

DISPOSITION FORM

(A0007051)

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

REFERENCE OR OFFICE SYMBOL

LMNED-FS

SUBJECT

Lake Portchartrain, La. + Vicinity Hurricane Protection Project - High Level Plan 17th St. Canal

TO C/Des Svcs. Br

FROM

C/F&M Br.

DATE

20 Oct 86

CMT 1

Mr. Vojkovich /1034
FV JR

1. Reference LMNED-SP multiple DF dated 9 Oct 86, subject as above.

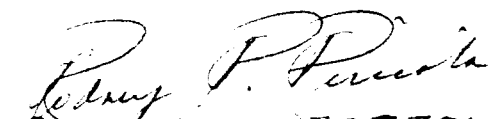
2. We have reviewed the seepage analysis under the pumping station and have the following preliminary comments.

a.) The sheetpile penetration may be adequate for seepage under the pumping station but it is not adequate for a seepage path exiting at the protected side base of the floodwall for alternative 1 or 2. The final width of the floodwall base slab will affect the length of the seepage path. A more punctilious seepage analysis should be presented when the final plans are submitted.

b.) Blowout of the clay layer at the intake basin screen may occur at the normal hydrostatic elevation in the sand (from previous stability analyses by Eustis Engr.), for the section shown in enclosure 1. Instability at the screen does not affect hurricane protection but may require investigation by your geotechnical consultant.

3. No final plans have been developed for the sliding gate structure. It would be more productive to review the seepage cutoff with the final design plans than piecemeal. We reserve our comments until submission of the final plans.

T-Wall
Analysis at Pumping
Station on south end
of canal.


RODNEY K. PICCIOLA
Chief, Foundations and Materials Branch

DISPOSITION FORM

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REFERENCE OR OFFICE SYMBOL

CMNED-DD

SUBJECT

SEEPAGE ANALYSIS REVIEW PUMP STA. No. 6, 17TH ST. CANAL, LAKE FORT, LA & VIC HURRICANE PROT. PROJ., HLP, ORLEANS PARISH, LA.

TO

FROM

DATE

CMT 1

C/Des Svcs Br

C/Des Br.

16 Oct 86

Mr Roman/2645

1. Reference is made to your multiple DF dated 9 Oct 86, subject as above.
2. Our review of this analysis was limited to verify that the analysis addressed the entire remaining reach on the east side of the pumping station fronting protection. To date, all of our previous comments pertaining to the fronting protection seepage requirements have been addressed. The adequacy of the proposed seepage provisions ~~is~~^{is} being evaluated by F&M Br.
3. The remaining issues to be addressed by Modjeski and Masters pertaining to the fronting protection at the pumping station relate to the foundation and structural design adequacy of the proposed sliding gates, ~~of~~ the existing concrete culverts and short reaches of floodwall on the east side of the pumping station.
4. Please provide us with a copy of F&M Br. response to your request for the subject seepage analysis.

WALTER D. JUDWIN, III
Chief, Design Branch

DISPOSITION FORM

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REFERENCE OR OFFICE SYMBOL

SUBJECT

LMNED-SP

Lake Pontchartrain, La. & Vicinity Hurricane Protection Project - High Level Plan 17th Street Canal

TO C/Des Br
C/F&M Br

FROM C/Des Svcs Br

DATE 9 Oct 86

CMT 1

Mr. Elmer/pas/2618
EE

1. Please find enclosed a Modjeski & Masters letter dated 6 Oct 86 which provides a seepage analysis at Pump Station No. 6 performed by Eustis Engineering.
2. You are requested to review this analysis, as to it's satisfying high level standards for the subject project. In addition please indicate whether or not this data addresses all of our previous comments dealing with seepage under the pumping station. Your comments are requested by 17 Oct 86.

Encl


THOMAS E. HARRINGTON, JR.
Chief, Design Services Branch

LMNED-SP

Lake Pontchartrain, La. & Vicinity Hurricane
Protection Project - High Level Plan 17th Street Canal

C/Des Br
C/F&M Br

C/Des Svcs Br

9 Oct 86
Mr. Elmer/pas/2618

1. Please find enclosed a Modjeski & Masters letter dated 6 Oct 86 which provides a seepage analysis at Pump Station No. 6 performed by Eastis Engineering.
2. You are requested to review this analysis, as to it's satisfying high level standards for the subject project. In addition please indicate whether or not this data addresses all of our previous comments dealing with seepage under the pumping station. Your comments are requested by 17 Oct 86.

Encl

THOMAS E. HARRINGTON, JR.
Chief, Design Services Branch

PARTNERS

R. E. FELSBURG
W. B. CONWAY
H. H. SNYDER
C. F. COMSTOCK
J. J. SCHERRER
J. M. KULICKI

MODJESKI AND MASTERS

CONSULTING ENGINEERS

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P. C. PIERCE
L. V. BORDEN
E. W. ROHRBAUGH

October 6, 1986

A PROFESSIONAL CORPORATION

SENIOR ASSOCIATES

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C. T. FORTRAN
J. R. BOWDEN
H. E. WALDNER

CONSULTANT

T. R. KEALEY

Mr. Fred Chatry
Department of the Army,
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, LA 70160-0267

Re: High Level Flood Protection
17th Street Canal

Dear Mr. Chatry:

As per our meeting of September 29, 1986 you will find herewith two copies of a seepage analysis at Pump Station 6 performed by Eustis Engineering. I trust it will meet your approval.

The other three items discussed in our meeting are being addressed as follows:

1. Regarding the Hammond Highway Bridge, the Orleans Levee Board is preparing a letter to LA.DOTD requesting action on their part. You should be receiving a copy of that letter soon.
2. We have scheduled a meeting with the Sewerage and Water Board this week to get their official approval of the sliding gates at the high point of the discharge tubes. We will request that they notify you in writing of their decision.
3. Calculations for the east floodgate will be provided to your office by Burke & Associates.

If we can be of any additional assistance in this matter, please call.

Encl

MODJESKI AND MASTERS

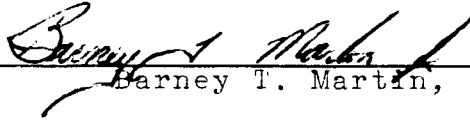
Mr. Fred Chatry
New Orleans

-2-

October 6, 1986

Very truly yours,

MODJESKI AND MASTERS
Engineers



Barney T. Martin, Jr.

BTMjr:bw Enclosure

cc: Mr. Ed Bailey
Mr. John Holtgreve



EUSTIS ENGINEERING

GEOTECHNICAL ENGINEERS

3011 28th Street - Metairie, Louisiana 70002 - 504-834-0157

6 October 1986

Modjeski and Masters
Consulting Engineers
John Hancock Building
Room 510
1055 St. Charles Avenue
New Orleans, Louisiana 70113

Attention Mr. Barney Martin

Gentlemen:

Recommended Sheetpile Cutoff
Beneath New Sliding Gate at
Pump Station No. 6
Jefferson Parish, Louisiana

In accordance with a request from Mr. Barney Martin, computations were made to determine the recommended penetration for a sheetpile cutoff wall beneath a proposed sliding gate structure to be located on the discharge side of Pump Station No. 6 in Jefferson Parish, Louisiana. It is understood that two alternate locations are being considered for the proposed sliding gate. Alternate 1 is at the high point of the discharge tube and Alternate 2 is at the end of the discharge tube. The subsoil stratification used for the analysis was based on the results of Boring 5 which are contained in Eustis Engineering's report entitled "Geotechnical Investigation, Sewerage and Water Board of New Orleans, Proposed additions to Drainage Pump Station No. 6, New Orleans, Louisiana," dated 1 December 1986.

The computations were based on the furnished cross-section shown on Enclosure 1 and a maximum differential hydrostatic head of 23 feet resulting from a high water level at el 35 C.D. in the discharge basin and a low water level at el 12 C.D. in the intake basin. Based on a sheetpile cutoff wall penetration of at least 10 feet below the base of the structure (at either location), the "weighted" length of the flow path is at least 70 feet and Lane's Weighted Creep Ratio (LWCR) is 3.04 which is acceptable for the clay stratum beneath the gate structure and pump station. Therefore, a minimum 10-ft long sheetpile cutoff wall should be adequate to prevent "roofing" at the Alternate 1 and 2 locations.

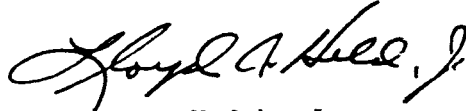
Modjeski and Masters

6 October 1986

If we can be of further assistance, please contact us.

Yours very truly,

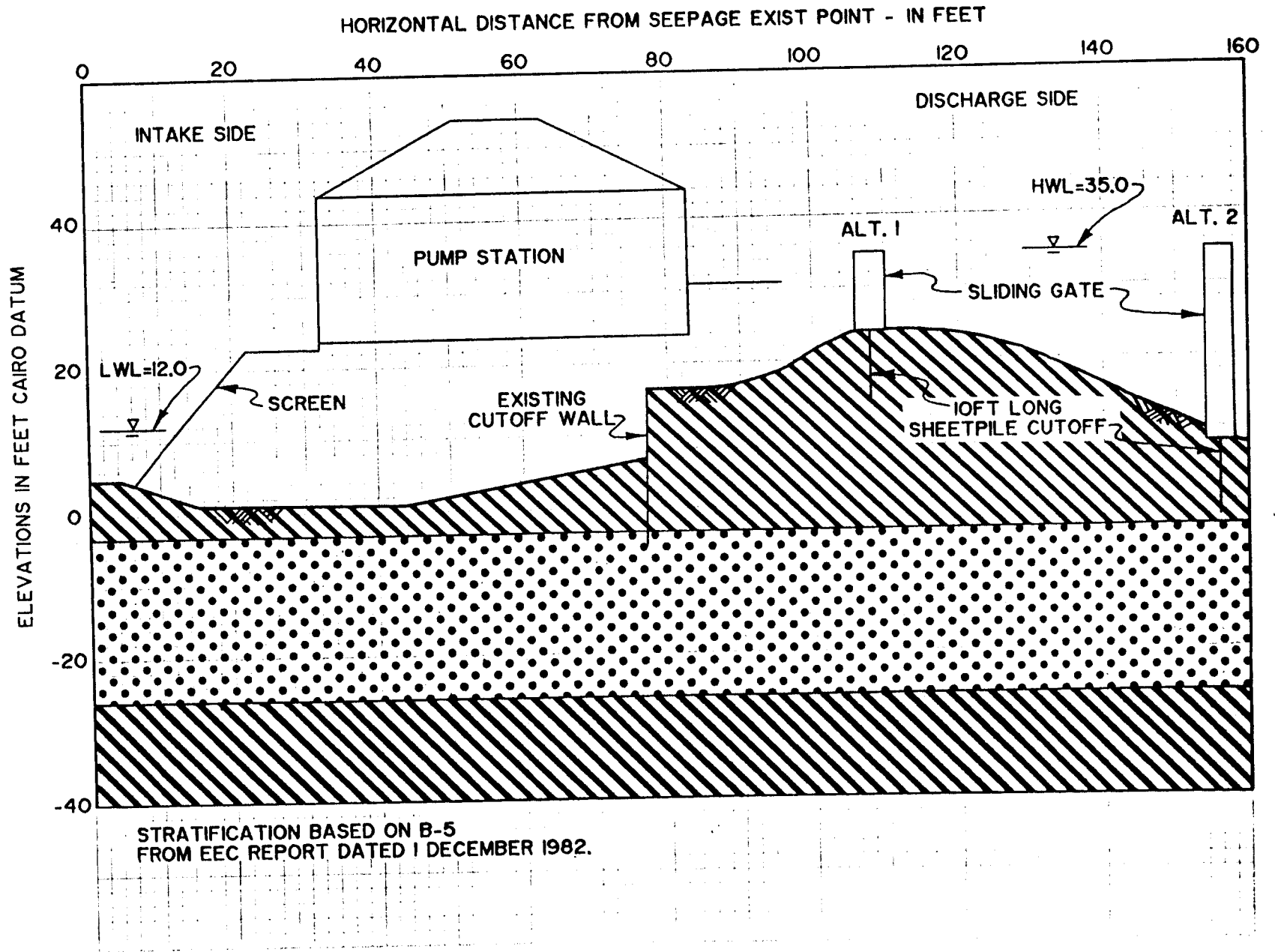
EUSTIS ENGINEERING

A handwritten signature in cursive script, reading "Lloyd A. Held, Jr.", written in dark ink.

Lloyd A. Held, Jr.

L. J. Napolitano:bh

Enclosure 1



RECOMMENDED SHEETPILE CUTOFF

PUMP STATION NO. 6

ENCLOSURE 1