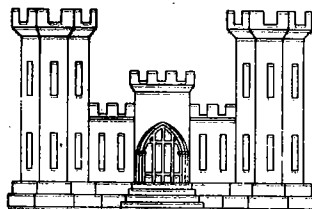


**FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES**

**ITEM M-51.0-L  
GRAVOLET LEVEE ENLARGEMENT  
AND SETBACKS**

**PLAQUEMINES PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO.12**



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

August 1972

Serial No. 26

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LMVED-TD (LMVD 20 Oct 72) 2d Ind

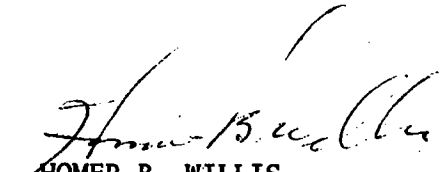
SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-51.0-L, Gravolet Levee Enlargement and Setbacks, Plaquemines Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 12

DA, Lower Mississippi Valley Division, Corps of Engineers, Vicksburg, Miss. 39180 12 Jan 73

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

As discussed in para 8b(1) of the design memorandum, the Louisiana Department of Highways has concurred in constructing the relocated Highway 39 to class 6 standards in lieu of class 5 as would be required by 1970 ADT. In view of this, average daily traffic information taken in 1970 traffic is considered satisfactory.

FOR THE DIVISION ENGINEER:

  
HOMER B. WILLIS  
Chief, Engineering Division

CF:  
DAEN-CWE-B

DAEN-CWE-B (LMVED-TD, 20 Oct 72) 1st Ind  
SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi  
River Levees, Item M-51.0-L, Gravolet Levee Enlargement and  
Setbacks, Plaquemines Parish, Louisiana, Relocation of  
Facilities, Design Memorandum No. 12

DA, Office of the Chief of Engineers, Washington, D.C. 20314 26 December 1972

TO: Division Engineer, Lower Mississippi Valley, ATTN: LMVED-TD

1. The comment in the following paragraph on the subject design memorandum is furnished for appropriate action.
2. Paragraph 8b(1). Applicable highway design standards are based on the traffic existing at the time of taking in accordance with paragraph 73-209.2 of ER 1180-1-1. However, it is noted that the design discussed in this paragraph is based on the average daily traffic information gathered in the year 1970. The Division Engineer should ascertain that average daily traffic information is valid under current conditions.

FOR THE CHIEF OF ENGINEERS:

1 Incl  
wd

*for* *W. D. Phillips*  
JOSEPH M. CALDWELL  
Chief, Engineering Division  
Directorate of Civil Works



DEPARTMENT OF THE ARMY  
LOWER MISSISSIPPI VALLEY DIVISION, CORPS OF ENGINEERS  
VICKSBURG, MISSISSIPPI 39180

LMVED-TD

20 October 1972

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-51.0-L, Gravolet Levee Enlargement and Setbacks, Plaquemines Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 12

HQDA (DAEN-CWE-B)  
WASH DC 20314

Five copies of the subject design memorandum with bound-in copies of the approving indorsement are furnished for your information and retention pursuant to para 21c, ER 1110-2-1150.

FOR THE DIVISION ENGINEER:

1 Incl (quint)  
as

*for Robert J Kaufman*  
HOMER B. WILLIS  
Chief, Engineering Division

LMVED-TD (NOD 14 Sep 72) 1st Ind

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-51.0-L, Gravolet Levee Enlargement and Setbacks, Plaquemines Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 12

DA, Mississippi River Commission, Corps of Engineers, Vicksburg, Miss.  
39180 19 Oct 72

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

The subject design memorandum is approved subject to the following comment:

Plate 14. The foundation for the relocated pipeline in the levee setback area will settle more in the newly constructed semicompacted fill than in the existing levee. The District should assure, during their review of the owner's design discussed in para 8b(2), that the relocated pipeline is designed for this anticipated differential settlement.

FOR THE PRESIDENT:

wd incl

*for* *Robert J Kaufman*  
HOMER B. WILLIS  
Chief, Engineering Division



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

LMNED-DG

14 September 1972

SUBJECT: Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-51.0-L, Gravolet Levee Enlargement and Setbacks, Plaquemines Parish, Louisiana, Relocation of Facilities, Design Memorandum No. 12

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. 12 (11 cys)

A handwritten signature in cursive script, reading "Richard L. Hunt", is positioned above the typed name.

RICHARD L. HUNT  
Colonel, CE  
District Engineer

STATUS OF DESIGN MEMORANDUMS

<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, Louisiana, Relocation of Facilities	23 Nov 70 (A)
2	Flood Control, Mississippi River and Tributaries, Item M-26.0-R, Upper Buras Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities	21 Jan 71 (A)
3	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-14.9-R, Commander Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities	11 Jun 71 (A)
4	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-10.7-R, Venice Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities	6 Apr 71 (A)
5	Lower Red River - South Bank Red River Levees, Item R-117.0-R (1957 Mileage), Levee Enlargement, Rapides-Cotton Bayou Levee, Rapides Parish, Louisiana, Relocation of Facilities	22 Jan 71 (A)
6	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-31.3-R, Tropical Bend Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities	30 Mar 71 (A)
7	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-10.4-R, Lower Venice Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities	27 Aug 71 (A)

STATUS OF DESIGN MEMORANDUMS (cont'd)

<u>Design Memo No.</u>	<u>Title</u>	<u>Actual (A) or Scheduled (S) Submission Date</u>
8	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-18.9-R, Fort Jackson-Boothville Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities	Sep 72 (S)
9	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-21.5-R, Childress Levee Enlargement, Plaquemines Parish, Louisiana, Relocation of Facilities	23 Sep 71 (A)
10	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-23.2-R, Buras-Triumph Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities	Dec 72 (S)
11	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-55.3-R, Upper Junior Levee Setback, Plaquemines Parish, Louisiana, Relocation of Facilities	21 Jun 71 (A)
12	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-51.0-L, Gravolet Levee Enlargement and Setback, Plaquemines Parish, Louisiana, Relocation of Facilities	14 Sep 72 (A)
13	Flood Control, Mississippi River and Tributaries, Lower Red River - South Bank Red River Levees, Item R-123.5-R (1957 Mileage), Scott Home-Bertrand Levee Enlargement, Rapides Parish, Louisiana, Relocation of Facilities	Oct 72 (S)
14	Flood Control, Mississippi River and Tributaries, Mississippi River Levees, Item M-96.9-R, Amelia Street Levee, Jefferson Parish, Louisiana, Relocation of Facilities	31 Aug 71 (A)



FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-51.0-L  
GRAVOLET LEVEE ENLARGEMENT AND SETBACKS  
PLAQUEMINES PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 12

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PERTINENT DATA

General

Location:

The Gravolet Levee Enlargement and Setbacks, Item M-51.0-L, herein referred to as the Gravolet reach, is located in Plaquemines Parish, Louisiana, on the east bank of the Mississippi River between stations 2122+34.3 and 2276+75 (approximate river miles 49.2 to 52.2 above the Head of Passes).

Purpose:

The project purpose is to increase MR&T grade and to increase freeboard on the main line Mississippi River levees, thereby increasing flood protection.

Authorization:

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

Description:

The Gravolet reach is located just up river of Pointe-a-la-Hache in an essentially rural area of Plaquemines Parish. This area is protected from flooding by the main line levee and by a back levee. The proposed improvement to the main line levee consists of raising the levee an average of 3.0 feet and constructing setbacks which are required to bring the levee to the design safety factor as required by the MR&T project. This increase in height will require approximately 314,500 cubic yards of semicompacted fill and 34 acres of fertilizing and seeding.

Local Assuring Agency:

The local assuring agency for item M-51.0-L is the Plaquemines Parish Commission Council, which is the governing body of the Grand Prairie Levee District.

TABLE 1 - AFFECTED FACILITIES

ITEM	DESCRIPTION	OWNER	PLATE	DISPOSITION
R-1	Louisiana 39	State of Louisiana	2-4	Relocate
R-2	Louisiana 39	State of Louisiana	4-5	Relocate
R-3	Louisiana 39	State of Louisiana	6	Relocate
G-1	3" dia. gas main	Louisiana Gas Service Co.	2-4	Relocate
G-2	3" dia. gas main	Louisiana Gas Service Co.	4-5	Relocate
G-3	3" dia. gas main	Louisiana Gas Service Co.	6	Relocate
W-1A	6" dia. water main	Plaquemines Parish	2	Relocate
W-1B	8" dia. water main	Plaquemines Parish	2-4	Relocate
W-2	8" dia. water main	Plaquemines Parish	4-5	Relocate
W-3	8" dia. water main	Plaquemines Parish	6	Relocate
P-1	34 KV powerline	Louisiana Power & Light Co.	2-4	Relocate
P-2	34 KV powerline	Louisiana Power & Light Co.	4-5	Relocate
P-3	34 KV powerline	Louisiana Power & Light Co.	6	Relocate
T-1	Buried telephone cable	South Central Bell Tele. Co.	2-4	Relocate
T-2	Buried telephone cable	South Central Bell Tele. Co.	4-5	Relocate
T-3	Buried telephone cable	South Central Bell Tele. Co.	6	Relocate
A-1	8" dia. pipeline	The Texas Pipe Line Co.	2	Relocate
A-2	3" & 6" dia. pipelines	Plaquemines Parish	6	Relocate



TABLE 1 - AFFECTED FACILITIES (cont'd)

ITEM	DESCRIPTION	OWNER	PLATE	DISPOSITION
A-3	3 - 12" dia. pipelines	United Gas Pipe Line Co.	6	Relocate
A-4	8" dia. pipeline	United Gas Pipe Line Co.	6	Relocate

TABLE 2 - RELOCATED FACILITIES

ITEM	DESCRIPTION	OWNER	PLATE	REPLACES
RR-1	Louisiana 39	State of Louisiana	7-9	R-1
RR-2	Louisiana 39	State of Louisiana	9-10	R-2
RR-3	Louisiana 39	State of Louisiana	11	R-3
RG-1	3" dia. gas main	Louisiana Gas Service Co.	7-9	G-1
RG-2	3" dia. gas main	Louisiana Gas Service Co.	9-10	G-2
RG-3	3" dia. gas main	Louisiana Gas Service Co.	11	G-3
RW-1A	8" dia. water main	Plaquemines Parish	7	W-1A
RW-1B	8" dia. water main	Plaquemines Parish	7-9	W-1B
RW-2	8" dia. water main	Plaquemines Parish	9-10	W-2
RW-3	8" dia. water main	Plaquemines Parish	11	W-3
RP-1	34 KV powerline	Louisiana Power & Light Co.	7-9	P-1
RP-2	34 KV powerline	Louisiana Power & Light Co.	9-10	P-2
RP-3	34 KV powerline	Louisiana Power & Light Co.	11	P-3
RT-1	Buried telephone cable	South Central Bell Tele. Co.	7-9	T-1
RT-2	Buried telephone cable	South Central Bell Tele. Co.	9-10	T-2
RT-3	Buried telephone cable	South Central Bell Tele. Co.	11	T-3

TABLE 2 - RELOCATED FACILITIES (cont'd)

ITEM	DESCRIPTION	OWNER	PLATE	REPLACES
RA-1	8" dia. pipeline	The Texas Pipe Line Co.	7	A-1
RA-2	3" & 6" dia. pipelines	Plaquemines Parish	11	A-2
RA-3	3 - 12" dia. pipelines	United Gas Pipe Line Co.	11	A-3
RA-4	8" dia. pipeline	United Gas Pipe Line Co.	11	A-4

1. PURPOSE OF DESIGN MEMORANDUM. The purpose of this design memorandum is to present the plans for the relocation and alteration of facilities which will be affected by the construction of item M-51.0-L, Gravolet Enlargement and Setbacks. It is being submitted in compliance with Part 3, Section LXXVIII, 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 Federal Government. It will provide the basis for reimbursing the Plaquemines Parish Commission Council for costs incurred in accomplishing the utility relocations herein described and for the relocation of Louisiana State Highway 39 by the Federal Government as part of the levee construction contract.

2. PROJECT AUTHORIZATION.

a. Levee Setbacks, Main Line Mississippi River Levees. Authority for construction of levee setbacks of main line Mississippi River levees is contained in the Flood Control Act of 15 May 1928, as amended. Payment or reimbursement of costs to local cooperating agencies by the Federal Government for rights-of-way furnished, including necessary relocation or alteration of public roads, highways, railroads, public utilities and pipelines is authorized by the Flood Control Act of 18 August 1941, as amended by the Flood Control Act of 22 December 1944.

b. Construction, Enlargement, or Improvement of Main Line Mississippi River Levees. Authority for construction, enlargement, or improvement of main line Mississippi River levees, including berms, is contained in the Flood Control Act of 15 May 1928, 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 as required for the construction of main line Mississippi River levees will be accomplished at Federal Government expense. Reimbursement of costs to local cooperating agencies by the Federal Government for perfecting relocation of interfering facilities may be made pursuant to the Flood Control Act of 23 April 1934.

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 II.

4. DESCRIPTION OF EXISTING FACILITIES AFFECTED BY THE PROJECT.

a. Nongovernmental Facilities.

(1) Powerlines. Louisiana Power and Light Company, a Florida corporation domiciled at Tallahassee, Florida, owns a 34 KV electrical distribution line adjacent and parallel to the existing highway. Approximately 12,707 linear feet of this facility will be affected by the project: 6,411 feet by the levee construction and 6,296 feet by the relocation of Louisiana 39.

(See plates 2 thru 6, items P-1, P-2 and P-3). This facility was installed in 1965 and is in good condition.

(2) Telephone lines. South Central Bell Telephone Company, a Delaware corporation domiciled at Wilmington, Delaware, owns a buried telephone cable adjacent and parallel to the existing highway. Approximately 8,422 linear feet of 200 pair, 22 gauge cable, 3,445 linear feet of 300 pair, 22 gauge cable, and 2,446 linear feet of 300 pair, 24 gauge cable will be affected by the project. These cables are shown on plates 2 thru 6 as items T-1, T-2 and T-3, respectively. Approximately 35 percent of item T-1, 50 percent of item T-2, and 20 percent of item T-3 will be affected by the levee construction; the balance of each item will be affected by the relocation of Louisiana 39. The cables were installed in 1965 and are in good condition.

(3) Pipelines.

(a) Louisiana Gas Service Company. Louisiana Gas Service Company, a Louisiana corporation domiciled at Harvey, Louisiana, owns a 3-inch diameter gas main adjacent and parallel to the existing highway. Approximately 12,968 linear feet of this facility will be affected by the project: 7,280 feet by the levee construction and 5,688 feet by the relocation of Louisiana 39. This gas main was installed in two phases; thereby, one portion, extending down river from station 2170+00, is approximately 11 years old, and the other portion, extending up river from station 2170+00, is approximately 15 years old. Both portions are in good condition. The affected portions of this facility are shown on plates 2 thru 6 as items G-1, G-2 and G-3.

(b) United Gas Pipe Line Company. United Gas Pipe Line Company, a Delaware corporation domiciled at Dover, Delaware, owns three 12-inch diameter and one 8-inch diameter natural gas transmission pipelines which cross over the existing levee and under the existing Louisiana 39 at approximate stations 2260+50 and 2266+90, respectively. These facilities are shown on plate 6 as items A-3 and A-4, respectively. Approximately 525 linear feet of item A-3 and 148 linear feet of item A-4 will be affected by the levee construction and 68 feet of item A-4 will be affected by the relocation of Louisiana 39. The three 12-inch pipelines were installed in 1959 and the 8-inch pipeline was installed in 1952 and all are in good condition.

(c) The Texas Pipe Line Company. The Texas Pipe Line Company, a Texas corporation domiciled at Houston, Texas, owns an 8-inch diameter crude oil pipeline which crosses over the existing levee and under the existing Louisiana 39 at approximate station 2142+00 (see plate 2, item A-1). Approximately 270 linear feet of this pipeline will be affected by the project; 190 feet will be affected by the levee construction and 80 feet by the relocation of Louisiana 39. This pipeline was installed in 1966 and is in good condition.

b. Governmental Facilities.

(1) Roads. The State of Louisiana owns a two lane, 20-foot wide, concrete paved highway located adjacent to the existing levee. This highway is designated by the Louisiana Department of Highways as State Route Louisiana 39 and is classified as "B" System, Class 5 (see appendix III, exhibit A) under the Louisiana Department of Highways' Minimum

Design Standards for Rural Highways and Roads (see appendix I). It is noted that Louisiana 39 will function as a local service road upon completion of a new two lane highway which is presently being constructed. The new highway is located northeast of the existing Louisiana 39 parallel and adjacent to Reach C hurricane protection levee and extends from Bohemia (approximate river mile 44.0) up river to a point above the Gravolet reach. Upon completion, this highway will serve as the hurricane escape route for residents of this area. The new highway will not be affected by this project. Approximately 13,440 linear feet of the existing Louisiana 39 will be affected by this project. The existing highway has been well maintained and is in good condition. The affected portions are shown on plates 2 thru 6 as items R-1, R-2, and R-3.

(2) Pipelines. Plaquemines Parish, Louisiana, owns the following facilities which will be affected by the project:

(a) Water mains. A potable water main is located adjacent and parallel to the existing highway. Approximately 3,502 linear feet of the 6-inch diameter portion of this main will be affected by the project (see plate 2, item W-1A). Of the total length of affected 6-inch diameter main, 1,786 feet will be affected by the levee construction and 1,716 feet by the relocation of Louisiana 39. Approximately 9,612 linear feet of the 8-inch diameter portion of this main will be affected by the project in three segments (see plates 2 thru 6, items W-1B, W-2 and W-3). Of the total length of affected 8-inch diameter main, 4,572 feet will be affected by the levee construction and 5,040 feet by the relocation of Louisiana 39. This facility was



installed in 1957 and is in good condition.

(b) Raw water intake pipe with sludge line. A 6-inch diameter raw water intake pipe and a 3-inch diameter sludge pipe cross over the existing levee and under the existing Louisiana 39 at approximate station 2250+90 (see plate 6, item A-2). These pipelines were installed in 1957 and are in good condition. Approximately 82 linear feet of each pipeline will be affected by the levee construction.

5. OWNER'S COMPENSABLE INTEREST.

a. General. The attorney's reports which describe the compensable interest of the owners of the affected facilities described in paragraph 4 are included in this design memorandum as appendix II. Reference is made to LMNRE-A letter, dated 22 December 1971 (this district's reply to LMVED-TD/LMVRE letter, dated 21 October 1971) which explained the nature of commitments made in regard to the subject project.

b. Nongovernmental Facilities. In general, the attorney's reports find that the nongovernmental facilities described in paragraph 4a, are public utilities and/or common carriers, and that the owners of these facilities have a compensable interest in those portions of their affected facilities which are outside the existing levee right-of-way; therefore, the United States should assume the cost, including rights-of-way, of relocating or altering these portions as required by the project. For those portions of the facilities which are within the existing levee right-of-way, the attorney's reports find that the owners do not have a compensable interest; however, in the Gravolet reach, these facilities may be relocated

at the expense of the Federal Government, excluding rights-of-way costs on the basis of the correspondence referenced in paragraph 5a and pursuant to paragraph 73-701 of ER 1180-1-1. Therefore, the relocation of the nongovernmental facilities as required by the project will be accomplished at the expense of the Federal Government with the exception of certain percentages of the right-of-way costs equal to the percentages of the affected facilities which are inside the existing levee right-of-way (see table 3 below).

TABLE 3  
COMPENSABLE INTEREST OF NONGOVERNMENTAL FACILITIES

<u>OWNER</u>	<u>ITEM</u>	<u>PERCENT INSIDE EXISTING LEVEE R/W</u>	<u>PERCENT COMPENSABLE INTEREST</u>
Louisiana Power & Light	P-1, P-2, P-3	12	88
South Central Bell	T-1, T-2, T-3	0	100
Louisiana Gas Service Co.	G-1, G-2, G-3	0	100
The Texas Pipe Line Co.	A-1	50	50
United Gas Pipe Line Co.	A-3	75	25
United Gas Pipe Line Co.	A-4	55	45

c. Governmental Facilities. The attorney's reports find that the owners of the governmental facilities described in paragraph 4b have a compensable interest in the entire length of their affected facilities and the United States should assume the cost of relocating or altering the affected portions of these facilities. Therefore, the relocation (including rights-of-way

costs) of items R-1, R-2 and R-3 (owned by the State of Louisiana) and items W-1A, W-1B, W-2, W-3 and A-2 (owned by Plaquemines Parish, Louisiana) will be accomplished at the expense of the Federal Government.

6. FIELD RECONNAISSANCE AND INVESTIGATIONS. Descriptive information on the existing facilities presented in this memorandum was obtained through field inspection and surveys, aerial photographs, topography maps, permit records, and correspondence with the owners of the affected facilities.

7. NECESSITY FOR RELOCATIONS.

a. Necessity for Relocations due to the Levee Construction. The Gravolet reach consists of a combination of riverside enlargements, straddle enlargements, landside enlargements and setbacks. The proposed levee will encroach upon and dislocate the existing Louisiana 39 in three areas generally corresponding to the landside enlargements and levee setbacks. Continuation of the service provided by Louisiana 39 is required. The proposed levee will also encroach upon portions of the existing utilities as described in paragraph 4. In each instance, the service provided by these utilities will have to be continued.

b. Necessity for Relocations due to the Road Relocation. The proposed route of the Louisiana 39 relocation will be parallel and adjacent to and on the landside of the new levee right-of-way (see plates 7 thru 11). This route will require the shortest length of new roadway and will affect the least amount of land. However, some utilities which are adjacent to or which cross under the existing roadway will be in the path of the relocated road and will have to be relocated (see paragraph 4).

8. CRITERIA FOR RELOCATED FACILITIES.

a. General. The policy of the Chief of Engineers regarding facilities to be relocated at the expense of the Federal Government is set forth in ECI 73-209 of ER 1180-1-1. In accordance with this policy, the criteria for relocating the existing facilities affected by this project are as follows:

b. Design Standards.

(1) Roads. The Louisiana Department of Highways Minimum Design Standards for Rural Highways and Roads (see appendix I) and a Louisiana Department of Highways 1970 average daily traffic count of 600 vehicles per day, as provided by the Louisiana Department of Highways, establishes a design standard of "B" System, Class 5 for the existing State Route Louisiana 39. Since Louisiana 39 will function as a local service road upon completion of a new highway (see paragraph 4b(1)), which is presently being constructed, this district has recommended to the Louisiana Department of Highways that the relocated Louisiana 39 be constructed to Class 6 standards. The Louisiana Department of Highways has concurred in this recommendation (see appendix III, exhibit B). In applying these design standards, it was determined that an exception to the right-of-way requirement was prudent and that a right-of-way width 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) Utilities. The owners of the affected utilities will accomplish the design of their affected facilities to their individual standards and

in a manner which will eliminate interference with the project. This district will review these designs to insure that no betterments are accomplished at Federal Government expense and that the relocation is accomplished in accordance with the provisions of this design memorandum.

c. Betterments. The existing 6-inch diameter water main, item W-1A, will be replaced with 3,496 linear feet of 8-inch diameter water main. The total number of fire hydrant assemblies will be increased from 16 to 26. The additional cost for the larger diameter pipe and the additional fire hydrant assemblies is considered to be a betterment and the cost thereof will be borne by the owner, Plaquemines Parish, Louisiana. The estimated cost of these betterments is presented in Table 7 as \$9,300.

9. DESCRIPTION OF PROPOSED RELOCATIONS.

a. Roads. The affected portions of Louisiana 39 will be relocated by the Federal Government on a 60 foot wide right-of-way acquired adjacent to the proposed landside levee right-of-way. This relocated highway is shown on plates 7 thru 11 as items RR-1, RR-2, and RR-3. Authority for acquisition of the highway right-of-way, in advance of approval of the relocations design memorandum, was given by LMVBC (NOD 28 Feb 72) 1st Ind dated 16 Mar 72 and the acquisition should be complete by Sep 72. The relocated roadway will be constructed with an asphaltic surface 3 inches thick and 20 feet wide. The length of relocated road will be 12,956 feet. In consideration of the limited amount of usable land in the project area, the alignment of the roadway adjacent to the levee suggests that by allowing

the precipitation runoff from the levee to drain across the road, the shallow collection ditch on the levee side could in most areas be deleted, allowing a reduction in the right-of-way requirement (see paragraph 8b(1)). Exceptions to this are the areas of the seven right hand curves where catch basins with cross drain pipes under the relocated road will be required to carry the runoff from the landside levee toe to the collection ditch on the landside of the new road. In addition to the pipe required for the cross drains, 1,614 linear feet of pipe will be required under the existing driveways, walks, and lateral roads, which will be intersected by the relocated road. Typical sections of the proposed road are shown on plate 15. The proposed location of the relocated road is the most desirable, considering interference with other facilities, conservation of available land area, and engineering economics.

b. Powerlines. Louisiana Power and Light Company will relocate their existing 34 KV distribution line in order to avoid interference with the project. This powerline will be relocated in three portions and will consist of 12,485 linear feet of 34 KV distribution line aligned adjacent and parallel to the proposed highway right-of-way (see plates 7-11, items RP-1, RP-2 and RP-3).

c. Telephone Lines. South Central Bell Telephone Company will relocate their existing buried telephone cables in order to avoid interference with the project. Item T-1 will be relocated with 8,400 linear feet of 200 pair, 22 gauge cable (see plates 7-9, item RT-1); item T-2 will be relocated with 3,445 linear feet of 300 pair, 22 gauge cable (see plates 9-10, item RT-2); and item T-3 will be relocated with 2,550 linear feet of 300 pair, 24 gauge

cable (see plate 11, item RT-3). These facilities will be relocated 5 feet inside the proposed highway right-of-way as shown on plate 15.

d. Water Mains. Plaquemines Parish, Louisiana will relocate their existing water main in order to avoid interference with the project. The affected portions of this facility will be relocated with 13,096 linear feet of 8-inch diameter main (see plates 7-11, items RW-1A, RW-1B, RW-2 and RW-3). The relocated facility will be placed 8 feet inside the proposed highway right-of-way as shown on plate 15. Betterments involved in the relocation of this facility are discussed in paragraph 8c.

e. Gas Mains. Louisiana Gas Service Company will relocate their existing 3-inch diameter gas main in order to avoid interference with the project. The affected portions of this facility will be relocated with 12,947 linear feet of 3-inch diameter main (see plates 7-11, items RG-1, RG-2 and RG-3). The relocated facility will be placed 2 feet inside the proposed highway right-of-way as shown on plate 15.

f. Pipelines. The pipelines described in paragraph 4 will be relocated as follows:

(1) Plaquemines Parish, Louisiana. Plaquemines Parish, Louisiana will raise their pipelines (item A-2, plate 6) to cross above the proposed levee section (see plate 14). These pipelines are located in an area in which Louisiana 39 will not be relocated.

(2) The Texas Pipe Line Company. The Texas Pipe Line Company will adjust their pipeline (item A-1, plate 2) to cross above the proposed levee section and under the relocated highway (see plate 14).

(3) United Gas Pipe Line Company. United Gas Pipe Line Company will adjust their pipelines (items A-3 and A-4, plate 6) to cross above the proposed levee section. Although both item A-3 and item A-4 are located in an area of road relocation, only item A-4 will be affected and will be adjusted accordingly (see plate 14).

10. PROCEDURE FOR ACCOMPLISHING RELOCATIONS

a. Roads. Upon approval of this design memorandum and in accordance with the Flood Control Act of 1938, this district will relocate Louisiana 39 in accordance with the plan presented in this design memorandum. This relocation will be accomplished as part of the levee construction contract. The Louisiana Department of Highways and the Plaquemines Parish Commission Council are in agreement with this procedure (see appendix III, exhibit A).

b. Utilities. The procedure to be followed in effecting reimbursement for the utility relocations necessitated by the Gravolet reach has been discussed with representatives of the Plaquemines Parish Commission Council. Upon approval of this design memorandum and related Real Property Appraisal Reports where applicable, the Plaquemines Parish Commission Council, as the governing body of the Grand Prairie Levee District, and as the local assuring agency, will be requested to accomplish all utility relocations as described herein. The relocations will be accomplished in accordance with the approved design memorandum and subject to reimbursement of actual cost. Upon completion of the relocation, the Plaquemines Parish Commission Council will furnish a reimbursement assembly to this district consisting of:



(1) A copy of all contracts covering work performed by others; (2) itemized billings for labor and materials for work performed; (3) a copy of all canceled checks covering related payments. All records related to the reimbursement requests will be subject to audit by the Federal Government and original time cards or payrolls, material records, and accounts for all charges and expenditures for which reimbursement will be claimed from the Federal Government will be available at all reasonable times for Federal Government inspection. 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.

11. ATTITUDE OF OWNERS. Representatives of all organizations having facilities which will be affected by this project have indicated their willingness to cooperate in matters pertaining to the project. No difficulties are expected during the accomplishment of and subsequent reimbursement for the subject relocations. It is noted that both Plaquemines Parish and the State of Louisiana have indicated their approval of the proposed relocation plan for Louisiana 39 as contained in this design memorandum (see appendix III, exhibits C and D).

12. UNAFFECTED FACILITIES. Plaquemines Parish owns a raw water pumping station (an element of item A-2) on the river side of the existing levee at approximate levee station 2250+90. This pumping station will not be affected by the levee project.

13. ESTIMATES OF COST. Estimates of cost for accomplishing the proposed relocations have been prepared in accordance with the policy set forth in ER 1180-1-1 and are generally based on plans for relocation as proposed by

or agreed to by the affected owners. These estimates are presented in tables 4 thru 10 which follow. In addition, a summary of costs for all relocations necessitated by the Gravolet reach is provided as appendix V.

TABLE 4 - ESTIMATE OF COST <sup>1/</sup>

LOUISIANA STATE ROUTE NO. 39  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Items R-1, R-2, R-3 Relocate Louisiana 39	LF	12,956	29.70	384,800
Contingencies (25%+)				96,200
Subtotal				481,000
E&D (6%+)				29,000
S&A (6%+)				29,000
Subtotal				539,000
Right-of-way Cost				336,500 <sup>2/</sup>
TOTAL				875,500 <sup>3/</sup>

<sup>1/</sup> For detailed cost estimate see appendix IV.

<sup>2/</sup> Right-of-way cost includes \$245,900 for land and improvements and \$90,600 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

<sup>3/</sup> Represents 21 percent (\$183,800) construction funds and 79 percent (\$691,700) maintenance funds.

TABLE 5 - ESTIMATE OF COST

LOUISIANA POWER AND LIGHT COMPANY  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Items P-1, P-2, P-3 Relocate 34 KV powerline	LF	12,485	1.85	23,100
Less Depreciation				$\frac{1}{0}$
Subtotal				23,100
Less Salvage Value				$\frac{1}{0}$
Subtotal				23,100
Plus Removal Cost				6,300
Subtotal				29,400
Contingencies (25%+)				7,200
Subtotal				36,600
E&D (6%+)				2,200
S&A (6%+)				2,200
Subtotal				41,000
Right-of-Way Cost				0
TOTAL				41,000 <sup>2/</sup>

1/ Louisiana Power and Light Company will reuse the materials in the existing facilities for the relocated facilities.

2/ Represents 28 percent (\$11,500) construction funds and 72 percent (\$29,500) maintenance funds.

TABLE 6 - ESTIMATE OF COST  
 SOUTH CENTRAL BELL TELEPHONE COMPANY  
 (July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Item T-1, Relocate 200 pr, 22 ga. buried cable	LF	8,400	3.00	25,200
Item T-2, Relocate 300 pr, 22 ga. buried cable	LF	3,445	5.05	17,400
Item T-3, Relocate 300 pr, 24 ga. buried cable	LF	2,550	3.10	7,900
Subtotal				50,500
Less Depreciation				11,000 <sup>1/</sup>
Subtotal				39,500
Less Salvage Value				0
Subtotal				39,500
Plus Removal Cost				500
Subtotal				40,000
Contingencies 25% <u>+</u> )				10,000
Subtotal				50,000
E&D (6% <u>+</u> )				3,000
S&A (6% <u>+</u> )				3,000
Subtotal				56,000

TABLE 6 - ESTIMATE OF COST (cont'd)

SOUTH CENTRAL BELL TELEPHONE COMPANY  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Right-of-way Cost				<u>2/</u> 0
TOTAL				56,000 <u>3/</u>

1/ Based on 32 year life and 7 year average age of facilities.

2/ No additional right-of-way required.

3/ Represents 28 percent (\$15,700) construction funds and 72 percent (\$40,300) maintenance funds.

TABLE 7 - ESTIMATE OF COST  
 PLAQUEMINES PARISH PIPELINES  
 (July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Item W-1A, Relocate 6" dia. water main	LF	3,496	6.75	23,600
Items W-1B, W-2, W-3, Relocate 8" dia. water main	LF	9,600	6.75	64,800
Item A-2, Relocate 6" dia. raw water and 3" dia. sludge line	Sum	Job	Sum	7,000
Relocation Cost				95,400
Less Cost of Betterments				(9,300) <sup>1/</sup>
Subtotal				86,100
Less Depreciation				(16,000) <sup>2/</sup>
Subtotal				70,100
Less Salvage Value				0
Subtotal				70,100
Plus Removal Cost				0
Subtotal				70,100
Contingencies (25%+)				17,500
Subtotal				87,600
E&D (6%+)				5,200
S&A (6%+)				5,200

TABLE 7 - ESTIMATE OF COST (cont'd)

PLAQUEMINES PARISH PIPELINES  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Subtotal				98,000
Right-of-way Cost				$\frac{3}{0}$
TOTAL				98,000 $\frac{4}{}$

1/ Includes increase in cost due to using 8-inch diameter main rather than 6-inch diameter main for item W-1A and cost of 10 additional fire hydrants.

2/ Based on 75-year life and 15 year average age of facilities.

3/ No additional right-of-way required.

4/ Represents 35 percent (\$34,300) construction funds and 65 percent (\$63,700) maintenance funds.



TABLE 8 - ESTIMATE OF COST

LOUISIANA GAS SERVICE COMPANY  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Items G-1, G-2, G-3, Relocate 3" dia. gas main	LF	12,947	4.75	61,500
Less Depreciation				(11,100) <sup>1/</sup>
Subtotal				50,400
Less Salvage Value				0
Subtotal				50,400
Plus Removal Cost				300
Subtotal				50,700
Contingencies (25% +)				12,700
Subtotal				63,400
E&D (6% +)				3,800
S&A (6% +)				3,800
Subtotal				71,000
Right-of-way Cost				0 <sup>2/</sup>
TOTAL				71,000 <sup>3/</sup>

<sup>1/</sup> Based on 75 year life and 13.5 years average age of facilities.

<sup>2/</sup> No additional right-of-way required.

<sup>3/</sup> Represents 28 percent (\$19,900) construction funds and 72 percent (\$51,100) maintenance funds.

TABLE 9 - ESTIMATE OF COST

THE TEXAS PIPE LINE COMPANY  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Item A-1, Relocate 8" dia. oil pipe	Sum	Job	Sum	16,000
Relocation Cost				16,000
Less Salvage Value				0
Subtotal				16,000
Less Depreciation				(1,000) <sup>1/</sup>
Subtotal				15,000
Less Betterments				0
Subtotal				15,000
Plus Removal Cost				3,400
Subtotal				18,400
Contingencies (25% <u>+</u> )				4,600
Subtotal				23,000
E&D (6% <u>+</u> )				1,500
S&A (6% <u>+</u> )				1,500
Subtotal				26,000
Right-of-way Cost				0 <sup>2/</sup>
TOTAL				26,000 <sup>3/</sup>

<sup>1/</sup> Based on 75 year life and 6 year age of facility.

<sup>2/</sup> No additional right-of-way required.

<sup>3/</sup> 100% maintenance funds.

TABLE 10 - ESTIMATE OF COST

UNITED GAS PIPE LINE COMPANY  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
Item A-3, Relocate 3-12" dia. gas transmission pipes	Sum	Job	Sum.	44,000
Item A-4, Relocate 8" dia. gas transmission pipe and valves	Sum	Job	Sum	30,000
Relocation Cost				74,000
Less Depreciation				(8,000) <sup>1/</sup>
Subtotal				66,000
Less Salvage				(3,000) <sup>2/</sup>
Subtotal				63,000
Less Betterments				0
Subtotal				63,000
Plus Removal Cost				6,600
Subtotal				69,600
Contingencies (25% <sup>+</sup> )				17,400
Subtotal				87,000
E&D (6% <sup>+</sup> )				5,200
S&A (6% <sup>+</sup> )				5,200
Subtotal				97,400
Right-of-way Cost				0 <sup>3/</sup>
TOTAL				97,400 <sup>4/</sup>

TABLE 10 - ESTIMATE OF COST (cont'd)

UNITED GAS PIPE LINE COMPANY  
(July 1972 Price Levels)

DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
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1/ Based on 75 year life and 13 year age for item A-3 and 20 year age for item A-4.

2/ Based on owner's estimate of scrap value for nonreusable material.

3/ No additional right-of-way required.

4/ 100% maintenance funds.

14. COMPARISON WITH PRIOR COST ESTIMATES. The current working estimate of cost is summarized under the uniform cost classification for comparison with the latest approved cost estimates. The latest approved cost estimates are the Project Cost Estimate (PB-3) for the Mississippi River Levees project, New Orleans District, bearing an effective date of 1 July 1972 as approved 9 June 1972 (for construction funds) and the ICYP-18 Detailed Project Schedule (PB-4a) for the Mississippi River Levees project bearing an effective date of 1 July 1972 as approved 11 August 1972 for maintenance funds). Since the PB-3 contains the relocation cost estimates for the entire Mississippi River Levees project, the funds included for item M-51.0-L, Gravolet Levee Enlargement and Setbacks, has been broken out as follows for a suitable comparison.

a. Mississippi River Levees - Construction.

<u>COST ACCT NO.</u>	<u>ITEM</u>	<u>LATEST PB-3 1/ (\$1,000's)</u>	<u>CURRENT WORKING ESTIMATE (\$1,000's)</u>	<u>DIFFERENCE FROM PB-3 (\$1,000's)</u>
02	Relocations			
.1	Roads	161.0	171.7	+10.7
.3	Utilities & Structures			
	Utilities	64.4	72.7	+8.3
30	E&D	11.0	10.4	-0.6
31	S&A	11.0	10.4	-0.6
	<b>TOTAL</b>	<b>247.4</b>	<b>265.2</b>	<b>+17.8</b>

1/ Effective date: 1 July 1972.

b. Mississippi River Levees - Maintenance.

<u>COST ACCT NO.</u>	<u>ITEM</u>	<u>LATEST PB-4a 1/ (\$1,000's)</u>	<u>CURRENT WORKING ESTIMATE (\$1,000's)</u>	<u>DIFFERENCE FROM PB-4a (\$1,000's)</u>
627	Levees and Floodwalls			
005	Relocations			
051 012	Gravolet Setback, La. 39	224.0	645.8	<u>2/</u>
053 012	Gravolet Setback, Utilities	269.2	274.9	+5.7
634	E&D	39.3	39.5	<u>2/</u>
635	S&A	39.3	39.5	<u>2/</u>
<hr/>				
	TOTAL	571.8	999.7	<u>2/</u>

1/ Effective date: 1 July 1972.

2/ Not applicable as PB-4a funds only FY 73 phase of the total program.

15. JUSTIFICATION FOR COST REVISION.

a. Mississippi River Levees - Construction.

(1) Roads. The funds estimated for road relocations in the PB-3 (161.0) compare favorably with the current working estimate (171.7) for construction funds.

(2) Utilities. The funds estimated for utility relocations in the PB-3 (64.4) compare favorably with the current working estimate 72.7) for construction funds.

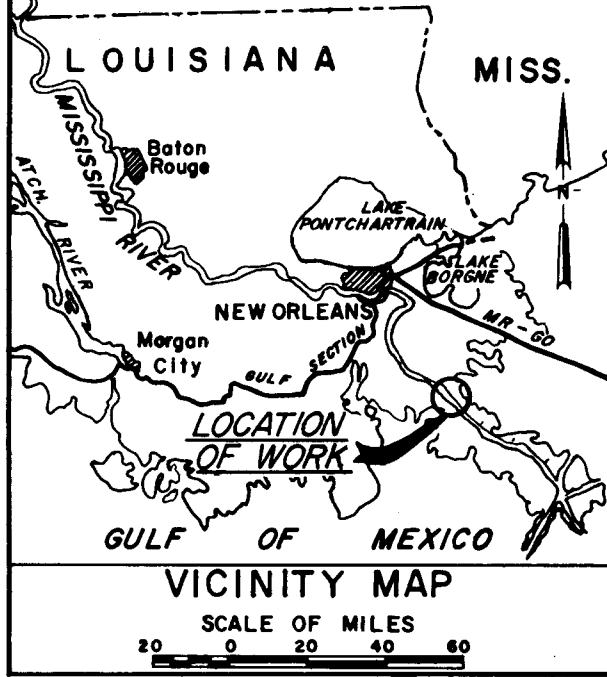
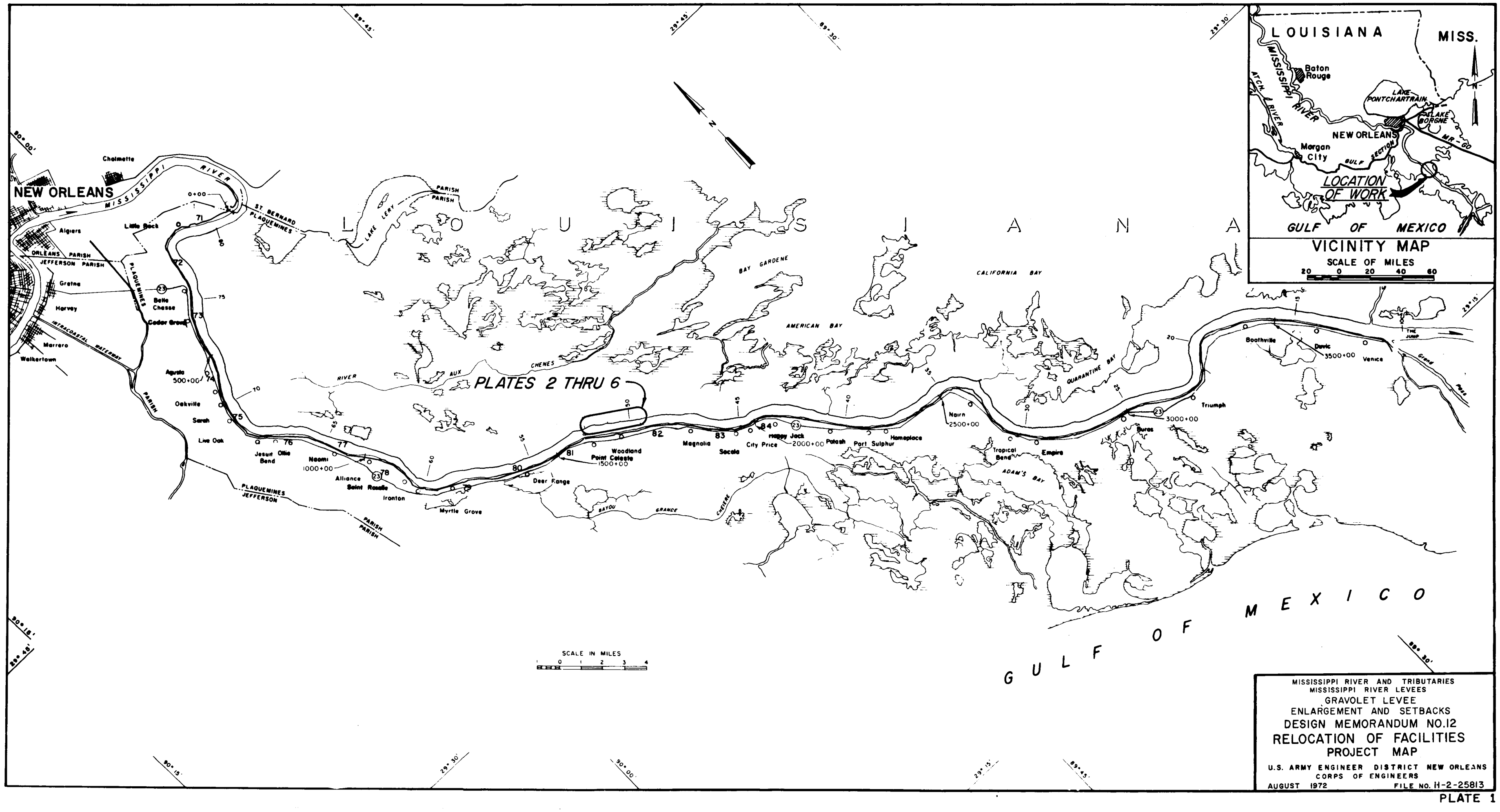
b. Mississippi River Levees - Maintenance. Since the PB-4a does not reflect a total project cost estimate for relocations and since there is no PB-3 for maintenance funds, there is no basis for comparison between previously estimated cost and the current working estimate; however, the following is provided from project files:

(1) Roads. The funds programed in FY 73 (224.0) do not represent the total project cost estimate for maintenance funds. The remainder of the funds in the current working estimate will be programed as required.

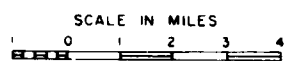
(2) Utilities. The funds programed in FY 73 (269.2) represent the total project cost estimate for maintenance funds and compare favorably with the current working estimate (274.9)

16. CONCLUSION AND RECOMMENDATION. The remedial measures proposed in this memorandum are considered necessary to prevent the affected facilities from interfering with the Gravolet Levee Enlargement & Setbacks project. These measures are the minimum required to provide just compensation to the owners of the affected facilities. The proposed measures are practicable, economical, and consistent with sound engineering practices and are considered to be in the best interest of the Federal Government in discharging its legal obligations. It is recommended that this design memorandum be approved as a basis for reimbursing the Plaquemines Parish Commission Council for costs incurred in accomplishing the utility relocations herein described and as a basis for the Federal Government constructing the relocated Louisiana 39 as part of the levee construction contract.





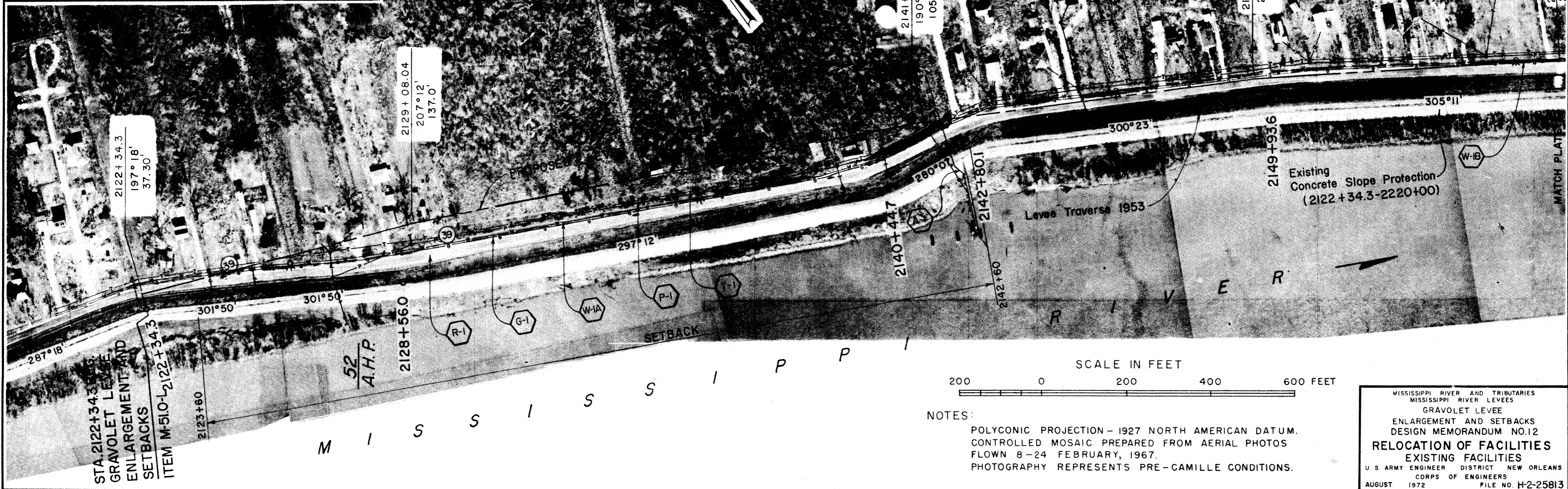
PLATES 2 THRU 6



MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
 RELOCATION OF FACILITIES  
 PROJECT MAP  
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813

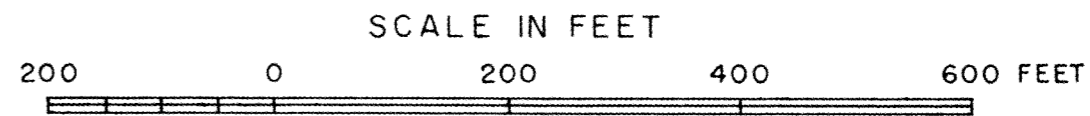
# FACILITIES TO BE RELOCATED

ITEM NO.	DESCRIPTION	STATION	OWNER	DISPOSITION
R-1	HWY NO. 39	2120+59-2196+30	STATE OF LA	RELOCATE
G-1	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	"
W-1A	6 DIA WATER MAIN	" " -2155+47	PLAQUEMINES PARISH	"
W-1B	8" " " "	2155+47-2196+30	"	"
P-1	34 KV POWERLINE	2120+59-2196+30	LA POWER & LIGHT	"
T-1	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	"
A-1	8" DIA PIPELINE	2142+00	TEXAS PIPELINE CO	"



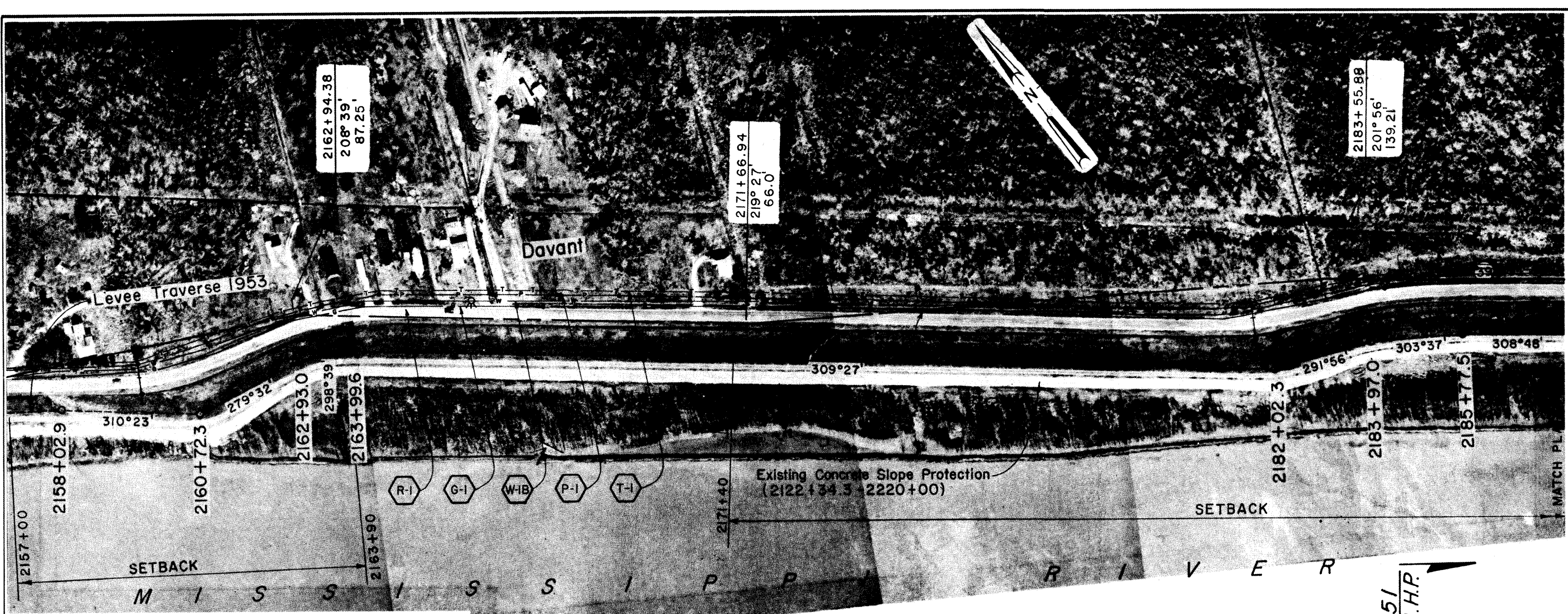
STA. 2122+34.3  
GRAVOLET LEVEE  
ENLARGEMENT AND  
SETBACKS  
ITEM M-51.0-2122+34.3

52  
A.H.P.



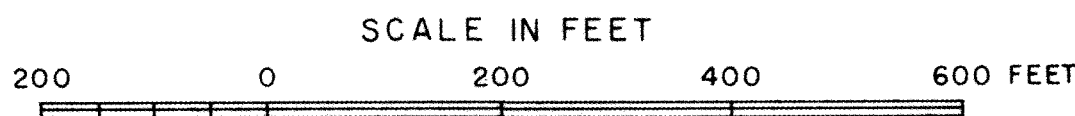
NOTES:  
POLYCONIC PROJECTION - 1927 NORTH AMERICAN DATUM.  
CONTROLLED MOSAIC PREPARED FROM AERIAL PHOTOS  
FLOWN 8-24 FEBRUARY, 1967.  
PHOTOGRAPHY REPRESENTS PRE-CAMILLE CONDITIONS.

MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
GRAVOLET LEVEE  
ENLARGEMENT AND SETBACKS  
DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
EXISTING FACILITIES  
U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
CORPS OF ENGINEERS  
AUGUST 1972 FILE NO. H-2-25813



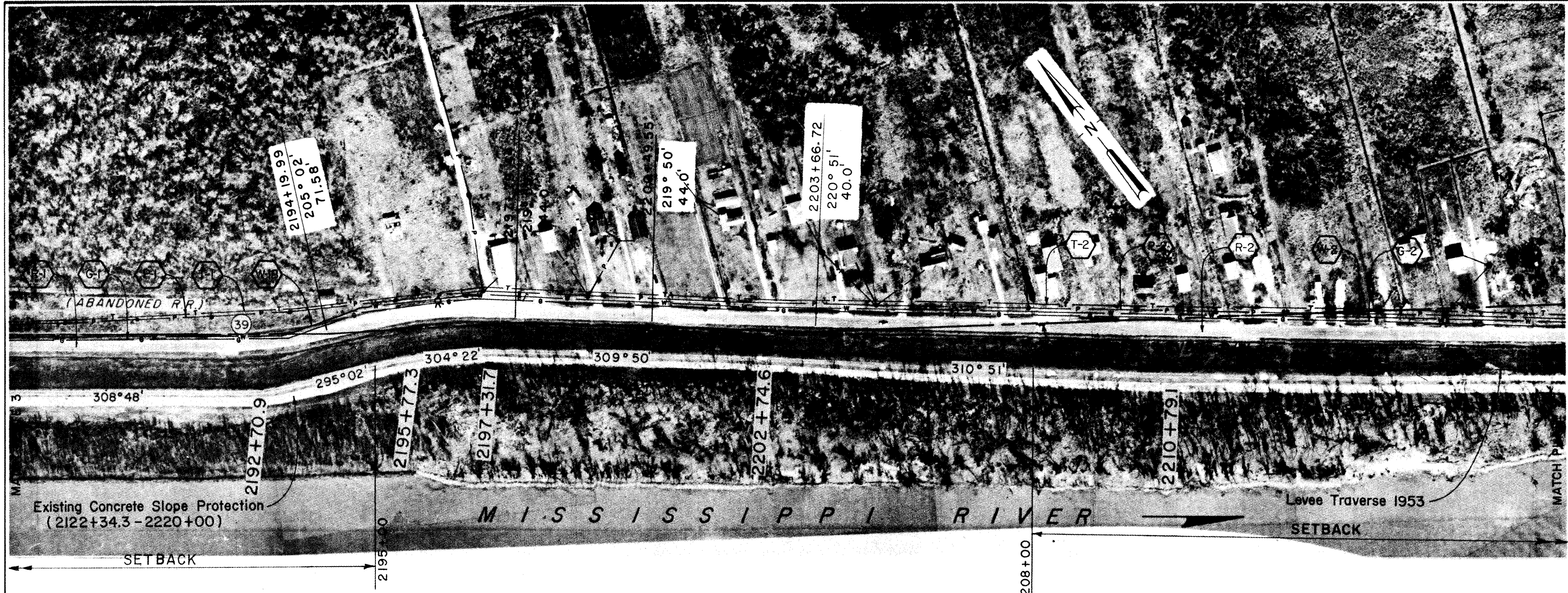
**FACILITIES TO BE RELOCATED**

ITEM NO.	DESCRIPTION	STATION	OWNER	DISPOSITION
R-1	HWY NO 39	2120+59-2196+30	STATE OF LA	RELOCATE
G-1	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	"
W-IB	8" DIA WATER MAIN	2155+47 - " "	PLAQUEMINES PARISH	"
P-1	34 KV POWERLINE	2120+59 - " "	LA POWER & LIGHT	"
T-1	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	"



NOTES:  
 POLYCONIC PROJECTION - 1927 NORTH AMERICAN DATUM.  
 CONTROLLED MOSAIC PREPARED FROM AERIAL PHOTOS  
 FLOWN 8-24 FEBRUARY, 1967.  
 PHOTOGRAPHY REPRESENTS PRE-CAMILLE CONDITIONS.

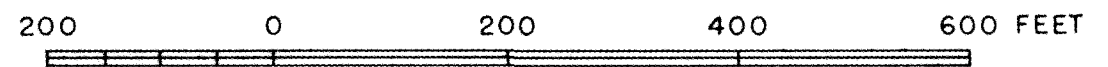
MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES  
 EXISTING FACILITIES**  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813



**FACILITIES TO BE RELOCATED**

ITEM NO.	DESCRIPTION	STATION	OWNER	DISPOSITION
R-1	HWY NO. 39	2120+59 - 2196+30	STATE OF LA	RELOCATE
R-2	" " "	2203+67 - 2235+84	" " "	"
G-1	3" DIA GAS MAIN	2120+59 - 2196+30	LA GAS SERVICE CO	"
G-2	" " " "	2203+67 - 2235+84	" " " "	"
W-1B	8" DIA WATER MAIN	2155+47 - 2196+30	PLAQUEMINES PARISH	"
W-2	" " " "	2203+67 - 2235+84	" " " "	"
P-1	34 KV POWERLINE	2120+59 - 2196+30	LA POWER & LIGHT	"
P-2	" " " "	2203+67 - 2235+84	" " " "	"
T-1	BURIED TEL CABLE	2120+59 - 2196+30	SO CENTRAL BELL	"
T-2	" " " "	2203+67 - 2235+84	" " " "	"

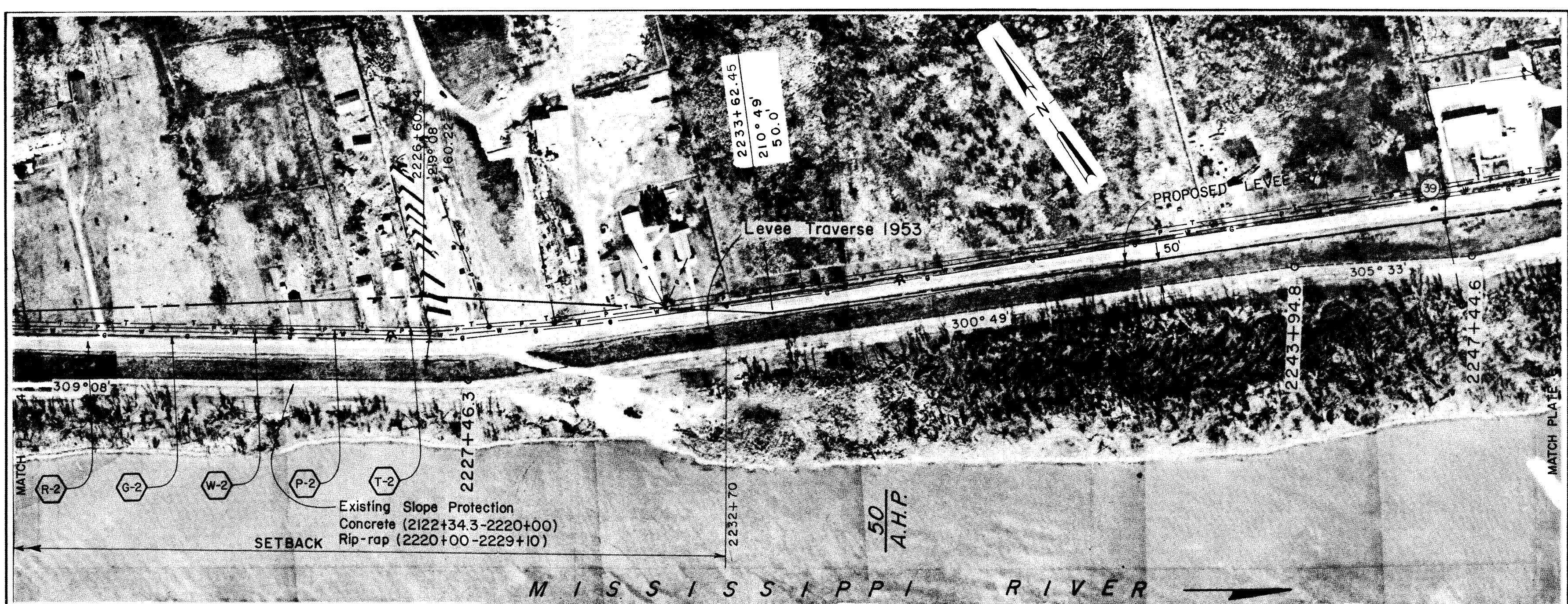
SCALE IN FEET



**NOTES:**

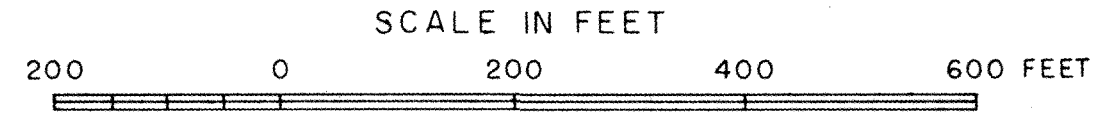
POLYCONIC PROJECTION - 1927 NORTH AMERICAN DATUM.  
 CONTROLLED MOSAIC PREPARED FROM AERIAL PHOTOS  
 FLOWN 8-24 FEBRUARY, 1967.  
 PHOTOGRAPHY REPRESENTS PRE-CAMILLE CONDITIONS.

MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
 EXISTING FACILITIES  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813



**FACILITIES TO BE RELOCATED**

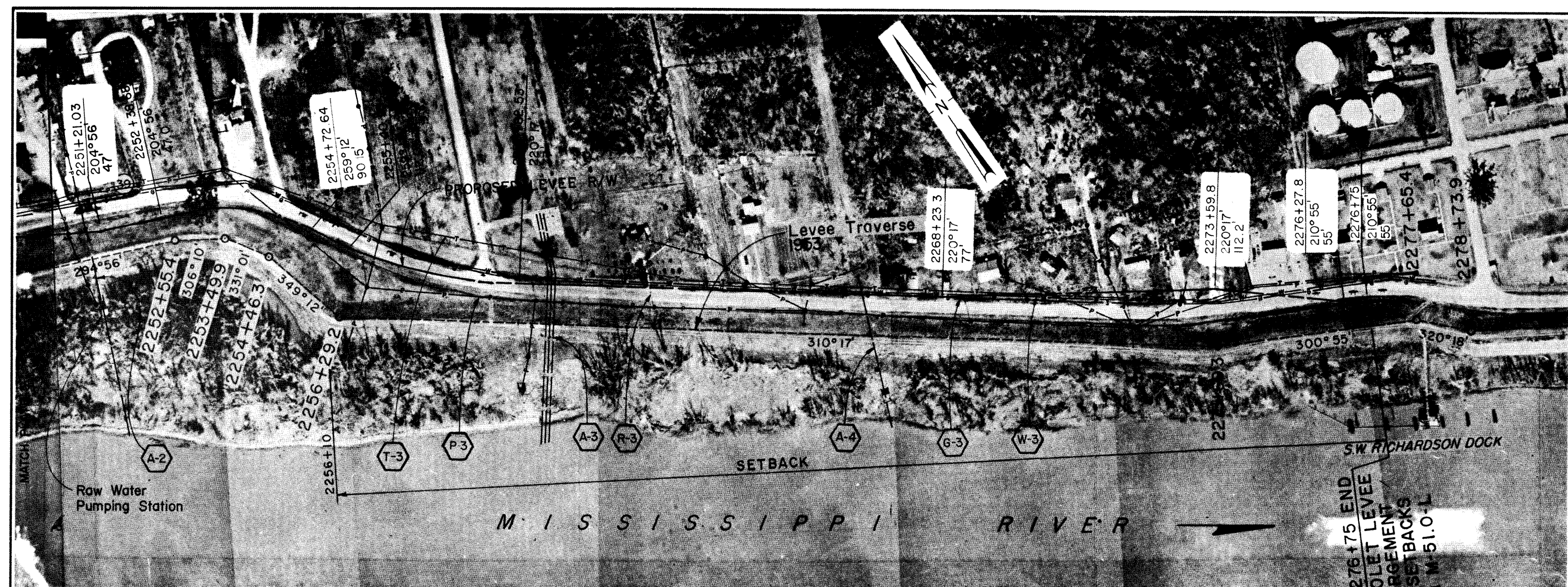
ITEM NO.	DESCRIPTION	STATION	OWNER	DISPOSITION
R-2	HWY NO 39	2203+67-2235+84	STATE OF LA	RELOCATE
G-2	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	"
W-2	8" DIA WATER MAIN	" " " "	PLAQUEMINES PARISH	"
P-2	34 KV POWERLINE	" " " "	LA POWER & LIGHT	"
T-2	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	"



**NOTES:**

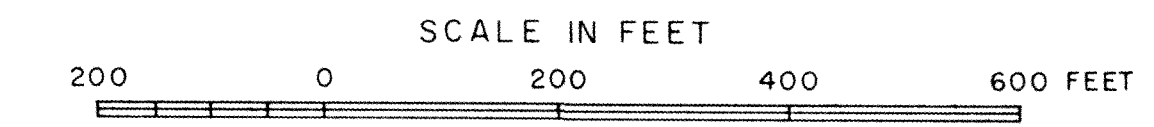
POLYCONIC PROJECTION - 1927 NORTH AMERICAN DATUM.  
 CONTROLLED MOSAIC PREPARED FROM AERIAL PHOTOS  
 FLOWN 8-24 FEBRUARY, 1967.  
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MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
 EXISTING FACILITIES  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
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**FACILITIES TO BE RELOCATED**

ITEM NO.	DESCRIPTION	STATION	OWNER	DISPOSITION
R-3	HWY NO 39	2254+94 -2277+89	STATE OF LA	RELOCATE
G-3	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	"
W-3	8" DIA WATER MAIN	" " " "	PLAQUEMINES PARISH	"
P-3	34 KV POWERLINE	" " " "	LA POWER & LIGHT	"
T-3	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	"
A-2	6" & 3" DIA PIPELINE	2250 + 90	PLAQUEMINES PARISH	"
A-3	3-12" DIA PIPELINES	2260 + 50	UNITED GAS PPL CO	"
A-4	8" DIA PIPELINE	2266 + 90	" " " "	"

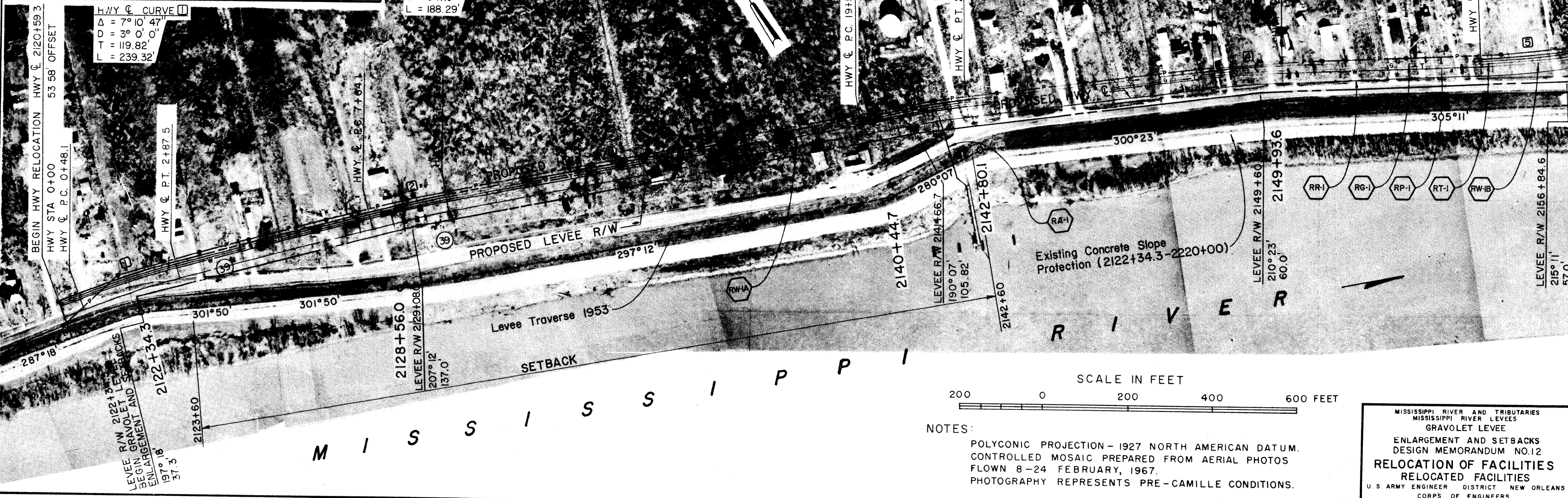


NOTES:  
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MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES  
 EXISTING FACILITIES**  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813

# RELOCATED FACILITIES

ITEM NO.	DESCRIPTION	STATION	OWNER	REPLACES
RR-1	HWY NO. 39	2120+59-2196+30	STATE OF LA	R-1
RG-1	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	G-1
RW-1A	8" DIA WATER MAIN	" " -2155+47	PLAQUEMINES PARISH	W-1A
RW-1B	" " " "	2155+47 -2196+30	" " " "	W-1B
RP-1	34 KV POWERLINE	2120+59 - " "	LA POWER & LIGHT	P-1
RT-1	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	T-1
RA-1	8" DIA PIPELINE	2142+00	TEXAS PIPELINE CO	A-1



HWY C CURVE 2  
 $\Delta = 4^{\circ}14'11''$   
 $D = 2^{\circ}15'0''$   
 $T = 94.19'$   
 $L = 188.29'$

HWY C CURVE 3  
 $\Delta = 3^{\circ}10'10''$   
 $D = 1^{\circ}15'0''$   
 $T = 126.81'$   
 $L = 253.56'$

HWY C CURVE 4  
 $\Delta = 4^{\circ}48'10''$   
 $D = 3^{\circ}0'0''$   
 $T = 80.09'$   
 $L = 160.09'$

HWY C CURVE 5  
 $\Delta = 9^{\circ}55'19''$   
 $D = 2^{\circ}30'0''$   
 $T = 198.94'$   
 $L = 396.88'$

HWY C CURVE 1  
 $\Delta = 7^{\circ}10'47''$   
 $D = 3^{\circ}0'0''$   
 $T = 119.82'$   
 $L = 239.32'$

MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
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 RELOCATED FACILITIES  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO H-2-25813

HWY  $\odot$  CURVE 6  
 $\Delta = 14^{\circ} 11' 29''$   
 $D = 4^{\circ} 0' 0''$   
 $T = 178.31'$   
 $L = 354.79'$

HWY  $\odot$  CURVE 7  
 $\Delta = 5^{\circ} 39' 37''$   
 $D = 3^{\circ} 0' 0''$   
 $T = 94.41'$   
 $L = 188.68'$

HWY  $\odot$  CURVE 8  
 $\Delta = 5^{\circ} 0' 37''$   
 $D = 1^{\circ} 30' 0''$   
 $T = 167.12'$   
 $L = 334.02'$

HWY  $\odot$  P.T. 38+31.4

HWY  $\odot$  P.C. 40+49.0

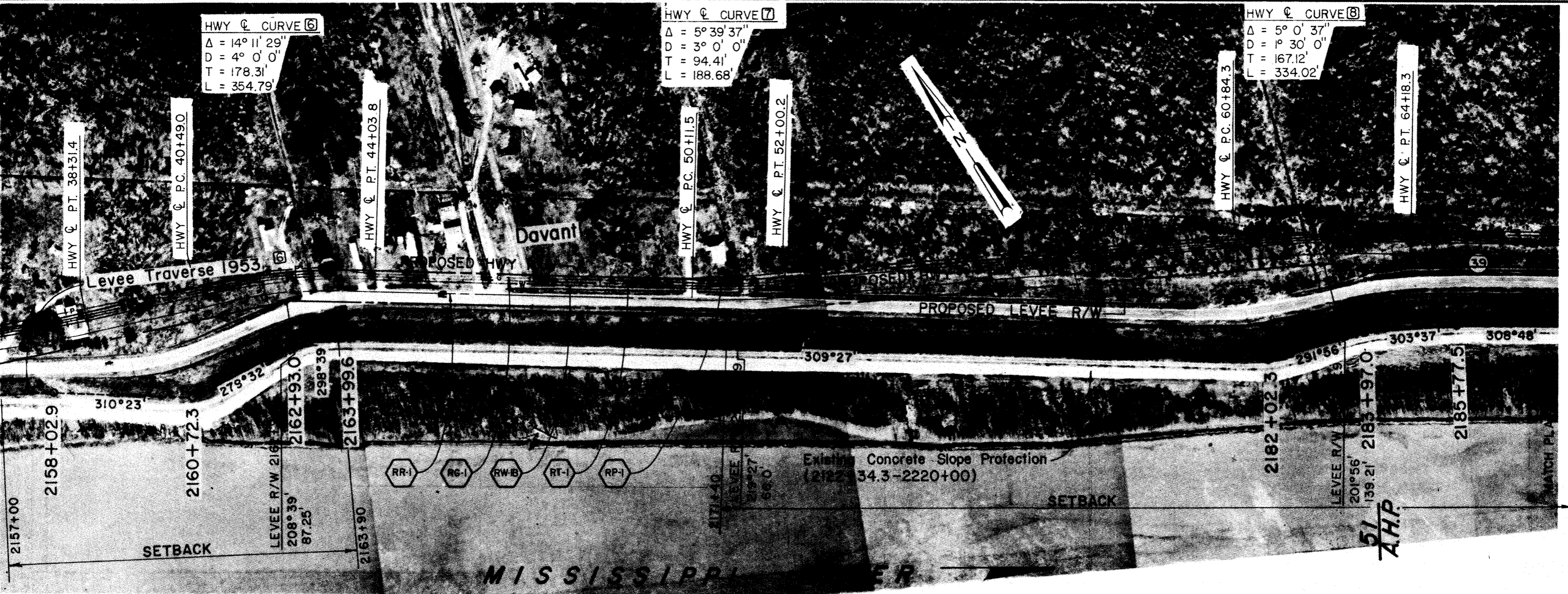
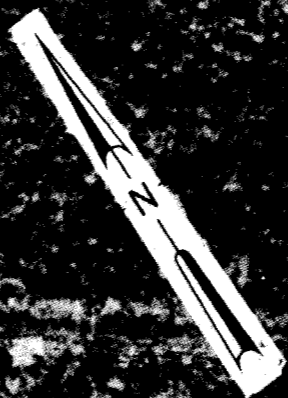
HWY  $\odot$  P.T. 44+03.8

HWY  $\odot$  P.C. 50+11.5

HWY  $\odot$  P.T. 52+00.2

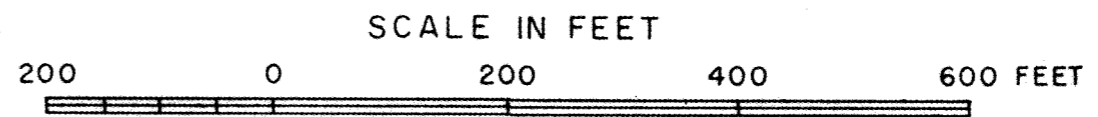
HWY  $\odot$  P.C. 60+84.3

HWY  $\odot$  P.T. 64+18.3



**RELOCATED FACILITIES**

ITEM NO.	DESCRIPTION	STATION	OWNER	REPLACES
RR-1	HWY NO 39	2120+59-2196+30	STATE OF LA	R-1
RG-1	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	G-1
RW-IB	8" DIA WATER MAIN	2155+47 - " "	PLAQUEMINES PARISH	W-IB
RP-1	34 KV POWERLINE	2120+59 - " "	LA POWER & LIGHT	P-1
RT-1	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	T-1



NOTES:  
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MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
 RELOCATED FACILITIES  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813



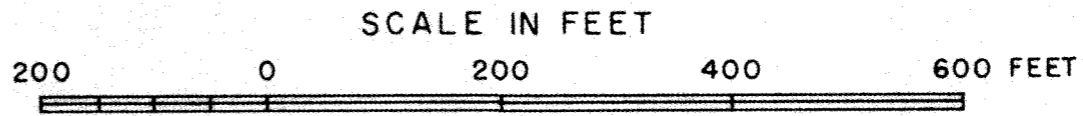


HWY & CURVE ⑨  
 $\Delta = 2^\circ 0' 10''$   
 $D = 1^\circ 0' 0''$   
 $T = 100.15'$   
 $L = 200.29'$

HWY & CURVE ⑩  
 $\Delta = 3^\circ 18' 19''$   
 $D = 1^\circ 30' 0''$   
 $T = 110.21'$   
 $L = 220.36'$

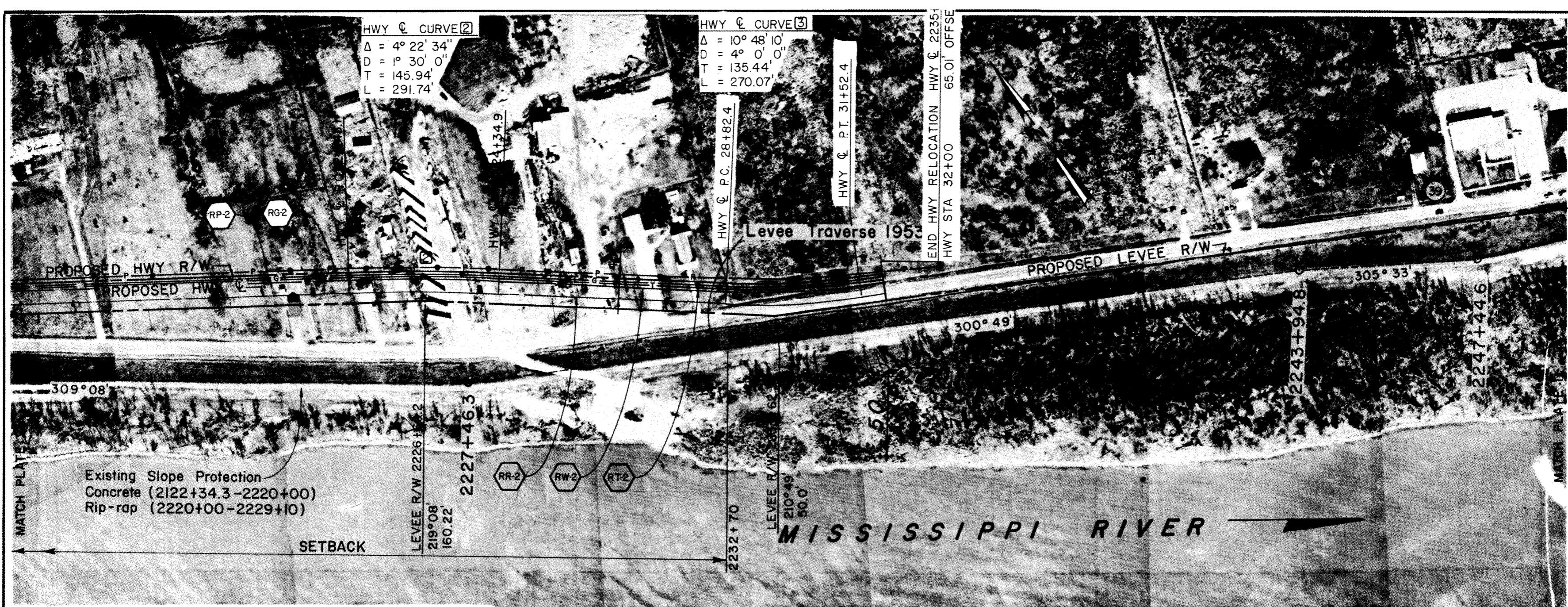
MISSISSIPPI RIVER

RELOCATED FACILITIES				
ITEM NO.	DESCRIPTION	STATION	OWNER	REPLACES
RR-1	HWY NO 39	2120+59-2196+30	STATE OF LA	R-1
RR-2	" " "	2203+67-2235+84	" " "	R-2
RG-1	3" DIA GAS MAIN	2120+59-2196+30	LA GAS SERVICE CO	G-1
RG-2	" " " "	2203+67-2235+84	" " " "	G-2
RW-1B	8" DIA WATER MAIN	2155+47-2196+30	PLAQUEMINES PARISH	W-1B
RW-2	" " " "	2203+67-2235+84	" " " "	W-2
RP-1	34 KV POWERLINE	2120+59-2196+30	LA POWER & LIGHT	P-1
RP-2	" " " "	2203+67-2235+84	" " " "	P-2
RT-1	BURIED TEL CABLE	2120+59-2196+30	SO CENTRAL BELL	T-1
RT-2	" " " "	2203+67-2235+84	" " " "	T-2



NOTES:  
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MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
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 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
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 RELOCATED FACILITIES  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-225813



HWY  $\odot$  CURVE 2  
 $\Delta = 4^{\circ} 22' 34''$   
 $D = 1^{\circ} 30' 0''$   
 $T = 145.94'$   
 $L = 291.74'$

HWY  $\odot$  CURVE 3  
 $\Delta = 10^{\circ} 48' 10''$   
 $D = 4^{\circ} 0' 0''$   
 $T = 135.44'$   
 $L = 270.07'$

HWY  $\odot$  P.I. 31+52.4

HWY  $\odot$  P.C. 28+82.4

END HWY RELOCATION HWY  $\odot$  2235+  
 HWY STA 32+00 65.01' OFFSE

Levee Traverse 1953

PROPOSED LEVEE R/W

PROPOSED HWY R/W

PROPOSED HWY  $\odot$

RP-2

RG-2

HWY  $\odot$  24+34.9

309° 08'

300° 49'

305° 33'

MATCH PLATE

Existing Slope Protection  
 Concrete (2122+34.3-2220+00)  
 Rip-rap (2220+00-2229+10)

SETBACK

LEVEE R/W 2226+00  
 219° 08'  
 160.22

2227+46.3

RR-2

RW-2

RT-2

2232+70

LEVEE R/W 2232+70  
 210° 49'  
 90.0'

MISSISSIPPI RIVER

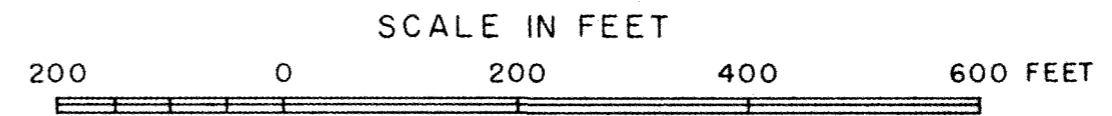
2243+94.8

2247+44.6

MATCH PLATE

**RELOCATED FACILITIES**

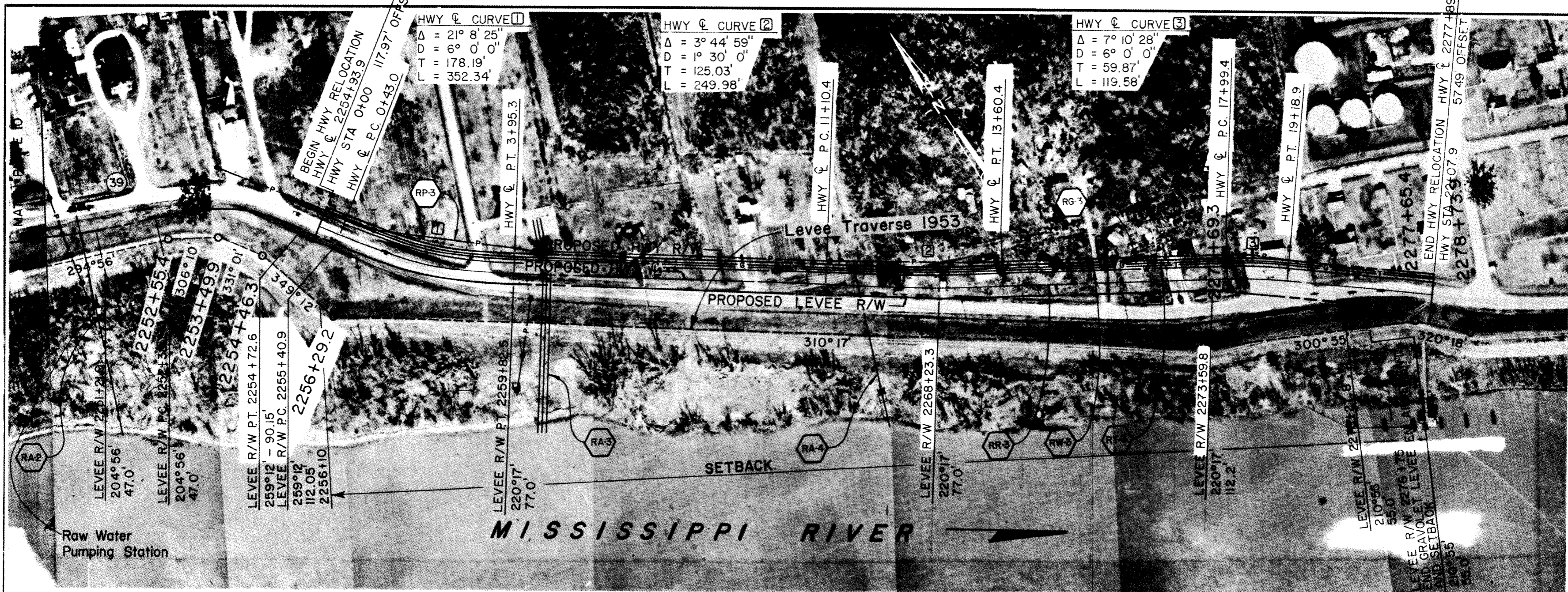
ITEM NO.	DESCRIPTION	STATION	OWNER	REPLACES
RR-2	HWY NO 39	2203+67-2235+84	STATE OF LA	R-2
RG-2	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	G-2
RW-2	8" DIA WATER MAIN	" " " "	PLAQUEMINES PARISH	W-2
RP-2	34 KV POWERLINE	" " " "	LA POWER & LIGHT	P-2
RT-2	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	T-2



**NOTES:**

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MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
 RELOCATED FACILITIES  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813



HWY  $\oslash$  CURVE ①  
 $\Delta = 21^\circ 8' 25''$   
 $D = 6^\circ 0' 0''$   
 $T = 178.19'$   
 $L = 352.34'$

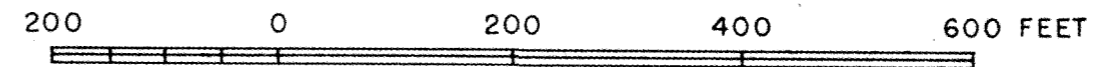
HWY  $\oslash$  CURVE ②  
 $\Delta = 3^\circ 44' 59''$   
 $D = 1^\circ 30' 0''$   
 $T = 125.03'$   
 $L = 249.98'$

HWY  $\oslash$  CURVE ③  
 $\Delta = 7^\circ 10' 28''$   
 $D = 6^\circ 0' 0''$   
 $T = 59.87'$   
 $L = 119.58'$

**RELOCATED FACILITIES**

ITEM NO.	DESCRIPTION	STATION	OWNER	REPLACES
RR-3	HWY NO 39	2254+94-2277+89	STATE OF LA	R-3
RG-3	3" DIA GAS MAIN	" " " "	LA GAS SERVICE CO	G-3
RW-3	8" DIA WATER MAIN	" " " "	PLAQUEMINES PARISH	W-3
RP-3	34 KV POWERLINE	" " " "	LA POWER & LIGHT	P-3
RT-3	BURIED TEL CABLE	" " " "	SO CENTRAL BELL	T-3
RA-2	3" & 6" DIA PIPELINES	2250+90	PLAQUEMINES PARISH	A-2
RA-3	3-12" DIA PIPELINES	2260+50	UNITED GAS PPL CO	A-3
RA-4	8" DIA PIPELINE	2266+90	" " " "	A-4

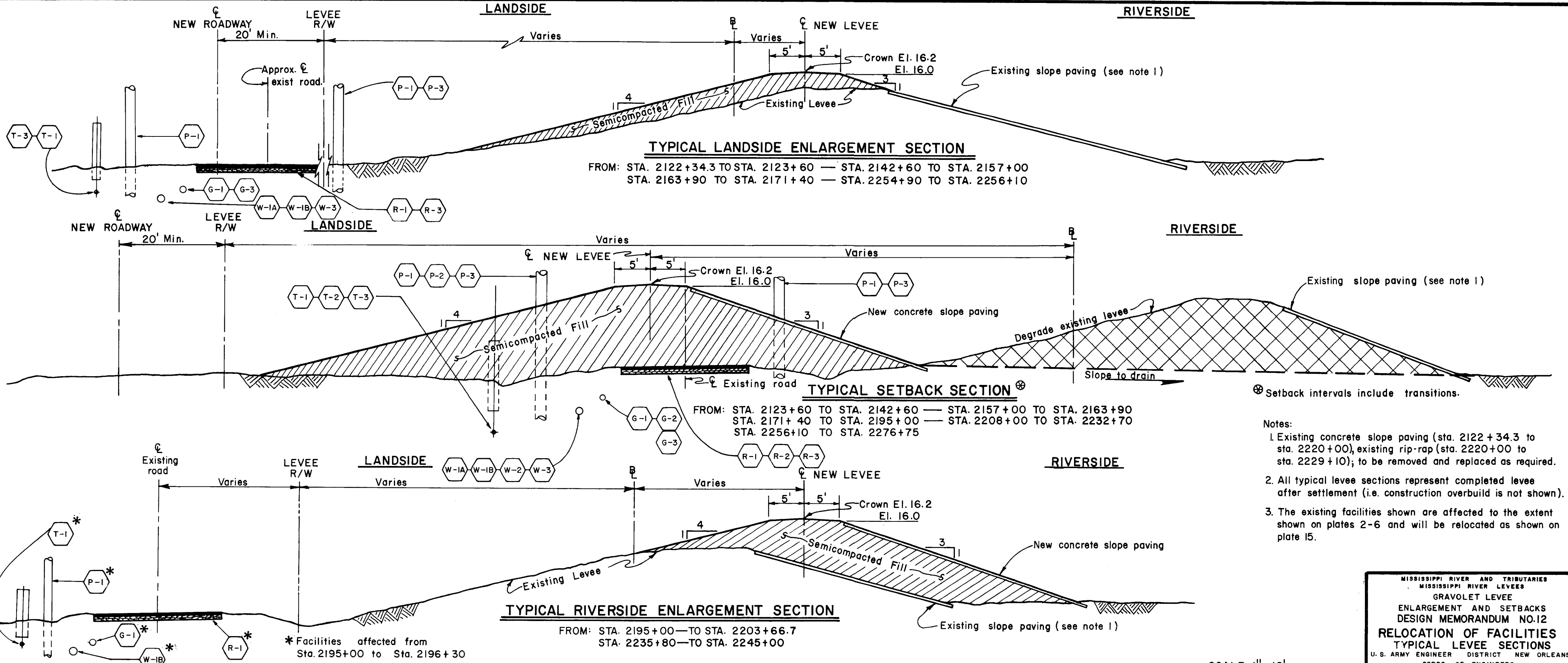
SCALE IN FEET



**NOTES:**

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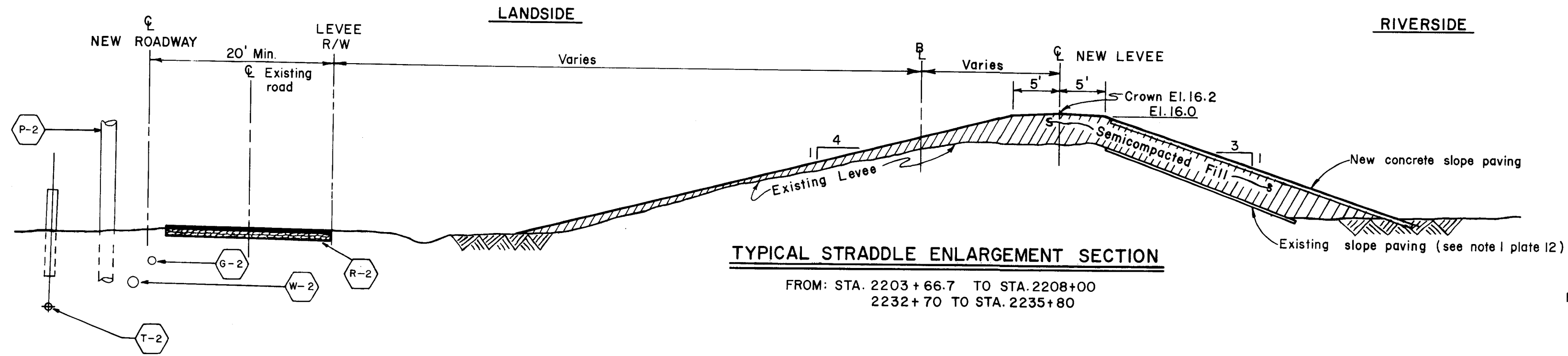
MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
 RELOCATED FACILITIES  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813



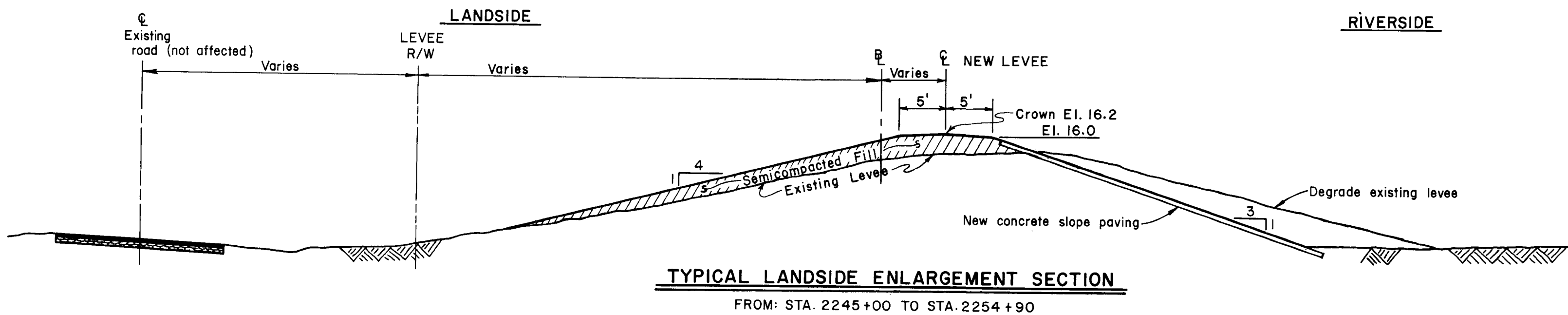
- Notes:
- Existing concrete slope paving (sta. 2122+34.3 to sta. 2220+00), existing rip-rap (sta. 2220+00 to sta. 2229+10); to be removed and replaced as required.
  - All typical levee sections represent completed levee after settlement (i.e. construction overbuild is not shown).
  - The existing facilities shown are affected to the extent shown on plates 2-6 and will be relocated as shown on plate 15.

MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
 TYPICAL LEVEE SECTIONS  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813

SCALE 1" = 10'

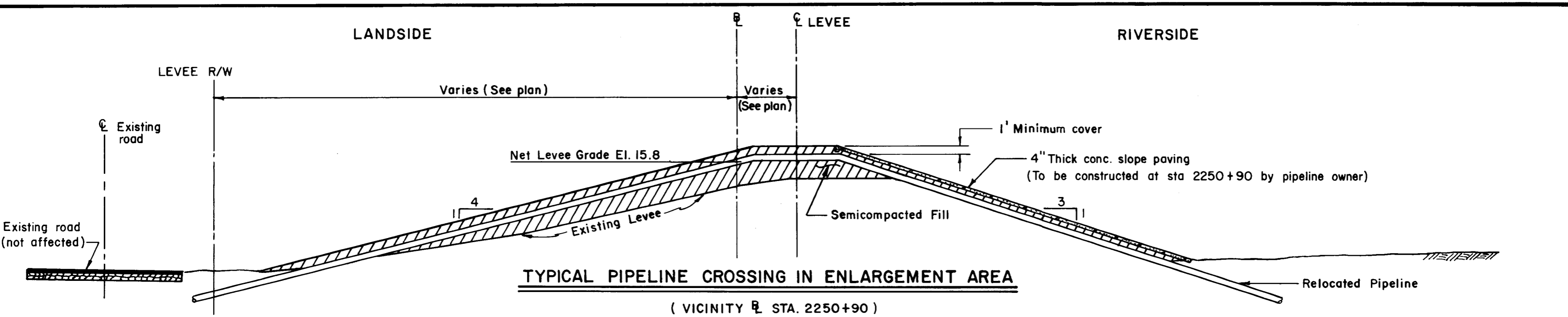


- Notes:
1. All typical levee sections represent completed levee after settlement (i.e. construction overbuild is not shown).
  2. The existing facilities shown are affected to the extent shown on plates 2-6 and will be relocated as shown on plate 15.

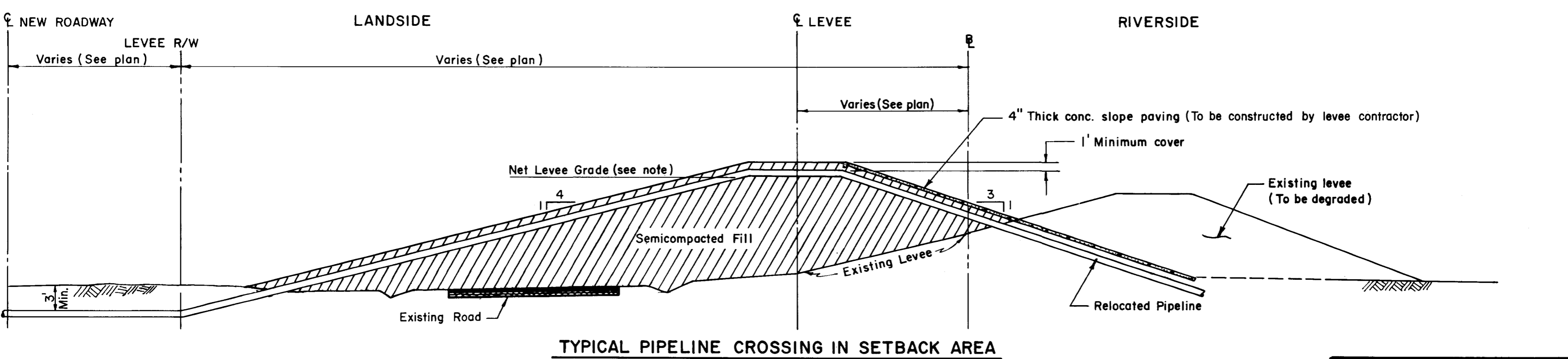


SCALE 1" = 10'

MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO. 12  
 RELOCATION OF FACILITIES  
 TYPICAL LEVEE SECTIONS  
 U. S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813



**TYPICAL PIPELINE CROSSING IN ENLARGEMENT AREA**  
 (VICINITY STA. 2250+90)

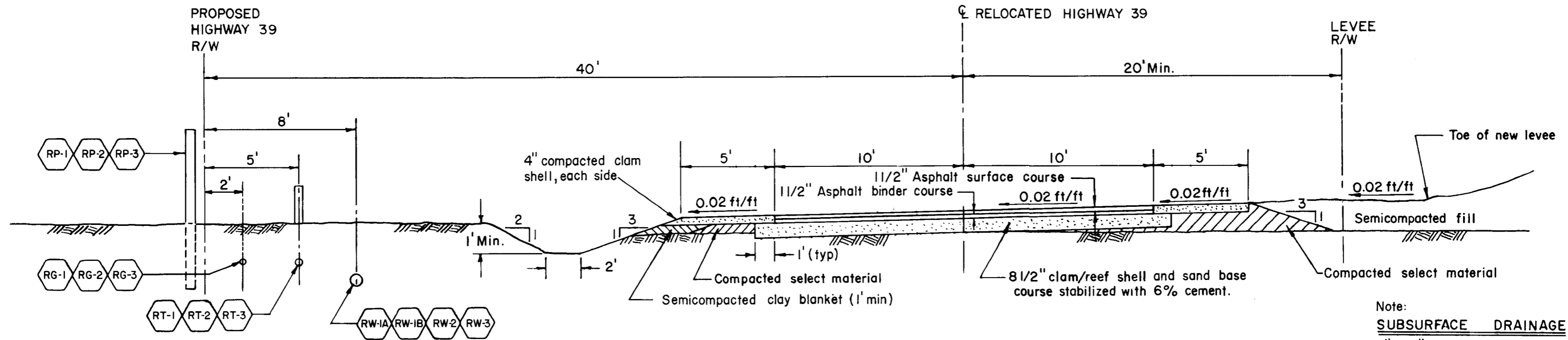


**TYPICAL PIPELINE CROSSING IN SETBACK AREA**  
 (VICINITY STA. 2142+00,  
 2260+50 and 2266+90)

NOTE : Net levee grade at Sta.  
 2142+00 = 16.0' ; net levee  
 grade at Sta. 2260+50 and  
 2266+90 = 15.8'

SCALE : 1" = 10'

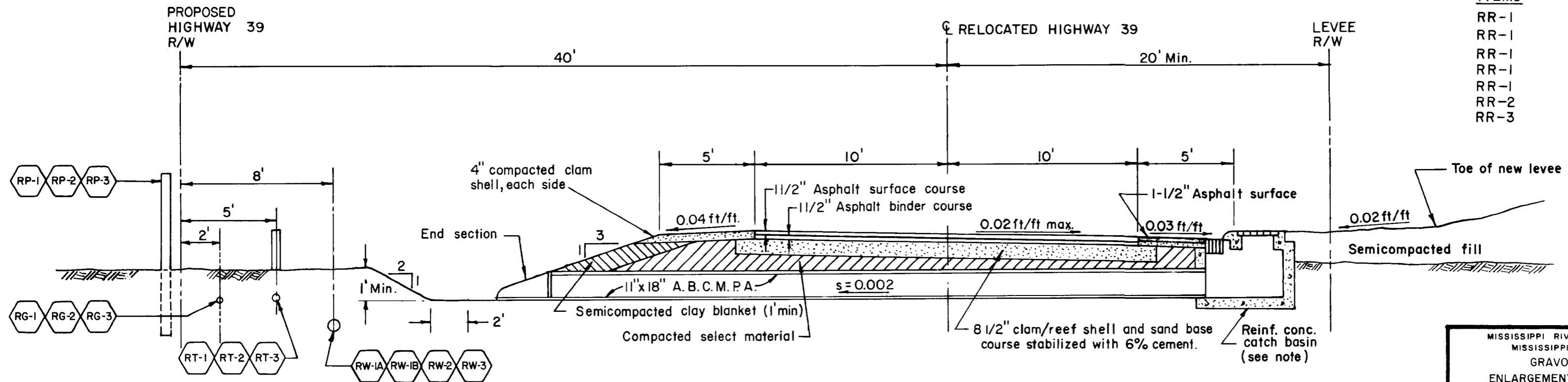
MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
 RELOCATION OF FACILITIES  
 TYPICAL PIPELINE SECTIONS  
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
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 AUGUST 1972 FILE NO. H-2-25813



**TYPICAL HIGHWAY SECTION (LEFT-HAND CURVES AND TANGENTS)**

Note:  
**SUBSURFACE DRAINAGE**  
 11" x 18" A.B.C.M.P.A. and catch basins at—

ITEMS	HWY STA
RR-1	8+26.9
RR-1	21+32.7
RR-1	29+08.2
RR-1	43+28.8
RR-1	63+43.3
RR-2	23+59.9
RR-3	18+79.1



**TYPICAL HIGHWAY SECTION (RIGHT-HAND CURVES)**

Note:  
 The relocated facilities shown will replace the existing facilities shown on plates 12 and 13 to the extent shown on plates 7-11.

SCALE: 1" = 5'

MISSISSIPPI RIVER AND TRIBUTARIES  
 MISSISSIPPI RIVER LEVEES  
 GRAVOLET LEVEE  
 ENLARGEMENT AND SETBACKS  
 DESIGN MEMORANDUM NO.12  
**RELOCATION OF FACILITIES**  
 TYPICAL ROAD SECTIONS  
 U.S. ARMY ENGINEER DISTRICT NEW ORLEANS  
 CORPS OF ENGINEERS  
 AUGUST 1972 FILE NO. H-2-25813

FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-51.0-L  
GRAVOLET LEVEE ENLARGEMENT AND SETBACKS  
PLAQUEMINES PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 12

APPENDIX I  
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

C SYSTEM								LOCAL ROADS	
B SYSTEM								HARD SURFACED	AGGREGATE OR NO SURFACE
A SYSTEM									
ITEM NO.	ITEMS	CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5	CLASS 6		
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	100 OR LESS
2	DESIGN HOURLY VOLUME <sup>①</sup>	OVER 2,400	2,400 - 601	600 OR LESS	400 - 200				
3	NUMBER OF TRAFFIC LANES	6	4	2	2	2	2	2	2
4	WIDTH OF EACH LANE	12'	12'	12'	12'	10'	10'	9'	9'
5	WIDTH OF SHOULDERS	MINIMUM 8' OUT. INS. 6'	8' OUT. INS. 6'	8'	8'	8'	5'	3'	3'
		DESIRABLE 10' OUT. INS. 6'	10' OUT. INS. 6'	10'					
6	TYPE OF SHOULDERS	STABILIZED & SURFACED		AGGREGATE <sup>②</sup>	AGGREGATE	AGGREGATE	AGGREGATE		
7	WIDTH OF MEDIAN	44' DEPRESSED 20' OTHER		44' DEPRESSED 20' OTHER					
8	FORE SLOPE - RATIO	MINIMUM 4:1	4:1	4:1	3:1	3:1	3:1	2:1	2:1
		DESIRABLE 6:1	6:1	6:1	4:1				
9	BACK SLOPE - RATIO	MINIMUM 3:1	3:1	3:1	3:1	3:1	2:1	2:1	2:1
		DESIRABLE 4:1	4:1	4:1			3:1		
10	DESIGN SPEED M.P.H.	70	70	60 <sup>③</sup>	60	50	40	40	20
11	STOPPING SIGHT DISTANCE	600'	600'	475' <sup>④</sup>	475'	360'	275'	275'	200'
12	CONTROLLING CURVATURE <sup>④</sup>	DESIRABLE 3°	3°	3°					
		MAXIMUM 4°	4°	5°30'	5°30'	6°30'	13°30'	13°30'	60°
13	CONTROLLING GRADE <sup>⑤</sup>	4%	4%	5% <sup>⑥</sup>	5%	6%	7%	10%	
14	VERTICAL CLEARANCE <sup>⑥</sup>	15'	15'	15'	15'	15'	15'	15'	18'
15	HORIZ. CLEARANCE (MEASURED FROM EDGE OF PAVEMENT) <sup>⑦</sup>	30'	30'	30'	15'	15'	11'	8'	
16	RIGHT OF WAY WIDTH <sup>⑧</sup>	300'	300'	150' <sup>⑨</sup>	120'	100'	80'	80' <sup>⑩</sup>	80' <sup>⑩</sup>
17	DESIGN LOADING FOR BRIDGES	HS 20-44	HS 20-44	HS 20-44	HS 20-44	HS 20-44	HS 20-44	H-15 <sup>⑪</sup>	H-15 <sup>⑪</sup>
18	MINIMUM WIDTH OF BRIDGES (MEASURED FROM FACE TO FACE OF BRIDGE RAIL)	APPROACH PAVEMENT & SHOULDERS <sup>⑪</sup>	APPROACH PAVEMENT & SHOULDERS <sup>⑪</sup>	APPROACH PAVEMENT & SHOULDERS <sup>⑪</sup>	APPROACH PAVEMENT & SHOULDERS <sup>⑪</sup>	28'	28'	20' <sup>⑫</sup>	20' <sup>⑫</sup>
19	PAVEMENT CROSS SLOPE	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	NO

- 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 USEABLE 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 TRUNK LINE 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 - 300' WHERE FUTURE FOUR LANES ARE INDICATED.
- ⑩ - AS REQUIRED TO ACCOMMODATE SECTION.
- ⑪ - IN SPECIAL CASES PARTIAL SHOULDERS MAY BE USED.
- ⑫ - 18' MINIMUM WIDTH FOR RETENTION OF BRIDGES IN GOOD CONDITION.

ADOPTED *A. B. Ratcliff, Jr.*

A. B. RATCLIFF, JR.  
 CHIEF ENGINEER  
 MARCH 10, 1971

FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-51.0-L  
GRAVOLET LEVEE ENLARGEMENT AND SETBACKS  
PLAQUEMINES PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 12

APPENDIX II  
ATTORNEY'S REPORTS

5 February 1972

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report, Relocation of Louisiana State Highway 39 below New Orleans, Plaquemines Parish, Louisiana, between Stations 2120+59.25 - 2196+30.05; 2203+67.08 - 2235+84.00; and 2254+93.88 - 2277+89.00, Item M-51.O-L, Gravolet Levee Enlargement and Setback, shown on Road Relocation Map File No. H-8-25934, Sheets 1, 2, 3 and 4 of 5, dated Dec. 1971, Mississippi River Levees, Grand Prairie 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.

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, 1 Dec 69, of the legal obligations of the Government regarding affected facilities and determination of compensable interest of STATE OF LOUISIANA, DEPARTMENT OF HIGHWAYS, P. O. Box 44245, Capitol Station, Baton Rouge, Louisiana 70804, 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 and setback 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

EXHIBIT A

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

The Department of Highways, State of Louisiana, was created by Act 4 of 1942, Louisiana Revised Statutes, Title 48, Section 11. The said creating act gives the Department the right of Eminent Domain (expropriation), L.R.S. 48:217 and 218. Louisiana Constitution, 1921, Art. 6, Sec. 19, authorizes acquisition of rights of way for highways by expropriation or otherwise. As held in HORNSBY v. STATE DEPARTMENT OF HIGHWAYS, 241 La. 989, 132 So. 2d 871, (1961) the Highway Department, likewise, for certain purposes, under La. Civil Code, Arts. 665, 707, may also appropriate land required on the shores of navigable rivers. The Act of 1942, as amended, established (at PART XI, STATE HIGHWAY SYSTEM, R.S. 48:191) a system of state highways consisting of Class A Highways, or a Primary System; Class B Highways, or a Secondary System; and Class C Highways, or a Farm-to-Market System. Subject Louisiana State Highway 39, in said Act R.S. 48-191, is classified and included in the State's Secondary and Primary Systems' Class "B" and "A" highway descriptions, as follows:

(As "B" Secondary)- LA 39 -"From a point at or near Bohemia through or near Pointe a la Hache to a junction with LA 46 at or near Poydras." Bohemia, the southern terminus of LA 39, is in the Parish of Plaquemines, and the northern or upper end, as described above, "at its junction with LA 46 at or near Poydras," extends into St. Bernard Parish, Louisiana.

(As "A" Primary) - La.R.S.48-191 classifies the balance of LA 39 "From a junction with LA 46 at or near Poydras through or near Chalmette and Arabi to a junction with LA-US 90 at or near New Orleans" as one of its Primary System Class "A" Highways.

The findings and remarks herein made as to the compensable interest of the Department of Highways, State of Louisiana, in its LA 39 are applicable not only in the reaches, or between the levee stations specifically shown herein, but for its entire length, i.e., from a point at or near Bohemia to its junction with LA-US 90 at or near New Orleans.

What is now LA 39 was, prior to the early 1920 Acts of the Louisiana Legislature, such as Act 95 of 1921, EX. SESS., Act 1 of 1929, and also Acts 15 of 1930 and 15 of 1936, merely a public road, not necessarily continuous, for which no formal rights of way deeds had been acquired and recorded in the conveyance records of the Parishes of Plaquemines, St. Bernard and Orleans. Even after the creation of the state's highway system by those early acts no rights of way were obtained until the

program to improve and widen the said highway was undertaken by the State of Louisiana in the mid-1930's. The road right of way was claimed as a "public road" by virtue of various codal and statutory provisions of Louisiana law, such as La. Civil Code Articles 665, 704, 705, 707, and 2014, and La. Rev. St. 1870, Sec. 3368, and Acts 1914, No. 220. Additionally, the joinder of many private roads, fronting the owners' individual properties into a single and continuous road was effective in the formation of public roads. A public road is statutorily defined in La. Rev. Stat. 48, Sec. 491 (48:491) as:

(TITLE 48)

"SUB-PART C. LAYING-OUT OF ROADS

"§ 491. What are public roads

"All roads or streets in this state that are opened, laid out or appointed by virtue of any act of the legislature or by virtue of an order of any parish governing authority in any parish, or any municipal governing authority in any municipality, or which have been or are hereafter kept up, maintained or worked for a period of three years by authority of any parish governing authority in its parish or by authority of any municipal governing authority in its municipality shall be public roads or streets as the case may be. Also all roads or streets made on the front of their respective tracts of lands by individuals when the lands have their front on any of the rivers or bayous within this state shall be public roads when located outside of municipalities and shall be public streets when located inside of municipalities. As amended Acts 1954, No. 639, § 1." (Source--Rev. St. 1870, Sec. 3368; Act 220 of 1914).

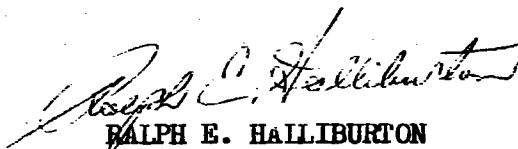
Without deeds, by public use thereof with consent, or by unopposed occupancy, prescription (limitation), and public maintenance, the State of Louisiana and its agencies, for many years has had a vested real right in its public roads such as, and including, the present LA 39.

Beginning in the year 1939 the "State of Louisiana, and the Louisiana Highway Commission," in order to improve, pave and widen the present LA 39, obtained "in consideration for such improvements" a great number of right of way deeds from the abutting owners, on the former or earlier narrow road, which is now LA 39, measuring, besides the described length, a width which permitted the road right of way to be established and extended variously, for a total of between 70 and 85 feet wide. All such easement (servitude) acquisitions are locally recorded, i.e., in the parish where the highway lies. Examples so recorded, in Plaquemines Parish, Louisiana, are the following:

<u>Easements</u> <u>Dated</u>	<u>Recorded in</u> <u>Conv. Book</u>	<u>Pages</u>
8/1/39	96	1 thru 134
8/8/39	96	222 thru 225
8/19/39	96	325
9/6/39	96	400
9/21/39	96	522 thru 533
9/27/39	96	576 thru 583
10/9/39	97	23
11/13/39	97	292 thru 303
1/1/40	97	168

In view of the foregoing, together with other information in the matter obtained by and for my use herein, it is my opinion that the State of Louisiana, Department of Highways, has an established compensable interest in Louisiana State Highway No. 39, in the reaches shown as well as for its entire length as designated and described in La. Rev. 48:191, above, required by subject project, or subsequent like projects, to be relocated 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  
5 February 1972



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

25 July 1972

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report, Relocation of Facilities of LOUISIANA POWER & LIGHT COMPANY; SOUTH CENTRAL BELL TELEPHONE COMPANY; PLAQUEMINES PARISH WATER MAINS, RAW WATER INTAKE PIPE-LINE, AND SEWER LINES; and LOUISIANA GAS SERVICE COMPANY, along or in vicinity of Louisiana State Highway 39 below New Orleans, Plaquemines Parish, Louisiana, between Stations 2122+34 and 2276+75, Item M-51.0-L, Gravolet Levee Enlargement and Setback, 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.

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, 1 Dec 69, of the legal obligations of the Government regarding affected facilities and determination of compensable interest of the facilities owners as shown in subject hereof 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 and setback 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 provided:

"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)."

EXHIBIT B

COMPENSABLE INTEREST  
OF  
LOUISIANA POWER & LIGHT COMPANY  
a Florida corporation domiciled at Tallahassee

By letter of 23 September 1970 Louisiana Power & Light Company, 1001 Virgil Street, Gretna, Louisiana 70053, through its Assistant Right of Way Agent, Donald E. Kern, furnished this office copy of a Certificate of Qualification and Good Standing, dated 7 September 1967, issued by Wade O. Martin, Secretary of State of the State of Louisiana.

A corporation having the right of eminent domain, as does Louisiana Power & Light Company - see Louisiana Revised Statutes, Title 19, Sec. 2(9), LRS 19:2(9), (Electricity) - more extensively discussed below, together with the cited legal authorities applicable thereto, acquires a vested real interest in its right of way by consent or unopposed use. This is the situation here absent purchased right of way servitudes (easements). Further, wherever its line right of way crosses or is located within the existing levee right of way or on actual batture, where in neither location may it acquire a vested right and compensable interest, relief may be granted it for the cost of relocation by the following ER 1180-1-1, 1 Dec. 69, part 7 - Relocation and Alterations Made Pursuant to Special Statutory Authority:

73-701 Lack of Compensable Interest - Civil Works. Where a public utility will be destroyed or damaged due to operation of a civil works project and relocation or alteration of the facility is required to continue service to the public, the Government may assume the cost of relocating or altering the facility (but not the cost for a new right-of-way) when, in fact, the utility owner is not presently vested with a compensable interest in the existing right-of-way. Negotiations with utility owners in accordance with the foregoing is authorized under Section 2, Flood Control Act of 1938, (52 Stat. 1215; 33 U.S.C. 701c-1). (See Comp. Gen. Decision B-134242, 24 Dec 1957). [Emphasis supplied].

For the area outside of the levee right of way, in, on or over which it cannot obtain a vested real right adverse to the public, Louisiana Power & Light Company, a corporation with the right of eminent domain, possesses 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 facilities, 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 with visible notice that it is claiming a servitude of right of way 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, Tate, 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 B-134242, December 24, 1957, is in harmony with the above Louisiana holdings.

To constitute "batture" such lands must meet the requirements of the legal definition thereof.

The legal definitions of alluvion, as distinguished from batture, are appropriate and follow:

Alluvion is that which is added to land little by little so that it cannot be known how much is added at each moment of time. Livingston v. Heerman, 9 Mart. (O.S.) 656. It is defined by the Louisiana Civil Code, at Art. 509: "The accretions, which are formed successively and imperceptibly to any soil situated on the shore of a river or other stream, are called alluvion. The alluvion belongs to the owner of the soil situated on the edge of the water, whether it be a river or stream, and whether the same be navigable or not, who is bound to leave public that portion of the bank which is required by law for public use." Civil Code Article 510 continues: "The same rule applies to derelictions formed by running water retiring imperceptibly from one of its shores and encroaching on the other; the owner of the land adjoining the shore which is

left dry, has a right to the dereliction, nor can the owner of the opposite shore claim the land which he has lost. This right does not take place in case of derelictions of the sea."

Batture is that part of river bed which is uncovered at time of low water, but is covered annually at time of ordinary high water; when it ceases to be covered at time of ordinary high water, it ceases to be batture and becomes bank of river. Boyce Cottonseed Oil Mfg. Co. v. Board of Comrs. of Red River, A. & B. B. Levee Dist., 160 La. 727, 107 So. 506. See also Leonard's Heirs v. Baton Rouge, 39 La. Ann. 275, 4 So. 241; Ward v. Board of Levee Comrs. of Orleans Levee Dist., 152 La. 158, 92 So. 769. Whether the accretion be alluvion or batture it belongs to the riparian owner. See Seibert v. Conservation Comm., 181 La. 237, 159 So. 375, which held that sand and gravel bar adjacent to shore and which was proved by lay testimony to be above water level during low stages of the river constitutes alluvion or batture which belongs to the riparian owner. In accordance with Boyce Cottonseed Oil v. Levee District, and other cases cited above, batture which no longer is covered annually at time of ordinary high water ceases to be batture and becomes bank of river. Consequently, land which may have been added to the other property of the owner adjoining the shore, but which accretion being of sufficient elevation to escape being covered annually at time of ordinary high water, must be treated as any other land of owner forming the bank of river, and, although such land, under Louisiana law, be subject to a servitude in favor of the public for levee purposes, such high land is not batture subject to use by the state, or its agencies, for levee purposes without compensation as prescribed by La. Const. 1921, Art. XVI, Sec. 6-LSA, which states, in part:

"Sec. 6. Compensation for property used or destroyed; tax

Section 6. Lands and improvements thereon hereafter actually used or destroyed for levees or levee drainage purposes . . . . , shall be paid for at a price not to exceed the assessed value of the preceding year; provided, that this shall not apply to batture nor to property the control of which is vested in the State or any subdivision thereof for the purpose of commerce; . . . . ." [Emphasis mine]

as was stated in PRUYN v. NELSON BROS., 180 La. 760, at 765:

"The law is clear that all landed proprietors, whose property is adjacent to a navigable stream, hold it subject to certain conditions imposed for the common utility or public welfare. Dubose v. Levee Commissioners, 11 La. Ann. 165; Zenor v. Parish of Concordia, 7 La. Ann. 150; Cubbins v. Mississippi River Commission, 241 U. S. 351, 36 S. Ct. 671; 60 L. Ed. 1041; Mailhot v. Fugh, 30 La. Ann. 1359; Egan v. Hart, 45 La. Ann. 1358, 14 So. 244; In re Bass v. State, 34 La. Ann. 494.

"The batture as well as the riparian property along the Mississippi river is subject to a servitude for the building and repairing of levees, and this servitude is in favor of the public. R.C.C. Arts. 453 and 665; Bass v. State, 34 La. Ann. 494; Peart v. President of Red River, A. & B. B. Levee District, 45 La. Ann. 421, 12 So. 490; Stevens v. Walker, 15 La. Ann. 577.

"Previous to the year 1921, no compensation was due the riparian owner when the servitude was legally exercised on the riparian property, and even now compensation is not due when the servitude is validly exercised on the batture by the proper authority for levee purposes. Const. 1921, art. 16, § 6."

In the case of *Mrs. Mattie Mayer v. Board of Commissioners for Caddo Levee District*, 177 La. 1119, 150 So. 295, 296, a consideration of the meaning of this section and article of the Constitution was considered and the Court said:

"Lands and improvements thereon hereafter actually used or destroyed for levees or levee drainage purposes shall be paid for at a price not to exceed the assessed value for the preceding year; provided, this shall not apply to batture, nor to property control of which is vested in the State or any subdivision thereof for the purpose of commerce \* \* \*

"This shall not prevent the appropriation of said property before payment."

"The law imposes a servitude for the common utility on lands abutting navigable streams for the construction and repair of levees, roads, and other purposes. Civ. Code, art. 665. The principle recognized by the cited article of the Code is of ancient origin. *Morgan v. Livingston*, 6 Mart. (O.S.) 19, 235, 236; *Ruch v. New Orleans*, 43 La. Ann. 275, 9 So. 473; *Eldridge v. Trezevant*, 160 U. S. 452, 463, 16 S. Ct. 345, 40 L. Ed. 490 \* \* \*"

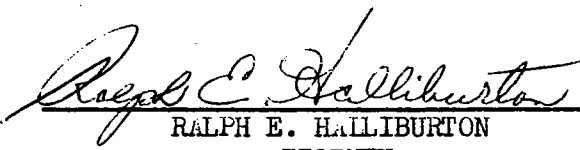
In the Louisiana landmark case of *General Box Company v. United States of America*, 351 U.S. 159, 76 S. Ct. 728, 100 L. Ed. 778, denying payment for timber destroyed for levee purposes, which had been growing on land unquestionably batture, the court held that where the Louisiana Levee Board correctly exercised, for itself and for United States, riparian servitude upon the tracts there in question, compensation, if any, for standing timber destroyed on right of way by United States through its contractors was to be determined by Louisiana law relative to the servitude.

Hence, in the situation involving any facilities belonging to Louisiana Power & Light Company, if they be situated over, on or under land which, although belonging to the riparian owner is merely part of the bank of the river and not on land constituting a previously located and designated levee right of way, or on actual "batture," then such utility company will have acquired a compensable interest by virtue of consent, permit, grant, unopposed use (coupled with the utility company's right of expropriation), BUT, if the land be actual "batture" which has been, or may be, appropriated for levee building purposes and which will involve no payment whatever therefor, or if in an existing levee right of way, the utility cannot be deemed to possess a compensable interest and can be paid or reimbursed for its relocation only by virtue of Congressional authority, Sec. 2 of the Flood Control Act of 1938, which, as in all such cases of Federal payment dependent upon such Act, will not include the cost of new right of way, for which circumstance provision is

made in ER 1180-1-1, 1 Dec 69, Part 7 - Relocations and Alterations Made Pursuant to Special Statutory Authority. See 73-701 of said ER 1180-1-1 quoted on page 1 above.

Louisiana Power & Light Company, to the extent and for the reasons above set forth and qualified, particularly the qualification regarding "batture", as well as the exception as to the primacy of levee rights of way, has a compensable interest in its present right of way, and to its facilities thereon, which are located outside of the existing levee right of way, it having acquired same from the landowners by consent or unopposed use. The predecessor of Louisiana Power & Light, Peoples Utility Company, Inc., in much of this area, inquiry reveals, had originally acquired not easements but permits, and it did not record the permits; mere permits being revocable and non-assignable, even had they been recorded, unless intended to be a covenant or interest running with the land, would serve only as notice of consent. As to such rights of way owned without exception or qualification, cost of removal and new locations should be furnished at Government cost. The acquisition of new rights of way in lieu of those, if any, now situated within the levee right of way, or on batture, will be the obligation of the utility company.

New Orleans, La.  
18 April 1972

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

25 July 1972

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report, Relocation of Facilities of LOUISIANA POWER & LIGHT COMPANY; SOUTH CENTRAL BELL TELEPHONE COMPANY; PLAQUEMINES PARISH WATER MAINS, RAW WATER INTAKE PIPELINE, AND SEWER LINES; and LOUISIANA GAS SERVICE COMPANY, along or in vicinity of Louisiana State Highway 39 below New Orleans, Plaquemines Parish, Louisiana, between Stations 2122+34 and 2276+75, Item M-51.0-L, Gravolet Levee Enlargement and Setback, 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.

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, 1 Dec 69, of the legal obligations of the Government regarding affected facilities and determination of compensable interest of the facilities owners as shown in subject hereof 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 and setback 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 provided:

"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 2\* 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)."

EXHIBIT C

22 April 1972

COMPENSABLE INTEREST  
of  
SOUTH CENTRAL BELL TELEPHONE COMPANY  
(Formerly South Central Telephone Co.,  
and Successor to  
Southern Bell Telephone & Telegraph Co.)

By letter of 24 August 1970, South Central Bell Telephone Company, through G. E. Orr, Jr., District Engineer, 1010 Hancock Street, Gretna, Louisiana, 70053, furnished Plaquemines Parish Commission Council, Governing Body of Plaquemines Parish, Louisiana, copies of certificates, permits, servitudes (easements) and related documents in order to substantiate its lawful claim to its various facilities and the rights of way therefor. Among the furnished documents were:

1. Certificates of the Secretary of State, State of Louisiana, dated 19 August 1970, showing that South Central Bell Telephone Company, a Delaware Corporation, had filed copy of its articles of Incorporation in his office and had qualified to do business in the State of Louisiana.

2. Affidavit by G. E. Orr, Jr., District Engineer, dated 14 August 1970, claiming for the telephone company, having the right of eminent domain, a compensable property interest in all other telephone plant not on existing public right-of-way [as modified by the above referred to letter of 24 August].

A corporation having the right of eminent domain, as does South Central Telephone Company - see Louisiana Revised Statutes, Title 45, Sec. 781, LRS 45:781 and Title 19, Sec. 2(8), LRS 19:2(8), (Telegraph and Telephone) - more extensively discussed below, together with the cited legal authorities applicable thereto, acquires a vested real interest in its right of way by consent or unopposed use. This is the situation here absent purchased right of way servitudes (easements). Further, wherever its line and facilities right of way crosses or is located within the existing levee right of way or on actual batture, where in neither location may it acquire a vested right and compensable interest, relief may be granted it for the cost of relocation by the following ER 1180-1-1, 1 Dec. 69, Part 7 - Relocation and Alterations Made Pursuant to Special Statutory Authority:

73-701 Lack of Compensable Interest - Civil Works. Where a public utility will be destroyed or damaged due to operation of a civil works project and relocation or alteration of the facility is required to continue service to the public, the Government may assume the cost of relocating or altering the facility (but not the cost for a new right-of-way) when, in fact, the utility owner is not presently vested with a compensable interest in the existing right-of-way. Negotiations with utility owners in accordance with the

foregoing is authorized under Section 2, Flood Control Act of 1938, (52 Stat. 1215; 33 U.S.C. 701c-1). (See Comp. Gen. Decision B-134242, 24 Dec 1957). [Emphasis supplied].

For the area outside of the batture or levee right of way, contrary to the situation where the telephone company's right of way is situated within the levee right of way or batture, and as to which, as is stated, it cannot obtain a vested real right adverse to the public, South Central Bell Telephone Company, a corporation with the right of eminent domain, possesses 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 to prevent 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 telephone facilities, 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 with visible notice that the telephone company is claiming a servitude of right of way 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, Tate, 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 B-134242, December 24, 1957, is in harmony with above Louisiana holdings.

AS part of this report on the above facility owner's compensable interest herein it is deemed appropriate at the outset to state that a levee right of way, usually an easement or servitude only, encumbering the fee ownership of the land upon which it is situated or rests, belongs to the public and is not susceptible of any adverse or conflicting private ownership therein. La. Civil Code, article 448-458. La. Civil Code article 665 makes provision for the imposition of servitudes for the public or common utility relating to the space which is to be left for the public use by the adjacent proprietors on the shores of navigable rivers and for the making and repairing of levees, roads and other public or common works. The matter of public levee rights of way; the authority for levee maintenance; the restrictions lawfully imposed relative to their use; and some explanation of "batture," "alluvion" and "dereliction" will follow.

The laws of the State of Louisiana governing its levee rights entrust to certain of the State's agencies, such as the various levee boards and drainage districts, the Parish Police Juries, and the Department of Public Works, for the enforcement of such State laws, as directed, for the construction, regulation, supervision and maintenance of levees. In this connection see Article XVI, Section 1, Louisiana Constitution, 1921 (Levees), Louisiana Statutes Annotated Title 33, Section 1236 (R.S.33:1236) Powers of Police Jury, and L.S.A. Title 38, Secs. 111 to 225 (R.S.38:111-225), inclusive, governing levees and drainage in general. R.S. 38:115 requires a person to obtain permission from the Police Jury to erect any work in front of levees on the banks of the Mississippi River which impede its navigation or which encroach on that part of the bank reserved by law for the use of the public (Rev. Civil Code, article 457 states, in part "... The banks of a river or stream are understood to be that which contains it in its ordinary state of high water;....Nevertheless on the borders of the Mississippi and other navigable streams where there are levees, established according to law, the levees shall form the banks."). R.S. 38:213 prohibits riding or hauling on levees except where, in the judgment of the levee Commissioners of a district and the Department of Public Works, ample provision has been made to guard against any damage to which levees may thereby be exposed from wear, tear and abuse. Provision is there made for the crossing over of any public levees, at ramps or inclines established under plans and specifications of the Department of Public Works, for the purpose of transporting any material that may be used or required in the business of the population living behind the levees. [Emphasis supplied]. A levee board is not responsible for the maintenance of a road on a levee, but it can regulate use of the road or its construction. Opinion, Attorney General, September 12, 1962.

R.S. 38:221 requires the approval of levee boards, or other appropriate governing authorities, and the Department of Public Works for a person to place pipes, etc., through or under any public levee. R.S. 38:225 prohibits certain structures or objects to be placed on levees, subject to governmental control, or within six feet thereof; and requires the use of ramps or properly prepared crossings, under permits issued by the levee district for the purpose, in order to portage boats or very heavy objects over the levees or dykes



(sic). Said Section 225 provides that structures or other obstructions, after notice given, may be attached and may be removed from the levee or land involved at the risk and expense of the owners or persons responsible therefor to remove the menace to said levee or the obstacle to the improvement or maintenance of such waterway. In view of the foregoing a private person would be unable to acquire a vested right in, on, or across a public levee, adverse to the public's requirements therein, and its need for maintenance or other alterations and repairs. Necessarily, where a structure or other improvement is required to conform to certain specifications and permission to construct obtained, such permission, by the ordinary definition of the words consent or permit, may be withdrawn or is conditioned. To permit is to grant leave or liberty to by express consent; to allow expressly; to give leave, liberty, or license to; to allow or to tolerate to be done by consent or by not prohibiting. a permit is an authorization to do what, without a license, would be unlawful. 30 American Jurisprudence 296. See also 17 Am. Jur. 926, and 23 Am. Jur. 716. a permit or license is a personal privilege to do some act or series of acts upon the land of another, without possessing any estate therein. It is generally revocable at the will of the landowner or grantor, or by his conveyance of the lands to another, or by whatever would deprive him (the grantor or permitter) of doing the acts in question or giving permission to others, such as the grantee or permittee to do them. Further, it is an authority to do some act or series of acts on the land of another, in this case the levee itself, without passing an estate in the land. It amounts to nothing more than excuse for the act, which would otherwise be a trespass. 32 Am. Jr. 30. a personal, revocable, and unassignable privilege conferred either by writing of parole to do one or more acts on lands without possessing any interest therein. 33 Am. Jr. 398.

Besides the above cited laws of the State of Louisiana governing or prohibiting the construction of works and installations in, on, or over public levees, such as are now being considered, the laws of the United States, where its interests or obligations pertaining to levees and other flood control and navigation works are deemed subject to damage or possible jeopardy, likewise makes provision for its protection and prevention of such damage and fixes penalties therefor. See 33 U.S.C.A. 408 (Act of March 3, 1899, C. 425, Sec. 14, 30 Stat. 1152), which prohibits the building upon, altering, destruction or injury to any seawall, bulkhead, jetty, dike, levee, wharf, etc., built by the United States - - - - - for the preservation and improvement of any of its navigable waters or to prevent floods - - - - -, provided, however, permission by certain named officials may be given when such use will not be injurious.

Consequently, it is evident that the public may cross levees at public places or where unreasonable (in law) inconvenience will not be caused to the private owner of the land upon which the levee rests; such land, by statute, owing to the public an easement (termed levee servitude by Louisiana law) for levees and levee purposes. No individual can, therefore, with a permit (necessarily

revocable at will and especially when required for another public purpose, for the public cannot be deprived of that which, by law or public policy, is set aside for its use); or without permit, have or acquire a special or vested real right in public levees which would entitle him to the exclusive use thereof as to entitle him to a compensable interest in the improvements placed thereon. LRj 38:282 provides for the leasing of levee district lands but we are not now concerned with that situation.

Besides levees, it is necessary also to take into consideration BATTURE and ALLUVION.

To constitute "batture" such lands must meet the rather precise requirements of the legal definition thereof.

Batture is that part of river bed which is uncovered at time of low water, but is covered annually at time of ordinary high water; when it ceases to be covered at time of ordinary high water, it ceases to be batture and becomes bank of river. Boyce Cottonseed Oil Mfg. Co. v. Board of Comrs. of Red River, A. & B. B. Levee Dist., 160 La. 727, 107 So. 506. See also Leonard's Heirs v. Baton Rouge, 39 La. Ann. 275, 4 So. 241; Ward v. Board of Levee Comrs. of Orleans Levee Dist., 152 La. 158, 92 So. 769. whether the accretion be alluvion or batture it belongs to the riparian owner. See Seibert v. Conservation Comm., 181 La. 237, 159 So. 375, which held that sand and gravel bar adjacent to shore and which was proved by lay testimony to be above water level during low stages of the river constitutes alluvion or batture which belongs to the riparian owner. In accordance with Boyce Cottonseed Oil v. Levee District, and other cases cited above, batture which no longer is covered annually at time of ordinary high water ceases to be batture and becomes bank of river. Consequently, land which may have been added to the other property of the owner adjoining the shore, but which accretion being of sufficient elevation to escape being covered annually at time of ordinary high water, must be treated as any other land of owner forming the bank of river, and, although such land under Louisiana law be subject to a servitude in favor of the public for levee purposes, such high land is not batture subject to use by the state, or its agencies, for levee purposes without compensation as prescribed by La. Const. 1921, art. XVI, Sec. 6-LSA, which states in part:

"Sec. 6. Compensation for property used or destroyed; tax

Section 6. Lands and improvements thereon hereafter actually used or destroyed for levees or levee drainage purposes . . . . shall be paid for at a price not to exceed the assessed value of the preceding year; provided, that this shall not apply to batture nor to property the control of which is vested in the State or any subdivision thereof for the purpose of commerce; . . . . ." [Emphasis mine]

Alluvion - While batture at time of annual high water is ~~not~~ part of the river bed itself, alluvion is the land added to or which builds up in front of and

extends and becomes a part of the shore or bank. It is defined, "Ballentine, 2d edition," as "the solid material which is added to land by accretion, that is, by the gradual deposit of such material by water. See 56 Am. Jur. 891. accretion is the increase of the amount of the land belonging to a riparian proprietor on a navigable or unnavigable stream formed by the gradual washing up of sand and earth, while 'alluvion' is a term applied to the deposit itself. That which is added to a man's land by alluvion belongs to him."

A riparian landowner's property may be added to also by "dereliction," that is, a leaving dry of land by recession of the water line, or, as stated in "Ballentine Law Dictionary-2d edition," "- - - the shrinking back - - - - below the usual watermark, thereby little by little, by small and imperceptible degrees adding to the land of the owner adjoining."

Definitions of alluvion, by the Louisiana authorities below shown, are appropriate and follow:

Alluvion is that which is added to land little by little so that it cannot be known how much is added at each moment of time. Livingston v. Heerman, 9 Mart. (O.S.) 656. It is defined by the Louisiana Civil Code, at Art. 509: "The accretions, which are formed successively and imperceptibly to any soil situated on the shore of a river or other stream, are called alluvion. The alluvion belongs to the owner of the soil situated on the edge of the water, whether it be a river or stream, and whether the same be navigable or not, who is bound to leave public that portion of the bank which is required by law for public use." Civil Code Article 510 continues: "The same rule applies to derelictions formed by running water retiring imperceptively from one of its shores and encroaching on the other; the owner of the land adjoining the shore which is left dry, has a right to the dereliction, nor can the owner of the opposite shore claim the land which he has lost. This right does not take place in case of derelictions of the sea."

As was stated in PRUYN v. NELSON BROS., 180 La. 760, at 765, considering these matters:

"The law is clear that all landed proprietors, whose property is adjacent to a navigable stream, hold it subject to certain conditions imposed for the common utility or public welfare. Dubose v. Levee Commissioners, 11 La. Ann. 765; Zenor v. Parish of Concordia, 7 La. Ann. 150; Cubbins v. Mississippi River Commission, 241 U. S. 351, 36 S. Ct. 671; 60 La. Ed. 1041; Mailhot v. Pugh, 30 La. Ann. 1359; Egan v. Hart, 45 La. Ann. 1358, 14 So. 244; In re Bass v. State, 34 La. Ann. 494.

"The batture as well as the riparian property along the Mississippi river is subject to a servitude for the building and repairing of levees, and this servitude is in favor of the public. R.C.C.arts. 453 and 665; Bass v. State, 34 La. Ann. 494; Peart v. President of Red River, A. & B. B. Levee District, 45 La. Ann. 421, 12 So. 490; Stevens v. Walker, 15 La. Ann. 577.

"Previous to the year 1921, no compensation was due the riparian owner when the [levee] servitude was legally exercised on the riparian property, and even now compensation is not due when the servitude is validly exercised on the batture, by the proper authority, for levee purposes. Const. 1921, art. 16, § 6."

In the case of *Mrs. Mattie Mayer v. Board of Commissioners for Caddo Levee District*, 177 La. 1119, 150 So. 295, 296, the meaning of this section and article of the Constitution was considered, and the Court said:

"Lands and improvements thereon hereafter actually used or destroyed for levees or levee drainage purposes shall be paid for at a price not to exceed the assessed value for the preceding year; provided, this shall not apply to batture, nor to property control of which is vested in the State or any subdivision thereof for the purpose of commerce \* \* \*

"This shall not prevent the appropriation of said property before payment."

"The law imposes a servitude for the common utility on lands abutting navigable streams for the construction and repair of levees, roads, and other purposes. Civ. Code, art. 665. The principle recognized by the cited article of the Code is of ancient origin. *Morgan v. Livingston*, 6 Mart. (O.S.) 19, 235, 236; *Ruch v. New Orleans*, 43 La. Ann. 275, 9 So. 473; *Eldridge v. Trezevant*, 160 U.S. 452, 463, 16 S.Ct. 345, 40 L.Ed. 490 \* \* \*"

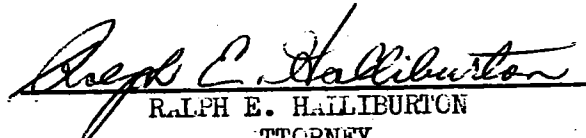
In the Louisiana landmark case of *General Box Company v. United States of America*, 351 U.S. 159, 76 S.Ct. 728, 100 L.Ed. 778, denying payment for timber destroyed for levee purposes, which had been growing on land unquestionably batture, the court held that where the Louisiana Levee Board correctly exercised, for itself and for United States, riparian servitude upon the tracts there in question, compensation, if any, for standing timber destroyed on right of way by United States through its contractors was to be determined by Louisiana law relative to the servitude.

Hence, in the situation involving any facilities belonging to South Central Bell Telephone Company, if they be situated over, on or under land which, although belonging to the riparian owner, is merely a part of the bank of the river or beyond the bank or shoreline, and not on land constituting a previously located and designated levee right of way, or not on actual "batture," then the telephone company will have acquired a compensable interest by virtue of consent, permit, grant, unopposed use (coupled with the company's right of expropriation), BUT, if the land be actual "batture" which has been, or is subject to being appropriated for levee building purposes whenever required which will involve no payment whatever to landowner therefor, or if in an existing levee right of way, the South Central Bell Telephone Company cannot be deemed to possess a compensable interest and can be paid or reimbursed for its relocation only by virtue of Congressional authority, Sec. 2 of the Flood Control Act of 1938, which, as in all such cases of Federal payment dependent upon such Act, will not include

the cost of new right of way, for which circumstance provision is made in ER 1180-1-1, 1 Dec 69, Part 7 - Relocations and Alterations Made Pursuant to Special Statutory Authority. See 73-701 of said ER 1180-1-1 quoted on page 1 above.

South Central Bell Telephone Company, to the extent and for the reasons above set forth and qualified, particularly the qualification regarding "batture", as well as the exception as to the primacy of levee rights of way, has a compensable interest in its present right of way, and to its facilities thereon, which are located outside of batture or the existing levee right of way, it having acquired same from the landowners by consent or unopposed use. as to such rights of way owned without exception or qualification, cost of removal and new locations should be furnished at Government cost. The acquisition of new rights of way in lieu of those, if any, now situated within the levee right of way, or on batture, will be the obligation of South Central Bell Telephone Company.

New Orleans, La.  
22 April 1972

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

25 July 1972

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report, Relocation of Facilities of LOUISIANA POWER & LIGHT COMPANY; SOUTH CENTRAL BELL TELEPHONE COMPANY; PLAQUEMINES PARISH WATER MAINS, RAW WATER INTAKE PIPE-LINE, AND SEWER LINES; and LOUISIANA GAS SERVICE COMPANY, along or in vicinity of Louisiana State Highway 39 below New Orleans, Plaquemines Parish, Louisiana, between Stations 2122+34 and 2276+75, Item M-51.0-L, Gravolet Levee Enlargement and Setback, 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.

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, 1 Dec 69, of the legal obligations of the Government regarding affected facilities and determination of compensable interest of the facilities owners as shown in subject hereof 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 and setback 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 provided:

"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 2\* 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)."

EXHIBIT D

DETERMINATION OF COMPENSABLE INTEREST  
Water Mains, Raw Water Intake Pipeline, and Sewer Lines  
Owned by PLAQUEMINES PARISH

Plaquemines Parish, Louisiana, including as well the former political subdivisions and districts situated therein, such as the Buras and the Grand Prairie Levee Districts (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 cess-pools, 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, much as a new or surviving corporation is formed by merger of two or more corporations, 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 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 Plaquemines Parish owned facilities and improvements concerned herein, besides the background and history of its roads and highways, shown by report on Louisiana State Highway 39, located on the East Bank below New Orleans, Plaquemines Parish, Louisiana, 5 February 1972, discloses that

the Parish of Plaquemines through its Police Jury or its successor, the Plaquemines Parish Commission Council, beginning in 1950, constructed and has continually maintained, a potable water line along or in a portion of this 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, with numerous intermediate connections thereto, all of which is on public or acquired 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 and parish-owned sewer lines are still in use and operation owned and operated by the Parish of Plaquemines for potable water and sewer service to the public. Also that the Parish of Plaquemines itself constructed and has continued in use and operation a raw water intake pipeline over State Highway 39 and levee area at approximate station 2250+90.

As to the public nature, public use, and public ownership of these facilities, basically, no dispute has been seriously presented. The following Codal articles should suffice to establish that Plaquemines Parish is entitled to use the public servitude established and recognized by the effect of law. No known case in Louisiana has made a distinction between the relative rights of a levee board and the rights of the Police Jury, the governing body of a parish. All these river and levee servitudes are due the public, the people, the STATE (and the State has delegated the use of these rights to its agencies, but at the same time has retained the rights to itself insofar as might be required). See City of New Orleans vs. Board of Commissioners of Port of New Orleans, App. 1963, 148 So.2d 782. Also, see the articles, shown below, which treat the subject of "CONFUSION" in law when the rights of the debtor and creditor merge into a single body or entity. Civil Code Articles 2217 and 805 state:

#### Of Confusion.

Art. 2217 (2215). Confusion Defined. When the qualities of a debtor and creditor are united in the same person, there arises a confusion of right, which extinguishes the obligation.

Art. 805 (801). Union of the Two Estates; Extinction by Confusion. Every servitude is extinguished, when the estate to which it is due, and the estate owing it, are united in the same hands.

But it is necessary that the whole of the two estates should belong to the same owner; for if the owner of one estate only acquires the other in part or in common with another person, confusion does not take effect.



Also, as determined in the above cited case of New Orleans vs. Port, 148 So.2d 782, under the annotations to Civil Code Article 805:

Art. 805. Confusion

1. Construction and application

The board of commissioners of the port of New Orleans was not entitled to take part of bank of Mississippi river fronting on Audubon Park in city of New Orleans for purpose of constructing an upstream extension of wharf, on theory that as agent of state board has right to exercise right of servitude of use for purposes of commerce and navigation, where under acts property was owned by the state, and was not burdened by predial servitude which had been extinguished by confusion when the state acquired ownership of the park property. City of New Orleans v. Board of Com'rs of Port of New Orleans, App. 1963, 148 So.2d 782, writ refused 244 La. 204, 151 So.2d 493.

Also from the Civil Code, the following Articles are apt:

Art. 453. Public things are those, the property of which is vested in a whole nation, and the use of which is allowed to all the members of the nation; of this kind are \*\*\*\* the beds of rivers, as long as the same are covered with water.

Art. 455. \*\*\*\* The use \*\*\*\* of the banks of navigable rivers, \*\*\*\* is public. \*\*\*\* Nevertheless the ownership of the river banks belongs to those who possess the adjacent lands. \*\*\*\*

Art. 457. \*\*\*\* The banks of a river \*\*\*\* are understood to be that which contains it in its ordinary state of high water; for the nature of the banks does not change, although for some cause they may be overflowed for a time.

Nevertheless on the borders of the Mississippi and other navigable streams, where there are levees, established according to law, the levees shall form the banks.

Art. 664. Servitudes

2. Banks of streams. Land in Louisiana bordering on a navigable stream is subject to the state law allowing the public to impose servitudes on such land without compensation for the making and repairing of levees, even though the title to the land is derived from the United States. Eldridge v. Trezevant, 1896, 160 U.S. 452, 40 L.Ed. 490, 16 S.Ct. 345.

Rural property along banks of Red river, at least before Const. 1921, owed public servitude for levees and roads. Powell v. Porter, 1931, 172 La. 681, 135 So. 24.

Road following levee along former bank of Red river, and used by public for over 60 years, held public road, if not by express, at least by tacit, dedication. Id.

The servitude given to the public upon the banks of navigable rivers or streams by Art. 455 is not necessarily confined to the definition of "banks." McKee v. Kurfust, 1855, 10 La. Ann. 523.

The space to be left for roads and levees by riparian proprietors is a legal servitude, which purchasers are bound to know; and a judgment recognizing it does not authorize a refusal to pay the price. Bourg v. Niles, 1851, 6 La. Ann. 77.

The use of the banks of navigable rivers, is a servitude for the public use, or common utility; and every proprietor adjacent to the shores of a navigable river is bound to leave sufficient space for levees, roads [streets] and other public or common works. Hanson v. City Council of Lafayette, 1841, 18 La. 295.

No man or individual proprietor of the banks of a navigable river, can appropriate them exclusively to his own use, and at his pleasure construct levees, or erect buildings and works that will obstruct the free use of its banks to all men, although the right of property is in him as proprietor of the adjacent lands.

Federal Government had all powers possessed by state in location, survey and construction of levees and their maintenance and other improvements upon the Mississippi and its tributaries, and such agencies as might be selected and appointed by federal legislation for such purpose had full authority to locate, survey and trace out such works and could appropriate necessary lands for that purpose without having to resort to proceedings usually invoked for purpose of expropriating property for public use. Op. Atty. Gen. 1918-20, p. 584.

Art. 665. Legal public servitudes.

Art. 665. Servitudes imposed for the public or common utility, relate to the space which is to be left for the public use by the adjacent proprietors on the shores of navigable rivers, and for the making and repairing of levees, roads and other public or common works. [Emphasis supplied].

All that relates to this kind of servitude is determined by laws or particular regulations.

The Parish of Plaquemines was created by the Acts of the Territory of Orleans, of the year 1807, 2nd Session of 1st Legislature, Chap. 1, page 2, approved March 31, 1807. The government of the parish was by Police Jury, or its

primitive form thereof. (The governing body - Police Jury - was actually called by that name beginning in the year 1811). Such governing body ---- which, by L.R.S. 33:1236, setting forth the powers of a police jury, at number (2) thereof, has, among many others, the power "To regulate the proportion and direction, the making and repairing of the roads, bridges, causeways, dikes, dams, LEVEES, and highways \*\*\*" [emphasis mine] ----continued to govern the Parish of Plaquemines until the adoption of the Charter form of Commission Council in 1960, pursuant to the State of Louisiana Constitutional authority (Article 14, Sec. 3d) adopted November 8, 1960.

The Buras Levee District was created by Act 18 of 1894, and Grand Prairie Levee District by Act 24 of 1898. By specific section in the Parish Charter, Section 4, Article II, at page 5 of the printed Charter, provision is made for the assumption of jurisdiction, powers, duties and functions of various existing bodies and agencies of and situated in the Parish as follows:

"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 other political subdivisions and districts therein, including the Buras Levee District and the Grand Prairie Levee District, with full authority as governing authority of said LEVEE DISTRICTS to APPROPRIATE property for levee and levee drainage purposes, as authorized by the State Constitution." [Underscore and emphasis supplied].

According to information obtained by me from the President of the Plaquemines Parish Commission Council (in December 1971) the bonded indebtedness of the former Buras Levee District, for one such body, (having only a fictional legal existence for Constitutional requirements that its contracts cannot be abridged in this instance, and of outstanding indebtedness) has been ASSUMED by the Commission Council when the Charter was adopted.

The following is pertinent hereto:

"U.S. La. (1876). A levee board charged with the maintenance of levees within a certain district, when superseded in its functions by a law dividing the district and creating a new corporation for one portion, and placing the other under charge of the local authorities, ceases to exist, except so far as its existence is expressly continued for special objects, -- such as settling up its indebtedness, etc. -- *Barkley v. Levee Com'rs of Louisiana*, 93 U.S. 258, 23 L.Ed. 893."

As set forth in the various discussions and citations preceding this point, the Parish of Plaquemines, begun in 1807, has no newly acquired rights by virtue of the Charter. The Charter only changed the form of its government, and the Parish, by virtue of its powers and those designated a Police Jury always had the right to use the levees and the banks of the river to the full extent of the State's rights.

The Parish's acquisition of rights-of-way for its parish roads, and its contribution and assistance toward construction of State Highway 39 below New Orleans, Plaquemines Parish, have been by means of occupancy and use, and sometimes purchase. Located along or across a portion of such road are subject water main, pipeline and sewer line, and related facilities referred to above. However, subject facilities are publicly owned and operated by the local Parish governing agency for the areas where same are situated, having the combined and merged or conferred 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 (when fictionally operating under its conferred rights of a Levee Board) 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 cited in the two illustrative cases given below. The rights by which the present water main, sewerage and raw water intake pipelines, 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, naturally without dissent from its own body, but with its own sanction and approval, and without opposition of landowner. See Tate vs. Ville Platte (1950). 44 So.2nd 360, Gumble v. New Orleans Terminal Co. (1937), 186 La. 882, 173 So. 518, and a long line of cases cited therein. Tate vs. Town of Ville Platte (1950) declared 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 an entity which claims servitude, having power of eminent domain and having actually used property with acquiescence of owner. And, continuing, that where owner, Tate, 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 B-134242, December 24, 1957, is in harmony with the above Louisiana holdings.

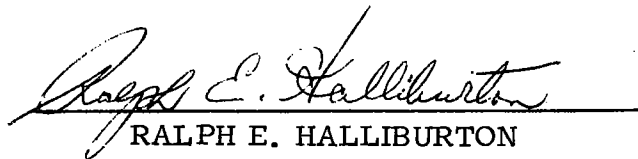
In addition to the foregoing, attention is called to the following from ER 1180-1-1, Dec 69, 73-703, allowing relocation of any structure or facility owned by an agency of government (state, county (parish), city or town) --- in this case, the water and sewer mains owned by Plaquemines Parish, Louisiana ---, at the cost of the United States:

"73-703 Relocation of Facilities Owned by Governmental Agencies.

Under the provisions of Section 111 of 72 Stat. 303, as amended by Section 309 of 79 Stat. 1094 (33 U.S.C. 633), the Chief of Engineers may, in civil works projects, protect, alter, reconstruct, relocate or replace, any structure or facility owned by an agency of Government (state, county, city or town or any legally created subdivision thereof) and utilized in the performance of a Government function. This law applies particularly to public structures and facilities such as schools, fire stations, etc., which will be treated separately from relocation of municipal facilities in kind pursuant to Part 6 of this section."

In view of the foregoing, together with other information in the matter obtained by and for me, 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 and water intake pipeline described, 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.

25 July 1972



RALPH E. HALLIBURTON  
ATTORNEY

U. S. ARMY ENGINEER DISTRICT  
NEW ORLEANS

25 July 1972

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report, Relocation of Facilities of LOUISIANA POWER & LIGHT COMPANY; SOUTH CENTRAL BELL TELEPHONE COMPANY; PLAQUEMINES PARISH WATER MAINS, RAW WATER INTAKE PIPELINE, AND SEWER LINES; and LOUISIANA GAS SERVICE COMPANY, along or in vicinity of Louisiana State Highway 39 below New Orleans, Plaquemines Parish, Louisiana, between Stations 2122+34 and 2276+75, Item M-51.0-L, Gravolet Levee Enlargement and Setback, 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.

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, 1 Dec 69, of the legal obligations of the Government regarding affected facilities and determination of compensable interest of the facilities owners as shown in subject hereof 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 and setback 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 provided:

"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 2<sup>a</sup> 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)."

EXHIBIT E

COMPENSABLE INTEREST  
OF  
LOUISIANA GAS SERVICE COMPANY  
P.O. Box 433, General Office at  
1233 West Bank Expressway, Harvey, La. 70058

Louisiana Gas Service Company, a Louisiana corporation, was organized under the provisions of the Louisiana Revised Statutes of 1950, Title 12, Chapter 1, Business Corporation Law (L.R.S. 12:1-178), as amended, on November 17, 1970. It is engaged in the distribution and sale of natural gas and serves, in Plaquemines Parish alone, approximately four thousand consumers. Part of its statutory regulation is provided by L.R.S. 45:301-303 "Natural Gas Pipe Lines;" also by L.R.S. 45:841 et seq., Chapter 9 "Provisions applicable to More than One Utility or Carrier." Louisiana Gas Service Company is a gas utility company subject to the jurisdiction of the Louisiana Public Service Commission. Article 6, Section 4, Louisiana Constitution, 1921. See also United Gas Pipe Line Co. v. Town of Washington, 143 So.2d 613. Being a domestic corporation, created for the piping and marketing of natural gas for the purpose of supplying the public with natural gas, it has the power of expropriation (eminent domain) under L.R.S. 19:2(7). According to the furnished affidavit, executed by James D. Naremore, Vice President of Louisiana Gas Company, on 22 September 1971, before Edward J. Broussard, Notary Public, the pipelines and other facilities of Louisiana Gas Service Company which are affected by this project were constructed or installed during March 1956. Previous to the organization of the present owner, Louisiana Gas Service Company, in 1970, a domestic or Louisiana corporation, subject property was owned and operated during the years 1958 to 1970, by Louisiana Gas Service Company, a Florida corporation, with offices at Tallahassee. That company acquired or succeeded to the ownership of this property in 1958 through corporate divestiture by, or restructuring of, Louisiana Power & Light Company, also a Florida Corporation, with principal offices at Tallahassee. Letter from the domestic Louisiana Gas Service Company to this District, dated September 23, 1971, relative to subject Item M-51.0-L, and furnishing Certificate of Existence issued by the Louisiana Secretary of State, and other pertinent requirements, states that the company's 3" gas main between stations 2122+00 and 2276+00 is entirely on private right of ways pursuant to approximately 100 right of way grants or permits. In response to my inquiry of one of the company's officers, Mr. D. L. Meriwether, during the preparation of this Report, I was informed that the subject gas line and facilities are in place by authority of PERMITS (not recorded) and NOT by RECORDED EASEMENT or servitude DEEDS. A mere permit, if recorded, would only be evidence of consent. It being a rule of law that a permit or license is only a personal, revocable and unassignable privilege conferred either by writing or parole to do one or more acts on land without possessing any interest therein. 33 Am.Jur.398.

I am unable, therefore, to furnish the recording data desired by higher authority reviewing this attorney's Report. A comprehensive study hereof should impress the reader that such omission is due to impossibility because of non-existence, and not to the writer's oversight, nescience, or laxity and indolence.

Besides the often cited cases of St. Julian v. Morgan's Louisiana & T.R. Co., 35 La. Ann. 924, Gumble v. New Orleans Terminal Company, 186 La. 882, and Tate v. Town of Ville Platte, 44 So.2d 360, now Hornbock law to those familiar with the Civil Code, revised statutes and jurisprudence of Louisiana applicable to servitudes (easements) in Louisiana, to the effect that a right of way may be acquired without purchase or expropriation by a corporation possessing the right to expropriate (eminent domain), under the now styled "Doctrine of Unopposed Occupancy," two additional, quite informative, cases are recalled by this writer which may be appropriate to include herein, in part. The first, Humble Pipe Line Company v. Wm. T. Burton, 253 La. 166, 217 So.2d 188 (1968), Supreme Court of Louisiana, Rehearing denied, describes the nature and extent of ownership of a servitude (easement) as recognized in Louisiana under its laws, viz:

"Herein, [the Court relates] plaintiff did not buy or pray for ownership of defendant's land. There was no sale (West's LSA-C.C. Art. 2439) or transfer of ownership (West's LSA-C.C. Art. 488); Cf. 27 Am. Jur. Eminent Domain, Sec. 279, pp. 68-69. 'The part of an estate upon which a servitude is exercised, does not cease to belong to the owner of the estate; he who has the servitude has no right of ownership in the part, but only the right of using it.' West's LSA-C.C. Art. 658. The Court of appeal remarked, '\* \* \* it is clear to us that there is a residual value left in the property.' Therefore, defendant's ownership became imperfect (West's LSA-C.C. Art. 490), and plaintiff acquired a right of way--a servitude imposed by law (West's LSA-CC Art. 664 et seq); Cf. Tennessee Gas Transmission Co. v. Violet Trapping Co., 248 La. 49, 176 So.2d 425.

"A servitude has been designated in our Civil Code as a 'charge' laid on an estate (West's LSA-C.C. Art. 647) and an 'accessory' to an estate (West's LSA-C.C. Art. 652); it is provided in West's LSA-C.C. Art. 655 that, 'One of the characteristics of a servitude is, that it does not oblige the owner of the estate subject to it to do anything, but to abstain from doing a particular thing, or to permit a certain thing to be done on his estate.' Article 665 of West's LSA--C.C., relating to servitudes imposed for the public utility, further provides that 'all that relates to this kind of servitude is determined by laws or particular regulations.

"Under the express provisions of the Louisiana Civil Code, as well as by the established jurisprudence of the State, a road established by public usage, or even by appropriation and maintenance by public authority, does not carry with it the fee ownership of the property, but creates, at best, only a right of passage or servitude over the land. Civil Code Articles



658, 765; Fuselier v. Police Jury of Parish of Iberia, 109 La. 551, 33 So. 597; Paret v. Louisiana Highway Commission, 178 La. 454, 151 So. 768; Goree v. Mid-States Oil Corporation, 205 La. 988, 18 So.2d 591; Spier v. Barnhill, La. app., 168 So.2d 479.' Fontenot v. Texaco, Inc., D.C., 271 F.Supp. 753.

"\* \* \* If an easement is given then no estate at all passes but only a right of user. \* \* \*" Consolidated School District No. 102, Washington County v. Walter, 243 Minn. 159, 66 N.W.2d 881, 53 A.L.R.2d 218.

"A civil law servitude has been compared with the 'easement' of common law. The following statements found in American Jurisprudence are pertinent:

"The term "easement" has been variously defined. An easement has been said to be a privilege which the owner of one tenement has a right to enjoy over the tenement of another. It has also been defined as a right which one person has to use the land of another for a specific purpose not inconsistent with a general property in the owner, or as a servitude imposed as a burden on land. \* \* \*

"A "servitude" is the term used in the civil law to express the idea conveyed by the word "easement" in the common law, and may be defined as a right of the owner of one parcel of land, by reason of his ownership, to use the land of another for a special purpose of his own, not inconsistent with the general property in the owner.' 25 Am.Jur.2d Easements and Licenses, Sec. 1, pp. 416-417.

"An easement is always distinct from the right to occupy and enjoy the land itself. It gives no title to the land on which it is imposed, and confers no right to participate in the profits arising therefrom. It is not an estate in land, nor is it "land" itself. An easement is, however, property or an interest in land. It is an incorporeal right or hereditament to which corporeal property is rendered subject. \* \* \*

"An easement is not a lien or an equity. However, an easement which materially affects or interferes with the full use or enjoyment of the land which a vendor has contracted to sell has been held to constitute an encumbrance within the meaning of the rule requiring the vendor of realty to convey a good or marketable title free and clear of encumbrances.' 25 Am. Jur.2d Easements and Licenses, Sec. 2, pp. 417-418. See, Louis Pizitz Dry Goods Co. v. Penney, 241 Ala. 602, 4 So.2d 167." [Emphasis supplied]

The second, Webster Sand, Gravel & Construction Co. v. Vicksburg, Shreveport & Pacific Railway Company, 129 Louisiana Reports 1096, 57 Southern 529 (1912) Rehearing denied, points out that purchasers of immovable property, save in cases of fraud and certain others, exceptional in character, are affected only by adverse titles and incumbrances which are spread upon the public records. It then goes on to point out such requirement does not hold in

the case of a railway company, which, with the consent or acquiescence of the owner, has built a public service road upon his land, is of the exceptional character referred to in the above paragraph; and it is now well settled that, in such case, though the consent or acquiescence of the owner of the land be not spread upon the public records, neither he nor those who claim under him can recover the land, free of the servitude so acquired by the railway company, or interfere with such company in its operation of the road so built; the remedy being an action in damages for the value of the land occupied as a right of way for the road and for injury to the adjacent land, citing McCutchen v. Texas & P. Ry. Co., 118 La. 436 (and authorities there cited pp. 438, 439), 43 South. 42; Taylor v. N. O. Terminal Co., 126 La. 420, 52 South. 562, 139 Am. St. Rep. 537; John T. Moore P. Co. v. Morgan's La. & Tex. R. & S. Co., 126 La. 872, 53 South. 22. Railroads, under Louisiana Revised Statutes, Title 19, Section 2 (3), L.R.S. 19:2 (3), have the right of eminent domain (expropriation).

The reason given by the court for not requiring the evidence of the railroad's title to be acquired from the owner in conventional manner and RECORDED in the public conveyance records as notice to the world (third persons) was stated as follows:

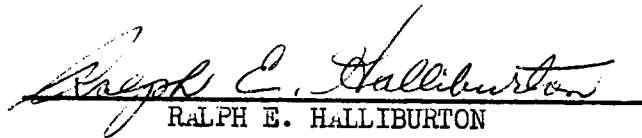
"The decisions in the cases thus cited are predicated, in part, upon the idea that, where a railway company, having the power of eminent domain, is already in possession of property which it may expropriate, if dispossessed, it would be a vain thing to eject it; to which is added the further consideration that the owner, by consenting to, or acquiescing in, the construction of the road, and its operation for, perhaps, a series of years, has created a situation affecting the rights of the railway company, of the public at large, and of particular individuals, which he ought not to be allowed, altogether, to ignore." [Emphasis supplied]

as is said above, in Humble v. Burton, "an easement is, however, property or an interest in land. It is an incorporeal right or hereditament to which corporeal property is rendered subject. \* \* \*" [Emphasis supplied]. And, in accordance with the long line of Louisiana cases, and cases cited therein, referred to above, and the particular cases of St. Julian v. Morgan, Gumble v. New Orleans, and Tate v. Ville Platte, also cited, as well as the partly quoted from cases of Humble v. Burton and Webster v. Vicksburg S. & P. Ry., the latter holding expressly that the railroad's ownership of its right of way, though no reference to it whatever appeared of record, was a recognized and valid right, it is my opinion that by operation of law, and, to give it name, by the "Doctrine of Unopposed Occupancy," LOUISIANA GAS SERVICE COMPANY does own its right of way, and does have a compensable interest therein, and to its improvements and facilities thereon, in the reach extending from the stations shown in caption of this Report EXCEPT such part(s) as may be located within the levee right of way, and that alteration or relocation of that not so excepted, as may be required to prevent interference with project, should be performed at Federal expense.

For such portion of Louisiana Gas Service Company's facilities and improvements now situated within the levee right of way, and by reason thereof lacks compensable interest, the required alteration or relocation may be performed at the expense (not, however, to include the cost of a new right of way at such points) of the United States, in order to continue service to the public, under the special statutory relief provided by Section 2 of the Flood Control Act of 1938, the cited authority for the following ER 1180-1-1, Part 7, 73-701:

"73-701 Lack of Compensable Interest - Civil Works. Where a public utility will be destroyed or damaged due to operation of a civil works project and relocation or alteration of the facility is required to continue service to the public, the Government may assume the cost of relocating or altering the facility (but not the cost for a new right-of-way) when in fact the utility owner is not presently vested with a compensable interest in the existing right-of-way. Negotiations with utility owners in accordance with the foregoing is authorized under Section 2, Flood Control Act of 1938 (52 Stat. 1215; 33 U.S.C. 701c-1). (See Comp. Gen. Decision B-134242, Dec 24, 1957)."

New Orleans, La.  
29 March 1972

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

22 March 1972

ATTORNEY'S REPORT

SUBJECT: Attorney's Investigation and Report, Relocation of (a) The Texas Pipe Line Company's 8" diameter crude oil pipeline which crosses the existing (east bank) levee at approximate station 2142+00; and for (b) United Gas Pipe Line Company's three 12" diameter and one 8" diameter gas transmission pipelines which cross the existing (east bank) levee at approximate stations 2260+50 and 2266+90, respectively, Plaquemines Parish, Louisiana, Item M-51.0-L, Gravolet Levee Enlargement and Setback, shown on Right of Way Map File No. H-8-25583, Sheets 2 and 4 of 4, dated April 1971, Mississippi River Levees, Grand Prairie 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.

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, 1 Dec 69, of the legal obligations of the Government regarding affected facilities and determination of compensable interest of The Texas Pipe Line Company and of United Gas Pipe Line Company, 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 and setback 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

EXHIBIT F

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

a.

THE TEXAS PIPE LINE COMPANY

Lafayette Division, P. B. Cambre, Div. Mgr.  
P. O. Box 51145, Oil Center Station  
Lafayette, Louisiana 70501

The Texas Pipe Line Company is a Texas corporation domiciled at Houston, and is authorized to do business in the State of Louisiana. It is a common carrier of petroleum products, a public utility, in accordance with Louisiana Revised Statutes Title 45, Public Utilities and Carriers, Chapter 5. Pipe Lines, Part I. Petroleum Pipe Lines, Sections 251-265 (LRS 45:251-265). It has the right of eminent domain (expropriation), LRS 45:254. The tariff for handling crude oil through this (Davant Terminal Facilities) terminal is regulated by the Interstate Commerce Commission. The Texas Pipe Line Company obtained a right of way at subject location for pipeline and loading dock and appurtenances, covering a tract measuring one arpent front on the Mississippi River by forty arpents in depth, dated 27 April 1944, from Phillis Molliere, Lucille Molliere, and J. M. Molliere. The machine copy of the executed deed is regularly acknowledged but contains no recording data to indicate that it or a duplicate has been recorded in the Conveyance Records of Plaquemines Parish, Louisiana. Grantee is possessed of title between itself and grantors, but in the absence of recordation, which, if done, would have given notice to third persons, must rely for the validity of its title, and vested real right therein, on the doctrine of unopposed occupancy, or with consent, by corporations having the right of eminent domain. See Gumble v. New Orleans Terminal Co. 186 La. 882, and Tate v. Town of Ville Platte, 40 So.2d 360. The Texas Pipe Line Company, therefore, has a compensable interest in its pipeline, tank terminal and loading dock and appurtenant facilities except where such improvements lie within the existing levee right of way.

b.

UNITED GAS PIPE LINE COMPANY

J. P. Breda, Jr., Asst. Gen. Superintendent, Right of Way  
P. O. Box 1407, Shreveport, Louisiana 71102

United Gas Pipe Line Company is a Delaware corporation, duly qualified to do business in the State of Louisiana. Subject natural gas pipelines are all intrastate lines and are under regulation of the Louisiana Public Service Commission. They meet the requirements for classification as public

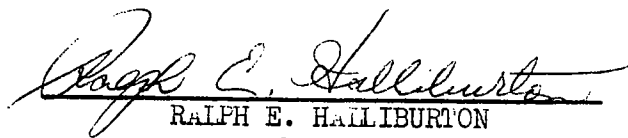
utilities in accordance with Louisiana Revised Statutes Title 45, Public Utilities and Carriers, Chapter 5. Pipe Lines, Part II, Natural Gas Pipe Lines, Sections 301-303 (LRS 45:301-303). It has the right of eminent domain (expropriation) pursuant to LRS 19:2(7). United Gas Pipe Line Company has a compensable interest in subject improvements and facilities and to the land upon which same are situated, except within the existing levee right of way, it having purchased such tracts as follows:

Right of way for 12" pipelines was acquired in fee on May 7, 1951, from Barbara L. Klees. This instrument is duly recorded in Volume 154, Page 584, of the Conveyance Records of Plaquemines Parish, Louisiana. Right of way for 8" line was acquired in fee on May 7, 1951, from Oliver S. Livaudais, Sr., and is recorded in Volume 154, Page 572, of the Conveyance Records of Plaquemines Parish, Louisiana.

In accordance with the above, both The Texas Pipe Line Company and United Gas Pipe Line Company, except within the existing levee right of way, have a compensable interest in their right of way and to subject facilities and improvements. As to the excepted portions constructed, operated and maintained by each pipe line company, lying within the existing levee right of way, the following ER 1180-1-1, 1 Dec 69, Part 7 - Relocation and Alterations Made Pursuant to Special Statutory Authority, is applicable:

73-701 Lack of Compensable Interest - Civil Works. Where a public utility will be destroyed or damaged due to operation of a civil works project and relocation or alteration of the facility is required to continue service to the public, the Government may assume the cost of relocating or altering the facility (but not the cost for a new right-of-way) when, in fact, the utility owner is not presently vested with a compensable interest in the existing right-of-way. Negotiations with utility owners in accordance with the foregoing is authorized under Section 2, Flood Control Act of 1938 (52 Stat. 1215; 33 U.S.C. 701c-1). (See Comp. Gen. Decision B-134242, 24 Dec 1957).

New Orleans, Louisiana  
22 March 1972

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

FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-51.0-L  
GRAVOLET LEVEE ENLARGEMENT AND SETBACKS  
PLAQUEMINES PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 12

APPENDIX III  
PERTINENT CORRESPONDENCE



STATE OF LOUISIANA  
DEPARTMENT OF HIGHWAYS

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

IN REPLY PLEASE REFER TO  
FILE NO.

June 18, 1971

RELOCATION LA. 39  
POINTE A LA HACHE  
LA. 39 - PLAQUEMINES PARISH

RE: YOUR FILE LMNED-DG

District Engineer  
U.S. Army Engineer District, N.O.  
P. O. Box 60267  
New Orleans, Louisiana 70150

Dear Sir:

Attention: Mr. Jerome C. Baehr  
Chief, Engineering Division

Reference is made to your letters of 13 May and 10 June, 1971, addressed to Mr. Guissinger, which were sent to this office for action.

The Department of Highways has no objection towards including necessary work for relocation of State Route La. 39 in conjunction with the levee design and the awarding of a single contract to cover both items of work.

The information requested by you in your letters is as follows: the relocation of La. 39 (to be incorporated in your work) will now fall within a design Class 5 of the "B" System. I attach a copy of our minimum design standards, together with a memorandum to me dated June 9, 1971, by our Traffic and Planning Engineer. Please note that the relocation of Highway 39 now under construction by the Department is in Design Class 4, whereas the relocation of La. 39 which will be occasioned by your levee setback will function primarily as a local service road. After the Department has completed its relocation of La. 39, that portion of La. 39 that you are concerned with will be incorporated within the Parish road system; however, the Department will continue to administer all procedures as regards coordination with the Corps of Engineers.

We will be pleased to give you a Design Section and work with your staff upon your advice.

Very truly yours,

S. L. POLEYNARD  
CHIEF LOCATION AND DESIGN ENGINEER

SLP:sf

Cc: Mr. A. B. Ratcliff, Jr.  
Mr. W. T. Taylor, Mr. C. O. Perez, Mr. H. J. Colvin

EXHIBIT A





STATE OF LOUISIANA  
DEPARTMENT OF HIGHWAYS  
INTRADEPARTMENTAL CORRESPONDENCE

REFERRED TO

June 9, 1971

IN REPLY PLEASE REFER TO  
FILE NO.

RELOCATION LA. 39  
POINTE A LA HACHE  
LA. 39 - PLAQUEMINES PARISH

- \_\_\_\_\_ REFERRED FOR ACTION
- \_\_\_\_\_ ANSWER FOR MY SIGNATURE
- \_\_\_\_\_ FOR FILE
- \_\_\_\_\_ FOR YOUR INFORMATION
- \_\_\_\_\_ FOR SIGNATURE
- \_\_\_\_\_ RETURN TO ME
- \_\_\_\_\_ PLEASE SEE ME
- \_\_\_\_\_ PLEASE TELEPHONE ME
- \_\_\_\_\_ FOR APPROVAL
- \_\_\_\_\_ PLEASE ADVISE ME

BY \_\_\_\_\_ DATE \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_

MEMORANDUM FOR:

MR. SIDNEY POLEYNARD  
CHIEF LOCATION & DESIGN ENGINEER

In response to your request, we are hereby submitting the traffic data for the proposed project.

EXISTING LA. 39

1970 ADT - 600  
1991 ADT - 1220  
Design Class. 5

RELOCATED LA. 39

1970 ADT - 880  
1991 ADT - 1800  
Design Class. 4

GRADY CARLISLE  
TRAFFIC & PLANNING ENGINEER

EDWARD M. WAGNER, JR.  
ASST. HEAD HIGHWAY TRANSPORT ENGINEER

EMW:sbb

RECOMMENDED FOR APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY/ FOR DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_



STATE OF LOUISIANA  
DEPARTMENT OF HIGHWAYS

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

September 30, 1971

IN REPLY PLEASE REFER TO  
FILE NO.

LINED-DG

Mr. Jerome C. Baehr  
Chief, Engineering Division  
Department of the Army  
New Orleans District, Corps of Engineers  
P. O. Box 60267  
New Orleans, Louisiana 70160

Attention: Mr. W. E. Tickner

Dear Sir:

We have reviewed your proposed plans for the relocation of La. 39 as required by the proposed construction of Gravolet Levee Enlargement and Setback, Item M-51.0-L, which you transmitted to us on August 23, 1971.

Considering the various factors involved, we agree that the Design Standards can be lowered from Class 5 to Class 6, as indicated on your typical section. However, we recommend that all the watershed area between La. 39 and the top of the proposed levee be piped under La. 39, rather than allowing surface drainage across the pavement. Also, we recommend that consideration be given to developing superelevation rates greater than 0.02' per foot, particularly from the 6 degree curves.

Other comments are indicated in red on the typical section sheet, which we are herewith returning.

Yours very truly,

  
H. J. COLVIN  
ROAD DESIGN ENGINEER

HJC/HDS/pd  
Attachments

Cc: Mr. S. L. Poleyard w/attachment

EXHIBIT B

# Plaquemines Parish

## HIGHWAY ENGINEERING & CONSTRUCTION AGENCY

PHONE: 366-0821

P. O. BOX "D"

BELLE CHASSE, LOUISIANA 70037

IN REPLY PLEASE REFER TO  
FILE No.

October 5, 1971

C. O. PEREZ, CHAIRMAN  
O. D. WHITE, SECRETARY

Mississippi River Levees  
Grand Prairie Levee District  
.. State Route La. No. 39  
Plaquemines Parish

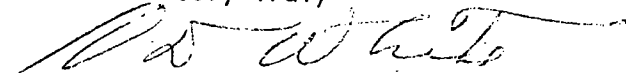
Mr. H. J. Colvin  
Road Design Engineer  
Louisiana Department Of Highways  
Baton Rouge, Louisiana

Dear Mr. Colvin:

We have reviewed the plans, submitted by the U. S. Corps Of Engineers, for the relocation of State Route La. No. 39 adjacent to the Gravolet Levee Enlargement and Setback and have discussed the typical sections as shown on Sheet No. 5 of said plans with the Commission Council.

The Commission Council requests that the proposed typical sections as shown be approved by the Department of Highways since this section of La. No. 39 will become a Parish road upon completion of Project No. 46-06-22 (Poverty Point-Bohemia).

Yours Very Truly



O. D. White  
Chief Engineer

cc= Mr. Co. Perez  
Mrs. E. Lafrance  
Files

EXHIBIT C



IN REPLY PLEASE REFER TO  
FILE NO.

STATE OF LOUISIANA  
DEPARTMENT OF HIGHWAYS

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

October 7, 1971

LMNED-DG

Mr. Jerome C. Baehr  
Chief, Engineering Division  
Department of the Army  
New Orleans District, Corps of Engineers  
P. O. Box 60267  
New Orleans, Louisiana 70160

Attention: Mr. W. E. Tickner

Dear Sir:

Please refer to our letter dated September 30, 1971, concerning your proposed plans for the relocation of La. 39 as required by your proposed construction of Gravolet Levee Enlargement and Setback with which we transmitted our suggestions and comments on prints which you has furnished us.

Attached is a copy of a letter dated October 5, 1971, from Mr. O. D. White, Chief Engineer, Plaquemines Parish Highway Engineering and Construction Agency which is self-explanatory. As requested by Mr. White in the aforementioned letter, please be advised that we would now withdraw our comments and suggestions and have no further comments to offer in this matter.

Yours very truly,

  
H. J. COLVIN  
ROAD DESIGN ENGINEER

HJC/pd

Attachments

Cc: Mr. S. L. Poleyhard  
Mr. C. O. Perez  
Mr. O. D. White

EXHIBIT D

FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-51.0-L  
GRAVOLET LEVEE ENLARGEMENT AND SETBACKS  
PLAQUEMINES PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 12

APPENDIX IV  
DETAILED COST ESTIMATE  
LOUISIANA STATE ROUTE NO. 39

## APPENDIX IV

## DETAILED COST ESTIMATE

## LOUISIANA STATE ROUTE NO. 39

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
1	Clearing and grubbing	Sum	Job	Sum	15,000
2	Unclassified excavation	CY	4,200	1.50	6,300
3	Cement stabilization (base course)	SY	31,735	2.35	74,575
4	Sand (base course)	CY	2,500	3.25	8,125
5	Aggregate surface course (shell base course)	CY	10,000	5.50	55,000
6	Asphaltic concrete	Ton	4,900	20.00	98,000
7	Clam shell (shoulders)	CY	2,000	8.50	17,000
8	Select fill material	CY	11,714	3.50	41,000
9	Catch basins (R-CB-4lx)	EA	7	155.00	1,100
10	15" concrete pipe	LF	1,611	9.00	14,500
11	11"x18" ABCMPA	LF	258	12.00	3,100
12	Conc curbing	LF	2,000	3.00	6,000
13	Bedding material	CY	360	7.50	2,700
14	Fertilizing and seeding	AC	4	175.00	700
15	Signs and barricades	Sum	Job	Sum	10,000
16	Field lab	Sum	Job	Sum	3,000
17	Detour - temporary embankment & base course	LF	2,900	3.00	8,700

APPENDIX IV (cont'd)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST (\$)	AMOUNT (\$)
18	Mobilization	Sum	Job	Sum	20,000
	Relocation Cost				384,800
	Less Cost of Betterments				0
	Subtotal				384,800
	Contingencies (25% <u>+</u> )				96,200
	Subtotal				481,000
	E&D (6% <u>+</u> )				29,000
	S&A (6% <u>+</u> )				29,000
	Subtotal				539,000
	Right-of-way Cost				336,500 <sup>1/</sup>
	TOTAL				875,500 <sup>2/</sup>

<sup>1/</sup> Right-of-way cost includes \$245,900 for land and improvements and \$90,600 for estimated cost of benefits allowable under the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970.

<sup>2/</sup> Represents 21 percent (\$183,800) construction funds and 79 percent (\$691,700) maintenance funds.

FLOOD CONTROL  
MISSISSIPPI RIVER AND TRIBUTARIES  
MISSISSIPPI RIVER LEVEES  
ITEM M-51.0-L  
GRAVOLET LEVEE ENLARGEMENT AND SETBACKS  
PLAQUEMINES PARISH, LOUISIANA  
RELOCATION OF FACILITIES  
DESIGN MEMORANDUM NO. 12

APPENDIX V  
RELOCATION COST SUMMARY



APPENDIX V  
RELOCATION COST SUMMARY

<u>ITEM</u>	<u>ESTIMATED COST (\$)</u>
Louisiana 39	481,000
Louisiana 39 R/W	336,500
Subtotal - Roads	817,500
Louisiana Power and Light Company	36,600
South Central Bell Telephone Company	50,000
Plaquemines Parish	87,600
Louisiana Gas Service Company	63,400
The Texas Pipe Line Company	23,000
United Gas Pipe Line Company	87,000
Subtotal - Utilities	347,600
Subtotal - Relocations	1,165,100
E&D	49,900
S&A	49,900
TOTAL	1,264,900