

Application No. LMNOD-SP (17th Street Canal)2

Name of Applicant Sewerage and Water Board of New Orleans

Effective Date JUN 13 1984

Expiration Date (If applicable) _____

**DEPARTMENT OF THE ARMY
PERMIT**

Referring to written request dated May 9, 1983 for a permit to:

Perform work in or affecting navigable waters of the United States, upon the recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (33 U.S.C. 403);

Discharge dredged or fill material into waters of the United States upon the issuance of a permit from the Secretary of the Army acting through the Chief of Engineers pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344);

Transport dredged material for the purpose of dumping it into ocean waters upon the issuance of a permit from the Secretary of the Army acting through the Chief of Engineers pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (86 Stat. 1052; P.L. 92-532);

Sewerage and Water Board of New Orleans
City Hall, Civic Center
New Orleans, Louisiana 70165

is hereby authorized by the Secretary of the Army:

to dredge to enlarge and maintain an area and install and maintain flood walls and mooring structures,

in the 17th Street Canal (Metairie Relief Canal) from Pumping Station No. 6 to a point about 400 feet north of the Bucktown Pedestrian Bridge, in Lake Pontchartrain, at Metairie, Louisiana, in Jefferson Parish,

in accordance with the plans and drawings attached hereto which are incorporated in and made a part of this permit (on drawings, give file number or other definite identification marks.) in 11 sheets titled Metairie Outfall Canal Maintenance Dredging, dated May 1983,

subject to the following conditions:

I. General Conditions:

a. That all activities identified and authorized herein shall be consistent with the terms and conditions of this permit; and that any activities not specifically identified and authorized herein shall constitute a violation of the terms and conditions of this permit which may result in the modification, suspension or revocation of this permit, in whole or in part, as set forth more specifically in General Conditions j or k hereto, and in the institution of such legal proceedings as the United States Government may consider appropriate, whether or not this permit has been previously modified, suspended or revoked in whole or in part.

b. That all activities authorized herein shall, if they involve, during their construction or operation, any discharge of pollutants into waters of the United States or ocean waters, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards and management practices established pursuant to the Clean Water Act (33 U.S.C. 1344), the Marine Protection, Research and Sanctuaries Act of 1972 (P.L. 92-532, 86 Stat. 1052), or pursuant to applicable State and local law.

c. That when the activity authorized herein involves a discharge during its construction or operation, or any pollutant (including dredged or fill material), into waters of the United States, the authorized activity shall, if applicable water quality standards are revised or modified during the term of this permit, be modified, if necessary, to conform with such revised or modified water quality standards within 6 months of the effective date of any revision or modification of water quality standards, or as directed by an implementation plan contained in such revised or modified standards, or within such longer period of time as the District Engineer, in consultation with the Regional Administrator of the Environmental Protection Agency, may determine to be reasonable under the circumstances.

d. That the discharge will not destroy a threatened or endangered species as identified under the Endangered Species Act, or endanger the critical habitat of such species.

e. That the permittee agrees to make every reasonable effort to prosecute the construction or operation of the work authorized herein in a manner so as to minimize any adverse impact on fish, wildlife, and natural environmental values.

f. That the permittee agrees that he will prosecute the construction or work authorized herein in a manner so as to minimize any degradation of water quality.

g. That the permittee shall allow the District Engineer or his authorized representative(s) or designee(s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed under authority of this permit is in accordance with the terms and conditions prescribed herein.

h. That the permittee shall maintain the structure or work authorized herein in good condition and in reasonable accordance with the plans and drawings attached hereto.

i. That this permit does not convey any property rights, either in real estate or material, or any exclusive privileges; and that it does not authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations.

j. That this permit does not obviate the requirement to obtain state or local assent required by law for the activity authorized herein.

k. That this permit may be either modified, suspended or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7.

l. That in issuing this permit, the Government has relied on the information and data which the permittee has provided in connection with his permit application. If, subsequent to the issuance of this permit, such information and data prove to be materially false, materially incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Government may, in addition, institute appropriate legal proceedings.

m. That any modification, suspension, or revocation of this permit shall not be the basis for any claim for damages against the United States.

n. That the permittee shall notify the District Engineer at what time the activity authorized herein will be commenced, as far in advance of the time of commencement as the District Engineer may specify, and of any suspension of work, if for a period of more than one week, resumption of work and its completion.

o. That if the activity authorized herein is not completed on or before _____ day of _____, 19 _____, (three years from the date of issuance of this permit unless otherwise specified) this permit, if not previously revoked or specifically extended, shall automatically expire.

p. That this permit does not authorize or approve the construction of particular structures, the authorization or approval of which may require authorization by the Congress or other agencies of the Federal Government.

q. That if and when the permittee desires to abandon the activity authorized herein, unless such abandonment is part of a transfer procedure by which the permittee is transferring his interests herein to a third party pursuant to General Condition t hereof, he must restore the area to a condition satisfactory to the District Engineer.

r. That if the recording of this permit is possible under applicable State or local law, the permittee shall take such action as may be necessary to record this permit with the Register of Deeds or other appropriate official charged with the responsibility for maintaining records of title to and interests in real property.

s. That there shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein.

t. That this permit may not be transferred to a third party without prior written notice to the District Engineer, either by the transferee's written agreement to comply with all terms and conditions of this permit or by the transferee subscribing to this permit in the space provided below and thereby agreeing to comply with all terms and conditions of this permit. In addition, if the permittee transfers the interests authorized herein by conveyance of realty, the deed shall reference this permit and the terms and conditions specified herein and this permit shall be recorded along with the deed with the Register of Deeds or other appropriate official.

u. That if the permittee during prosecution of the work authorized herein, encounters a previously unidentified archeological or other cultural resource within the area subject to Department of the Army jurisdiction that might be eligible for listing in the National Register of Historic Places, he shall immediately notify the district engineer.

II. Special Conditions: (Here list conditions relating specifically to the proposed structure or work authorized by this permit):

v. That all dredging will be performed by bucket dredge or other similar mechanical dredge equipment to lessen turbidity impacts. No hydraulic dredging is to be performed.

w. That no dredging will be performed during Pumping Station No. 6 pumping operations.

x. That adequate silt screens will be placed in the immediate area of dredging operations to control turbidity.

* y. That dredged material from the canal will be transported from the site by leak-proof trucks. Care will be taken during loading and transportation operations to control spillage of material from the trucks.

z. That a physical barrier will be constructed on the berm of the dredge area to control silt from entering the canal.

✓ aa. That the site or sites from the offsite disposal of dredged material will be approved by the New Orleans District Corps of Engineers prior to disposal operations.

bb. That the disposal method such as coverage with clear fill, depth of disposal material, etc., will be in accordance with applicable state environmental laws and regulations.

cc. That the New Orleans District reserves the right to inspect the site during operations and add additional conditions to the permit to protect the overall public interest.

dd. That the permittee is aware that approvals or permits are required from the Orleans Levee Board and the Jefferson Levee Board.

ee. That the permittee is aware that the work authorized under this permit may not necessarily be creditable under the "Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection" project.

ff. That the permittee will submit three sets of the final plans and specifications to the Chief of Engineering Division of the New Orleans District for information and further coordination with the permittee's architect-engineering firm.

gg. That in issuing this permit the New Orleans District recognizes that structures and mooring facilities in the canal will be removed and that some boat mooring structures may be placed in the canal after dredging. The New Orleans District interposes no objection to boat mooring structures in the canal provided the structures are installed by or under the approval of the permittee.

hh. That the permittee will maintain the present level of hurricane protection throughout the duration of the construction.

1013

5410

467
61

The following Special Conditions will be applicable when appropriate:

STRUCTURES IN OR AFFECTING NAVIGABLE WATERS OF THE UNITED STATES:

a. That this permit does not authorize the interference with any existing or proposed Federal project and that the permittee shall not be entitled to compensation for damage or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

b. That no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized by this permit.

c. That if the display of lights and signals on any structure or work authorized herein is not otherwise provided for by law, such lights and signals as may be prescribed by the United States Coast Guard shall be installed and maintained by and at the expense of the permittee.

d. That the permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the authorized structure or work, shall, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the waterway to its former condition. If the permittee fails to comply with the direction of the Secretary of the Army or his authorized representative, the Secretary or his designee may restore the waterway to its former condition, by contract or otherwise, and recover the cost thereof from the permittee.

e. Structures for Small Boats: That permittee hereby recognizes the possibility that the structure permitted herein may be subject to damage by wave wash from passing vessels. The issuance of this permit does not relieve the permittee from taking all proper steps to insure the integrity of the structure permitted herein and the safety of boats moored thereto from damage by wave wash and the permittee shall not hold the United States liable for any such damage.

MAINTENANCE DREDGING:

a. That when the work authorized herein includes periodic maintenance dredging, it may be performed under this permit for _____ years from the date of issuance of this permit (ten years unless otherwise indicated);

b. That the permittee will advise the District Engineer in writing at least two weeks before he intends to undertake any maintenance dredging.

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES:

a. That the discharge will be carried out in conformity with the goals and objectives of the EPA Guidelines established pursuant to Section 404(b) of the Clean Water Act and published in 40 CFR 230;

b. That the discharge will consist of suitable material free from toxic pollutants in toxic amounts.

c. That the fill created by the discharge will be properly maintained to prevent erosion and other non-point sources of pollution.

DISPOSAL OF DREDGED MATERIAL INTO OCEAN WATERS:

a. That the disposal will be carried out in conformity with the goals, objectives, and requirements of the EPA criteria established pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, published in 40 CFR 220-228.

b. That the permittee shall place a copy of this permit in a conspicuous place in the vessel to be used for the transportation and/or disposal of the dredged material as authorized herein.

This permit shall become effective on the date of the District Engineer's signature.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

[Signature]
PERMITTEE

June 13, 1984
DATE

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

[Signature]
C. J. Nettles, Chief, Operations Division
for Robert C. Lee, Colonel
DISTRICT ENGINEER,
U.S. ARMY, CORPS OF ENGINEERS

June 13, 1984
DATE

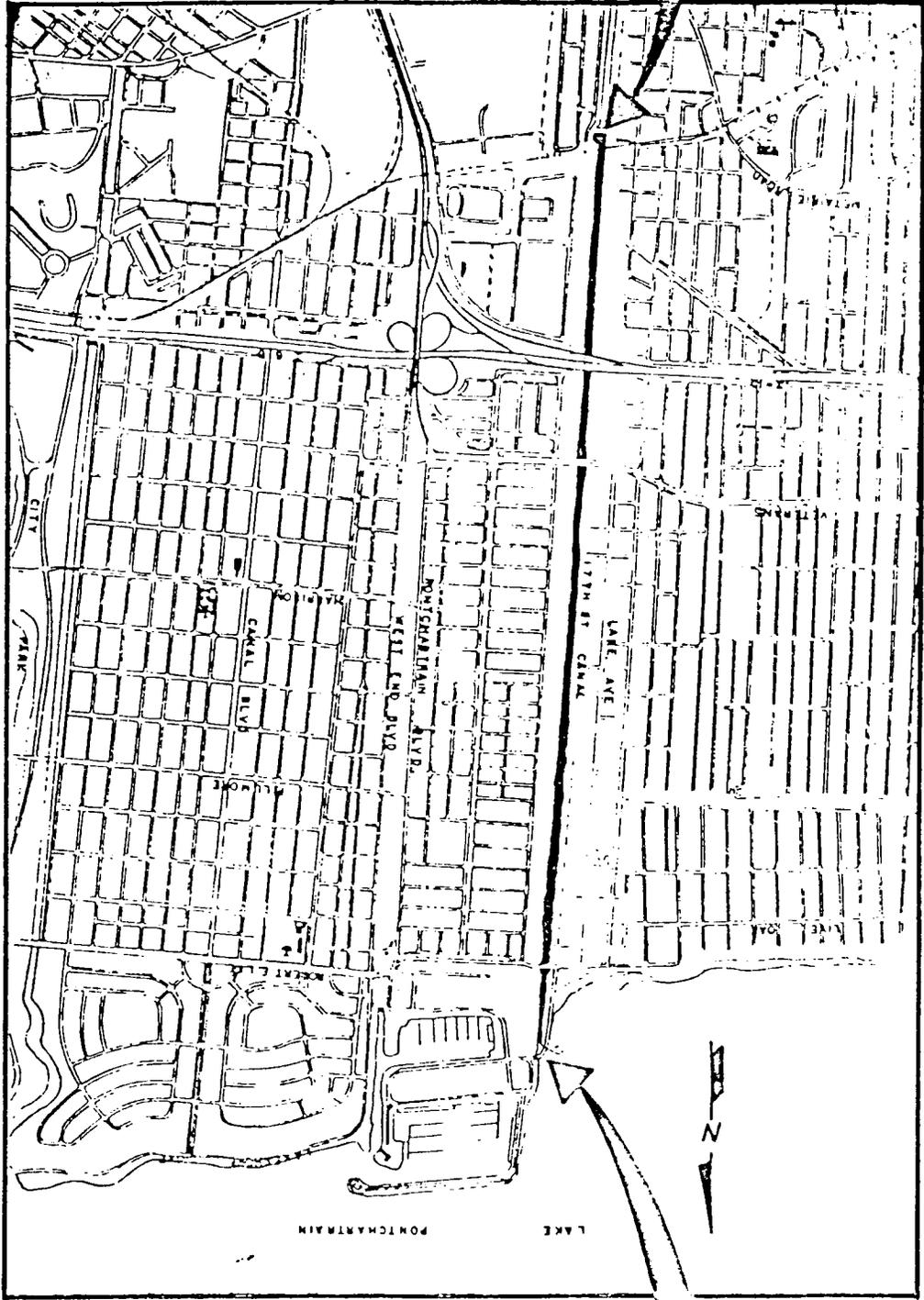
Transferee hereby agrees to comply with the terms and conditions of this permit.

TRANSFEEE

DATE

Enclosure
Set of 40g (11 sheets)

BEGIN PROJECT



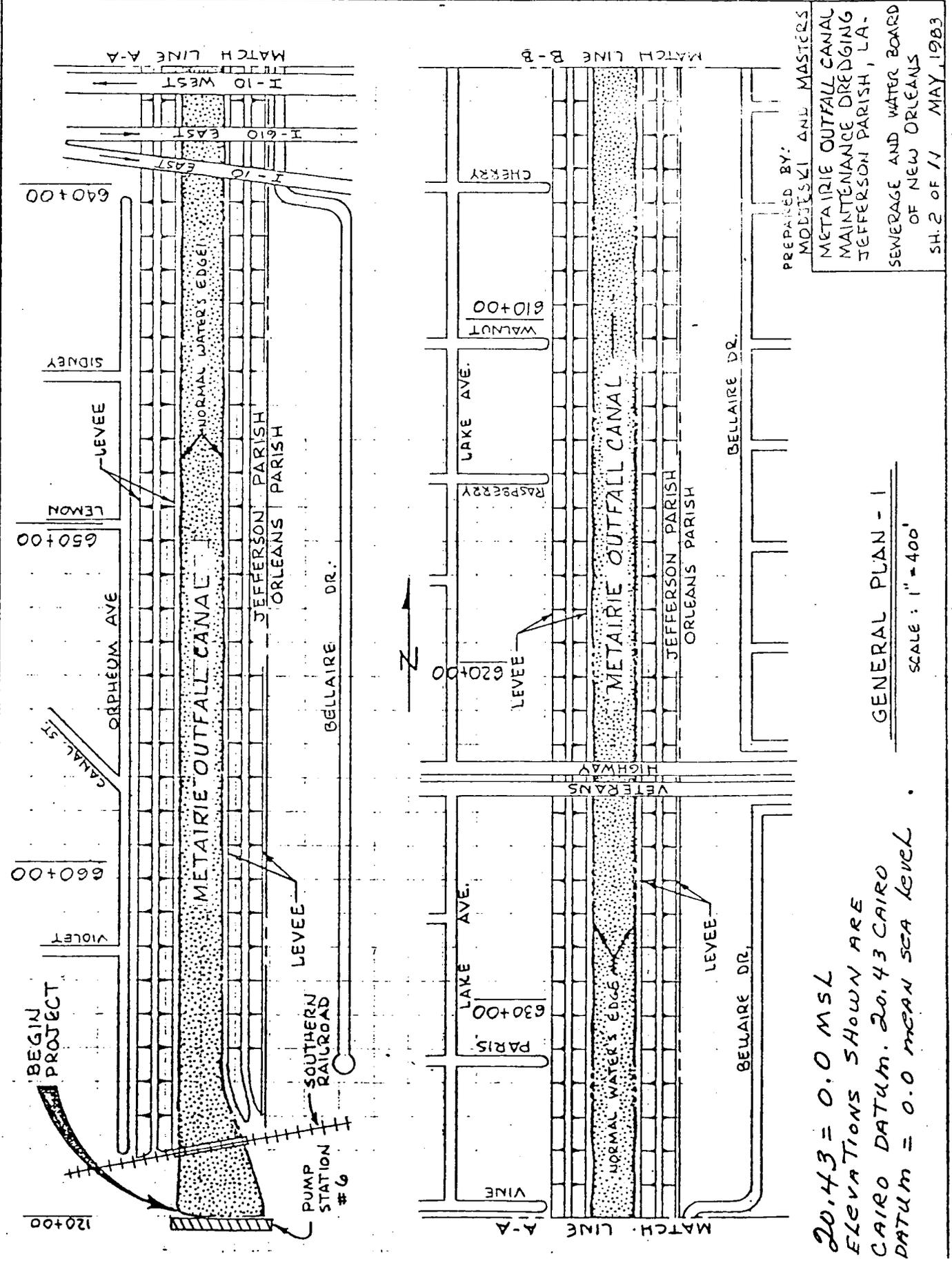
END PROJECT

PROJECT LOCATION



METAIRIE OUTFALL CANAL
 SEWERAGE AND WATER BOARD
 OF ORLEANS PARISH, LA.
 PREPARED BY: MODJESKI AND MASTERS
 SH 1 OF 11
 MAY, 1983

3007 1.1.4 16.141

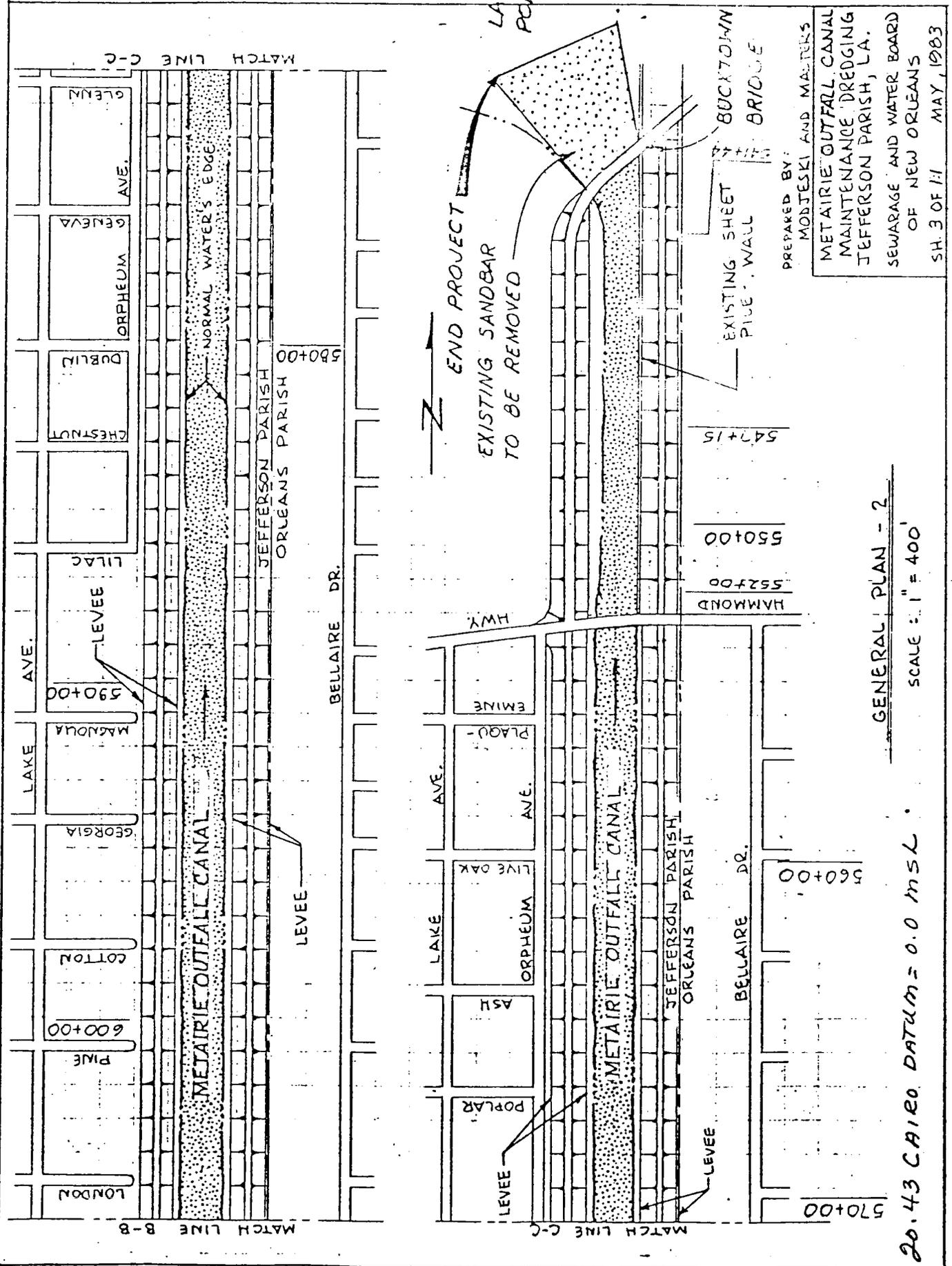


PREPARED BY:
MODJESKI AND MASTERS
METAIRIE OUTFALL CANAL
MAINTENANCE DREDGING
JEFFERSON PARISH, LA.
SEWERAGE AND WATER BOARD
OF NEW ORLEANS
SH.2 OF 11 MAY 1983

GENERAL PLAN - 1
SCALE: 1" = 400'

20.43 = 0.0 MSL
ELEVATIONS SHOWN ARE
CAIRO DATUM. 20.43 CAIRO
DATUM = 0.0 MEAN SEA LEVEL

LAKE
PONTCHARTRA

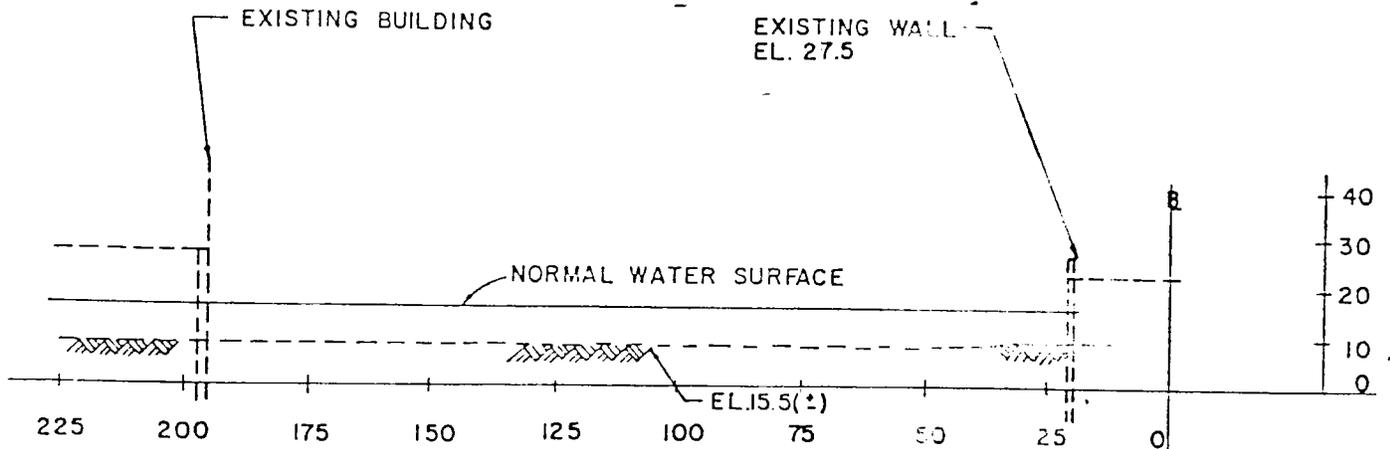


PREPARED BY:
MOJESKI AND MASTERS
METAIRIE OUTFALL CANAL
MAINTENANCE DREDGING
JEFFERSON PARISH, LA.
SEWERAGE AND WATER BOARD
OF NEW ORLEANS
SH. 3 OF 11 MAY, 1983

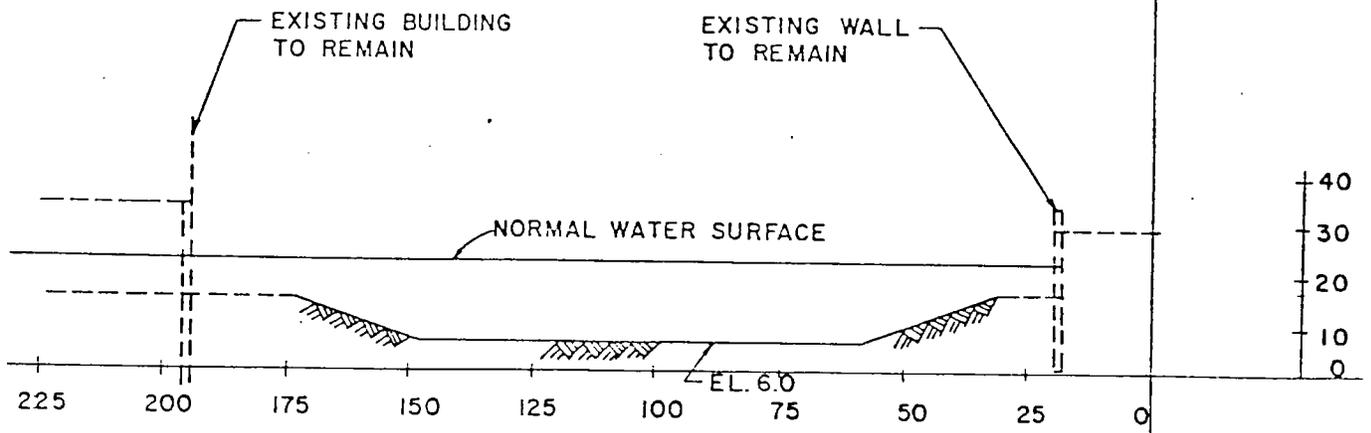
GENERAL PLAN - 2

SCALE : 1" = 400'

20.43 CA180 DATUM = 0.0 MSL



EXISTING

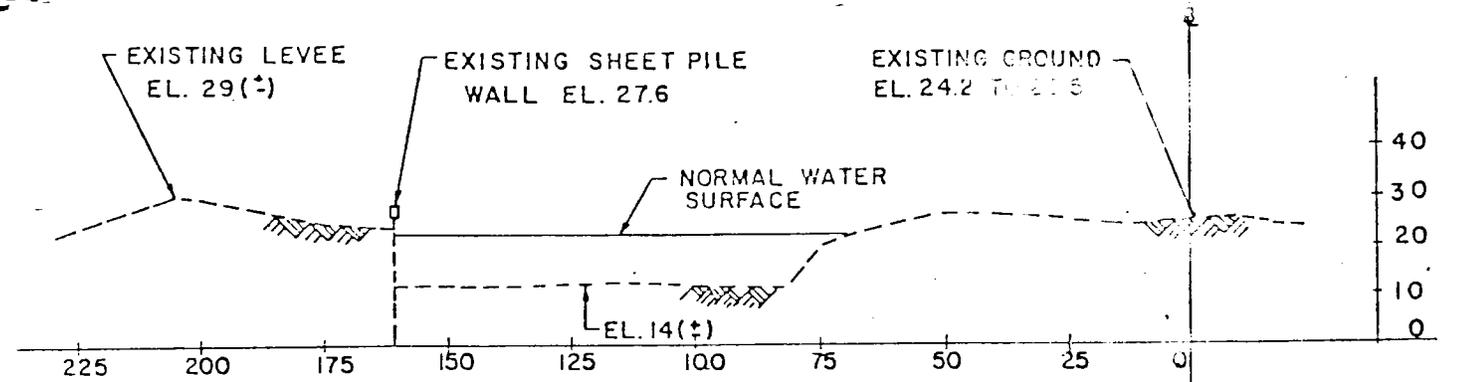


PROPOSED

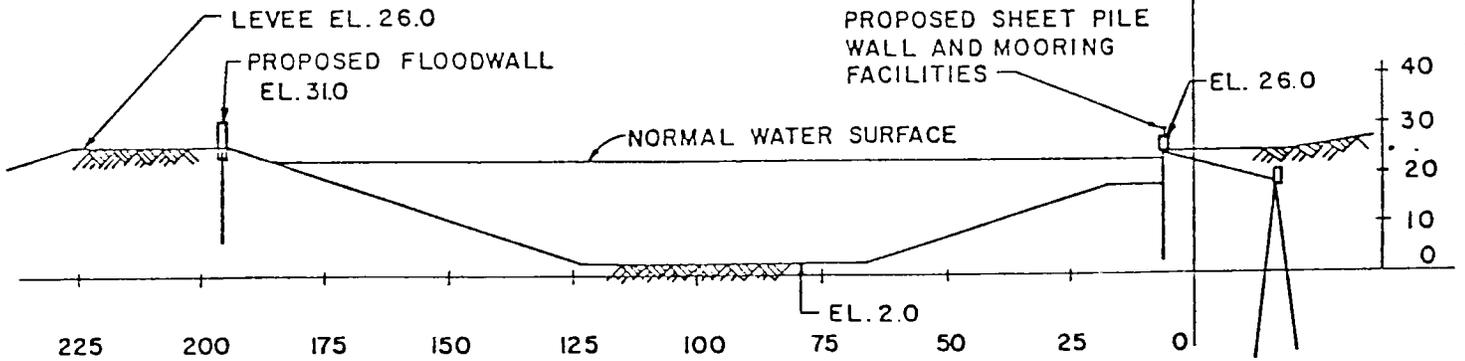
SECTIONAL VIEW 300' NORTH OF THE BUCKTOWN BRIDGE

(LOCKING SOUTH)

1" = 40'



EXISTING

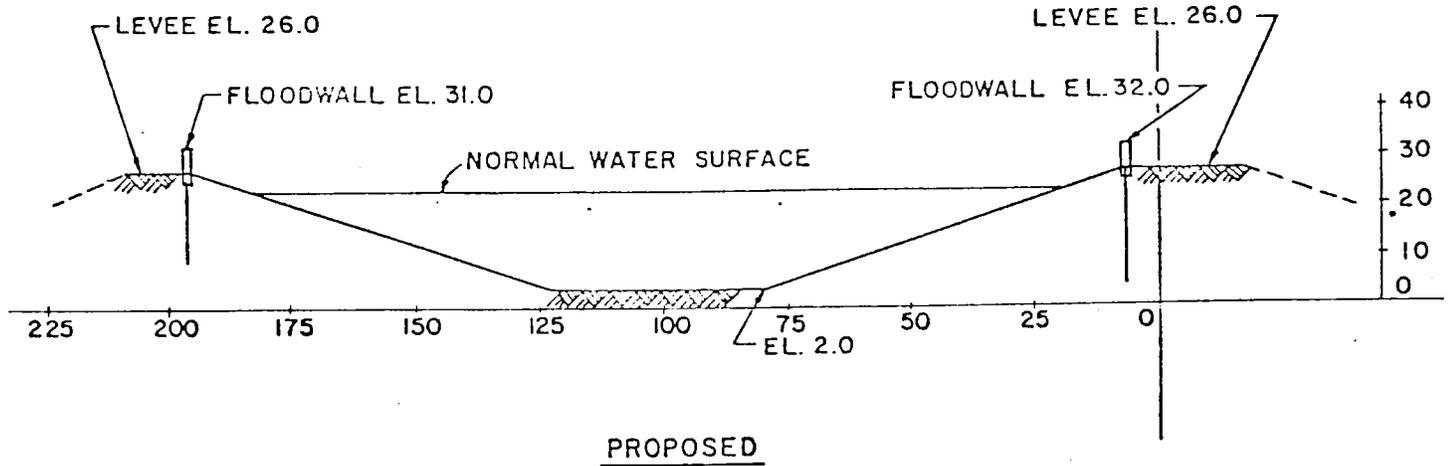
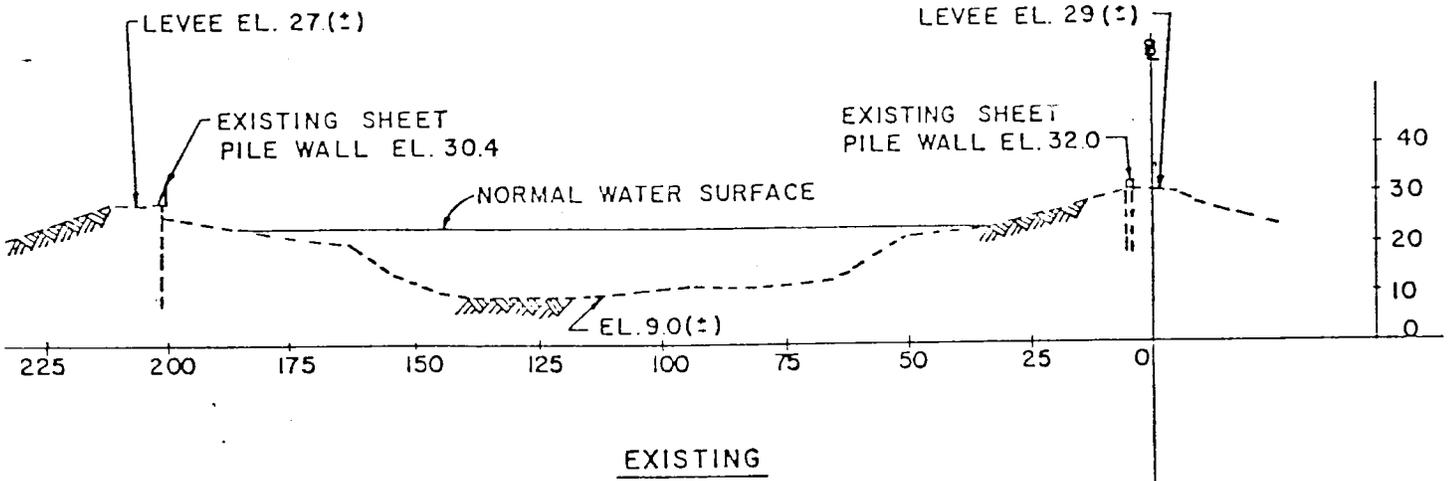


PROPOSED

SECTIONAL VIEW BETWEEN BUCKTOWN BRIDGE AND HAMMOND HIGHWAY

(LOOKING SOUTH)

1" = 40'

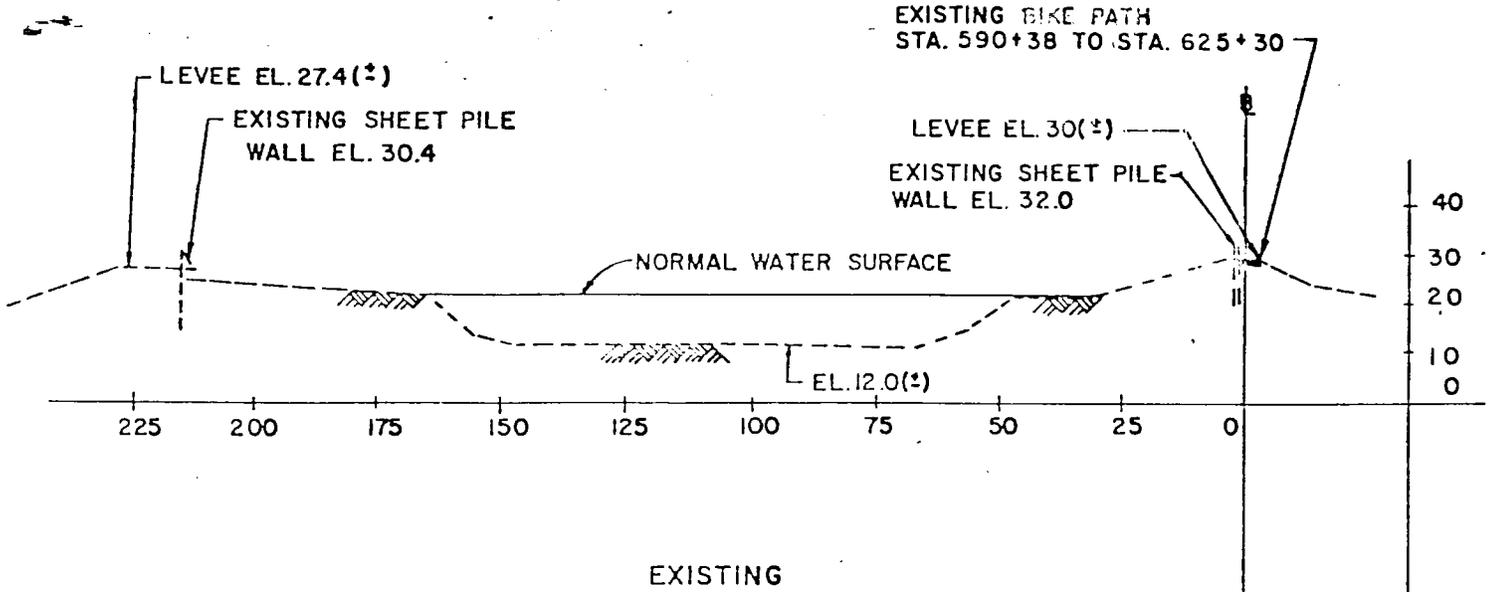


SECTIONAL VIEW BETWEEN HAMMOND HIGHWAY AND VETERANS HIGHWAY

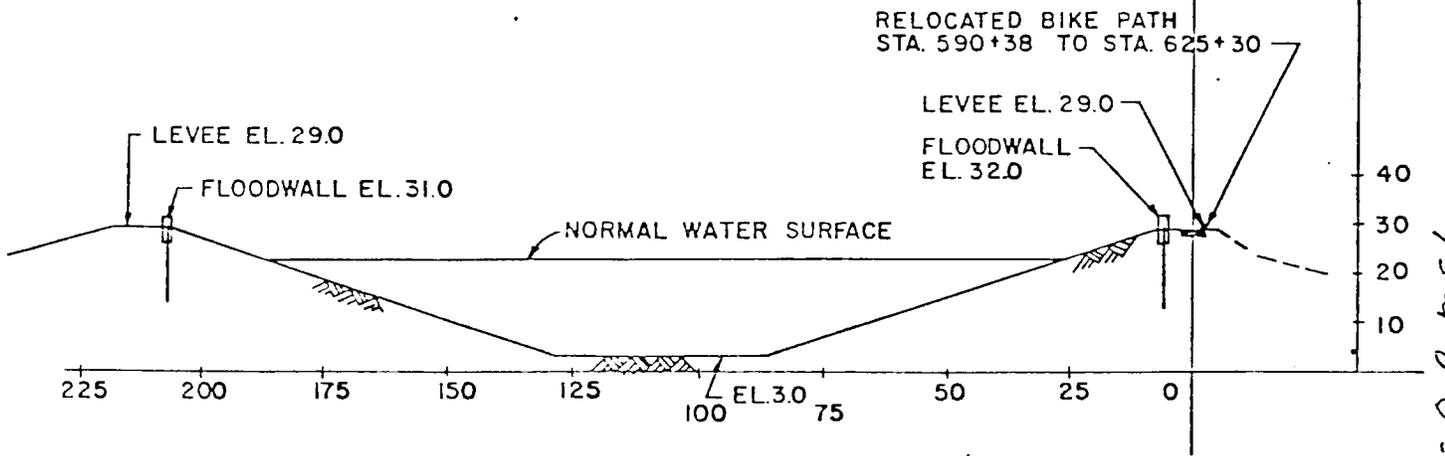
(LOOKING SOUTH)

1"=40'

METAIRIE OUTFALL CANAL
SEWERAGE AND WATER BOAR.
OF ORLEANS PARISH, LA.



EXISTING



PROPOSED

SECTIONAL VIEW BETWEEN VETERANS HIGHWAY AND I-10

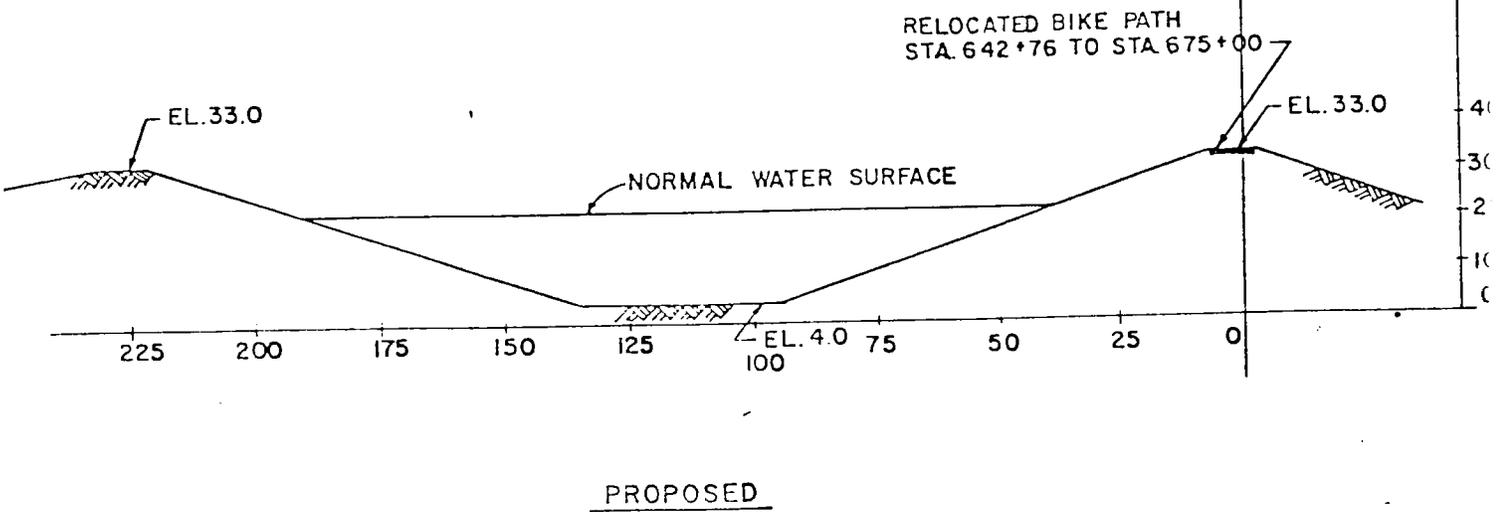
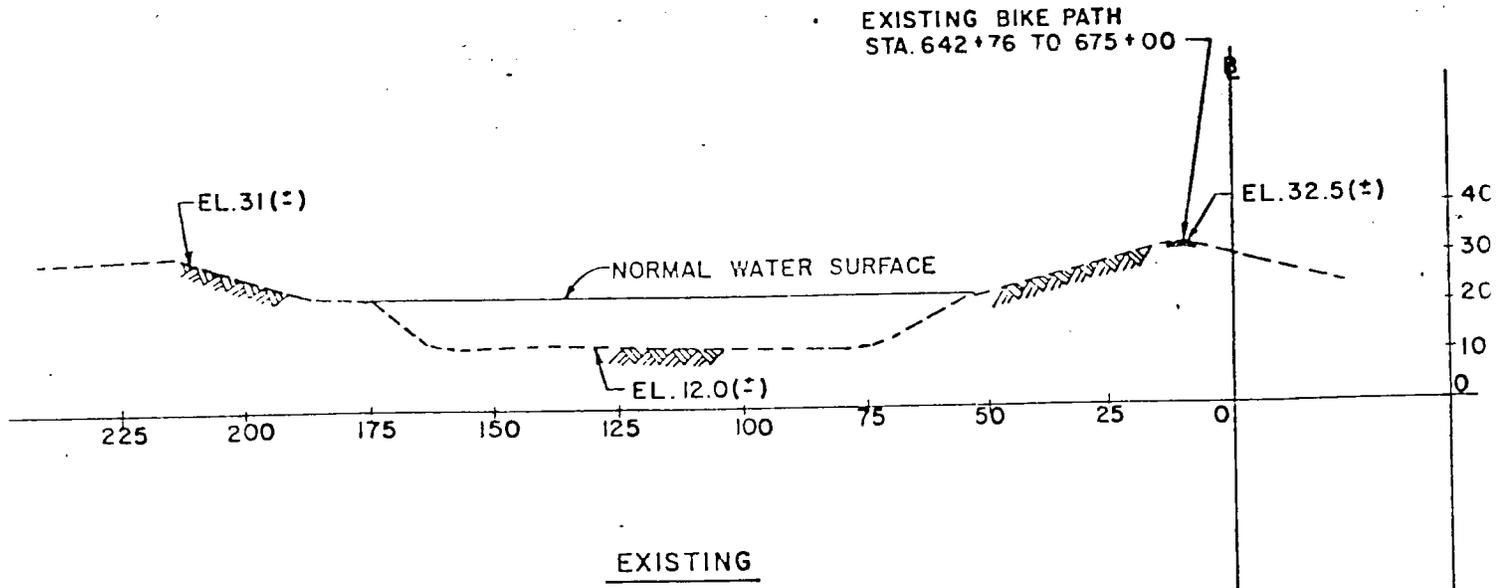
(LOOKING SOUTH)

1" = 40'

20.43 CAIRO Datum = 0.0 m s.l.

METAIRIE OUTFALL CANAL
SEWERAGE AND WATER BOARD
OF ORLEANS PARISH, LA.

PREPARED BY: MODJESKI AND MASTERS

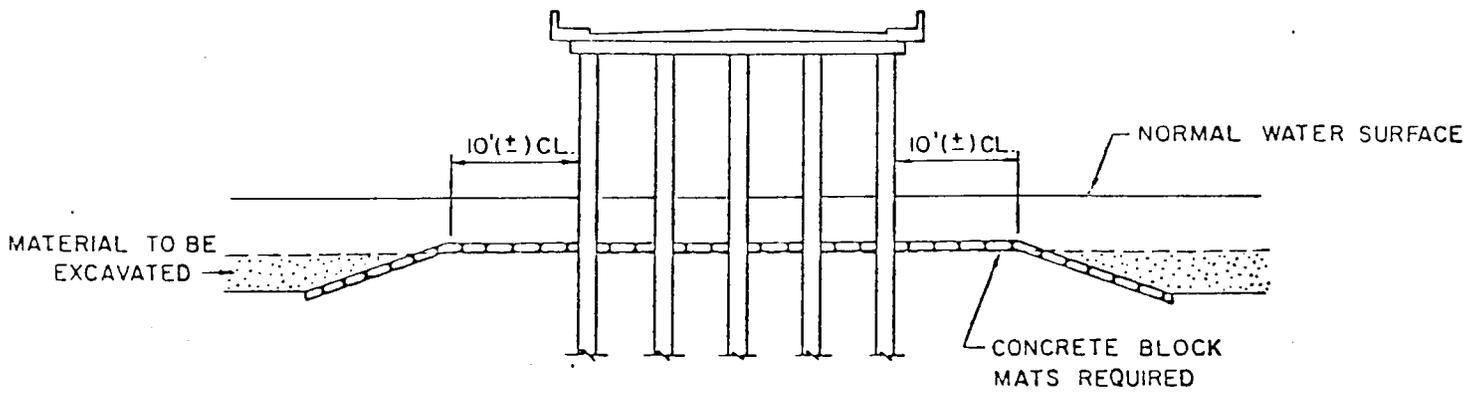


SECTIONAL VIEW BETWEEN I-10 AND PUMP STATION NO. 6
(LOOKING SOUTH)

1" = 40'

20.43 CAIRO DATUM = 0.0 M.S.L.

METAIRIE OUTFALL CANAL
SEWERAGE AND WATER BOARD
OF ORLEANS PARISH, LA.
DESIGNED BY: MODIESKI AND MASTER



EXCAVATION LIMITS AT BRIDGES

NO SCALE

NOTE: NO EXCAVATION WILL BE REQUIRED BETWEEN I-10 EASTBOUND AND I-10 WESTBOUND. HOWEVER CONCRETE BLOCK MATS WILL BE REQUIRED.

20.43 CAIRO DATUM = 0.0 M.S.L.

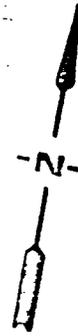
METAIRIE OUTFALL CANAL
SEWERAGE AND WATER BOARD
OF ORLEANS PARISH, LA.

LAKE

PONTCHARTRAIN

Jefferson
Parish

Orleans
Parish



Pumping Station No. 6

Pumping Station No. 1

2550 ACRES

FROM JEFFERSON

7860 ACRES
FROM ORLEANS

MISSISSIPPI

RIVER

OUTFALL CANAL

AVENUE "D"

METARIE ROAD

LOUISIAN DITCH

MINI-MEARS CANAL

APACHE HWY.

HOVE CANAL

JEFFERSON HWY.

JEFFERSON ST.

WALNUT AVE.

E. CAMPBELL AVE.

LOVELAND ST.

MARYVILLE AVE.

NAPOLEON AVE.

S. CLAUDINE AVE.

THOMAS ST.

ST. CHARLES AVE.

METARIE OUTFALL CANAL
SEWERAGE AND WATER BOARD
OF ORLEANS PARISH, LA.

PREPARED BY: WODJESKI AND MASTERS
SH. 10 OF 11
MAY, 1963

SYNOPSIS OF HYDRAULIC ANALYSIS

I. Determination of Cross-sectional Area

Reference: Open-channel Hydraulics by Chow, 1959
Pages 165-168

- A. A velocity of 4 fps was determined to be the recommended allowable.
- B. The Manning Formula was used to arrive at the desirable cross-sectional area of 2500 sf.
- C. The D'Aubuisson Method was used to calculate the backwater effect of the bridges and other obstructions.

II. History of Project

A. Phase I

1. Canal capacity analyzed for 7225 cfs.
2. Canal capacity analyzed for 10,000 cfs from Hammond Hwy. to the Lake and 6650 cfs from Pump Station No. 6 to Hammond Hwy.

B. Phase II - canal capacity analyzed for 10,400 cfs from Pump Station No. 6 to the Lake.

1. M & M Manual Calculations
2. HEC 2 by consultant of Jefferson Parish
3. Hydro-dynamic Model & HEC 2 by Drs. Alawady and Suhada
4. Linfield-Hunter Analysis