

HB

203

COMMITTEE REPORT

HOUSE

FINANCE

FURTHER:

2/16/83

Date: 3/4/83

Mr. Speaker:

The Committee on TRANSPORTATION has had HB 203

An Act making a special appropriation to the Department of Transportation and Public Facilities for Phase I of the Nome Port Facility; and providing for an effective date.

under consideration and reports it back as follows:

- do pass Individual Permittals do not pass
- do pass with attached amendments(s)
- replace with CS for _____ same title new title
- and recommends _____
- AND attaches a "Letter of Intent" New Fiscal Note
- reports it back without recommendation Zero Fiscal Note Attached
- referred to the Finance Committee

**MEMBERS SIGNING
DO PASS**

**MEMBERS HAVING
OTHER RECOMMENDATIONS:**

Mr. Cato

Mr. Sweeney, Do Pass

Mr. Katten, Do Pass

Mr. Heroman, Do Pass

Mr. Bricker, Do Pass

Mr. Cato

Mr. Cato
CHAIRMAN

STATE OF ALASKA
PRELIMINARY STATEMENT OF FISCAL IMPACT

Bill No: HB 203 Date on Bill: February 16, 1983
 Title: Appropriation to DOT/PF for Phase I of the Nome Port Facility
 Sponsor: Fuller and Busse!!
 Requestor: _____

1. Estimate fiscal impact on:

a. Expenditures:

(Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87
Capital	12,000.0			
Operating	-0-			
Total	12,000.0			

b. Revenues:

Revenue							
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2. Source of funds to offset fiscal impact of bill:

Not identified by sponsor.

3. Assumptions:

This project is already designed. \$12 million is sufficient to construct the full 3600' causeway, plus the required bridge.

4. Disclaimer:

This statement has not been reviewed by the OMB in the Office of the Governor. It therefore does not represent the final estimate of fiscal impact.

Prepared By: Robert R. Venusti
 Division: Planning and Programming

Phone: 479-4281
 Date: 2/24/83

Approved by Commissioner: 
 Department: Department of Transportation and Public Facilities

Date: 2/25/83

5. Distribution:

- Original to Legislative Finance
- Copy to OMB
- Copy to Sponsor
- Copy to Requestor

2/8/83

DISTRICT 23

ALAKANUK	NOME
BREVIG MISSION	SAVOONGA
CHEVAK	SCAMMON BAY
DIOMEDE	SHAKTOOLIK
ELIM	SHELDON'S POINT
EMMONAK	SHISHMAREF
GAMBELL	STEBBINS
GOLOVIN	ST. MICHAEL
HOOPER BAY	TELLER
KOTLIK	UNALAKLEET
KOYUK	WALES
	WHITE MOUNTAIN

REP. JOHN G. (JACK) FULLER



CHAIRMAN, RULES COMMITTEE

MEMBER

FINANCE COMMITTEE
POLICY COMMITTEE
COMMITTEE ON COMMITTEES
REAA BUDGET OVERSIGHT COMMITTEE
BLUE RIBBON COMMISSION ON PERSONNEL

Alaska House of Representatives

March 2, 1983

MAR 2 1983

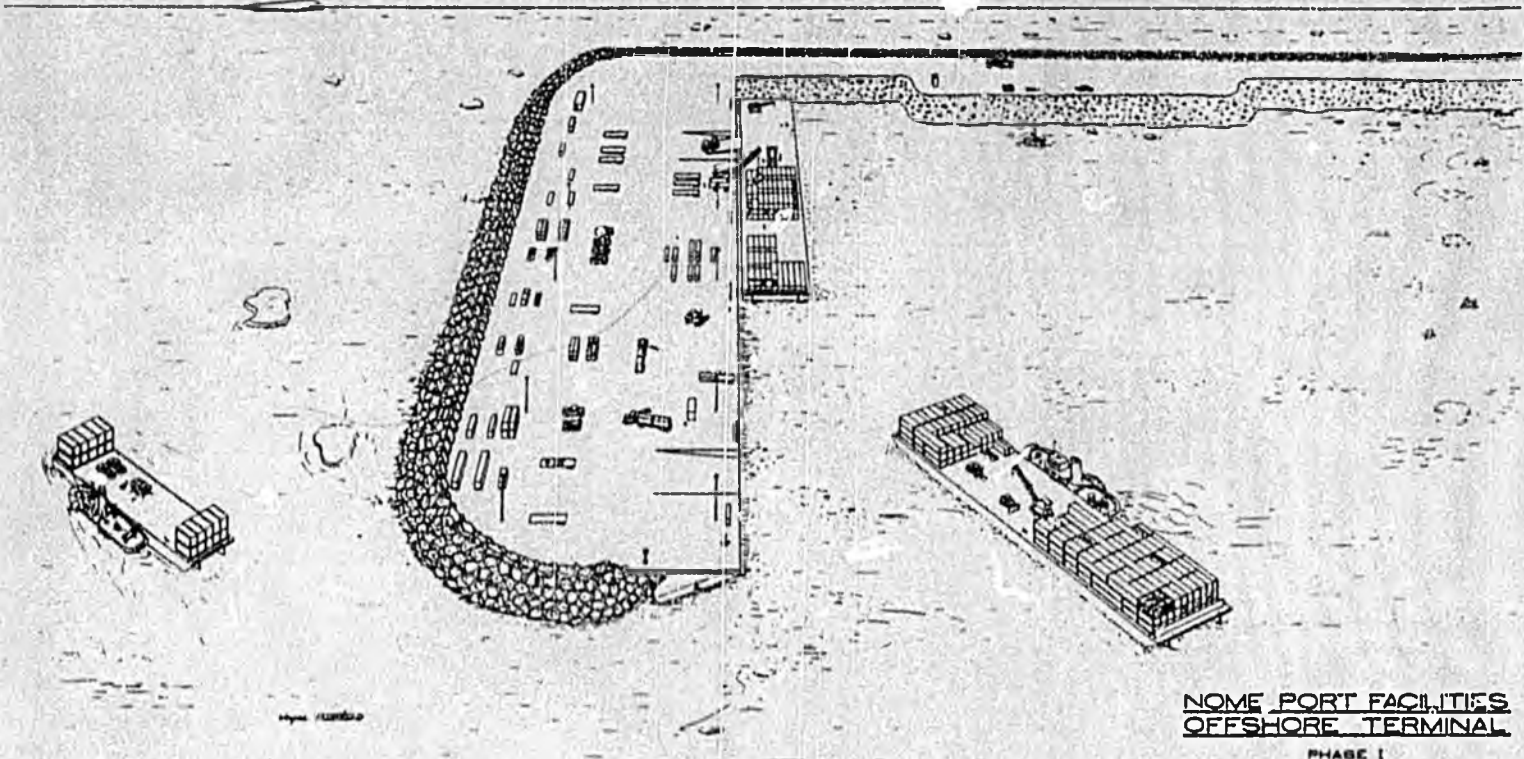
TO: Members of the House Transportation Committee

FROM: Rep. John G. (Jack) Fuller

Attached is the Nome Port Facilities, Phase 1 report published by Tippetts, Abbett, McCarthy and Stratton. The report contains back-up information for House Bill 203. If you have further questions, please let me know.

NOME PORT FACILITIES

PHASE I



NOME PORT FACILITIES
OFFSHORE TERMINAL

PHASE I

TECHNICAL INFORMATION BULLETIN

TAMS

TIPPETTS-ABBETT-McCARTHY-STRATTON ENGINEERS

A PROFESSIONAL CORPORATION

ALASKA

PROJECT: Port of Nome Causeway and Onshore Facilities

OWNER: The City of Nome, Alaska

FUNDING: State of Alaska (DOT/PF)

DESIGN ENGINEERS: Tippetts-Abbett-McCarthy-Stratton (TAMS)

DESIGN COMPLETION: Estimated for February 1983

CONSTRUCTION BID DATE: Unknown, depends on the City of Nome obtaining funding from the State of Alaska Legislature. Possibly in mid-summer 1983.

AVAILABILITY OF PLANS: Plans will not be made available until the City is prepared to go ahead with construction. Incomplete preliminary plans and study materials may be viewed at TAMS offices by arrangement.

PROJECT DESCRIPTION: The City of Nome, situated on the north shore of Norton Sound (Figure 1) has a shallow harbor which precludes the docking of vessels drawing more than 6 feet of water. Consequently all cargo is lightered from barges anchored up to 1 mile offshore.

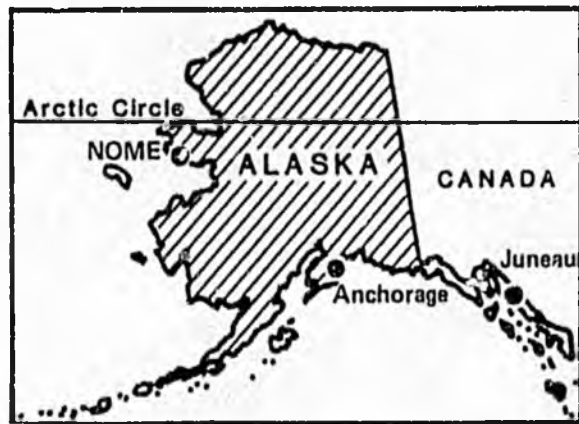


Fig. 1 Location Plan

The City proposes to build the new port in three phases. The first level of development, shown in Figure 2 will provide two 400 foot barge berths at an offshore terminal connected to the shore by a 3500 foot causeway. Later phases of development will include two additional piers for oil rig service vessels and a bulk ore load out facility.

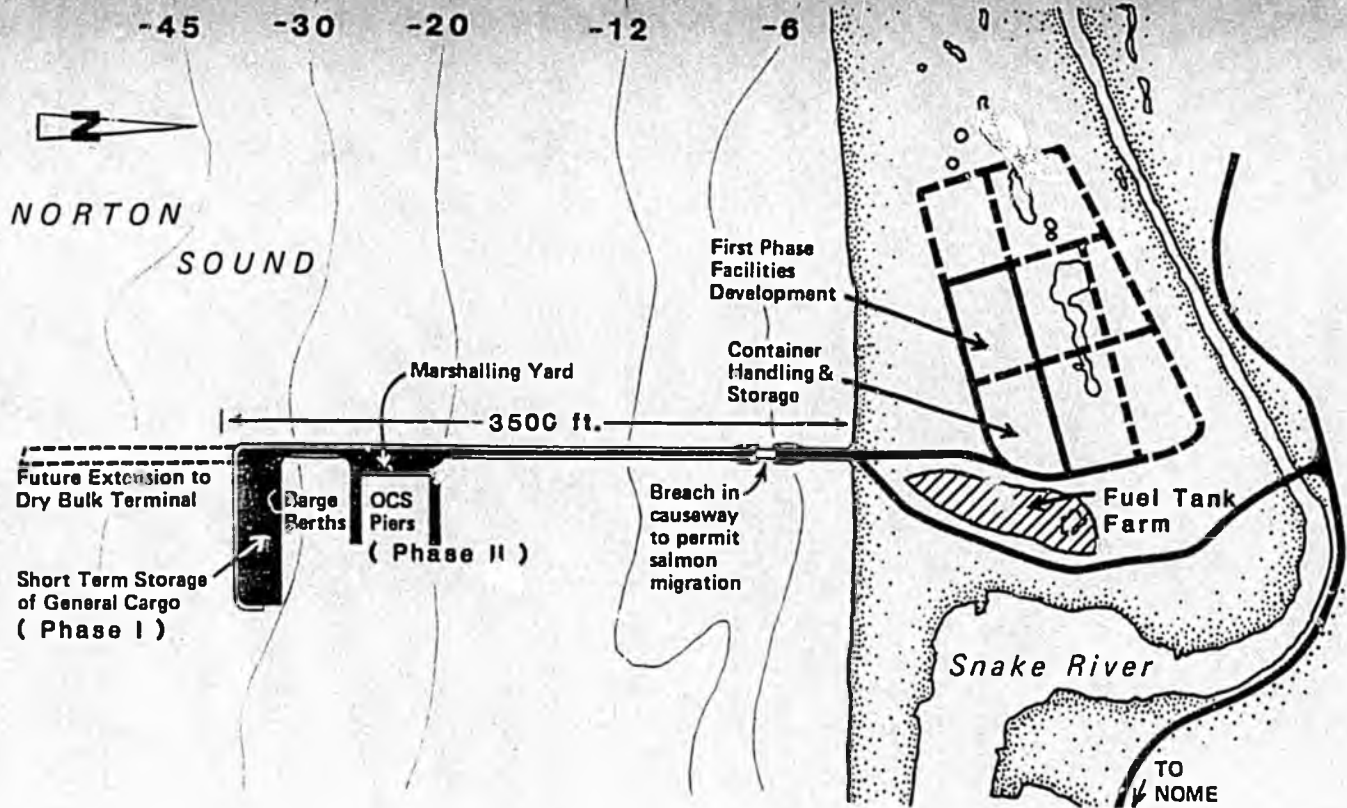


Fig. 2 Layout of Port

STRUCTURAL DETAILS:

Causeway

The causeway, shown in Figures 3 and 4, will be a rubble mound structure with 15-20 ton armor protection to the south and west faces and 8-12 ton armor on the east face. Utility lines will be direct buried in two utility corridors. The causeway roadway and offshore terminal area will be paved with asphalt; axle loads on the facility are expected to be 120,000 pounds.

Causeway Breach

Approximately 400 feet from shore the causeway will be breached and the opening crossed with a 98 foot bridge of prestressed concrete girders.

Offshore Terminal

The offshore terminal will provide 4.6 acres of short term open storage area (no buildings).

Dock Structure

The main dock structure to the offshore terminal will be constructed from 30 foot diameter by 33 foot high circular concrete caissons, as shown in Figure 5. Wall thickness is 12 inches with an 18 inch base giving a weight of 315 tons per

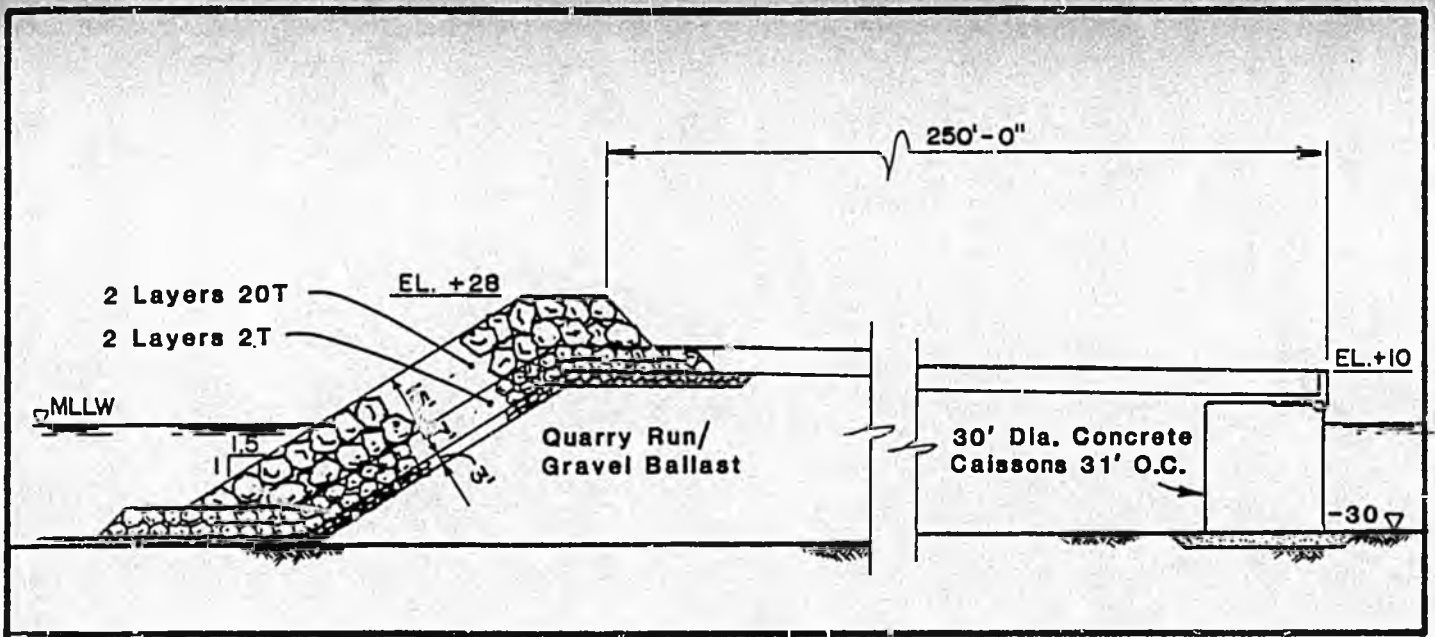


Fig. 3 Typical Section - Offshore Terminal

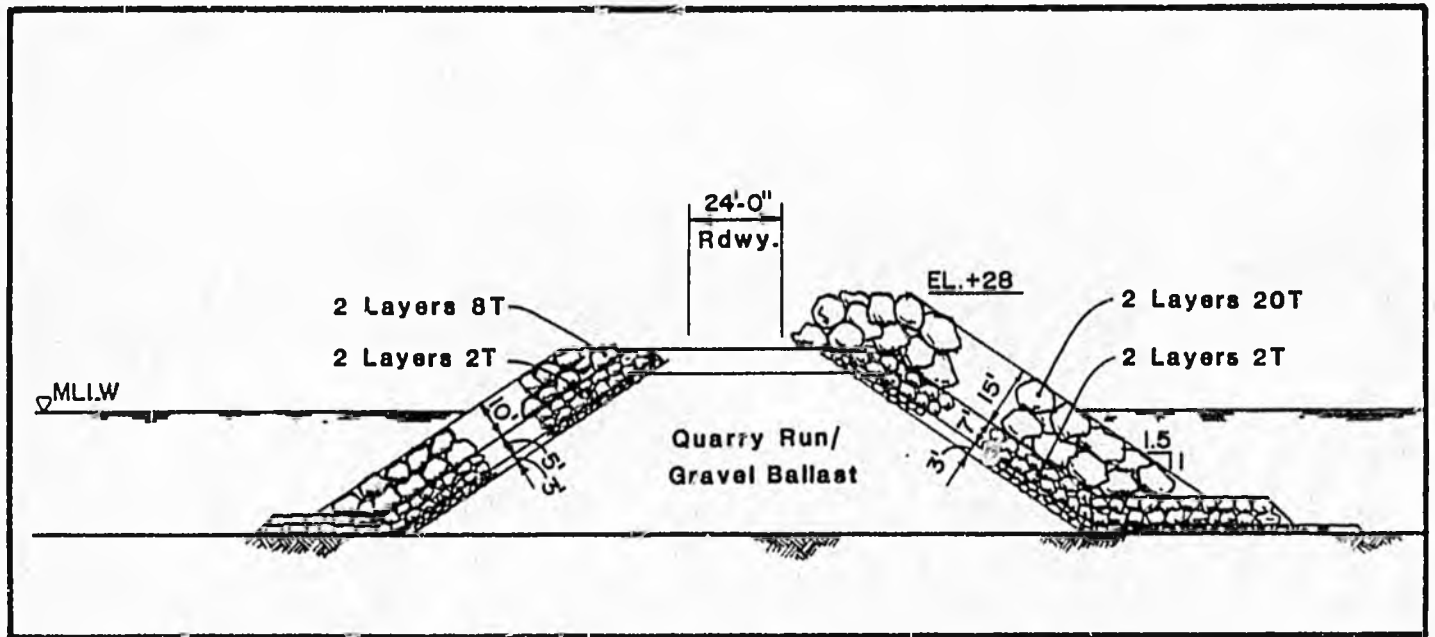


Fig. 4 Typical Section - Causeway

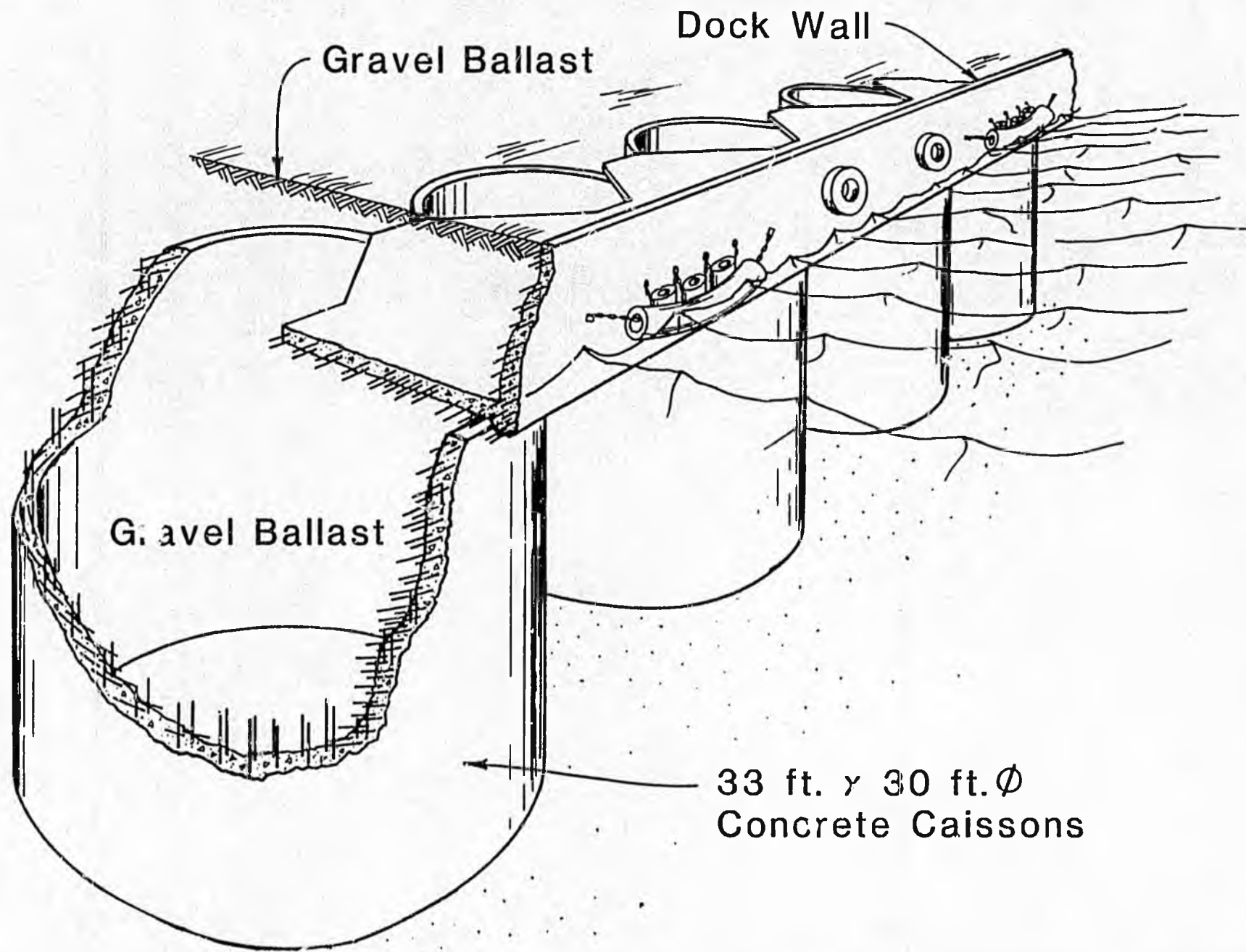


Fig. 5 Dock Structure and Caissons

caisson. Epoxy coated reinforcement is expected and an epoxy outer coating may be required over the area of the caisson likely to be subjected to ice abrasion.

Onshore Facilities

1. 10 acres of open storage on a 9 foot thick gravel pad.
2. Container Freight Station: 8000 square feet of container handling area plus 1600 square feet of office space using pre-engineered metal buildings.
3. Vehicle Maintenance Shop: 3200 square feet of work area with a 5 ton crane.

Fuel System

Since 75% of all cargoes imported to the region are bulk petroleum products, a comprehensive fuel unloading, distribution and storage system is required. The main offloading point will comprise 4 product unloading arms and pipework to the tank farm area shown in Figure 6. New tanks will be constructed within the existing fuel storage area.

Mechanical and Electrical

The utilities corridor along the causeway will carry high and low voltage electrical service, telephone, lines for a variety of types of fuel, and water lines for fire fighting. At the terminals and berths there will be navigation lighting and illumination for work areas.

CLIMATE:

Norton Sound is open to navigation from mid or late June to late October or mid-November when sea ice from the Bering Sea collects along the shoreline. Shorefast and floating ice cover is normally established by January and remains to a distance of approximately 1 mile from the shoreline until break up (Figure 7). Winter temperature minimum averages -10° F and rarely falls below -40° F. Summer temperatures rarely exceed 55° F.

The predominant storm direction is from the southwest. A 100 year significant wave height of 16.5 feet is projected for the offshore terminal area, accompanied by a storm tide which in 1974 caused a 10 foot set up at the City dock in the Snake River.

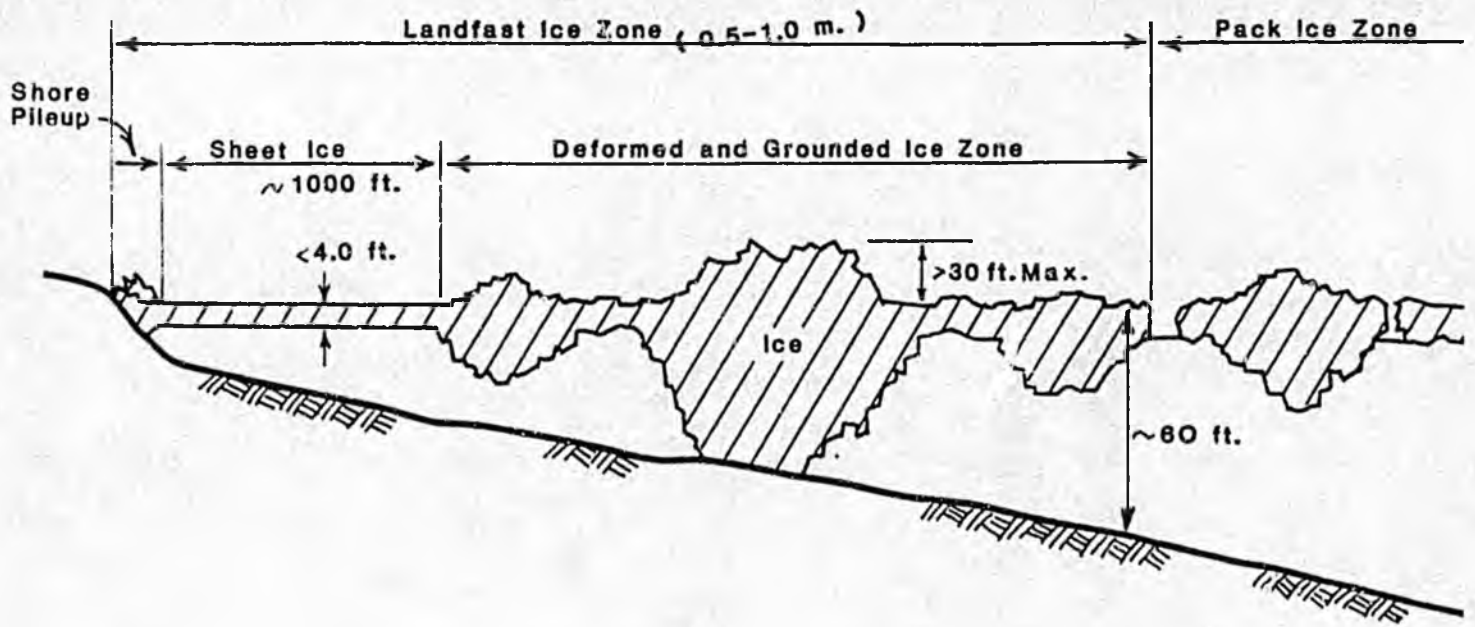


Fig. 7 Shorefast Ice Cover

MATERIALS:

The primary source of core material for the causeway and offshore terminal is expected to be one of a number of gold dredge tailing dumps located at 2-5 mile radii from the project site.

Rock armor for protection against wave and ice attack is expected to be obtained from the Cape Nome quarry, approximately 13 miles east of the project site as shown in Figure 8. Highway access to the quarry site is maintained in the summer months only.

GROUND CONDITIONS:

All onshore facilities are located in a permafrost area which must be protected by a gravel blanket. The permafrost is patchy towards the shoreline and the sand spit to the east of the causeway which has been worked for gold extraction exhibits very low bearing capacity.

SITE INVESTIGATIONS:

During a borehole program carried out in February 1982, 7 offshore and 13 onshore holes were drilled. Bedrock was encountered under the causeway location at depths varying from 40-60 feet below the seabed. Overlying materials sampled comprised glacial silts, tills and sands.

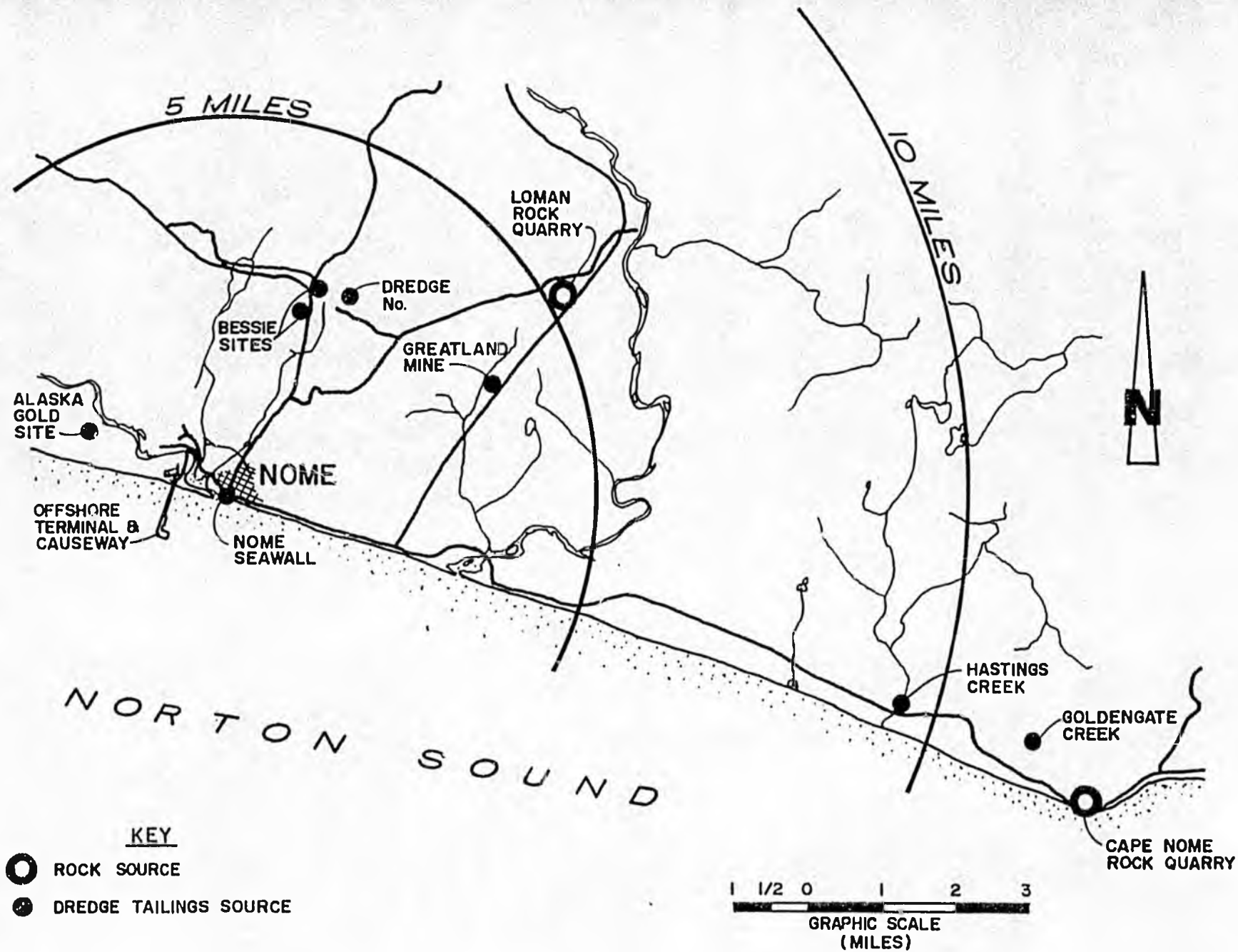


Fig. 8
LOCATION MAP - SOIL AND ROCK BORROW SITES

Materials source investigations carried out in June 1982 were followed by a test blast at the Cape Nome quarry. The results of these and all other site investigations will be made available to contractors at bid time and may be reviewed by arrangement with TAMS.

PERMIT STATUS:

An application for a Corps of Engineers construction permit was submitted in August 1982. Prior to the application extensive discussions with interested state and federal agencies were carried out to resolve concerns and incorporate mitigation measures where necessary.

MATERIALS QUANTITIES:

A preliminary, abbreviated list of materials quantities for the Phase I construction contract is attached.

Further information on the project may be obtained from the following:

TAMS
4791 Business Park Boulevard
Anchorage, AK 99503
Phone (907) 276-6565

After February 5, 1983 - (907) 562-2282

TAMS

TIPPETTS-ABBETT-McCARTHY-STRATTON □ ENGINEERS

A PROFESSIONAL CORPORATION

ALASKA

LINE	DESCRIPTION	QUANTITY	UNIT
	UTILITIES - PHASE I		
39	Water Distribution		sum
	Furnish & install 7200 l.f. 8" ϕ , 1000 l.f. 4" ϕ , 8600 l.f. 2½" ϕ , 1000 l.f. 6" ϕ , and 1000 l.f. 2" ϕ Ins. PVC Pipe		
	FUEL DISTRIBUTION		
	<u>Alternate I</u>		
40	Diesel Fuel		sum
	Furnish & install 5800 l.f. 8" ϕ bl. steel pipe		
41	Jet Fuel		sum
	Furnish & install 5800 l.f. 8" ϕ bl. steel pipe		
42	AVGAS 100/130		sum
	Furnish & install 8000 l.f. 6" ϕ bl. steel pipe		
43	Unleaded Gasoline		sum
	Furnish & install 8100 l.f. 6" ϕ bl. steel pipe		
44	Regular Gasoline		sum
	Furnish & install 8000 l.f. 6" ϕ bl. steel pipe		
45	Corrosion Protection		sum
46	Utility Bridge		sum
	SUBTOTAL		
	<u>Alternate II</u>		
47	Diesel Fuel		sum
	Furnish & install 5800 l.f. 8" ϕ bl. steel pipe and 1 14,000 bbl tank		
48	Jet Fuel		sum
	Furnish & install 5800 l.f. 8" ϕ bl. steel pipe and two (2) 3500 bbl tanks		

