

CENTROPORT U.S.A. - A LONG RANGE PLAN FOR DEVELOPMENT OF THE PORT OF NEW ORLEANS

by

William H. Lewis
Associate Port Director,
Board of Commissioners of the Port of New Orleans

INTRODUCTION

CENTROPORT is a bold new name for Louisiana's world port at New Orleans. The central port for mid-continent U.S.A. and the western hemisphere. Destined to become the central port for world trade in the 21st century.

The Port of New Orleans today is a major world port handling diverse foreign trade cargo which in 1969 was valued at over \$2.6 billion. Total waterborne commerce in the Port, and its environs included in the statistical reporting area of the Corps of Engineers, during 1968 amounted to 113,511,000 tons. Cargo handled over the public facilities of the Port in fiscal year 1968-69 amounted to over 19 million tons, of which about 6 million was high-valued general cargo.

EXISTING PORT FACILITIES

The area of the public Port under the jurisdiction of the Board of Commissioners of the Port of New Orleans, an agency of the State of Louisiana, extends along 25 miles of the Mississippi River. (Fig. No. 1). The Harvey Canal and the Algiers Canal link the Gulf Intracoastal Waterway with the River on its west bank. The center of the Port is 120 miles via the River to the Gulf of Mexico.

The water areas of the Port include the Inner Harbor-Navigation Canal, a deep-water channel connecting the Mississippi River with Lake Pontchartrain and linking the Gulf Intracoastal Waterway and the Mississippi River-Gulf Outlet with the River on its east bank. (Fig. No. 2).

Meeting the Inner Harbor-Navigation Canal at its midpoint is the Mississippi River-Gulf Outlet, a deep-water seaway canal (36' project depth and 500' project bottom width), extending for 70 miles from the Port of New

Orleans into the Gulf of Mexico. (Fig. No. 3).

Existing public wharf facilities have a total frontage of over 54,500 lineal feet with an area of 10,845,000 square feet. (Fig. No. 4). In addition, the facilities of the Port include the Public Grain Elevator, the Public Commodity Warehouse, Foreign Trade Zone No. 2 (Fig. No. 5) and the Public Bulk Terminal. (Fig. No. 6).

PROBLEMS OF AGE AND CHANGE

Because of the age and obsolescence of the many wharves, together with the demands in growth of traffic and technological changes in the shipping industry, the Port of New Orleans, as well as other world ports, is faced with a problem of modernization, expansion and new development. The foreign trade of the United States continues to increase at a rate of 5% per year. Furthermore, the world's shipping industry is in a revolution demonstrated by the rapid development of intermodal concepts of transportation, rapid construction of containerships (Fig. No. 7), barge carrying vessels (Fig. No. 8), huge tankers and dry bulk carriers, and other innovations.

APPROVED AND FUNDED CAPITAL PROGRAM

The approved port facility program calls for expenditures in the next four years of \$60 million, over one-half of which is required for construction of new container terminals and construction of terminal facilities for LASH and SEABEE vessels. Other funds are scheduled for rehabilitation of existing general cargo wharves, for the expansion of bulk handling facilities and for construction of terminals for other specialized cargo handling.

Funds in the amount of \$30.8 million have been authorized by the State legislature for the first two years of the Port's capital program. These funds are being applied to initiate construction of containership facilities in the France Road Terminal on the Inner Harbor-Navigation Canal (Fig. No. 9), for structural rehabilitation of several riverfront wharves and for expansion of storage facilities at the Public Bulk Terminal. (Fig. No. 6).

An on-going program of port development modernization and expansion will require the additional expenditure of approximately \$15 million per year.

SHIFTING PORT AREA

To meet the full potential of new ship technologies and to maintain and improve the Port's dominant position in international shipping new types of terminals must be built, requiring extensive land areas with excellent high-

way and railway access. Furthermore, the Port has the potential to attract and serve a growing industrial complex requiring large tracts of land separated from the built up urban area. A long-range solution to the problems of obsolescence, new transportation technologies, future growth and industrial buildup can only be found in creating a new port away from the congested riverfront. Only in this way can the problems of the City be solved in the relief of traffic congestion and in the expansion of its central residential and commercial areas, as well as providing the needed land and water areas for port expansion.

LONG-RANGE MASTER PLAN

Facing these challenges, the Port of New Orleans has developed a comprehensive master plan for long-range phased development of the port based upon critical evaluation and analysis of projected needs. The plan will combine port and industrial development in the undeveloped area along the Mississippi River-Gulf Outlet (Fig. No. 3) with a \$395 million investment. Within this area several thousand acres of land and extensive waterfront are available to accommodate the full complement of port facilities and the associated industrial development which is projected for the future.

A study of trends in world trade and the potential of the Port of New Orleans reveals that tonnage of general cargo in foreign trade handled over public wharves should increase at least 135% by the year 2000 to a level of 14.3 million tons a year. (Fig. No. 10). At that time general cargo handled in containers alone will be over 5 million tons per year. It is projected that the amount of cargo handled by barge carrying ships will keep pace, and eventually pass, the growth in containerized cargo. By the year 2000 it is forecast that 5.3 million tons of general cargo per year will be handled over the public wharves for the giant barge carrying ships. Additional barges from these ships will pass through the Port carrying cargo to inland terminals. Conventional freighters will still account for a portion of the trade. However, their share of total cargo will begin to decrease as soon as new facilities are available at New Orleans to service containerships and barge carriers. By 1980 the amount of breakbulk cargo carried by conventional freighters will be decreased to a level of about 4.0 million tons per year.

New facilities are essential for realization of this tremendous potential. Special terminals for containerships and barge carriers are therefore prominent in the plans for future development of the Port. For the handling of containerships special facilities are required to lift, move and marshall containers and consolidate or distribute the

cargo in them. Terminals for barge carriers also require unique features, with the capability to rapidly load, unload and fleet barges. Both types of terminals require extensive backland area and excellent highway and railway access. Both types of terminals represent a major break with the cargo handling techniques of the port.

CONTAINERSHIP TERMINALS

The elements of a modern container terminal include the wharf, gantry cranes for transferring containers to and from the ships, land vehicles to move containers from place to place in the terminal, a marshalling area to store containers awaiting ships, trucks or trains, and freight consolidation and distribution centers to load and unload containers in containers. The schematic layouts of such a terminal, depending on required capacity are illustrated by Fig. No. 11. The terminal planned for New Orleans, with construction now started in the France Road area (Fig. No. 9) will be gradually expanded to meet the demands of growing cargo volume. When completed, the terminal will consist of areas devoted strictly to handling containers and other areas designed to service combination ships carrying containers and breakbulk cargo. The terminal will be capable of accommodating up to 8 ships at one time. Installation of 6 gantry cranes will allow the terminal to handle 5 million tons of container cargo annually. The combination terminals will also have the capacity to handle over 250,000 tons of conventional breakbulk cargo each year.

BARGE CARRIER TERMINALS

Barge carrier terminals do not presently exist in the Port of New Orleans nor at any other port. It is visualized that elements of a barge carrier terminal will include covered bargeways for barge units while they are being unloaded or loaded, special cargo handling equipment for moving cargo between truck, rail cars, storage areas and barge units, a covered shed and open area for storing cargo, and a small container marshalling yard. (Fig. No. 12). Fleeting areas may also be provided for barges awaiting a ship. Covering a 29-acre site, a Module "Y" barge terminal will be capable of handling over $1\frac{1}{2}$ million tons of cargo annually. To meet the forecast for this type of cargo, four such terminal modules will be required in the Port of New Orleans by the year 2000.

BREAKBULK AND SPECIAL TERMINALS

Four new conventional breakbulk terminals will be required by the year 2000 to meet the still substantial demand for this type of facility, while allowing the phasing out and removal of obsolete wharves along the riverfront. As conceived a modern 14-acre breakbulk terminal will provide

berthing space for two ships and be capable of handling over 400,000 tons of cargo annually.

More than one million tons of steel presently move through the Port. To accommodate and encourage this cargo, two special steel handling terminals are planned. Each steel terminal will be capable of handling over 1/2 million tons of steel products annually. High rate cranes will transfer steel either to a mechanized shore-side cargo handling system or directly into rail cars or barges.

Dry bulk commodities such as ores, minerals and fertilizers are expected to grow in volume in the Port. Facility additions, including two additional berths equipped with unloaders, together with storage expansion, will enable the Public Bulk Terminal (Fig. No. 6) to meet predicted cargo increases over the next 30 years.

The program for new construction is scheduled to match the forecast of potential traffic in order to keep the Port ahead of demand for new facilities at minimum cost. At the same time the retirement of obsolete facilities is scheduled in coordination with new construction.

The retirement of some 29 existing wharves is spaced over the 30 year period of the plan, and will proceed in accordance with the age, condition and use of the wharves at the time of retirement. It is foreseen that by the year 2000 only the Henry Clay, Nashville and Napoleon Avenue Wharves will be still active on the riverfront.

CENTROPORT U.S.A.

Figure No. 13 shows CENTROPORT as it may exist by the year 2000. The shift away from the River will have been largely completed by that time and the entire strip of existing port facilities from the Harmony Street Wharf to Pauline Street Wharf will have been retired, opening this area for various residential, commercial and recreational uses.

The France Road site on the Inner Harbor-Navigation Canal is fully occupied. The turning basin in front of this site is shown widened to permit safe and convenient maneuvering of ships.

In the Gentilly Terminal area additional terminals are constructed. Continuing along the Gulf Outlet, the Public Bulk Terminal is expanded. A battery of barge carrier terminals is located adjacent to Paris Road. An alternate location for the barge terminals is shown above the Huey P. Long Bridge on the River. Areas along the north side of the Gulf Outlet are developed by port-related

industries. Other areas holding promise for industrial development are on the south side of the Gulf Outlet and below the Algiers Canal on the River.

WATERWAY IMPROVEMENTS

Among the waterway and harbor improvements of special significance to the success of the new port plan are the new lock and connecting channel between the River and the Outlet, shown to be in the general vicinity of the Violet Canal. Others are a turning basin and anchorage in the Michoud area, the widening and deepening of the entire Gulf Outlet, and the additional widening of the Outlet between the France Road Terminal and the Paris Road Bridge.

CONCLUSION

This shows the basic philosophy of the Port's long-range master plan -- the movement away from the congested city waterfront and its transformation into a concentrated, high-efficiency port installation in the core of a large industrial development which is an essential part of the Port.

Endowed by its vast waterways and transportation network, and with available undeveloped areas in the outlying fringes of the City, the Port of New Orleans is in a singularly favorable position to meet the challenge of ongoing and impending technological change by a timely program of construction and transformation. The key elements in realization of the Port's potential are timely planning of appropriate facilities, provision of sufficient funds for required new construction and full utilization of the giant waterway system, of which New Orleans is the hub, for movements of foreign trade commodities.



FIGURE NO. 1 – GENERAL VIEW PORT OF NEW ORLEANS



FIGURE NO. 2 — INNER HARBOR — NAVIGATION CANAL,
SHOWING INDUSTRIAL DEVELOPMENT AND PUBLIC PORT FACILITIES.



FIGURE NO. 3 – MISSISSIPPI RIVER-GULF OUTLET. FRANCE ROAD TERMINAL AREA IN FOREGROUND.



FIGURE NO. 4 — TYPICAL CARGO WHARVES, PORT OF NEW ORLEANS. PUBLIC GRAIN ELEVATOR IN BACKGROUND.



FIGURE NO. 5 – PUBLIC COMMODITY WAREHOUSES AND FOREIGN TRADE ZONE NO. 2.
NOTE: TRANSFER OF CARGOES FROM SHIP TO BARGE.



FIGURE NO. 6 — PUBLIC BULK TERMINAL. UNDEVELOPED INDUSTRIAL PROPERTIES IN BACKGROUND



FIGURE NO. 7 – CONTAINERSHIP SHOWING LOADED 35' CONTAINERS.

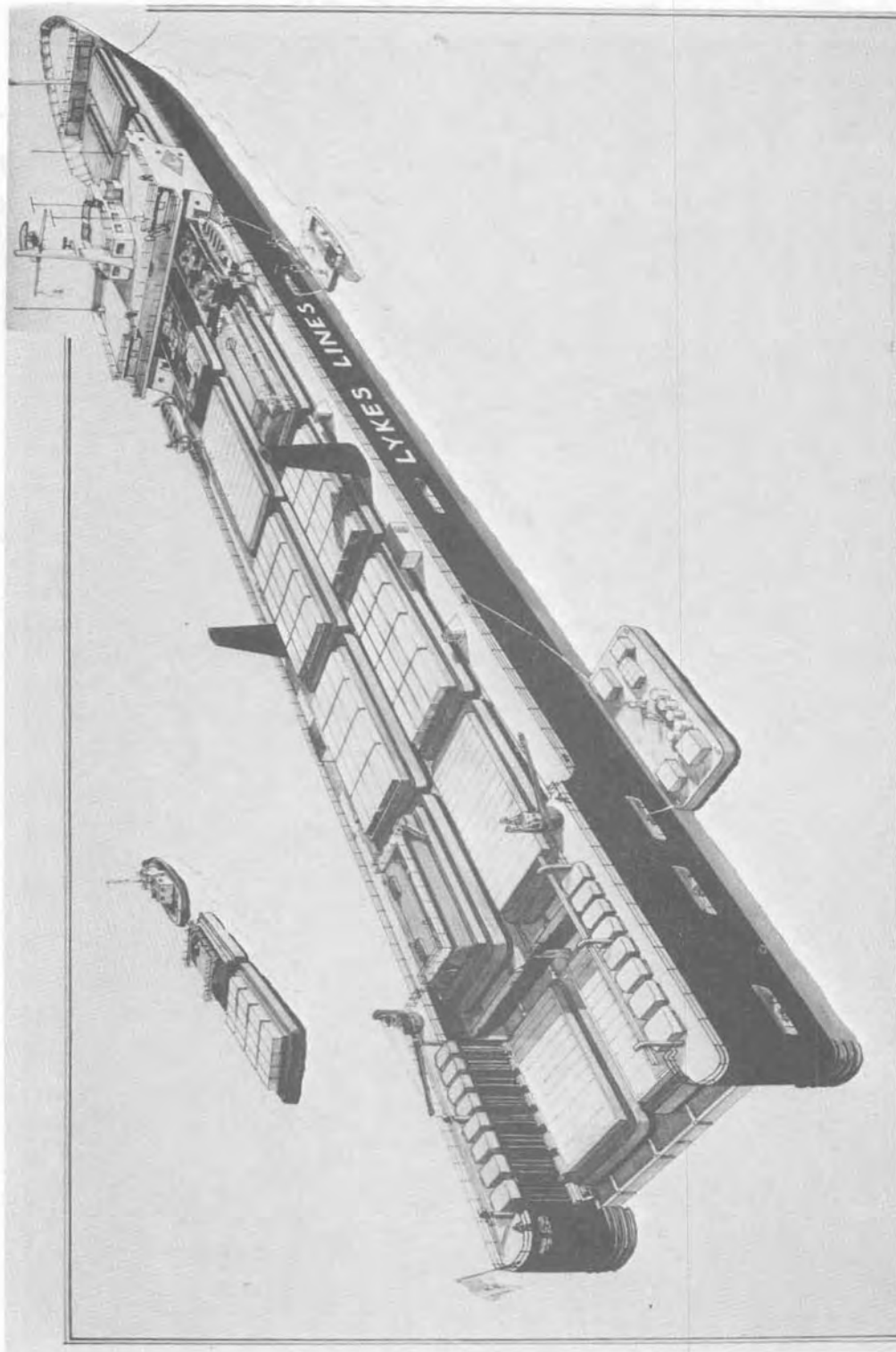


FIGURE NO. 8 – LYKES LINES SEABEE BARGE CARRIER VESSEL. NOTE: CONTAINERS LOADED ON DECKS OF BARGES.

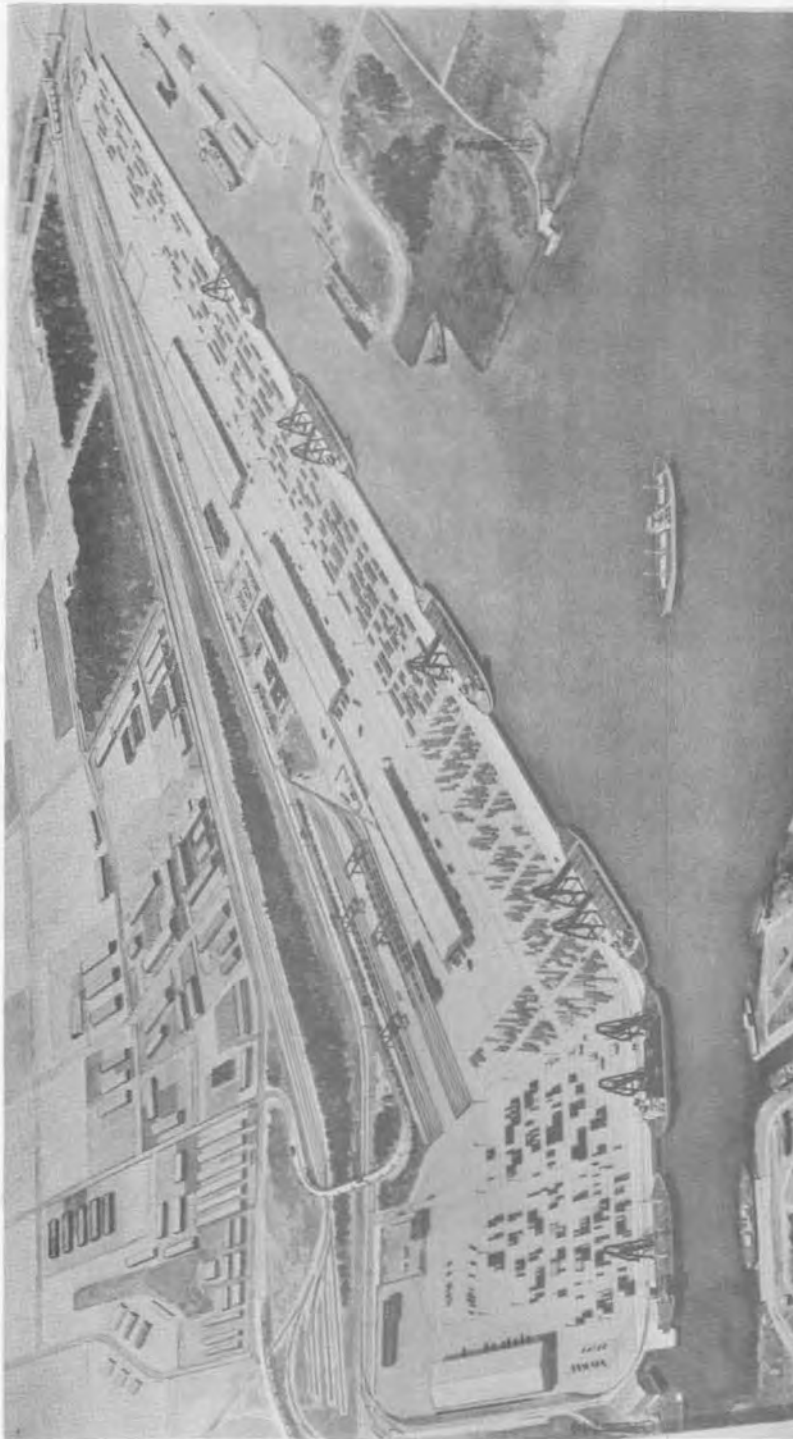
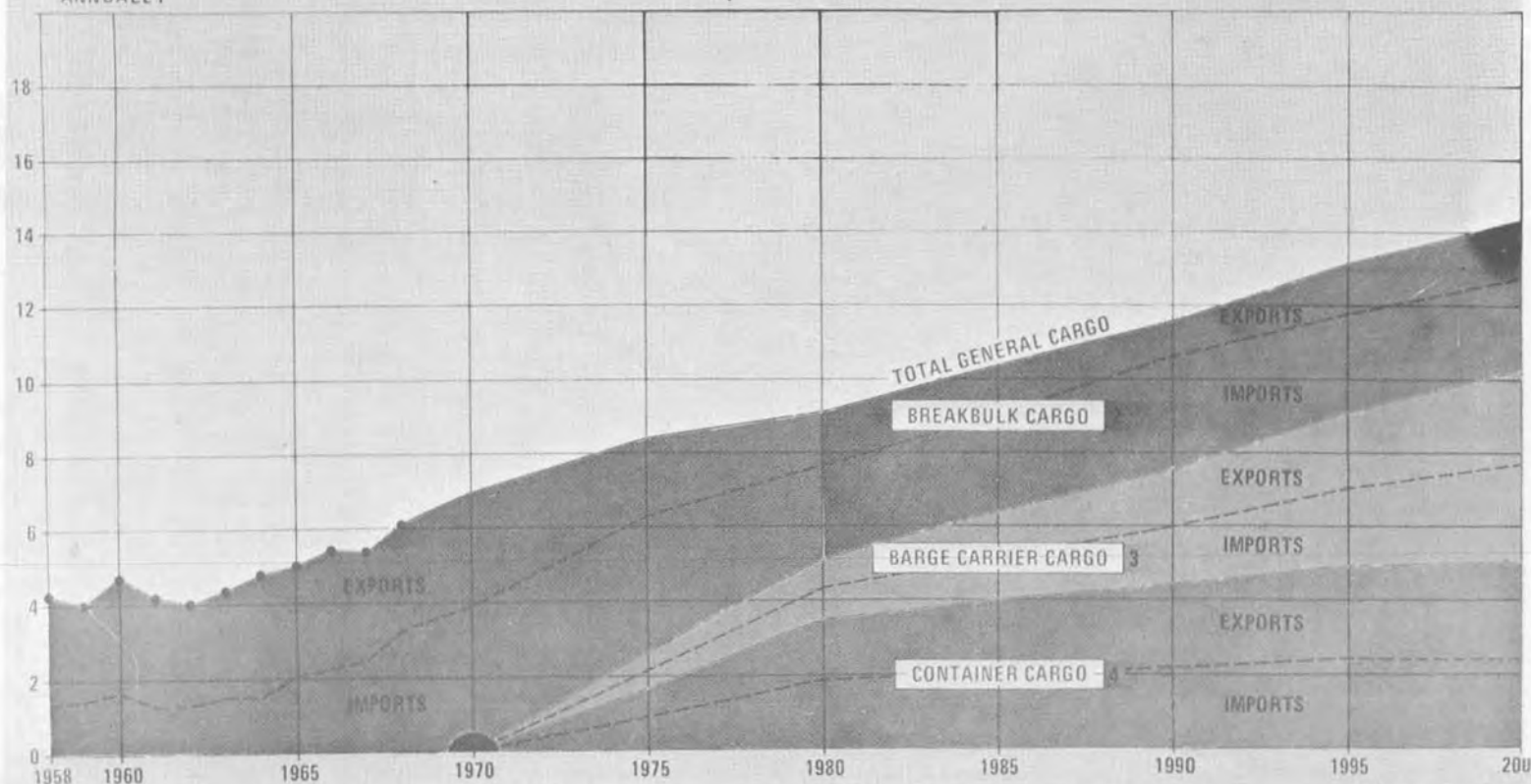


FIGURE NO.9 – ARTISTS CONCEPTION OF FULLY DEVELOPED FRANCE ROAD TERMINAL.

FIGURE NO. 10

FORECAST OF GENERAL CARGO FOREIGN TRADE IN THE PORT OF NEW ORLEANS ¹

CARGO VOLUME
MILLIONS OF
SHORT TONS
ANNUALLY



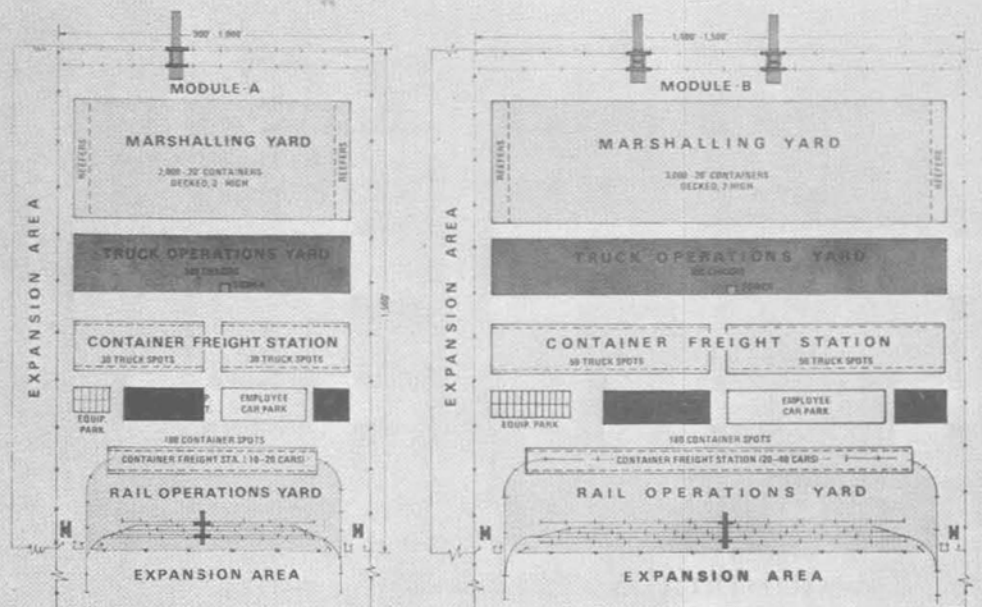
NOTES: (1) REFERS TO CARGO TRADITIONALLY HANDLED OVER PUBLIC FACILITIES. EXCLUDES BANANAS AND MOLASSES.

(2) BREAKBULK, AND PALLETIZED CARGO CARRIED ON FREIGHTERS AND COMBINATION CONTAINERSHIPS.

(3) BREAKBULK AND PALLETIZED CARGO ON BARGE CARRIERS, EXCLUDE THROUGH-BARGES.

(4) CONTAINER CARGO ON FULL AND COMBINATION CONTAINERSHIPS, BARGE CARRIERS, AND FREIGHTERS.

CONTAINER TERMINAL MODULES



ITEM	MODULE A	MODULE B	MODULE C
ACREAGE	34	52	89
NO. OF CRANES	1-3	2-3	3-4
NO. OF SHIPS	ONE S, M, L OR XL	TWO S OR M OR M+L	THREE S OR M OR S+M+L
DEVELOP- MENT COST, \$ MILLIONS	12.4	20.4	27.1

*EXCLUDING RAIL LAND, EQUIPMENT AND ACCESS

NOTES

1. AVE. 20' CONT. CARGO 10 TONS
2. CRANE RATE 20 CONT./HOUR
3. FULL CONT. LOADS 70% OF TONNAGE
4. LAND CARRIER SPLIT 80% TO 40% TRUCK, 80% TO 60% RAIL
5. YARD HANDLING EQUIPMENT TO MATCH CRANES

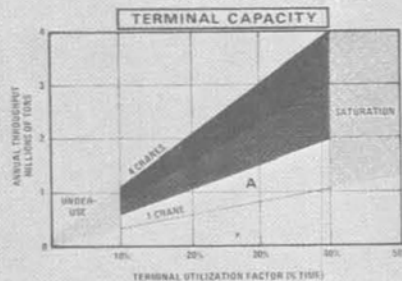
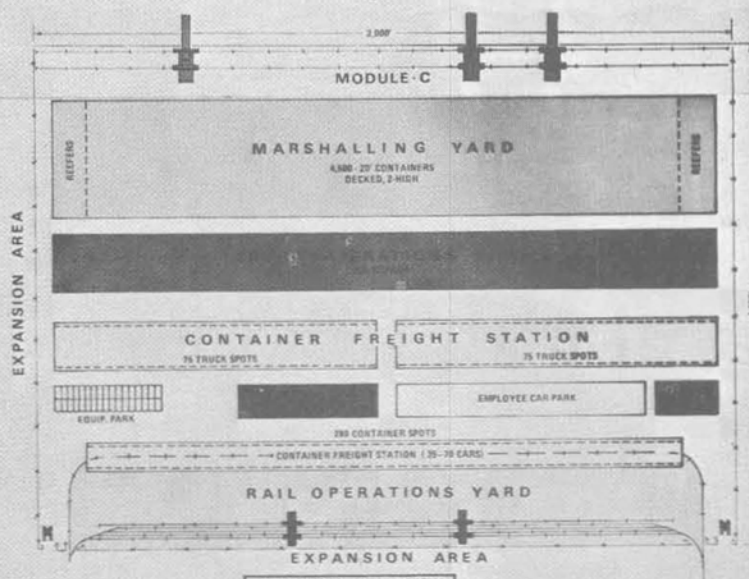
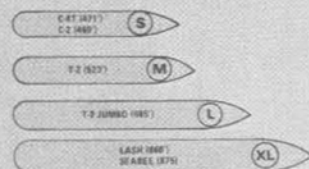


FIGURE NO. 11

FIGURE NO. 12

BARGE CARRIER TERMINAL MODULES

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