

MEMORANDUM

CITY/BOROUGH OF JUNEAU
155 South Seward Street, Juneau, Alaska 99801

DATE: May 2, 2007

TO: Planning Commission

FROM: Eric Feldt, Planner,
Community Development Department

FILE NO.: CSP2007-00005

PROPOSAL: A City State project for the renovation of the Douglas Boat Harbor.

GENERAL INFORMATION

Applicant: PND Engineers, Inc.

Property Owner: City and Borough of Juneau

Property Address: 120 Savikko Rd.

Legal Description: ATS 14 FR

Parcel Code No.: 2-D04-0-T32-005-0

Site Size: Approximately 10 acres

Zoning: (WI) Waterfront Industrial

Utilities: CBJ Water and Sewer

Access: Savikko Road

Existing Land Use: Douglas Boat Harbor

Surrounding Land Use: Northeast - Mayflower/ Juneau Island
South - Robert Savikko Recreation Park/ Treadwell Arena
East - Gastineau Channel
West - Robert Savikko Recreation Park/ Treadwell Arena



ATTACHMENTS

Attachment A	Location Map
Attachment B	Demolition Summary Plan
Attachment C	Proposed Improvements Plan
Attachment D	Moorage Summary Plan

PROJECT DESCRIPTION

Douglas Harbor has been built and renovated over time in phases. With each new phase, this harbor has been expanded, renovated, or redesigned. Phase I consisted of the Harbor design and the original three floats (Floats A-C). Phase II provided two additional floats (Floats E & F) to accommodate further moorings. The third phase will be the renovation of the original Floats A-C. The following review will be of Phase III, followed by a fourth phase (not under review at this time) entailing renovations of upland areas; parking, road design, revegetation, etc.

CBJ Docks and Harbor contracted with PND Engineers, Inc. to provide engineering and environmental services for the Douglas Harbor renovation of the southern end of the marina (see Attachment A). This project will be built in phases to satisfy the needs and priorities of the community. All the elements of the renovation (during this phase) shall include everything but the timber-faced geotextile wall and possibly, the aluminum gangway. The three old timber floats, shown on the site plan (see Attachment B) will be demolished and replaced, along with a new covered gangway leading to the floats. The southern boat launch, accessing the Mayflower Island Causeway, will be vacated. Additional filter rock and rip rap will be placed along the southern harbor basin slopes. There will be a portion of submerged land near the shoreline that will be removed (dredged) to achieve a depth of twelve feet as shown on the site (see Attachment D).

BACKGROUND

Douglas Harbor is located near Downtown Douglas upon the east shoreline of Douglas Island. The greater area of the site is accessed via Savikko Road, connecting to Treadwell/ Savikko Recreation Park to the south and west and the Harbor parking lot to the north. This park separates the Harbor from the residential dwellings located further south/west. Mayflower Island, heading east, nearly fully encloses and separates Douglas Harbor from the Gastineau Channel. Further south, crossing the access drive to Mayflower Island lays the publicly owned area known as Sandy Beach.

Toward the southern end of the harbor, the three timber floats, their fingers and the southern headwalk float have been aging and have surpassed repair. Therefore, the replacement of these floats will be needed to ensure pedestrian safety and to accommodate larger boats. Along with the float replacements, the timber approach dock and gangway will be replaced by a new aluminum ADA covered gangway and landing float, as shown on the site plan (see Attachment C) that shall safely direct pedestrians to and from the floats. The gangway will be constructed during the next phase of

the renovation. Float C will be designed as a tee float, which will guide boats to the southern end of the harbor and separate parked boats near the end of the floats. In other words, the three tee floats shall provide a separated travel area for boats accessing the southern area of the harbor.

The renovation also seeks to vacate the southern boat launch, which will increase the usage of the northern boat launch as there will be only one boat launch into the harbor. There is ample room on the upland of the northern boat launch for vehicle-trailer maneuvering. Since the northern boat launch was built to allow for dual boat launches no future expansion is anticipated at this time. Once the southern boat launch is removed, the southern and southeastern shoreline will be secured with new riprap and new timber-faced geotextile wall. This geotextile wall shall extend 475 linear feet to connect flush with the existing wall to the north/ northeast shoreline (see Attachment C). The additional geotextile wall will be constructed during the next phase of the Douglas Harbor renovation.

The size and length of the renovated floats and fingers will be designed in similar size to the two remaining floats in the northern area of the harbor, as shown on the site plan (see Attachment D). This proposed renovation will produce (19) nineteen fewer finger floats than existed upon the three floats (Floats A-C). Float A, as shown on the site plan (see Attachment D), shall serve as a mooring without providing any finger floats and will act as a parallel parking approach to the float. This float design shall allow for different moorage needs.

ANALYSIS

The renovation of the Douglas Harbor will result in the replacement of the three southern floats with fewer, but larger, finger floats. It will also include the removal of the southern boat launch. This renovation shall increase the replaced floats by 4,000 square feet (18,000 to 22,000). Even though the moorage area will be increasing, the slips will be larger, so the total number of slips will decrease. The Table of Minimum Parking Standards 49.40.210(a) requires one parking space per 3 moorage stalls. Therefore, even though the area of the slips will be increasing, the parking requirement will actually decrease.

There will be new installation of water and electrical lines, as well as exterior lighting throughout Floats A – C, which shall provide adequate service to the moorings. With the proposed design and placement for larger-sized moorings, the replaced utilities shall provide adequate levels of service to accompany such moorings. The current southern gangway is not covered and is made up of half aluminum and wooden material. The replacement of this gangway shall consist of a fully covered aluminum walkway. As stated earlier, the renovation of the gangway may be constructed during Phase IV (next phase).

There will be an additional 15,000 cubic yards of rip rap to secure the southeast and southern shoreline to attain an effective shoreline protective guard against waves, etc. Along with the additional rip rap, a new timber-faced geotextile wall will be extended northward and shall provide for a heightened protection from the tidewaters and an elevation separation from the access drive and

the water's edge. This wall shall be raised by filling the shoreline to a height of 24.5 feet, flush with the existing wall. The fill material will consist of 16,000 cubic yards of shot rock and 2,000 cubic yards of rip rap. As mentioned above the connection of the geotextile wall will be completed during Phase IV.

The parking lot accessory to Douglas Harbor shall be paved during a Phase IV and will not be expanded, changed or altered during this phase of the project. Water and electrical lines to service the moorings and other functions of the Harbor will be replaced during this phase.

JCMP REVIEW

The Juneau Coastal Management Program places the Douglas Harbor area in a Special Waterfront Designation per 49.55.140 Map 3H, Appendix "Areas Designated for Water-Related and Water-Dependent Development." Douglas Harbor's structures and accessory structures shall be permitted as an Allowable Use within the Marine Commercial District per JCMP 49.55.140(B)(2) as follows:

(2) Allowable Uses and Activities:

(A) Floats, docks, jetties, groins, bulkheads, ramps, shore defense works, piers, wharfs, and other structures needed to provide access between shore and waterbody or to protect and stabilize the shoreline.

The accessory uses within the Marine Commercial District per JCMP 49.55.140(B)(4) as follows:

(4) Accessory Uses:

(A) Parking lots, spaces and structures.

(B) Driveways, sidewalks, entrance structures, decorative structures, benches, landscaping features, awnings and similar improvements.

(C) Utility facilities needed for allowable uses and approved conditional uses.

Also, the renovation of the Douglas Harbor shall be permitted per JCMP 49.55.140(a)(3):

"Existing uses or activities in the subject area may continue, provided, if conversion to another use or other modification is to be made, it shall conform to the requirements for the particular use district in which the site is located."

FINDINGS

The proposed dredging within Douglas Harbor will be required to accommodate larger moorings of Floats A – C. The exact placement of the new floats compared to the existing floats, as shown on the site (see Attachment D) are not the same. Due to the design, Float A will be closer to the southern most shoreline. Therefore, a depth of -12 feet shall be needed to achieve an appropriate depth for the moorings upon Float A and the southern headwalk float fingers, as shown on the site plan (see Attachment C). This depth was concluded to be suitable during the original (Phase I) construction of the Harbor during the 1960s.

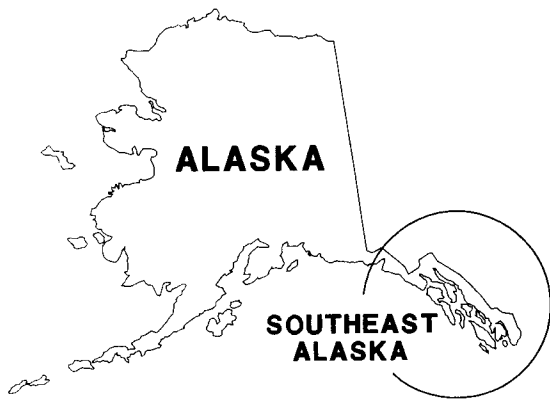
The relocation of the dredged earthen material has been chosen in a deep area of the Gastineau Channel, northeast of Douglas Harbor as shown on the site plan (see Attachment A). This site was preferred by the Alaska Department of Natural Resources, labeled as the Gastineau Channel Oceanic Disposal Site. Through sampling analysis, the disposal site was permitted by the Department of Army Corps of Engineers. The total amount of displaced material is approximately 27,000 cubic yards.

As stated above, there are no additional findings that show any detrimental effects due to the renovation of the Douglas Harbor.

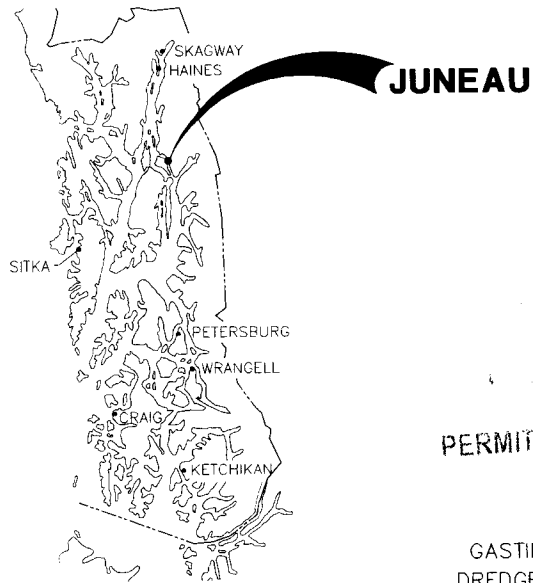
RECOMMENDATION

The conditions as approved by the City and Borough of Juneau Assembly for expansion of the Douglas Harbor, as approved during February 2, 2001 shall be recommended to be placed upon all development phases of the Harbor:

1. With the development of each project area, the applicant shall provide adequate lighting for primary traffic corridors and parking areas. Light fixtures shall be shielded, use sharp cut-offs, or incorporate a similarly effective design, to eliminate glare and to focus light shed on travel areas. Lighting along the seawall, parallel to Savikko Road in Area 1, is limited to a maximum height of 15 feet.
2. Prior to obtaining a CBJ building or grading permit for Phase II, the applicant shall submit plans for Community Development staff approval of the following items: Typical road sections through the project area, striping details, parking lot layout with accessible spaces, crosswalks, signs, lighting and fixtures, street furniture, public buildings, waste containers, landscaping and vegetative cover.
3. All trucks hauling material to or from the site shall have a tailgate, cover or similarly effective mechanism to contain material. Hauling to or from the site is prohibited between the hours of 7:00-8:00 AM and 4:00-6:00 PM.
4. The applicant shall be responsible for controlling dust and debris caused by loading, off-loading, truck hauling and other aspects of the operation. The applicant shall control dust by dampening road surfaces and operating areas and shall take other measures as needed to assure that no dust impacts occur off site. The applicant shall also be responsible for cleaning up and disposing of any litter generated by the project, including material that is lost from trucks.
5. Prior to obtaining a CBJ building or grading permit for Phase II, the applicant shall consider providing increased pedestrian amenities along Savikko Road; including increased sidewalk width and additional landscaping.



LOCATION MAP

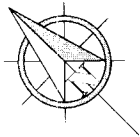


SOUTHEAST ALASKA

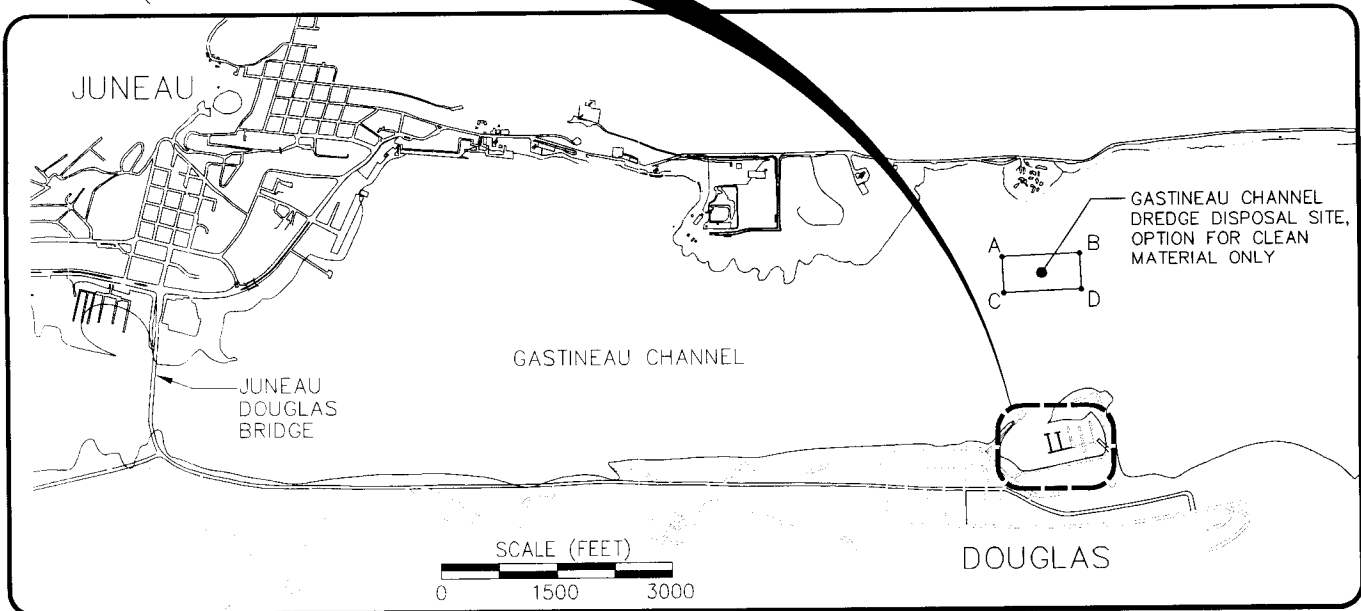
RECEIVED
MAY 28 2007
PERMIT CENTER / CDD

**GASTINEAU CHANNEL
DREDGE DISPOSAL SITE
CORNER POINTS**

- A: 58°16'45"N
134°22'54"W
- B: 58°16'41"N
134°22'46"W
- C: 58°16'42"N
134°22'58"W
- D: 58°16'38"N
134°22'50"W



PROJECT SITE



VICINITY MAP

ATTACHMENT A

PURPOSE:

TO RENOVATE AN EXISTING HARBOR IN ORDER TO INCREASE MOORAGE CAPACITY AND IMPROVE PUBLIC SAFETY.

IN: GASTINEAU CHANNEL
NEAR: JUNEAU
AT: DOUGLAS HARBOR

DATUM:

MLLW = 0.0 FT

HTL = 20.8'
MHW = 15.4'
MLLW = 0.0'

**LOCATION AND VICINITY
MAP**

APPLICANT ADDRESS:

PND ENGINEERS, INC.
9360 GLACIER HWY, STE 100
JUNEAU, AK 99801

PND#: 062065.01

CITY STATE PLAN REVIEW

**OLD DOUGLAS
HARBOR RENOVATION**

CITY AND BOROUGH OF JUNEAU
155 S. SEWARD STREET
JUNEAU, AK 99801

DATE: 3/30/07

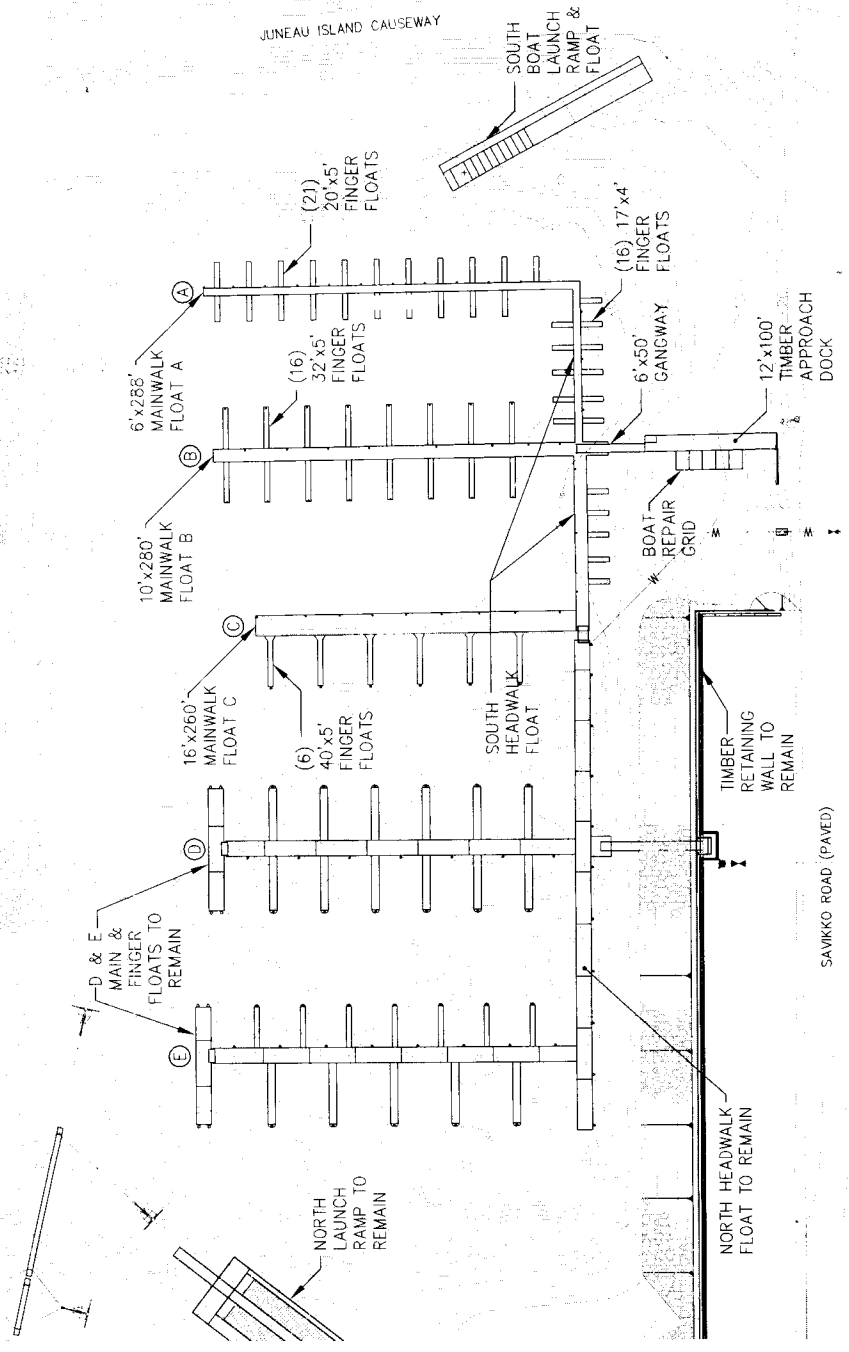
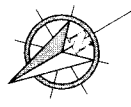
SHEET 1 OF 4

11-19-07-03-000001-Example-Concept-Design-of-Improvements-for-Douglas-Harbor-01.dwg

RECEIVED
 MAR 28 2007
 PERMIT CENTER / CDD

TIDAL INFORMATION	
EXTREME HIGH WATER (EHW)	23.2'
HIGH TIDE LINE (HTL)	20.8'
MEAN HIGH WATER (MHW)	15.4'
MEAN LOWER LOW WATER (MLLW)	0.0'
ESTIMATED EXTREME LOW WATER	-5.0'

DEMOLITION SUMMARY	
6' x 288' MAINWALK FLOAT A	
10' x 280' MAINWALK FLOAT B	
16' x 260' MAINWALK FLOAT C	
(6) 40' x 5' FINGER FLOATS	
(16) 32' x 5' FINGER FLOATS	
(21) 20' x 5' FINGER FLOATS	
(16) 17' x 4' FINGER FLOATS	
10' x 144' SOUTH HEADWALK FLOAT	
5' x 142' SOUTH HEADWALK FLOAT	
12' x 100' APPROACH DOCK	
BOAT LAUNCH RAMP AND FLOAT	
(55) CREOSOTE TIMBER PILES (10" - 12")	
6' x 50' STEEL GANGWAY	
BOAT REPAIR GRID	
TOTAL FLOAT REMOVED = 18,000 SF	
TOTAL NUMBER OF CREOSOTE TIMBER PILES REMOVED = 55	



ATTACHMENT B

PURPOSE:
 TO RENOVATE AN EXISTING HARBOR IN ORDER TO INCREASE MOORAGE CAPACITY AND IMPROVE PUBLIC SAFETY.

IN: GASTINEAU CHANNEL
NEAR: JUNEAU
AT: DOUGLAS HARBOR

DATUM:
 MLLW = 0.0 FT
 HTL = 20.8'
 MHW = 15.4'
 MLLW = 0.0'

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE IN FEET

APPLICANT ADDRESS:
 PND ENGINEERS, INC.
 9360 GLACIER HWY, STE 100
 JUNEAU, AK 99801

PND#: 062065.01

CITY STATE PLAN REVIEW

OLD DOUGLAS HARBOR RENOVATION

CITY AND BOROUGH OF JUNEAU
 155 S. SEWARD STREET
 JUNEAU, AK 99801

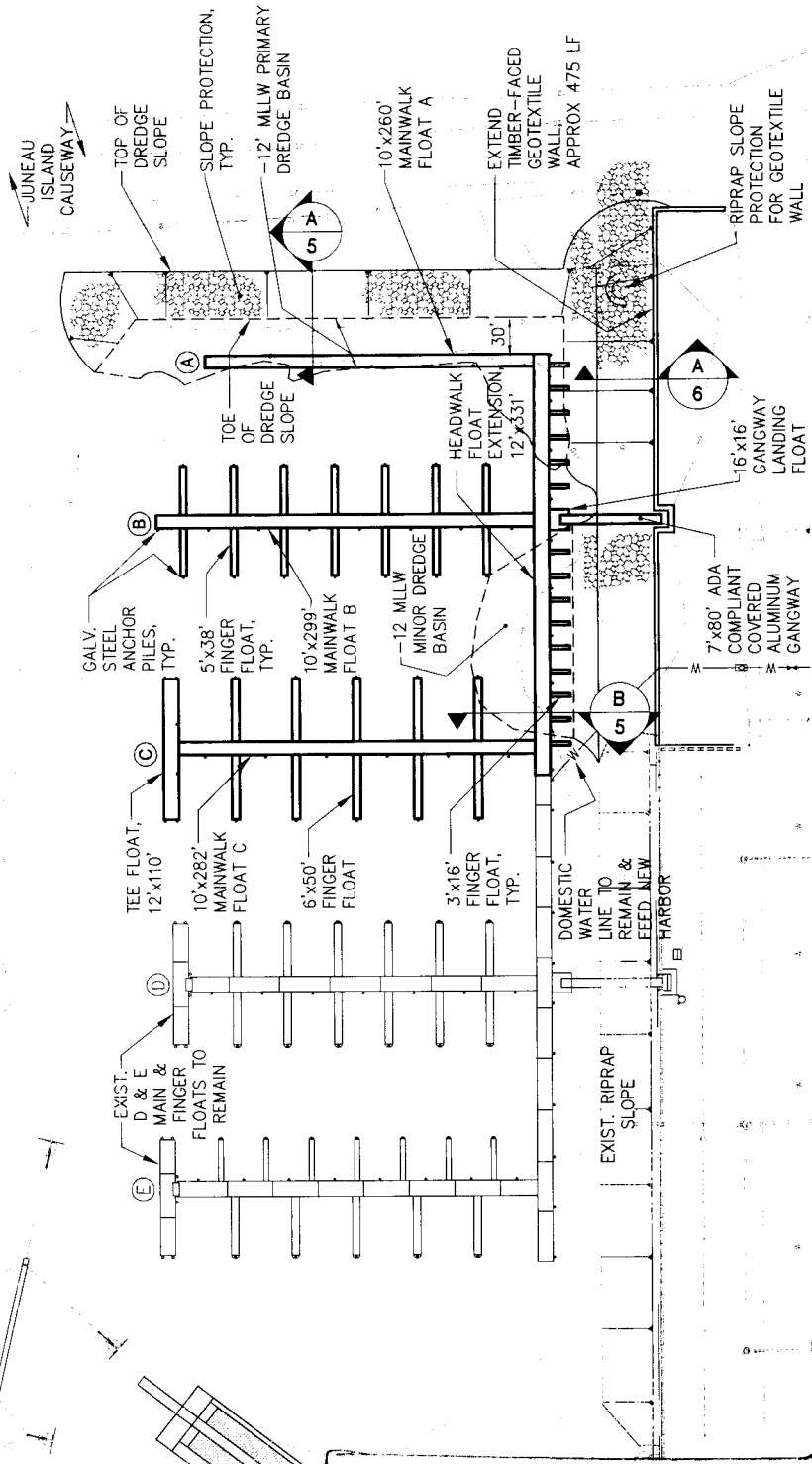
DATE: 3/30/07

SHEET 2 OF 4

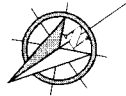
QUANTITIES SUMMARY TABLE

10' X 282' MAINWALK C
(10) 6' x 50' FINGER FLOATS
10' x 299' MAINWALK FLOAT B
(14) 5' x 38' FINGER FLOAT
10' x 260' MAINWALK FLOAT A
16' x 16' GANGWAY LANDING FLOAT
12' x 331' HEADWALK FLOAT
TIMBER FACED GEOTEXTILE WALL APPROX. 475 LF
7' x 80' ADA COMPLIANT COVERED ALUMINUM GANGWAY
12' x 110' TEE FLOAT
(61) GALVANIZED STEEL PIPE PILES

NOTE: SEE SHEET 5 FOR EXCAVATION AND FILL QUANTITIES ASSOCIATED WITH DREDGING AND RETAINING WALL CONSTRUCTION ACTIVITIES



RECEIVED
MAR 28 2007
PERMIT CENTER / COD



ATTACHMENT C

PURPOSE:
TO RENOVATE AN EXISTING HARBOR IN ORDER TO INCREASE MOORAGE CAPACITY AND IMPROVE PUBLIC SAFETY.

IN: GASTINEAU CHANNEL
NEAR: JUNEAU
AT: DOUGLAS HARBOR

DATUM: HTL = 20.8'
MHW = 15.4'
MLLW = 0.0 FT

**SITE PLAN OF
PROPOSED IMPROVEMENTS**

SCALE IN FEET

APPLICANT ADDRESS:
PND ENGINEERS, INC.
9360 GLACIER HWY, STE 100
JUNEAU, AK 99801

PND#: 062065.01

CITY STATE PLAN REVIEW

**OLD DOUGLAS
HARBOR RENOVATION**

CITY AND BOROUGH OF JUNEAU
155 S. SEWARD STREET
JUNEAU, AK 99801

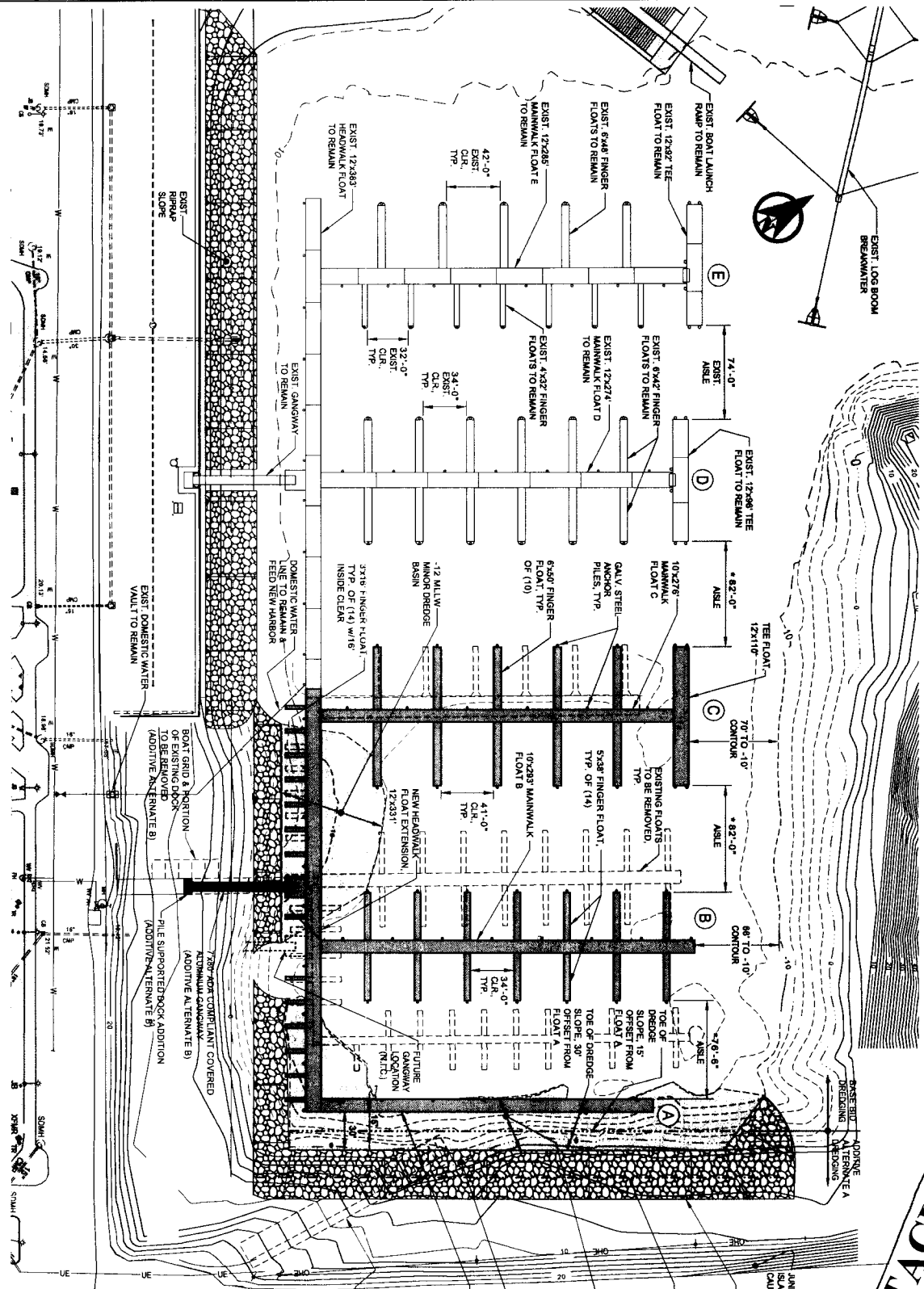
DATE: 3/30/07

SHEET 3 OF 4

TIDAL INFORMATION	
EXTREME HIGH WATER (EHW)	33.2'
HIGH TIDE LINE (HTL)	20.8'
MEAN HIGH WATER (MHW)	18.4'
MEAN LOW WATER (MLW)	15.0'
EXTREME LOW WATER (ELW)	8.0'

RECEIVED
MAR 29 2007
PERMIT CENTER / CDD

ATTACHMENT D



MOORAGE SUMMARY			
EXISTING	NO. SLIPS	PROPOSED	NO. SLIPS
STILL LENGTH	13	50 FT	24
		32 FT	30
		20 FT	43
		18 FT	30
TRANSIT	34	TRANSIT	706 LF

FLAT IS NOT RECOMMENDED FOR MINIMUM CLEARANCES PER ASCE. CR OPERATIONAL CONTROLS RECOMMENDED

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DOCKS & HARBORS DEPARTMENT

REV.	DATE	DESCRIPTION	DMN.	CHK.	APP.

ENGINEERS, INC.
3901 Glacier Highway, Ste. 10
Juneau, Alaska 99801
Phone: 907.586.3975
Fax: 907.586.3099
www.pndr.com



OLD DOUGLAS HARBOR RENOVATION
CBJ PROJECT NO. DH 06-350
SITE PLAN
SHEET 1 OF 1