



LAKE PONTCHARTRAIN, LA. AND VICINITY
LAKE PONTCHARTRAIN BARRIER PLAN
DESIGN MEMORANDUM NO.2-GENERAL DESIGN

CBL- 1m, 11, etc.

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VICKSBURG, MISSISSIPPI

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PREPARED IN THE OFFICE OF THE DISTRICT ENGINEER

DEPARTURES FROM PROJECT DOCUMENT PLAN

17. Departures from the project document plan. a. General. The plan presented herein is generally the same as that presented in the authorizing document. The following changes, which are within the discretionary authority of the Chief of Engineers, have been incorporated into the plan.

(1) Grade revisions. The net grades of most of the protective structures included in the plan were revised upward by 1 to 2 feet in accordance with the results of tidal hydraulic studies utilizing more severe hurricane parameters developed by the U. S. Weather Bureau subsequent to project authorization. Partial results of these studies are contained in "Design Memorandum No. 1, Hydrology and Hydraulic Analysis, Part I - Chalmette" dated 18 August 1966, approved 27 October 1966, and "Design Memorandum No. 1, Hydrology and Hydraulic Analysis, Part II - Barrier" submitted and currently under review. The remaining results of tidal hydraulic studies pertinent to the Lake Pontchartrain Barrier Plan will be reported in "Design Memorandum No. 1, Hydrology and Hydraulic Analysis, Part III - Lakeshore" which is scheduled for submission in July 1968. A comparison of the revised net grades and those contained in the authorizing document is shown in table 1.

(2) Modification in barrier alignment. The alignment of the Lake Pontchartrain Barrier between New Orleans East and a point just east of Chef Menteur Pass was modified to relocate the embankment seaward of an expanding prestige-class residential and commercial development located between the eastern limit of the existing levee system and Chef Menteur Pass. Bases and justification for this modification are contained in LMNED-PP letter dated 13 March 1967, subject "Lake Pontchartrain, La. and Vicinity - Evaluation of Alternate Plans Involving Modifications in the Alignment of the Lake Pontchartrain Barrier," copy of which is included herein as appendix C. The modification was approved by OCE on 15 May 1967.

(3) Modification in the controlling elevation of Seabrook Lock. In order to reduce levee grade requirements on the IHNC north of the L&N Railroad, and hurricane flood damage to industrial developments located on the bank of the IHNC canalward of the levees, by permitting some lakeward flow in the canal during certain types of hurricanes, the controlling elevation of the Seabrook Lock was changed from elevation 13.2 to elevation 7.2. Bases and justification for the change are contained in LMNED-PP letter dated 19 October 1966, subject "Lake Pontchartrain, La. & Vicinity - Reports on Controlling Elevation of Seabrook Lock," a copy of which is included herein as appendix E. The modification was approved by OCE on 12 January 1967.

TABLE 1
LAKE PONTCHARTRAIN BARRIER PLAN
NET GRADE REVISIONS

<u>Levee or embankment</u>	<u>Net grade - feet</u>	
	<u>Revised</u>	<u>Project document</u>
Citrus Back Levee		
West of Paris Road	14.0	13.0
East of Paris Road	18.0*	16.0
New Orleans East Back Levee	17.5	16.0
Inner Harbor Navigation Canal		
Seabrook to L&N RR	13.0 - 14.0	13.0
L&N RR to IHNC Lock	14.0	13.0
New Orleans East Lakefront Levee	12.0**	10.0
Citrus Lakefront Levee	13.0**	11.0
New Orleans Lakefront Levee	13.0**	11.5
Jefferson Lakefront Levee	10.0	10.0
St. Charles Parish Lakefront Levee	11.0**	10.0
Barrier Embankment	9.0***	9.0
South Point to GIW Levee		
	11.6**	11.6

*Grade is 0.5 foot higher than grade computed in DM No. 1 - Part 1 - Chalmette. This minor difference in grade is due to a difference in configuration of the levee cross sections used in this memorandum as compared with the configuration used in DM No. 1 - Part I - Chalmette. The configuration used herein is based on detailed soils data and studies not available at the time DM No. 1 - Part I - Chalmette was prepared and is the optimum configuration insofar as levee cost is concerned.

**Tentative pending approval of DM No. 1, Part III - Lakeshore.

***Tentative pending approval of DM No. 1, Part II - Barrier.