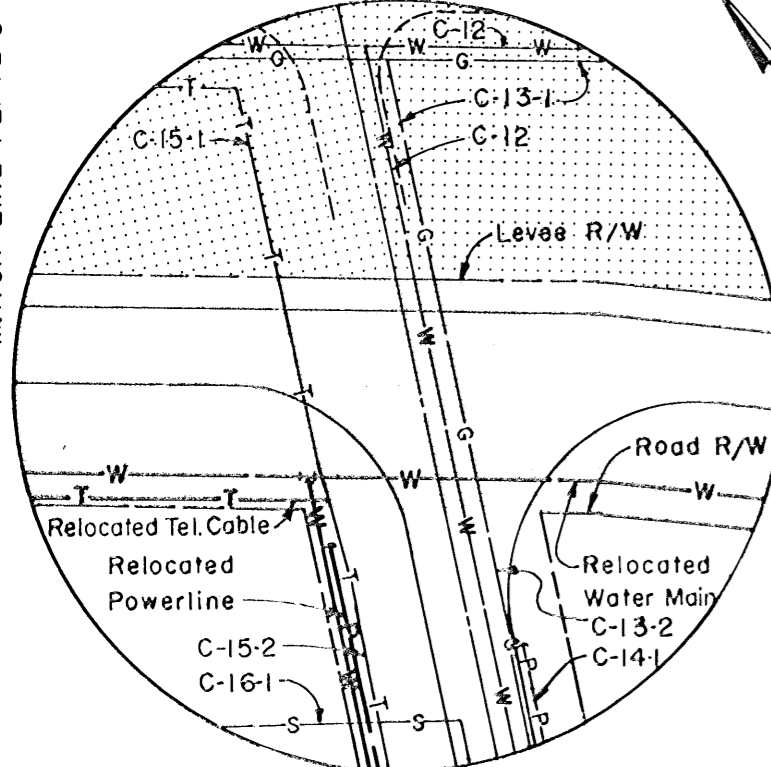
MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579



MATCH LINE PLATE 3

MATCH LINE PLATE 5



DETAIL "A"
Scale: 1" = 50'

FACILITIES TO BE RELOCATED

ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-11	Existing Road	3445+26.8 3554+93.0	Plaquemines Parish	Relocate
C-12	6" dia. Water Main	3445+26.8 3644+50.2	Plaquemines Parish	Relocate
C-13-1	1" dia. Gas Main	3445+26.8 3644+50.2	Delta Gas Co.	Remove
C-13-2		Blanchard Hwy. Barn Rd.		Abandon
C-14-1	Aerial Powerline	Blanchard Hwy. Barn Rd.	La. Power & Light	Relocate
C-15-1	Buried Tel. Cable	3456+40 3460+75	So. Central Bell	Relocate
C-15-2		Blanchard Hwy. Barn Rd.		Relocate in part
C-15-3		3463+00		Remove
C-16-1	8" dia. Sewer line	Blanchard Hwy. Barn Rd.	Plaquemines Parish	Not affected

BEGIN COMMANDER LEVEE ENLARGEMENT ITEM M-14.9-R

USCE Baseline Station
Azimuth
Offset-B/L to Levee R/W
Offset-B/L to Road R/W

End Fort Jackson-Boothville
Levee Enlargement Item M-18.9-R

STATE HIGHWAY NO. 23

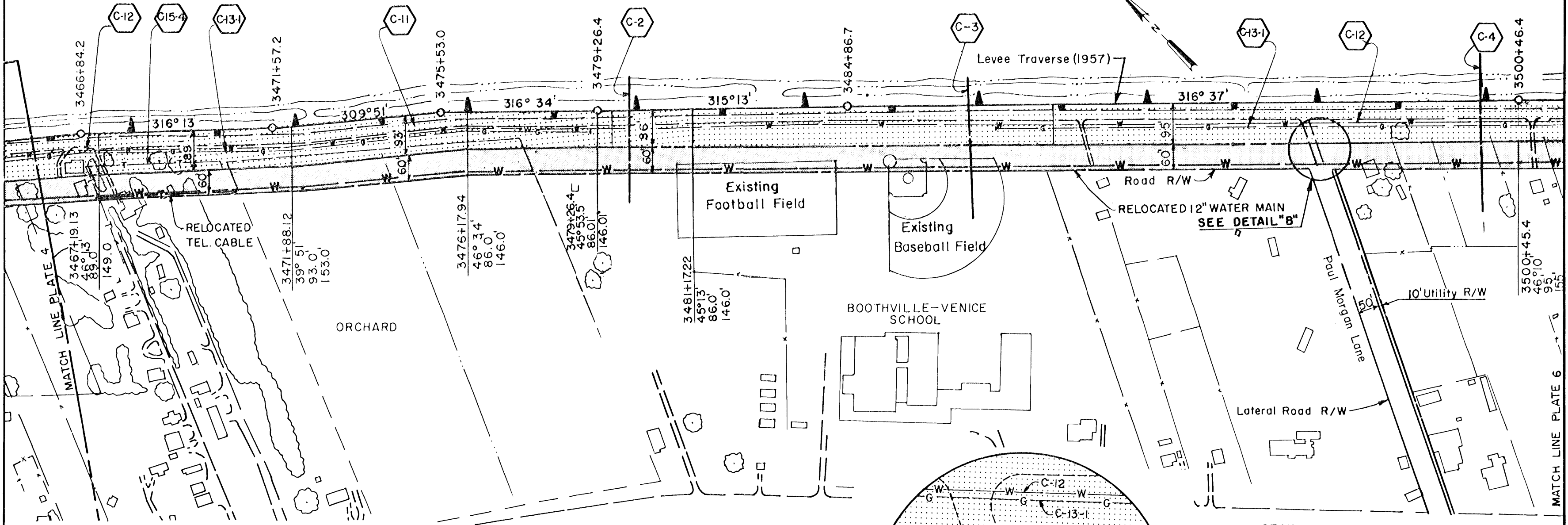
NOTE: Existing utilities above Sta. 3445+26.8 are not shown.

Approximate Scale: 1" = 200'

SEC. 35
T205-R30E

MISSISSIPPI RIVER MAINLINE LEVEES
COMMANDER LEVEE ENLARGEMENT
DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS
APRIL 1971 FILE NO. H-2-25579

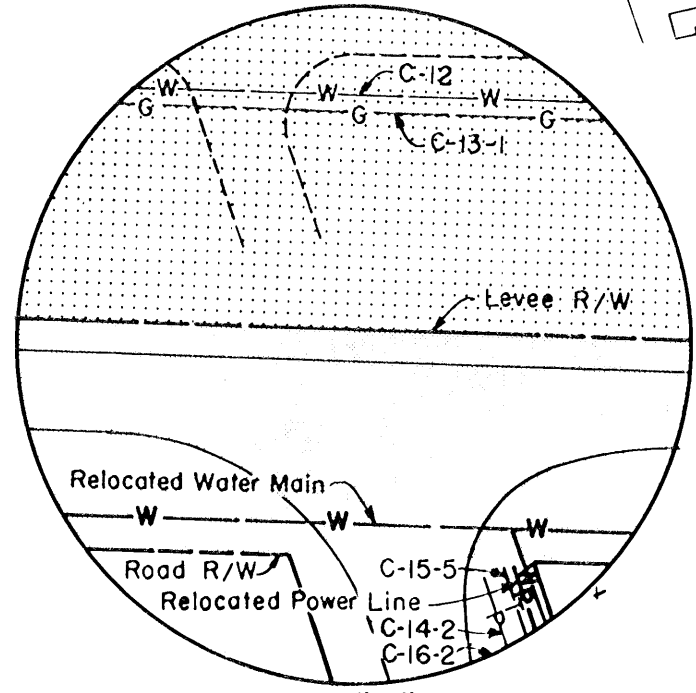
MISSISSIPPI RIVER



FACILITIES TO BE RELOCATED

ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-2	8" dia. Pipe Line	3480+00	Plaquemines Parish	Remove
C-3	10" dia. Pipe Line	3487+78	Unknown	Remove
C-4	1 1/2" dia. Pipe Line	3499+50	Unknown	Remove
C-11	Existing Road	3445+26.8 3554+93.0	Plaquemines Parish	Relocate
C-12	6" dia. Water Main	3445+26.8 3644+50.2	Plaquemines Parish	Relocate
C-13-1	1" dia. Gas Main	3445+26.8 3644+50.2	Delta Gas Co.	Remove

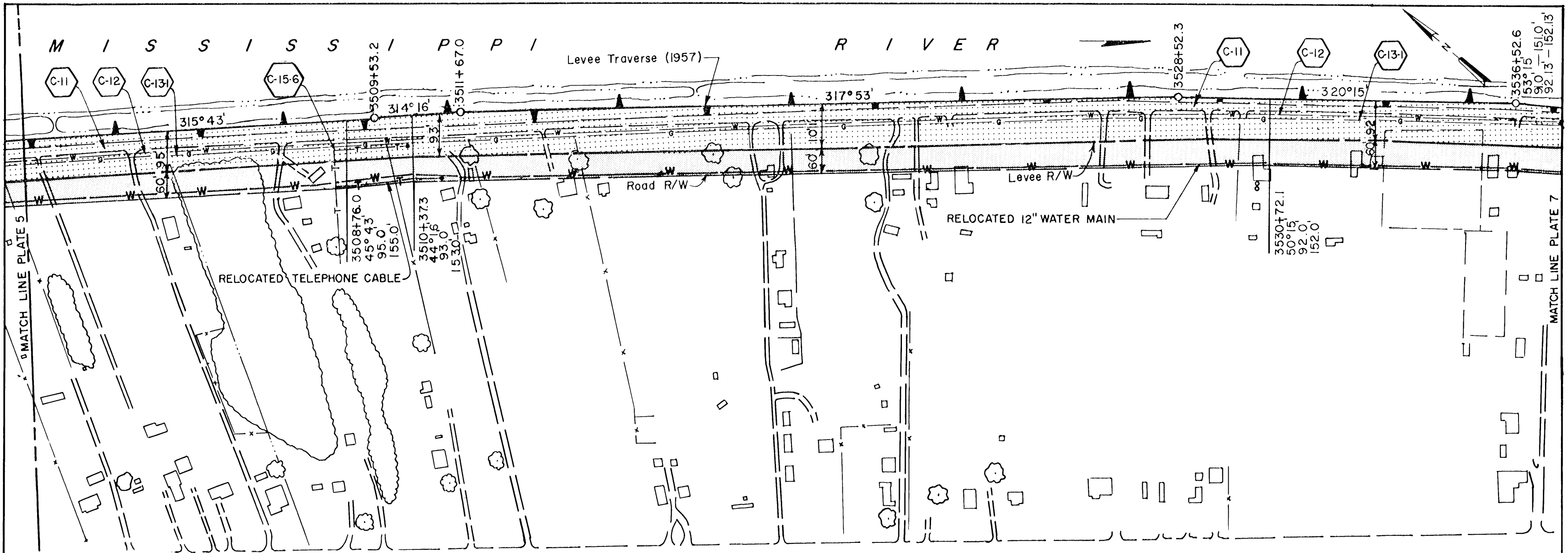
ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-14-2	Aerial Powerline	Paul Morgan Lane	La. Power & Light	Relocate
C-15-4	Buried Tel. Cable	3466+80	So. Central Bell	Relocate
C-15-5		3470+00		Not Affected
C-16-2	8" dia. Sewer Line	Paul Morgan Lane	Plaquemines Parish	Not Affected



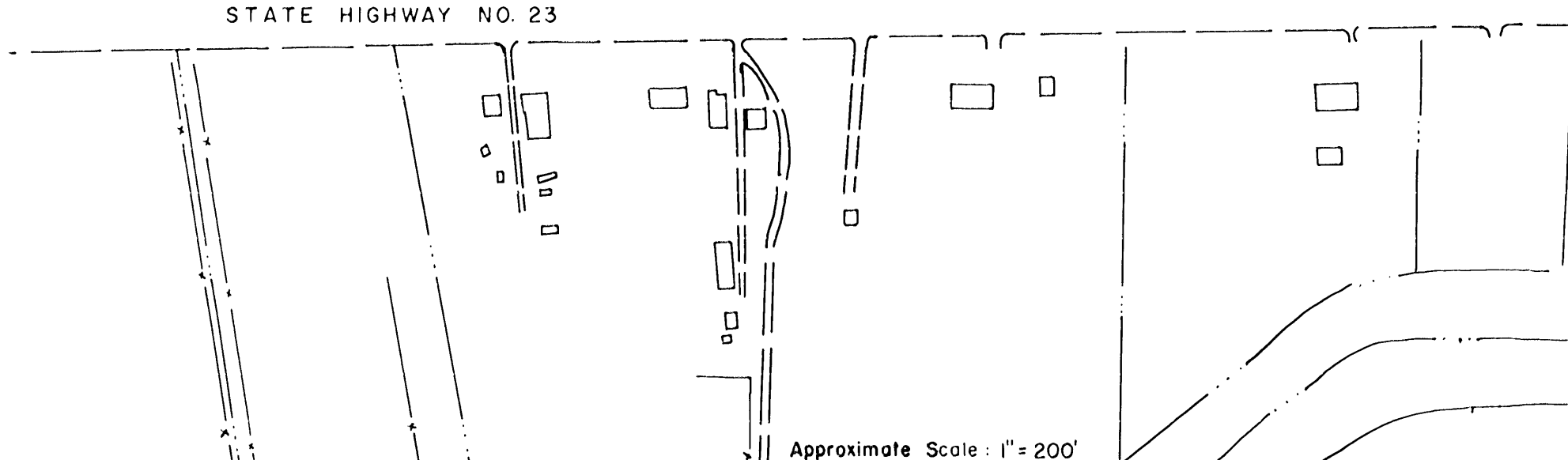
DETAIL "B"
Scale: 1" = 50'

Approximate Scale: 1" = 200'

MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579



FACILITIES TO BE RELOCATED				
ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-11	Existing Road	3445+26.8 3554+93.0	Plaquemines Parish	Relocate
C-12	6" dia Water Main	3445+26.8 3644+50.2	Plaquemines Parish	Relocate
C-13-1	1" dia Gas Main	3445+26.8 3644+50.2	Delta Gas Co.	Remove
C-15-6	Buried Tel. Cable	3508+45 3510+25	So. Central Bell	Relocate



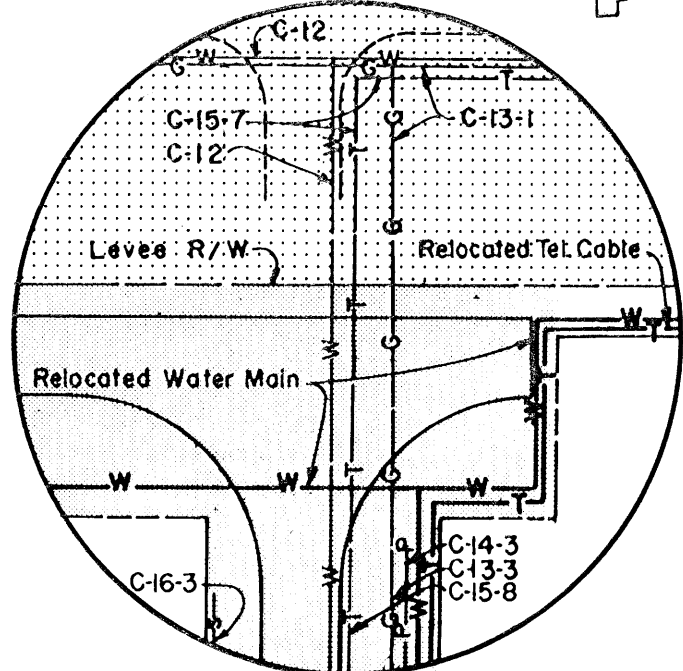
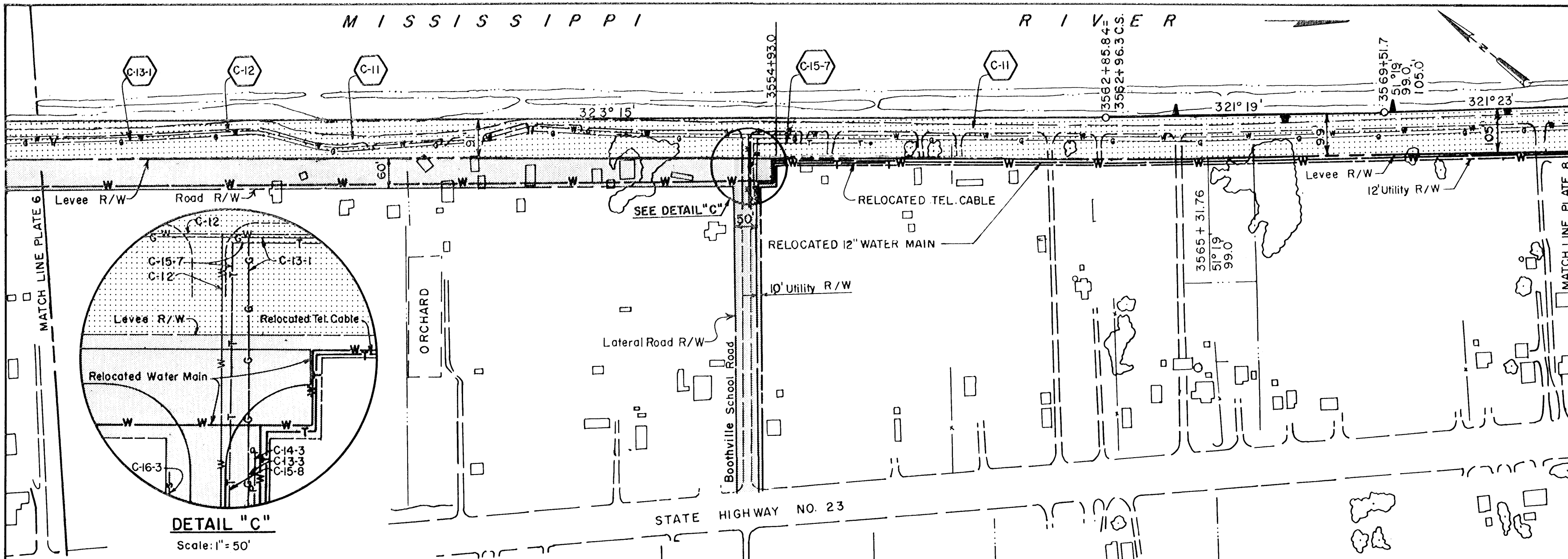
MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
 RELOCATION OF FACILITIES

U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579

Approximate Scale: 1" = 200'

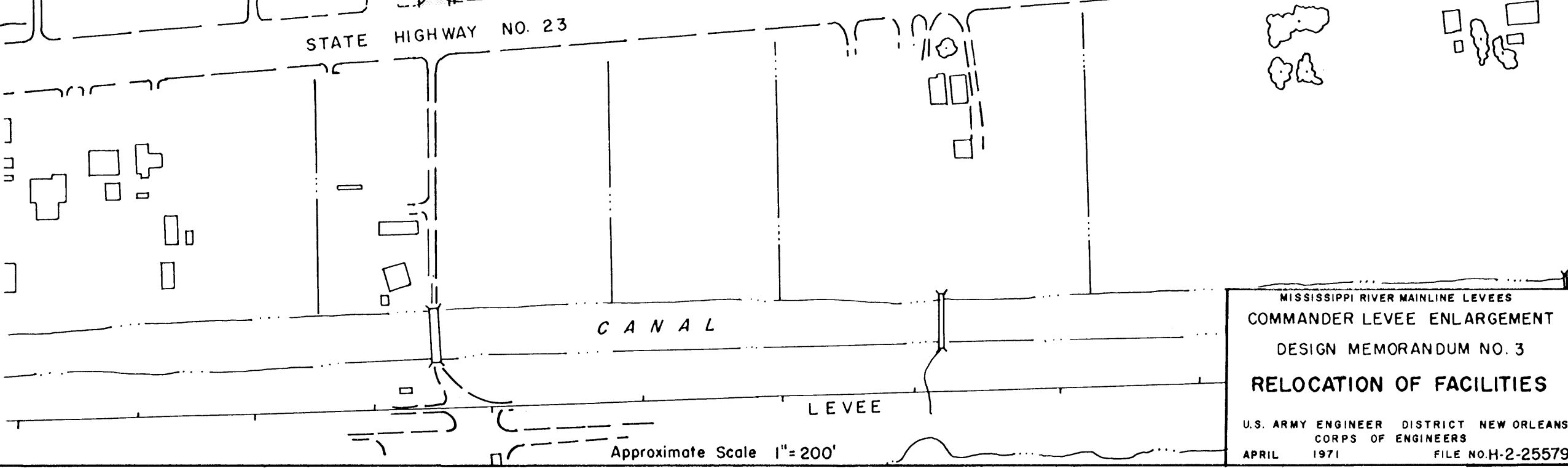
MISSISSIPPI

RIVER



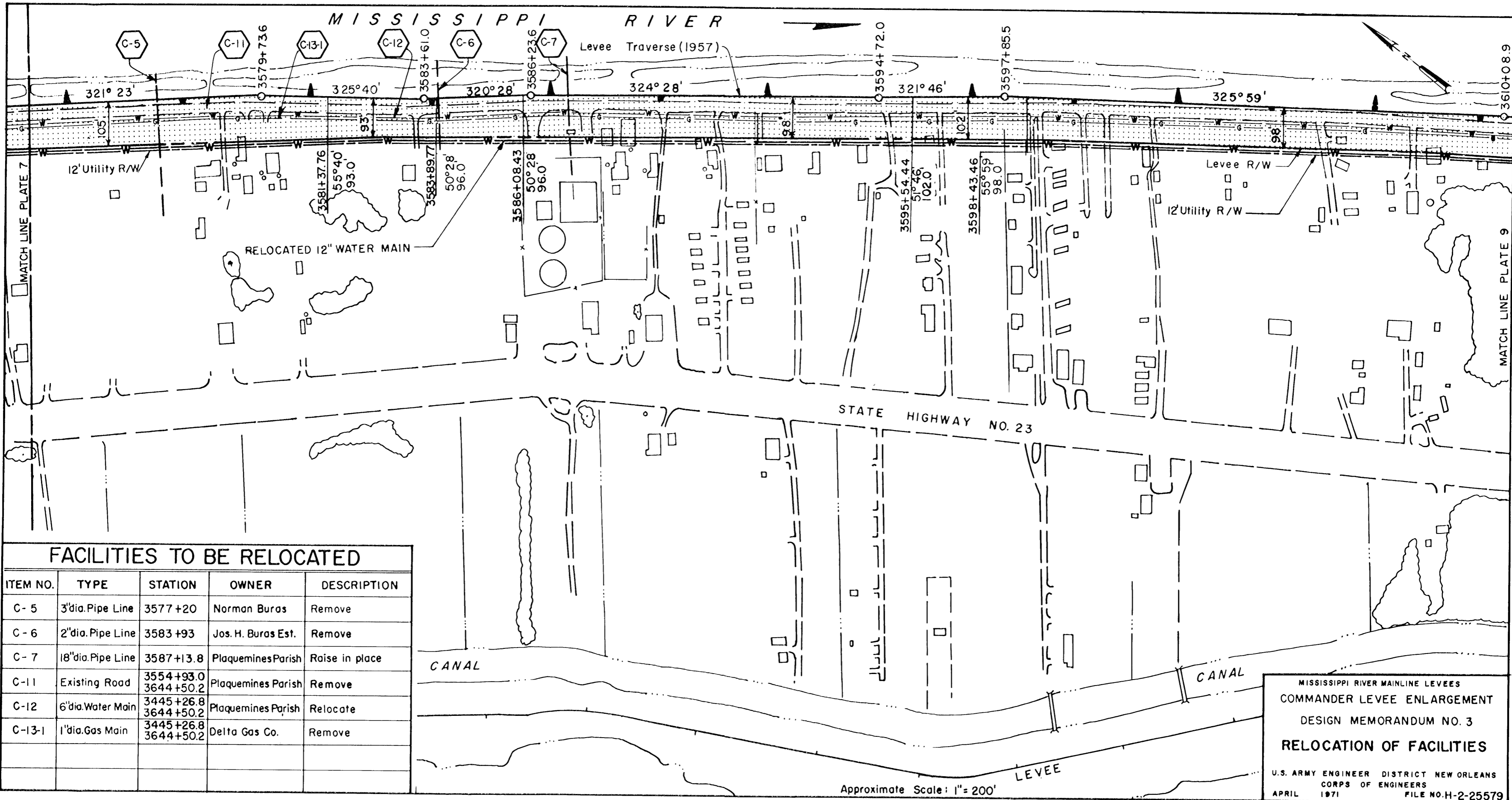
DETAIL "C"
Scale: 1" = 50'

FACILITIES TO BE RELOCATED				
ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-11	Existing Road	3445+26.8	Plaquemines Parish	Relocate
		3554+93.0		Remove
C-12	6" dia. Water Main	3445+26.8	Plaquemines Parish	Relocate
		3644+50.2		
C-13-1	1" dia. Gas Main	3445+26.8	Delta Gas Co.	Remove
		3644+50.2		
C-13-3		Boothville Sch. Road		Not Affected
C-14-3	Aerial Powerline	Boothville Sch. Road	La. Power & Light	Not Affected
C-15-7	Buried Tel. Cable	3554+50	So. Central Bell	Relocate
		3557+20		
C-15-8		Boothville Sch. Road		
C-16-3	8" dia. Sewer line	Boothville Sch. Road	Plaquemines Parish	Not Affected



MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579

Approximate Scale 1" = 200'



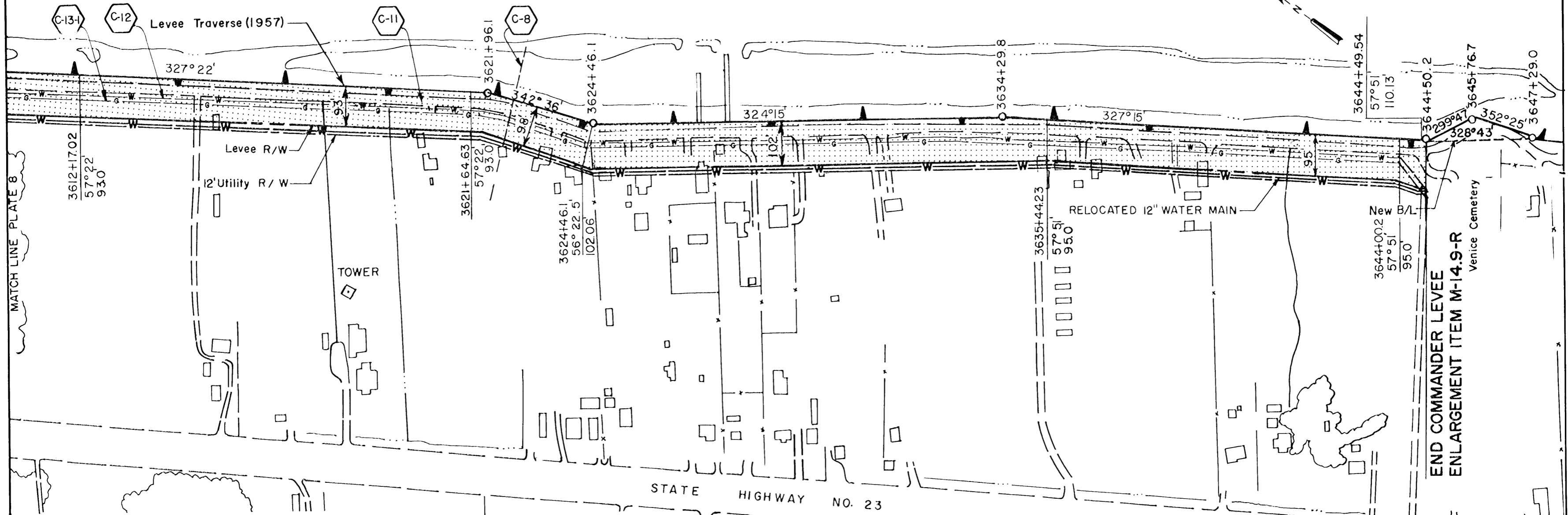
FACILITIES TO BE RELOCATED

ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-5	3'dia. Pipe Line	3577+20	Norman Buras	Remove
C-6	2'dia. Pipe Line	3583+93	Jos. H. Buras Est.	Remove
C-7	18'dia. Pipe Line	3587+13.8	Plaquemines Parish	Raise in place
C-11	Existing Road	3554+93.0 3644+50.2	Plaquemines Parish	Remove
C-12	6'dia. Water Main	3445+26.8 3644+50.2	Plaquemines Parish	Relocate
C-13-1	1'dia. Gas Main	3445+26.8 3644+50.2	Delta Gas Co.	Remove

MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579

Approximate Scale: 1" = 200'

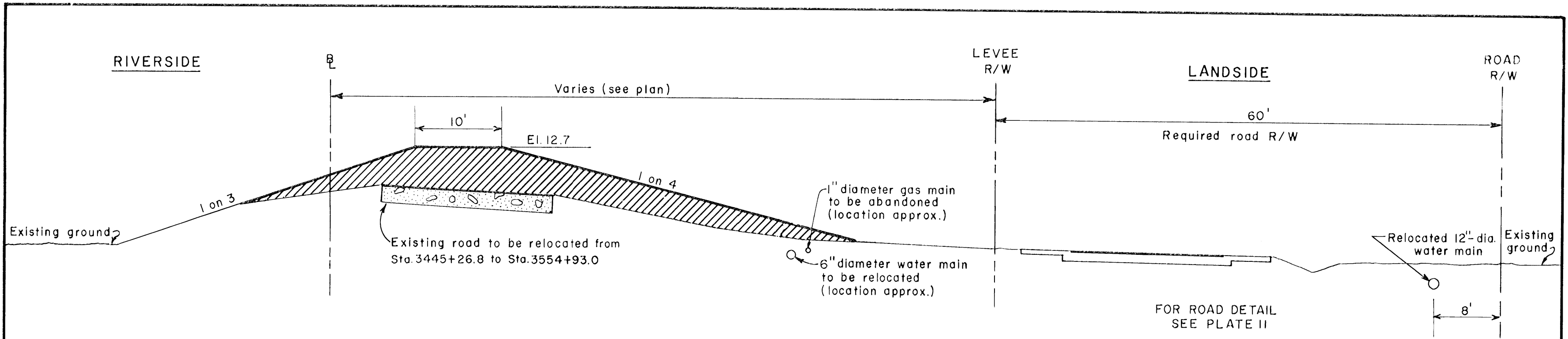
MISSISSIPPI RIVER



FACILITIES TO BE RELOCATED				
ITEM NO.	TYPE	STATION	OWNER	DESCRIPTION
C-8	3" dia. Pipe Line	3622+60	Dimitry Buras Est.	Remove
C-11	Existing Road	3554+93.0 3644+50.2	Plaquemines Parish	Remove
C-12	6" dia. Water Main	3445+26.8 3644+50.2	Plaquemines Parish	Relocate
C-13-1	1" dia. Gas Main	3445+26.8 3644+50.2	Delta Gas Co.	Remove

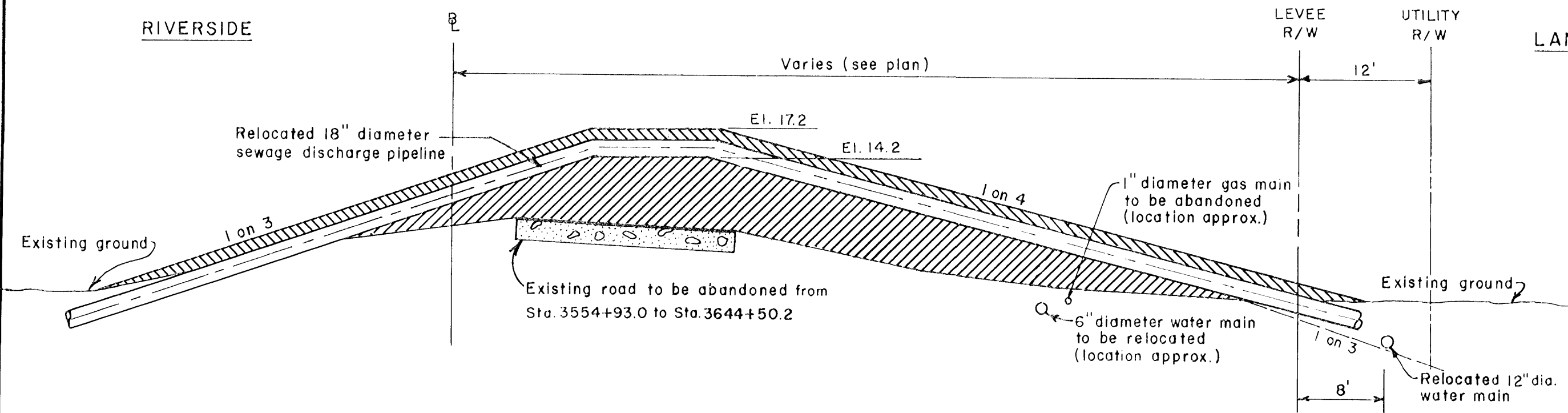
MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
 RELOCATION OF FACILITIES
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579

Approximate Scale: 1" = 200'



TYPICAL LEVEE SECTION

Scale: 1" = 10'

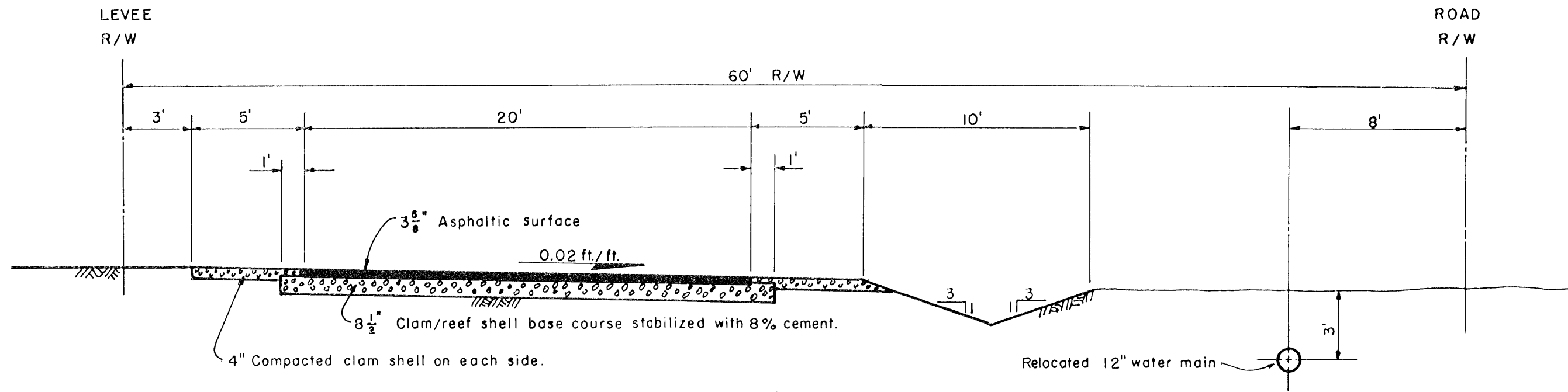


LEVEE SECTION AT PIPELINE CROSSING

STA. 3587+13.8

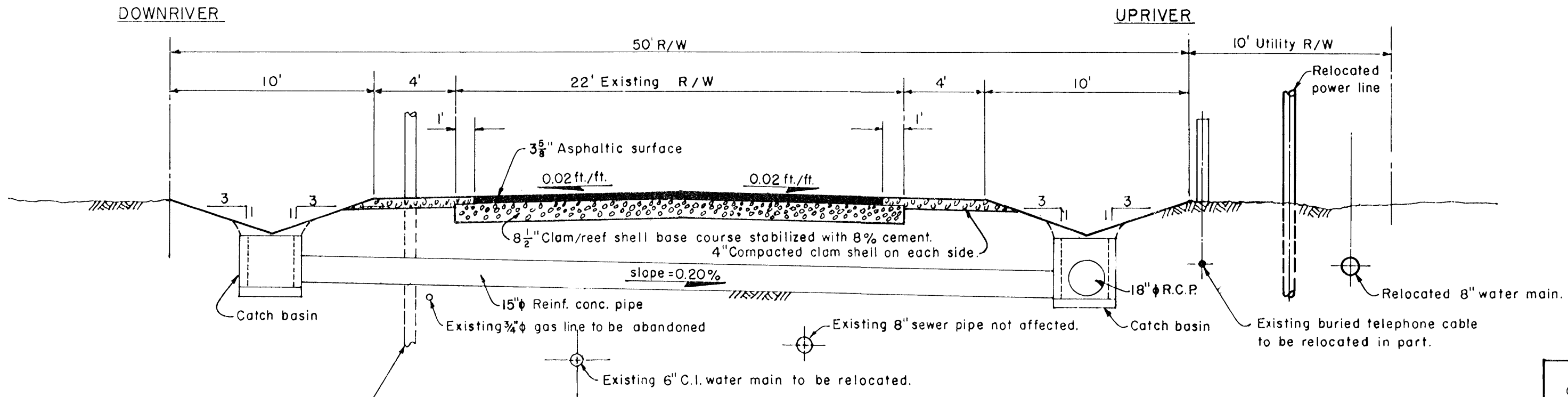
Scale: 1" = 10'

MISSISSIPPI RIVER MAINLINE LEVEES
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
 TYPICAL SECTIONS
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579



TYPICAL SECTION OF LEVEE ROADWAY
HIGHWAY 325

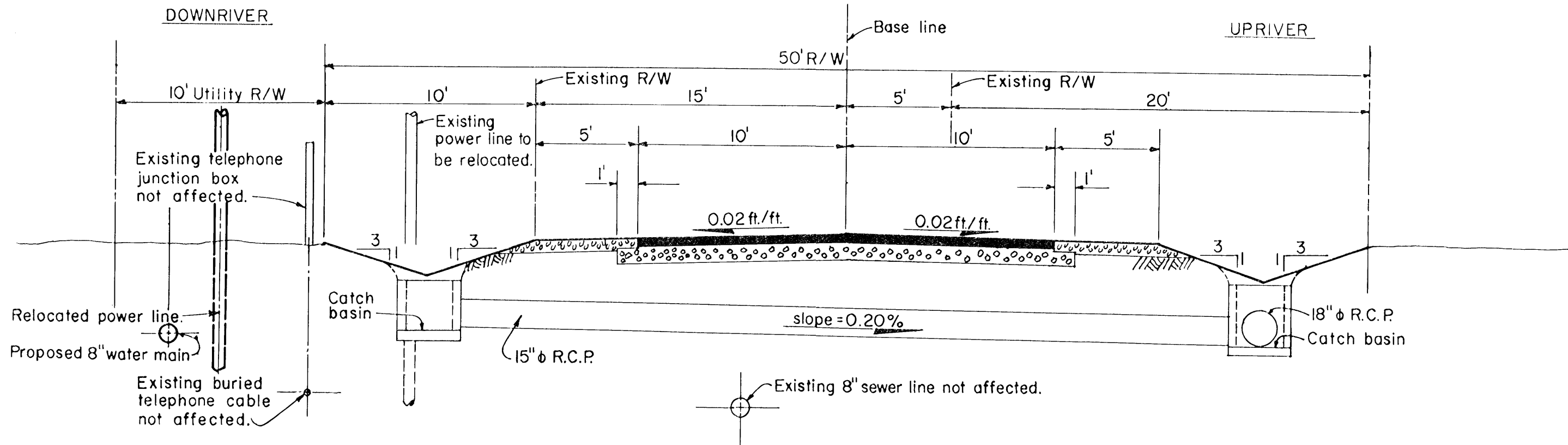
Scale: 1" = 5"



BLANCHARD HIGHWAY BARN ROAD

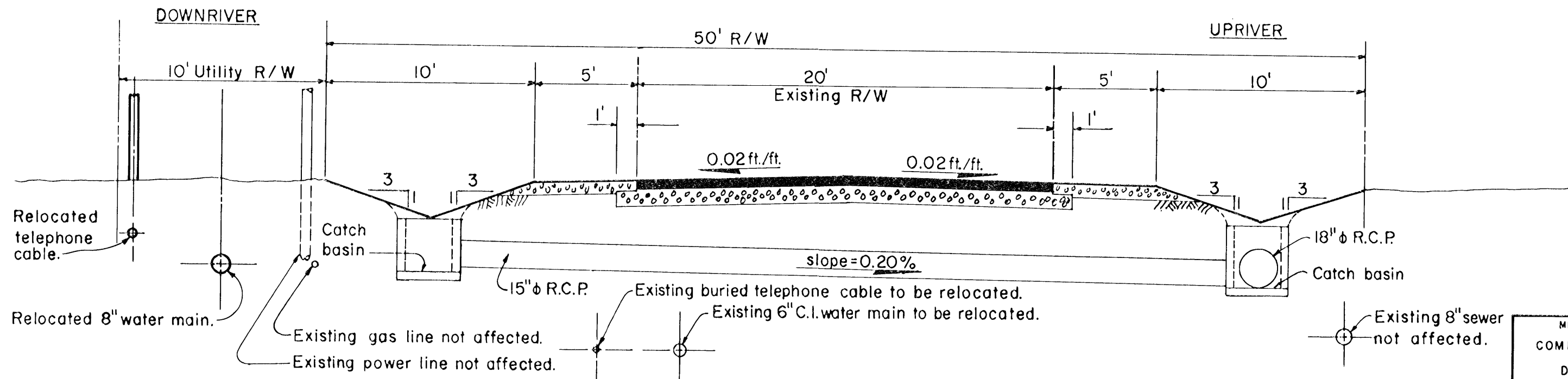
Scale: 1" = 5'

MISSISSIPPI RIVER MAINLINE LEVEES
COMMANDER LEVEE ENLARGEMENT
DESIGN MEMORANDUM NO. 3
RELOCATION OF FACILITIES
TYPICAL SECTIONS
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
CORPS OF ENGINEERS
APRIL 1971 FILE NO. H-2-25579



PAUL MORGAN LANE

Scale : 1" = 5'



BOOTHVILLE SCHOOL ROAD

Scale : 1" = 5'

MISSISSIPPI RIVER MAINLINE LEVELS
 COMMANDER LEVEE ENLARGEMENT
 DESIGN MEMORANDUM NO.3
RELOCATION OF FACILITIES
 TYPICAL SECTIONS
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
 CORPS OF ENGINEERS
 APRIL 1971 FILE NO. H-2-25579

FLOOD CONTROL
MISSISSIPPI RIVER AND TRIBUTARIES
MISSISSIPPI RIVER LEVEES
ITEM M-14.9-R
COMMANDER LEVEE ENLARGEMENT
PLAQUEMINES PARISH, LOUISIANA
RELOCATION OF FACILITIES
DESIGN MEMORANDUM NO. 3

APPENDIX I
ATTORNEY'S REPORTS

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report concerning the concrete slab road on the Mississippi River main line levee from approximate levee stations 3113+50 to 3142+28.1, which reach, located above Fort Jackson, is sometimes referred to as "Gulftown Road"; and the road also located on such levee below Fort Jackson from approximate levee stations 3354+56.7 to 3797+64.2, all in Plaquemines Parish, Louisiana.

TO: District Engineer
U. S. Army Engineer District, New Orleans
New Orleans, Louisiana

An investigation and report, in accordance with ER 1180-1-1, Section 53, Part 2 (ECI 53-203 and ECI 53-204), of the legal obligations of the Government and determination of compensable interest and ownership of the road, identified above, in connection with the current study involving the raising of the main line Mississippi River Levee.

PROPOSED OBLIGATION

Reference Cmt. 1, DF dated 29 October 1969, from Chief, Engineering Division, to Chief, Real Estate Division, subject "Compensable Interest Study Plaquemines Parish, La.", and the attached copy of letter of 24 October 1969 from Herbert R. Haar, Jr., Colonel, CE, District Engineer, to Mr. Chalin O. Perez, President, Plaquemines Parish Commission Council, Pointe-a-la-Hache, Louisiana 70082. It is intended that relocation of the road, if required by levee construction under the Mississippi River Levees Project, will be at federal cost. Additionally, it is anticipated that rights-of-way to be occupied by the relocated road may be paid for by the Federal Government, provided the owner of the road is vested with a compensable interest in rights-of-way for the road at its existing location. See ER 1180-1-1, Change 58, 5 May 1961, 53-701, Lack of Compensable Interest - Civil Works, citing Sec. 2, Flood Control Act of 1938 (52 Stat. 1215; 33 U.S.C. 701c-1) and Comp. Gen. Decision B-134242, Dec. 24, 1957. See also 53-703 of said ER 1180-1-1, Relocation of Facilities Owned by Governmental Agencies, and DIVR 1110-2-1, 29 Jan. 1968, 4b., at page 2, Construction, Enlargement or Improvement of Main Line Mississippi River Levees, referring to correspondence to MRC letter, LMVED-TL, 20 September 1966, subject: "Relocation or Replacement of Roads Required by New Construction on Mississippi River Levees," and to Act of 15 May 1928 (PL 391, 70th Congress), as amended, and Act 23 April 1934 (PL 171, 73d Congress). See also, as changed 7 May 1968, 5. Criteria, of said DIVR 1110-2-1, at page 3 thereof.

EXHIBIT A

COMPENSABLE INTEREST

The subject road is located in Plaquemines Parish, Louisiana, which parish was created by Acts of the Territory of Orleans of 1807, 2nd Session of 1st Legislature, ch. 1, page 2. The governing body of said parish, formerly the Plaquemines Parish Police Jury, is now styled Plaquemines Parish Commission Council, with all the powers granted by the laws of Louisiana to police juries, which includes the paramount authority in location, construction and maintenance of roads in its district. See Donaldson v. Police Jury of Tangipahoa Parish, 1926, 161 La. 471, 109 So. 34. See La. Constitution, 1921, Section 4 of Art. II and Sec. 3(d) as amended /Parish Charter Comm./ of Art. XIV (Act 631 of 1960, adopted Nov. 8, 1960) - L.R.S. 38:991 as amended by Act 229 of 1960; and L.R.S. 33:1236 (Police Jury Powers). The road is located in that portion of Plaquemines Parish which is within the territorial limits and jurisdiction of The Buras Levee District, domiciled at Pointe-a-la-Hache, Louisiana, created by Act 18 of 1894, of the Louisiana Legislature, and partly in The Buras Back Levee District, domiciled also at Pointe-a-la-Hache. The limits of the latter district, created by Act 100 of 1932 of the Louisiana Legislature, is superimposed over a part of The Buras Levee District.

Investigation and inquiry as to the origin and ownership of the road was made by the undersigned at the office of the Department of Highways, State of Louisiana, Baton Rouge. Mr. Les Benton of the right-of-way division of such Department and to whom the roads of the Parish of Plaquemines are especially assigned, readily furnished the information that subject road is an ancient road owned and, with the exception of that reach beginning at The Jump, at Venice, and extending upriver approximately three miles, which is designated by the State Department of Highways as #325, is maintained by the Parish of Plaquemines as a parish road. The said reach numbered 325 was and is parish owned, but is maintained by the State Department of Highways at the request of the parish, no transfer of actual ownership having ever been contemplated or made of record. Further, that the Highway Department's files contain no historical acquisition data whatever covering such road's right-of-way, and no records of any permits requested or issued to occupy any part of such right-of-way, most of which is located atop the existing levee, and that the road is probably as old or older than the time of the creation of the Parish of Plaquemines, that is, 1807. Inquiry of Mr. Chalin O. Perez, President of the Plaquemines Parish Commission Council, as to the age and history of the road in place evoked the response that it had existed before he was born and that he was born in 1923, and remembered quite clearly making trips extending along the entire length of such road, when he was not older than 5 years of age, to accompany members of his family and friends on hunting trips to and below The Jump of several days duration. That the road was necessarily located on the levee and that it had been so

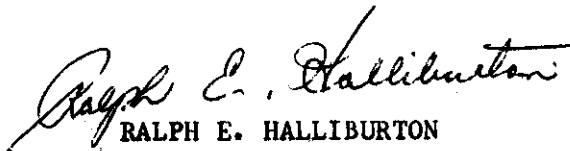
located long before the United States first took any part in the levee work there, inasmuch as the elevation of the land back from the higher land at the river's edge was too low upon which to construct a road. This vein of information was verified by two long time, over 30 years, employees now in the Real Estate Division of this District. The Secretary of the Plaquemines Parish Commission Council, Mrs. Edna LaFrance, an especially reliable well-informed and efficient long time Plaquemines Parish employee, has advised that none of the parish bodies has any records made at the time of the construction of the road and that there are no permits for the occupancy of the road on the levee. It appears that the road may have existed on the high elevation at river's edge along its route even before the construction of any levee whatever; and that the first levees, when constructed privately by the landowners along its course, placed the levee on the former road right-of-way and continued to use the road at its newly elevated height atop the finished levee. For a history of the early means and manner of the construction of levees in Louisiana, see Mayer v. Caddo Levee District, 177 La. 1119 at page 1123. A full discussion of the historical background of servitudes for levee purposes in Louisiana, derived from the laws of France and Spain, is found in Dickson v. Caddo Levee District, 26 So. 2d 474 at page 478.

It is appropriate to refer to Articles 665 and 707 of the Louisiana Civil Code which treats of the establishment of levee and levee road servitudes (easements) by law on river lands, without purchase or further formal acquisition. It will be noted, C. C. Article 707, that in certain instances therein described, the proprietors of land upon which a levee or levee road rests or is situated, and which is no longer usable, are under obligation to furnish another such right-of-way at no cost. Attention is called however to Sec. 6 of Article XVI of the Louisiana Constitution, 1921, which requires that land taken for levee purposes (by appropriation inasmuch as expropriation is not required for lands which owe a levee servitude) be paid for at a price equal to the previous year's assessed value. The prescriptive period for these actions or claims is two years, L.R.S. 9:5626. In this connection, attention is invited to the United States Statute, 33:702a-12 U.S.C.A., which permits the United States to reimburse such local agencies of a state the payment of the reasonable market value of such required lands for future setbacks (not enlargements) of main line Mississippi River levees.

To sum up, as set out above, there have been no purchases for the acquisition of the subject levee on the road atop same, nor are there any permits (the construction having occurred prior to the evolvement of such practice) governing permission to build or remove at builders expenses. The levee and the road have been in existence by virtue of the law governing servitudes, by consent, especially inasmuch as the original construction was likely by the owners of the land upon which

same is situated; by sufferance without objection, if otherwise, and the passage of time longer than any period of prescription or limitation set by the laws of Louisiana, 30 years, for the acquisition of real rights without any deed or other evidence of title, and comparable to the authority and capacity of the public utility (telephone) company, treated of in the Comptroller General's Decision No. B-134242 of 24 Dec. 1957, pointed out earlier herein, which declared that such company, without ownership, but with right of eminent domain or condemnation, would be deemed the possessor of a compensable interest. The owner of subject road, the Parish of Plaquemines, likewise has the power of condemnation for such public purpose as the establishment and maintenance of its roads, including, had it been necessary, subject road. The said Comptroller General's opinion is in agreement with a long line of cases of the La. Supreme Court to such effect. See St. Julian v. Morgan's Louisiana & T. R. Co., 35 La. Ann. 924, Gumbel v. New Orleans Terminal Company, 186 La. 882, and Tate v. Town of Ville Platte, 44 So. 2d 360.

I therefore am of the opinion that Plaquemines Parish is the owner of the two reaches of road atop the levee at the locations inquired about and has a compensable interest therein.



RALPH E. HALLIBURTON
ATTORNEY

U. S. ARMY ENGINEER DISTRICT,
NEW ORLEANS

6 November 1969

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report, relocation of the 6" water main with laterals, situated along the toe of the Mainline Levee for its entire length between Ft. Jackson and the Jump Settlement below Venice, Louisiana, and shown in subject Item M-14.9-R between levee stations 3445+26.8-3644+50.2, but what is said in this report relative to the ownership and compensable interest of Plaquemines Parish, Louisiana, in such 6" water main between the noted levee stations herein is likewise applicable to Plaquemines Parish's ownership and compensable interest in that entire water main running between Ft. Jackson and The Jump; and also the 18" sewerage discharge pipeline now located in and across the existing roadway and the existing levee at station 3587+13.8 in the Boothville Community, Item M-14.9-R Commander Levee Enlargement Right of way, shown on advance copy of Map File No. H-8-25211, Sheets 1-4 of 4, dated January 1970, Mississippi River Levees, Buras Levee District, Corps of Engineers, U. S. Army, Office of the District Engineer, New Orleans, Louisiana, and pursuant to authority of DIVR 1110-2-1, 29 January 1968, and Flood Control act of 15 May 1928, Public Law 70-391, Ch. 569, 45 Stat. 534, Title 33, Sections 702a-702m, U.S.C.A., as supplemented and amended. NOTE: Supplemental Report covering existing 4" gas main of Delta Gas, Incorporated, shown on subject map file, will be prepared on receipt of appropriate corporate organizational documents, permits for relocation of its line from abutting private landowners, its customer-consumers; and its, the gas company's, determination whether to relocate or abandon and not replace. (For permissible payment re abandonment, etc., see ER 1180-1-1, 1 Dec. 69, 73-209.3, UTILITIES, pages 7308-7310, and 73-700 - 73-704, pages 7335-7338, Part 7 - Relocations and Alterations Made Pursuant to Special Statutory Authority).

TO: District Engineer
U. S. Army Engineer District, New Orleans
New Orleans, Louisiana

An investigation and report, in accordance with DIVR 1110-2-2 and ER 1180-1-1, Section 73, Part 2, 73-203 and 73-204 (see above referenced 73-209.3 and 73-700 to 73-704), 1 Dec 69, of the legal obligations of the Government

regarding affected facilities and determination of compensable interest of the PARISH OF PLAQUEMINES, STATE OF LOUISIANA, which is governed, conducted and operated under a governing authority known as the PLAQUEMINES PARISH COMMISSION COUNCIL, referred to as "PARISH COUNCIL," Pointe-a-la-Hache, Louisiana 70082, is hereby submitted by the undersigned RALPH E. HALLIBURTON, an attorney licensed to practice law in the State of Louisiana, and employed in the Real Estate Division of the U. S. Army Engineer District, New Orleans.

LEGAL OBLIGATION

Authority for subject levee enlargement is set forth in caption. DIVR 1110-2-1, 29 January 1968, page 2, at 4.b. Construction, Enlargement, or Improvement of Main Line Mississippi River Levees provides:

"Authority for construction, enlargement, or improvement of main line Mississippi River Levees, including berms, is contained in the Act of 15 May 1928 (PL 391, 70th Congress), as amended. The furnishing of right of way for levee foundations and levees on the main stem Mississippi River, except levee setbacks, is an obligation of local interests (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 main line Mississippi River Levees will be accomplished at Federal expense (see correspondence referred to in para 2a above). Reimbursement of costs to local cooperating agencies in perfecting relocation of interfering facilities may be made pursuant to the Act of 23 April 1934 (PL 171, 73d Congress)."

DETERMINATION OF COMPENSABLE INTEREST

Plaquemines Parish, Louisiana, and the other political subdivisions and districts situated therein, including the Buras Levee District (see Sec. 1, Art. I, and Sec. 4, Art. II, of Charter, pages 1 and 5), as provided for by Section 3(d) of Article XIV (Act 631 of the 1960 Legislature), supplemented by Section 3(c) of Article XIV of the Louisiana Constitution, 1921, and by the applicable laws of the State of Louisiana and the Charter for Local Self-Government for Plaquemines Parish, Louisiana, is conducted and operated under a governing authority known as the PLAQUEMINES PARISH COMMISSION COUNCIL. Among the powers, not exclusive, of the Parish Council, set forth in Section 3 of Article II of the Charter, are number 10, the right of eminent domain to secure lands and property needed for public improvements in laying out of streets, roads ——— and the construction and repairing of ——— sewers and other needed repairs and improvements; number 13, maintain roads and streets dedicated for public use; number 15, regulate public health; number 17, provide sanitary and health requirements; number 19, to compel and regulate construction or use of cesspools, connections of properties with sewers and drains; and number 25, to regulate, control,

grant franchises to, or itself operate any public utilities. Sec. 4, Title II of the Charter, provides that the Parish Council shall succeed to all the jurisdictions, powers, duties and functions of the Plaquemines Parish Police Jury as governing authority of the Parish of Plaquemines and of other political subdivisions and districts therein, — including the Buras and the Grand Prairie Levee Districts — with the full authority as governing authority of said levee districts to appropriate property for levee and levee drainage purposes, as authorized by the State Constitution.

Personal investigation and inquiry, by the undersigned, on the ground, as to all facilities and improvements concerned herein, and, as to the background and history of subject road and highway, at the offices of the Department of Highways at Baton Rouge, Louisiana, all subsequently confirmed by letter, affidavit and other documentary proof, discloses, to quote an appropriate and reliable affidavit dated 25 June 1970, that:


- "1) The road situated on the Mississippi River Levee from Ft. Jackson to Venice was constructed prior to the date that the U. S. Corps of Engineers assumed responsibility of the maintenance of the Mississippi River Levee and that this road has been continually maintained and improved either by Plaquemines Parish or State of Louisiana agencies since that date.
- "2) That the Parish of Plaquemines through its Police Jury, or its successor the Plaquemines Parish Commission Council, constructed in 1957, and continually maintained, a potable water line in a portion of this same road right of way; that said potable water line extends along the road right of way and is an integral part of the Parish of Plaquemines potable water distribution system, a portion of which extends along Louisiana Highway No. 23 with several intermediate connections to the line along the River Road between Ft. Jackson and Venice, all of which is on public right of way; that the water line extending along the Mississippi River Road is essential to the maintenance of adequate water pressure and supply to the entire area; that said water line is still in use and operation and still owned and operated by the Parish of Plaquemines for service to the public of potable water.
- "3) That the Parish of Plaquemines constructed in 1968 and has continued in use and operation a sewerage discharge line over said road and levee area at approximate station 3587+13.8 in the Boothville Community."

In my earlier related Attorney's Reports dated respectively 6 November 1969 and 11 June 1970, covering "Gulftown Road," and State Highway 23 below New Orleans, Plaquemines Parish, the Parish's road acquisition is set forth in some detail, including recorded data for Louisiana Highway No. 23, along a portion of which is located subject water main referred to in the above quoted affidavit. However, as reported herein, both subject facilities are publicly owned and operated by the local parish governing agency for the area where same are situated with the combined powers of other agencies to which it succeeded by vote and consent of the people of Plaquemines Parish and the resultant adoption of the Charter for Local Self-Government for Plaquemines Parish above described, such governing agency having, besides its numerous other powers and duties, the powers of both appropriation and condemnation. A corporate or body politic such as the present Plaquemines Parish Council having, particularly, the right of eminent domain would be deemed to possess a vested right in the right of way to be relocated, even without conventional negotiation for and acquisition of such required servitudes as was decreed in a long line of decisions by the Louisiana Supreme Court of which the following are examples. See St. Julian vs. Morgan's Louisiana & T. R. Co., 35th La. Ann. 924, Gumbel vs. New Orleans Terminal Company, 186 La. 882, 183 So. 212, Tate vs. Town of Ville Platte, 44 So. 2nd 360. In Tremont & G. R. Co. vs. Louisiana & A. R. Co. 128 La. 299, 54 So. 826, it was pointed out that in order that the public shall have the services of public utility corporations and that there shall be no interruption in their services a prescriptive period has been placed upon their expropriation proceedings whereby the owner is barred from objecting. In Gumbel vs. New Orleans Terminal it was held a proper exercise of the judicial function, and not judicial legislation, for the Courts to decide that, when a corporation has the right of eminent domain, the landowner waives his right to insist that the creation and exercise of the servitude be preceded by an expropriation proceeding and estops himself from asserting that right and restricts himself to a claim for damages or compensation when he fails to object to the actual exercise of a servitude for a purpose of public utility across his property, the Courts thereby applying laws as to eminent domain as pertinent instead of those as to servitudes. The rights by which the present water main and sewerage pipeline, wherever located on, over or across privately owned lands, are not such as may be terminated at the will of any private owner, same having long since been constructed under plans, consents and authorizations of the now same Parish Council in view of its merged powers which it succeeded to and acquired from the earlier separate appropriate agencies and districts, resulting in the facility having been constructed by itself with its own sanction and approval and without opposition of landowner. Tate vs. Town of Ville Platte (1950), declares that application of the doctrine of acquisition of servitude by unopposed use for public purpose, is not dependent on lapse of any specific prescriptive period, and even a brief period of occupancy and use of property by public utility, with knowledge, consent or acquiescence of landowner, will suffice to effectuate such doctrine in favor of a utility. Further, Tate vs. Ville

Platte held that the rule that servitudes could only be acquired by written authorization by owner does not apply to one who claims servitude, having power of eminent domain and having actually used property with acquiescence of owner. and, continuing, that where owner, Late, not only acquiesced in town's pipeline running on his property for many months without making objection thereto, but also gave verbal permission for it to be constructed, town using pipeline for distribution of natural gas acquired servitude although there was no written authorization by the owner, since town had right to exercise power of eminent domain. The Comptroller General's Decision E-134242, December 24, 1937, is in harmony with the above Louisiana holdings.

In view of the foregoing, together with other information in the matter obtained by and for me for use herein, it is my opinion that PLAQUEMINES PARISH, LOUISIANA, through its governing body and authority, PLAQUEMINES PARISH COMMISSION COUNCIL, usually referred to as "Parish Council," has an established compensable interest in the water main and sewerage discharge pipeline described in caption hereof, required by subject project to be relocated, in whole or in part, and that the United States is authorized and obligated to pay or reimburse for the relocations or alterations thereof, as required, to prevent interference therewith.

New Orleans, Louisiana
1 September 1970


RALPH E. HALLIBURTON
ATTORNEY
U. S. Army Engineer District,
New Orleans

9 November 1970

- I - 10" \emptyset Pipeline at approximate Station 3487+78 (Unknown Owner)
- II - 1½" \emptyset Pipeline at approximate Station 3499+50 (3498+13) (Unknown Owner)
- III - 3" \emptyset Pipeline at approximate Station 3577+20 (Norman Buras)
- IV - 2" \emptyset Pipeline at approximate Station 3583+93 (Jos. H. Buras Estate)
- V - 3" \emptyset Pipeline at approximate Station 3622+60 (Dimitry Buras Estate)

FIRST SUPPLEMENT TO

1 SEPTEMBER 1970
ATTORNEY'S REPORT

COMMANDER LEVEE ENLARGEMENT
ITEM M-14.9-R

In the order indicated in caption hereof, compensable interest is considered:

I AND II

The above 10" and 1½" pipelines at Stations 3487+78 and 3499+50 (3498+13), respectively, are referred to in attached copy of letter dated 5 March 1970 from Plaquemines Parish Commission Council to this District, stating: "With respect to the 10-inch and 1½-inch diameter pipeline crossing at approximate Stations 3487+78 and 3499+50, respectively, if this line (sic) is not removed prior to construction, authority is hereby granted to you to require your contractor to remove this (sic) line." In response thereto, as shown by attached copy of letter dated 16 March 1970 from this District's Real Estate Division, the Plaquemines Parish Commission Council was put on notice that no compensable interest was to be claimed therefor, as follows: "No mention was made as to contemplated reimbursement for these lines, therefore, it will be considered that these crossings are abandoned without reimbursement."

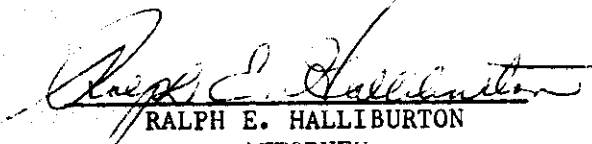
EXHIBIT C

III, IV AND V

The ownership of these lines is shown in caption. In accordance with attached copy of letter dated 22 October 1970 from Plaquemines Parish Commission Council to this District, stating that subject lines are abandoned and requesting removal thereof, without reimbursement, it is considered that action may be taken accordingly.

In the Charter for Local Self-Government for Plaquemines Parish, Louisiana, Article II, is included the Powers of Parish Government, Sections 1, 2 and 3, and in Section 3, paragraph 2 states /that the Parish Council/ represents, as said governing authority, all rights, title and interest in and to all lands and property owned by them, and that the Council may sell--or otherwise alienate, at public or private sale, any real property, improvements and facilities which, in the judgment of the Parish Council may not be needed for public use under such terms and conditions and for such consideration as, in its judgment, may be to the best interest of the parish. While there is no reference to abandonment of facilities, it may be considered that the Parish Council has such implied right under its general powers to make contracts for and on behalf of the Parish.

New Orleans, Louisiana
9 November 1970


RALPH E. HALLIBURTON
ATTORNEY
U. S. ARMY ENGINEER DISTRICT,
NEW ORLEANS

Plaquemines Parish Commission Council

POINTE-A-LA-HACHE, LA. 70082

CHALIN O. PEREZ, PRESIDENT
CLARENCE T. KIMBLE, VICE-PRESIDENT
MRS. E. LAFRANCE, SECRETARY

COMMISSIONERS:
LUKE A. PETROVICH
HOWARD H. WILCOX, JR.
CHESTER A. WOOTON

March 5, 1970

Re: LMNRE-A

Department of the Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, La. 70160

Gentlemen:

In reply to your letter dated 19 February 1970 the existing water line will be abandoned and may be removed by your Contractor during construction. We, of course, would not require compensation for the abandoned line, but would under your previous assurances and letters expect to be reimbursed for the new water line to replace the existing line paralleling the levee.

With respect to the 10 inch and 1 1/2 inch diameter pipeline crossing at approximate Stations 3487+78 and 3499+50 respectively, if this line is not removed prior to construction authority is hereby granted to you to require your Contractor to remove this line.

Yours very truly,

Plaquemines Parish Commission Council


President

COP:sb

20/11

LMNRE-A

16 March 1970

Plaquemines Parish Commission Council

Pointe-a-la-Hache, La. 70082

Gentlemen:

Your letter of 5 March 1970 granted authority for the removal by our Contractor of the 10-inch and 1-1/2 inch diameter pipelines at approximate Stations 3487+78 and 3499+50 respectively, within our Commander Levee Enlargement, Item M-14.9-R, Mississippi River, Plaquemines Parish, Louisiana, if such is not accomplished by others before construction is commenced.

No mention was made as to contemplated reimbursement for these lines, therefore, it will be considered that these crossings are abandoned without reimbursement.

It would be appreciated if your efforts to secure the required rights-of-way would be continued.

Jelly
Gordy

Sincerely yours,

ANTHONY C. COLE
Chief, Real Estate Division

Acc
Cole

bcf:
Chief, Engineering Div

Plaquemines Parish Commission Council

POINTE-A-LA-HACHE, LA. 70082

CHALIN O. PEREZ, PRESIDENT
CLARENCE T. KIMBLE, VICE-PRESIDENT
MRS. E. LAFRANCE, SECRETARY

COMMISSIONERS:
LUKE A. PETROVICH
HOWARD H. WILCOX, JR.
CHESTER A. WOOTON

October 22, 1970

District Engineer
U. S. Corps of Engineers
New Orleans District
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Sir:

The 3-inch pipeline located at approximate Station 3577+20, the 2-inch pipeline at approximate Station 3583+93, and the 3-inch pipeline at approximate Station 3622+60 within the Commander Levee Enlargement, Item M-14.9-R, Mississippi River Levee, Plaquemines Parish, are abandoned, and it is requested that these lines be removed for and on behalf of the Parish of Plaquemines when the construction work is performed. No compensation or reimbursement is desired for these lines.

Yours very truly,

Plaquemines Parish Commission Council,
Governing Authority of the Parish of
Plaquemines and Governing Body of the
Buras Levee District


President

COP/ma

16 November 1970

- I - 8" sewage line at approximate Station 3480+00 (School Board - or Plaquemines Parish Commission Council).

- II - South Central Bell Telephone Company cable and other facilities abandoned and removed in three areas, at approximate Stations 3458, 3468, and 3557, and relocated at 3509. Relocation of the levee road, and of the lateral roads known as: Blanchard Highway Barn Road; Paul Morgan Lane; and Boothville School Road, and consequent conflict of telephone cables located at any or all such points.

- III - Louisiana Power and Lighe Company facilities located along any or all lateral roads, viz: Blanchard Highway Barn Road, Paul Morgan Lane, and Boothville School Road.

SECOND SUPPLEMENT TO

1 SEPTEMBER 1970

ATTORNEY'S REPORT

COMMANDER LEVEE ENLARGEMENT
ITEM M-14.9-R

In the order indicated in caption hereof, compensable interest is considered or reported:

I

The above 8" sewage line at approximate levee station 3480+00, and serving the public school at that location, belongs either to the school, part of the Plaquemines Parish School Board system, or is part of the Plaquemines Parish water and sewerage system. The distinction in ownership has not been definitely furnished or ascertained. However, in view of the letter of 5 November 1970, copy attached, by Plaquemines Parish Commission Council advising that said line has been abandoned by the Commission Council and requesting its removal for and on behalf of the Parish of Plaquemines, for which no compensation or reimbursement is desired, it is considered that

EXHIBIT D

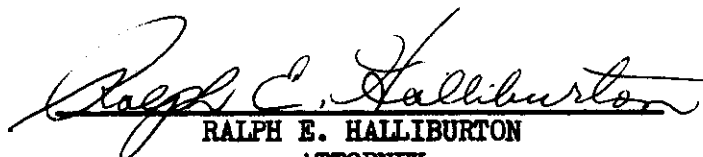
action may be taken accordingly, and in reliance thereon, without further investigation and inquiry.

II and III

The powers and authority of South Central Bell Telephone Company to acquire and own real property rights and facilities thereon, have been fully set forth in Attorney's Report dated 23 September 1970, Buras Levee Setback, Item M-25.0-R, and to the same extent for Louisiana Power and Light Company in Attorney's Report dated 26 September 1970, a Supplemental Report to the original, dated 23 September 1970, likewise for Buras Levee Setback, Item M-25.0-R.

It is understood that Engineering Division itself, in view of further findings on the ground, will determine the extent of conflict between existing cables and other facilities and lines of said telephone company, and of the Louisiana Power and Light Company, as presently located along or across the existing levee, the levee road, and also the above identified lateral roads. It will be borne in mind that neither company possesses a compensable interest in the present levee right of way or in a road as to such part as may be situated therein. However, both said companies, being public utilities, under existing congressional authority, may be reimbursed the labor cost of relocation, but not for such right of way. Where located within the right of way of public roads, over privately-owned fee lands, where alterations or relocations are necessary because of project, and not merely for convenience of the public road system, such facilities are on such fee lands despite their location within highway right of way limits, and, inasmuch as both telephone and light companies are public utilities, with right of eminent domain, whether they have obtained conventional right of way servitudes or are in place by unopposed occupancy, they own a compensable interest and should be altered or relocated at no expense to such companies.

New Orleans, Louisiana
16 November 1970


RALPH E. HALLIBURTON
ATTORNEY
U.S. ARMY ENGINEER DISTRICT
NEW ORLEANS

Plaquemines Parish Commission Council

POINTE-A-LA-HACHE, LA. 70082

CHALIN O. PEREZ, PRESIDENT
CLARENCE T. KIMBLE, VICE-PRESIDENT
MRS. E. LAFRANCE, SECRETARY

COMMISSIONERS:
LUKE A. PETROVICH
HOWARD H. WILCOX, JR.
CHESTER A. WOOTON

November 5, 1970

U. S. Corps of Engineers
Office of the Dist. Engineer
New Orleans District
Foot of Prytania Street
New Orleans, Louisiana

Attention: Mr. Tickner

Gentlemen:

The 8-inch sewage line located within the Commander Levee Enlargement, Item M-14.9-R, Mississippi River Levee, Plaquemines Parish, has been abandoned by the Commission Council and it is requested that this sewage line be removed for and on behalf of the Parish of Plaquemines when the construction work is performed. No compensation or reimbursement is desired for this sewage line.

Yours very truly,

Plaquemines Parish Commission Council


President

COP/ma
cc's: Mr. S. V. Applewhite
Commissioner Luke A. Petrovich

29 September 1970

I - Delta Gas, Inc.

SECOND SUPPLEMENT TO

23 SEPTEMBER 1970

ATTORNEY'S REPORT

BURAS LEVEE SETBACK

ITEM M-25.0-R

I

COMPENSABLE INTEREST

OF

DELTA GAS INC.

A Louisiana corporation, with registered office at 861 Carondelet Street, New Orleans, Louisiana 70130.

Reference is herein made to marked copy of our Map File No. H-8-25251, sheet 3 of 3, dated May 1970, for said Item M-25.0-R, Buras Levee Setback, furnished this date to General Engineering Section, N.O.D., showing the locations of the 2" gas line of Delta Gas Inc., situated, with one slight exception, within the proposed new levee right-of-way for subject item, beginning at approx. Sta. 2995+5 B/L and ending at approx. Sta. 3005, and beginning again at approx. Sta. 3015 and running to limit of R/W Sta. 3024+76 (new B/L). Such gas line is shown as a 2" "X-True Coet Schedule 40 Black Steel Pipe." In addition to the lines above noted, two 2" lateral lines extend lengthwise from the main line to new levee R/W line 85' and 80', respectively, into our Tracts 21 and 22. All such lines, as shown, are outside the present levee right-of-way, and from copies of applications for gas service and permits therein to cross customer-owned land to effect connections to such individual consumer-customer of the Gas Company such lines have been so located dating back to 1956 or earlier. It is understood that Delta Gas Inc. operates and maintains a gas line, of various sizes, for gas utility service to the public in this area, besides those particularly located above within Item M-25.0-R, extending from Ft. Jackson to or below Venice, Louisiana. Its right-of-way in all instances has been acquired by permit from the customer-consumer to be served, or by acquisition of a servitude of right-of-way for its lines by unopposed use and occupancy. Such method of right-of-way acquisition is set forth in detail in the initial Attorney's Report of this item dated 23 September 1970, pages 5 and 6, which covers the compensable interest of South Central Bell Telephone Company. What is there said


EXHIBIT E

relates also, in the absence of permit, to any portion of right-of-way so acquired by Delta. Also, as Delta furnishes General Engineering Section additional plats showing the location of its present lines, which must be removed or abandoned to accommodate the Project, should any portion of such line be located within present levee rights-of-way, ER 73-701, covering payment of labor costs by United States to utilities lacking compensable interest, as quoted on page 7 of such aforementioned Report of 23 September 1970, would likewise be applicable to Delta Gas Inc., a public utility company, which by Louisiana statutes has the right of eminent domain.

Delta Gas Inc. as shown by furnished copies of Articles of Incorporation of 2 December 1946, with amendment changing its name on 18 March 1960, and Certificate of Incorporation by the Secretary of State of the State of Louisiana, dated 29 January 1954, shows Delta Gas Inc. was originally organized as "Delta Power & Gas Co. Inc." in 1946, and that it amended only Article I of the Articles of Incorporation, to effect change of name to Delta Gas Inc. in 1960. The corporation's organized purpose, as stated in its Articles, was, besides others, to construct and maintain gas plants, transmission and pipe lines, to distribute gas to public and private buildings for lighting, heating, power, fuel and all other purposes for which same may be used; to contract by franchise or otherwise with any public body or authority and any person, firm or corporation for the distributing, delivering and sale of gas, etc.

Accordingly, as set forth above, Delta Gas Inc. has a compensable interest in its right-of-way and to its facilities thereon which require relocating to prevent interference. Where such may be now situated within an existing levee right-of-way payment may still be made to Delta for labor expense of relocation under the above cited ER 73-701 covering public utilities. Payment may also be made for facilities to be abandoned and not replaced but require removal under 2b. of ECI 73-209.3, set out at page 7309 of ER 1180-1-1, 1 Dec. 69, and Sec. 2 of the Flood Control Act of 1938 as there provided. It is not thought that further Report is required for such additional line locations of Delta as may be submitted by it to General Engineering Section which likewise come within the purview of what is stated above.

New Orleans, Louisiana
29 September 1970



RALPH E. HALLIBURTON
ATTORNEY

U. S. Army Engineer District, New Orleans

FLOOD CONTROL
MISSISSIPPI RIVER AND TRIBUTARIES
MISSISSIPPI RIVER LEVEES
ITEM M-14.9-R
COMMANDER LEVEE ENLARGEMENT
PLAQUEMINES PARISH, LOUISIANA
RELOCATION OF FACILITIES
DESIGN MEMORANDUM NO. 3

APPENDIX II
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
MINIMUM DESIGN STANDARDS
FOR RURAL HIGHWAYS AND ROADS

LOUISIANA DEPARTMENT OF HIGHWAYS MINIMUM DESIGN STANDARDS FOR RURAL HIGHWAYS AND ROADS

DATE
JULY 1, 1969
REV. AUGUST 8, 1969
REV. MARCH 10, 1971

ITEM NO.	ITEMS	A. SYSTEM						B. SYSTEM			C. SYSTEM	
		CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5	CLASS 6	HARD SURFACED	AGGREGATE OR NO SURFACE	LOCAL ROADS		
1	CURRENT AVERAGE DAILY TRAFFIC	OVER 12,000	12,000 - 3,001	3,000 OR LESS	1,500 - 751	750 OR LESS	400 OR LESS	300 OR LESS	300 OR LESS	100 OR LESS		
2	DESIGN HOURLY VOLUME	OVER 2,400	2,400 - 601	600 OR LESS	400 - 200	200	100	50	25	10		
3	NUMBER OF TRAFFIC LANES	6	4	2	2	2	2	2	2	2		
4	WIDTH OF EACH LANE	12'	12'	12'	12'	12'	10'	10'	9'	9'		
5	WIDTH OF SHOULDERS	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'	8' OUT, 1RS, 6' TO OUT, 1MS, 6'		
6	TYPE OF SHOULDERS	STABILIZED & SURFACED	STABILIZED & SURFACED	STABILIZED & SURFACED	STABILIZED & SURFACED	STABILIZED & SURFACED	STABILIZED & SURFACED	STABILIZED & SURFACED	STABILIZED & SURFACED	STABILIZED & SURFACED		
7	WIDTH OF MEDIAN	20' OTHER	20' OTHER	20' OTHER	20' OTHER	20' OTHER	20' OTHER	20' OTHER	20' OTHER	20' OTHER		
8	FORE SLOPE - RATIO	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1		
9	BACK SLOPE - RATIO	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1		
10	DESIGN SPEED M.P.H.	70	70	60	60	60	60	60	60	60		
11	STOPPING SIGHT DISTANCE	600'	600'	475'	475'	475'	475'	475'	475'	475'		
12	CONTROLLING CURVATURE	3°	3°	3°	3°	3°	3°	3°	3°	3°		
13	CONTROLLING GRADE	4%	4%	5%	5%	5%	5%	5%	5%	5%		
14	VERTICAL CLEARANCE	15'	15'	15'	15'	15'	15'	15'	15'	15'		
15	HORIZ. CLEARANCE	30'	30'	30'	30'	30'	30'	30'	30'	30'		
16	RIGHT OF WAY WIDTH	300'	300'	150'	120'	100'	80'	80'	80'	80'		
17	DESIGN LOADINGS FOR BRIDGES	HS 20-44	HS 20-44	HS 20-44	HS 20-44	HS 20-44	HS 20-44	HS 20-44	HS 20-44	HS 20-44		
18	MINIMUM WIDTH OF BRIDGES (MEASURED FROM FACE TO FACE OF BRIDGE RAIL)	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS	APPROACH PAVEMENT & SHOULDERS		
19	PAVEMENT CROSS SLOPE	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%		
20	GUARDRAIL REQUIRED AT BRIDGE ENDS	YES	YES	YES	YES	YES	YES	YES	YES	YES		

- ① - DETAILED INFORMATION TO BE FURNISHED BY TRAFFIC AND PLANNING.
- ② - STABILIZED AND SURFACED DESIRABLE.
- ③ - ON FUTURE FOUR LANE FACILITY DESIGN FOR 70 MPH WITH 600' S.S.D. AND 4% CONTROLLING GRADE.
- ④ - BASED ON 0.10 FT/FT MAXIMUM SUPERELEVATION.
- ⑤ - GRADES MAY BE INCREASED TO MAXIMUM USABLE WITH DESIGN SPEED SELECTED, BUT NOT TO EXCEED 6% IN ANY CASE, EXCEPT FOR CLASS 6 HIGHWAYS AND LOCAL ROADS.
- ⑥ - 16 FT. VERTICAL CLEARANCE OVER TRUCK LANE ROUTES.
- ⑦ - MAY BE LESS IF PROTECTED BY GUARDRAIL.
- ⑧ - MINIMUM FOR NEW LOCATION. FOR EXISTING LOCATION NOT LESS THAN THAT REQUIRED FOR ALL ELEMENTS OF THE CROSS-SECTION AND APPROPRIATE BORDER AREAS.
- ⑨ - 200' WHERE FUTURE FOUR LANES ARE INDICATED.
- ⑩ - AS REQUIRED TO ACCOMMODATE SECTION.
- ⑪ - IN SPECIAL CASES PARTIAL SHOULDERS MAY BE USED.
- ⑫ - 10' MINIMUM WIDTH FOR RETENTION OF BRIDGES IN GOOD CONDITION.

ADOPTED *[Signature]*
A. B. RATCLIFF, JR.
CHIEF ENGINEER
MARCH 10, 1971

FLOOD CONTROL
MISSISSIPPI RIVER AND TRIBUTARIES
MISSISSIPPI RIVER LEVEES
ITEM M-14.9-R
COMMANDER LEVEE ENLARGEMENT
PLAQUEMINES PARISH, LOUISIANA
RELOCATION OF FACILITIES
DESIGN MEMORANDUM NO. 3

APPENDIX III
PERTINENT CORRESPONDENCE

RECEIVED

FEB 20 1970

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS J. KREBS & SONS, INC.

P. O. BOX 44245, CAPITOL STATION
BATON ROUGE, LA. 70804

INITIALS AND FORWARD	COPY TO	REPLY BY
JJK		
JJK		
GFL		
JFB		
GFL		
JFB		
AV		
WCH		
GER		
YDF		
GV		
JCD		
SCH		



IN REPLY PLEASE REFER TO
FILE NO.

February 19, 1970

Mr. Jack B. Falks
J. J. Krebs & Sons, Inc.
Civil Engineers and Surveyors
P. O. Box 19384
New Orleans, Louisiana 70119

Dear Mr. Falks:

In reply to your letter of February 9, 1970, we wish to advise the following.

That portion of the Old River Road in the state maintained system is designated as La 325. Prior to 1954, La 325, along with the local section were gravel roadways. Under project no. 834-04-04 (Royalty Road Fund) La 325 was improved to a 20-foot bituminous roadway. The project was completed in November, 1958. The local section was improved to a 18-foot bituminous roadway under project no. 713-05-43, completed November, 1958. We do not have a copy of the design standards in effect during the period of construction. However, we are enclosing a copy of the design standards which were in effect in 1962 with minor revisions in 1966. On the basis of these standards, La 325 is a "C" system, Class 6 roadway. At that time the Department did not specify design standards for local roads, as such. The Department has revised its design standards and we are enclosing a copy for your information. You will note that there is now a provision for local roads.

EXHIBIT A

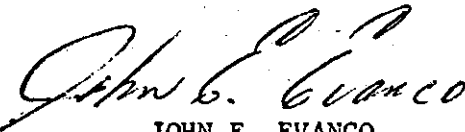
Mr. Jack B. Falks
Page 2
February 19, 1970

In regard to traffic data, we do not obtain volume counts on the Old River Road as part of our regularly scheduled count program. In 1966, the Department made a coverage count of Plaquemines Parish. A copy of the traffic map, prepared from data obtained during the coverage count, is enclosed.

We trust these data will be of assistance to you.

Very truly yours,

GRADY CARLISLE
TRAFFIC & PLANNING ENGINEER


JOHN E. EVANCO
HEAD HIGHWAY TRANSPORT ENGINEER

JEE:sbb
Enclosures

LMJED-DL

3 November 1969

Mr. George P. Forman, Road Maintenance Engineer
State of Louisiana
Department of Highways
P. O. Box 44245, Capitol Station
Baton Rouge, Louisiana 70804

Dear Mr. Forman:

This is to confirm the conversation of 29 October 1969 held between yourself and Messrs. Smith and Bordelon of this office concerning the validity of permanently repairing or re-surfacing the existing road on top of the main line Mississippi River levee below Fort Jackson, Louisiana.

At the present time, this office is conducting a detailed study for enlarging and raising the levees in this area to provide hurricane protection. It is anticipated that this study will be completed during the second quarter of calendar year 1970 and that construction of the proposed levee work will commence during the third quarter of 1970 if funds are made available.

In light of this study, it appears at this stage that relocation of the existing road on the levee crown will be required to accommodate the planned levee construction. Therefore, we do not recommend permanent repairs of this road at this time.

If we can be of further assistance concerning this matter, please advise.

Sincerely yours,

JEROME C. BAEHR
Chief, Engineering Division

Smith
Bordelon
Sommer
Martin
Baehr

EXHIBIT B

FLOOD CONTROL
MISSISSIPPI RIVER AND TRIBUTARIES
MISSISSIPPI RIVER LEVEES
ITEM M-14.9-R
COMMANDER LEVEE ENLARGEMENT
PLAQUEMINES PARISH, LOUISIANA
RELOCATION OF FACILITIES
DESIGN MEMORANDUM NO. 3

APPENDIX IV
DETAILED COST ESTIMATE

APPENDIX IV

DETAILED COST ESTIMATE

PLAQUEMINES PARISH ROADS
(January 1971 Price Levels)

ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT COST	AMOUNT
				\$	\$
1	Open graded asphalt surface course	Tons	950	22.00	20,900
2	Asphalt base course	Tons	5,560	18.00	100,080
3	35%-65% clam reef shell mixture base and shoulder material	C.Y.	19,500	6.00	117,000
4	River sand base material	C.Y.	1,724	2.50	4,310
5	Excavated material hauled and dumped	C.Y.	24,000	1.55	37,200
6	Drainage excavation	Sum	Job	Sum	3,000
7	Portland cement	Bbls.	3,800	5.50	20,900
8	Base manipulation	Sq. Yds.	32,500	0.75	24,375
9	Asphalt-dipped galv. CMPA 13"x22"	L.F.	216	10.00	2,160
10	15", 18", & 21" R.C.P. ASTM Class III	L.F.	3,515	9.00	31,635
11	R.C.P. arch Class III 13½"x22" with arch headwalls	L.F.	100	17.25	1,725
12	Manholes and adjustments	Ea.	32	400.00	12,800
13	Chain link fence with two double gates	L.F.	965	1.70	1,640
14	Signs and barricades	Sum	Job	Sum	6,000
15	Fertilizing & seeding	100 s.f. ea.	4,550	0.50	<u>2,275</u>
	Relocation Cost				\$386,000

APPENDIX IV (CONT'D)

Relocation Cost	\$386,000
Less Cost of Betterments	<u>78,000</u> ^{1/}
Subtotal	\$308,000
Plus Removal Cost	- <u>2/</u>
Subtotal	\$308,000
Contingencies (15%±)	<u>46,400</u>
Subtotal	\$354,400
E&D (6%±)	21,300
S&A (6%±)	<u>21,300</u>
Subtotal	\$397,000
R/W Cost	<u>265,000</u> ^{3/}
Total	\$662,000

^{1/} Represents total cost of Blanchard Highway Barn Road and Paul Morgan Lane.

^{2/} Removal included in contract for levee construction.

^{3/} Includes \$243,000 for Highway #325 R/W covered by this memorandum, \$8,400 for Boothville School Road R/W, and \$13,600 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.