

SB

260

FACTS CONCERNING TATITLEK FERRY FACILITY

PRESENT FERRY AVAILABILITY

If prior radio arrangements are made between Tatitlek residents and the Ferry System, a ferry will proceed to the Ellamar Entrance Buoy and pick up or discharge passengers. Passengers must take a small boat or skiff from shore to the ferry. During winter months and when there is foul weather, getting on or off the ferry is dangerous. Cost of a ticket from Tatitlek to Valdez is \$17.00 per person.

PROPOSED SITE

A passenger and light freight facility is recommended at the West Site identified in the Feasibility Study. The West Site is located between Tatitlek and Ellamar. The West Site is well protected and the total additional travel from the existing ferry route would only be 6.5 miles. The West Site is only one mile South of the flag stop where the ferry picks up passengers at the Ellamar Entrance Buoy.

The passenger and light freight facility incorporates five mooring dolphins and a steel floating dock for the transfer of passengers and light freight.

At the proposed West site, there would be 34 feet of water depth available at mean lower low water. The West site is protected to the South by a peninsula jutting approximately 1300 feet out from the shoreline. The combination of the embankment and timber pier built 500 feet out to the ferry docking facility on the North and the peninsula to the South will possibly provide protection for the fishing boats presently anchored in front of Tatitlek Village. Those boats, in the winter months, are very susceptible to being damaged because there is no breakwater at Tatitlek.

COST OF FERRY FACILITY

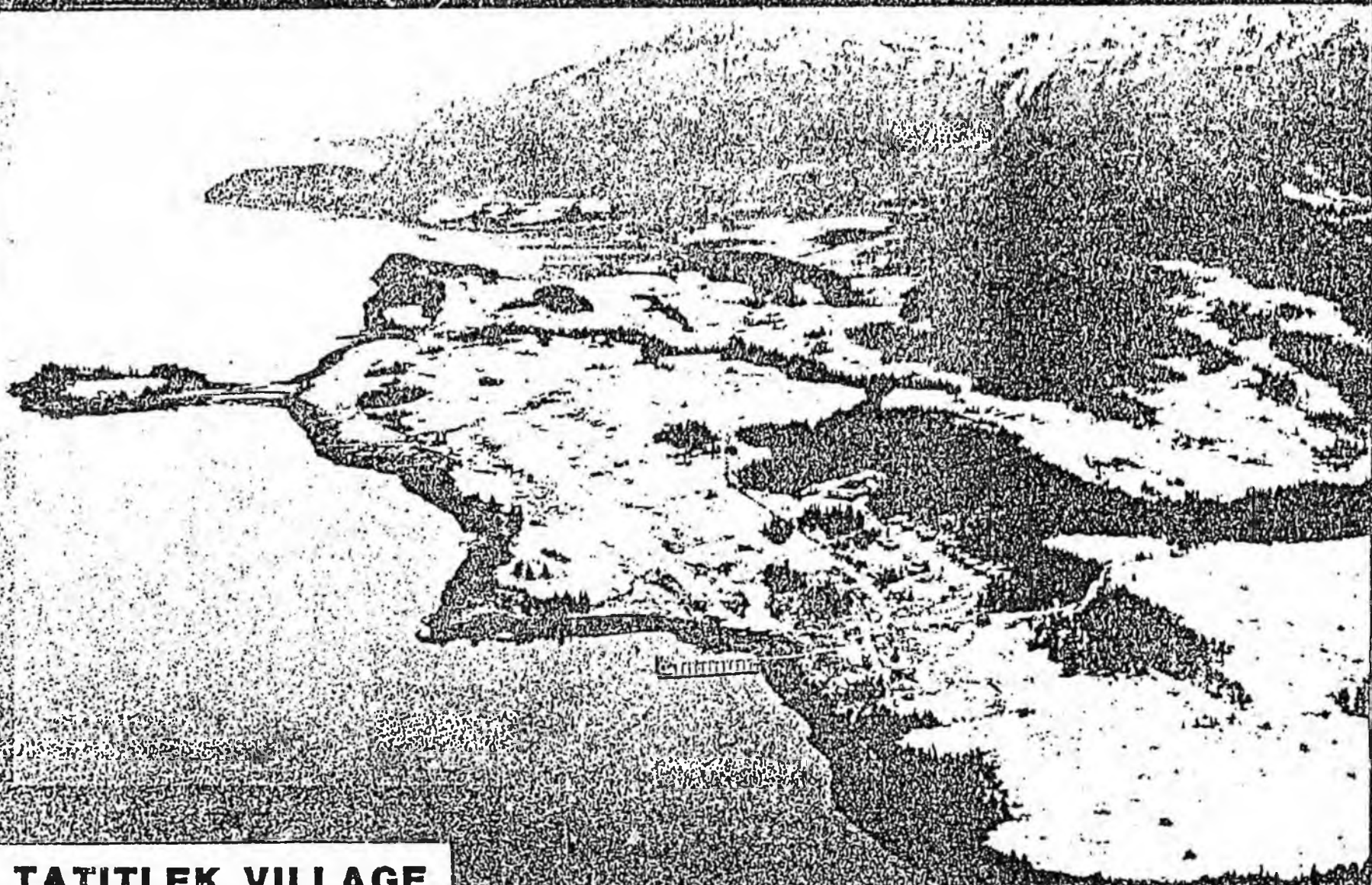
The estimated cost for the passenger/light freight facility at the West Site is approximately \$1.68 million plus \$200,000 for access trails or a total of \$1.88 million. This cost could be substantially reduced if sources for fill and riprap materials could be found in the vicinity of Tatitlek. Such materials were found in Boulder Bay, immediately east of Tatitlek, during a Corps of Engineers study conducted in 1964.

LAND OWNERSHIP

The land on which the ferry facility will be located is owned by Tatitlek Corporation and is available for construction. The potential quarry site for fill and riprap is also owned by Tatitlek Corporation.

PERMITS

Appropriate permits for onshore and offshore construction must be obtained from the U.S. Army Corps of Engineers. Permits for additional buoys must be obtained from U.S. Coast Guard.



TATITLEK VILLAGE

FIGURE 2



FIGURE 7

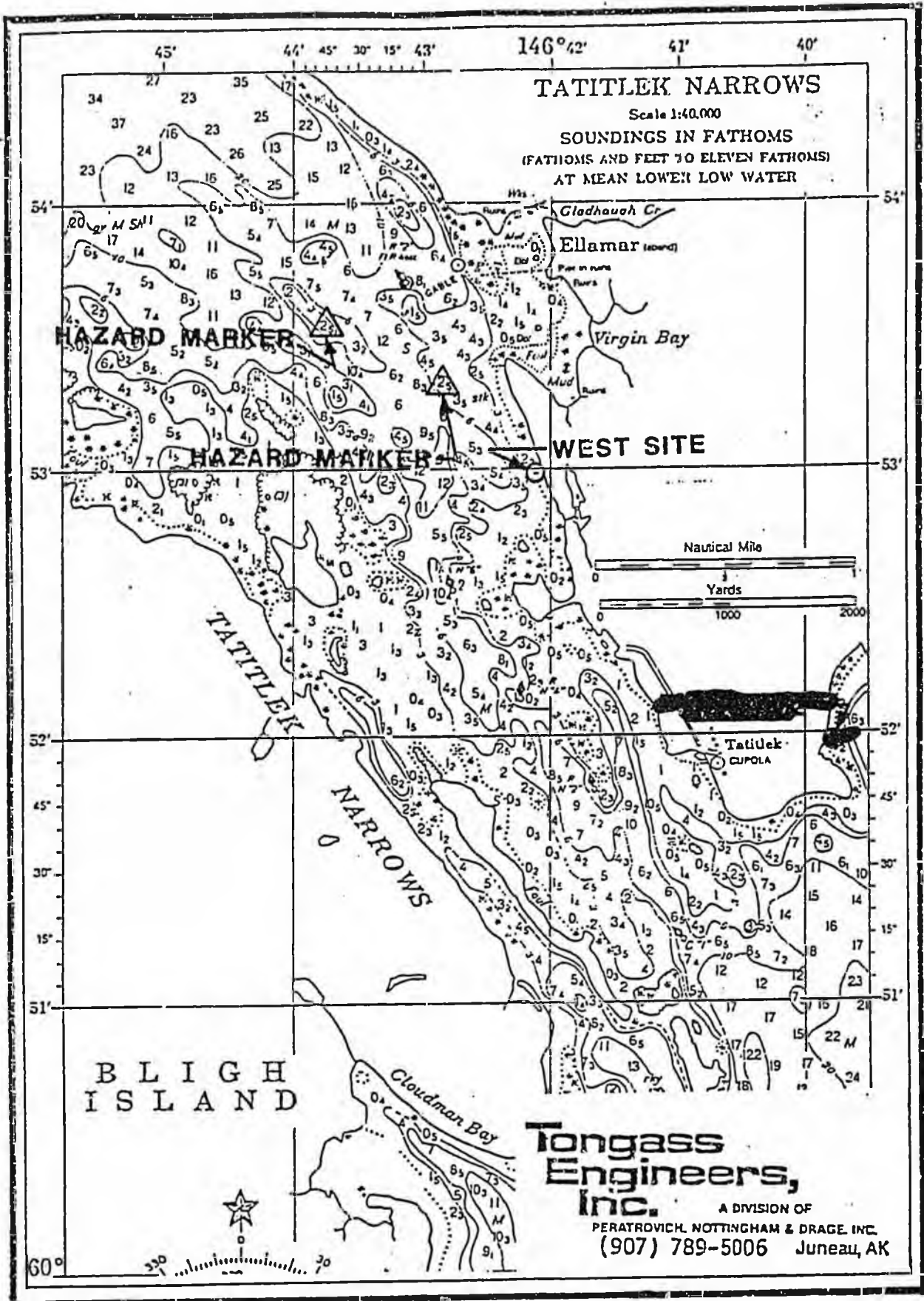


FIGURE 2

**Jngass
Engineers,
Inc.**

A DIVISION OF
PERATROVICH, NOTTINGHAM & DRAGE, INC.
(907) 789-5006 Juneau, AK



VICINITY
MAP

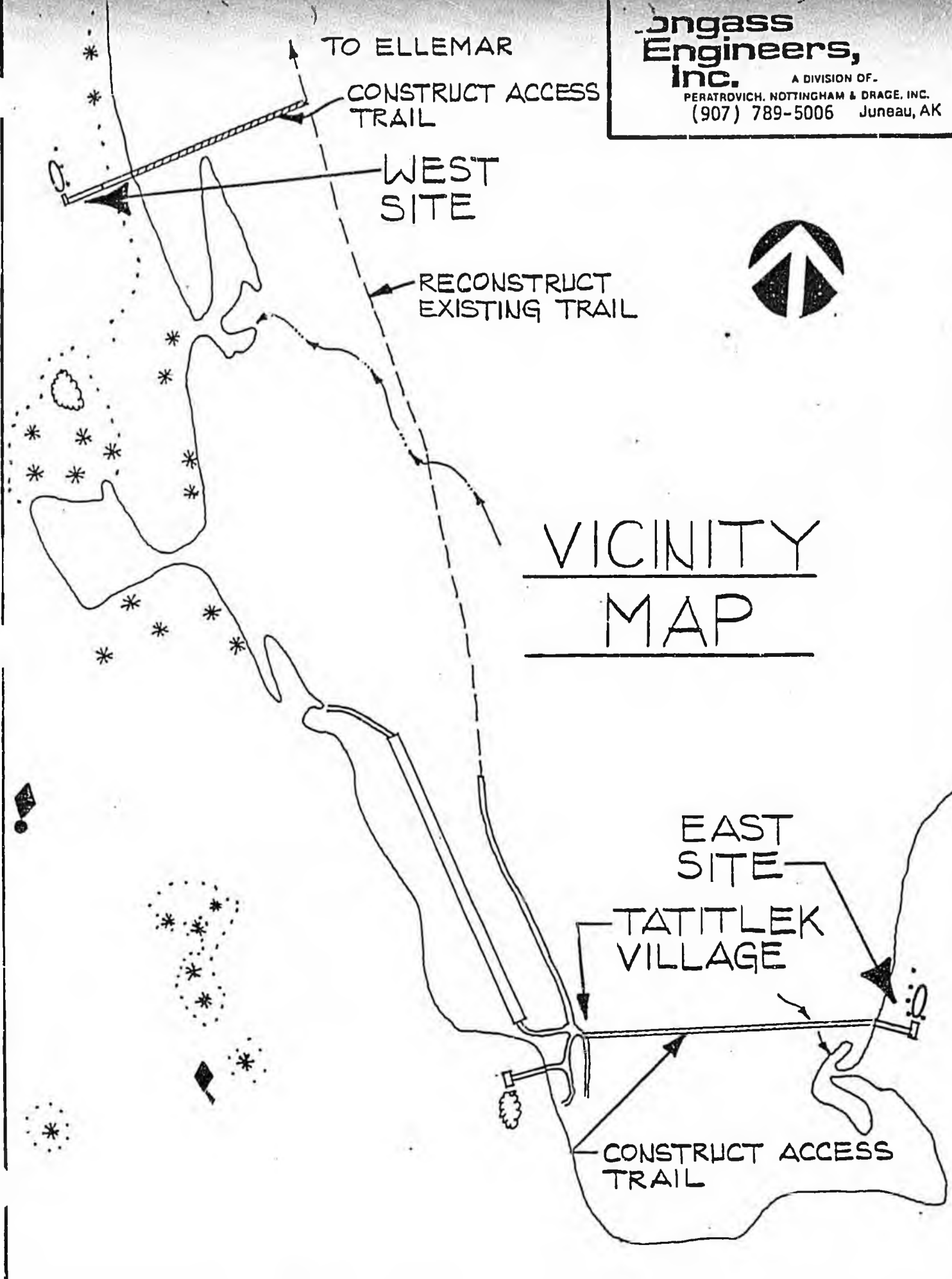


FIGURE 3

CITY OF VALDEZ, ALASKA

RESOLUTION NO. 8743

A RESOLUTION OF THE COUNCIL OF THE CITY OF VALDEZ, ALASKA, SUPPORTING THE CONSTRUCTION OF A FERRY FACILITY BETWEEN TATITLEK AND ELLAMAR.

WHEREAS, the Village of Tatitlek is located on the East side of Tatitlek Narrows between Cordova and Valdez and is 24 nautical miles from Valdez and 60 nautical miles from Cordova, and 1.5 miles from Ellamar; and

WHEREAS, Tatitlek is accessible only by charter plane or private boat; and

WHEREAS, there are presently 91 adult persons and 30 children residing at Tatitlek and six adults and one child residing at Ellamar, or a total of 128 persons; and

WHEREAS, the cost of charter air service to Valdez from the Tatitlek airstrip is \$102 per person without freight and \$179 per person with freight, which means that a grocery shopping trip to Valdez for one person costs \$281 for air transportation; and

WHEREAS, the Alaska Marine Highway ferries presently travel between Valdez and Cordova and Tatitlek is a flag stop if prior radio arrangements are made; and

WHEREAS, the Department of Transportation and Public Facilities has caused to be made a Tatitlek Ferry Terminal Feasibility Study, Project X74663, by Tongass Engineers, Inc., Juneau, Alaska, which was completed in 1986; and

WHEREAS, the West site designated in the feasibility study is the preferred site because it is well protected and will also possibly provide protection for the fishing boats now anchored in front of the village; and

WHEREAS, Tatitlek Village Corporation owns the land on which the facility will be constructed and the land is available for construction; and

WHEREAS, disruption to the environment would be minimal.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF VALDEZ, ALASKA, that

CITY OF VALDEZ, ALASKA
RESOLUTION NO. 8743
PAGE 2

Section 1: The State of Alaska Department of Transportation and Public Facilities, Division of Marine Highways, is hereby requested to provide funding as soon as possible for a passenger and light freight ferry facility to be constructed at the west site between Tatitlek and Ellamar for use by the Alaska Marine Highway System vessels to provide safe, reliable and cost effective access for the residents of Tatitlek and Ellamar to Valdez and Cordova.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF VALDEZ, ALASKA, this 21st day of September, 1987.

CITY OF VALDEZ, ALASKA

John Devens
John Devens, Mayor

ATTEST:

Jeanne D. Donald
Jeanne D. Donald, City Clerk

SENATE COMMITTEE REPORT

DATE: 4/17/91

FURTHER: Finance

Date of 5-Day Notice: 3/27/92
(in accordance with Uniform Rule 23)

DATE TURNED INTO OFFICE: _____

Transportation Committee considered SB 260

Appropriation to the Dept. of Transportation/Public Facilities for the Tatilek ferry facility and related roads; efd.

and recommended:

- replace with _____ CS _____
- or adopt _____ CS _____
- attached amendment(s)
- _____ letter of intent adopted
- same title
- new title
- technical title change (HB only)

do pass

do not pass

no recommendation

individual recommendations

further referral to _____

ATTACHES NEW FISCAL NOTE(S):

APPROVES PREVIOUS:

fiscal note(s) Dept/Date: DOTPF/1/9/92

fiscal note(s) Dept/Date: _____

zero fiscal note(s) _____

zero fiscal note(s) _____

appropriation-no fiscal note

Governor's bill w/fiscal note

SIGNING DO PASS:

OTHER RECOMMENDATIONS:

Dink Shady

at this time -
use force - Pass - use \$100 fine funds

Chair: Signature and Recommendation

NO PASS

Alaska State Legislature



Sen. Curt Menard, *Chair*
Sen. Lloyd Jones, *Vice-Chair*
Sen. Bettye Fahrenkamp, *Member*
Sen. Drue Pearce, *Member*
Sen. Dick Shultz, *Member*

P.O. Box V
Juneau, AK 99811
907 465-4921

Senate Transportation Committee

LETTER OF INTENT SB 260 (March 5, 1992)

It is the intent of the Senate Transportation Committee in passing SB 260 from committee that the Senate Finance Committee review all potential funding sources for purposes of funding the Tatitlek ferry facility and related roads. Given the impacts of the Exxon-Valdez oil spill on the community of Tatitlek, the finance committee should review the possibilities of accessing criminal and civil settlement funds for the purpose of constructing a ferry facility and related roads at Tatitlek.

Patrick M. Rodey
Senator

Alaska State Legislature

3111 C. St., Suite 510
Anchorage, Alaska 99503
(907) 561-7618

During Session:
P.O. Box V
Juneau, Alaska 99811
(907) 465-3793

Senate

M E M O R A N D U M

John

DATE: February 17, 1992
TO: Senator Curt Menard, Chairman
Senate Transportation Committee
FROM: Senator Patrick M. Rodey *Pat*
SUBJ: Request for hearing on SB 260

I respectfully request that Senate Bill 260 be scheduled in the Senate Transportation Committee. The measure seeks funding of \$1,900,000 for construction of the Tatitlek ferry facility and associated roadways. This proposal is for construction on the west site.

An engineers' study by Tongass Engineers, Inc. of Juneau, a fiscal note, and a position paper from DOT&PF were submitted to your office last year. Attached is a revised fiscal note which replaces that of last year.

I would appreciate a hearing at the earliest possible opportunity. Please contact Tim Benintendi of my staff with any questions.

PMR/tb/memo004

Patrick M. Rodey
Senator

Alaska State Legislature



Senate

3111 C. St., Suite 510
Anchorage, Alaska 99503
(907) 561-7618

During Session:
P.O. Box V
Juneau, Alaska 99811
(907) 465-3793

MEMORANDUM

DATE: April 26, 1991

TO: Senator Curt Menard, Chair
Senate Transportation Committee

FROM: Senator Pat Rodey *Pat*

SUBJ: Request for Hearing - SB 260

I respectfully request a hearing in the Senate Transportation Committee for SB 260, the bill to appropriate \$1,900,000 for construction of the Tatitlek ferry facility and associated roadways. The proposal is for construction on the west site. An engineers' study by Tongass Engineers, Inc. of Juneau is attached.

I would appreciate the earliest possible scheduling of SB 260 before the committee. Please contact Tim Benintendi of my staff for further information.

PMR/tb/memo004



*Department of Transportation
and Public Facilities*

POSITION PAPER

BILL NO: SB 260

APPROVED: *J. J. [Signature]*

TITLE: Approp: Tatitlek Ferry Terminal
and Roads

DATE: May 8, 1991

Introduction

SB 260 directs the Department of Transportation and Public Facilities to construct a ferry dock and related roads at the west site as recommended in the "Tatitlek Ferry Feasibility Study," prepared by Tongass Engineers, Inc., in 1985.

Service History

Officially, AMHS does not serve the area. The M/V Bartlett has called at the Tatitlek and Ellamar area for several years as a flag stop. There are no facilities in either community. The M/V Bartlett has transferred people and baggage to skiffs which come out to meet the travelers. At best, it is a very undesirable way to serve a community.

Level of Service vs. Capital Improvements

Standards for construction are based on service needs. Public and institutional demand is for features that affect the quality and quantity of passenger convenience, operational effectiveness and efficiency, flexibility and reliability. Facilities not meeting expectations and optimum operational utility inherently cause dissatisfaction and pressure to bring them to optimum standards.

Functional ferry passenger terminal buildings with restrooms, waiting area and ticket capability, are standard expectations for most travelers. For effectiveness and operational efficiency in all weather conditions, it is desirable to have vessel port and starboard landing capability. This feature improves docking time considerably in adverse conditions, allows maximum loading flexibility, and provides redundancy in event of damage to part of the facility. Staging areas large enough to effectively stage waiting traffic, circulate transitory traffic, and efficiently transfer vehicles and people to

For Further Information contact Katy McHugh at 465-3900.

POSITION PAPER - DOT / PF

BILL NO: SB 260

DATE: May 6, 1991

ships is also expected in addition to adequate safe access. Site improvement features like pave staging areas, illuminated areas, emergency electrical generation, shore power to service, and watering capability provide safety, operational efficiencies, and reliability.

In the case at Tatitlek and Ellamar, it is possible to support a lesser level of service that will meet the major service objectives but leave several needs and demands unmet. Considering the village setting, it may be that the needs and demands of this area will be more than satisfied with a basic minimum facility proposed in the study.

Traffic Projections

There is no real way to accurately project how much traffic will be generated by a scheduled call at the proposed site. There are approximately 100 residents between the two communities. At the time of the original feasibility study, there were about 4 motor vehicles in Tatitlek and no connecting road system. The feasibility report does not recommend investing in vehicle loading capability, but does recommend providing for light freight capabilities. Assuming each resident makes at least two round trips per year and 20 vehicles up to 10 feet (all terrain types) travel, and that fares are at 50% of Cordova to Valdez rates, revenue generation is expected to be approximately \$3,400.00 ($\$7.00 \times 100 \times 2 \times 2 \text{ ways} + \$15.00 \times 20 \times 2 \text{ ways}$). There were 137 trips each way in 1990 between Cordova-Valdez. Added transportation may generate some traffic by contractors, logging companies and others who may have activity in the area, but it would take significant movements to greatly affect the revenue picture. Traffic between the two communities is unpredictable without further analysis. Overall, revenue potential is extremely light in comparison to capital and maintenance cost and will not be the compelling reason to serve. Providing basic service is possible at a minimal increase in operating costs.

Maintenance Costs and Impacts

Maintenance would cause an incremental increase to the spring and fall Whittier-Cordova maintenance program, but can be accomplished with some stretch of the existing resources at a cost to existing facilities. The addition of one site to the Prince William Sound area would reduce the number of crew days in Southeast by at least 4 crew days per year. This is estimated to cost about \$4,500.00 for personal services, travel and per diem. Materials and supplies would be additional at an estimated cost of \$2,500.00 per year. Access trails between the two communities are assumed to be maintenance free once improvements are made.

Service Costs

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DATE: May 6, 1991

Service cost increments are primarily for fuel at 170 gallons per 13-mile leg into and out of Ellamar, plus 60 minutes at dock. This would be about \$237.00 per call, or \$64,880.00 per year. There could be a number of late night call outs of deck personnel for summer schedule, which would increase the cost of service.

The current winter schedule has the M/V Bartlett leaving Cordova at 8:30 a.m. and arriving at Valdez at 2:15 p.m. the same day. The proposed summer 1991 schedule would require an additional 2 hours in time for each trip between Cordova and Valdez.

Criteria for Service

Guidelines for determining levels of service are provided in the Draft System Plan. The criteria for determining when new service will be provided to a community are:

- I. There is capacity available to provide new service or additional capacity to provide the new service can be added within the fiscal capabilities of AMHS at the time that the request for new service is made;
 - A. There appears to be available capacity to serve the proposed community at a net increase in cost to the state of approximately \$70,000.00 per year.
- II. It has no safe, reliable, reasonably affordable passenger roll-on/roll-off freight and vehicular access, private or commercial to other coastal communities by a land highway, to other coastal communities with a local highway or regional economic center, or to the continental surface transportation network (i.e., highways, rail and public and/or private carriers);
 - A. There is a 2500-foot gravel airstrip serving the area. AMHS serves on a flag stop basis and transfers passengers and luggage/freight to small boats near Ellamar. There is no surface highway, rail or other public or private regular transportation mode serving the area. There is an existing public dock next to the village of Tatitlek. It is not suitable for anything but the occasional fishing boat freight shipment.
 - B. There is no safe, reliable, reasonably affordable passenger roll-on/roll-off freight and vehicular access, private or commercial:

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1. to other coastal communities by land highway;
 2. to other coastal communities with a local highway or regional economic center; or
 3. to the continental surface transportation network (i.e., highways, rail, and public and/or private carriers).
- C. The proposed project would not provide road access but would provide limited roll-on/roll-off capability for small all terrain vehicles. Walk-on passenger service would not compete with other public or private surface carriers. The proposed project would impact and could be considered to compete with air carriers serving the area. The proposed service could be considered to compete with local barge or water borne transportation services.
- III. The net cost to the state of providing the services will not increase the state subsidy required to operate the system;
- A. The revenue projection for this service is \$3,400.00 per year.
 - B. The cost estimate for this service is \$71,900.00 per year.
 - C. The net increase cost to the state will be approximately \$65,500.00 per year.
- IV. The community has officially expressed the desire for AMHS service;
- A. The Legislature by intent language requested that a feasibility study be accomplished in 1996.
 - B. The Legislature has introduced a funding bill for construction (SB 260). It is assumed at this time that the community has officially expressed a desire for AMHS service.
- V. The readily identifiable economic impacts of providing the service are greater than the net cost of the services;
- A. It is unknown whether the economic impacts of providing service exceed the net cost of providing service.
- VI. The cost to the traveler for complementary modes of travel are prohibitively high;

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- A. Air transportation is the complementary mode of travel. Cost per seat from Cordova to Ellamar is \$160.00 and the cost per seat to Tatitlek is approximately \$175.00.
- VII. The revenue from a specifically tourist and recreational service can offset the cost of providing the service.
 - A. There is no information that would support the position that a tourist or recreational service would offset the cost of providing the service.

Summary and Conclusion

There are two obvious service options available. 1) AMHS can continue to serve Tatitlek and Ellamar as a flag stop without any further consideration for safety, convenience, schedule, market size, or construction of facilities; 2) Provide passenger and freight roll-on/roll-off facilities for service at Tatitlek and schedule year-round service that would greatly improve basic access, safety, reliability, and affordable service; or, 3) Provide full highway vehicle roll-on/roll-off service.

Recommendations

AMHS supports basic transportation proposals that can be supported by revenues. Increases in service requires an increase in operating budget.

A fiscal note has been prepared for SB 260.

AMHS has reviewed the 1986 project estimate and recommends that an appropriation of \$200,000.00 be appropriated for design to prepare plans, specifications and a detailed construction estimate. The 1986 estimate is considered to be 30% to 50% low at this time because of inflation and estimate reliability. Public hearings are required as such service will greatly impact the life style and quality of life at the village.

Information from public hearings have a great impact on the scope of projects. It may not be feasible to construct all aspects of the project for \$1,900,000.00. Estimates based on detailed designs are more realistic.

Moreover, the use of funds for this project must be weighed against future obligations to maintain the vessels of the fleet and the existing AMHS shore facilities.

FISCAL NOTE

Revision Date: 04/17/91 Department Affected: DOT&PF
 Title: Approp: Taitlek Ferry Terminal and Roads BRU: AMHS Marine Operations
 Sponsor: Rodey Component: Southwest Vessel Operations
 Requestor: Component Serial Number: 631

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY93	FY94	FY95	FY96	FY97	FY98
PERSONAL SERVICES	0	0	2.3	2.3	2.3	2.3
TRAVEL	0	0	1.1	1.1	1.1	1.1
CONTRACTUAL	0	0	66.0	66.0	66.0	66.0
SUPPLIES	0	0	2.5	2.5	2.5	2.5
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING:	0	0	71.9	71.9	71.9	71.9

CAPITAL	200.0	1,900.0	0	0	0	0
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REVENUE FUND SOURCE	0	0	3.4	3.4	3.4	3.4
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FUNDING: (Thousands of Dollars)

GENERAL FUNDS	200.0	1,900.0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER FUND SOURCE	0	0	71.9	71.9	71.9	71.9
TOTAL FUNDING:	0	0	0	0	0	0

POSITIONS

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year impact: _____

ANALYSIS. (Attach a separate page if necessary)

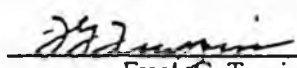
See attached position paper.

Prepared by: John Halterman

Phone: 465-3950

Division: Alaska Marine Highway System

Date: January 9, 1992

Approved by Commissioner: 
Frank G. Turpin

Phone: 465-3900

Agency: Department of Transportation and Public Facilities

Date: January 9, 1992

Distribution By Preparer: Leg. Finance, Leg. Sponsor, Requestor, OMB/DBR, Gov. Leg. Office, Impacted Agency(ies).

TATITLEK FERRY TERMINAL FEASIBILITY STUDY



STATE OF ALASKA, DOTPF
ALASKA MARINE HWY. SYSTEM
PROJECT X74683

**Tongass
Engineers,
Inc.**

A DIVISION OF
PERATROVICH, NOTTINGHAM & DRAGE, INC.
(907) 789-5006 Juneau, AK

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EXECUTIVE SUMMARY

Two feasible sites for ferry terminal construction exist within the vicinity of Tatitlek - one 1/2 mile to the east in Boulder Bay (EAST SITE) and one roughly halfway between Tatitlek and neighboring Ellamar, (WEST SITE).

The EAST SITE is adequate for a passenger dock only due to high wave exposure to the south. This site is the most convenient to Tatitlek but not to Ellamar. This site requires 13 1/2 nautical miles of extra travel per stop for Alaska Marine Highway vessels. This alternate is the least expensive at \$1,354,000.

The WEST SITE is more protected from wave action and is suitable for a passenger/light freight terminal. This site requires only 6 1/2 nautical miles of additional travel for the ferry vessels. The cost of a passenger only terminal at this site is \$1,565,000 and the cost of a passenger/light freight terminal is \$1,889,000.

The WEST SITE is the most convenient to both Tatitlek and Ellamar residents.

The WEST SITE is the apparent preferred site of Tatitlek residents.

The passenger/freight facility at the WEST SITE is the recommended alternate.

INTRODUCTION

Tatitlek is an Alaskan native village located roughly 40 miles northwest of Cordova and 25 miles southeast of Valdez (see figure 1). It is the home of around 70 full time residents whose number increases to around 150 during summer months. The village's main source of income is commercial fishing although subsistence hunting and fishing provide a significant percentage of their food supply (see figure 2).

Tatitlek has a 2500 foot gravel airstrip, but the village has no other transportation improvements. Feasibility studies for boat harbor facilities have been conducted by the Alaska Department of Transportation as well as the U.S. Army Corps. of Engineers (see appendix A). Although the project has not developed beyond the study phase.

The Alaska Marine Highway vessel M/V Bartlett currently transfers passengers and freight to small boats near Ellamar, a neighboring community 1 1/2 miles to the north of Tatitlek.

The Alaska Marine Highway System Marine Facilities Division authorized Tongass Engineers to study the feasibility of developing a ferry terminal at Tatitlek in November 1985. The study was originally proposed by the Tatitlek Corporation (see appendix B). The feasibility of developing a ferry terminal at the site proposed in that letter as well as an alternative site was investigated. This report describes the results of that investigation.

FUNCTIONAL REVIEW

The ferry terminal should meet the following requirements:

- o Approaches to the ferry terminal must be safe for Alaska Marine Vessels, a minimum bottom elevation at the moorage of -20 MLLW must be achieved and the site must be protected from heavy wave conditions. The terminal should be oriented to align the vessel with the prevailing winds to reduce the "sail area" during mooring.
- o The terminal should provide passenger and light freight loading capabilities. It is not appropriate to invest in vehicular loading capabilities as there are currently only 3 or 4 motor vehicles in Tatitlek and there is no connecting road system.
- o The terminal must provide convenient service to Tatitlek and nearby Ellamar.
- o The facility should be as close as practical to the existing Alaska Marine Highway route to minimize additional vessel mileage.
- o Access trails should accommodate all terrain vehicles without damage to the trail surface. Because additional traffic would be generated by a new ferry terminal in either location the trail between Tatitlek and Ellamar should be upgraded to accommodate all terrain vehicles.

POSSIBLE ALTERNATIVES

Two possible alternative sites have been identified. The first is 1/2 mile to the east of Tatitlek in Boulder Bay. The second is roughly midway between Tatitlek and Ellamar. These two sites are the only available sites near Tatitlek where bottom elevation of -20 MLLW are present (see Figures 3 and 6).

EAST LOCATION

This site would be very convenient to the residents of Tatitlek being only 1/2 mile from the village. The terrain is flat between Tatitlek and the site and would lend itself to trail construction. This site is not convenient to Ellamar.

The shoreline is a relatively low cobbly beach with boulders adjacent on both sides (see figure 4). The bottom drops to a depth of -20 MLLW approximately 400 feet from shore. The immediate location is slightly protected by a point to the south but large ocean swells can diffract to the site. Boulder Bay is open to the SSW to Prince William Sound. Considerable wave action is anticipated during storm conditions. Waves in excess of 20' can be expected during extreme storms.

Because of the exposure to large waves a floating dock cannot be utilized at this site. Consequently a passenger loading dock is the only alternate considered at the EAST SITE. This facility consists of a passenger loading dock and two mooring dolphins (see figures 8 and 9).

This site is 13.5 nautical miles extra travel distance from the normal ferry route (see figure 7). It is necessary to pass to the south of Bligh Island because Tatitlek Narrows is not a safe passage for Alaska Marine Highways vessels.

Prevailing Winds are from the south and an alignment roughly parallel to the shoreline is desirable. Sufficient maneuvering room is available at this site.

The approach to Boulder Bay is open except that an unmarked rock exists 1/2 mile to the west of Copper Mountain Peninsula. A light should be installed at this hazard if this site were to be utilized.

This land belongs to the Tatitlek Village Corporation and is available for use as a ferry terminal.

WEST LOCATION

This site is roughly midway between Tatitlek and Ellamar and is easily accessible to the existing trail between the two communities. As such it is convenient for Ellamar residents as well as villagers from Tatitlek. Approximately 1/3 mile of trail skirting the north end of a tidal slough would connect to the existing Tatitlek/Ellamar trail. Traffic generated by the ferry terminal would hasten the necessity for reconstruction of the existing trail. It would be appropriate to construct new trails to accommodate all-terrain-vehicles.

The WEST SITE is much closer to the existing Alaska Marine Highway route than the EAST SITE. The extra distance to service this site is 6.5 nautical miles (see figure 7). The approach from the northwest is relatively free of obstructions although two shallow areas 1/2 mile and 1 mile respectively to the northwest should be marked (see figure 6). Ample maneuvering room is available. The prevailing wind is from the northwest roughly parallel to the shoreline. The proposed layout aligns the vessel with the prevailing wind (see figure 10). There are no underwater obstructions in the immediate vicinity of the terminal site.

The shoreline is a low cobble beach (see figure 5). The bottom drops gradually away from the beach to a depth of -20 MLLW approximately 500 feet from the shoreline. An underwater inspection revealed a sandy bottom with a few rocks approximately 2 feet in diameter. The bottom is uniform and relatively flat. The bottom appears to be suitable for pile driving.

The site is protected to the south by a peninsula jutting approximately 1300 feet out from the shoreline.

A cross water fetch of 7.8 nautical miles to the northwest will generate moderate waves (5.3 feet) during extreme storm conditions. Armor stone of roughly 1 ton weight will be required to protect the embankment from storm damage (see figure 13).

A passenger/light freight facility as well as a passenger only facility has been considered at this site. The passenger/light freight facility (see figures 10, 11 and 12) incorporates 5 mooring dolphins and a steel floating dock for the transfer of passengers and light freight at all tide stages.

A passenger only facility was also considered at the WEST SITE. This alternate is similar to the facility described at the EAST SITE (see figure 8).

This site is currently owned by the Tatitlek Village Corporation and would be available for ferry terminal construction.

By skirting the access trail to the north of a tidal slough, disruption to the natural environment would be minimized. Trail reconstruction between Tatitlek and Ellamar may cause some temporary siltation, but no adjacent streams will be affected.

MATERIAL SOURCES

There are no readily available sources of fill and riprap materials in the immediate vicinity of Tatitlek. The runway was constructed of beach gravel, however this source is now depleted. When the new school was constructed rock was quarried from the school site. This source is no longer available because the new school now occupies the area.

The entrance to the old mine at Ellamar was through the bottom of Virgin Bay surrounded by a cofferdam. Tailings were disposed of in the bay or were used to fill older shafts. Consequently there is no available material from this source.

It would be very expensive to open a new quarry for the relatively small quantity required and would create a scar on the otherwise unscathed landscape.

The most economical materials source for this project would probably be barged material from a quarry in Valdez.

CONSTRUCTION ACCESS

Either site is accessible to barge operations. The beaches at both locations are accessible from the water. Most of the work can be conducted from a barge although trail construction at both sites would probably be advanced from the beach using barged construction materials.

LOCAL PREFERENCES

Although a public hearing was not conducted, informal discussions with random villagers indicated a preference for the WEST SITE. The village council president Gary Kempkoff stated a preference for the WEST SITE.

COST SUMMARY

The estimated cost for the alternate facilities is summarized below.

	EAST SITE Passenger	WEST SITE Passenger	WEST SITE Passenger/Light Freight
Construction	\$1,130,000	\$1,363,000	\$1,684,000
Access Trail	53,000	32,000	32,000
Tatitlek/Ellamar Trail	171,000	171,000	171,000
Total	\$1,354,000	\$1,566,000	\$1,889,000

ILLUSTRATIONS

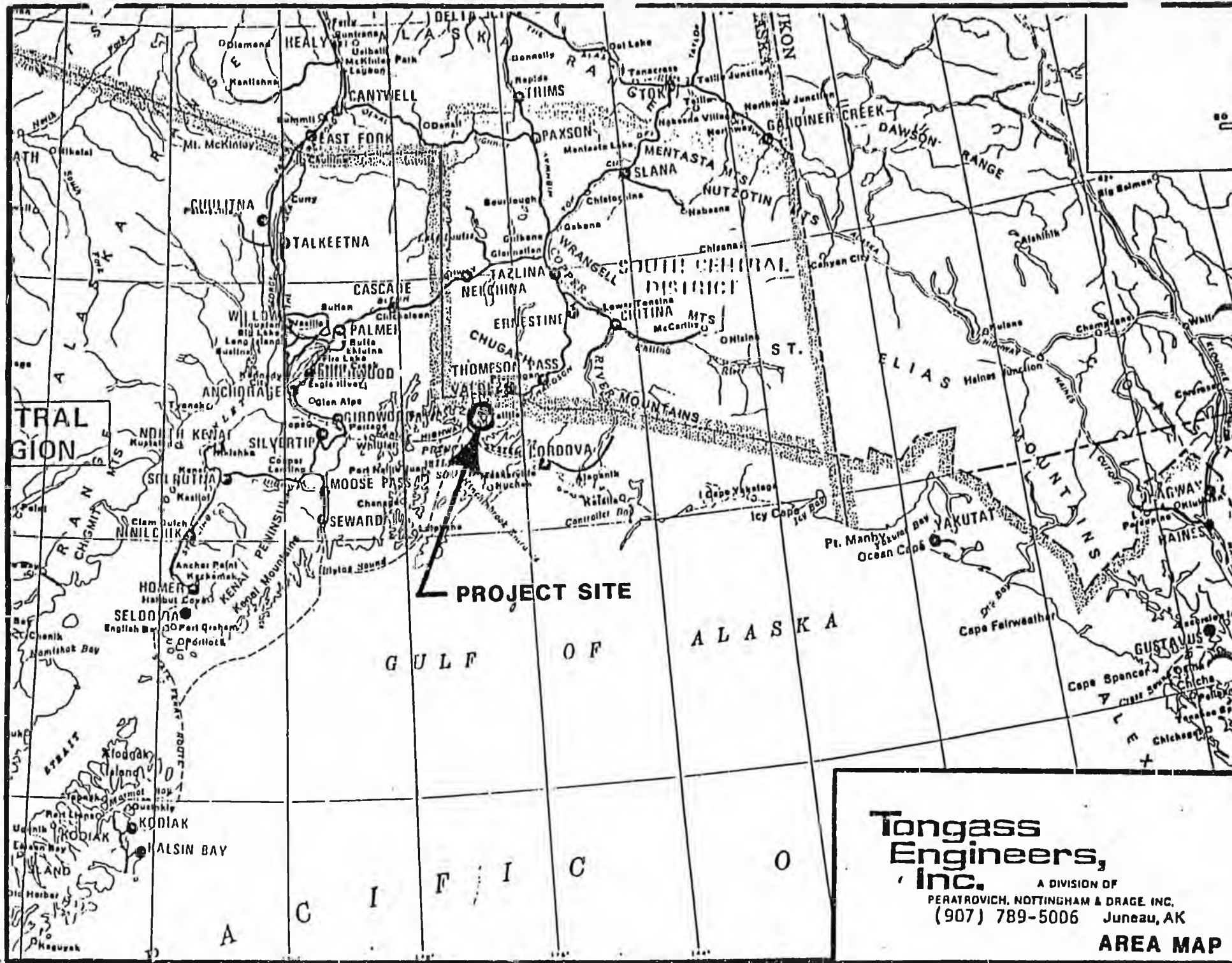
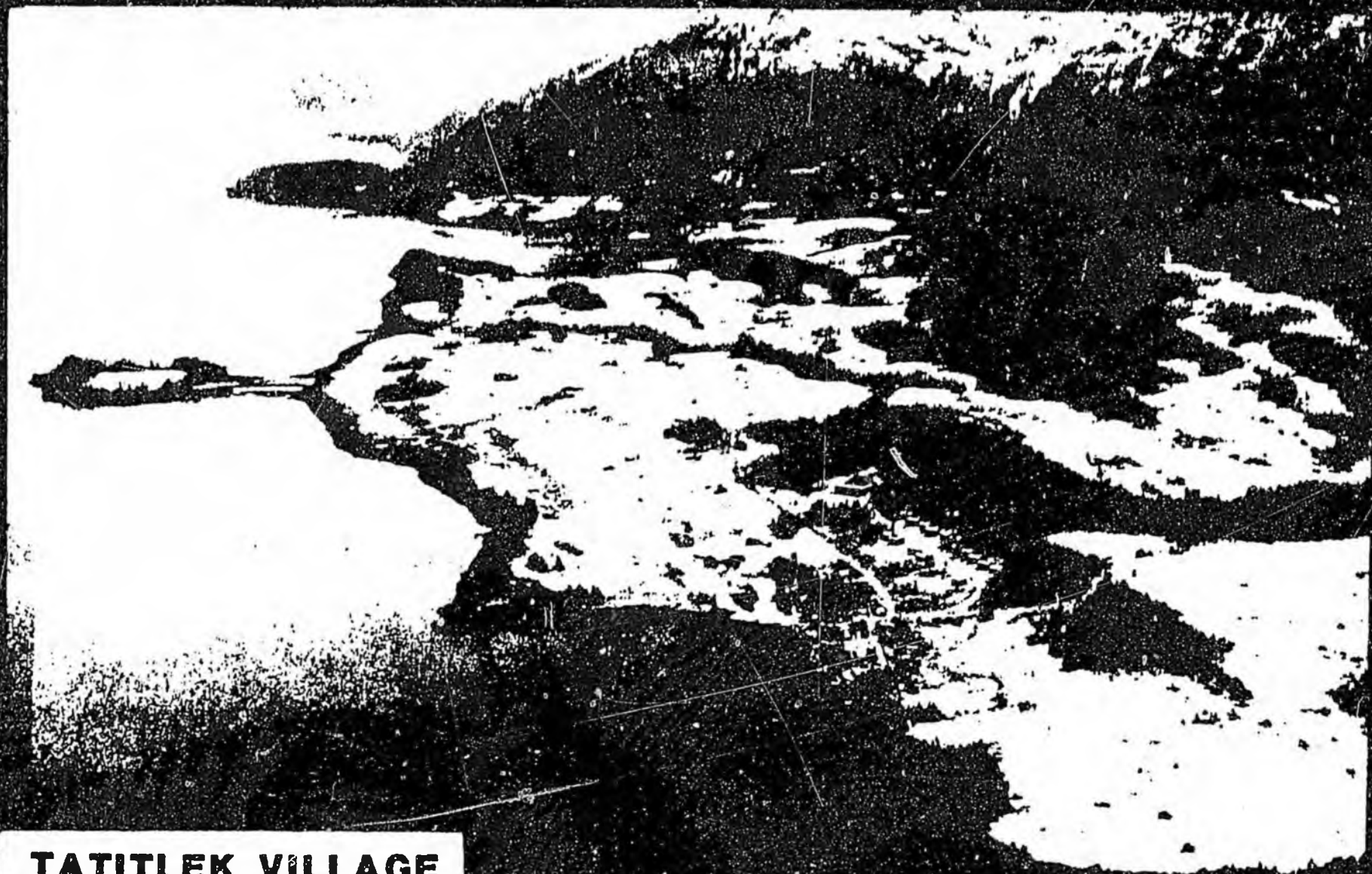
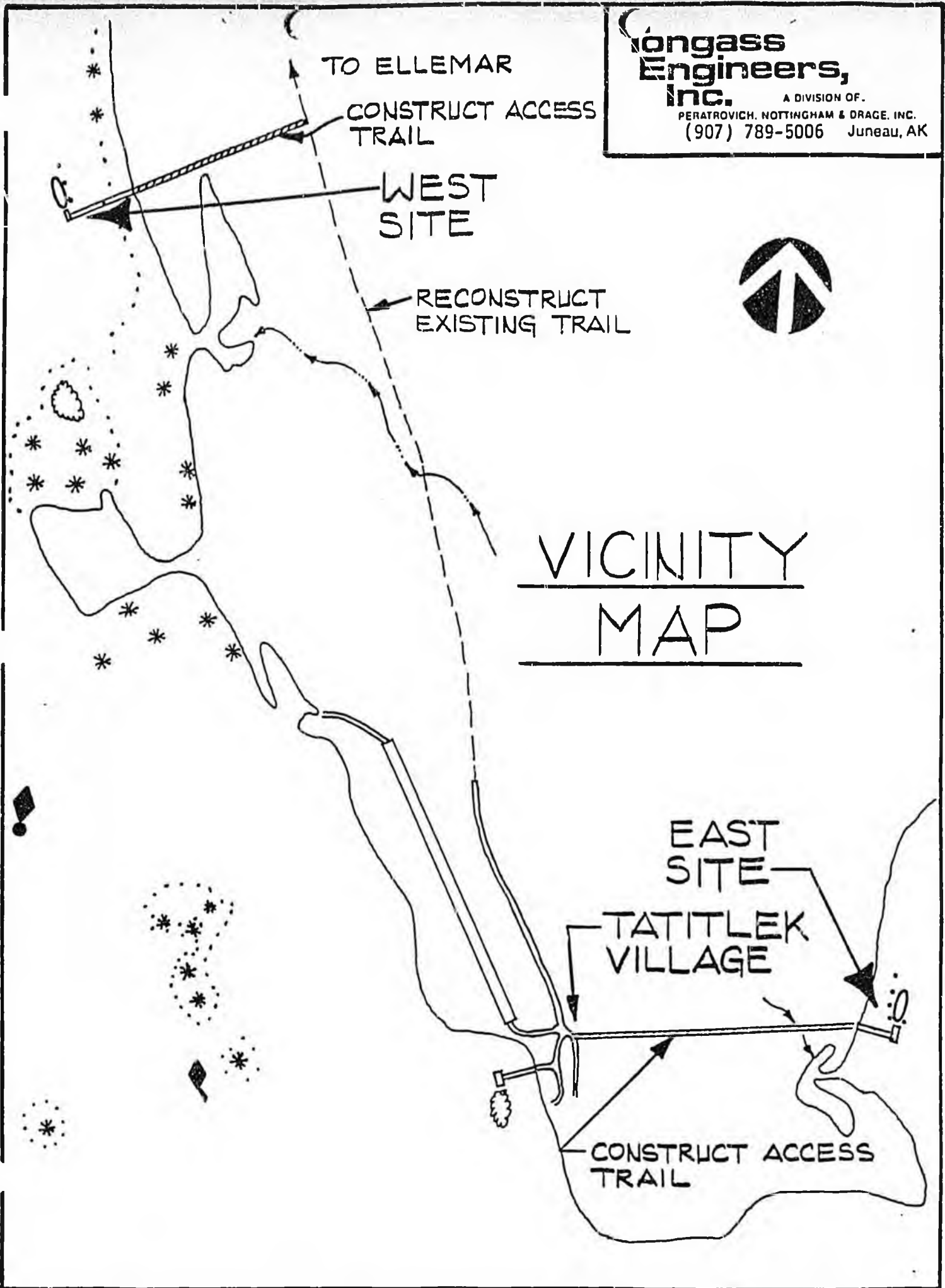


FIGURE 1



TATITLEK VILLAGE

FIGURE 2



VICINITY
MAP

FIGURE 3



EAST SITE

FIGURE 4



WEST SITE

FIGURE 5

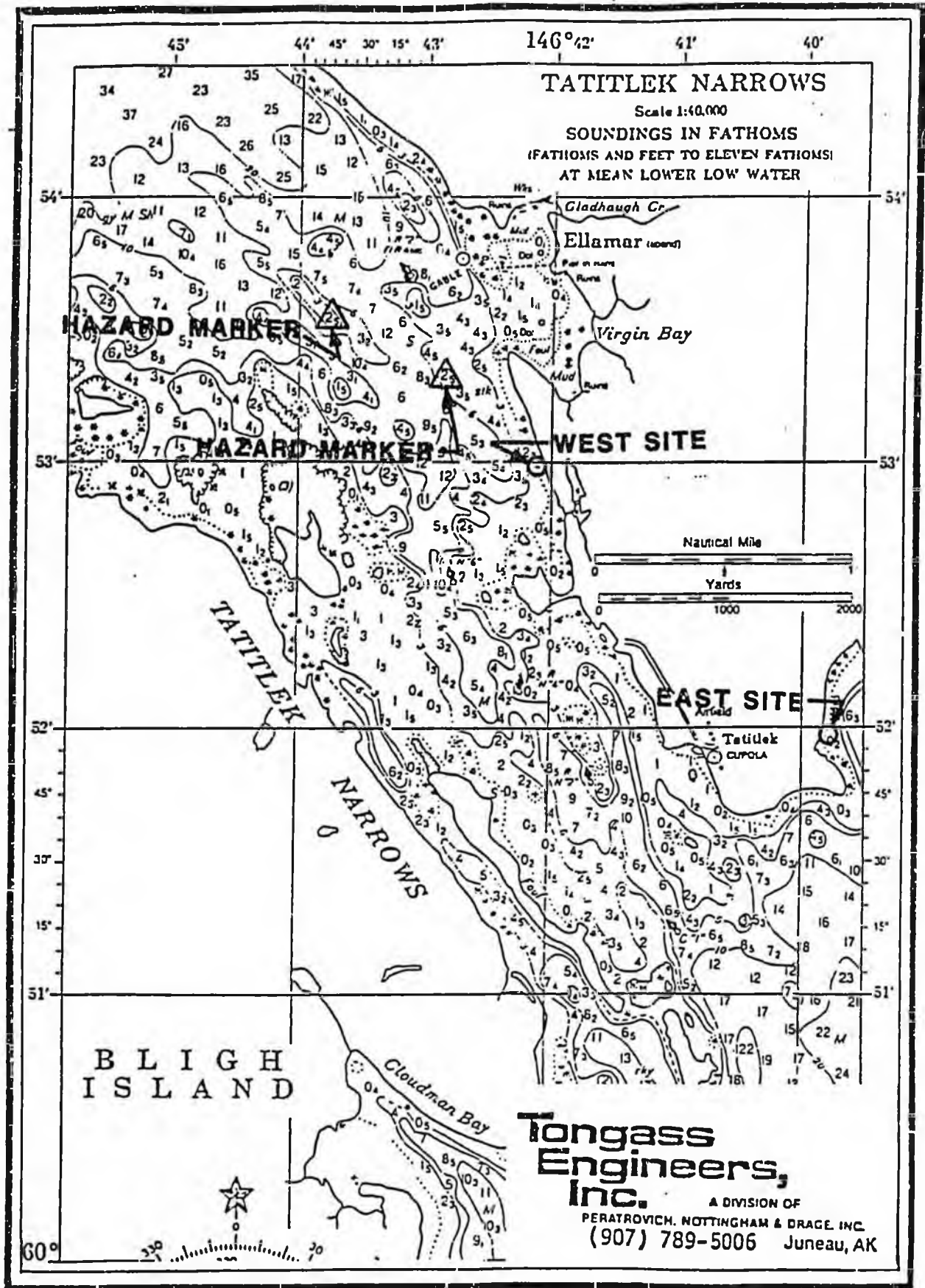


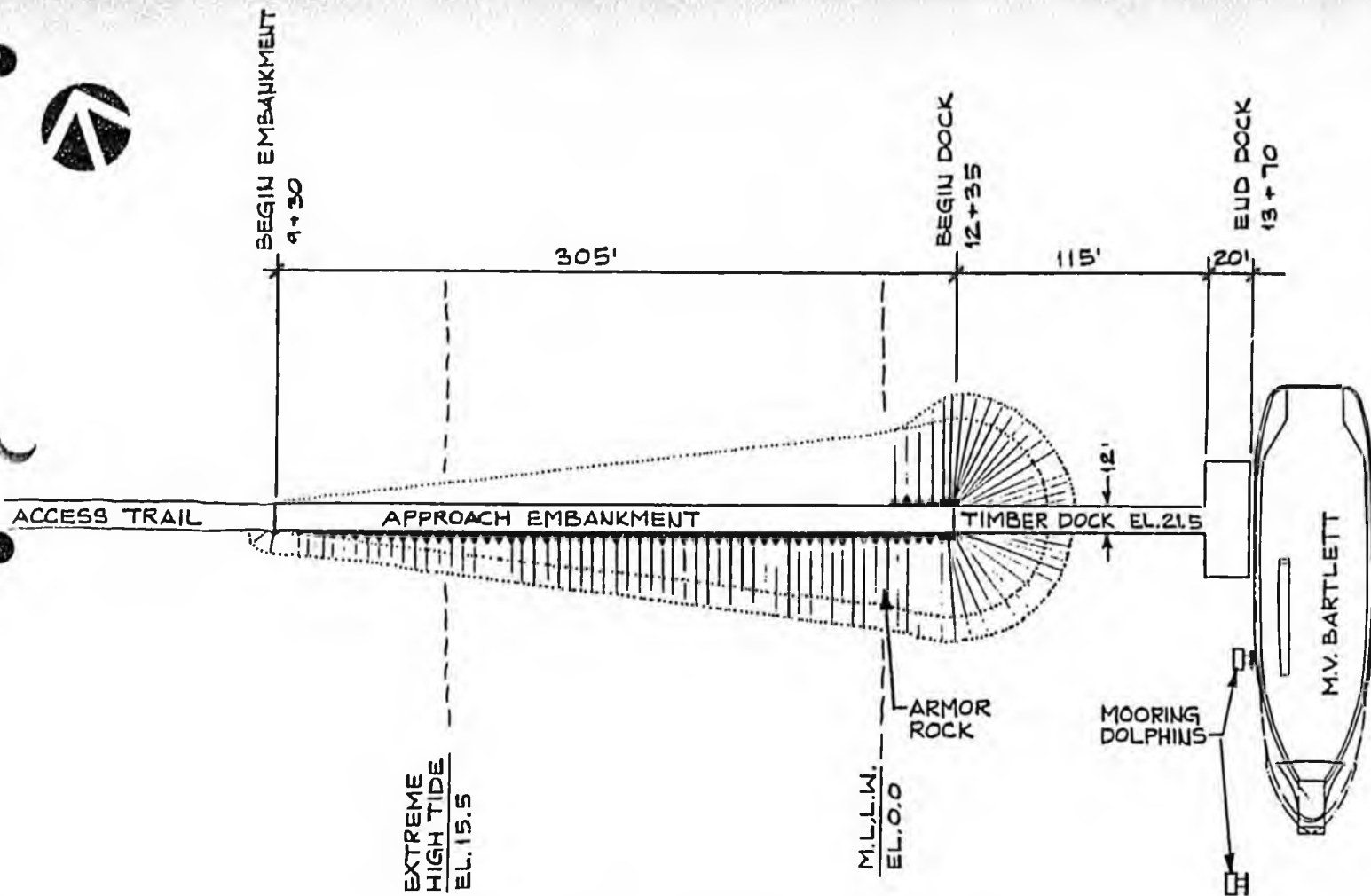
FIGURE 6



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TRAVEL DISTANCE

FIGURE 7



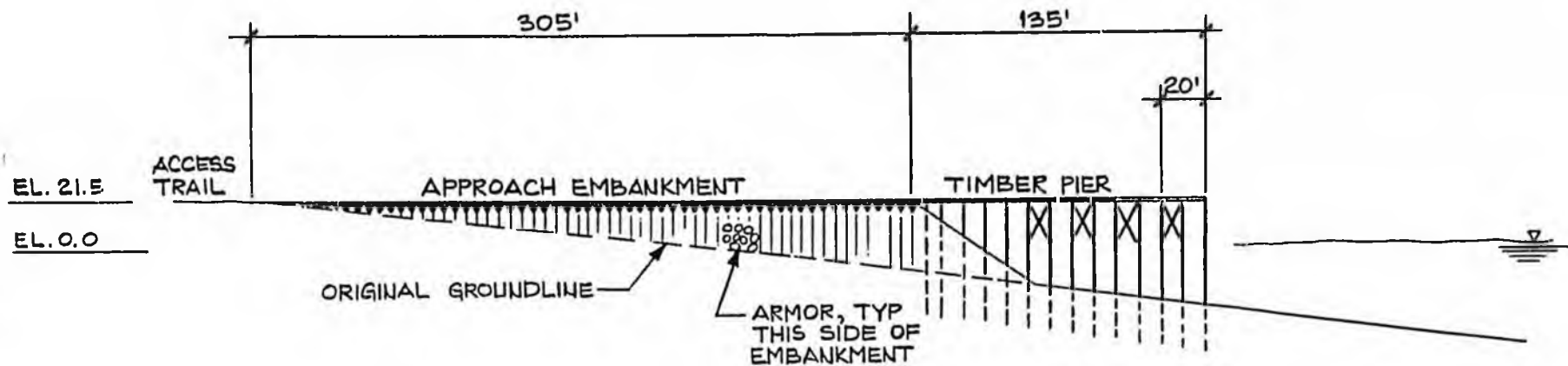
EAST SITE LAYOUT

SCALE: 1" = 30'

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FIGURE 8



EAST SITE PROFILE

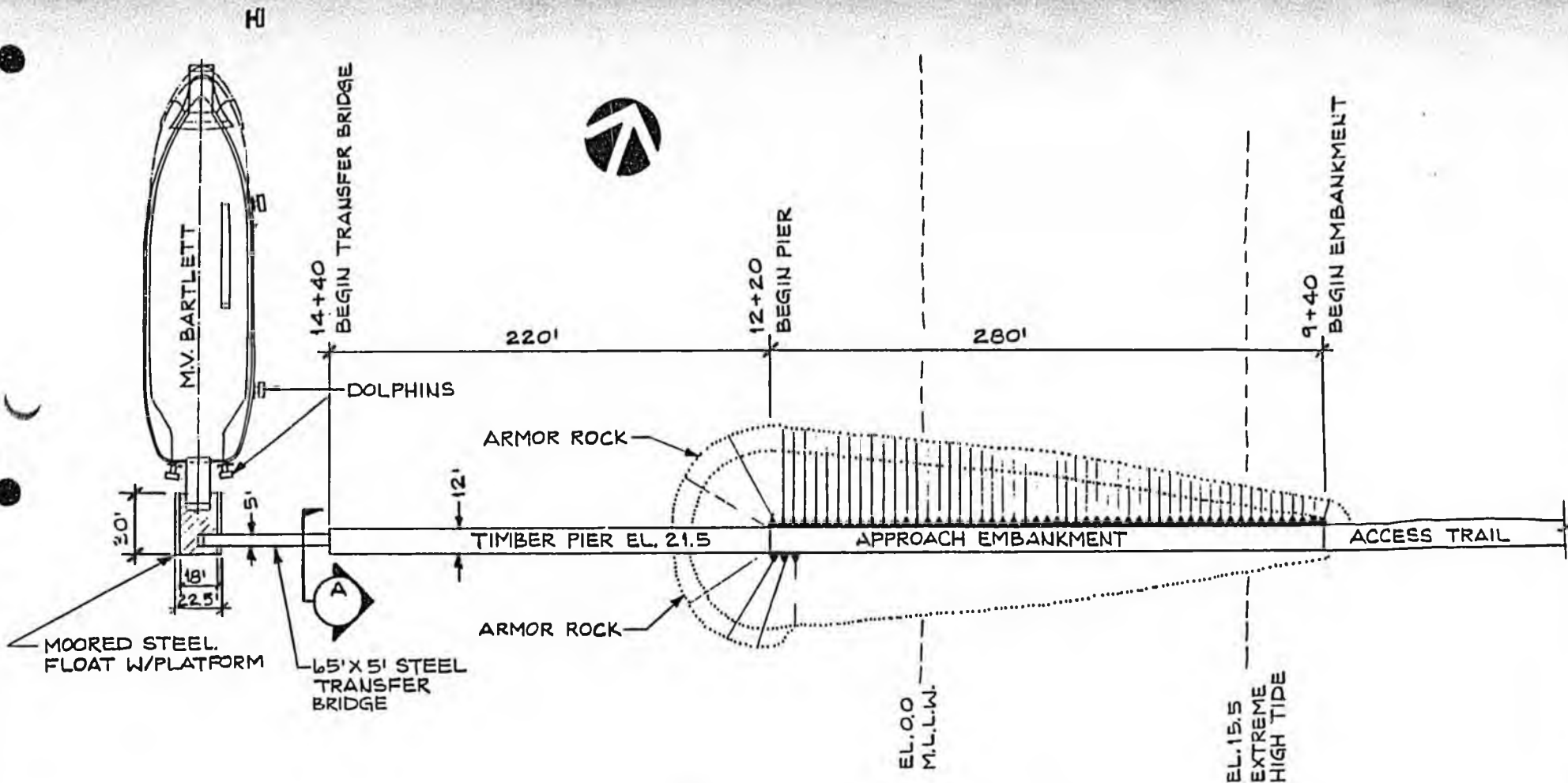
SCALE: 1" = 50'

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FIGURE 9



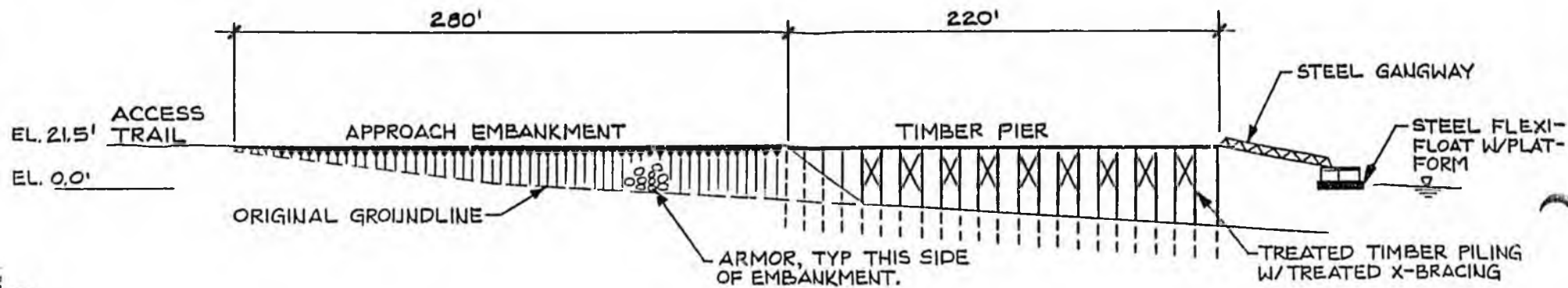
WEST SITE LAYOUT

SCALE: 1" = 50'

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FIGURE 10



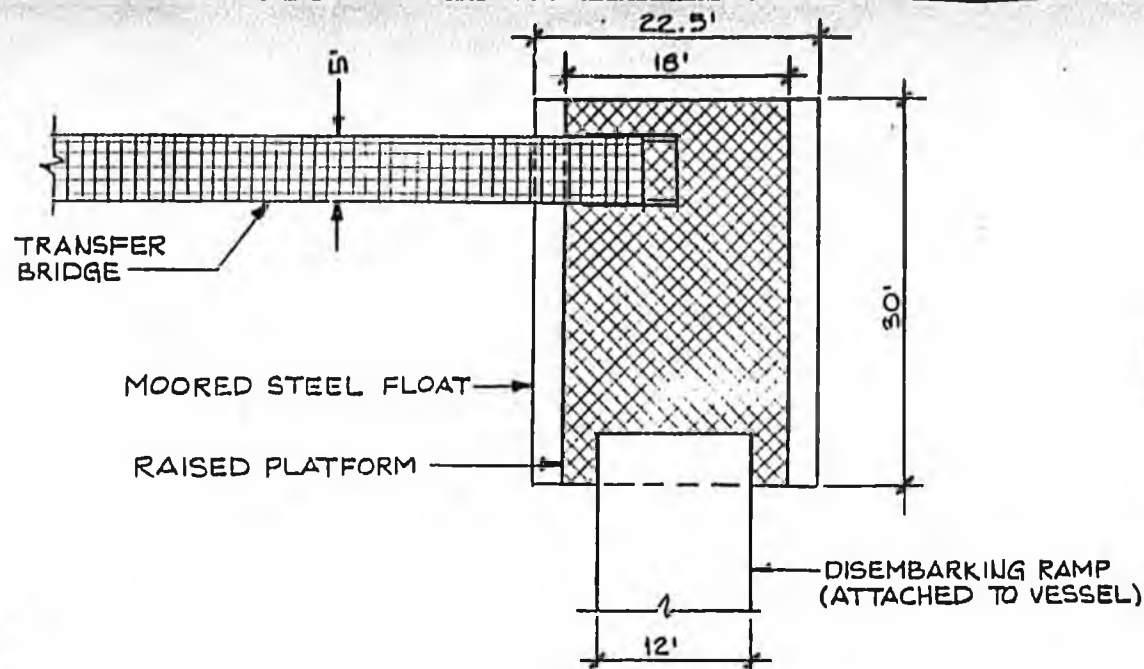
WEST SITE PROFILE

SCALE: 1" = 50'

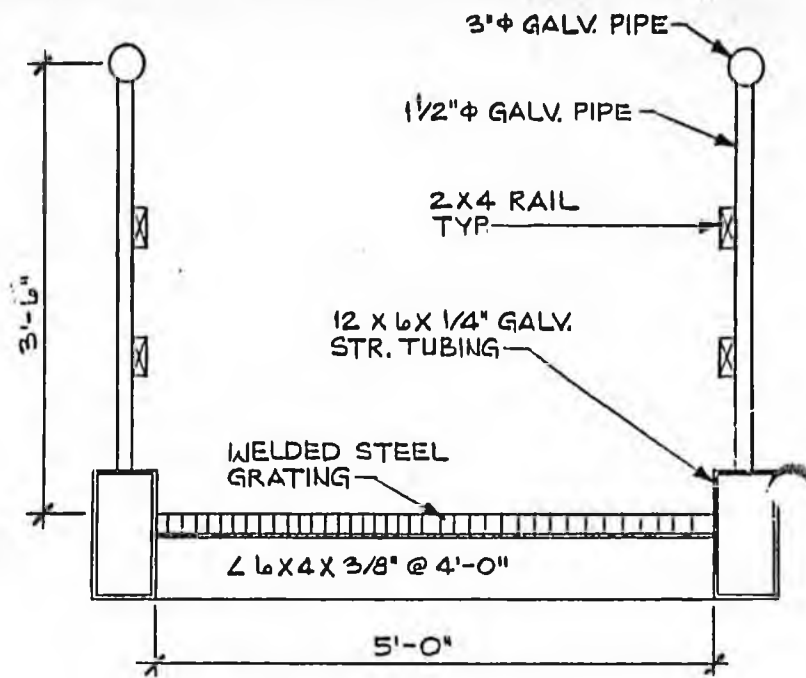
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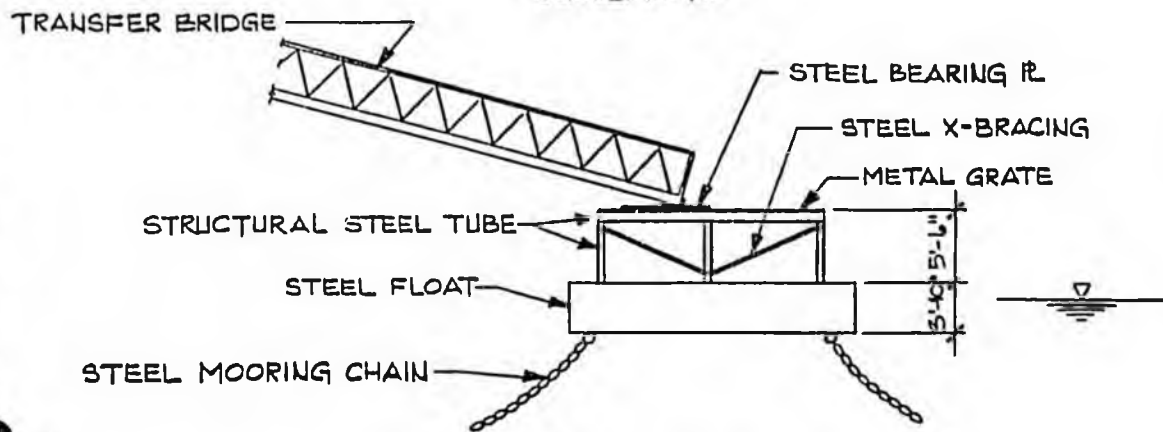
FIGURE 11



PLAN
SCALE: 1" = 10'



SECTION "A"
SCALE: 1" = 1'-0"

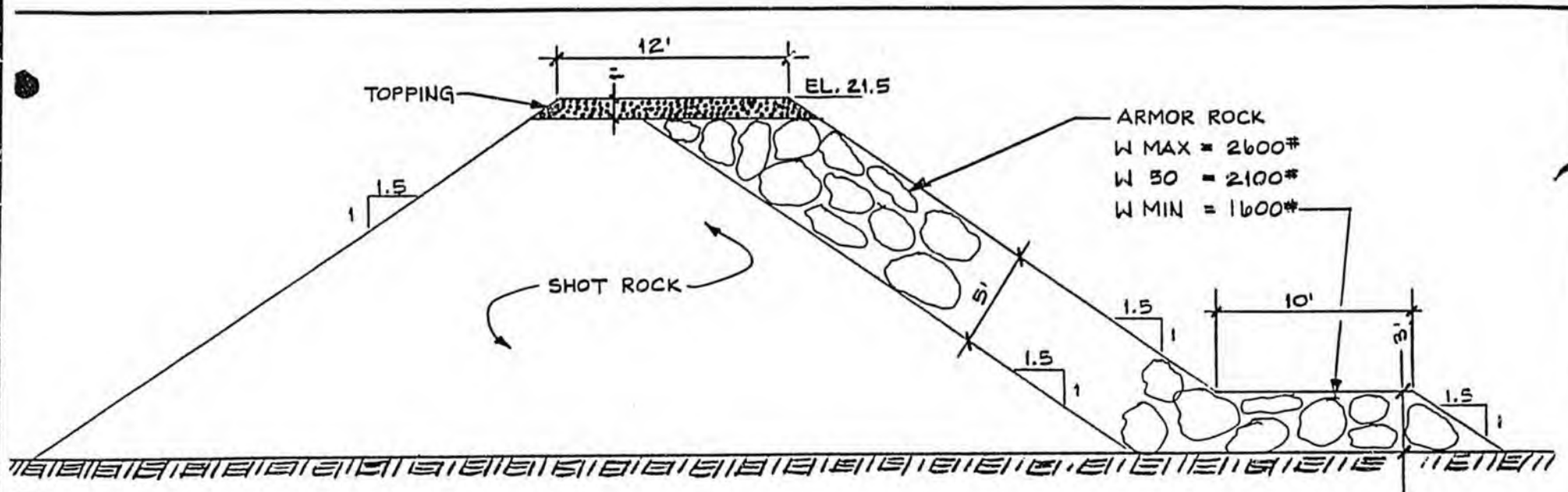


ELEVATION
SCALE: 1" = 10'

**PASSENGER/FREIGHT
DETAILS**

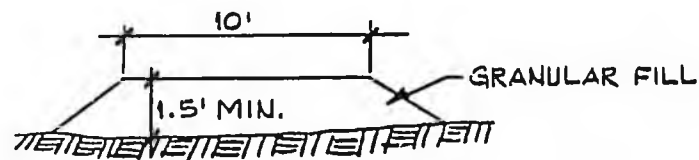
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FIGURE 12



APPROACH EMBANKMENT
TYPICAL SECTION

SCALE: 1" = 5'



TRAIL TYPICAL SECTION

SCALE: 1" = 5'

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