



Haines Borough Planning Commission Regular Meeting Agenda

COMMISSIONERS:

ROB GOLDBERG, CHAIR
LEE HEINMILLER, VICE-CHAIR
ROBERT VENABLES
HEATHERLENDE
DON TURNER III
BRENDA JOSEPHSON
ROB MILLER

Thursday, September 10, 2015 - 6:30 p.m.

Assembly Chambers, 213 Haines Hwy.

1. CALL TO ORDER / PLEDGE TO THE FLAG
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES: August 13, 2015
5. PUBLIC COMMENTS [Items not scheduled for public hearing]
6. CHAIRMAN'S REPORT
7. STAFF REPORT
 - A. Planning & Zoning Report
8. PUBLIC HEARINGS:
 - A. Hill Top Subdivision Preliminary Long Plat Approval – C-USS-A2-2716 – Action Item – Property owner Roger Schnabel submitted a preliminary plat prepared by a registered land surveyor to the commission at 20 percent to 35 percent completion in order that general agreement may be reached on layout and arrangement of streets and lots and other public utilities before a final plat is prepared. He proposed to subdivide the above-listed property into 72 lots. The commission will process the preliminary plat pursuant to the standards set forth for special conditions permits and the standards set forth in HBC 18.100. **Possible Motion:** Approve Hill Top Subdivision Preliminary Long Plat.
9. UNFINISHED BUSINESS: None
10. NEW BUSINESS:
 - A. Historic District/Building Review: None
 - B. Haines Borough Code Amendments:
 1. Clarify "Temporary Commercial Structure" – Discussion Item – Commercial trailers are becoming more prevalent in town. The use of temporary commercial trailers is not currently addressed in the Borough code. Staff is seeking advice from the commission.
 2. Nonconforming Lot for A Public Utility Project – Discussion Item – The Assembly authorized via resolution Purchase of Property from Louie Meacock to facilitate the Piedad Springs Project. However, the purchase will result in creating a nonconforming lot, which is less than one acre. An ordinance allowing a nonconforming lot size for a public utility is drafted by staff for introduction to the Assembly.
 - C. Project Updates: None
 - D. Other New Business:
 1. South Portage Cove Harbor Expansion Project – Discussion Item – PND has prepared the 95 percent design review submittal for the South Portage Cove Harbor Expansion project. The commission is invited to review and comment.
 2. John Sickman – Appeal to the Planning Commission – Action Item – Property owner Sickman submitted a land use permit application to construct a single family residence (SFR) on a vacant lot of Skyline Estates Subdivision. The Borough determined the proposed SFR will exceed the 30' height limit. Sickman disagrees with the manager's interpretation of the Borough code relating to building height. He submitted his written appeal to the Planning Commission. **Possible Motion:** The Planning Commission confirms the Borough's decision.
11. COMMISSION COMMENTS
12. CORRESPONDENCE
13. SCHEDULE MEETING DATE
 - A. Regular Meeting – Thursday, October 8, 2015 6:30 p.m.
14. ADJOURNMENT



**Haines Borough
Planning Commission Meeting
August 13, 2015
MINUTES**

Draft

1. **CALL TO ORDER/PLEDGE TO THE FLAG** – Chairman **Goldberg** called the meeting to order at 6:30 p.m. in Assembly Chambers and led the pledge to the flag.

2. **ROLL CALL** – **Present:** Chairman Rob **Goldberg**, Commissioners Lee **Heinmiller**, Heather **Lende**, Brenda **Josephson**, Rob **Miller**, Don **Turner III**, and Robert **Venables** (called in).

Staff Present: Jan **Hill**/Mayor, David **Sosa**/Manager, Tracy **Cui**/Planning and Zoning Technician III, and Robert **Griffiths**/Interim Police Chief.

Also Present: Mike **Case** (Assembly liaison), Diana **Lapham** (Assembly member), Greta **Mart** (KHNS), Karen **Garcia** (CVN), Scott **Sundberg**, Cary **Weishahn**, Ron **Jackson**, Kathryn **Friedle**, John **Brower**, Steve **Fossman**, Ann Marie **Fossman**, Matt **Boron** (DOT), David **Epstein** (DOT), Bill **Kurz**, Jim **Stanford**, Judy **Ewald**, and others.

3. **APPROVAL OF AGENDA**

Motion: **Turner** moved to “approve the agenda as written.” **Heinmiller** seconded it. The motion carried unanimously.

4. **APPROVAL OF MINUTES** – July 9, 2015 Regular Meeting Minutes

Miller suggested adding “He pointed out that Mud Bay Road is signed as a preferred route” in his comment under Item 10D1. The other commissioners agreed.

Motion: **Lende** moved to “approve the July 9, 2015 minutes as amended.” **Miller** seconded it. The motion carried unanimously.

5. **PUBLIC COMMENTS**

Kurz expressed concerns about the harbor expansion project.

Goldberg said the commission will review the 95 percent design at its next regular meeting.

6. **CHAIRMAN’S REPORT**

Goldberg said he attended the Picture Point Design Committee meeting. The next step is to develop beach walking pathways and grass seeding over the parking area.

7. **STAFF REPORTS**

A. Planning & Zoning Staff Report

Cui reported monthly permits and updates on projects.

Cui brought up her concerns over the use of temporary commercial trailers in town.

Goldberg said he will put it on the next agenda.

Cui said that a land use permit application was put on hold. The applicant disagrees with her interpretation of the Borough code relating to building height. **Goldberg** said he suggested the applicant schedule a meeting with Manager Sosa.

8. PUBLIC HEARINGS

A. Heliport Conditional use Proposal – 3-CLR-35-0100

Sundberg withdrew the application.

9. UNFINISHED BUSINESS

A. Lowering Speed Limit on Mud Bay Road – Discussion Item

Goldberg said this item is up for discussion at the request of Ann Marie **Fossman**.

Citizens Steve **Fossman**, **Friedle**, **Brower**, and others spoke in favor of this request. They hoped the commission would support this petition and write a recommendation letter to the state DOT.

Stanford stated he believes some type of study needs to be conducted to address this. This is a public safety issue.

Epstein said his concern is that lowering the speed limit on Mud Bay Road may detract from safety. Speed zones are established or changed on the basis of detailed engineering study. A request to study Mud Bay Road would properly come from the Haines Borough. The statues indicate if the result of the speed study is not what the Borough wants, then a public hearing process will be required before making any final decision. Speed studies are used to determine the speed distribution of a traffic stream at a specific location. The samples collected in speed studies are used to determine vehicle speed percentiles, which are useful in making many speed-related decisions. The two speed percentiles most important to understand are the 50th and the 85th percentiles. The 85th is used in evaluating/recommending posted speed limits based on the assumption that 85 percent of the drivers are traveling at a speed they perceive to be safe. The speed study has no cost to the Borough.

Turner said the Public Safety Commission needs to look into this. Several questions were raised related to traffic signage requirements. Warning signs alert road users to conditions that might call for a reduction of speed; it is left to the road user to decide whether or not to slow down. Warning signs are not used to control speed or justify a speed zone modification.

Goldberg said it seems that the speed studies rely on the collected samples. The result may turn out to be the opposite of what we requested.

More discussion ensued.

Motion: Lende moved that “the Planning Commission recommends the Assembly or Manager send a letter to David Epstein of the Alaska DOT requesting that a speed study be done on Mud Bay and Small Tracts roads.” **Miller** seconded it. The motion carried 5-2 with **Josephson** and **Turner** opposed.

Motion: Lende moved that “the Planning Commission recommends the Manager and Assembly request that the Public Safety Commission look into traffic safety concerns on the Cemetery Hill portion of Mud Bay Road.” **Venables** seconded it. The motion carried unanimously.

(Commissioner **Venables** left.)

10. NEW BUSINESS

A. Historic District/Building Review: None

B. Haines Borough Code Amendments

1. Temporary Residence in HBC 18.60.020(H)

Cui revised the draft ordinance based on comments from the last meeting. The ordinance will also allow placement of a temporary dwelling for commercial projects. The commission amended the ordinance by removing “or motor home” from the initial sentence.

Heinmiller moved to “recommend the Assembly adopt the draft substitute ordinance 15-01-398 as amended.” **Miller** seconded it. The motion carried 6-0 with Venables absent.

2. On-Site Wastewater System

Goldberg said this is a follow-up item from the last agenda. The Borough code needs to be amended since the Alaska DEC acknowledged that installation of a conventional on-site wastewater system does not need a plan approval.

Miller suggested replacing “a licensed engineer” with “an engineer licensed in the state of Alaska.” The other commissioners agreed.

Heinmiller pointed out the existing code requires developers to connect to the public utility within six months of when public sanitary sewer and/or water service becomes available. It is difficult to enforce that since property owners do not want to connect to public utilities if their own private wells and septic system work fine. He believes the commission needs to address this situation; otherwise it may cause issues in the future.

Josephson said the existing code makes homeowners do major investments. She believes this sentence needs to be removed.

Cui stated that this topic was discussed at the planning commission meeting about a year ago. The commission has already made recommendations to the Assembly.

Turner said 90 percent of the homeowners do not maintain their on-site septic systems. Most homeowners would prefer to connect to the public sewer system, instead of maintaining their own systems. However, some homeowners’ private wells have better water quality, so he would be in favor of waiving the requirement to connect to the public water system.

Goldberg said the commission needs to find out what the Assembly is doing on this before making any decision. Mayor **Hill** said she will check with the Assembly.

Motion: **Josephson** moved to “amend the draft ordinance by removing ‘When public sanitary sewer and/or water service becomes available, the developer will be required to connect to the public utility within six months’.” **Lende** seconded it. The motion failed 0-6 with Venables absent.

More discussion ensued.

Motion: **Miller** moved to “recommend the Assembly adopt the draft ordinance as amended.” **Heinmiller** seconded it. The motion carried 6-0 with Venables absent.

C. Project Updates – None

D. Other New Business – None

11. **COMMISSION COMMENTS**

Lende said she is glad to know that the commission will review the 95 percent design for the harbor expansion project. She felt the commission's recommendations on the 35 percent and 65 percent designs were muted. **Turner** said the commission may need to consider amending the code on when the plans have to be brought to the commission for review. **Lende** asked if the Borough can invite a PND representative to the next meeting.

Josephson asked about the replat of the Primary School Subdivision. She said she does not understand why the commission resists having an irregular-shaped lot for the library. She spoke in favor of keeping that portion of the running track in the school lot.

Cui said that keeping the library lot as a rectangle shape was approved by the commission, and the survey work will be accomplished soon. **Goldberg** said the commission will review the preliminary plat when it is ready.

12. **CORRESPONDENCE** - None

13. **SET MEETING DATES**

A. Regular Meeting—Thursday, September 10, 2015.

14. **ADJOURNMENT**— 9:12 p.m.

Staff Report for September 10, 2015

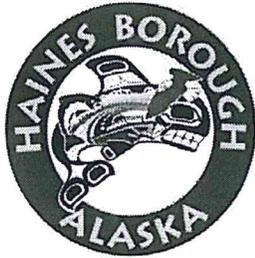
1. Permits Issued Since August, 2015

DATE	OWNER/AGENT	TAX ID	LOT	BLK	SUBDIVISION	DEVELOPMENT	ZONE
8/5/15	Shawn O'Brien	C-HAN-00-0800	8		Hannon Sub	Deposit Fill	ILC
8/5/15	Dennis Gudmundson	C-WLK-00-0100	1		Walker Sub	Workshop	W
8/10/15	Norman Smith	C-690-05-0200	2	5	USS 690	New Water & Sewer	SR
8/10/15	Sean Prior	C-MEA-02-2800	28		Meadowland Sub	ROW Driveways	SR
8/19/15	Carla Ellen Palmieri	3-CLR-26-0220	2		Woods Sub	ROW Utility	GU
8/20/15	Marilyn Harrold	C-MEA-02-3000	30		Meadowland Sub	ROW Driveway	SR
8/20/15	Haines Borough	C-SEC-26-0404	4		Picture Point Sub	Beach Walking Trail	WF
8/20/15	Haines Borough	Sheldon Museum			Presbyterian Mission Sub	Totem	C
8/21/15	Marilyn Harrold	C-MEA-02-3000	30		Meadowland Sub	New Water & Sewer	SR
8/21/15	Dustin Craney	C-SEC-35-1640	16D		Replat of Lot 16, Sec35, T30S, R59E, CRM	Parking Pad & Resurface Driveway	SR
8/21/15	Susan McCartney	C-PTC-0P-0700	7A	P	Port Chilkoot Sub	SFR	SR
8/24/15	Norman Yoder	C-SEC-26-04L2	2		Picture Point Sub	Site Preparation	WF
8/25/15	Sean Prior	C-MEA-02-2800	28		Meadowland Sub	Accessory Apartment	SR
8/26/15	Philip Busby	C-YNG-05-0600	6	5	Young Sub	Site Preparation	SR
8/26/15	Doris Bell	C-TNS-01-1900	18&20	1	Haines Townsite	ROW Utility	C

2. Citizen Complaints/Enforcement Orders - None

3. Projects

- Haines Imagery has been approved for publication on ESRI Community Maps Program. It is scheduled to go live on the evening of September 9th.
- Borough road condition and evaluation map is up-to-date. It is available on Borough website.
- On-site wastewater ordinance is currently under staff review. When ready for introduction, it will come to the Assembly.
- 22 property parcels info were updated.



Haines Borough

Planning and Zoning

103 Third Ave. S., Haines, Alaska, 99827

Telephone: (907) 766-2231 * Fax: (907) 766-2716

PLATTING ACTION APPLICATION

Permit#: _____

Date: _____

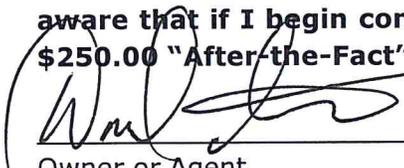
I. Type of Platting Approval Requested		
<input type="checkbox"/> Lot Line Vacation \$50 <input type="checkbox"/> Lot Line Adjustment \$50 <input type="checkbox"/> Short Plat \$75 <input type="checkbox"/> Planned Unit Dev't \$150 <input checked="" type="checkbox"/> Long Plat \$200		
I. Property Owner/Agent		Firm Preparing Plat
Name: Highland's Estates, Inc./David Smith		Name: Southeast Road Builders, Inc.
Mailing Address: HC 60 Box 4800, Haines, AK 99827		Haines Borough Business License #: 140.1
Contact Phone: Day Night (907) 766-2833		Alaska Business License #: 228340
Fax: (907) 766-2832		Contractor's License #: 23987
E-mail: roger@seroad.com; mapsurveyors@gmail.com		Mailing Address: HC 60 Box 4800, Haines, AK 99827
		Contact Phone: Day Night (907) 766-2833
		Fax: (907) 766-2832
		E-mail: roger@seroad.com
III. Property Information		
Property Tax #: C-USS-A2-2716		
Legal Description: Lot (s) _____ Block _____ Subdivision <u>Hill Top Subdivision</u>		
OR		
Parcel/Tract <u>A-3-1&2</u> Section <u>34</u> Township <u>30S</u> Range <u>59E</u>		
[Attach additional page if necessary.] Tracts A-3-1 & A-3-2, According to Plat 89-8		
Number of Existing Parcels: 2	Total Land Area: 34.13 acres	Number of Resulting Lots/Parcels: 72
Existing Structures? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Utilities: <input checked="" type="checkbox"/> Public <input type="checkbox"/> On Site	Sewer Utilities: <input checked="" type="checkbox"/> Public <input type="checkbox"/> On Site
Zoning: <input type="checkbox"/> Waterfront <input type="checkbox"/> Single Residential <input type="checkbox"/> Rural Residential <input type="checkbox"/> Significant Structures Area <input type="checkbox"/> Rural Mixed Use <input checked="" type="checkbox"/> Multiple Residential <input type="checkbox"/> Heavy Industrial <input type="checkbox"/> Waterfront Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial Light Commercial <input type="checkbox"/> Recreational <input type="checkbox"/> Mud Bay Zoning District <input type="checkbox"/> Lutak Zoning District <input type="checkbox"/> General Use		
Unique Characteristics of Land or Structure(s): This subdivision had preliminary approval from the City of Haines on June 6, 1997.		
Attach the following documents to the permit application: <input checked="" type="checkbox"/> Plat (prepared by a professional land surveyor licensed to practice in the state of Alaska) <input type="checkbox"/> As-built Survey (may be required if there are existing structures on the lot)		
Important Note:		
~The standards and procedures for all Platting Actions are in the Haines Borough Code Section 18.100		

IV. FEE

The appropriate non-refundable fee as shown above must accompany this application. Checks must be made payable to the HAINES BOROUGH.

IV. CERTIFICATION

I hereby certify that I am the owner or duly authorized owner's agent, that I have read this application and that all information is correct. I further certify that I have read, understand and will comply with all of the provisions and permit requirements outlined hereon. I also certify that the plats and/or surveys submitted are complete and accurate, showing any and all existing and proposed structures on the subject property. All contract work on this project will be done by a contractor holding valid licenses issued by the State of Alaska and the Haines Borough. **I am aware that if I begin construction prior to receiving permit approval, I will be assessed a \$250.00 "After-the-Fact" fee.**



 Owner or Agent

August 25, 2015

 Date

PROVISIONS: The applicant is advised that issuance of this permit will not relieve responsibility of the owner or owner's agents to comply with the provisions of all laws and ordinances, including federal, state and local jurisdictions, which regulate construction and performance of construction, or with any private deed restrictions.

Office Use Only Below This Line

<input type="checkbox"/> Applicant Notified Application is Complete and Accepted			(Date)	(Notified via)	(Initials)
Non-Refundable Permit Fee \$ <u>250⁰⁰</u> Receipt No. <u>26218</u> Received By: <u>J Baker</u> Date: <u>8.26.15</u>	Information/Documentation Req'd Rec'd <input type="checkbox"/> <input type="checkbox"/> Plat <input type="checkbox"/> <input type="checkbox"/> As-built Survey <input type="checkbox"/> <input type="checkbox"/> Variance/Conditional Use Permit <input type="checkbox"/> <input type="checkbox"/> Sign Permit				
This application meets all applicable Borough policies and a permit is issued, conditional on the substantial completion of construction within two years and the following special requirements:					
Approval Signature:			Date		

Notice of Right to Appeal: All decisions of the Borough Manager are appealable per HBC 18.30.050

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

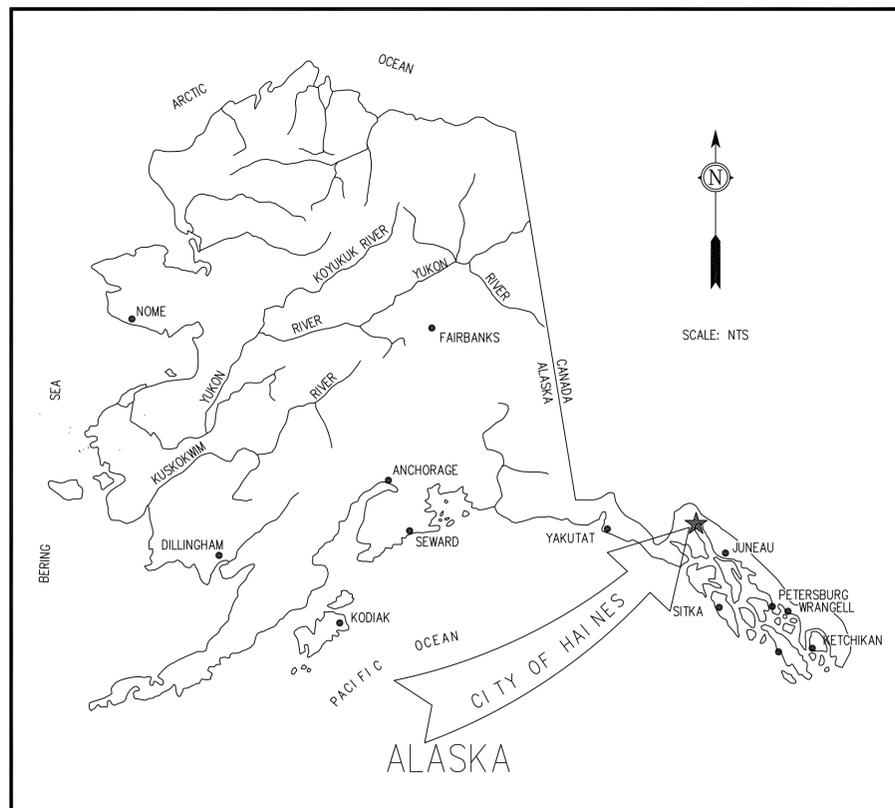
CITY OF HAINES, ALASKA PROPOSED 72 LOT SUBDIVISION HILL TOP SUBDIVISION

PREPARED BY

O'NEILL

LAND SURVEYING AND ENGINEERING

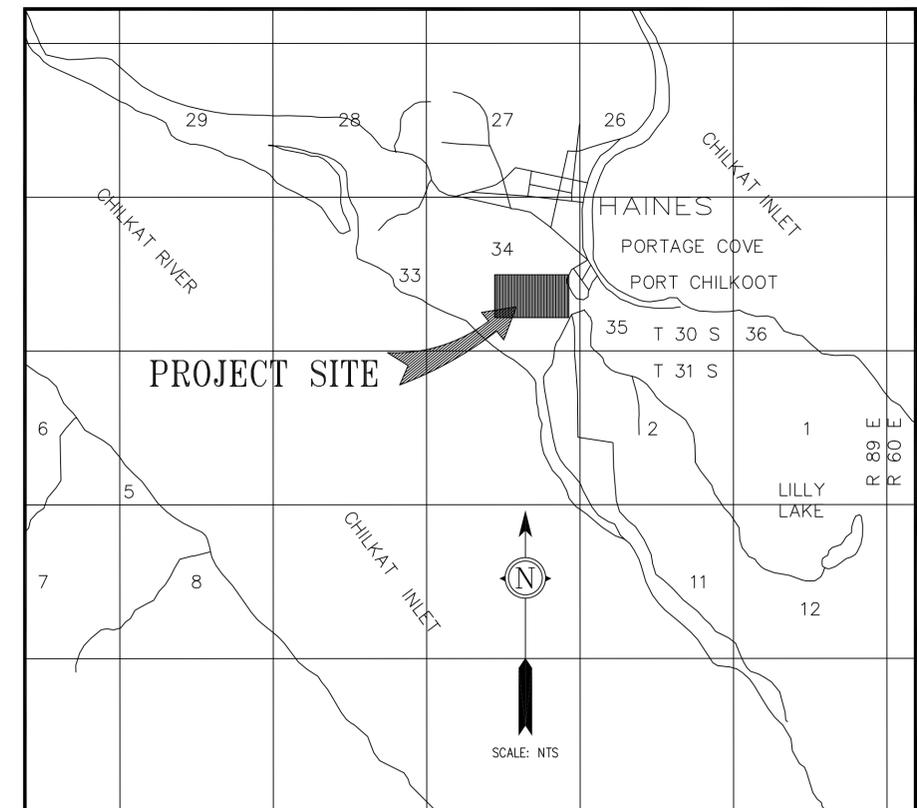
BOX 1849 SITKA, ALASKA 99835



LOCATION MAP

SHEET INDEX

	COVER SHEET
A1	WATER/SEWER UTILITIES OVERVIEW
A2	ORIGINAL TOPOGRAPHY
A3	PROPOSED TOPOGRAPHY
A4	WATER/SEWER UTILITIES AND ROAD PROFILE
A5	WATER/SEWER UTILITIES AND ROAD PROFILE
A6	WATER/SEWER UTILITIES AND ROAD PROFILE
A7	WATER/SEWER UTILITIES AND ROAD PROFILE
A8	WATER/SEWER UTILITIES AND ROAD PROFILE
A9	SEWER/WATER SYSTEM DETAILS
A10	SEWER/WATER SYSTEM DETAILS
A11	SEWER/WATER SYSTEM DETAILS



VICINITY MAP

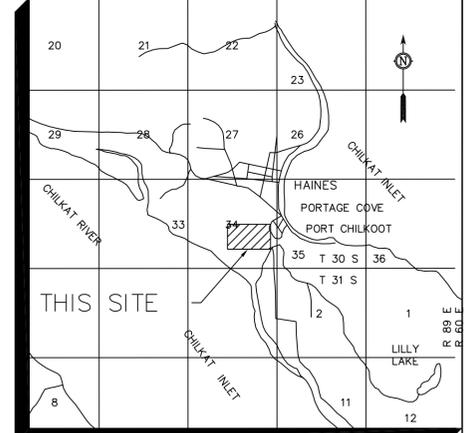
LEGEND

- PRIMARY CONTROL MONUMENT RECOVERED (BRASS CAP)
- ▲ LEAD PLUG AND TACK IN BOLDER (RECOVERED)
(SET PORT CHILKOOT SUBDIVISION)
- △ REBAR (RECOVERED)
- YPC (RECOVERED)
- ⊙ IRON PIPE (RECOVERED)
- (R) RECORDED DATA
- (C) COMPUTED DATA
- (M) MEASURED DATA

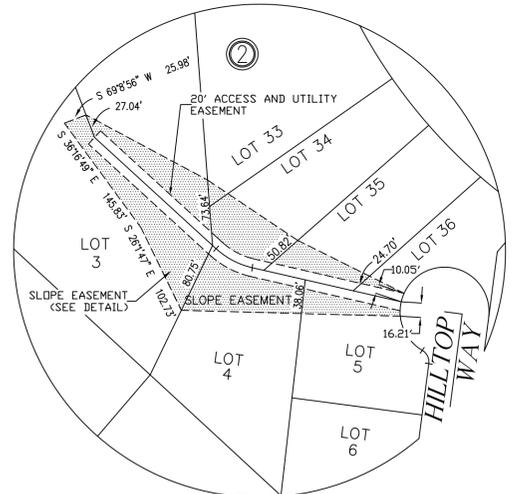
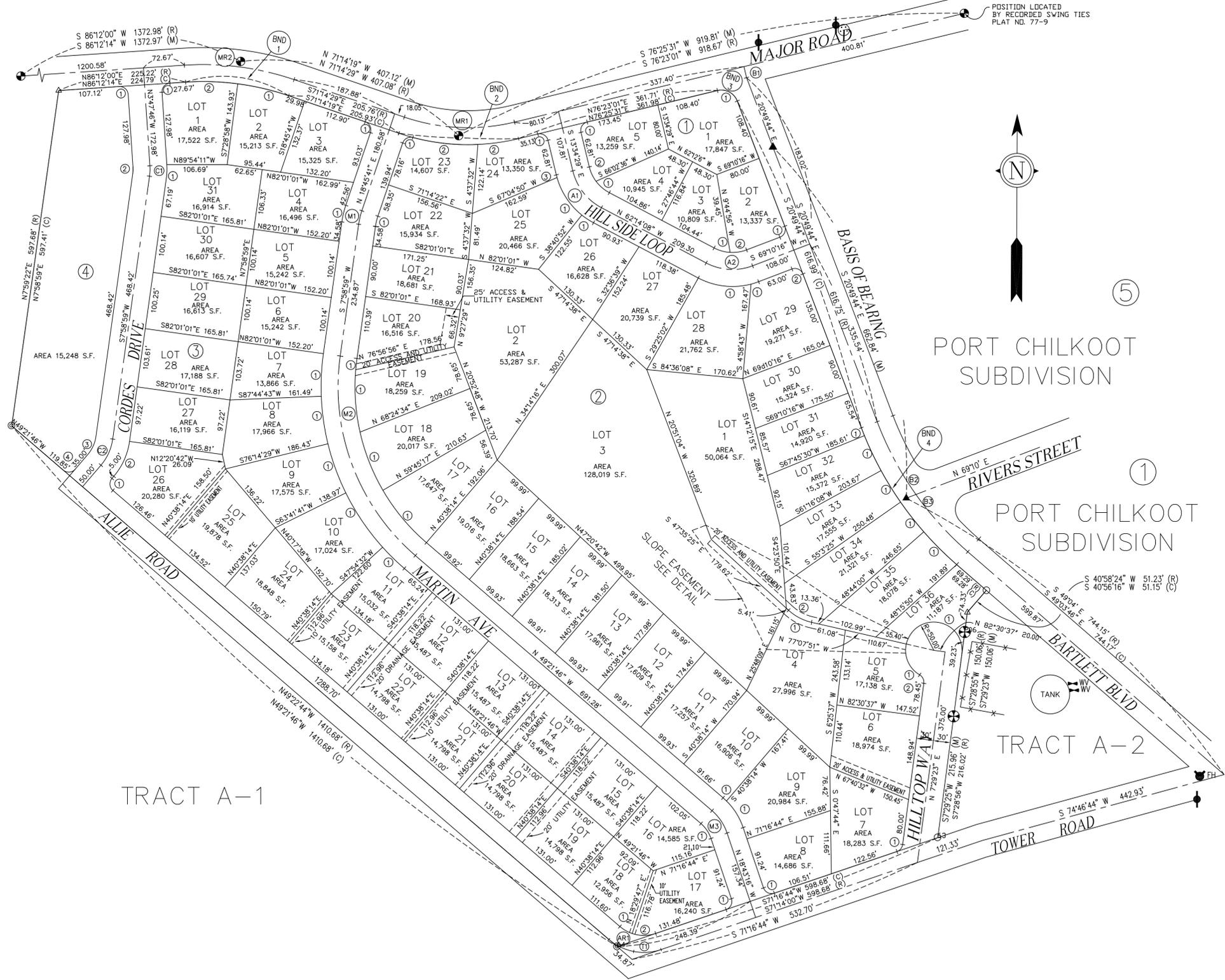
PLAT NOTES:

1. DUE TO LOW WATER PRESSURE IN THE SUBDIVISION, WATER BOOSTER PUMPS WILL BE NECESSARY FOR BLOCK 2. LOTS 2, 4, 5, 6, 7, 19, 20, 21, 31, 32, 33, 34, 35 AND 36. THESE PUMPS MUST BE INSTALLED BY THE PROPERTY OWNER BEFORE THEY WILL BE ALLOWED TO CONNECT TO THE CITY'S WATER SYSTEM.
2. DUE TO THE HEIGHT OF LOTS 1 & 3, BLOCK 2, NO MUNICIPAL WATER SERVICE WILL BE AVAILABLE TO THESE LOTS. PROPERTY OWNERS MUST EITHER DIG A WELL OR INSTALL A PUMP AND WATER LINE FROM AN AVAILABLE MAIN AT A LOWER ELEVATION. IF INSTALLING PUMP/LINE, SUCH PUMP AND LINE MUST BE INSTALLED BEFORE PROPERTY OWNER(S) WILL BE ALLOWED TO CONNECT TO THE CITY'S WATER SYSTEM. MAINTENANCE OF PUMP AND WATER LINE WILL REMAIN THE RESPONSIBILITY OF THE LOT OWNER(S) SERVED BY THIS LINE.
3. MAINTENANCE OF PRIVATE DRIVE TO LOTS 1-4, BLOCK 2 IS THE RESPONSIBILITY OF THE OWNER(S) OF THESE LOTS.
4. NO LOT IN THIS SUBDIVISION MAY BE FURTHER SUBDIVIDED EXCEPT LOT 3, BLOCK 2, WHICH MAY ONLY BE FURTHER SUBDIVIDED INTO TWO LOTS. SUBDIVIDER OF LOT 3 ACCEPTS THE RESPONSIBILITY OF PROVIDING UTILITIES AND LEGAL AND PHYSICAL ACCESS TO BOTH LOTS FORMED BY THIS SUBDIVISION.

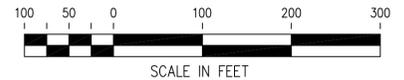
U.S.S. 2716



VICINITY MAP



SLOPE EASEMENT DETAIL



O'NEILL
LAND SURVEYING AND ENGINEERING

BOX 1849 SITKA, ALASKA 99835
(907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			



DESIGNED: P. O'NEILL
DRAWN: GDS/ACAD
CHECKED: PKO
DATE OF PLAT: JUN 06, 1997 * 09:44:37
SCALE: 1"=100'
DRAWING NAME: SH101
PROJECT NO. 23133-04-00

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A REGISTERED SURVEYOR, LICENSED IN THE STATE OF ALASKA, AND THAT IN A SURVEY OF THE HEREIN DESCRIBED LANDS WAS CONDUCTED UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT IS A TRUE AND ACCURATE REPRESENTATION OF THE FIELD NOTES OF SAID SURVEY, AND THAT ALL DIMENSIONS AND OTHER DETAILS ARE CORRECT ACCORDING TO SAID FIELD NOTES.

DATE _____ SURVEYOR: _____

HILL TOP SUBDIVISION

*A SUBDIVISION OF THE RESUBDIVISION OF
MARTIN COODES PROPERTY WITHIN U.S.S. 2716
AND TRACT A-3, U.S.S. 2716*

NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA 99827

SHEET 1 OF 2

CERTIFICATE OF OWNERSHIP AND DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH OUR FREE CONSENT AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE OWNER (SIGNATURE)

DATE OWNER (SIGNATURE)

NOTARY'S ACKNOWLEDGEMENT

US OF AMERICA STATE OF ALASKA CITY OF HAINES

THIS IS TO CERTIFY THAT ON THIS DAY OF 19, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED TO ME KNOWN TO BE THE IDENTICAL INDIVIDUAL(S) MENTIONED AND WHO EXECUTED THE WITHIN PLAT AND ACKNOWLEDGED TO ME THAT SIGNED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THERIN SPECIFIED.

WITNESS MY HAND AND NOTARY SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST HEREIN WRITTEN.

NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA

MY COMMISSION EXPIRES

BOUNDARY CURVE DATA

CALCULATED DATA Curve 1 Delta = 22'33'27" R = 470.00' L = 185.04' CHD. = 183.85' CHD. BRG. = S 82'31'02" E RECORD DATA Curve 1 Delta = 22'33'30" R = 470.00' L = 185.05' CHD. = 183.85' CHD. BRG. = S 82'31'14" E

Curve 2 Delta = 32'20'10" R = 380.00' L = 214.46' CHD. = 211.63' CHD. BRG. = S 87'24'24" E Curve 2 Delta = 32'22'30" R = 380.00' L = 214.72' CHD. = 211.87' CHD. BRG. = S 87'25'45" E

Curve 3 Delta = 82'44'44" R = 30.00' L = 43.33' CHD. = 39.66' CHD. BRG. = S 62'12'06" E Curve 3 Delta = 82'47'12" R = 30.00' L = 43.35' CHD. = 39.66' CHD. BRG. = S 62'13'24" E

Curve 4 Delta = 28'14'00" R = 603.69' L = 297.48' CHD. = 294.48' CHD. BRG. = S 34'56'44" E Curve 4 Delta = 28'14'01" R = 603.69' L = 297.48' CHD. = 294.48' CHD. BRG. = S 34'56'45" E

CERTIFICATE OF OWNERSHIP AND DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH OUR FREE CONSENT AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE OWNER (SIGNATURE)

DATE OWNER (SIGNATURE)

NOTARY'S ACKNOWLEDGEMENT

US OF AMERICA STATE OF ALASKA CITY OF HAINES

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WITNESS MY HAND AND NOTARY SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST HEREIN WRITTEN.

NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA

MY COMMISSION EXPIRES

ROADWAY CURVE DATA

MAJOR ROAD MARTIN AVE HILL SIDE LOOP Curve 1 Delta = 32'20'10" R = 350.00' L = 197.53' CHD. = 194.92' CHD. BRG. = N 87'24'24" W Curve 1 Delta = 10'46'42" R = 130.13' L = 24.48' CHD. = 24.44' CHD. BRG. = S 13'22'20" W Curve 1 Delta = 48'39'40" R = 100.00' L = 84.93' CHD. = 82.40' CHD. BRG. = S 37'54'19" E

Curve 2 Delta = 22'33'27" R = 500.00' L = 196.85' CHD. = 195.58' CHD. BRG. = N 82'31'02" W Curve 2 Delta = 57'20'46" R = 392.06' L = 392.40' CHD. = 376.23' CHD. BRG. = S 20'41'23" E Curve 2 Delta = 48'35'31" R = 100.00' L = 84.81' CHD. = 82.29' CHD. BRG. = S 86'31'56" E

BARTLETT BLVD. Curve 1 Delta = 00'50'30" R = 1366.31' L = 20.07' CHD. = 20.07' CHD. BRG. = S 13'09'14" E Curve 3 Delta = 30'38'29" R = 90.00' L = 48.13' CHD. = 47.56' CHD. BRG. = S 34'02'31" E

ALLIE ROAD Curve 2 Delta = 14'33'56" R = 573.69' L = 145.84' CHD. = 145.45' CHD. BRG. = S 28'06'42" E Curve 1 Delta = 29'40'45" R = 95.00' L = 49.21' CHD. = 48.66' CHD. BRG. = S 64'12'09" E

TOWER ROAD Curve 1 Delta = 13'40'04" R = 573.69' L = 136.85' CHD. = 136.53' CHD. BRG. = S 42'13'42" E Curve 1 Delta = 29'40'45" R = 95.00' L = 49.21' CHD. = 48.66' CHD. BRG. = N 86'07'06" E

CORDES DRIVE Curve 1 Delta = 11'46'45" R = 90.00' L = 18.50' CHD. = 18.47' CHD. BRG. = S 2'05'37" W Curve 2 Delta = 32'39'14" R = 90.00' L = 51.29' CHD. = 50.60' CHD. BRG. = S 24'18'37" W

CERTIFICATE OF APPROVAL BY THE MAYOR OF THE CITY OF HAINES

I THE UNDERSIGNED, BEING DULY APPOINTED AND QUALIFIED, AS THE MAYOR OF HAINES HEREBY CERTIFY THAT I APPROVE THIS SUBDIVISION FOR PLATTING.

MAYOR, CITY OF HAINES DATE

CERTIFICATE OF APPROVAL BY THE PLATTING BOARD

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY OF HAINES PLATTING BOARD, AND THAT SAID PLAT HAS BEEN APPROVED BY THE BOARD BY PLAT RESOLUTION NO. DATED 19, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT MAGISTRATE, EX-OFFICIO RECORDER, HAINES, ALASKA.

DATE CHAIRMAN, PLANNING COMMISSION

SECRETARY

A JOINT VENTURE BETWEEN:

O'NEILL LAND SURVEYING AND ENGINEERING BOX 1849 SITKA, ALASKA 99835 (907) 747-6700

AND GREG SCHEFF AND ASSOCIATES

BOX 1331 WRANGELL, ALASKA 99929 (907) 874-2177

Table with columns: BY, DATE, REV, DESCRIPTION OF CHANGE

RECORD OF REVISIONS



DESIGNED: P. O'NEILL DRAWN: GDS/ACAD CHECKED: EKO DATE OF PLAT: JUN 06, 1997 * 11:05:30 SCALE: N/A DRAWING NAME: SHT02

PROJECT NO. 23133-04-00

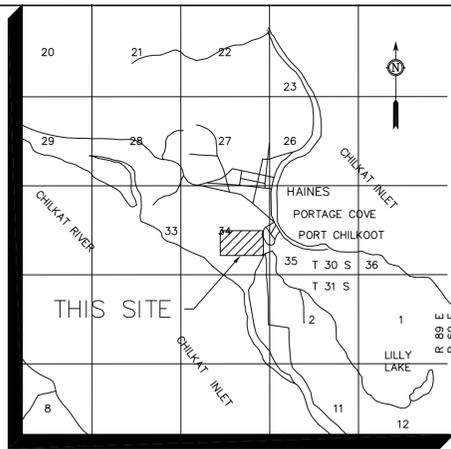
LOT CURVE DATA

BLOCK 1 Lot 1, Block 1 Delta = 82'45'09" R = 30.00' L = 43.33' CHD. = 39.66' CHD. BRG. = S 62'12'06" E Lot 2, Block 1, Curve 1 Delta = 89'58'58" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 24'10'16" W Lot 2, Block 1, Curve 2 Delta = 24'17'42" R = 70.00' L = 29.68' CHD. = 29.46' CHD. BRG. = S 81'19'10" W Lot 3, Block 1, Curve 1 Delta = 24'17'42" R = 70.00' L = 29.68' CHD. = 29.46' CHD. BRG. = N 74'23'02" W Lot 4, Block 1 Delta = 25'34'39" R = 70.00' L = 15.89' CHD. = 30.99' CHD. BRG. = N 49'26'46" W Lot 5, Block 1, Curve 1 Delta = 89'58'58" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = N 31'25'31" E Lot 5, Block 1, Curve 2 Delta = 23'04'56" R = 70.00' L = 28.20' CHD. = 28.01' CHD. BRG. = N 25'06'56" W BLOCK 2 LOT 4, BLOCK 2 Delta = 29'32'26" R = 90.00' L = 46.40' CHD. = 45.89' CHD. BRG. = S 62'21'38" E Lot 5, Block 2, Curve 1 Delta = 72'45'17" R = 50.00' L = 63.49' CHD. = 59.31' CHD. BRG. = S 23'30'38" E Lot 5, Block 2, Curve 2 Delta = 67'22'32" R = 15.00' L = 17.64' CHD. = 16.64' CHD. BRG. = S 26'12'01" E Lot 7, Block 2 Delta = 63'47'09" R = 15.00' L = 16.70' CHD. = 15.85' CHD. BRG. = S 39'23'04" W Lot 8, Block 2 Delta = 89'58'58" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = N 63'43'16" W Lot 9, Block 2 Delta = 26'42'08" R = 120.00' L = 55.92' CHD. = 55.42' CHD. BRG. = N 32'04'18" W BLOCK 3 Lot 10, Block 2 Delta = 03'56'23" R = 120.06' L = 8.25' CHD. = 33.66' CHD. BRG. = S 62'12'06" E Lot 17, Block 2 Delta = 19'06'44" R = 362.06' L = 120.77' CHD. = 120.21' CHD. BRG. = N 39'48'55" W Lot 18, Block 2 Delta = 17'31'49" R = 362.06' L = 110.78' CHD. = 110.34' CHD. BRG. = N 21'29'39" W Lot 19, Block 2 Delta = 17'31'49" R = 362.06' L = 110.78' CHD. = 110.34' CHD. BRG. = N 35'57'50" W Lot 20, Block 2, Curve 1 Delta = 86'05'17" R = 15.00' L = 22.54' CHD. = 20.48' CHD. BRG. = S 21'32'07" E Lot 20, Block 2, Curve 2 Delta = 86'05'17" R = 15.00' L = 22.54' CHD. = 20.48' CHD. BRG. = S 21'32'07" E Lot 21, Block 2 Delta = 12'06'55" R = 380.00' L = 80.35' CHD. = 80.20' CHD. BRG. = N 84'38'27" E Lot 22, Block 2 Delta = 70'50'40" R = 120.00' L = 148.38' CHD. = 139.10' CHD. BRG. = S 48'59'49" E Lot 23, Block 2 Delta = 86'06'17" R = 15.00' L = 22.54' CHD. = 20.48' CHD. BRG. = N 61'48'19" E Lot 24, Block 2, Curve 1 Delta = 89'58'58" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 58'34'29" E Lot 24, Block 2, Curve 2 Delta = 10'55'53" R = 380.00' L = 72.50' CHD. = 72.39' CHD. BRG. = N 81'53'29" E Lot 25, Block 2 Delta = 35'34'35" R = 130.00' L = 80.72' CHD. = 79.43' CHD. BRG. = S 33'31'54" E Lot 26, Block 2 Delta = 10'54'57" R = 130.00' L = 24.77' CHD. = 24.73' CHD. BRG. = S 56'46'38" E Lot 28, Block 2 Delta = 42'21'06" R = 130.00' L = 96.09' CHD. = 93.92' CHD. BRG. = S 83'24'41" E Lot 29, Block 2, Curve 1 Delta = 06'14'38" R = 130.00' L = 14.17' CHD. = 14.16' CHD. BRG. = N 72'17'32" E Lot 29, Block 2, Curve 2 Delta = 89'58'58" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 65'49'44" E Lot 31, Block 2 Delta = 1'24'46" R = 603.69' L = 14.89' CHD. = 14.89' CHD. BRG. = S 21'32'07" E Lot 32, Block 2 Delta = 6'29'22" R = 603.69' L = 68.38' CHD. = 68.34' CHD. BRG. = S 25'29'11" E Lot 33, Block 2 Delta = 6'12'43" R = 603.69' L = 65.45' CHD. = 65.42' CHD. BRG. = S 31'50'14" E Lot 34, Block 2, Curve 1 Delta = 6'19'25" R = 603.69' L = 66.63' CHD. = 66.59' CHD. BRG. = S 38'06'17" E Lot 34, Block 2, Curve 2 Delta = 29'32'26" R = 90.00' L = 46.40' CHD. = 45.89' CHD. BRG. = S 62'21'38" E Lot 35, Block 2 Delta = 7'47'46" R = 603.69' L = 82.14' CHD. = 82.08' CHD. BRG. = S 45'09'53" E Lot 36, Block 2 Delta = 90'00'00" R = 120.00' L = 188.50' CHD. = 169.71' CHD. BRG. = N 37'30'37" W Lot 1, Block 3, Curve 1 Delta = 90'00'00" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = N 41'12'14" E Lot 1, Block 3, Curve 2 Delta = 11'16'43" R = 470.00' L = 92.52' CHD. = 92.37' CHD. BRG. = S 88'09'24" E Lot 2, Block 3 Delta = 11'16'44" R = 470.00' L = 92.52' CHD. = 92.37' CHD. BRG. = S 76'52'40" E Lot 3, Block 3 Delta = 90'00'00" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 26'14'19" E Lot 4, Block 3 Delta = 10'46'42" R = 160.13' L = 30.22' CHD. = 30.08' CHD. BRG. = S 13'22'20" W Lot 7, Block 3 Delta = 10'14'16" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 02'51'51" W Lot 8, Block 3 Delta = 11'30'15" R = 422.06' L = 84.74' CHD. = 84.60' CHD. BRG. = S 8'00'24" E Lot 9, Block 3 Delta = 12'39'14" R = 422.06' L = 92.42' CHD. = 92.24' CHD. BRG. = S 20'01'55" E Lot 10, Block 3 Delta = 15'47'09" R = 422.06' L = 116.28' CHD. = 115.19' CHD. BRG. = S 34'11'54" E Lot 11, Block 3 Delta = 7'16'18" R = 422.06' L = 53.57' CHD. = 53.53' CHD. BRG. = S 45'43'37" E Lot 16, Block 3 Delta = 30'38'41" R = 90.00' L = 32.09' CHD. = 31.71' CHD. BRG. = S 34'02'31" E Lot 17, Block 3, Curve 1 Delta = 89'58'58" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 26'16'44" E Lot 17, Block 3, Curve 2 Delta = 37'12'51" R = 65.00' L = 42.22' CHD. = 41.48' CHD. BRG. = S 89'53'16" E Lot 18, Block 3 Delta = 22'08'21" R = 65.00' L = 25.12' CHD. = 24.96' CHD. BRG. = N 60'26'00" W Lot 19, Block 3, Curve 1 Delta = 26'12'40" R = 60.00' L = 27.45' CHD. = 27.21' CHD. BRG. = N 84'23'04" E Lot 19, Block 3, Curve 2 Delta = 90'00'00" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 37'30'37" E Lot 19, Block 3, Curve 3 Delta = 63'47'20" R = 15.00' L = 16.70' CHD. = 15.85' CHD. BRG. = S 39'23'04" W Lot 20, Block 3 Delta = 37'13'03" R = 65.00' L = 42.22' CHD. = 41.48' CHD. BRG. = S 89'53'16" W Lot 21, Block 3 Delta = 22'08'26" R = 65.00' L = 25.12' CHD. = 24.96' CHD. BRG. = N 60'26'00" W Lot 29, Block 3, Curve 1 Delta = 90'00'00" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = N 04'21'46" W Lot 29, Block 3, Curve 2 Delta = 32'39'14" R = 120.00' L = 68.39' CHD. = 67.47' CHD. BRG. = N 24'18'37" E Lot 29, Block 3, Curve 3 Delta = 11'46'48" R = 120.00' L = 24.67' CHD. = 24.63' CHD. BRG. = N 02'05'36" E BLOCK 4 Block 4, Curve 1 Delta = 90'00'00" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 48'47'46" E Block 4, Curve 2 Delta = 11'46'39" R = 60.00' L = 12.33' CHD. = 12.31' CHD. BRG. = S 2'05'40" W Block 4, Curve 3 Delta = 32'39'14" R = 60.00' L = 34.20' CHD. = 33.73' CHD. BRG. = S 24'18'36" W Block 4, Curve 4 Delta = 90'00'00" R = 15.00' L = 23.56' CHD. = 21.21' CHD. BRG. = S 85'38'14" W

HILL TOP SUBDIVISION

A SUBDIVISION OF THE RESUBDIVISION OF MARTIN COORDES PROPERTY WITHIN U.S.S. 2716 AND TRACT A-3, U.S.S. 2716

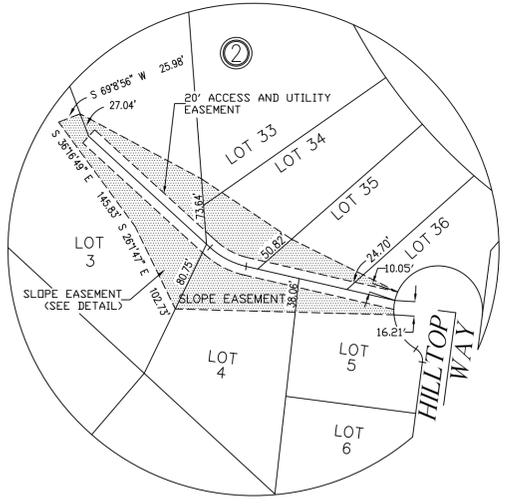
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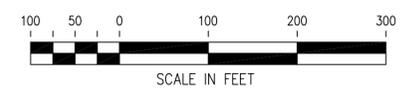
VICINITY MAP

LEGEND

- ⊕ PRIMARY CONTROL MONUMENT RECOVERED (BRASS CAP)
- ▲ LEAD PLUG AND TACK IN BOLDER (RECOVERED)
(SET PORT CHILKOOT SUBDIVISION)
- FH FIRE HYDRANT
- ⚡ POWER POLE
- ⊙ EXISTING MANHOLE
- △ REBAR (RECOVERED)
- YPC (RECOVERED)
- ⊙ IRON PIPE (RECOVERED)
- x—x— FENCE LINE
- (R) RECORDED DATA
- (C) COMPUTED DATA
- (M) MEASURED DATA

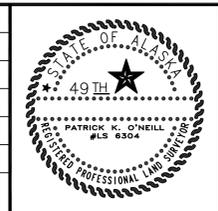


SLOPE EASEMENT DETAIL



O'NEILL
LAND SURVEYING AND ENGINEERING
BOX 1849 SITKA, ALASKA 99835
(907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			



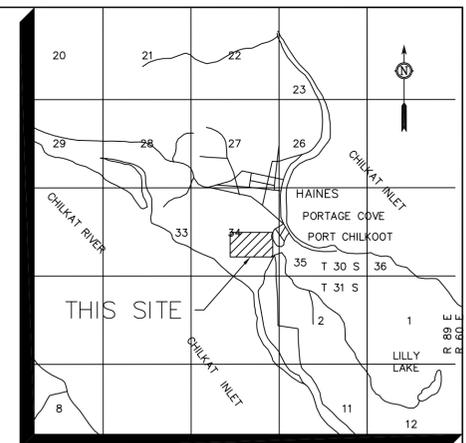
DESIGNED: P. O'NEILL
DRAWN: GDS/ACAD
CHECKED: PKO
DATE OF PLAT: JUN 06, 1997 * 09:44:37
SCALE: 1"=100'
DRAWING NAME: SHT01
PROJECT NO. 23133-04-00

SURVEYOR'S CERTIFICATE

HILL TOP SUBDIVISION ORIGINAL CONTOURS

A SUBDIVISION OF THE RESUBDIVISION OF
MARTIN COORDES PROPERTY WITHIN U.S.S. 2716
AND TRACT A-3, U.S.S. 2716

NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA 99827

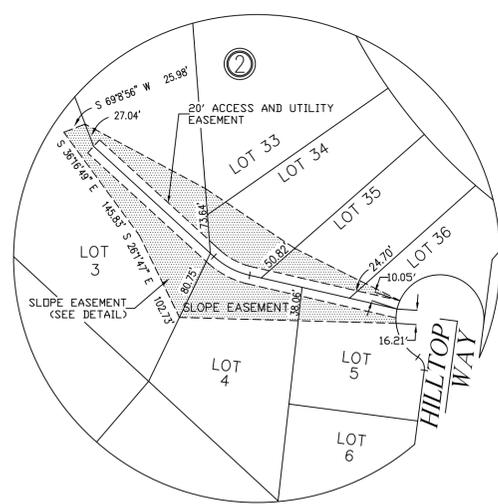


VICINITY MAP

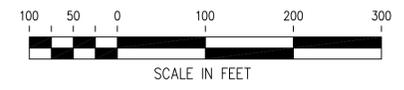


LEGEND

- ⊕ PRIMARY CONTROL MONUMENT RECOVERED (BRASS CAP)
- SECONDARY MONUMENT (RECOVERED)
- ⊙ SECONDARY MONUMENT (RECOVERED)
- ▲ LEAD PLUG AND TACK IN BOLDER (RECOVERED)
(SET PORT CHILKOOT SUBDIVISION)
- FH FIRE HYDRANT
- ⚡ POWER POLE
- ⊙ MANHOLE
- △ REBAR (RECOVERED)
- YPC (RECOVERED)
- ⊙ IRON PIPE (RECOVERED)
- x—x— FENCE LINE
- (R) RECORDED DATA
- (C) COMPUTED DATA
- (M) MEASURED DATA



SLOPE EASEMENT DETAIL



O'NEILL
LAND SURVEYING AND ENGINEERING

BOX 1849 SITKA, ALASKA 99835
(907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			



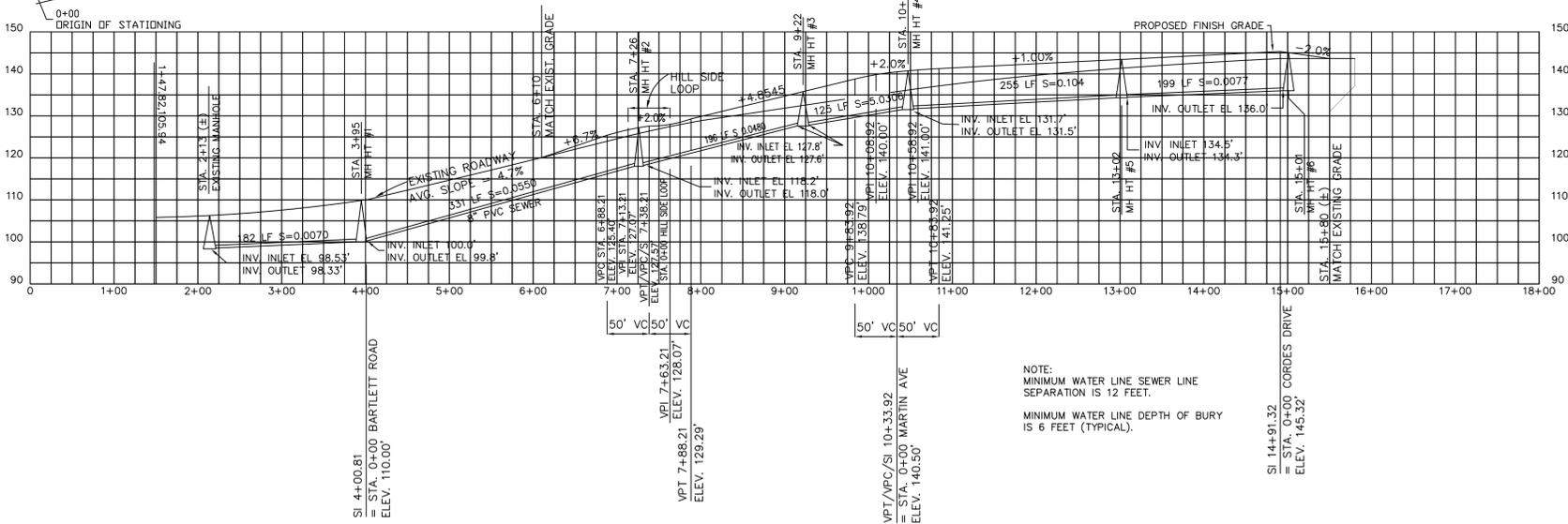
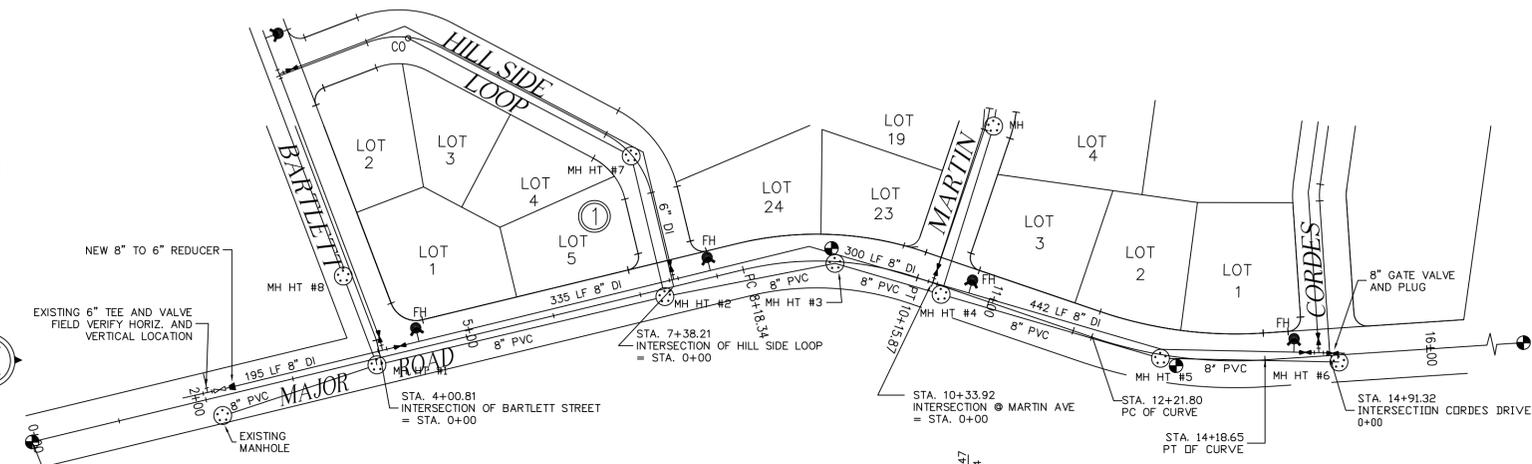
DESIGNED: P. O'NEILL
 DRAWN: GDS/ACAD
 CHECKED: PKO
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 PROJECT NO. 23133-04-00

SURVEYOR'S CERTIFICATE

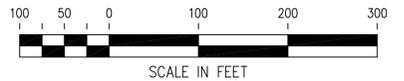
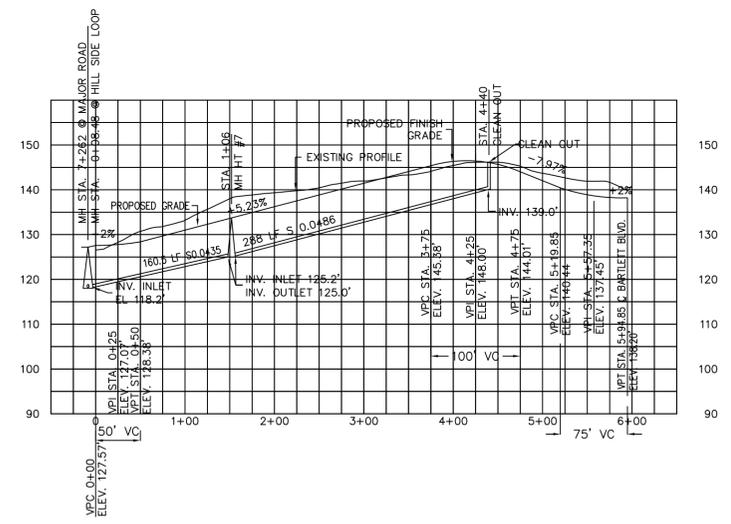
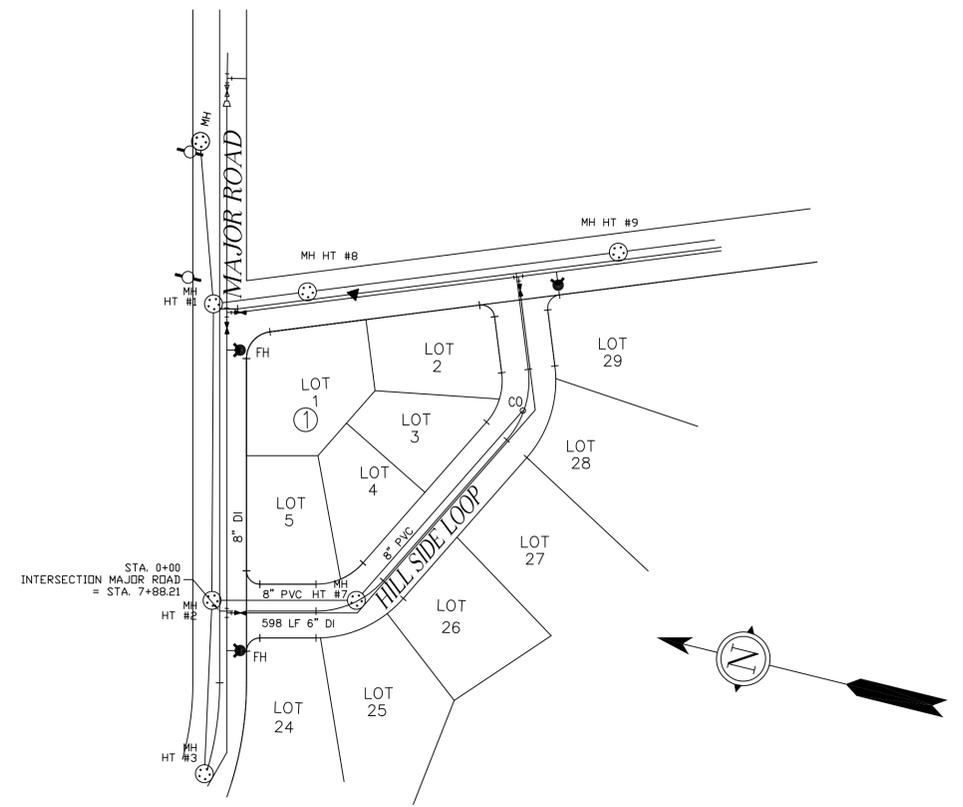
HILL TOP SUBDIVISION PROPOSED TOPOGRAPHY

A SUBDIVISION OF THE RESUBDIVISION OF
MARTIN COORDES PROPERTY WITHIN U.S.S. 2716
AND TRACT A-3, U.S.S. 2716

NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA 99827



NOTE:
MINIMUM WATER LINE SEWER LINE
SEPARATION IS 12 FEET.
MINIMUM WATER LINE DEPTH OF BURY
IS 6 FEET (TYPICAL).



O'NEILL
LAND SURVEYING AND ENGINEERING

BOX 1849 SITKA, ALASKA 99835
(907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			

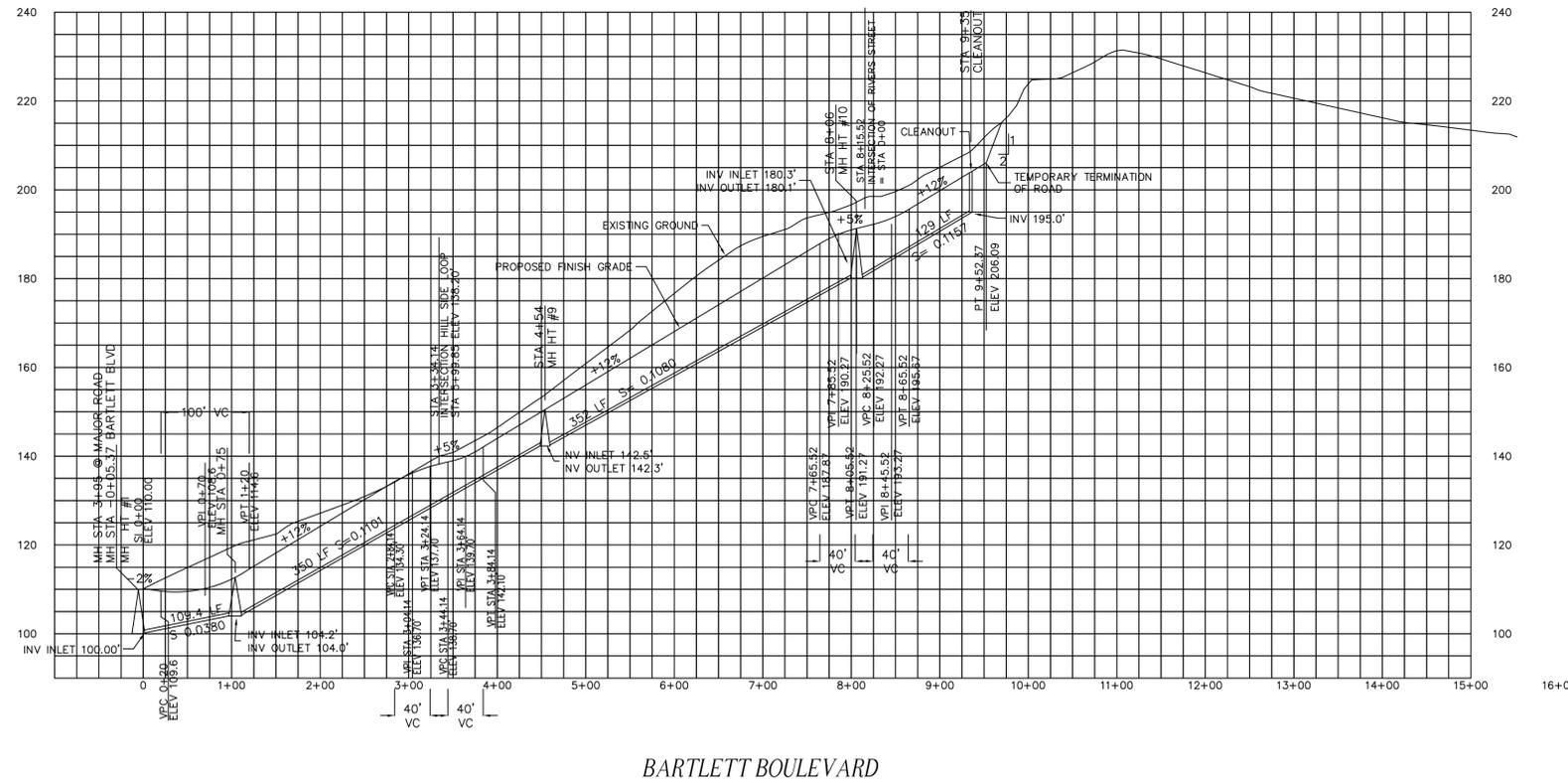
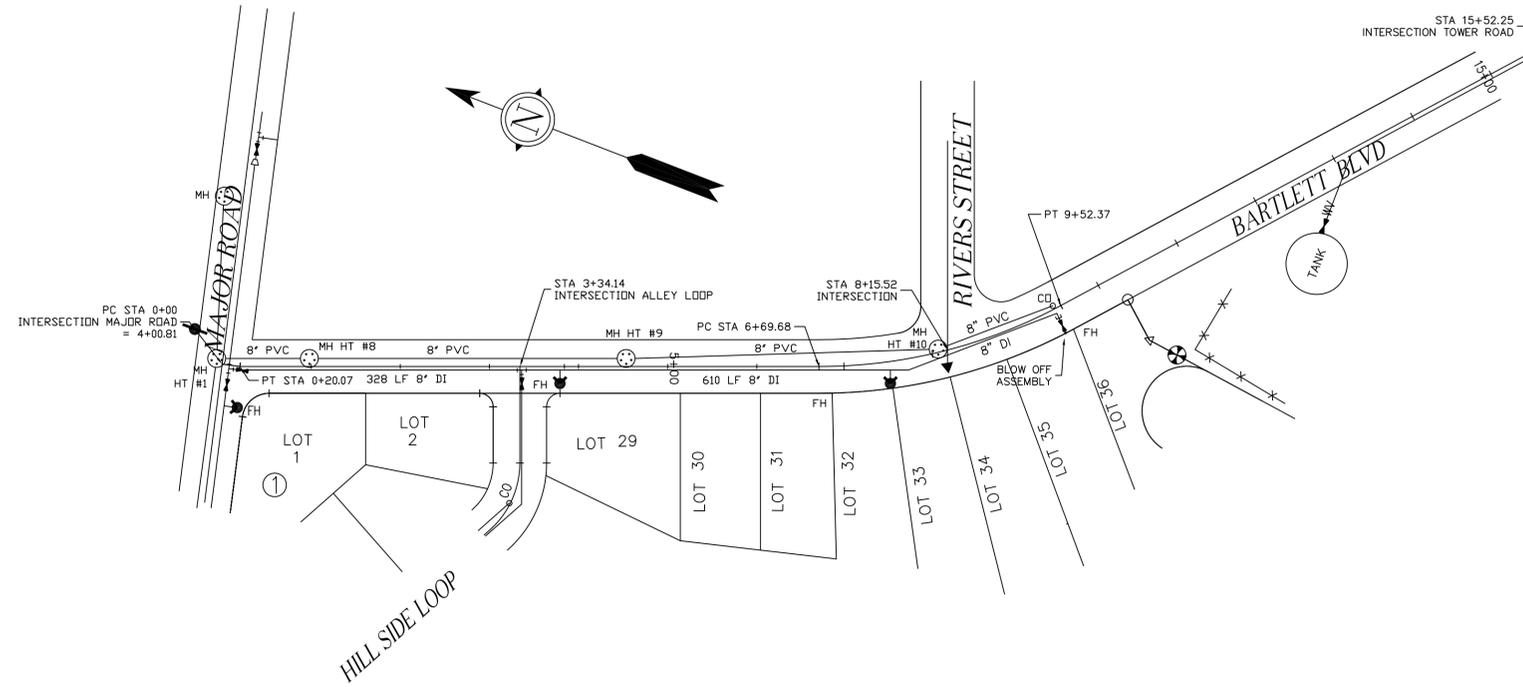


DESIGNED: P. O'NEILL
DRAWN: GDS/ACAD
CHECKED: PKO
DATE OF PLAT: APR. 08, 1997 * 08:07:09
SCALE: 1"=100'
DRAWING NAME: SHEET3
PROJECT NO. 23133-04-00

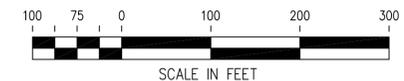
WATER/SEWER UTILITIES AND ROAD PROFILE

PROJECT: HILL TOP SUBDIVISION

CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA, 99827



NOTE:
 MINIMUM WATER LINE SEWER LINE
 SEPARATION IS 12 FEET.
 MINIMUM WATER LINE DEPTH OF BURY
 IS 6 FEET (TYPICAL).



HORIZONTAL SCALE = 1"=100'
 VERTICAL SCALE = 1"=20'

O'NEILL
 LAND SURVEYING AND ENGINEERING

BOX 1849 SITKA, ALASKA 99835
 (907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			

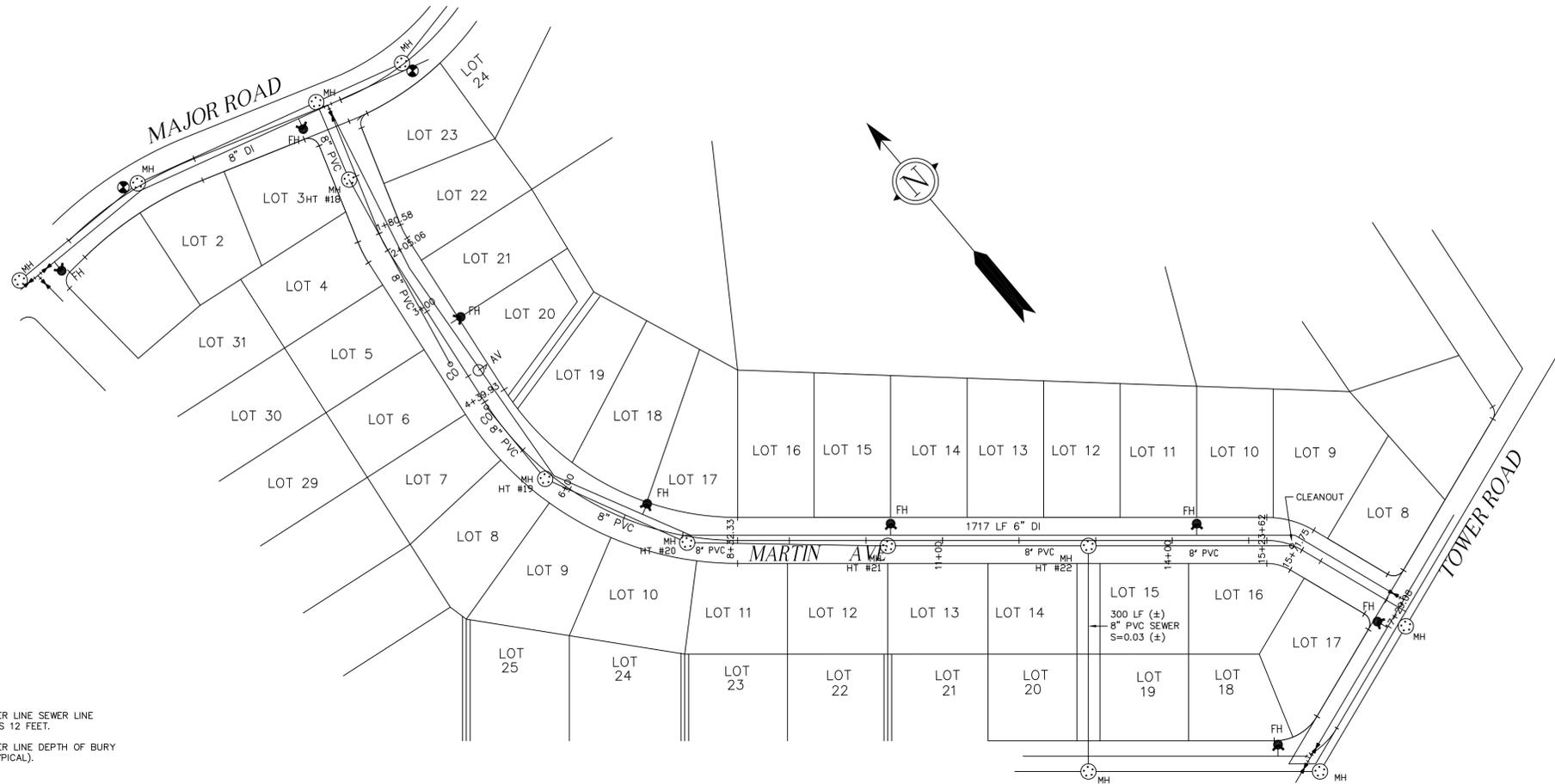


DESIGNED: P. O'NEILL
 DRAWN: GDS/ACAD
 CHECKED: PKO
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 PROJECT NO. 23133-04-00

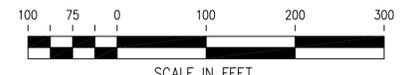
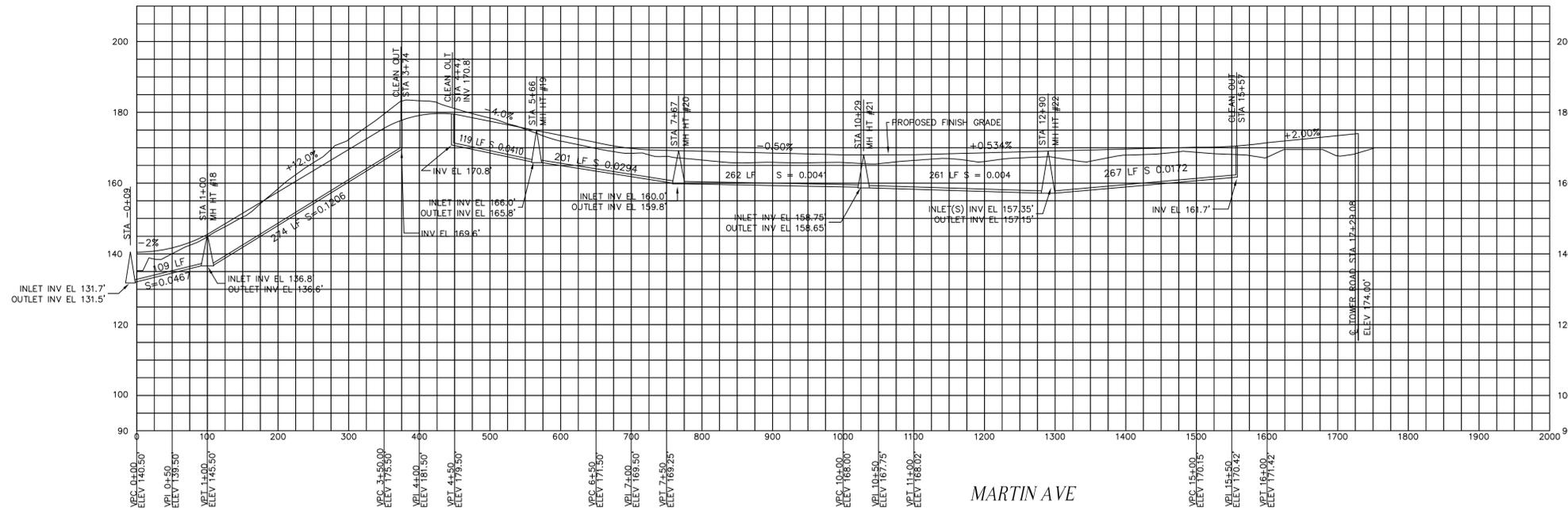
WATER/SEWER UTILITIES AND ROAD PROFILE

PROJECT: *HILL TOP SUBDIVISION*

CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA, 99827



NOTE:
 MINIMUM WATER LINE SEWER LINE SEPARATION IS 12 FEET.
 MINIMUM WATER LINE DEPTH OF BURY IS 6 FEET (TYPICAL).



SCALE IN FEET
 HORIZONTAL SCALE = 1"=100'
 VERTICAL SCALE = 1"=20'

O'NEILL
 LAND SURVEYING AND ENGINEERING

BOX 1849 SITKA, ALASKA 99835
 (907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			

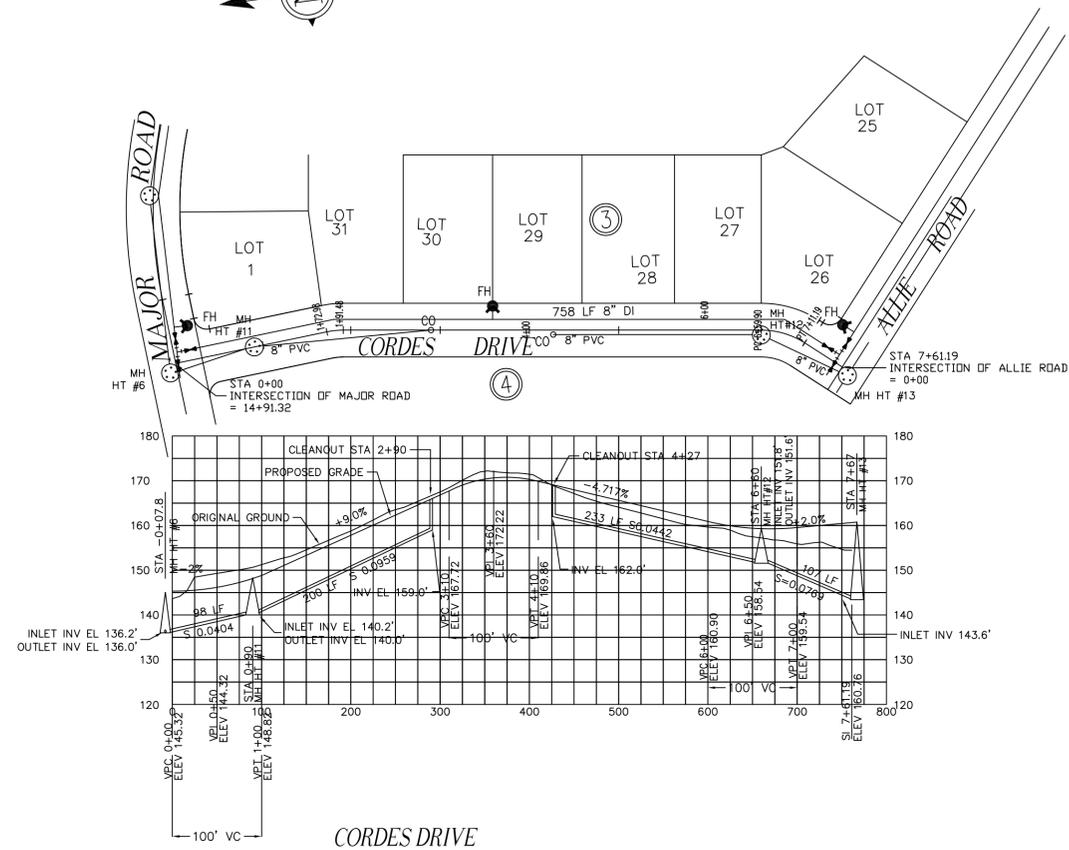
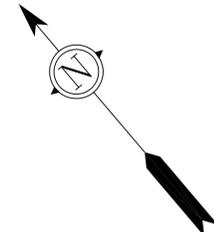
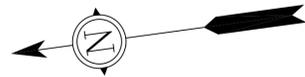


DESIGNED: P. O'NEILL
 DRAWN: GDS/ACAD
 CHECKED: PKO
 DATE OF PLAT: JUN 06, 1997 * 13:45:15
 SCALE: 1"=100'
 DRAWING NAME: SHEET 6
 PROJECT NO. 23133-04-00

WATER/SEWER UTILITIES AND ROAD PROFILE

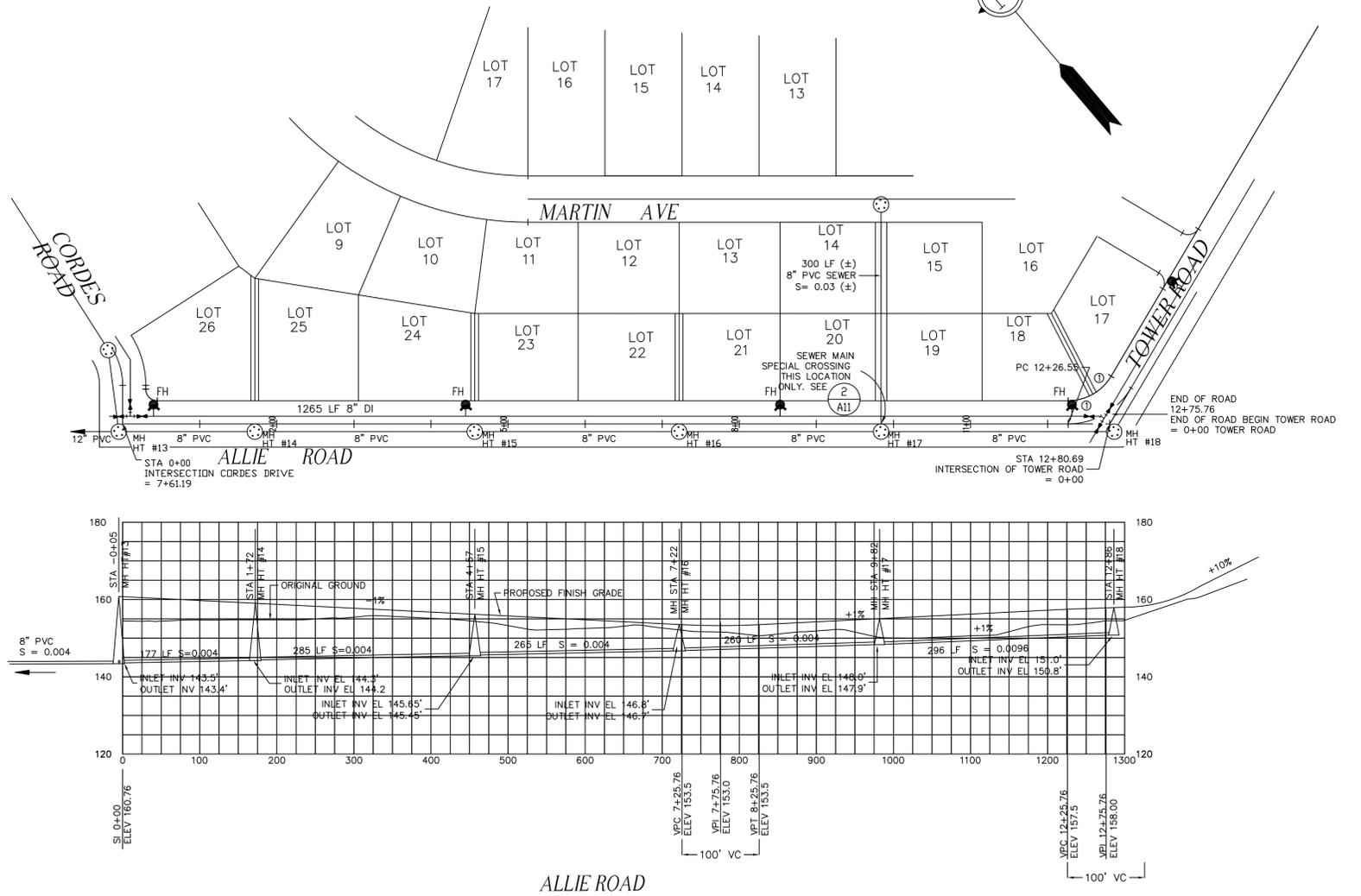
PROJECT: HILL TOP SUBDIVISION

CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA, 99827

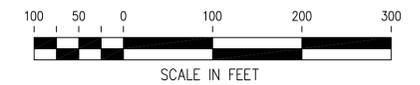


CORDES DRIVE

NOTE:
MINIMUM WATER LINE SEWER LINE SEPARATION IS 12 FEET.
MINIMUM WATER LINE DEPTH OF BURY IS 6 FEET (TYPICAL).



ALLIE ROAD



O'NEILL
LAND SURVEYING AND ENGINEERING

BOX 1849 SITKA, ALASKA 99835
(907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			



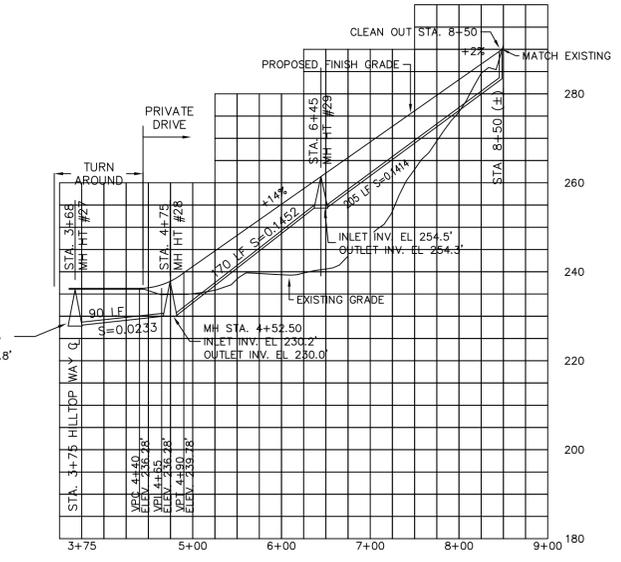
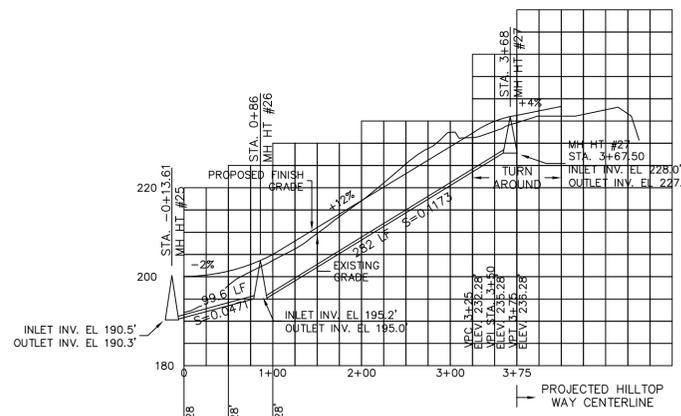
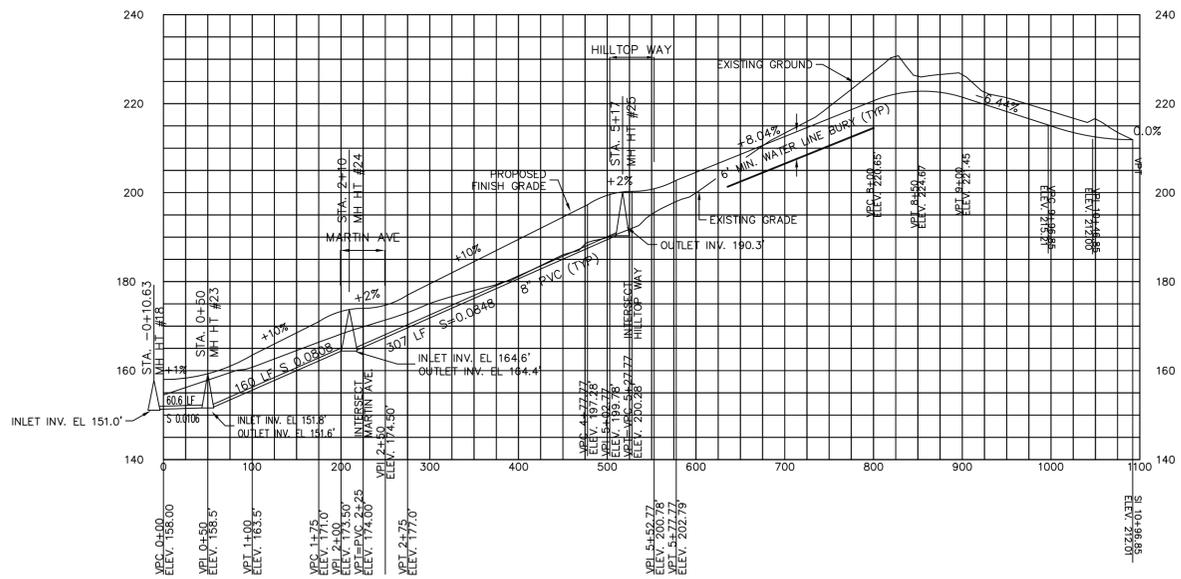
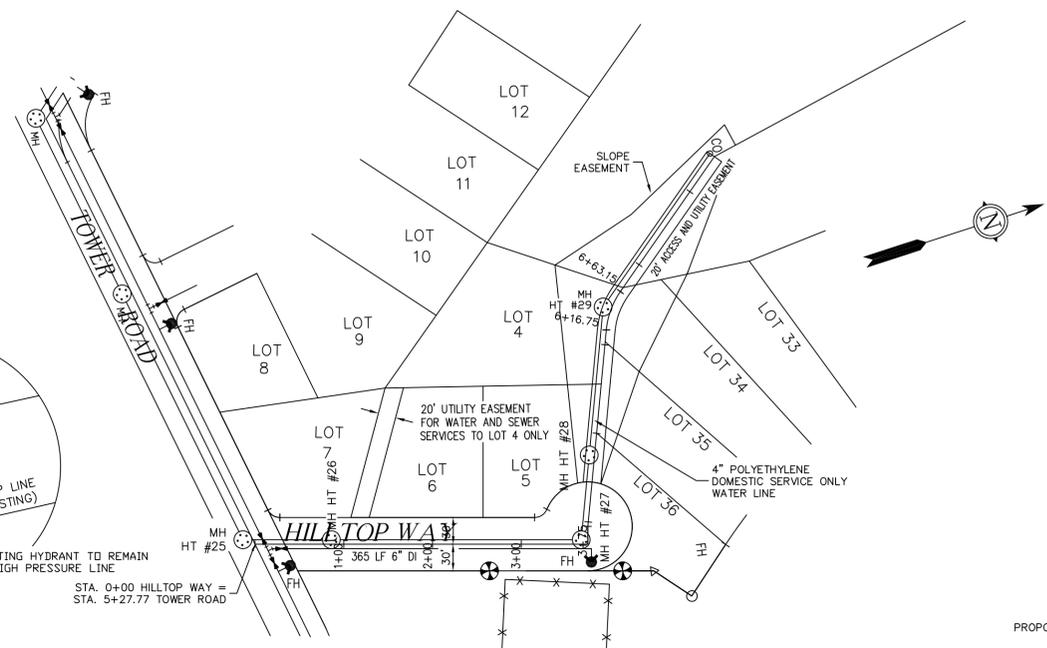
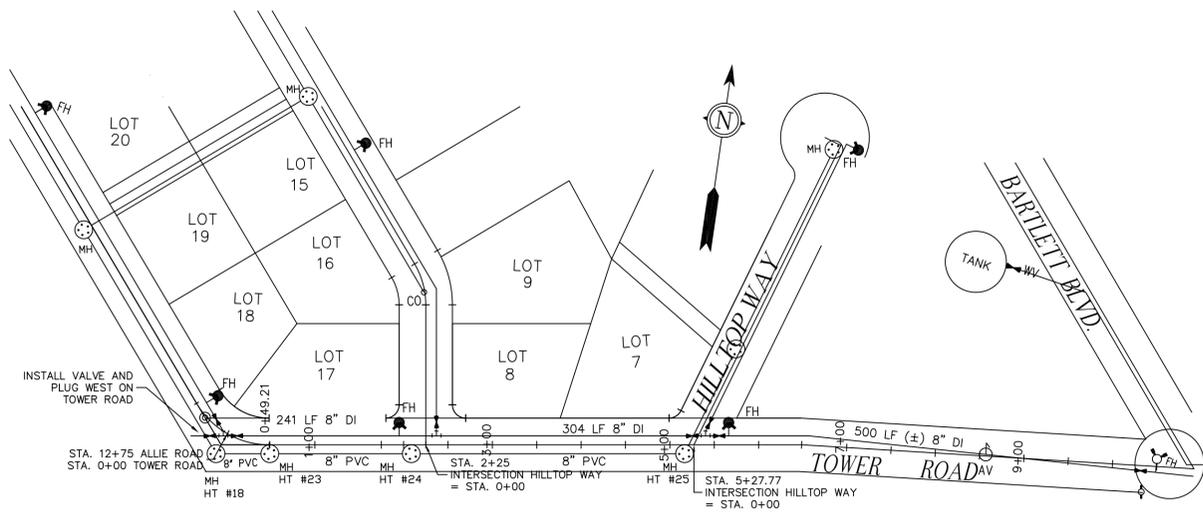
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DRAWN: GDS/ACAD
CHECKED: PKO
DATE OF PLAT: JUN 06, 1997 * 13:52:37
SCALE: 1"=100'
DRAWING NAME: SHEETS
PROJECT NO. 23133-04-00

WATER/SEWER UTILITIES AND ROAD PROFILE

PROJECT: *HILL TOP SUBDIVISION*

CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA, 99827

SHEET A7 OF 11

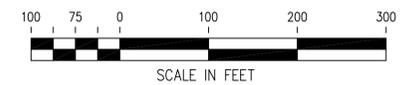


TOWER ROAD

HILLTOP WAY

PRIVATE DRIVE

NOTE:
MINIMUM WATER LINE SEWER LINE
SEPARATION IS 12 FEET.
MINIMUM WATER LINE DEPTH OF BURY
IS 6 FEET (TYPICAL).



HORIZONTAL SCALE = 1"=100'
VERTICAL SCALE = 1"=20'

O'NEILL
LAND SURVEYING AND ENGINEERING

BOX 1849 SITKA, ALASKA 99835
(907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			

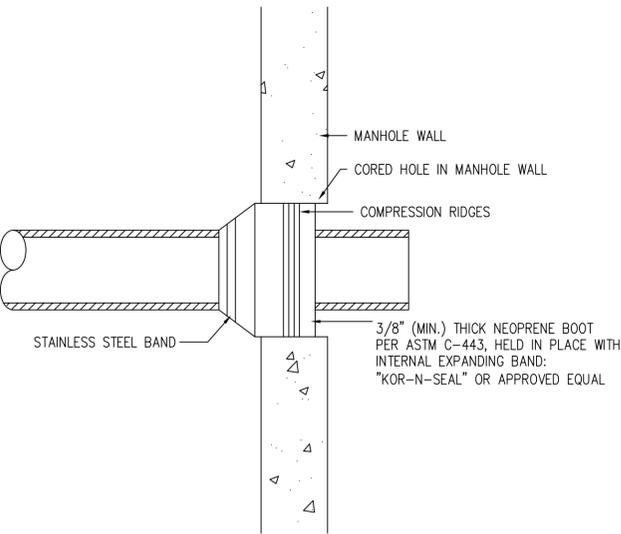


DESIGNED: P. O'NEILL
DRAWN: GDS/ACAD
CHECKED: PKO
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SCALE: 1"=100'
DRAWING NAME: SHEET Z
PROJECT NO. 23133-04-00

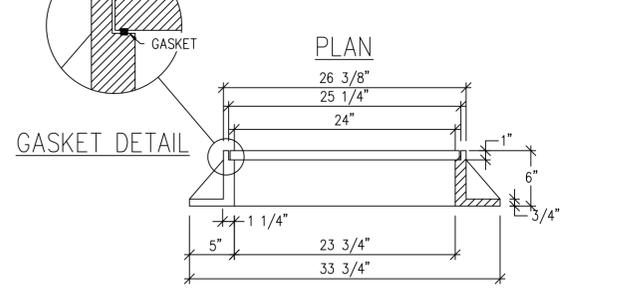
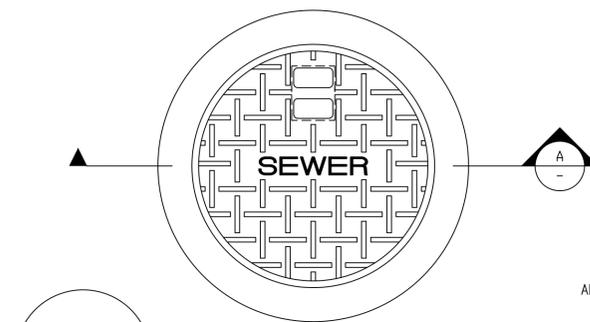
WATER/SEWER UTILITIES AND ROAD PROFILE

PROJECT: HILL TOP SUBDIVISION

CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA, 99827



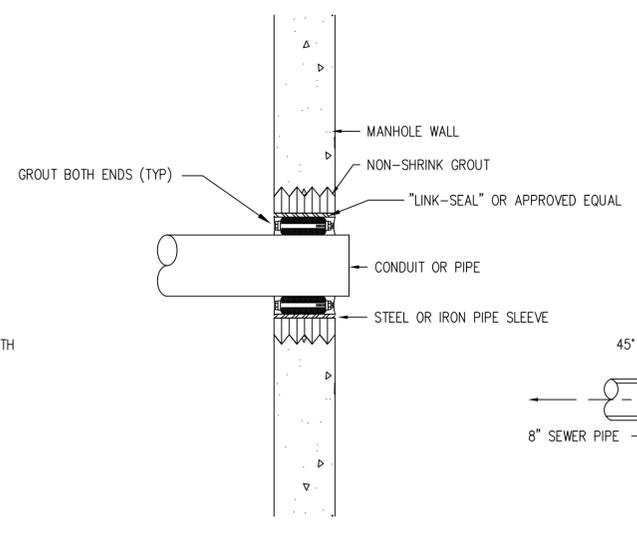
MANHOLE FLEXIBLE SEAL CONNECTION
NTS



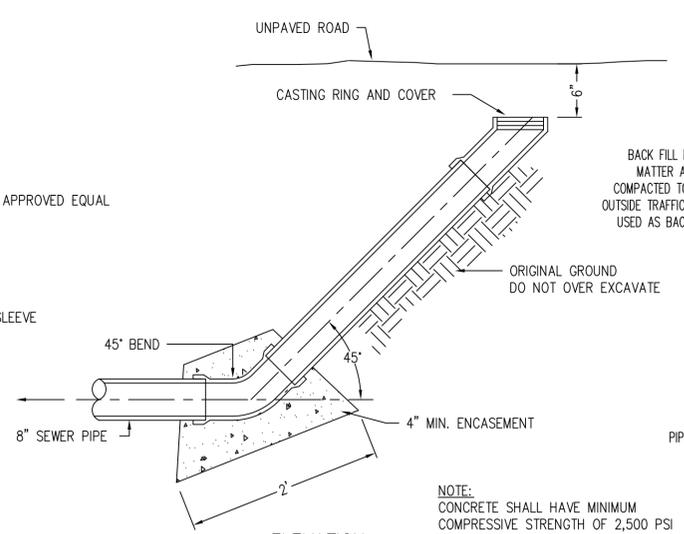
SECTION A-A

- NOTES:
- COVER AND SEALING GASKET SHALL BE "NEENAH SELF SEALING LIDS" OR APPROVED EQUAL.
 - FRAME MUST BE MACHINED TO FIT WATERTIGHT COVER.
 - COVER SHALL HAVE WORD "SEWER" CAST IN AND SHALL BE PROVIDED WITH INTEGRAL LIFT HANDLE.
 - FRAME AND COVER DIMENSIONS SHALL BE IN ACCORDANCE WITH OLYMPIC CONSTRUCTION CASTINGS NO. MH30, OR AN APPROVED EQUIVALENT.

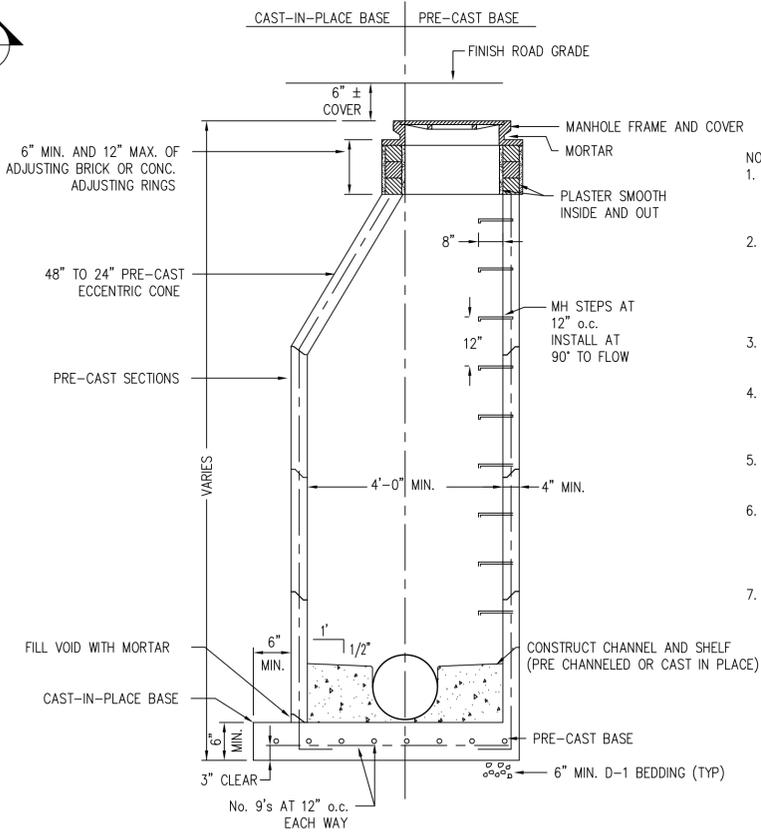
MANHOLE FRAME AND COVER
NTS



PENETRATION FOR EXISTING MANHOLE
NTS

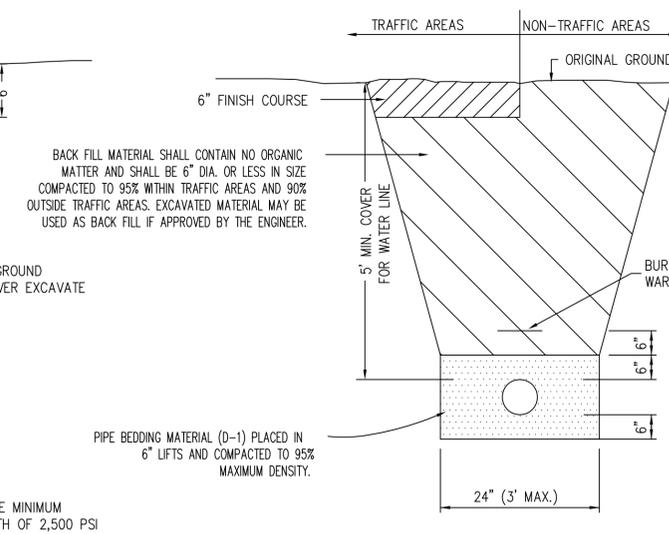


SANITARY SEWER CLEAN OUT
NTS

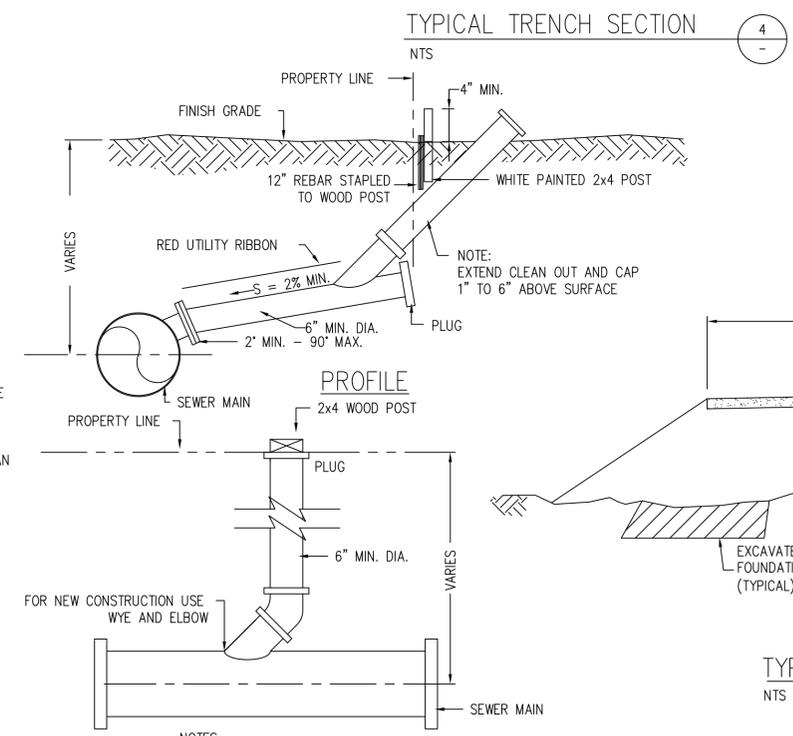


TYPICAL SANITARY SEWER DETAIL
NTS

- NOTES:
- ALL MANHOLE SECTIONS SHALL CONFORM TO ASTM C-478-69, INCLUDING MINIMUM STEEL REQUIREMENTS.
 - ALL JOINTS SHALL INCLUDE A RUBBER GASKET JOINT SUCH AS "RAM-NEK" OR EQUAL. THE EXTERIOR OF ALL JOINTS SHALL BE PLASTERED WITH AT LEAST 1" OF BENTONITE CEMENT SEALING PLASTER.
 - EITHER A PRE-CAST OR CAST-IN-PLACE BASE SECTION MAY BE UTILIZED.
 - CHANNEL DEPTH SHALL BE EQUAL TO THE PIPE DIA. OR GREATER. CHANNEL AND SHELF SHALL RECEIVE A BROOM FINISH.
 - ENDS OF PIPE NOT TO EXTEND MORE THAN 3" INTO THE MANHOLE.
 - UTILIZE "JET-SET", "ALL CRETE", OR EQUAL, TO SEAL MANHOLE AT PIPE CONNECTIONS. NO REBAR TO EXTEND INTO PIPE OPENINGS.
 - MANHOLE TO BE TESTED FOR WATER TIGHTNESS BY THE CONTRACTOR, PER TEST STANDARDS OF THE CITY OF HAINES.

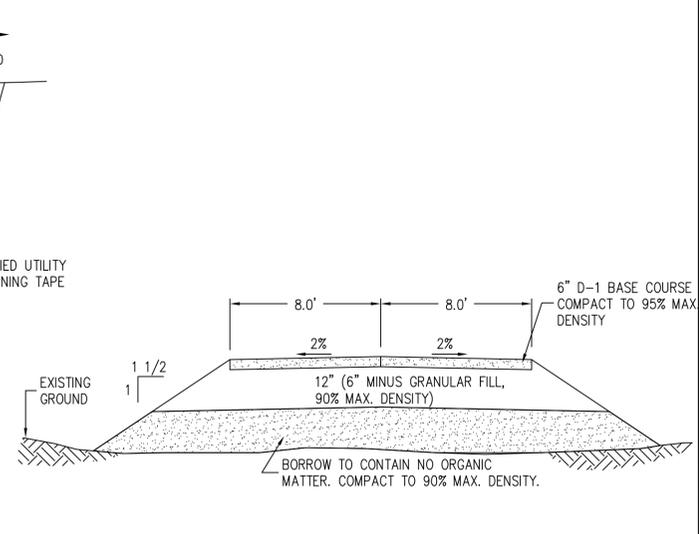


- NOTES:
- BACK FILL MATERIAL SHALL BE PLACED IN 12" MAX. LIFTS.
 - TRENCH EXCAVATION AND SHORING SHALL COMPLY WITH LOCAL, STATE, AND OSHA REGULATIONS AND REQUIREMENTS.
 - IF UNSUITABLE PIPE FOUNDATION MATERIAL IS ENCOUNTERED DURING EXCAVATION, ENGINEER MAY DIRECT THE CONTRACTOR TO OVER-EXCAVATE AND BACK FILL WITH SUITABLE MATERIAL.
 - ALL ENCOUNTERED DITCH LINES, SHALL BE RESHAPED IN SUCH A MANNER TO ALLOW POSITIVE DRAINAGE TO MATCH PRE-CONSTRUCTION CONDITIONS.

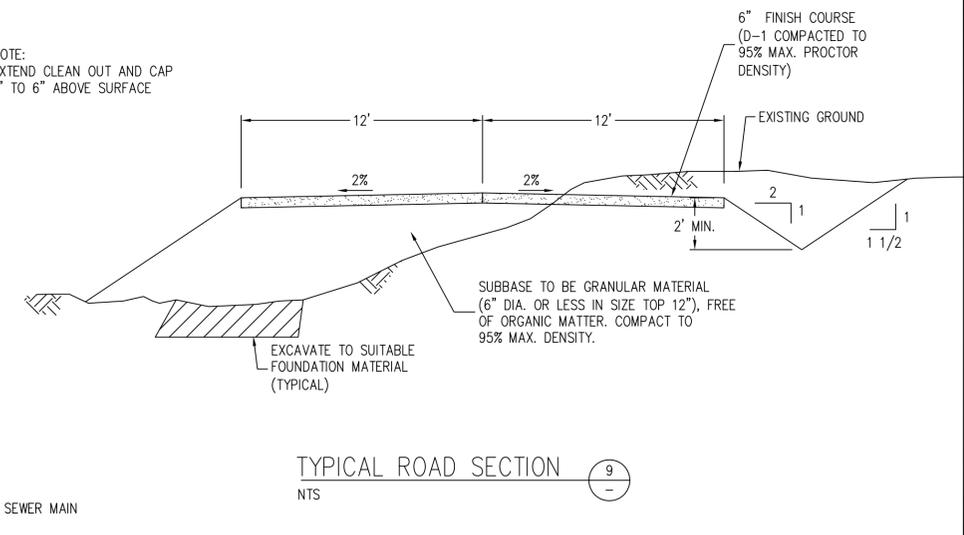


PLAN
SEWER LATERAL CONNECTION
NTS

- NOTES:
- SERVICE CONNECT 4" MIN. DIA.
 - ACCEPTABLE PIPE WITHIN R/W: PVC SDR 35



PRIVATE ROAD SECTION
NTS



TYPICAL ROAD SECTION
NTS

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			



DESIGNED: P. O'NEILL
 DRAWN: GDS/ACAD
 CHECKED: PKO
 DATE OF PLAT: JUN 06, 1997 * 11:18:05
 SCALE: AS NOTED
 DRAWING NAME: DETAILS1
 PROJECT NO. 23133-04-00

SEWER/WATER SYSTEM DESIGN

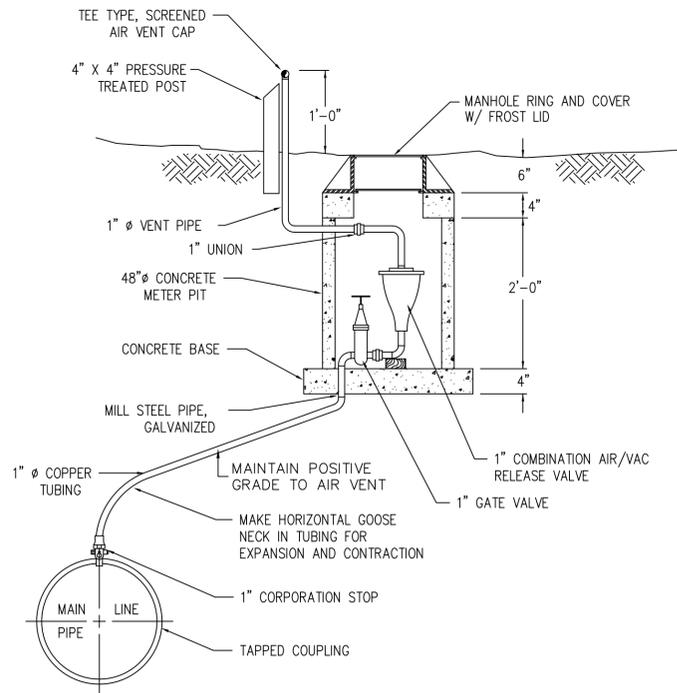
PROJECT: *STANDARD DETAILS*
HILL TOP SUBDIVISION

CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA 99827

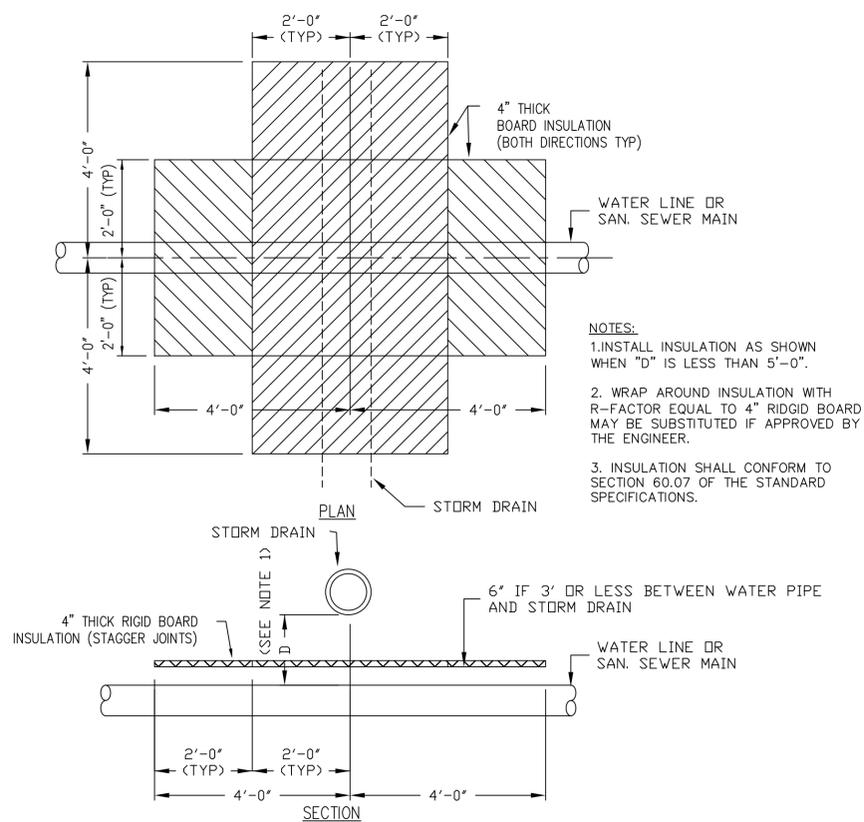
SHEET A9 of 11

O'NEILL
 LAND SURVEYING AND ENGINEERING

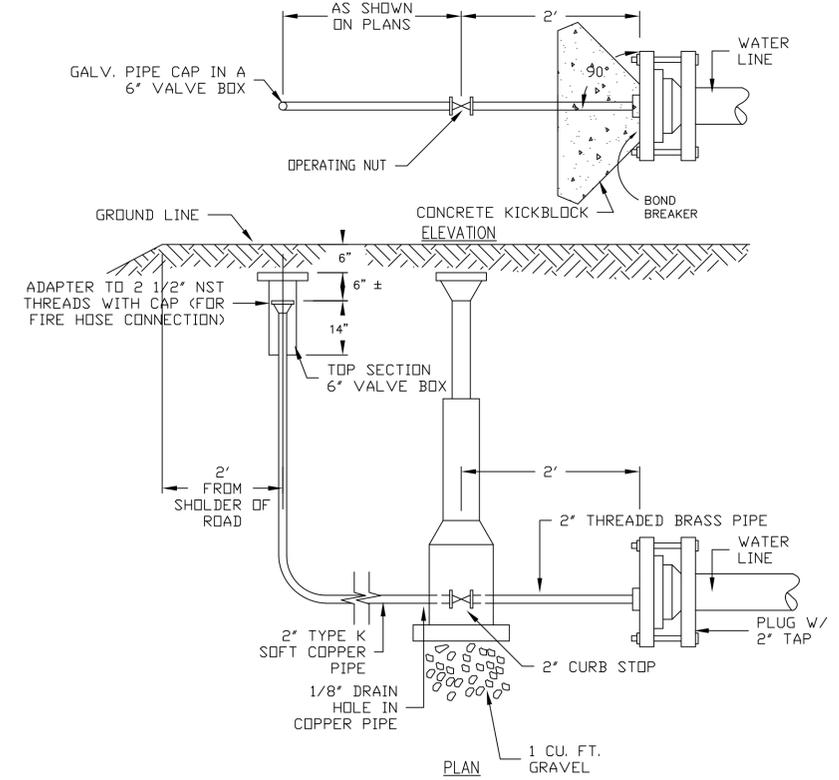
BOX 1849 SITKA, ALASKA 99835
 (907) 747-6700



COMBINATION AIR INLET AND AIR RELEASE VALVE ASSEMBLY
NTS



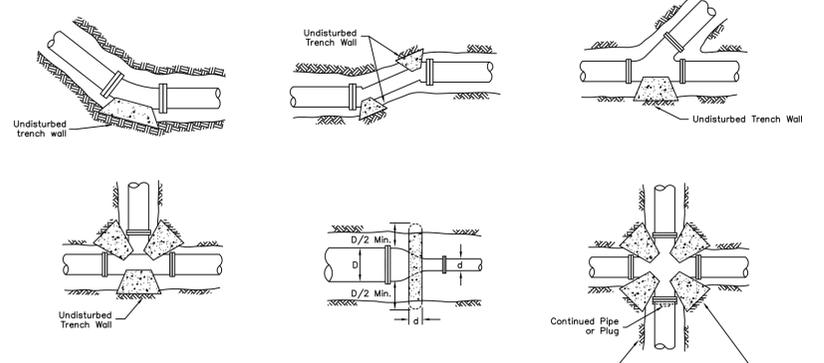
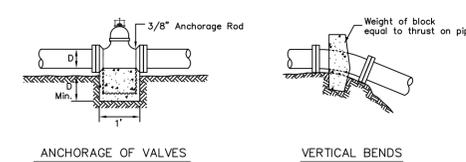
RIGID INSULATION DETAIL
NTS



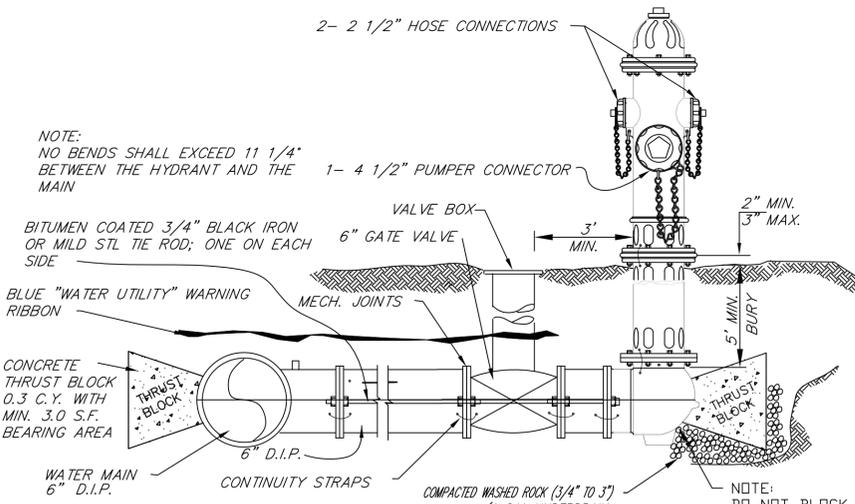
BLOWOFF INSTALLATION
NTS

THRUST BLOCK MINIMUM SIZE TABLE					
For Bends Greater Than 45°, Tee Branches & Crosses					
Pipe Diam. (In.)	50 Water Pressure in Pipe (P.S.I.)		150		250
	Bearing Area (Sq. Ft.)	Concrete Volume (Cu. Ft.)	Bearing Area (Sq. Ft.)	Concrete Volume (Cu. Ft.)	Bearing Area (Sq. Ft.)
2	0.5	0.5	0.8	1.0	1.0
3	0.6	0.8	1.0	1.3	1.1
4	0.8	1.0	1.6	3.1	1.5
6	1.0	1.3	1.9	4.0	3.2
8	1.1	1.5	3.2	7.0	5.4
10	1.7	3.2	4.9	10.0	8.3
12	2.4	5.2	7.1	17.0	11.8
14	3.2	7.0	9.8	21.0	16.1
16	4.1	8.0	12.3	25.0	20.5
18	5.4	11.0	16.2	32.0	27.1
20	6.8	15.0	20.6	40.0	34.4
24	8.2	19.0	25.3	50.0	42.0

VALVES REQUIRING ANCHORAGE		THRUST AT VERTICAL BEND PER DEGREE DEFLECTION AT 100 P.S.I. WATER PRESSURE	
WORKING PRESSURE (P.S.I.)	VALVES REQUIRING ANCHORAGE	PIPE SIZE	THRUST (LB.)
50 - 100	12 inch and up	4"	35
101 - 150	8 inch and up	6"	72
151 - 200	All Sizes	8"	122
		14"	377
		16"	486

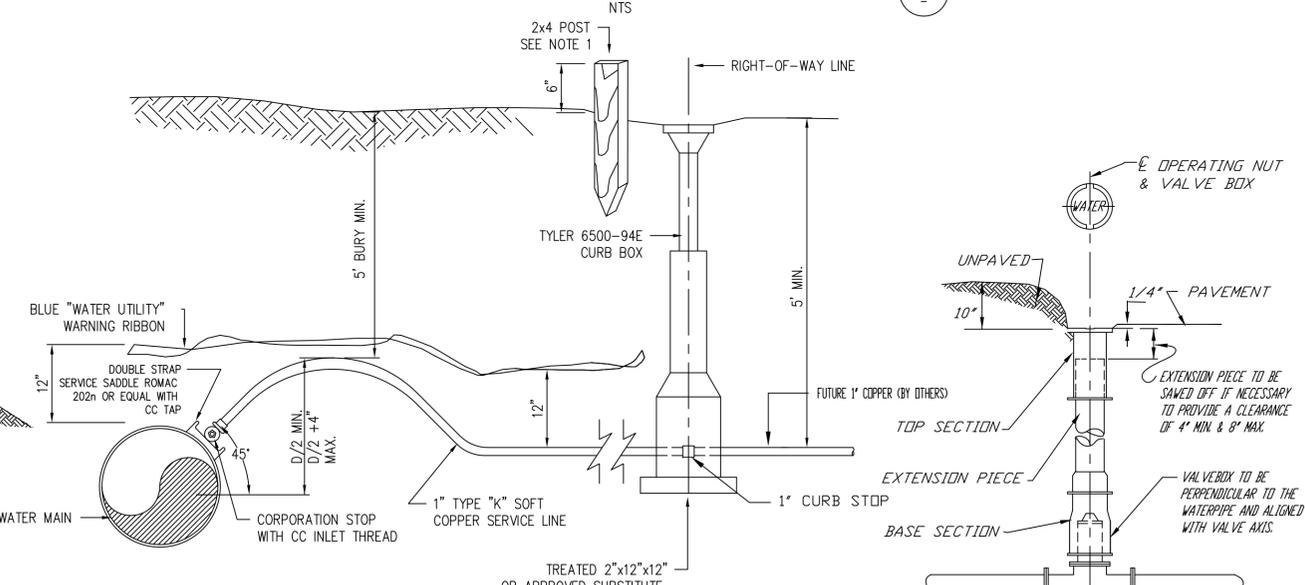


PLACEMENT OF THRUST BLOCKS
NTS



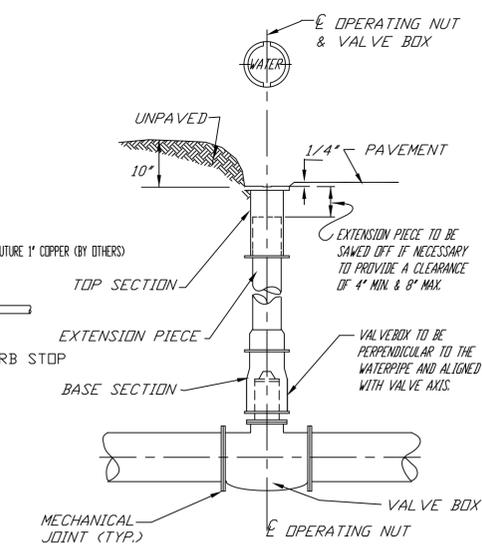
- HYDRANT BARREL MUST BE PLUMB.
- COVER SHALL BE 5" MINIMUM.
- VALVE BOX SHALL BE SITUATED OUTSIDE ANY DITCH SECTION; OR IN ACCESS PAD.
- ALL HYDRANTS SHALL BE PAINTED RED. HYDRANT BARREL, JUST BELOW CAP, SHALL HAVE NUMBER OF FEET TO VALVE PRINTED IN BLACK 1/2" LETTERS.
- MEGALUG IS AN ACCEPTABLE ALTERNATE FOR THE MECHANICAL JOINT RESTRAINT AS SHOWN.

FIRE HYDRANT
NTS



- AT CURB STOP, MARK SERVICE WITH 2x4 POST (4'-0" LONG) PAINTED ORANGE.
- COPPER TUBE CONNECTIONS SHALL BE FLARED UNIONS.
- PROVIDE 6" OF BEDDING AROUND PIPE

WATER SERVICE CONNECTION
NTS



TYPICAL VALVE BOX
NTS

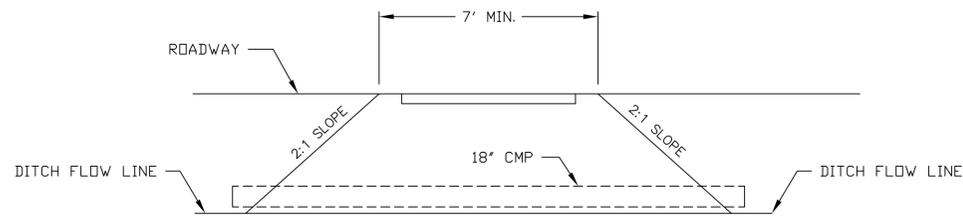
O'NEILL
LAND SURVEYING AND ENGINEERING
BOX 1849 SITKA, ALASKA 99835
(907) 747-6700

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			



DESIGNED: P. O'NEILL
DRAWN: GDS/ACAD
CHECKED: PKO
DATE OF PLAT: JUN 06, 1997 * 11:46:18
SCALE: AS NOTED
DRAWING NAME: DETAIL 2
PROJECT NO. 23133-04-00

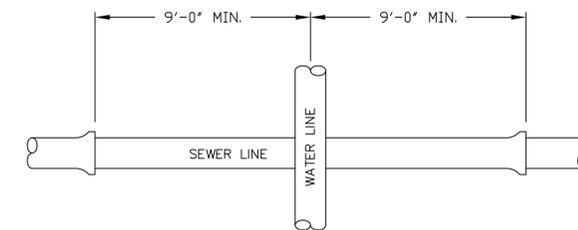
SEWER/WATER SYSTEM DESIGN
PROJECT: STANDARD DETAILS
HILL TOP SUBDIVISION
CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA 99827
SHEET A10 OF 11



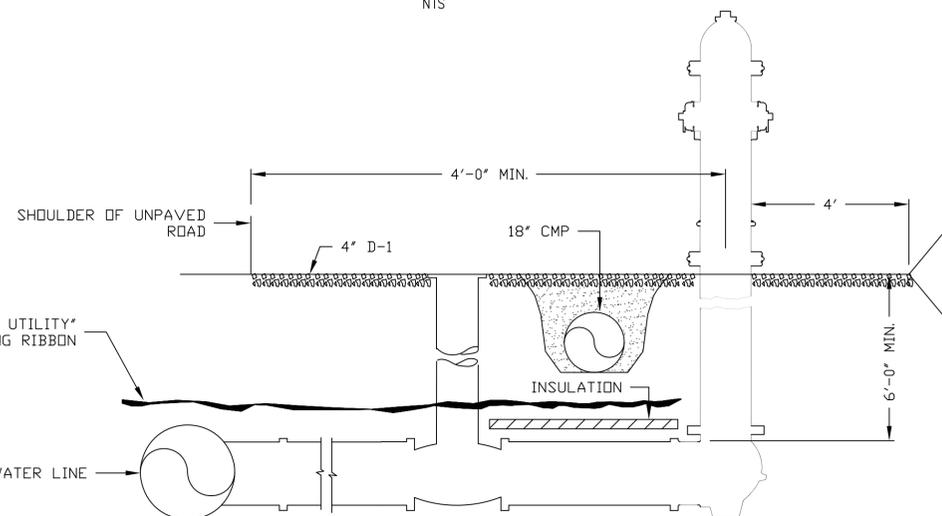
ACCESS PAD SECTION
NTS

GENERAL NOTES:

- EXISTING UTILITY LOCATIONS ARE BASED ON LARGE SCALE LINE DRAWINGS WITHOUT SPECIFIC AS-BUILT INFORMATION. ACTUAL HORIZONTAL AND VERTICAL POSITIONS MAY VARY SUBSTANTIALLY, AND THE CONTRACTOR IS WARNED TO FIELD VERIFY CRITICAL ELEMENTS SHOWN ON THESE DRAWINGS.
- DUCTILE IRON PIPE:
USE STANDARD CLASS 50 PIPE WITH CEMENT MORTAR LINING. PIPE JOINTS TO BE PUSH-ON RUBBER GASKET TYPE AND FITTINGS TO HAVE MECHANICAL JOINT RUBBER GASKET CONNECTIONS. FITTINGS AND JOINTS TO BE DESIGNED FOR A WATER WORKING PRESSURE OF 250 PSI. CONFORM TO THE REQUIREMENTS OF AWWA C104, C110, C111, AND C151. WATER MAINS TO BE HYDROSTATICALLY TESTED PER A.W.W.A. C600. DISINFECTION BY CHLORINATION OF ALL NEW WATER PIPE SHALL BE COMPLETED AND A SATISFACTORY BACTERIOLOGICAL REPORT OBTAINED PRIOR TO PLACING THE PIPE IN SERVICE.
- PVC GRAVITY SEWER PIPE:
PVC PIPE AND FITTINGS ARE TO CONFORM TO ASTM D3034 WITH INTEGRAL BELL GASKET JOINTS. THE PIPE SHALL HAVE AN SDR VALUE OF 35 AND BE INSTALLED IN COMPLIANCE WITH ASTM D2321. TESTING SHALL BE ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
- GATE VALVES:
ALL GATE VALVES TO BE DOUBLE DISK, PARALLEL SEAT VALVES CONFORMING TO A.W.W.A. C500 AND RATED AT 200 PSI W.W.P.

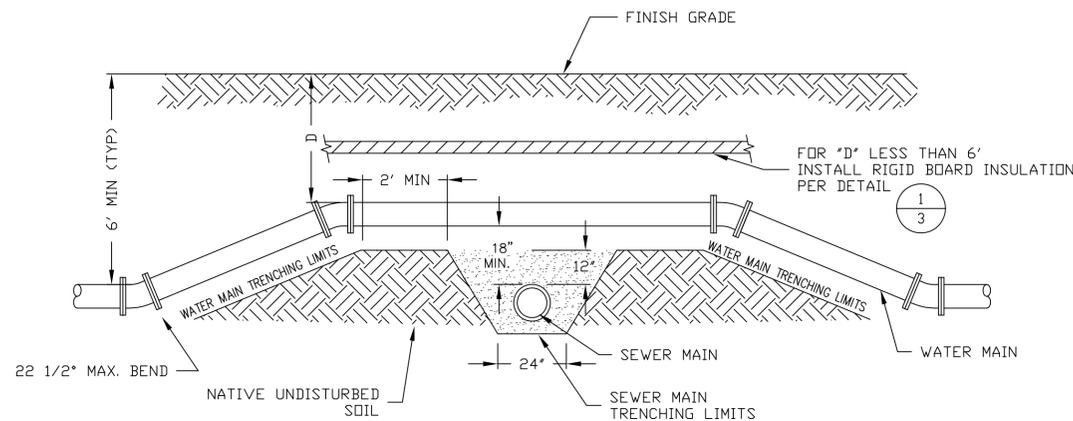


PLAN VIEW
NTS



- FURNISH AND INSTALL CMP (MIN. THICKNESS = 0.064") AT LOCATIONS WHERE ACCESS PAD BLOCKS ROADSIDE DITCH.
- BACK FILL ACCESS PAD WITH BASE COURSE MATERIAL GRADING D-1 AND COMPACT TO 95% MAXIMUM DENSITY.
- FURNISH AND INSTALL RIGID BOARD INSULATION (6" THICK x 4' WIDE) CENTERED OVER THE HYDRANT LEG WHERE THE LEG PASSES BELOW THE DITCH SECTION WITH LESS THAN 6'-0" COVER.

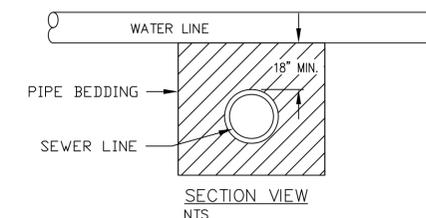
FIRE HYDRANT ACCESS PAD
NTS



SAN SEWER/ WATER MAIN CROSSING
FOR PIPES AT SIMILAR DEPTHS

NTS

2
-



TYPICAL WATER AND SEWER CROSSING
NTS

3
-

BY	DATE	REV	DESCRIPTION OF CHANGE
RECORD OF REVISIONS			



DESIGNED: P. O'NEILL
DRAWN: GDS/ACAD
CHECKED: PKO
DATE OF PLAT: JUN 06, 1997 * 13:25:16
SCALE: AS NOTED
DRAWING NAME: DETAIL 3
PROJECT NO. 23133-04-00

SEWER/WATER SYSTEM DESIGN

PROJECT: STANDARD DETAILS/NOTES
HILL TOP SUBDIVISION

CLIENT: NORTHERN TIMBER, PO BOX 1129, HAINES, ALASKA 99827

HAINES PLANNING COMMISSION

REGULAR MEETING MINUTES

April 17, 1997

1. CALL TO ORDER: Chairman Dave **NANNEY** called the meeting to order at 7:30 p.m. in the City Council Chambers.
2. PLEDGE TO FLAG: Led by Chairman **NANNEY**.
3. ROLL CALL: Present: Chairman Dave **NANNEY**; Commission Members Byron **RETTINGER**, Annette **SMITH** and Greg **BRASK**.

Absent: Commission Member Jim **SZYMANSKI**

STAFF PRESENT: Tom **HEALY**/City Administrator and Susan V. **JOHNSTON**/City Clerk.

VISITORS: Vic **PALMER**

4. APPROVAL OF MINUTES: March 13, 1997

M/S RETTINGER/BRASK Motion to approve the minutes of the March 13, 1997 meeting.

Motion carried unanimously.

5. CHAIRMAN'S REPORT: NONE
6. PUBLIC HEARINGS: NONE
7. APPEALS: NONE
8. PLAT REVIEW:

- A. Subdivision Preliminary Plat - Hilltop Subdivision - Roger **SCHNABEL**

The Administrator stated that he felt the utility issues had been resolved satisfactorily by the subdivision's design engineers. He recommended that the roads in excess of 10% grade should be approved due to the fact that the developer has planned sufficient space at the bottom of the grade and before any intersections.

The Administrator stated that the developer plans to connect to the existing City water main. Water pressure in the subdivision was a great concern. During backwash at the treatment plant, all lots will experience low pressure. Some lots will experience low pressure all the time and lots 1 & 3, block 2 will have no water at all.

8. **PLAT REVIEW:** (cont.)

A. Subdivision Preliminary Plat - Hilltop Subdivision -
Roger **SCHNABEL** (cont.)

The new water tank planned by the City near the water treatment plant should solve the pressure problem during backwash times, but would still not provide enough head to push water up to lots 1 & 3, block 2, whose owners will either have to drill a well or install a pressure system and piping from a lower location on the system. The new water tank will probably not be installed until next year.

The engineers point out that the main from the plant to town is only an eight-inch main, which further reduces flow. There were concerns about fire hydrant flows at several locations.

The Administrator pointed out that several lots will have to enhance their own water pressure with individual pressure systems. He stated out that a plat note should be required stating on which lots booster pumps would be needed. Commissioner **RETTINGER** pointed out that there should also be a note that lots 1 & 3 would be responsible for providing their own water.

Vic **PALMER** stated he would have no problem with the City requiring covenants on the deeds containing this information as well.

The Bartlett Road right-of-way was discussed. The Commission members were concerned that it had no outlet at the east end for emergency vehicles. It was suggested that Roger **SCHNABEL** be requested to punch through Rivers Street to Bartlett in order to provide emergency ingress and egress.

The Administrator pointed out that the developer will be required to obtain an easement to put the sewer main across the S.E. Alaska State Fair property. Commissioner **RETTINGER** asked about the problems discussed in the past with the shallow grade of the sewer on Allie Road. The Administrator stated that the Commission decided to require an impartial third party engineer be hired, at the expense of the developer, to inspect the line to assure that it has sufficient drop.

Easements for the half-streets on adjoining properties must also be obtained by the developer so that Allie Road and Tower Road can be developed.

The developer has agreed to the Commission's limitation on re-subdivision of lots. Only lot 3 can be re-subdivided, and only once into two lots. The subdivider will be responsible for providing access and utilities to the new lot created by the subdivision should this occur.

8. **PLAT REVIEW:** (cont.)

A. Subdivision Preliminary Plat - Hilltop Subdivision -
Roger **SCHNABEL** (cont.)

A plat note must be included regarding the private drive to lots 1, 2, 3 & 4 and the fact that maintenance is the responsibility of the owners of the lots, not the City.

Commissioner **SMITH** asked if Mr. **PALMER** had asked Mr. **SCHNABEL** about re-zoning the subdivision residential. Mr. **SCHNABEL** stated he would like to have it rezoned except for Block 4, lot 1, block 3 and lots 26-31, block 3, which he would like to remain in the development zone to act as a buffer.

It was pointed out that such rezonings will probably take place during or immediately after the comprehensive plan process.

The need for a playground/public open area was discussed. It was pointed out that by the very nature of the small size of the lots in this subdivision, and therefore, the lower price, it would indicate that the market for the lots would be young families with children. There are no areas close by for children to play. The City Code allows the Commission to set aside an area in a subdivision for this purpose for five years, after which time the City must purchase the open area or it reverts to the developer. The Administrator cautioned the Commission to consider justifying such an area as a public need.

M/S **SMITH/RETTINGER** Motion to approve the preliminary plat with all the conditions discussed, i.e., sewer and street easements must be obtained; an impartial third-party engineer must inspect the sewer line on Allie Road to ensure sufficient drop; Rivers Street must be punched through to Bartlett to provide emergency access; Lot 2 or 3, block 2, shall be reserved as a park/open space for five years; the following plat notes must be included on the plat: water booster pumps will be necessary for certain lots, listing which lots and stating that it is the responsibility of the individual lot owners to provide such pumps; the fact that there will be no water to lots 1 & 3; that maintenance of the private drive to lots 1 - 4, block 2 is the responsibility of the lot owners; no lots may be re-subdivided except lot 3, which may only be subdivided once more into two lots, with the subdivider of that lot being responsible for providing utilities and legal and physical access to both lots.

It was suggested that perhaps lot 1, block 2 be one of the lots which could be used as open space as it is smaller.

M/S **SMITH/RETTINGER** Motion to amend main motion that lots 1 or 3, block 2 be set aside as open space/park area, with the choice of lots being given to the developer.

8. **PLAT REVIEW:** (cont.)
A. Subdivision Preliminary Plat - Hilltop Subdivision -
Roger **SCHNABEL** (cont.)

Motion to amend carried unanimously.

Main motion carried unanimously.

Commissioner **RETTINGER** stated that during the comprehensive plan process they should discuss the possibility of making parks/open spaces a requirement in subdivisions of more than ten lots or over a certain size.

9. **PERMITS:** No questions
A. Approved Permits
1) Glacier Marine Transport - Sign
2) Bud Sandstrom - Carport
3) Alison Jacobsen - Sign
4) Haines Borough Library - Sign

10. **UNFINISHED BUSINESS:**

- A. Glenn Cave - Variance

The Administrator reported that he discussed this matter with former Commission member, Bob **JENSEN**, who looked into it before he resigned from the Commission. He said that he felt the structure could be modified by extending the stairway out into the back yard quite a distance.

The Administrator pointed out that the back yard is currently being used as parking, which gets cars off the street in an area where parking is at a premium. There were no complaints about the stairway from the neighbors and the stairs improve fire access to the second and third floors. The Administrator recommended that whatever the Commission decides to do, they should fine Mr. Cave for building without a permit.

Commissioner **BRASK** did not feel that the \$100 fine was large enough to deter people from building without a permit.

The Administrator was directed to call the Caves and find out what they plan to do with the building. It was a boarding house before they purchased it and its current and planned use is unknown at this time. There are entrances from all three floors, and the Commission suspects there are apartments being built inside. If the plan is to make it into a duplex, triplex or apartment building, these would be conditional uses in this zone, and no permit has been applied for to change the use.

11. **ADMINISTRATOR'S REPORT:**

- A. Haines Shuttle Terminal - The City Council approved a property trade so that the dock for the terminal will be entirely on tidelands owned by the Chilkats' Portage Cove Development Co. It had been built on city tidelands long ago.
- B. Port Chilkoot Company - Subdivision Plans - Lee **HEINMILLER** has expressed a concern as to how the City is going to handle on-site wastewater disposal for subdivisions which are not within reach of the City's sewer system. The Administrator is drafting an ordinance referring to the D.E.C. regulations, which are still on the books. The ordinance would require an engineers certificate that the subdivision meets D.E.C. requirements. D.E.C. has suspended enforcement and will no longer review subdivision plats, but has not repealed the regulations.
- C. Comprehensive Plan - Schedule Work Session - Representatives from Dames and Moore, the company who is doing the City's Comprehensive Plan, will be meeting with the Commission at their next regular meeting on May 8th. The Administrator recommended that the members jot down ideas for issues they wish to see addressed in the new plan.

Commissioner **SMITH** was concerned that the timing of the Comprehensive Plan review is during the busiest time of the year when no one can make it to meetings due to fishing and tourism demands. The Council has been adamant that the Plan be completed by July. The Commission may wish to recommend the timing be changed for completion in order to avoid the busy summer months.

12. **ADJOURNMENT:**

M/S SMITH/BRASK Motion to adjourn.

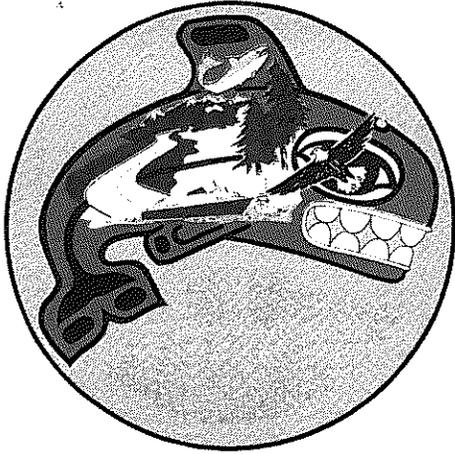
Motion carried unanimously.

Meeting adjourned 9:45 p.m.

Respectfully submitted:



Susan V. **JOHNSTON**, City Clerk
Planning Commission Staff



CITY OF HAINES, ALASKA

P.O. BOX 1049

HAINES, ALASKA 99827

(907) 766-2231 • TOURISM (907) 766-2234 • FAX (907) 766-3179

May 5, 1997

Roger Schnabel
P.O. Box 1129
Haines, AK 99827

Re: Hilltop Subdivision
Preliminary Plat

Dear Roger:

At their April 17, 1997 meeting, the City Planning Commission approved your preliminary plat for the above referenced subdivision with the following conditions:

1. An easement must be obtained from the S.E. Alaska State Fair for installation of a sewer main across their property to the sewer plant. A copy of the easement must be sent to the City as soon as it is executed and before the preliminary plat will be signed.
2. Easements must be obtained from the Port Chilkoot Company for the half-street portions of Allie Road and Tower Road not owned by you. Copies of the easements must be sent to the City as soon as they are executed and before the preliminary plat will be signed.
3. Due to the shallow drop on the sewer line on Allie Road, the line must be inspected by an impartial third-party engineer qualified to make such inspections. This inspection will be at your cost.
4. Rivers Street must be punched through to Bartlett to provide emergency access to the end of Bartlett Blvd. Contact Mr. Healy regarding how much of the work Southeast Roadbuilders will be requested to do to accomplish this task.
5. Block 2, lots 1 or 3 (your choice) shall be set aside as a park/open space for a period of five years, after which time either the City shall purchase the lot for a park or it shall revert to you for development.

May 5, 1997
Roger Schnabel
Re: Hilltop Subdivision
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6. The preliminary plat must show the property owners of all un-subdivided properties adjacent to the subdivision, as well as the zoning of these properties and of the portion of the Port Chilkoot Subdivision that is adjacent to the east, as well as the Hilltop subdivision. The zoning of all properties except the Port Chilkoot Subdivision is Development (D), the Port Chilkoot Subdivision is zoned Residential (R). According to my maps, other adjacent property owners are the Port Chilkoot Company to the south and west and the S.E. Alaska State Fair to the north. Please have this information added to the plat mylar.
7. Plat notes shall be placed on the preliminary and final plats as follows:
 - a) Due to low water pressure in the subdivision, water booster pumps will be necessary for block 2, lots 2, 4, 5, 6, 7, 19, 20, 21, 31, 32, 33, 34, 35, and 36. These pumps must be installed by the property owner before they will be allowed to connect to the City's water system.
 - b) Due to the height of lots 1 & 3, block 2, no municipal water service will be available to these lots. Property owners must either dig a well or install a pump and water line from an available main at a lower elevation. If installing pump/line, such pump and line must be installed before property owner(s) will be allowed to connect to the City's water system. Maintenance of pump and water line will remain the responsibility of the lot owners served by this line.
 - c) Maintenance of private drive to lots 1 - 4, block 2 is the responsibility of the owners of these lots.
 - d) No lots in the subdivision may be re-subdivided except lot 3, block 2, which may only be further subdivided into two lots. Subdivider of lot 3 accepts the responsibility of providing utilities and legal and physical access to both lots formed by the subdivision.

During discussion on this subdivision, it was confirmed by Vic Palmer that you would like the subdivision to be re-zoned Residential except that lot 1 and lots 26-31, block 3 and all of block 4 remain in the Development zone to act as a buffer. This re-zoning question will be dealt with during the upcoming drafting of the City's new Comprehensive Plan. In the meantime, the City asks that you put this request in writing, as soon as possible, addressed to the City Planning Commission.

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Roger Schnabel
Re: Hilltop Subdivision
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If you have any further questions regarding these requirements,
please contact Mr. Healy.

Sincerely,



Susan V. Johnston, CMC
City Clerk
CITY OF HAINES



HAINES BOROUGH, ALASKA
P.O. BOX 1209
HAINES, AK 99827
(907) 766-2231 FAX (907) 766-2716

August 27, 2015

«PRIMARYOWNER»
«ADDRESS»
«CITY», «STATE» «COUNTRY» «ZIPCODE»

Re: Hill Top Subdivision Preliminary Plat Public Hearing
Portion of USS 2716; C-USS-A2-2716
Multiple Residential Zone

Dear Land Owner,

Haines Borough records show that you own property within 200 feet of the above-listed property. Property owner Roger Schnabel submitted a preliminary plat prepared by a registered land surveyor to the commission at 20 percent to 35 percent completion in order that general agreement may be reached on layout and arrangement of streets and lots and other public utilities before a final plat is prepared. He proposed to subdivide the above-listed property into 72 lots. The commission will process the preliminary plat pursuant to the standards set forth for special conditions permits and the standards set forth in HBC 18.100.

The Haines Borough Planning Commission will hold a public hearing on the matter at the next regular Planning Commission meeting. The meeting will be held at 6:30 p.m. at the Haines Borough Assembly Chambers on Thursday September 10, 2015. As an owner of property within 200 feet of the above-listed property you are being notified that you are invited to attend and comment at the meeting. If you have any questions on the matter please contact the Borough.

Sincerely,

Tracy Cui
Planning and Zoning Technician III
Phone: (907)766-2231 Ext 23
Fax: (907) 766-2716
xcui@haines.ak.us

PRIMARYOWNER	ADDRESS	CITY	STATE	COUNTRY	ZIPCODE
HAYNES L. TORMEY II	3718 EL CAMINO	JUNEAU	AK	US	99801
FRANK BROWN	8217 CEDAR DRIVE	JUNEAU	AK	US	99801
CONNIE WAROAD	BOX 1075	HAINES	AK	US	99827
ADAM C. MCMAHAN	BOX 1335	HAINES	AK	US	99827
FREDRICK D. FOLLETTI	BOX 145	HAINES	AK	US	99827
MARNIE HARTMAN	BOX 1567	HAINES	AK	US	99827
CHURCH OF THE NAZARENE	BOX 190485	ANCHORAGE	AK	US	99519
SHANE HORTON	BOX 250	HAINES	AK	US	99827
C/O LEE HEINMILLER	BOX 271	HAINES	AK	US	99827
&REW A. DEGEN	BOX 950	HAINES	AK	US	99827
C/O ROGER SCHNABEL	HC 60, BOX 4800	HAINES	AK	US	99827
OMAR COROADES	HERENGRACHT 105-107	AMSTERDAM 1015 BE	N. HOLLAND	THE NETHERLANDS	

HBC 18.100.050 Long plat procedures – Preliminary plat.

A. Planning Commission Review. Before submitting a final plat for approval for recording under AS [40.15](#), as amended from time to time, and HBC [18.100.112](#), and unless following the procedures of HBC [18.100.030](#) and [18.100.035](#), the subdivider shall submit a preliminary plat prepared by a registered land surveyor to the commission at 20 percent to 35 percent completion in order that general agreement may be reached on layout and arrangement of streets and lots and other public utilities before a final plat is prepared. A 100 percent complete preliminary plat must be submitted to the planning commission for review and approval before any construction begins. Any subsequent changes to the approved preliminary plat must be preapproved in writing by the borough manager. Substantial changes, such as changes to the alignment and grade of roads, changes to water and sewer lines, changes to lot size, or any changes that will cause future expense to the borough, must be approved by the planning commission.

B. Planning Commission Action. The commission shall process preliminary plats pursuant to the standards set forth for special conditions permits and the standards set forth in this chapter.

C. Engineering Standards. The preliminary plat shall be drawn with waterproof nonfading black ink or legibly drawn with pencil on tracing cloth, or tracing paper of good quality, measuring 24 inches by 36 inches, at a scale of either 40, 50, 60 or 100 feet to an inch, scaled appropriately for the size of the property being platted, and shall show accurately on its face:

1. The date, scale and north point.
2. The proposed subdivision name, which shall not be so similar to the name of any plat previously recorded in the area as to cause confusion.
3. The name and address of the owner, the subdivider, and the surveyor preparing the plat.
4. The exact length and bearing of the exterior boundaries of the subdivision.
5. Location and names of adjacent subdivisions and the owners of adjoining parcels of unsplit land.
6. Zoning on and adjacent to the subdivision.
7. Location, widths and names of all existing and platted streets, alleys, or other public ways and easements, driveways, and utility rights-of-way, tideland leases, parks, cemeteries, watercourses, drainage ditches, permanent buildings, bridges, and other pertinent data.
8. The water elevations of adjoining lakes or streams at the date of the survey and the approximate high and low water elevations of adjoining lakes, streams and tidal areas.
9. If the subdivision borders a lake or stream, the distances and bearing on a meander line established not less than 20 feet back from the mean high water mark of the lake or stream.
10. The location of significant natural features such as, but not limited to anadromous fish streams, existing material sites, wetlands, and U.S. Fish and Wildlife cataloged eagle nesting trees.
11. Layout, width and grades of all new streets, driveways, and rights-of-way, such as alleys, highways, easements for sewers, water mains and other public utilities.
12. Dimensions and areas of lots.
13. Proposed building lines.
14. Radii of all curves and length of tangents.
15. Contours at two-foot vertical intervals or at more frequent intervals if required by the commission for land of unusual terrain characteristics. All pertinent elevations should be shown.
16. The location of any hazard areas set forth in HBC [18.60.010](#).
17. Plan sheets of the same scale showing engineering design, both plan and profile, and stamped by a registered professional engineer, of any water, sewer, streets, drainage systems, snow storage sites or other public utility to be considered as part of the development.
18. The area for which such data is to be shown shall extend beyond the boundaries of the actual property being platted a distance sufficient to adequately relate the plat to its surroundings.
19. A minimum of six sets of all plan sheets shall be provided to the commission.

D. Approval of Preliminary Plat. The completed application for approval of the preliminary plat shall be submitted to the manager and placed on the agenda for the next planning commission meeting. Approval of properly prepared preliminary plats shall occur no later than 30 days after submission to the commission. If the commission does not approve of the plat within 30 days of filing, they shall return the plat to the applicant for modification or correction. Once properly resubmitted with all required information, the commission shall again have 30 days for review and decision. An applicant for plat approval may consent to an extension of the period for action by the commission. Any reason for disapproval shall be so stated upon the records of the commission and provided to the applicant.

E. Forwarding of Approved Preliminary Plat. Upon commission approval of a properly submitted preliminary plat, the applicant shall follow the final plat procedures below.

F. Action Following Approval of Preliminary Plat. Upon approval of the preliminary plat, the applicant may undertake certain activities prior to approval of the final plat. These activities are:

1. Completing surveying and monumentation;
2. Complying with plat conditions required by the commission as conditions of approval, including but not limited to physical improvements to the property such as land clearing, installation of drainage and identification of rights-of-way and easements.
3. Preparing a reproducible mylar plat as approved by the commission.

G. Nullification of Preliminary Plat Approval. Preliminary plat approval shall become nullified if the applicant has not begun surveying and monumenting the lot lines for subdividing the parcel within 24 months of the approval of the preliminary plat. (Ord. 12-04-284 § 4; Ord. 08-06-184)

HBC 18.100.070 General requirements and design standards.

The proposed subdivision shall conform to:

- A. The provisions of AS [40.15](#), and AS [29.40](#), as amended from time to time and all other relevant laws and regulations.
- B. All applicable ordinances of the borough.
- C. The comprehensive plan and the coastal management plan of the borough.
- D. The regulations of the State Department of Transportation and Public Facilities relating to safety of access and the preservation of the public interest and investment in streets and highways if the subdivision of any lot contained therein abuts on a state highway.
- E. The requirement that approvable building sites exist on each proposed lot, as defined within this title, except for lots specifically set aside and dedicated (1) as hazardous slope setbacks, (2) as special drainage easements, and/or (3) as open space and greenbelts. Where regulated, proposed new land development activities in new subdivisions which lie within the borough must conform to special hazardous area management requirements (See HBC [18.60.010\(T\)](#)), and must ensure that the water quality of streams and major drainages is maintained and that they are not obstructed without adequate mitigation.
- F. Block and Lot Designation. Within any new multi-phased subdivision, block designations shall not be repeated from phase to phase, but shall continue sequentially from one phase to the next (i.e., if Block C is the last block in Phase I, the first block in Phase II would be Block D). Preferably, blocks shall be designated by a letter of the alphabet beginning with A and lots by numbers, beginning with one.
- G. Subdivision Name. A new subdivision name shall not be so similar to the name of any existing subdivision so as to cause confusion.
- H. Access and Buffers. All lots must be guaranteed a public access easement of at least but not limited to five feet in width. It is recommended that subdividers establish public access easements along property lines that follow natural corridors. All streams and watercourses used to provide DEC-approved domestic water shall be protected by a 25-foot buffer on each side, measured from the stream bank.

HBC 18.100.075 Streets.

The design and construction of streets, roads, and sidewalks in subdivisions shall be governed by the provisions of HBC [12.08.030](#) through [12.08.190](#). (Ord. 08-03-180)

HBC 18.100.080 Intersections.

- A. Right Angle. Streets shall intersect as nearly as possible at right angles and not more than two streets shall intersect at one point unless approval is granted by the commission.
- B. Rounded. Property lines at street intersections shall be rounded with a radius of at least 15 feet.
- C. Jogs. Street jogs with center line offsets of less than 125 feet shall be avoided. Where streets intersect major streets, their alignment shall be continuous.

HBC 18.100.085 Lots.

- A. In General. The size, shape and orientation of lots shall be appropriate for the location and physical attributes of the subdivision and for the type of development contemplated.
- B. Lot Dimensions/Size.
 1. Lots should be designed with a suitable proportion between width and depth. Normal lot width should not be less than 65 feet. Normal lot depth should not exceed two and one-half times the width, nor be less than 100 feet. Unless otherwise provided, lots shall in no instance be less than 10,000 square feet in total area.

2. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated.

3. Residential lots abutting on major streets and highways shall be platted with sufficient depth to permit adequate separation between the buildings and such traffic ways.

C. Corner Lots. Corner lots should be designed to permit a setback on all lot lines abutting streets as required by the zoning ordinance.

D. Access to Public Streets. Every lot shall front or abut on a dedicated public right-of-way with the exception of subdivisions or lots that are in roadless areas of the borough and accessed solely from a navigable water body, in which case all lots shall be accessible from the navigable water body or via a dedicated access easement from the water body. Lots with an access only to private drives shall not be permitted unless a permanent easement has been granted and properly recorded. No lots shall access an alley as the means of access to public streets.

E. Lots at Right Angles. Lots at right angles to each other should be avoided wherever possible, especially in residential areas.

F. Lot Lines. Side lot lines shall be substantially at right angles or radial to street lines.

G. Large Lots. Where lots are created of a size larger than normal for the area, the commission shall require that the plat be so designated as to allow for the possible future re-subdivision of such lots into sizes normal for the area.

H. Small Lots. Where lots are created that are less than 20,000 square feet in area, the commission shall require that the plat be so designated as to not allow for re-subdivision of such lots.

I. Municipal Boundaries. Lots shall follow municipal boundary lines wherever practicable, rather than cross them.

J. Multiple Frontages. Lots abutting a street on more than one side shall be avoided except where necessary to provide separation of residential development from traffic or to overcome specific disadvantages of topography and orientation. (Ord. 10-11-247 § 4)

HBC 18.100.092 Requirements prior to final plat approval.

A. Utilities.

1. Water and Sewer. The subdivider, at the subdivider's own expense and prior to final plat approval, in accordance with the approved preliminary plat, shall construct, per borough specifications, all water and sewer utilities to service each lot individually within the subdivision to be created. The subdivider may elect to provide performance and payment bonding as allowed in HBC [18.100.125](#) in order to have authorization to proceed to a final plat procedure.

2. When, in the opinion of borough staff, no public sanitary sewer and/or water service is available within 200 feet of any exterior property line of a new subdivision in which all lots are one acre or larger in area, the developer may request an exemption from the requirements to connect to public utilities. All regulations of the State Department of Environmental Conservation pertaining to water extraction and wastewater disposal, as well as the requirements of HBC [13.04.080](#)(G) pertaining to on-site wastewater disposal, shall apply. If exempted from the requirement to connect to public utilities, a plat note must be placed on the plat stating that public water and/or sewer are not available to the subdivision and that all future property owners in the subdivision must provide written Department of Environmental Conservation (DEC) approval of their on-site wastewater system design prior to a land use permit being issued. Upon installation and before closure, the wastewater disposal system must be inspected and approved by a DEC-approved inspector.

When public sanitary sewer and/or water service becomes available, property owners will be required to connect to the public utility within six months.

B. Streets. The subdivider shall, prior to final plat approval, at the subdivider's own expense and in accordance with the approved preliminary plat and borough specifications, along all dedicated streets, including existing half-streets, construct all required roads to meet or exceed the road standards in HBC [12.08.030](#) through [12.08.190](#).

C. Monuments. All exterior corners and street intersections of the subdivision shall be marked by permanent monuments set in the ground. All individual lots shall have their perimeter corners staked. If the plat corner or a lot corner is identical with a plat corner or lot corner of a U.S. Survey, a U.S. Mineral Survey, or an Alaska Tidelands Survey, the primary monument of such survey shall be shown on the plat, or reestablished and shown if not found. (Ord. 13-12-359 § 4; Ord. 09-01-197)

HBC 18.100.095 Reservation of public sites and open spaces.

In order that adequate open spaces and sites for public uses may be properly located and preserved as the community develops, and in order that the cost of providing the public facilities necessary to serve the additional families brought into the community by subdivision development may be most equitably apportioned, the following provisions are established:

A. Design Consideration. In the design of the plat, consideration shall be given to the adequate provision of and correlation with such public sites or open spaces.

B. Reservation May Be Required. Where it is determined by the commission that a portion of the plat is required for such public sites or open spaces, the subdivider shall be required to reserve such area for a period not to exceed five years, after which the borough shall either acquire the property or release the reservation.

HBC 12.08.030 Plan of road construction and development.

The streets and alleys of the borough shall be constructed, graded and improved when existing rights-of-way permit it and in accordance with the provisions of this chapter as administered by the manager. It shall be unlawful to destroy, construct, or repair any street, alley, culvert, bridge, sidewalk, ditch, sewer, or drain within the corporate limits of the borough on property within its jurisdiction without first obtaining permission from the manager. (Ord. 08-03-180)

HBC 12.08.040 Standards applicable.

All public access roads in the Haines Borough must be constructed in accordance with an approved plat and meet or exceed the requirements set forth in this section or in accordance with a variance granted by the planning commission due to extenuating circumstances. (Ord. 08-03-180)

HBC 12.08.050 Local road construction standards.

The borough adopts the standards for construction of roads contained in this chapter. Should there be a conflict between the road construction standards contained herein and those contained in the subdivision ordinance (Chapter [18.100](#) HBC) or other chapters of the borough code, these standards shall control. (Ord. 08-03-180)

HBC 12.08.060 Other requirements not eliminated.

This chapter only establishes design and construction standards and does not eliminate any other requirements that may be established by federal or state statutes, borough ordinances or other regulations adopted pursuant to these laws. Permits may be required in instances involving construction in flood hazard zones, wetlands and fish habitat. Grading, excavation and fill permits, storm water/water separation waivers and coastal management consistency reviews may be required. The land owner is responsible for knowing the necessity of a permit and acquiring it. (Ord. 08-03-180; Ord. 04-06-064)

HBC 12.08.070 Road construction standards – Introduction.

A. Enforcement. The borough shall inspect road construction to ensure adherence to an approved plat and borough standards. Inspection may include test holes; engineering analysis of road geometry, drainage, and general adequacy for anticipated traffic. Construction not adhering to an approved design or construction standards shall be brought into compliance by the developer.

B. Design Speeds. All categories of roads named in this chapter have a statutory speed designation of 25 miles per hour for residential areas, except that collector roads may enjoy 35 miles per hour. Actual speed design will be determined by factors of terrain and construction costs. The posted speed may be lower than the design speed, and shall be set by the municipality with due consideration to neighborhood safety; presence of schools, houses, parks and crosswalks; the presence of driveways, parked vehicles and multiple turn locations and the effectiveness of enforcement. (Ord. 08-03-180)

HBC 12.08.080 Road construction standards – Construction categories.

A. Internal Subdivision Roads. The standard to which a road is constructed shall be based on the categories set forth below. The category shall also be determined by lots indirectly served where the road is a collector or subcollector and provides necessary access to lots not otherwise served by a collector or sub-collector.

Category I: A cul-de-sac road or other minor road that serves less than 20 lots.

Category II: A road that serves between 20 and 39 lots.

Category III: A road that serves 40 or more lots.

B. Category Determination. The borough will determine the category of road based on the standards set forth in this chapter. If the developer disagrees with the category the applicant may request a review by the manager.

C. Existing Collector Roads. Existing collector roads shall be reconstructed to a Category III in a new subdivision, where the average daily traffic (ADT) on the existing collector road can be projected to exceed 300 after subdivision. Alaska Department of Transportation and Public Facilities Division of Planning, Mapping Section current ADT readings shall be referenced.

D. Half-Streets. Where a previous dedicated half-street exists in a subdivision adjacent to a new subdivision, the second half of the street within the proposed subdivision shall be dedicated to the borough for public use by the subdivider. (Ord. 08-03-180)

HBC 12.08.090 Road construction standards – Widths and topping.

Category	Road Width	D1 or Grading-C Topping	Right-of-Way Width	Total Width
I	24 ft.	4 in.	60 ft.	24 ft.
II	28 ft.	4 in.	60 ft.	28 ft.
III	30 ft.	6 in.	60 ft.	30 ft.

These widths are the minimum. The developer may build wider roads to standards. Additional width may be required for utility easements and drainage. Three-foot-wide bicycle paths are included in Category II and III road widths. (Ord. 08-03-180)

HBC 12.08.100 Road construction standards – Structures and bridges.

Bridges, bottomless culverts, walls and other structures on roads certified for borough maintenance shall be prepared and stamped by a licensed professional civil engineer, and shall be submitted to the borough prior to acceptance of the road for maintenance. (Ord. 08-03-180)

HBC 12.08.110 Road construction standards – Vertical and horizontal alignment.

A. Vertical Alignment. Unless granted a variance by the planning commission, roads shall be constructed in a manner such that grades shall not exceed 10 percent and crossroads within 20 feet of a through-road intersection shall not exceed four percent grade.

B. Horizontal Alignment. Roads shall be constructed along the centerline of the right-of-way and shall have curves meeting the minimum radius requirements of not less than 300 feet for rights-of-way, 100 feet in width or more, and not less than 200 feet on all other roads.

C. Clear Zone. The roadside shall be clear of hazardous objects or conditions for a distance consistent with speed, traffic volume, and geometric conditions of the site. Roads shall be constructed with a minimum clear zone of six and one-half feet. Where hazardous physical features exist which cannot be located outside of the clear zone, alternative treatments such as guardrails may be required.

D. Culs-de-Sac (Turnarounds).

1. Roads designed to have one end closed permanently shall be no longer than 500 feet from the center of the intersection to the radius point of the cul-de-sac, and shall terminate with a turnaround having at least a 100-foot-diameter right-of-way and a roadway at least 75 feet in diameter. The turnaround shall be constructed to a four percent grade or less.

2. Temporary roads longer than 500 feet may be constructed with one end closed with a conditional use permit approved by the planning commission. A conditional use permit may be granted with a minimum of the following criteria:

a. The road shall terminate with a turnaround having at least a 100-foot-diameter right-of-way and a roadway at least 75 feet in diameter. The turnaround shall be constructed to a four percent grade or less.

b. The developer shall post a performance bond.

c. The planning commission shall set an expiration date for the conditional use permit.

E. Intersections. A minimum unobstructed sight distance of 150 feet shall be provided unless a variance is granted due to topography, traffic flow or other physical characteristics. Appropriate warning signs may be required if an exception to the sight distance is granted. Road intersections shall be constructed with a minimum return radius of 20 feet. (Ord. 10-07-235 § 4; Ord. 08-03-180)

HBC 12.08.120 Road construction standards – Drainage and culvert material.

A. Roads shall be constructed to prevent ponding of runoff waters in roadside ditches. Drainage ditches shall be constructed such that runoff waters will be conveyed to natural drainage courses, ditches or waterways, or other manmade drainage courses. Minimum depth of ditches shall be two feet unless special circumstances are approved by the borough. There shall be a maximum of one and one-half to one slope from the shoulder to the bottom of the ditch. There shall be a maximum of one to one back slope except in cases where bedrock is present.

B. Culvert outlets shall be constructed to prevent excessive siltation of riparian habitats, channel erosion or drainage to public or private property. The borough may require engineering analysis and design for locations susceptible to flooding, excessive siltation, or other natural conditions potentially damaging to the right-of-way, adjacent property, or water courses and water bodies. Roadway cross-culverts and driveway culverts shall be a minimum diameter of 18 inches, unless special circumstances are approved by the borough. The length of the culvert shall be four feet longer than the road width when placed perpendicular to the roadway, and in any case, shall protrude a minimum of two feet beyond outer total road edge. Culverts, coupling bands and special sections shall be corrugated steel pipe, at a minimum of 16 gauge. Plastic culverts shall meet AASHTO Standard Section 706-2.07, corrugated polyethylene pipe, AASHTO M 294, Type S. (Ord. 08-03-180)

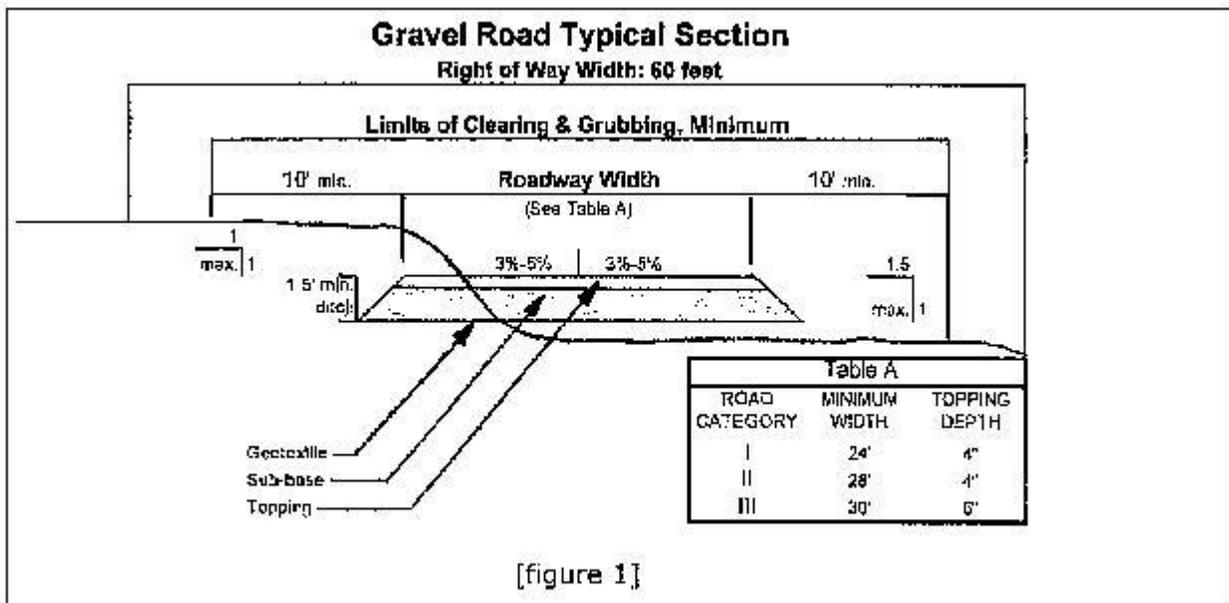
HBC 12.08.130 Road construction standards – Typical section materials.

Sub-base shall contain no muck, frozen materials, roots, sod or other deleterious matter. The Haines Borough will conduct an inspection prior to grading-C or D1 application of the sub-base on Category I and II roads. The Category III road’s sub-base will adhere to specifications called out in the project specific design described in HMC 12.08.140(B). (Ord. 08-03-180)

HBC 12.08.140 Road construction standards – General.

A. Typical Section. Gravel roads shall be constructed in accordance with the gravel road typical section drawing and associated Table A [see figure 1]. Additional requirements are:

1. Roads must be contiguous with the existing road system maintained by the borough and the state. All roads must be on a dedicated right-of-way and must be built along the right-of-way centerline. A minimum right-of-way width shall be 60 feet, enabling utilities to be installed outside the edge of roadside ditches.
2. All organic material shall be stripped and removed to a minimum depth of four feet below the finished grade. If geotextile is used over organics, then the depth of sub-base must be three feet minimum or greater as required for stable embankment.
3. The roadway embankment shall be placed in maximum one-foot lifts and compacted to not less than 90 percent of maximum density, as specified by AASHTO for material application. Density shall be determined by AASHTO T 180, method D.
4. Onsite usable excavation material may be used as sub-base with approval from the public works superintendent.



B. Project-Specific Design. Category III roads require a project-specific design prepared and sealed by a licensed professional civil engineer in accordance with the Category III gravel road typical section drawing and associated Table A. The design shall be approved by the borough as provided for in HMC Title 18. Once the project is complete, as-built plans, prepared and sealed by a licensed professional civil engineer, shall be submitted to the borough. The as-built shall illustrate horizontal alignment, finish grade profile, typical section of the roadbed, and material specifications. The as-built plans are required prior to municipal road maintenance. (Ord. 08-03-180)

HBC 12.08.150 Sidewalks, curbs, gutters, and accessibility.

A. The manager shall require that an area 10 feet wide adjoining the street boundary be reserved on each side of the street, with the curb line being on the opposite side of such 10-foot reserved area. All proposed sidewalks in the business area must receive written approval from the manager. All curb lines will be rounded at the corners on a radius of 10 feet at entrances to alleys and on a radius of 17.5 feet on cross streets. Sidewalk widths may be appealed to the manager.

B. It shall be unlawful to construct any sidewalk less than six feet in width on Main Street, Front Street, Second Avenue, Third Avenue, Fourth Avenue, Fifth Avenue, Sixth Avenue, Dalton Street, Union Street, or View Street within the corporate limits of the borough, except at the direction of the manager.

C. The outside boundary of a sidewalk will be established by the manager to prevent irregularities in alignment with existing or proposed sidewalks.

D. Property lines shall be determined at the expense of the owner of the property by a registered land surveyor.

E. Curbs and gutters shall be constructed adjacent to sidewalks at the direction of the manager.

F. Ramps and access shall be provided as directed by the manager. (Ord. 08-03-180)

HBC 12.08.160 Utility installation.

A. Aboveground Utilities. All poles or structures for utility lines, hydrants, and other public service facilities to be constructed above the level of the ground shall be placed between the sidewalk and the curb line if built on a street and within one foot of the boundary of any alley if built in an alley, unless specific authority is obtained from the assembly to do otherwise.

B. Underground Utilities. A utility facility may be constructed, placed, or maintained along, under, or within a borough right-of-way only in accordance with regulations adopted by the borough and if authorized by a utility permit issued by the borough. Utility permits are valid for two years from the date of issuance.

C. Access Easement. The borough retains a 10-foot easement on each side of, and perpendicular to, all borough-owned sewer and water lines and associated appurtenances. (Ord. 08-03-180)

HBC 12.08.170 Construction by parties other than the borough.

Construction of streets, alleys, sidewalks, curbs, and other parts of such streets and alleys, exclusive of any utility lines, may be constructed by persons or corporations other than the borough at the owner's expense or with borough contribution to the cost thereof as agreed by the assembly. All such construction must be in accordance with the requirements and specifications established by the manager, who shall put the same in writing at the request of any such builder. (Ord. 08-03-180)

HBC 12.08.180 Fee schedule.

The assembly may establish a fee schedule to cover costs related to road and sidewalk standard construction inspection. (Ord. 08-03-180)

HBC 18.20.020 Definitions – Regulatory.

“Foundation, permanent” means footings and foundations that shall be constructed of masonry, concrete; or treated wood as defined in the Uniform Building Code. Footings of concrete and masonry shall be of solid material. Foundations supporting wood shall extend at least six inches above the adjacent finished grade. Bearing walls shall be supported on masonry or concrete foundations or piles or other approved foundation systems of a sufficient size to support all loads. It is incumbent on the developer to assure that the foundation is properly designed and constructed. The Haines Borough accepts no responsibility for the stability or future salability of any building due to an improperly designed or constructed foundation.

“Temporary use” means a building or structure that is capable of being immediately moved, or a use which is for a limited time up to 18 months.

“Trailer” means a vehicular-type portable structure without motive power or a permanent foundation, which is meant to be towed or hauled by a motorized vehicle and is primarily designed as temporary living accommodations for recreational, camping and travel use. The term includes travel trailers, truck campers, fifth-wheel trailers and camping trailers.

HBC 18.40.040 Temporary uses and buildings.

A. A developer proposing a temporary use of land or building which would otherwise require an approval under provisions of this chapter is required to obtain a temporary use permit prior to any site work, except that temporary buildings associated with the construction of an approved use do not require a permit (i.e., tool shed, etc.). The manager may issue an approval under the same procedures as for a land use permit pursuant to HBC [18.40.030](#) and [18.60.020](#)(H). No building or use requiring a variance shall be permitted under this section.

B. Within five days of the expiration of a temporary use permit, all buildings and other materials associated with the temporary use shall be removed from the site and the site restored to the condition it was in prior to the development of the temporary use.

HBC 18.70.040 Zoning use chart.

ZONING USE CHART

TOWNSITE PLANNING/ZONING DISTRICT

UBR = Use-By-Right CU = Conditional Use NA = Not Allowed GFA = Gross Floor Area

█ = Permit Required

□ = Permit Not Required

Under General Classification, uses in UPPER CASE are primary and uses in lower case are secondary.

GENERAL CLASSIFICATION ➔	INDUSTRIAL USES			COMMERCIAL/ Residential Uses			RESIDENTIAL USES ONLY	RESIDENTIAL/ Commercial Uses			RECREATIONAL USE	
	Heavy Industrial	Light Industrial/ Commercial	Waterfront Industrial	Commercial	Waterfront	Significant Structures Area	Single Residential	Multiple Residential	Rural Residential	Rural Mixed Use	Multiple Use	Recreational
Specific Zoning Districts ➔												
USES ↓	I/H	I/L/C	I/W	C	W	SSA	SR	MR	RR	RMU	MU	REC
Commercial, Light – Less than 500 sf	CU	UBR	CU	UBR	UBR	UBR	NA	CU	UBR	UBR	UBR	NA
Commercial, Medium – 500 – 5,000 sf	CU	UBR	CU	UBR	CU	CU	NA	NA	CU	CU	UBR	NA
Commercial, Major – More than 5,000 sf	UBR	UBR	UBR	UBR	CU	CU	NA	NA	NA	NA	UBR	NA
Temporary Structure	UBR	UBR	UBR	UBR	CU	CU	UBR	UBR	UBR	UBR	UBR	CU
Temporary Use	UBR	UBR	UBR	UBR	CU	CU	UBR	UBR	UBR	UBR	UBR	CU
Trailer*/Mobile Home Outside Mobile Home Park	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	UBR	NA

* Exception: Recreational trailers parked but not used for habitation or storage.

An Ordinance of the Haines Borough amending Haines Borough Code Title 18 Section 18.100.025 to allow a nonconforming lot when it is created as a result of the borough acquiring a portion of a lot to be used exclusively for public utility purposes in the best interest of the borough.

BE IT ENACTED BY THE HAINES BOROUGH ASSEMBLY:

Section 1. Classification. This ordinance is of a general and permanent nature and the adopted amendment shall become a part of the Haines Borough Code.

Section 2. Severability. If any provision of this ordinance or any application thereof to any person or circumstance is held to be invalid, the remainder of this ordinance and the application to other persons or circumstances shall not be affected thereby.

Section 3. Effective Date. This ordinance is effective upon adoption.

Section 4. Amendment of Section 18.100.025. Section 18.100.025 of the Haines Borough Code is hereby amended as follows:

NOTE: **Bolded/UNDERLINED** ITEMS ARE TO BE ADDED
~~STRIKETHROUGH~~ ITEMS ARE DELETED

HBC 18.100.020 Platting of subdivision, lot line adjustment and lot consolidation required.

Any division of land within the borough which results in a subdivision, or any shifting or eliminating of property lines resulting in a lot line adjustment or lot consolidation shall be surveyed and a plat thereof approved and recorded, pursuant to the provisions of this chapter, HBC 18.60.010 through 18.60.020, and AS 29.40 and 40.15, as amended from time to time.

A. Subdivision Defined. "Subdivision" means a division of a tract or parcel of land into two or more lots, sites, or other divisions and includes re-subdivisions and, when appropriate to the context, relates to the process of subdividing or to the land or areas subdivided.

B. Lot Line Adjustment Defined. "Lot line adjustment" is defined as the shifting of a property line that does not result in:

1. The creation of additional lots.
2. The creation of new nonconforming lots, including:
 - a. A lot of less than 65 feet of width.
 - b. A lot of less than the minimum size applicable to the zoning district.
 - c. A lot where development or utility becomes located within the setback as a result of the lot line adjustment.
3. The increase of nonconformity of an existing nonconforming lot.
4. The newly adjusted lot exceeding 200 percent of the area of the original lot, with the exception of lots less than the minimum lot size, in which case the newly adjusted lot shall not exceed 150 percent of the minimum lot size specified for the zone.

C. Lot Consolidation Defined. "Lot consolidation," also referred to as "lot line vacation," is the elimination of a lot line or lines that divide multiple lots and results in the consolidation of multiple lots into fewer lots or one lot.

1. The result shall not impair adequate access, access easements or rights-of-way to existing lots.

2. The result shall not create a nonconforming lot or increase the nonconformity of an existing nonconforming lot.

HBC 18.100.025 Exceptions.

A. The provisions of this chapter shall not apply to transfers of interest in land pursuant to court order.

B. The manager shall have the authority to waive the surveying requirement for a lot consolidation if it is determined that the surveyor can prepare plat documents from accurate and current data for the properties being consolidated.

C. HBC 18.100.020(B) and (C) do not apply to **the following:**

a. Lot line adjustments and lot consolidations between two or more nonconforming lots, as long as no additional nonconforming lots are created, and the proposed lots as adjusted will comply with other requirements, including but not limited to setbacks and parking as prescribed by the applicable use zone; **or**

b. A nonconforming lot created as a result of the borough acquiring a portion of a lot to be used exclusively for public utility purposes in the best interest of the borough.

All lot line adjustments involving nonconforming lots shall be reviewed and approved by the planning commission.

ADOPTED BY A DULY CONSTITUTED QUORUM OF THE HAINES BOROUGH ASSEMBLY THIS _____ DAY OF _____, 2015.

Janice Hill, Mayor

ATTEST:

Julie Cozzi, MMC, Borough Clerk

Date Introduced: 09/08/15
Date of First Public Hearing: ___/___/___
Date of Second Public Hearing: ___/___/___

LEGEND

- ⊕ PRIMARY MONUMENT RECOVERED THIS SURVEY
- SECONDARY MONUMENT SET THIS SURVEY BY J.W. BEAN
- SECONDARY MONUMENT RECOVERED THIS SURVEY

— SURVEYED
 - - - - - UNSURVEYED
 ——— CENTERLINE



TYPICAL SECONDARY MON.
 2" ALUM. CAP
 5/8" REBAR, 36" LONG

RECORD DIMENSIONS DIFFERENT FROM MEASURED OR CALCULATED DIMENSIONS ARE SHOWN IN PARENTHESIS. ALL RECORDED INFORMATION THIS SURVEY FROM PLAT NO. 2001-15 UNLESS OTHERWISE NOTED.

BASIS OF BEARING

BASIS OF BEARING FOR THIS PLAT IS THE RECORD BEARING OF S89°58'40"E TO A FOUND REBAR AND CAP BEING THE NORTHWEST CORNER CORNER OF LOT 5, REBAR AND CAP BEING THE NORTHEAST CORNER CORNER OF LOT 5, AS SHOWN ON RECORD PLAT NO. 2009-10.

STATEMENT OF OWNERSHIP:

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAT OF SUBDIVISION WITH OUR FREE CONSENT, AND THAT WE DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

Date _____, 2015

Owner
 ARTHUR MEACOCK
 PO BOX 487
 HAINES, ALASKA 99827

NOTARY'S ACKNOWLEDGEMENTS:

UNITED STATES OF AMERICA)
 STATE OF ALASKA) s.s.

THIS IS TO CERTIFY THAT ON THIS _____ DAY OF _____, 2015 BEFORE ME THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED;

KNOWN TO ME TO BE THE PERSON (PERSONS) DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE (SHE) (THEY) SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

Notary Public for Alaska _____
 My Commission Expires _____

CERTIFICATE BY THE HAINES BOROUGH

THE REPLAT OF LOT 1, MEACOCK SUBDIVISION, PLAT NO. 2001-15, AS DESCRIBED HEREON HAS BEEN FOUND TO COMPLY WITH THE PROVISION SET FORTH IN HC. 18.100 AND IS APPROVED FOR RECORDING WITH THE HAINES RECORDERS OFFICE DATED:

_____, 2015.

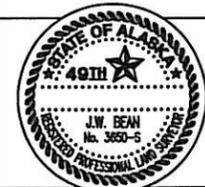
LEE HEINMILLER _____ DATE _____
 PLANNING COMMISSION CHAIR

JAN HILL _____ DATE _____
 MAYOR
 HAINES BOROUGH

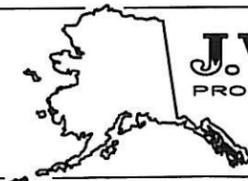
CERTIFICATE OF REGISTERED LAND SURVEYOR

I HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, LICENSED AND REGISTERED IN THE STATE OF ALASKA, AND THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT ALL DIMENSIONAL DETAILS AND RELATIVE BEARINGS ARE CORRECT AS SHOWN AND THAT ALL EASEMENTS AND RIGHT OF WAYS APPEARING ON THE LAND ARE AS SHOWN.

Date _____



DRAWN BY: GDM Graphics
CHECKED BY: J.W.B.
DRAWING DATE: 7-24-2015
FIELD BOOK:
SCALE: 1"=100'
JOB No.: HNS-2000-MEACOCK-LOT1A-4&5
REVISED:
GRID



J.W. BEAN INC.
 PROFESSIONAL SURVEYOR
 1070 ARCTIC CIRCLE
 JUNEAU - ALASKA
 (907) 780-0890
 SURVEYOR - PLANNER

CERTIFICATION OF BOROUGH ASSESSOR

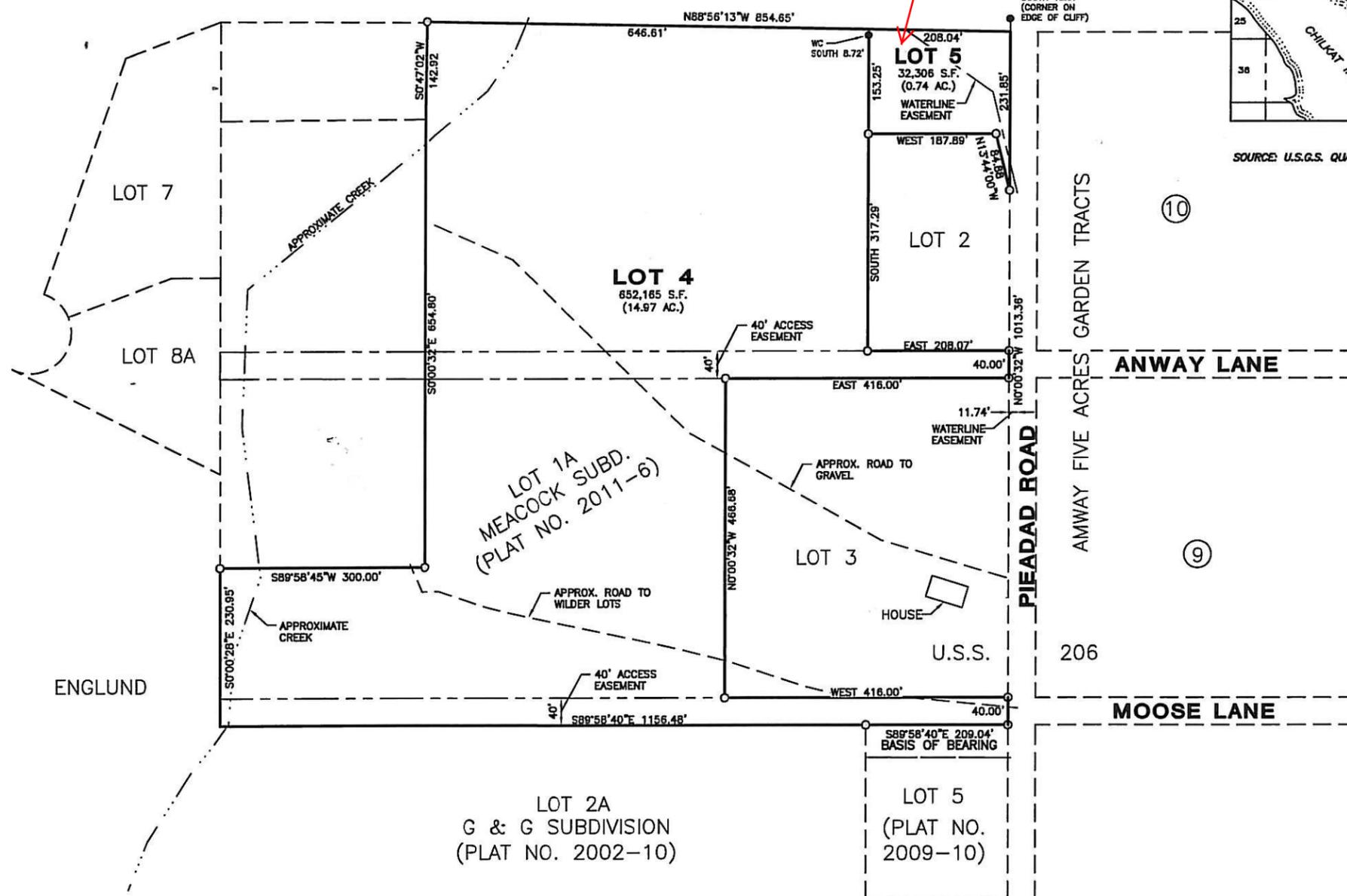
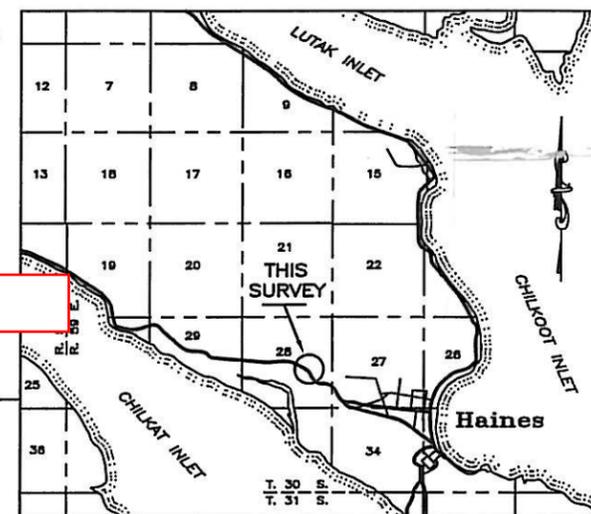
I HEREBY CERTIFY THAT THE APPLICANTS ARE NOT DELINQUENT ON PROPERTY TAXES FOR THE PROPERTY SPECIFIED ON THE SUBDIVISION PLAT SHOWN HEREON.

Dated _____, 2015.

Haines Borough Assessor _____

NOTE:

THIS PLAT IS IN THE RURAL RESIDENTIAL LAND USE ZONE



NOTES:

1. ALL PLAT BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARINGS.
2. ALL DISTANCES SHOWN ARE REDUCED TO HORIZONTAL.
3. LOTS WITHIN THIS SUBDIVISION ARE SERVED BY THE HAINES BOROUGH MUNICIPAL WATER AND SEWER SYSTEMS.

A PLAT OF
MEACOCK SUBDIVISION III
 A RE-PLAT OF
LOT 1A
MEACOCK SUBDIVISION II
 WITHIN U.S. SURVEY NO. 206
 WITHIN CITY OF HAINES, ALASKA
 HAINES RECORDING DISTRICT - HAINES, ALASKA

7/24/2015 12:02:08 PM AST
 ENGDM:BEAN/HAINES/HNS-2000-MEACOCKS-L101A-4&5.DWG

A Resolution of the Haines Borough Assembly supporting the proposed Piedad Springs Water Source Upgrades and authorizing the Borough Manager to acquire, in the best interests of the community, a portion of the property legally described as Lot 1A, Meacock Subdivision for use in that project.

WHEREAS, the Haines Borough's Piedad water system has been in use since 1951 and provides 20 percent of the townsite drinking water; and

WHEREAS, in early 2010 the Alaska Department of Environmental Conservation (DEC) determined that the Piedad water system was under the direct influence of surface water; and

WHEREAS, additional testing resulted in DEC making the determination that there may be surface water contamination to the Piedad Springs water source; and

WHEREAS, proposed upgrades to protect the Piedad Springs water source include a collection gallery, a new treatment building, and a storage tank; and

WHEREAS, the Piedad Springs Water Source Upgrades project would be funded with the \$353,775 remaining from a DEC Municipal Matching Grant (MMG) that pays up to 70 percent of the cost for selected projects, and a DEC loan of \$338,760 that includes a \$137,792 subsidy; and

WHEREAS, the design for required upgrades is currently at 65 percent and will need to go out to bid this summer to fully use the MMG funding that will expire June 30, 2016; and

WHEREAS, the design intrudes on a portion of the Arthur Meacock property legally described as Lot 1A, Meacock Subdivision; and

WHEREAS, Mr. Meacock is willing to sell the property for fair market value; and

WHEREAS, the land has been surveyed and the asking price is \$40,000 for 0.75 acres; and

WHEREAS, the Borough Assessor has determined this price to be in line with property values in the area; and

WHEREAS, the Borough Manager recommends proceeding with the Piedad Springs Water Source Upgrades project and acquisition of the Meacock property in the best interests of the community because losing the Piedad water source would lead to treating 20 percent more water at the treatment plant; and

WHEREAS, the proposed 2016 chemical budget is \$34,700, and the chemical cost would increase more than \$6,000 per year if Piedad water were treated at the plant, surpassing the proposed cost of the Meacock property acquisition within seven years; and

WHEREAS, the closing of this transaction is subject to, and dependent upon, the Haines Borough Assembly's appropriation of funds in the amount required for closing this transaction, pending approval of a budget amendment to appropriate \$40,000 of water fund user fees for the purchase; and

WHEREAS, Haines Borough Code Section 14.04.030 states that "[o]nly upon a specific resolution of the assembly, the manager may act on its behalf in the acquisition of real property or interest in real property when the property to be acquired is for a valuable consideration."

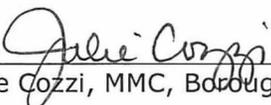
NOW, THEREFORE, BE IT RESOLVED BY THE HAINES BOROUGH ASSEMBLY:

Section 1. The Borough Manager is hereby authorized to acquire the real estate property as described above, from Arthur Meacock for the price hereinabove mentioned; and

Section 2. Effective Date. On or before the date of closing this transaction, non-code Ordinance 15-04-408 shall be adopted by the borough assembly appropriating sufficient funds for the acquisition.

Adopted by a duly-constituted quorum of the Haines Borough Assembly this 28th day of April, 2015.

Attest:


Julie Cozzi, MMC, Borough Clerk




Janice Hill, Mayor

August 7, 2015

PND 102029.10

Shawn Bell
Harbormaster
Haines Borough
P.O. Box 1209
Haines, Alaska 99827

Re: Portage Cove Harbor Expansion
95% Design Review Submittal

Dear Mr. Bell:

PND has prepared the 95% design review submittal for the Portage Cove Harbor Expansion project. This submittal contains plans, structural calculations, technical specifications, bid documents, project manual, cost estimate and schedule for the project at approximately 95% design completion.

Scope of Improvements

The scope of improvements under this phase of the project generally includes the following:

- 700 Ft Permeable Wave Barrier
- Entrance, basin expansion and inner harbor dredging along A & B Floats
- Rough graded parking area to allow upland disposal of a portion of the dredge spoils
- Relocation of existing sewer outfall line to allow dredging and wave barrier construction
- Mooring piles along the wave barrier and for the Transient Float

Scope and Design Issues

PND has addressed several additional scope items since the 65% design review submittal. A summary of the most significant items follows.

- 1. Seaplane Float & Transient Float:** Relocation of the seaplane float and partial demolition of the transient float were deleted from the scope as instructed. Both of these floats will remain in place upon completion of this project. The seaplane float will be temporarily relocated by the Borough following removal of pile hoops by the Contractor in order to complete the dredging under this float. The transient float will remain in place during dredging and all mooring piles will be replaced, utilizing mostly Borough supplied materials from your inventory. Please reconfirm the Borough's available pile inventory prior to bid – lengths and pile wall thickness. Replacing the mooring piles on the Transient Float will require disconnecting the existing lighting fixtures and power service then transferring them over to the new piles. Rather than adding electrical scope to this project, we recommend the Borough disconnect and then reconnect the power cables to the light fixtures. We will specify that the Contractor salvage and reattach the existing fixtures to the new piles. Please confirm this plan is acceptable.
- 2. 24" Mooring Piles on Inside of Wave Barrier:** At your request, we have added four each 24" diameter mooring piles to be installed along the inside of the wave barrier in order for the Borough to relocate existing work floats to that area. The piles will predominantly come from the Borough's inventory of left over material from the PC Dock. We will specify that the Contractor splice the required lengths, add cutting shoes and install the piles at the designed location. Please review the location for these four piles as shown on sheet 1.07.

3. **Parking Area Storm Drains:** PND has continued development of the upland parking/staging area and associated storm drains as shown on sheets 1.05 and 4.01. It is critical to the design of the new storm drains that we obtain the invert elevation for the existing 12" diameter drain pipe buried in the existing parking lot at the north end. This pipe connects to new manhole structure S2 and thus controls the design elevations of all downstream drain piping. Please take steps to uncover this pipe and determine its location both horizontally and vertically so we may complete the drainage design through the new fill area. PND will send a surveyor to Haines once the pipe is uncovered by the Borough.
4. **Wastewater Outfall Pipe:** PND has delivered the design plans and supporting calculations to ADEC for plan review. We have also delivered the Owner Statement documents to Brian Lemcke for Borough signature and remittance of payment to ADEC for conducting the review. Please confirm that the signed documents and fee payment have been forwarded to ADEC by the Borough.
5. **Staging and Parking Area Coordination during Construction:** The contractor will need a staging area during construction for staging equipment, materials and office trailers. We suggest the existing parking lot near the ice house be made available for this purpose with a public access corridor being maintained to the fuel dock, fuel tanks and ice house. Please confirm this is acceptable with the Borough and if not, where else the staging area can be located within close proximity to the work.
6. **Dredging Inner Harbor Areas:** We have added specification language under Section 02881 indicating the ongoing moorage activity within the existing harbor and requiring 7 day advance notice of any vessel aisle way closures. Closure would be limited to a maximum of 48 hours to allow vessels in and out of their stalls. Please confirm this closure period will work for the Borough. Secondly, in order to access the dredge area along the north side of Float A, the 24' finger floats may need to be removed, therefore those vessels will be displaced for up to 30 days. Please advise how you wish to manage the temporary relocation of these vessels under the construction contract.
7. **Wave Barrier:** Access ladders have been added at three locations along the inside face of the wave barrier as requested. Sacrificial anodes have been added to both sides of the wave barrier and on all bearing support piles for cathodic protection. The anodes are included under an Additive Alternate Bid Schedule as requested.

Project Budget

The attached cost estimate has been updated to reflect the current scope of improvements developed to a 95% design completion level. It incorporates the Borough's review and direction since delivery of the 65% design documents. The total project budget including contingency and all known indirect costs is estimated at \$21.69 million. The 95% estimate has increased by \$0.57 million since the 65% design submittal due to the additional scope items added by the Borough, consisting of the sacrificial anodes, access ladders and 13 new float mooring piles. Interestingly, the current 95% cost estimate is now the same as PND's initial 2014 planning level budget prepared prior to the commencement of the design phase. The bid schedule includes a base bid and four additive alternates as follows.

Bid Schedule	Estimated Total Project Cost*
Base Bid: 604 LF Wave Barrier, Primary Dredge Area, Parking Area, Sewer	\$ 19,173,970
Add. Alt A: Dredge Middle Basin & Transient Float Work	\$ 663,432
Add Alt. B: Dredge North Basin	\$ 73,920
Add Alt C: 97 LF South End Wave Barrier	\$ 1,357,110
Add Alt D: Sacrificial Anodes	\$ 423,808
Total Recommended Project Budget	\$ 21,692,239

State and Federal Permit Applications & Compensatory Mitigation

PND has previously delivered Hart Crowser's Biological Assessment (BA) and ecological Functional Assessment (FA) outlining the Borough's proposed Mitigation Plan as In Lieu fees contracted through SEAL Trust. We have also delivered an Alternatives Analysis as required under the Section 404(b)(1) Guidelines of the Clean Water Act. These documents along with the DA Permit Application were transmitted to the USACE for regulatory review in late July. Subsequent discussions with Randy Vigil at the USACE Juneau Regulatory Office indicate that the review period will be approximately 120 calendar days from date of submission. The earliest authorization date is currently estimated to be around the first of December 2015.

PND has received confirmation from the Environmental Protection Agency (EPA) that no further review is necessary from that agency to relocate the sewer outfall pipe. We have transmitted the engineering documents to ADEC for Plan Review as discussed in item 4 above and are currently awaiting their response.

Project Schedule

An updated project schedule is enclosed for your review. While the engineering design tasks are on schedule, the critical path to project completion remains with authorization of the environmental permits by state and federal regulatory agencies. We currently anticipate delivery of all permits by December 1, 2015 as can be seen at line 14 of the attached schedule. Typically all permit authorizations must be issued before the project is advertised for construction bids. Please advise whether the Borough wishes to wait until all permits are in hand before advertising the project or whether you wish to advertise in advance and then issue the permits by addendum. Final project completion is scheduled by June 30, 2017 to align with the current grant completion deadline.

The delivery and review of PND's 95% design submittal is shown on lines 15 and 16. The design phase remains on schedule with bid ready documents due on December 4th to align with the anticipated receipt of the permit authorizations. To meet that schedule we request your written review comments to this 95% design submittal by August 27th.

PND looks forward to receiving your comments to this 95% design submittal and would like to schedule a review work session at your earliest possible convenience. Please feel free to contact us if you have any immediate questions or concerns regarding the project. We look forward to our continued work with the Borough as we proceed with the preparation of stamped bid ready contract documents.

Sincerely,

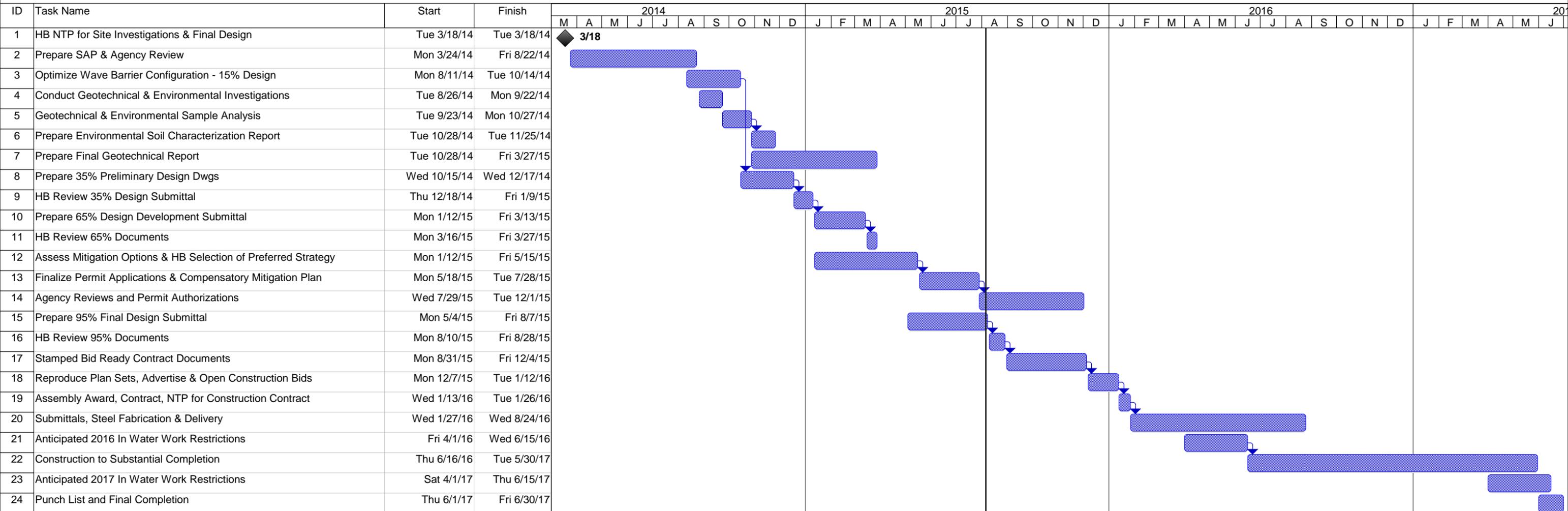
PND Engineers, Inc. | Juneau Office



Dick Somerville, P.E.
Vice President

Enclosures

SOUTH PORTAGE COVE HARBOR EXPANSION PROJECT SCHEDULE WAVE BARRIER, DREDGING, SEWER OUTFALL & PARKING AREA ROUGH GRADE



PND No. 102029 August 7, 2015	Task		Rolled Up Split		External Milestone		Duration-only		Progress	
	Split		Rolled Up Milestone		Inactive Task		Manual Summary Rollup		Deadline	
	Milestone		Rolled Up Progress		Inactive Milestone		Manual Summary			
	Summary		External Tasks		Inactive Summary		Start-only			
	Rolled Up Task		Project Summary		Manual Task		Finish-only			



**HAINES BOROUGH
PORTAGE COVE HARBOR EXPANSION
WAVE BARRIER, DREDGING, GRAVEL PARKING AREA &
SEWER LINE RELOCATION**



**95% DESIGN COMPLETION - COST ESTIMATE
AUGUST 7, 2015**

BASE BID

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	\$1,298,228	\$1,298,228
1570.1	Erosion and Sediment Control - Upland Measures and Monitoring	LS	All Req'd	\$20,000	\$20,000
1570.2	Silt Containment Boom with Navigation Lights	LF	1,500	\$30	\$45,000
2060.1	Demolition, Salvage and Disposal	LS	All Req'd	\$15,000	\$15,000
2060.2	Assist Owner with Seaplane Float Removal and Reinstallation	LS	All Req'd	\$5,000	\$5,000
2201.1	Clearing & Grubbing	AC	1.5	\$10,000	\$15,000
2202.1	Class A Shot Rock Borrow	CY	8,000	\$30	\$240,000
2202.2	Class B Shot Rock Borrow	CY	9,200	\$22	\$202,400
2204.1	Base Course Grading C-1	CY	400	\$50	\$20,000
2205.1	Class II Armor Rock	CY	3,400	\$60	\$204,000
2205.2	Class III Armor Rock	CY	3,100	\$70	\$217,000
2401.1	Furnish 16" Dia. HDPE Wastewater Outfall Pipe	LF	2,540	\$50	\$127,000
2401.2	Install 16" Dia. HDPE Wastewater Outfall Pipe Sta. 1+50 - 6+50	LF	505	\$80	\$40,400
2401.3	Install 16" Dia. HDPE Wastewater Outfall Pipe Sta. 6+50 - 8+25	LF	180	\$110	\$19,800
2401.4	Install 16" Dia. HDPE Wastewater Outfall Pipe Sta. 8+25 - 26+50	LF	1,840	\$320	\$588,800
2401.5	Furnish and Install Wastewater Outfall Diffuser	LS	All Req'd	\$20,000	\$20,000
2401.6	Connect to Existing 16" Dia. HDPE Outfall Pipe	LS	All Req'd	\$8,000	\$8,000
2402.1	Furnish and Install Wastewater Outfall Concrete Anchor, Type I	EA	170	\$100	\$17,000
2402.2	Furnish and Install Wastewater Outfall Concrete Anchor, Type II	EA	15	\$125	\$1,875
2501.1	12" CPEP Storm Drain Pipe	LF	160	\$50	\$8,000
2501.2	24" CPEP Storm Drain Pipe	LF	110	\$100	\$11,000
2501.3	36" CPEP Storm Drain Pipe	LF	560	\$120	\$67,200
2501.4	Clean Existing Storm Drain Pipe to Upstream Manhole	LS	All Req'd	\$3,000	\$3,000
2501.5	Connect to Existing Storm Drain Pipe	EA	4	\$1,000	\$4,000
2502.1	Storm Drain Manhole Type I	EA	3	\$10,000	\$30,000
2502.2	Storm Drain Manhole Type II	EA	1	\$5,000	\$5,000
2502.3	Storm Drain Oil-Water Separator	EA	1	\$40,000	\$40,000
2502.4	Storm Drain Outfall Structure	LS	All Req'd	\$40,000	\$40,000
2702.1	Construction Surveying	LS	All Req'd	\$200,000	\$200,000
2714.1	Geotextile Fabric	SY	15,000	\$4	\$60,000
2881.1	Dredging and Offshore Disposal	CY	88,000	\$25	\$2,200,000
2881.2	Dredging and Onshore Placement at Parking Area	CY	25,000	\$35	\$875,000
2896.1	Furnish & Install Wave Barrier Pile, 24 Inch Dia. X 0.500 Inch Thick w/Sheetpile Wing	EA	113	\$30,000	\$3,390,000
2896.2	Furnish Work Float Pile, 24 Inch Dia. X 0.500 Inch Thick	LF	40	\$150	\$6,000
2896.3	Furnish Bearing Pile, 30 Inch Dia. X 0.750 Inch Thick	LF	6,840	\$240	\$1,641,600
2896.4	Install Work Float Pile, 24 Inch Dia. X 0.500 Inch Thick Steel Pile	EA	4	\$5,000	\$20,000
2896.5	Install Bearing Pile, 30 Inch Dia. X 0.750 Inch Thick	EA	38	\$24,000	\$912,000
2896.6	SPIN FIN®, 30 Inch Dia. Pile	EA	36	\$5,000	\$180,000
2896.7	Field Splice Work Float Pile, 24 Inch Dia	EA	10	\$3,000	\$30,000
2896.8	Furnish & Install Cutting Shoe, 24 Inch Dia. Pile	EA	3	\$2,000	\$6,000
2900.1	Contingent Work - Drill Equipment Mobilization	CS	All Req'd	\$40,000	\$40,000
2900.2	Contingent Work - Equipment Rental	CMO	3	\$50,000	\$150,000
2900.3	Contingent Work - Drill Pile	CEA	10	\$25,000	\$250,000
2901.1	Furnish & Install Barrier Waler	LF	604	\$550	\$332,200
2901.2	Furnish & Install Bearing Cap & Connection	EA	19	\$25,000	\$475,000
2901.3	Wave Barrier Amenities - Fenders, Ladders, Nav. Light, Armor Excavation, Misc.	LS	All Req'd	\$200,000	\$200,000
ESTIMATED CONSTRUCTION BASE BID PRICE					\$14,280,503
CONTINGENCY (7%)					\$999,635
CONTRACT ADMIN & CONSTRUCTION INSPECTION					\$999,635
COMPENSATORY MITIGATION					\$100,000
PLANNING, ALTERNATIVES ANALYSIS & PUBLIC INVOLVEMENT					\$260,777
ENVIRONMENTAL INVESTIGATIONS, HABITAT STUDIES & PERMITTING					\$417,740
GEOTECHNICAL INVESTIGATIONS					\$878,946
SITE TOPOGRAPHIC & BATHYMETRIC SURVEYS					\$96,893
FINAL ENGINEERING DESIGN & BID READY CONTRACT DOCUMENTS					\$1,139,841
TOTAL RECOMMENDED PROJECT BUDGET					\$19,173,970

ADDITIVE ALTERNATE A-DREDGING MIDDLE BASIN AND TRANSIENT FLOAT WORK

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1-A	Mobilization	LS	All Req'd	\$53,850	\$53,850
2060.1-A	Demolition, Salvage and Disposal	LS	All Req'd	\$25,000	\$25,000
2060.3-A	Remove, Salvage and Reinstall Existing Light Fixtures	LS	All Req'd	\$5,000	\$5,000
2205.1-A	Class II Armor Rock	CY	200	\$60	\$12,000
2881.1-A	Dredging and Offshore Disposal	CY	14,300	\$30	\$429,000
2896.9-A	Furnish Transient Float Pile, 12.75 Inch Dia. X 0.500 Inch Thick	LF	140	\$75	\$10,500
2896.10-A	Install Transient Float Pile, 12.75 Inch Dia. X 0.500 Inch Thick	EA	9	\$4,000	\$36,000
2896.11-A	Field Splice Transient Float Pile, 12.75 inch Dia.	EA	7	\$2,000	\$14,000
2896.12-A	Furnish & Install Cutting Shoe, 12.75 Inch Dia. Pile	EA	7	\$1,000	\$7,000
ESTIMATED CONSTRUCTION ADDITIVE ALTERNATE A BID PRICE					\$592,350
CONTINGENCY (5%)					\$29,618
CONTRACT ADMIN & CONSTRUCTION INSPECTION					\$41,465
TOTAL RECOMMENDED PROJECT BUDGET					\$663,432

ADDITIVE ALTERNATE B-DREDGING NORTH BASIN

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1-B	Mobilization	LS	All Req'd	\$6,000	\$6,000
2881.1-B	Dredging and Offshore Disposal	CY	2,000	\$30	\$60,000
ESTIMATED CONSTRUCTION ADDITIVE ALTERNATE B BID PRICE					\$66,000
CONTINGENCY (5%)					\$3,300
CONTRACT ADMIN & CONSTRUCTION INSPECTION					\$4,620
TOTAL RECOMMENDED PROJECT BUDGET					\$73,920

ADDITIVE ALTERNATE C-SOUTH END OF WAVE BARRIER

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1-C	Mobilization	LS	All Req'd	\$110,155	\$110,155
2896.1-C	Furnish & Install Wave Barrier Pile, 24 Inch Dia. X 0.500 Inch Thick w/Sheetpile Wing	EA	18	\$30,000	\$540,000
2896.3-C	Furnish Bearing Pile, 30 Inch Dia. X 0.750 Inch Thick	LF	1,080	\$240	\$259,200
2896.5-C	Install Bearing Pile, 30 Inch Dia. X 0.750 Inch Thick	EA	6	\$24,000	\$144,000
2896.6-C	SPIN FIN®, 30 Inch Dia. Pile	EA	6	\$5,000	\$30,000
2901.1-C	Furnish & Install Barrier Waler	LF	97	\$550	\$53,350
2901.2-C	Furnish & Install Bearing Cap & Connection	EA	3	\$25,000	\$75,000
ESTIMATED CONSTRUCTION ADDITIVE ALTERNATE C BID PRICE					\$1,211,705
CONTINGENCY (5%)					\$60,585
CONTRACT ADMIN & CONSTRUCTION INSPECTION					\$84,819
TOTAL RECOMMENDED PROJECT BUDGET					\$1,357,110

ADDITIVE ALTERNATE D-ANODES

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1-D	Mobilization	LS	All Req'd	\$34,400	\$34,400
2996.1-D	Supply Anode	EA	360	\$475	\$171,000
2996.2-D	Install Anode	EA	360	\$425	\$153,000
2996.3-D	Field Photos, Continuity, Potential Readings & Report	LS	All Req'd	\$20,000	\$20,000
ESTIMATED CONSTRUCTION ADDITIVE ALTERNATE D BID PRICE					\$378,400
CONTINGENCY (5%)					\$18,920
CONTRACT ADMIN & CONSTRUCTION INSPECTION					\$26,488
TOTAL RECOMMENDED PROJECT BUDGET					\$423,808

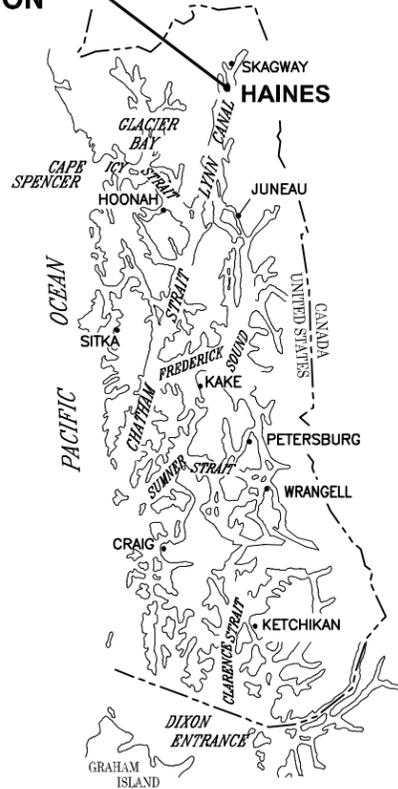
NOTE: Costs for the parking area assume a gravel surface. Future paving, sidewalks, curbs, utilities, landscaping, restrooms and lighting improvements are not included in this estimate.

HAINES BOROUGH PORTAGE COVE HARBOR EXPANSION

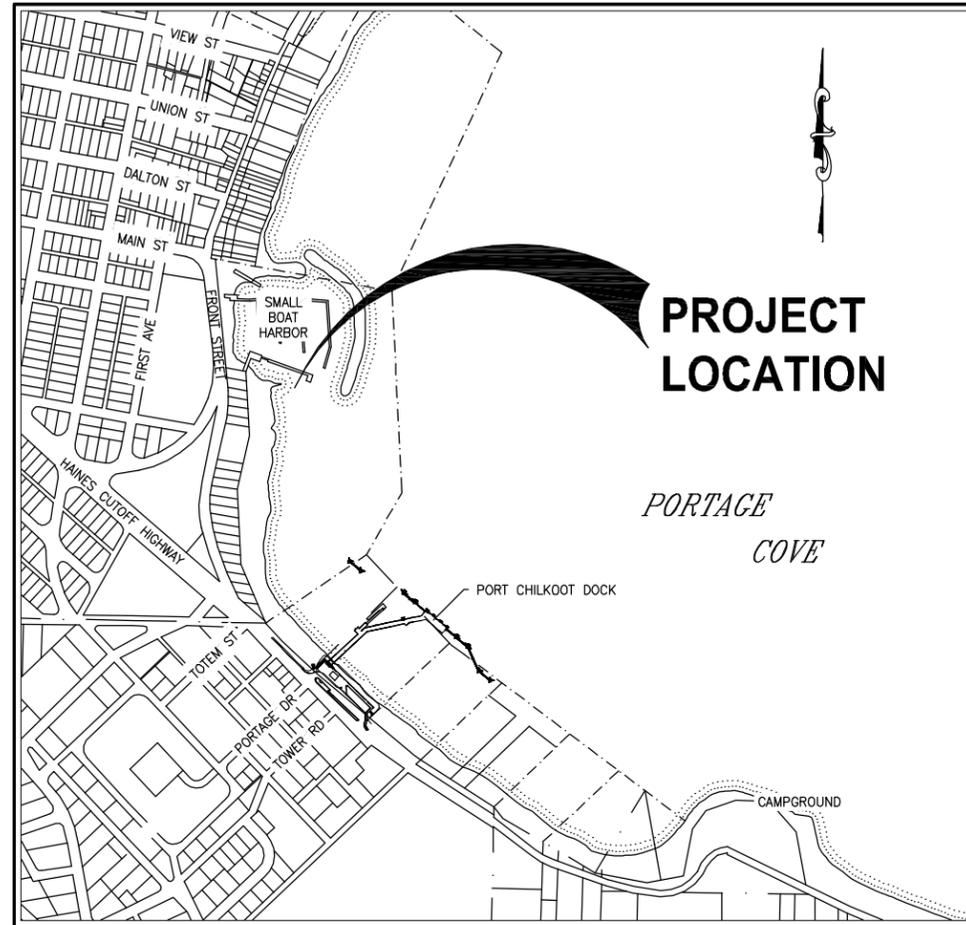


LOCATION MAP

PROJECT LOCATION



SOUTHEAST ALASKA



VICINITY MAP

MAP ADAPTED FROM:
HAINES BOROUGH GIS



DRAWING INDEX			
SHEET NO.	DWG. NO.		TITLE
GENERAL			
1	OF 29	1.01	COVER SHEET, VICINITY MAPS AND DRAWING INDEX
2	OF 29	1.02	GENERAL NOTES, LEGEND AND ABBREVIATIONS
3	OF 29	1.03	EXISTING CONDITIONS, SURVEY CONTROL & BH LOCATIONS
4	OF 29	1.04	EXISTING CONDITIONS AND SITE PHOTOGRAPHS
5	OF 29	1.05	GENERAL SITE PLAN
6	OF 29	1.06	DEMOLITION, SALVAGE & DISPOSAL PLAN
7	OF 29	1.07	FLOAT PILE LAYOUT, SCHEDULE AND DETAILS
WASTEWATER OUTFALL			
8	OF 29	2.01	WASTEWATER OUTFALL PLAN & PROFILE
9	OF 29	2.02	WASTEWATER OUTFALL DETAILS
10	OF 29	2.03	WASTEWATER OUTFALL DIFFUSER DETAILS
DREDGING			
11	OF 29	3.01	DREDGING PLAN
12	OF 29	3.02	DREDGING SECTIONS
13	OF 29	3.03	DREDGING OFFSHORE DISPOSAL PLAN
UPLANDS			
14	OF 29	4.01	UPLAND GRADING AND DRAINAGE PLAN
15	OF 29	4.02	UPLAND SECTIONS AND LAYOUT TABLES
16	OF 29	4.03	STORM DRAIN DETAILS
WAVE BARRIER			
17	OF 29	5.01	WAVE BARRIER SITE PLAN
18	OF 29	5.02	WAVE BARRIER NORTH PARTIAL PLAN
19	OF 29	5.03	WAVE BARRIER SOUTH PARTIAL PLAN
20	OF 29	5.04	PARTIAL ELEVATION
21	OF 29	5.05	TYPICAL SECTIONS
22	OF 29	5.06	PILE SCHEDULE
23	OF 29	5.07	PILE SCHEDULE
24	OF 29	5.08	BEARING PILES AND WALERS
25	OF 29	5.09	BEARING PILE DETAILS
26	OF 29	5.10	BOX CAP DETAILS
27	OF 29	5.11	FENDER AND MARINE SIGNAL LIGHT
28	OF 29	5.12	LADDER
29	OF 29	5.13	PILE ANODES

PND ENGINEERS, INC. (PND) IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. DRAWINGS ARE FOR THE USE OF THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

TIDAL DATA

HIGHEST OBSERVED WATER LEVEL (APPROX.) = 26.5 FEET
MEAN HIGHER HIGH WATER = 16.7 FEET
MEAN HIGH WATER = 15.7 FEET
MEAN LOWER WATER = 1.6 FEET
MEAN LOWER LOW WATER = 0 FEET
LOWEST OBSERVED WATER LEVEL (APPROX.) = -6.5 FEET

FROM: NOAA NOS/CO-OPS STATION ID: 9452400 SKAGWAY, ALASKA

PROJECT SCHEDULE

DESCRIPTION	SCHEDULE
1. SUBSTANTIAL COMPLETION	MAY 31, 2017
2. FINAL COMPLETION OF ALL WORK UNDER THIS CONTRACT.	JUNE 30, 2017

95% DESIGN REVIEW SUBMITTAL



REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



ENGINEERS, INC.

9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
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DESIGN: TCB CHECKED: CRS
DRAWN: PJD APPROVED: CRS

SCALE: AS SHOWN

DATE: 8/7/15

HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION

SHEET TITLE:
**COVER SHEET, VICINITY MAPS
AND DRAWING INDEX**

1.01

SHEET
1 OF 29

PND PROJECT NO.: 102029

GENERAL NOTES

1. EROSION AND POLLUTION CONTROL PLANS

THE CONTRACTOR SHALL DEVELOP AND SUBMIT FOR ENGINEER AND AGENCY REVIEW AND APPROVAL A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THIS PLAN SHALL INCLUDE AN EROSION AND SEDIMENT CONTROL PLAN BASED UPON THE CONTRACTOR'S SCHEDULING, EQUIPMENT AND WORK. TO THE GREATEST EXTENT POSSIBLE FOLLOW THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES (ADOT/PF) ALASKA STORM WATER POLLUTION PREVENTION PLAN GUIDE (ASWPPPG). THE PLAN SHALL CONSIDER FIRST PREVENTING EROSION, THEN MINIMIZING AND TRAPPING SEDIMENT PRIOR TO ITS ENTERING THE WATERWAYS. THE PLAN MUST ADDRESS THE SITE-SPECIFIC CONTROLS AND MANAGEMENT FOR THE CONSTRUCTION SITE AS WELL AS ALL MATERIAL SITES, WASTE DISPOSAL SITES AND AFFECTED AREAS. THE PLAN MUST INCORPORATE ALL THE REQUIREMENTS OF THE PROJECT PERMITS. BEST MANAGEMENT PRACTICES AS LISTED IN THE ASWPPPG SHALL BE USED.

THE CONTRACTOR SHALL PREPARE A HAZARDOUS MATERIAL CONTROL PLAN (HMCP) FOR THE HANDLING, STORAGE, CLEAN-UP AND DISPOSAL OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES. THE CONTRACTOR SHALL LIST AND GIVE LOCATIONS OF ALL HAZARDOUS MATERIALS, INCLUDING FIELD OFFICE MATERIALS, TO BE USED AND STORED ON-SITE AND THEIR ESTIMATED QUANTITIES. THE PLAN SHALL PROVIDE DETAILS FOR STORING THESE MATERIALS AS WELL AS DISPOSING WASTE PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS GENERATED BY THE PROJECT.

IDENTIFY THE LOCATIONS WHERE HAZARDOUS MATERIAL STORAGE, FUELING AND MAINTENANCE ACTIVITIES WILL TAKE PLACE. IF ON-SITE, DESCRIBE THE MAINTENANCE ACTIVITIES AND LIST ALL CONTROLS TO PREVENT THE ACCIDENTAL SPILLAGE OF OIL, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS. DETAIL PROCEDURES FOR CONTAINMENT AND CLEANUP OF HAZARDOUS SUBSTANCES INCLUDING A LIST OF THE TYPES AND QUANTITIES OF EQUIPMENT AND MATERIALS AVAILABLE ON-SITE TO BE USED.

THE PLAN SHALL PROVIDE DETAILS FOR PREVENTION, CONTAINMENT, CLEAN-UP AND DISPOSAL OF SOIL AND WATER CONTAMINATED BY ACCIDENTAL SPILLS AND FOR UNEXPECTED CONTAMINATED SOIL AND WATER ENCOUNTERED DURING CONSTRUCTION.

2. MATCH EXISTING GRADES AT PROJECT LIMITS AND WHERE REQUIRED TO MATCH ELEVATIONS AT EXISTING ROADS.

3. THE LOCATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADDITIONAL UTILITIES MAY BE PRESENT HOWEVER ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY, PRIOR TO BEGINNING WORK. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTOR'S RECORD DRAWINGS. CONTACT LOCAL UTILITY COMPANIES PRIOR TO ANY/ ALL EXCAVATIONS AT THE FOLLOWING TELEPHONE NUMBERS:

WATER AND WASTE MATERIAL (907) 766-2237 OR 766-2200
 POWER AND LIGHT (AP&T) (907) 766-2331
 CATV (907) 766-2137
 TELEPHONE (GTE) (907) 766-2311

4. PROPERTY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION OR BETTER AT NO ADDITIONAL COST.

5. GRADING AND ALIGNMENT OF PIPE, STRUCTURES & FINAL SURFACING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER TO FIT SITE CONDITIONS. GRADE ALL IMPROVEMENTS WITH POSITIVE DRAINAGE AWAY FROM STRUCTURES.

6. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY.

LEGEND

EXISTING	THIS PROJECT	
— OHE _x —	— OHE —	OVERHEAD ELECTRICAL
— FU _x —		BURIED FUEL LINE
— EU _x —	— E —	ELECTRICAL (UNDERGROUND)
— W _x —	— W —	WATER
— SS _x —	— SS —	SANITARY SEWER
	— SS _A —	SANITARY SEWER (ABANDONED)
— ROW —		RIGHT-OF-WAY
— CU _x —		COMMUNICATION (CABLE/TEL)
— FM _x —	— SD — OR — 12 —	STORM DRAIN FORCE MAIN
	— ? — ? —	INFERRED SOIL STRATUM CHANGE
	— - - - -	PROPERTY LINE
	— - - - -	GRADE BREAK
	— x — x —	GEOTEXTILE FABRIC

LEGEND

EXISTING	THIS PROJECT	
		ARTWORK/ DISPLAYS
		GUY WIRE ANCHOR
		SURVEY CONTROL
		NAVIGATION AID
		UTILITY POLE
		BOLLARD
		CURB & GUTTER
		ELECTRICAL TRANSFORMER
		ELECTRICAL VAULT
		ELECTRICAL HANDHOLE
		FIRE HYDRANT
		LIGHT POLE
		TRAFFIC SIGNAL
		SANITARY SEWER MANHOLE STORM DRAIN MANHOLE
		STORM DRAIN INLET
		SIGN
		TREE/VEGETATION
		LAYOUT POINT
		LAYOUT RADIUS
		GUARDRAIL
		WATER VALVE
		SECTION OR DETAIL CALLOUT
		LOCATION OF DETAIL OR REFERENCE DRAWING

ABBREVIATIONS

A	AT	H	H&T	Q	QTY	QUANTITY
@	ASBESTOS CEMENT PIPE	HD	HUB & TACK	R	R/RAD	RADIUS
AC	ASPHALT CONCRETE PAVEMENT	HDPE	HOT-DIPPED GALVANIZED	RE	REF	RIM ELEVATION
ACP	AMERICANS WITH DISABILITIES ACT	HORIZ	HORIZONTAL	REF	REF	REFERENCE
ADA	ADJUSTABLE	HSE	HOUSE	REINF	REINFORC	REINFORCEMENT
ADJ	ASSOCIATED PILE AND FITTING CORP.	HT	HEIGHT	REQD	REQD	REQUIRED
APF	APPROXIMATE	HWY.	HIGHWAY	RET	RET	RETAINING
APPROX. or APPX.	ALASKA TIDELANDS SURVEY	I	IN ACCORDANCE WITH	RO	ROW	ROUGH OPENING
ATS	AIR RELEASE VALVE	I	IN ACCORDANCE WITH	ROW	ROW	RIGHT OF WAY
AV	BEGINNING OF CURB CUT	IAW	INSIDE DIAMETER	S	S	SOUTH
B	BUTTERFLY VALVE	IE	INVERT ELEVATION	S	S	SOUTH
BCC	BOREHOLE	IN	INCH	SCHED/SCH	SCHEDULE	SCHEDULE
BFV	BUILDING	IP	IRON PIPE	SD	SD	STORM DRAIN
BH	BEGINNING OF PROJECT	INCL	INCLUDE (D) (ING)	SDI	SDI	STORM DRAIN INLET STRUCTURE
BLDG	BOTTOM	INSUL	INSULATE (D) (ION)	SDO	SDO	STORM DRAIN OUTLET STRUCTURE
BOP/BP	CURB & GUTTER	INV	INVERT	SDR	SDR	STANDARD DIMENSION RATIO
BTM, BOT	CATCH BASIN	J	JUNCTION BOX	SF	SF	SQUARE FOOT
C	CAST IRON	JB	JUNCTION BOX	SHLDR	SHLDR	SHOULDER
C&G	CAST-IN-PLACE	L	CAST IRON	SI	SI	STREET INTERSECTION
CB	CONTROL JOINT	LBS	POUNDS	SPEC	SPEC	SPECIFICATION (S)
CB	CENTER LINE	LF	LINEAR FEET	SQ	SQ	SQUARE
CI	CLEAR	LL	LIVE LOAD	SRB	SRB	SHOT ROCK BORROW
CIP	CORRUGATED METAL PIPE	LOC	LOCATION	SSC	SSC	SANITARY SEWER CONNECTION
CJ	CLEANOUT	LS	LUMP SUM	SS	SS	STAINLESS STEEL, SANITARY SEWER
CJ	CORPS OF ENGINEERS	M	CORRUGATED METAL PIPE	SDMH	SDMH	STORM DRAIN MANHOLE
CL	COMMUNICATION	MAX	MAXIMUM	SSMH	SSMH	SANITARY SEWER MANHOLE
CLR	CONCRETE	M.E.	MATCH EXISTING	STA	STA	STATION
CLR	COMPLETE PENETRATION	MECH	MECHANICAL	STD	STD	STANDARD
CMP	CORRUGATED POLYETHYLENE PIPE	MFR	MANUFACTURE (R)	STL	STL	STEEL
CO	CORNER	MH	MANHOLE	STRG	STRG	STRONG
C.O.E.	COUNTERSINK	MJ	MECHANICAL JOINT	SW	SW	SIDEWALK
COMM	CENTER	MI	MALLEABLE IRON	SWR	SWR	SEWER
CONC.	CUBIC YARD	MIN	MINIMUM	SY	SY	SQUARE YARD
CONC.	DISSIMILAR PIPE COUPLING	MLLW	MEAN LOWER LOW WATER	SYM	SYM	SYMMETRICAL
CP	DIAMETER	MSF	1000 SQUARE FEET	T	T	THICK
CPEP/CPP	DOUBLE	MSE	MECHANICALLY STABILIZED EARTH	t	t	THICK
COR	DEMOLITION	MTL	MATERIAL (S)	T&B	T&B	TOP AND BOTTOM
CSC	DEAD LOAD	N	NORTH	T&G	T&G	TONGUE AND GROOVE
CSC	DUCTILE IRON PIPE	N	NORTH	TBC	TBC	TOP BACK OF CURB
CTR	DIMENSION	NFS	NON FROST SUSCEPTIBLE	TBD	TBD	TO BE DETERMINED
CY	DOWN	NIC	NOT IN CONTRACT	TBM	TBM	TEMPORARY BENCH MARK
D	DETAIL	NO	NUMBER	TD	TD	TRENCH DRAIN
DCP	EAST	NTS	NOT TO SCALE	TEL	TEL	TELEPHONE
D/DIA	EACH	O	OVERBURDEN	TEMP	TEMP	TEMPERATURE, TEMPORARY
DBL	EDGE OF CONCRETE	OBD	ON CENTER	TH	TH	TEST HOLE
DEMO	END OF CURB CUT	OC	ON CENTER	THK	THK	THICK
DL	EXISTING GRADE	OD	OUTSIDE DIAMETER	TRANS	TRANS	TRANSVERSE
DIP	EXPANSION JOINT	OG	ORIGINAL GOUND	TV	TV	TELEVISION
DIP	ELEVATION	OHE	OVERHEAD ELECTRICAL	TYP	TYP	TYPICAL
DIM	ELECTRICAL	OWS	OIL-WATER SEPARATOR	U	U	UNIFORM BUILDING CODE
DN	END OF PAVEMENT	OPP	OPPOSITE	UBC	UBC	UNIFORM BUILDING CODE
DTL	END PROJECT	P	PIPE	UE	UE	UNDERGROUND ELECTRIC
E	EQUAL	PC	POINT OF CURVATURE, PIECE	UMC	UMC	UNIFORM MECHANICAL CODE
E	EQUIPMENT	PCC	PRECAST CONCRATE	UHMW	UHMW	ULTRA HIGH MOLECULAR WEIGHT
EA.	ESTIMATE	PE	POLYETHYLENE	UON/UNO	UON/UNO	UNLESS OTHERWISE NOTED
EC	EACH WAY	PED	PEDESTAL	UPC	UPC	UNIFORM PLUMBING CODE
ECC	EXCAVATE	PER	PERIMETER	V	V	VALVE BOX
EG	EXISTING	PERF	PERFORATE (D)	VB	VB	VERTICAL
EJ	FACE OF CURB	PI	POINT OF INTERSECTION	VG	VG	VALLEY GUTTER
EL/ELEV	FLOOR DRAIN	PLWD	PLYWOOD	W	W	WEST
ELEL	FIRE HYDRANT, FLAT HEAD	PL	PROPERTY LINE, PLATE	W/	W/	WITH
EP	FINISH (ED)	POC	POINT OF CURVE	WD	WD	WOOD
EP	FINISHED GRADE	PP	POLYPROPYLENE	WELDMT	WELDMT	WELDMENT
EQ	FINISHED GRADE	PRC	POINT OF REVERSE CURVATURE	WL	WL	WATERLINE
EQUIP	FINISH (ED)	PROJ	PROJECT	WQU	WQU	WATER QUALITY UNIT
EST	FORCE MAIN SEWER	PRKG	PARKING	WV	WV	WATER VALVE
EW	FOUNDATION	PRV	PRESSURE REDUCING VALVE	WW	WW	WATER WATER
EXC	FACE OF CURB	PSI	POUND PER SQUARE INCH	WWTP	WWTP	WASTE WATER TREATMENT PLANT
EXIST	FOOT	PT	POINT, PRESSURE TREATED,	W/O	W/O	WITHOUT
F	FOOTING	PVC	POINT OF TANGENCY	X	X	TRANSFORMER
FC	FLOWLINE OR FLANGE	PVI	POINT OF VERTICAL CURVATURE,	XFMR	XFMR	TRANSFORMER
FD	GALLON		POLY-VINYL CHLORIDE	<PT	<PT	ANGLE POINT
FD	GALVANIZED					
FF	GRADE BREAK					
FG	GALLONS PER MINUTE					
FG	GROUND					
FH	GATE VALVE					
FIN						
FM						
FND						
FOC						
FT						
FTG						
FL						
G						
GAL						
GALV						
GB						
GPM						
GRD						
GV						

95% DESIGN REVIEW SUBMITTAL



REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

P | N | D
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 9360 Glacier Highway, Ste. 100
 Juneau, Alaska 99801
 Phone: 907-586-2093
 Fax: 907-586-2099
 www.pndengineers.com

DESIGN: TCB CHECKED: CRS SCALE: NTS
 DRAWN: KLL APPROVED: CRS

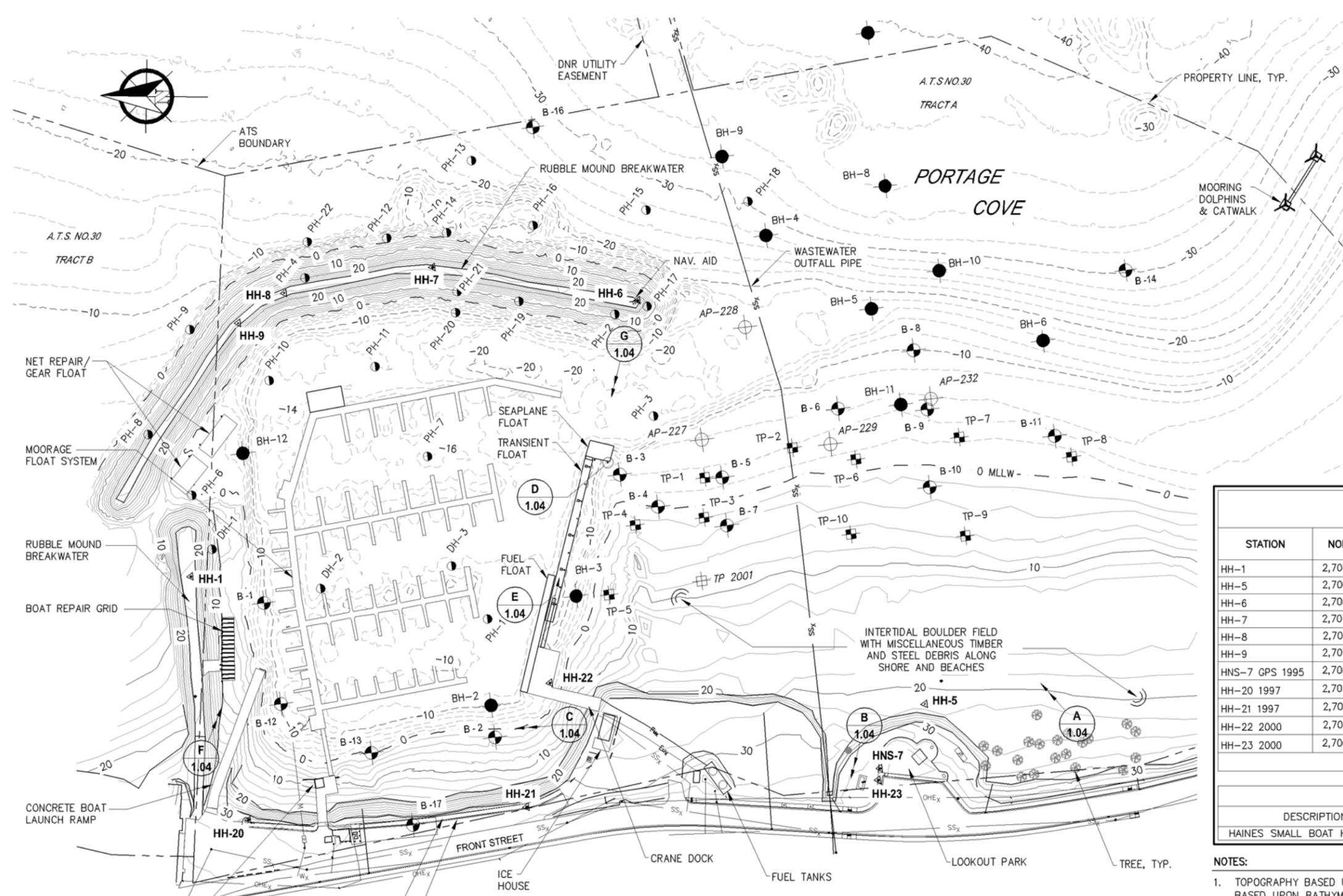
DATE: 8/7/15

**HAINES BOROUGH
 PORTAGE COVE
 HARBOR EXPANSION**

SHEET TITLE:
**GENERAL NOTES, LEGEND AND
 ABBREVIATIONS**

1.02
 SHEET
 2 OF 29

PND PROJECT NO.: 102029



LEGEND

- B-1 PND ENGINEERS, INC.: BOREHOLE, (2014)
- BH-2 PND ENGINEERS, INC.: BOREHOLE, (2012)
- TP-8 PND ENGINEERS, INC.: TEST PIT, (2010)
- DH-1 PH-1 U.S. ARMY CORPS OF ENGINEERS: PROBE AND DRILLHOLES, (1957, 1973, 1975) LOCATION APPROXIMATE
- AP-232 U.S. ARMY CORPS OF ENGINEERS: BOREHOLE, (2004) LOCATION APPROXIMATE
- TP 2001 U.S. ARMY CORPS OF ENGINEERS: TEST PIT, (2000) LOCATION APPROXIMATE

A 1.04 SITE PHOTO ORIENTATION

SURVEY CONTROL DATA

STATION	NORTHING	EASTING	ELEV (MLLW)	ELEV (NAVD88)	DESCRIPTION
HH-1	2,707,596.79	2,353,756.26	25.64	21.80	USACE SURVEY MARK SBC
HH-5	2,706,584.96	2,353,459.66	24.60	18.32	DESTROYED
HH-6	2,706,922.52	2,354,071.75	25.74	21.90	USACE SURVEY MARK SBC
HH-7	2,707,206.44	2,354,151.36	26.12	22.28	USACE SURVEY MARK SBC
HH-8	2,707,421.75	2,354,139.73	24.73	20.89	USACE SURVEY MARK SBC
HH-9	2,707,492.29	2,354,105.04	25.52	21.68	USACE SURVEY MARK SBC
HNS-7 GPS 1995	2,706,656.27	2,353,376.15	35.62	31.78	AKDOT 3.25" DOMED BRASS CAP
HH-20 1997	2,707,554.58	2,353,405.42	32.22	28.38	USACE 3.25" DOMED BRASS CAP
HH-21 1997	2,707,160.36	2,353,378.82	33.55	29.71	USACE 3.25" DOMED BRASS CAP
HH-22 2000	2,707,107.68	2,353,549.09	26.66	22.82	USACE 3.25" DOMED BRASS CAP
HH-23 2000	2,706,660.66	2,353,360.01	35.54	31.70	USACE 3.25" DOMED BRASS CAP

SEE NOTE 2 FOR CONTROL DATA DETAILS.

NAVIGATION AIDS			
DESCRIPTION	USCG No.	NORTHING	EASTING
HAINES SMALL BOAT HARBOR LIGHT 2	23910	2,706,927.5	2,354,070.8

- NOTES:**
- TOPOGRAPHY BASED UPON FIELD SURVEY BY PND CONDUCTED IN MAY 2013. BATHYMETRY BASED UPON BATHYMETRIC SURVEYS CONDUCTED WITH PND, CONCURRENT (MAY 2013) BY RICK BRAUN (LS 5485) AND DAVID EVANS ASSOCIATES.
 - HORIZONTAL AND VERTICAL CONTROL PROVIDED BY THE USACE "HAINES HARBOR CONDITION SURVEY" CONDUCTED IN JULY 2011. SEE ADDITIONAL NOTES FROM THIS SURVEY.
 - ALL EXISTING UTILITIES ARE SHOWN APPROXIMATE FROM SURVEYED INFORMATION AND ALSO AS-BUILT RECORDS PROVIDED BY THE HAINES BOROUGH.
 - BOREHOLE LOGS & ADDITIONAL GEOTECHNICAL INFORMATION AVAILABLE IN HAINES BOROUGH SOUTH PORTAGE COVE HARBOR EXPANSION GEOTECHNICAL ENGINEERING REPORT, MARCH 2015, PND ENGINEERS, INC.

EXISTING CONDITIONS SITE PLAN

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HAINES BOROUGH PORTAGE COVE HARBOR EXPANSION

SHEET TITLE: **EXISTING CONDITIONS, SURVEY CONTROL & BH LOCATIONS**

1.03

SHEET 3 OF 29

PND PROJECT NO.: 102029

DATE: 8/7/15



A INTERTIDAL BOULDERS W/ TIMBER, CONCRETE, STEEL DEBRIS AND ORGANICS



B ARTWORK/ DISPLAY TO BE RELOCATED



C DREDGE AREA (C) LOOKING NORTH



D SEAPLANE FLOAT PILE HOOPS TO BE REMOVED, SALVAGED AND REINSTALLED



E TRANSIENT FLOAT PILES TO BE REPLACED LIGHTS AND OVERHEAD ELECTRICAL LINES TO BE REMOVED AND REINSTALLED



F DREDGE AREA (D) LOOKING EAST



G DREDGE AREA (B) (LEFT) DREDGE AREA (C) (RIGHT) LOOKING WEST AT TRANSIENT FLOAT

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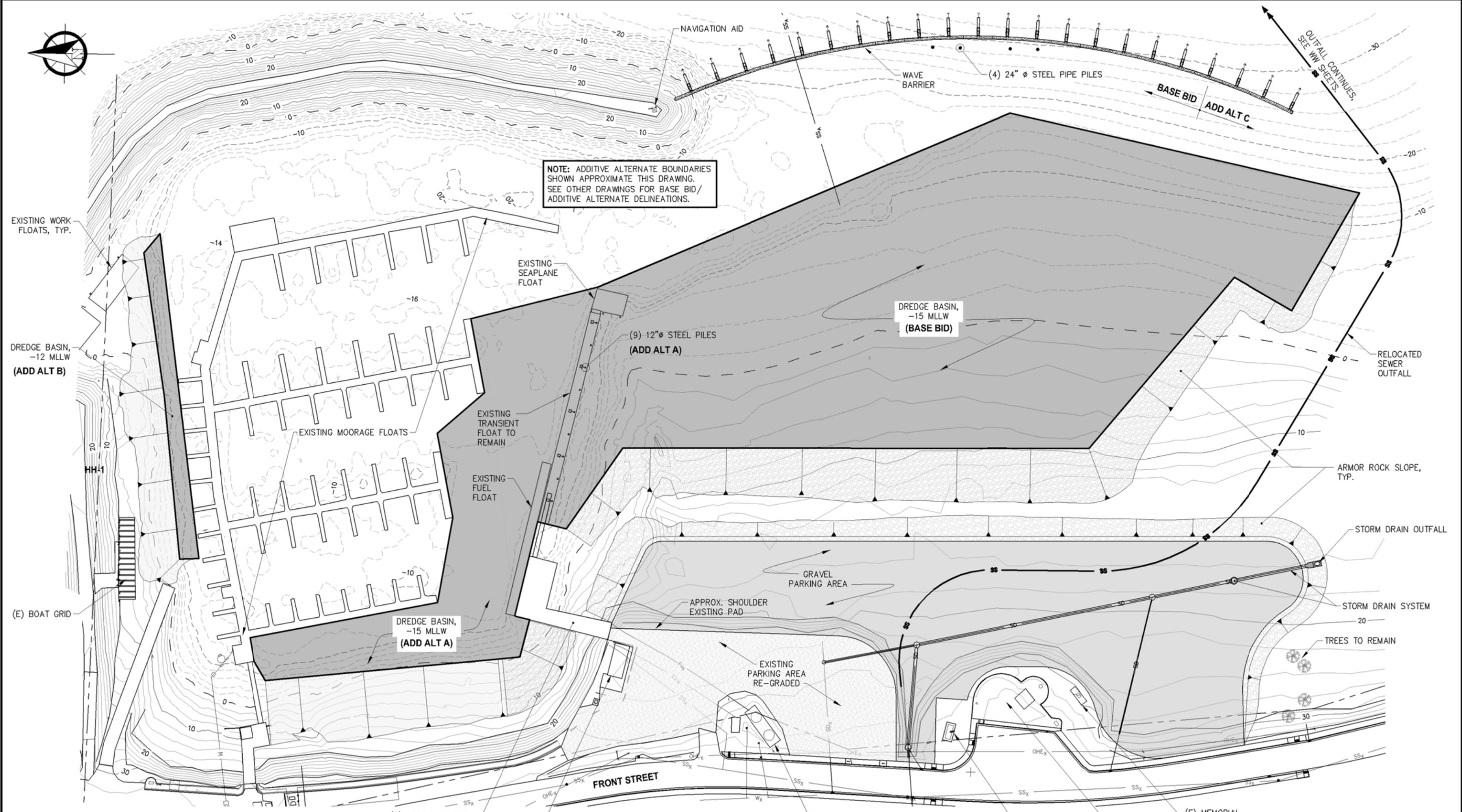
HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION

SHEET TITLE:
EXISTING CONDITIONS AND
SITE PHOTOGRAPHS

PND PROJECT NO.: 102029

1.04

SHEET
4 OF 29



NOTE: ADDITIVE ALTERNATE BOUNDARIES SHOWN APPROXIMATE THIS DRAWING. SEE OTHER DRAWINGS FOR BASE BID/ADDITIVE ALTERNATE DELINEATIONS.

GENERAL SITE PLAN

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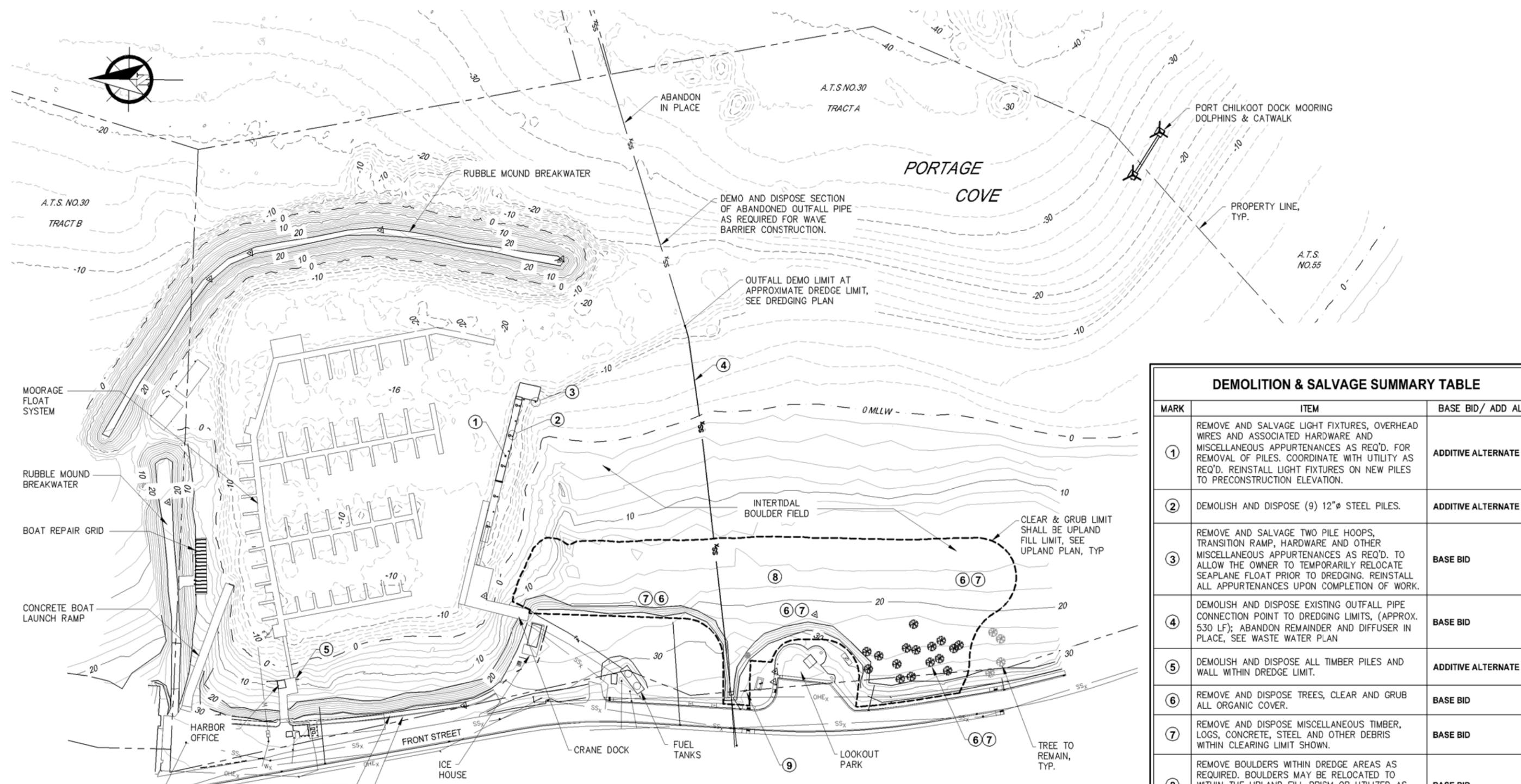
DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

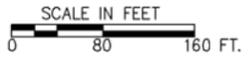
SHEET TITLE:
GENERAL SITE PLAN

PND PROJECT NO.: 102029

1.05
SHEET
OF 29



DEMOLITION & SALVAGE PLAN



DEMOLITION & SALVAGE SUMMARY TABLE		
MARK	ITEM	BASE BID/ ADD ALT
①	REMOVE AND SALVAGE LIGHT FIXTURES, OVERHEAD WIRES AND ASSOCIATED HARDWARE AND MISCELLANEOUS APPURTENANCES AS REQ'D. FOR REMOVAL OF PILES. COORDINATE WITH UTILITY AS REQ'D. REINSTALL LIGHT FIXTURES ON NEW PILES TO PRECONSTRUCTION ELEVATION.	ADDITIVE ALTERNATE A
②	DEMOLISH AND DISPOSE (9) 12"Ø STEEL PILES.	ADDITIVE ALTERNATE A
③	REMOVE AND SALVAGE TWO PILE HOOPS, TRANSITION RAMP, HARDWARE AND OTHER MISCELLANEOUS APPURTENANCES AS REQ'D. TO ALLOW THE OWNER TO TEMPORARILY RELOCATE SEAPLANE FLOAT PRIOR TO DREDGING. REINSTALL ALL APPURTENANCES UPON COMPLETION OF WORK.	BASE BID
④	DEMOLISH AND DISPOSE EXISTING OUTFALL PIPE CONNECTION POINT TO DREDGING LIMITS. (APPROX. 530 LF); ABANDON REMAINDER AND DIFFUSER IN PLACE, SEE WASTE WATER PLAN	BASE BID
⑤	DEMOLISH AND DISPOSE ALL TIMBER PILES AND WALL WITHIN DREDGE LIMIT.	ADDITIVE ALTERNATE A
⑥	REMOVE AND DISPOSE TREES, CLEAR AND GRUB ALL ORGANIC COVER.	BASE BID
⑦	REMOVE AND DISPOSE MISCELLANEOUS TIMBER, LOGS, CONCRETE, STEEL AND OTHER DEBRIS WITHIN CLEARING LIMIT SHOWN.	BASE BID
⑧	REMOVE BOULDERS WITHIN DREDGE AREAS AS REQUIRED. BOULDERS MAY BE RELOCATED TO WITHIN THE UPLAND FILL PRISM OR UTILIZED AS ARMOR ROCK IF WITHIN APPROPRIATE GRADATION LIMITS.	BASE BID
⑨	RELOCATE EXISTING ARTWORK/ DISPLAY (1 EA) TO NEARBY LOCATION PER OWNER DIRECTION. DO NOT DISTURB PRIOR TO OWNER COORDINATION.	BASE BID

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**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

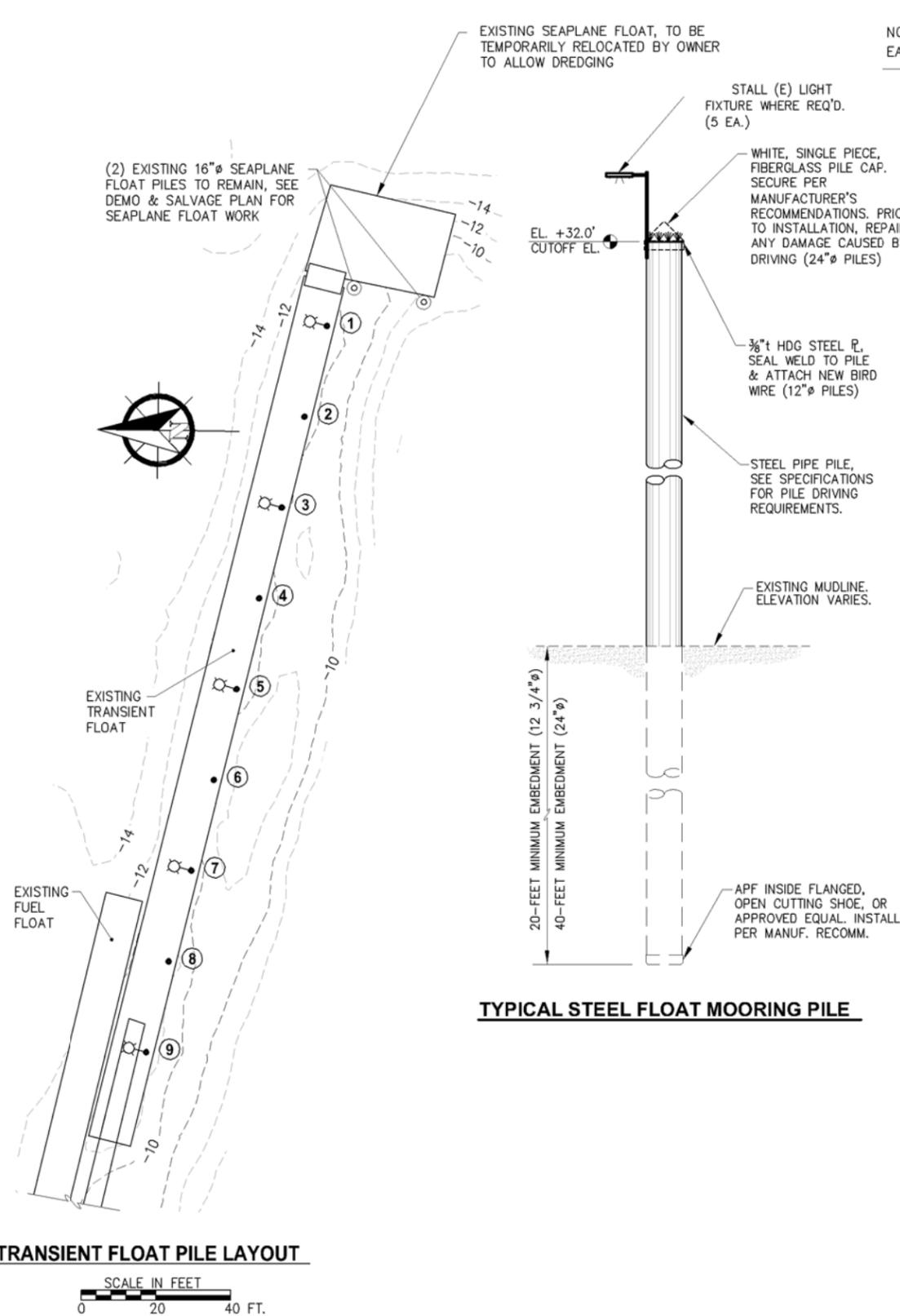
SHEET TITLE:
**DEMOLITION, SALVAGE &
DISPOSAL PLAN**

PND PROJECT NO.: 102029

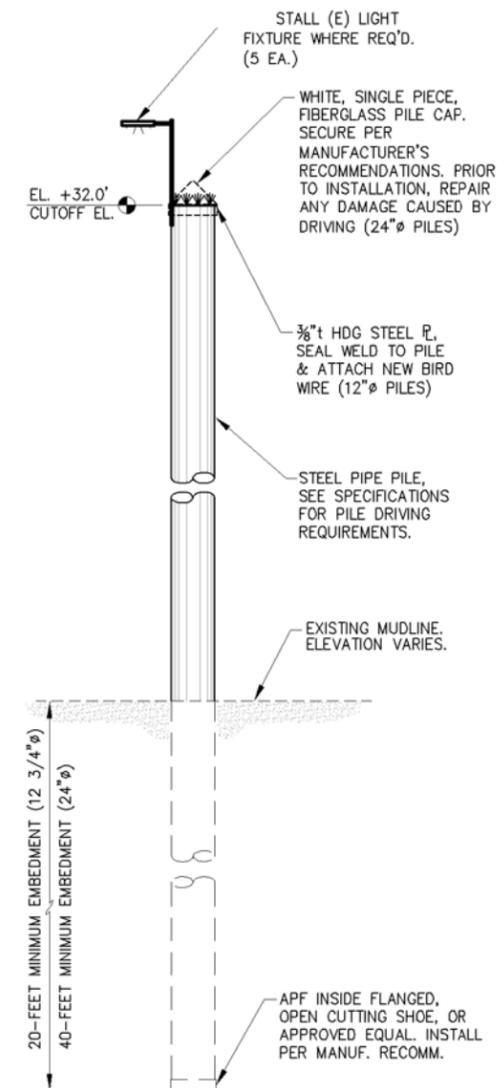
1.06
SHEET
6 OF 29

PILE SCHEDULE						
PILE #	PILE LENGTH (FT)	PILE SIZE	OWNER PROVIDED LENGTHS (FT)	ANTICIPATED CUTOFF (70')	NO. OF FIELD SPLICES REQ'D.	CUTTING SHOE INSTALL
①	70	12¾"φ x 0.500"t	58	13' ±	1	FIELD INSTALL
②	70	12¾"φ x 0.500"t	58 13 (CUTOFF FROM 1)	1' ±	1	FIELD INSTALL
③	70	12¾"φ x 0.500"t	55 34	19' ±	1	FIELD INSTALL
④	70	12¾"φ x 0.500"t	55 19 CUTOFF FROM 3	4' ±	1	FIELD INSTALL
⑤	70	12¾"φ x 0.500"t	55 55	40' ±	1	FIELD INSTALL
⑥	70	12¾"φ x 0.500"t	55 40 CUT OFF FROM 5	25' ±	1	FIELD INSTALL
⑦	70	12¾"φ x 0.500"t	55 25 CUTOFF FROM 6	10' ±	1	FIELD INSTALL
⑧	70	12¾"φ x 0.500"t	FURNISH FULL LENGTH w/ CUTTING SHOE		0	SHOP INSTALL
⑨	70	12¾"φ x 0.500"t	FURNISH FULL LENGTH w/ CUTTING SHOE		0	SHOP INSTALL
⑩	98	24"φ x 0.500"t	49 25 24	0	2	FIELD INSTALL
⑪	98	24"φ x 0.500"t	42 29 27	0	2	FIELD INSTALL
⑫	98	24"φ x 0.500"t	31 24 22 22	0	3	FIELD INSTALL
⑬	98	24"φ x 0.500"t	22 20 20 40 FURNISH w/ CUTTING SHOE	0	3	SHOP INSTALL

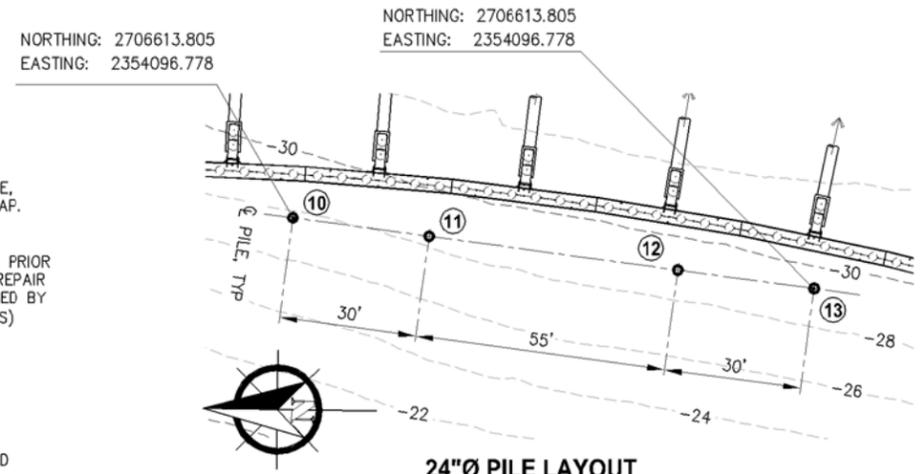
NOTE:
ANTICIPATED LENGTHS & CUTOFF LENGTHS ESTIMATED FOR REFERENCE ONLY, PILES SHALL MEET MIN. EMBEDMENT REQUIREMENTS.



TRANSIENT FLOAT PILE LAYOUT
SCALE IN FEET
0 20 40 FT.

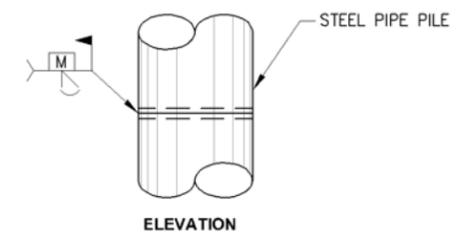


TYPICAL STEEL FLOAT MOORING PILE

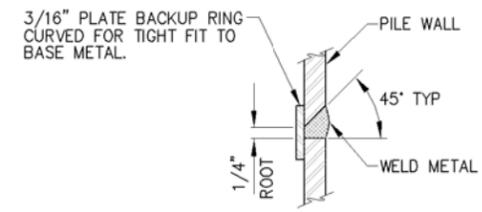


24"φ PILE LAYOUT

SCALE IN FEET
0 20 40 FT.



ELEVATION



TYPICAL SECTION

TYPICAL PILE SPLICE WELD
(TYPICAL FOR ALL PIPE PILE SPLICES)

- NOTE:
- 12¾"φ PILES AND ASSOCIATED WORK AT THE TRANSIENT FLOAT SHALL BE PERFORMED UNDER ADDITIVE ALTERNATE A AND SHALL BE COMPLETED PRIOR TO ADDITIVE ALTERNATE A DREDGING.
 - INSTALLATION OF 24"φ PILES SHALL BE PERFORMED UNDER THE BASE BID.
 - OWNER SHALL SUPPLY PIECES OF 12¾"φ HDG STEEL PIPE FOR PILES IN LENGTHS ADEQUATE TO CONSTRUCT (7) 70' STEEL PILES, CONTRACTOR SHALL FIELD SPLICE & INSTALL CUTTING SHOES AS REQ'D, (ADDITIVE ALTERNATE A).
 - OWNER SHALL SUPPLY PIECES OF 24"φ HDG STEEL PIPE FOR PILES IN LENGTHS ADEQUATE TO CONSTRUCT (3) 98' PILES & (1) 62' PIECE, CONTRACTOR SHALL FURNISH ADDITIONAL PILE LENGTH, FIELD SPLICE & FIELD INSTALL CUTTING SHOES AS REQ'D, (BASE BID).

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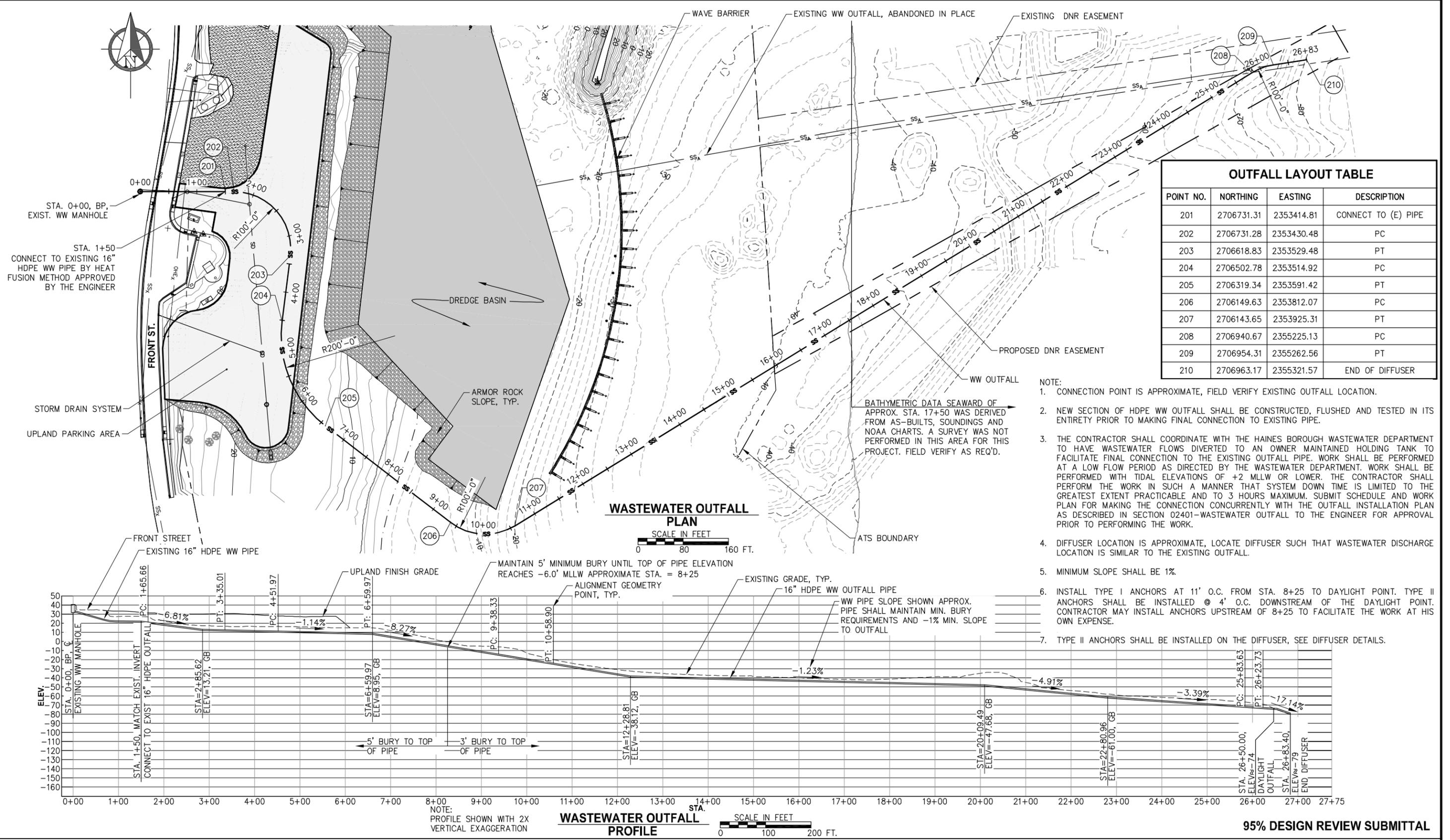
DATE: 8/7/15

HAINES BOROUGH PORTAGE COVE HARBOR EXPANSION

SHEET TITLE: **FLOAT PILE LAYOUT, SCHEDULE AND DETAILS**

PND PROJECT NO.: 102029

1.07
SHEET 7 OF 29



OUTFALL LAYOUT TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
201	2706731.31	2353414.81	CONNECT TO (E) PIPE
202	2706731.28	2353430.48	PC
203	2706618.83	2353529.48	PT
204	2706502.78	2353514.92	PC
205	2706319.34	2353591.42	PT
206	2706149.63	2353812.07	PC
207	2706143.65	2353925.31	PT
208	2706940.67	2355225.13	PC
209	2706954.31	2355262.56	PT
210	2706963.17	2355321.57	END OF DIFFUSER

- NOTE:
1. CONNECTION POINT IS APPROXIMATE, FIELD VERIFY EXISTING OUTFALL LOCATION.
 2. NEW SECTION OF HDPE WW OUTFALL SHALL BE CONSTRUCTED, FLUSHED AND TESTED IN ITS ENTIRETY PRIOR TO MAKING FINAL CONNECTION TO EXISTING PIPE.
 3. THE CONTRACTOR SHALL COORDINATE WITH THE HAINES BOROUGH WASTEWATER DEPARTMENT TO HAVE WASTEWATER FLOWS DIVERTED TO AN OWNER MAINTAINED HOLDING TANK TO FACILITATE FINAL CONNECTION TO THE EXISTING OUTFALL PIPE. WORK SHALL BE PERFORMED AT A LOW FLOW PERIOD AS DIRECTED BY THE WASTEWATER DEPARTMENT. WORK SHALL BE PERFORMED WITH TIDAL ELEVATIONS OF +2 MLLW OR LOWER. THE CONTRACTOR SHALL PERFORM THE WORK IN SUCH A MANNER THAT SYSTEM DOWN TIME IS LIMITED TO THE GREATEST EXTENT PRACTICABLE AND TO 3 HOURS MAXIMUM. SUBMIT SCHEDULE AND WORK PLAN FOR MAKING THE CONNECTION CONCURRENTLY WITH THE OUTFALL INSTALLATION PLAN AS DESCRIBED IN SECTION 02401-WASTEWATER OUTFALL TO THE ENGINEER FOR APPROVAL PRIOR TO PERFORMING THE WORK.
 4. DIFFUSER LOCATION IS APPROXIMATE, LOCATE DIFFUSER SUCH THAT WASTEWATER DISCHARGE LOCATION IS SIMILAR TO THE EXISTING OUTFALL.
 5. MINIMUM SLOPE SHALL BE 1%.
 6. INSTALL TYPE I ANCHORS AT 11' O.C. FROM STA. 8+25 TO DAYLIGHT POINT. TYPE II ANCHORS SHALL BE INSTALLED @ 4' O.C. DOWNSTREAM OF THE DAYLIGHT POINT. CONTRACTOR MAY INSTALL ANCHORS UPSTREAM OF 8+25 TO FACILITATE THE WORK AT HIS OWN EXPENSE.
 7. TYPE II ANCHORS SHALL BE INSTALLED ON THE DIFFUSER, SEE DIFFUSER DETAILS.



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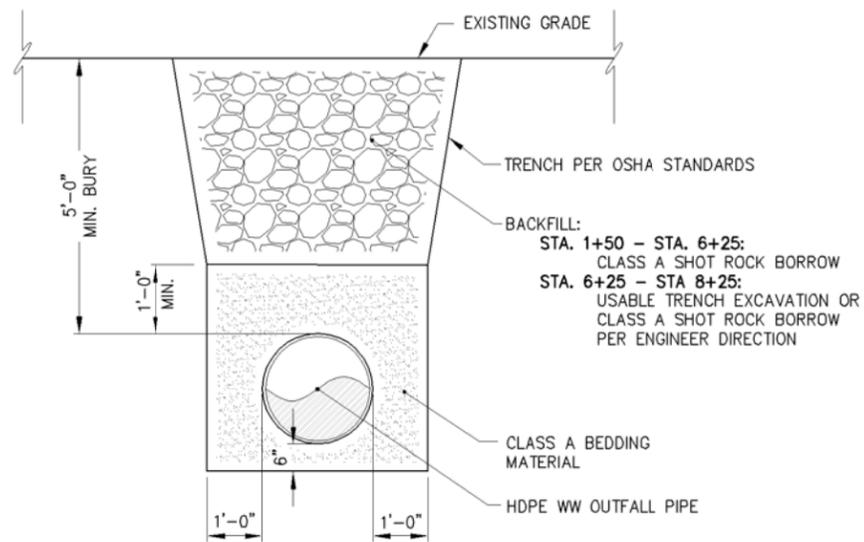
**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE:
**WASTEWATER OUTFALL
PLAN & PROFILE**

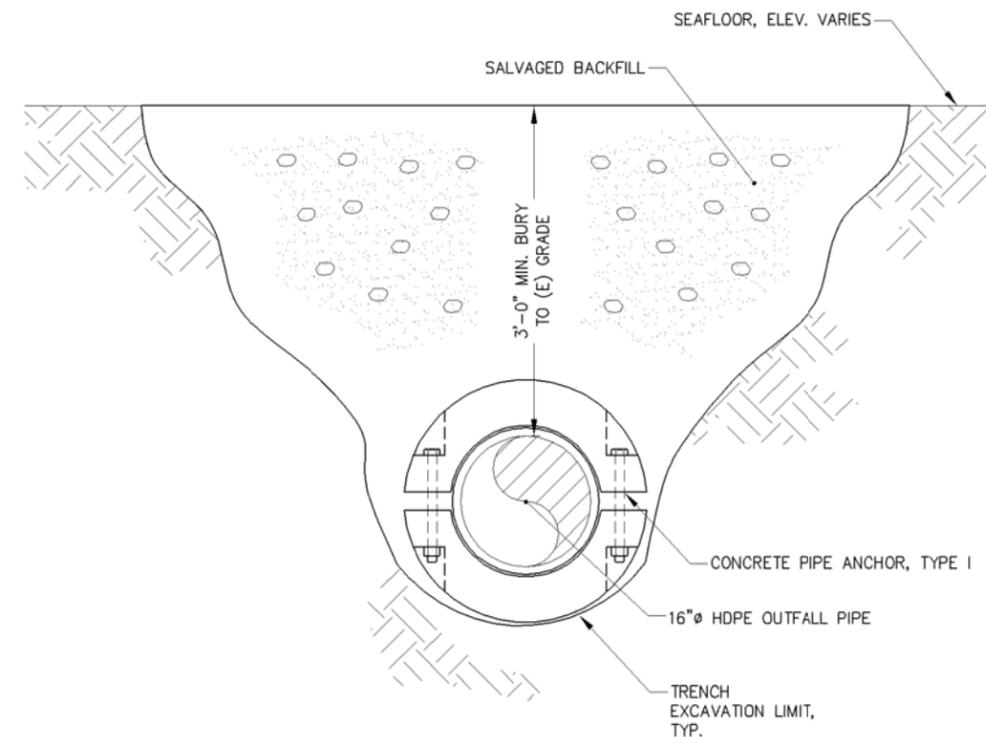
PND PROJECT NO.: 102029

2.01
SHEET
8 OF 29

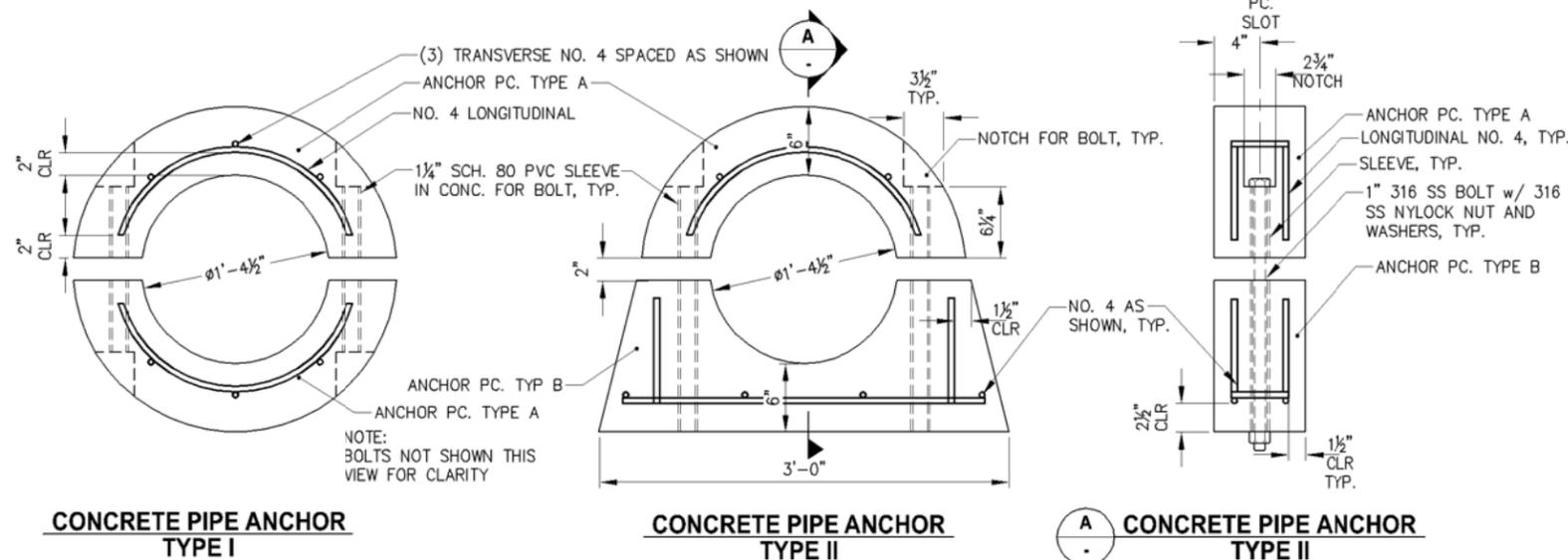
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OUTFALL PIPE TRENCH STA. 1+50 TO STA. 8+25 SECTION



OUTFALL PIPE TRENCH STA. 8+25 TO DAYLIGHT SECTION



CONCRETE PIPE ANCHOR TYPE I

CONCRETE PIPE ANCHOR TYPE II

CONCRETE PIPE ANCHOR TYPE II

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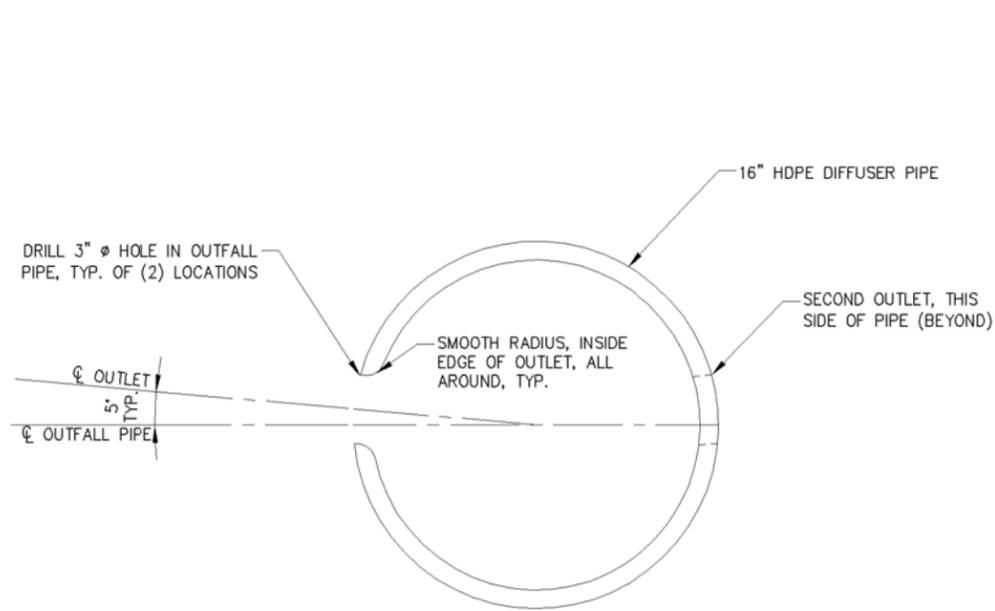
HAINES BOROUGH
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HARBOR EXPANSION

SHEET TITLE: WASTEWATER
OUTFALL DETAILS

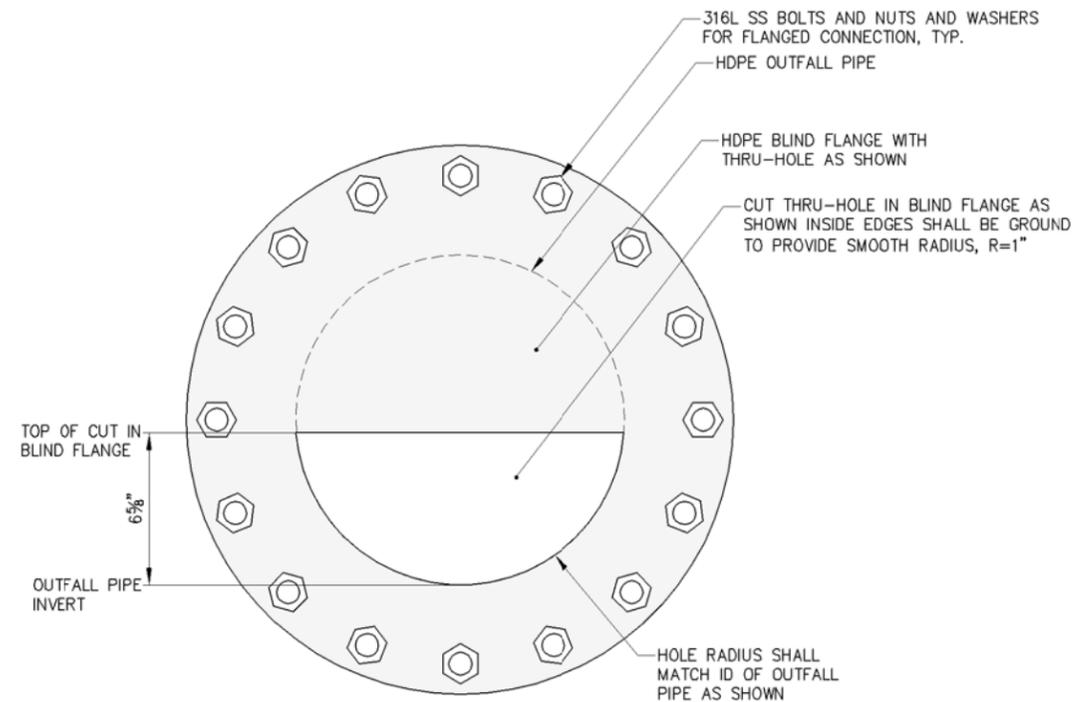
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SHEET
9 OF 29

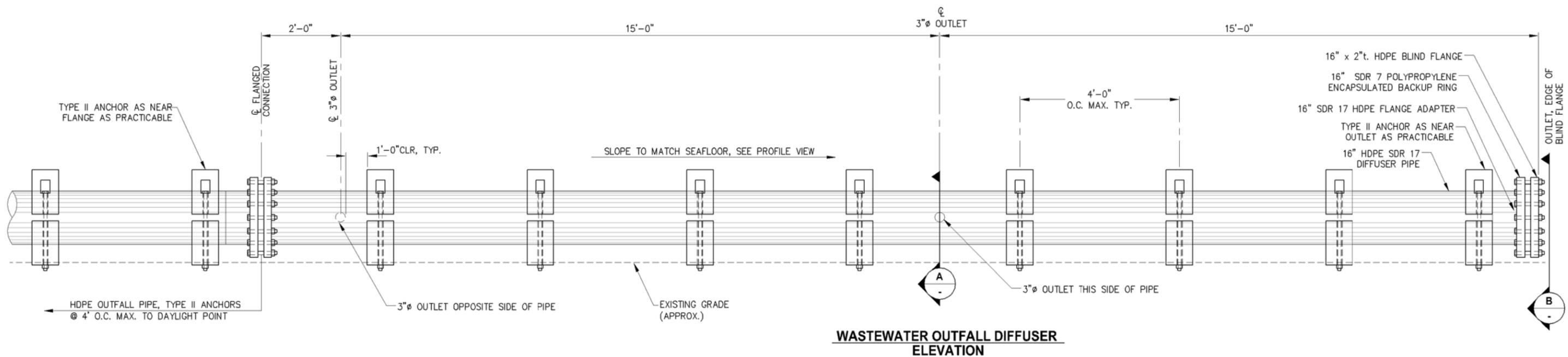
PND PROJECT NO.: 102029



A DIFFUSER OUTLET
TYPICAL SECTION



B DIFFUSER END
ELEVATION



**WASTEWATER OUTFALL DIFFUSER
ELEVATION**

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DATE: 8/7/15

HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION

SHEET TITLE:
**WASTEWATER OUTFALL
DIFFUSER DETAILS**

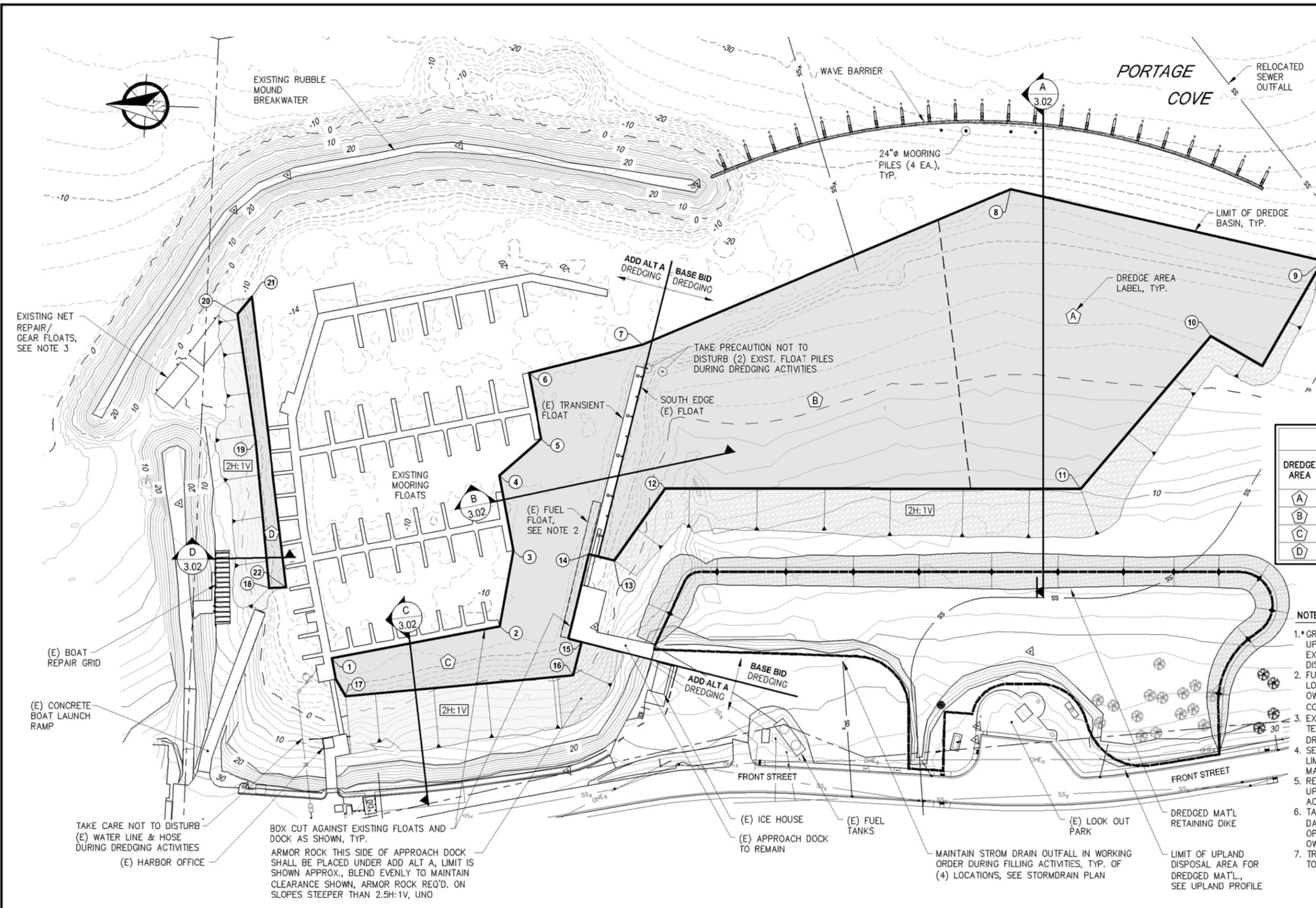
2.03

SHEET
10 OF 29

PND PROJECT NO.: 102029

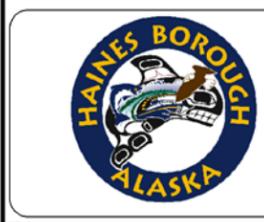
DREDGE LAYOUT TABLE		
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3	2707197.021	2353652.937
4	2707203.643	2353745.856
5	2707147.145	2353784.293
6	2707153.113	2353866.043
7	2707011.127	2353884.311
8	2706542.069	2354021.629
9	2706172.460	2353891.725
10	2706260.733	2353772.602
11	2706318.953	2353815.743
12	2706497.944	2353648.894
13	2707003.661	2353706.936
14	2707075.108	2353626.825
15	2707105.298	2353637.955
16	2707141.089	2353493.607
17	2707420.698	2353499.944
18	2707420.698	2353499.944
19	2707499.074	2353641.858
20	2707495.270	2353820.003
21	2707479.901	2353996.644
22	2707478.154	2353640.161

DREDGE SUMMARY TABLE				
DREDGE AREA	DEPTH ELEV. (FT MLLW)	BACKSLOPE	DISPOSAL	BASE BID/ADD ALT
A	-15	ARMORED	UPLAND*	BASE BID
B	-15	ARMORED	OFFSHORE	BASE BID
C	-15	AS SHOWN	OFFSHORE	ADD ALT A
D	-12	ARMORED	OFFSHORE	ADD ALT B



- NOTES:**
- 1.* GRANULAR DREDGE MATERIAL SHALL BE USED TO FILL UPLAND PARKING AREA PER TYPICAL SECTION TO EXTENT REQUIRED, REMAINING MATERIAL SHALL BE DISPOSED OFFSHORE.
 2. FUEL FLOAT SHALL BE TEMPORARILY MOVED LONGITUDINALLY ALONG THE TRANSIENT FLOAT BY OWNER TO FACILITATE ADDITIVE ALTERNATE A DREDGING, COORDINATE WITH OWNER AS REQ'D.
 3. EXISTING NET REPAIR/ GEAR FLOATS CAN BE TEMPORARILY RELOCATED BY OWNER TO FACILITATE DREDGING, COORDINATE WITH OWNER AS REQ'D.
 4. SEAWARD LIMIT OF DREDGE BASIN SHOWN APPROXIMATE, LIMIT SHALL BE LOCATED SUCH THAT EXISTING GRADE MATCHES BASIN DEPTH LIMIT.
 5. RETAINING DIKE DETAILS & LAYOUT SHALL BE PER UPLANDS DETAILS, CONSTRUCT PRIOR TO DREDGING ACTIVITIES.
 6. TAKE CARE NOT TO UNDERMINE EXISTING FACILITIES, DAMAGE INCURRED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT NO COST TO THE OWNER.
 7. TRANSIENT FLOAT WORK SHALL BE COMPLETED PRIOR TO ADD ALT A DREDGING, SEE TRANSIENT FLOAT PLAN.

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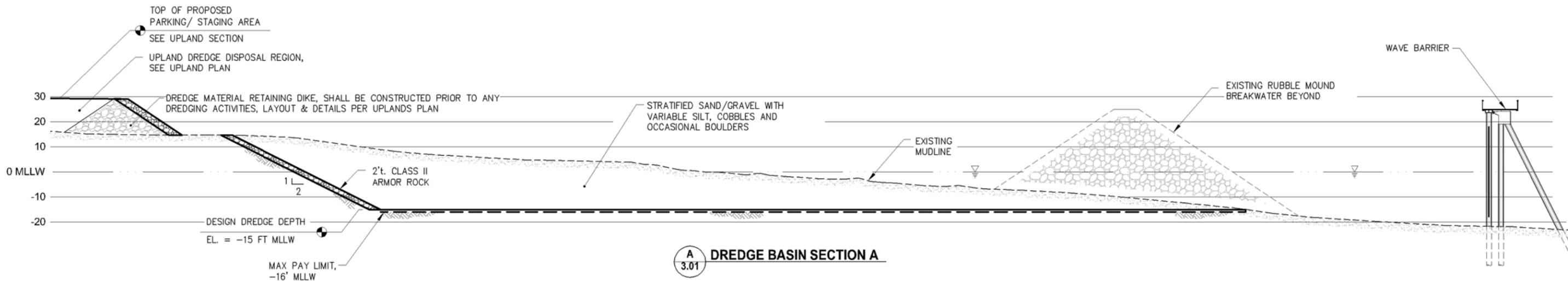
HAINES BOROUGH PORTAGE COVE HARBOR EXPANSION

SHEET TITLE: **DREDGING PLAN**

3.01

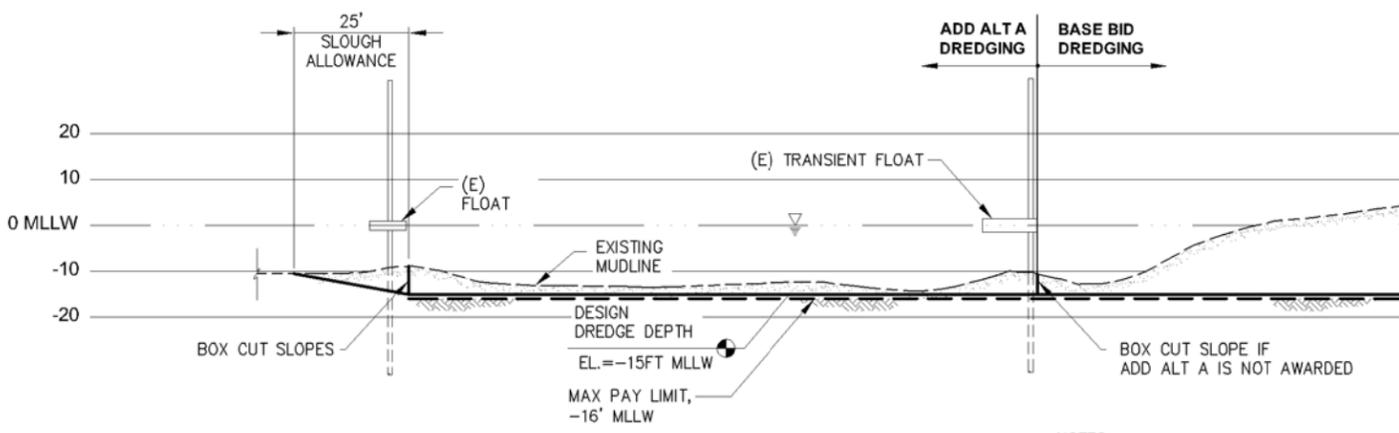
PND PROJECT NO.: 102029

SHEET 11 OF 29



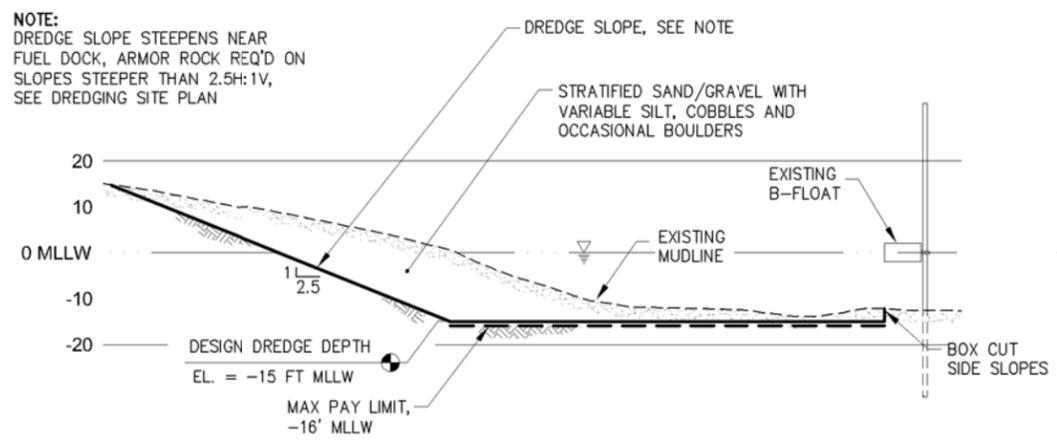
A
3.01
DREDGE BASIN SECTION A

NOTE:
SEE GEOTECHNICAL REPORT: (HAINES BOROUGH SOUTH PORTAGE COVE HARBOR EXPANSION GEOTECHNICAL ENGINEERING REPORT MARCH, 2015) FOR DETAILED SOIL DESCRIPTIONS WITHIN DREDGE AREAS

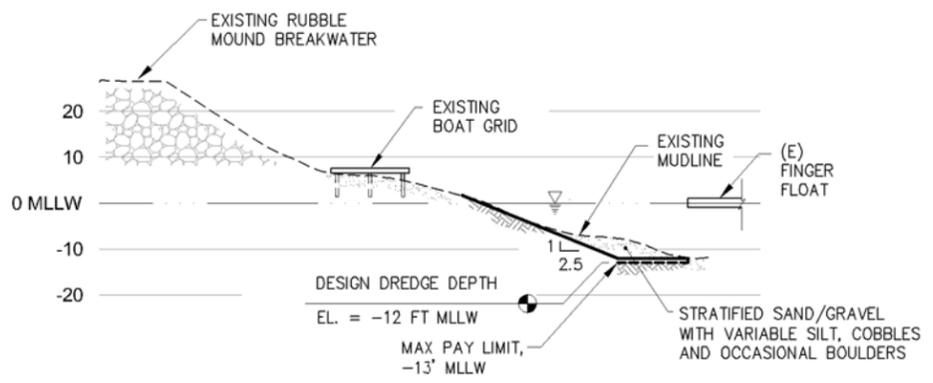


B
3.01
DREDGE BASIN SECTION B

NOTES:
1. BID SCHEDULE VOLUMES ARE APPROXIMATE, FINAL PAY QUANTITIES SHALL BE DETERMINED BY THE PRE AND POST DREDGE SURVEYS.
2. PRE & POST DREDGE SURVEYS SHALL INCLUDE 25' AREA BEYOND BOX CUTS TO DETERMINE SLOUGH.
3. SLOUGH ALLOWANCE IS TYPICAL ALL BOX CUTS.



C
3.01
DREDGE BASIN SECTION C



D
3.01
DREDGE BASIN SECTION D

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Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: TCB CHECKED: CRS
DRAWN: PJD APPROVED: CRS

SCALE: SCALE IN FEET
0 20 40 FT.

DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE:
DREDGING SECTIONS

PND PROJECT NO.: 102029

3.02
SHEET
12 OF 29

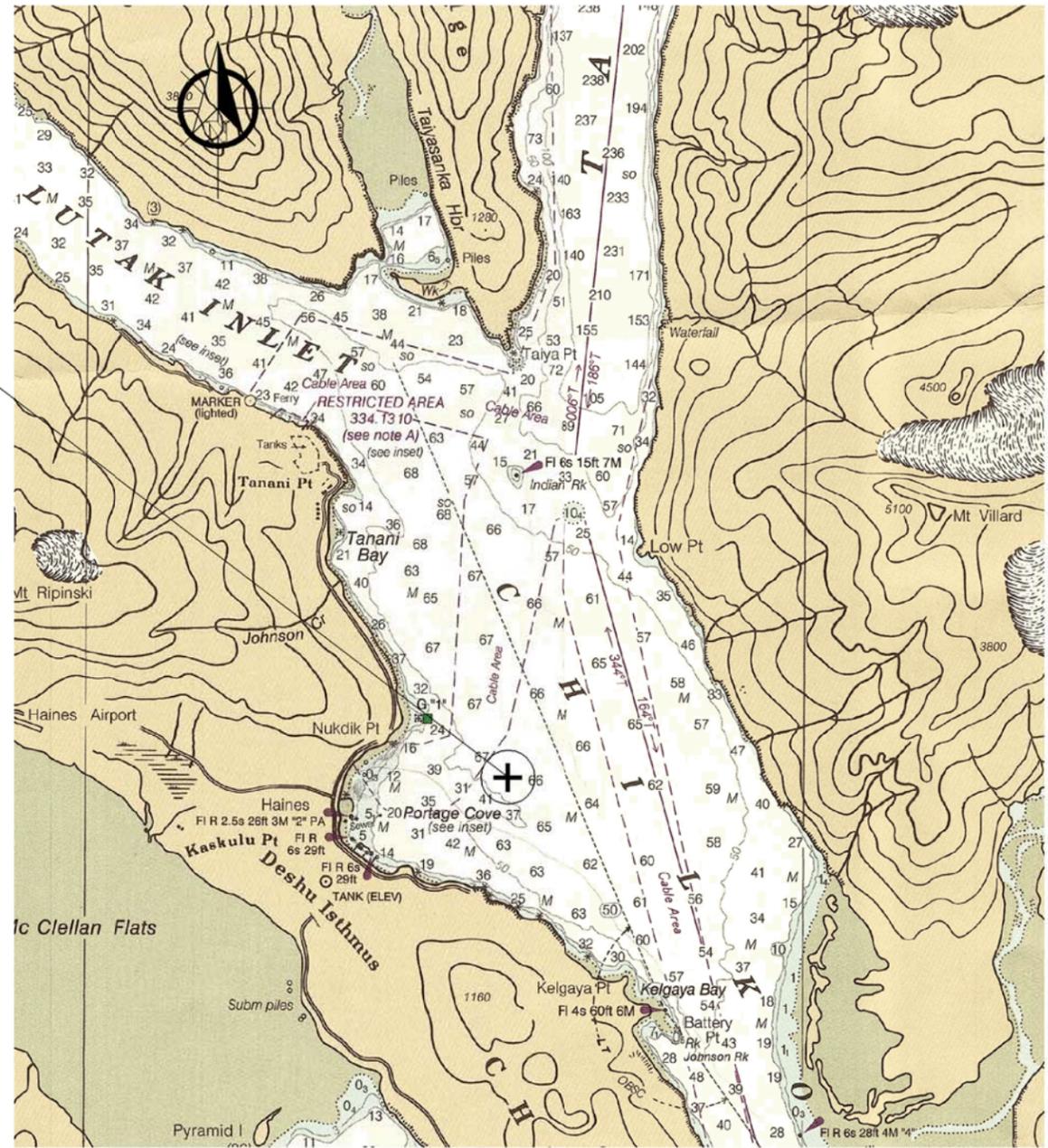
OFFSHORE DISPOSAL SITE
± 50 ACRES

OFFSHORE
DISPOSAL SITE CENTER:

LAT: N 59°14'18"

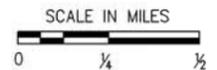
LONG: W 135°24'12"

NOTE:
CENTER LOCATION APPROXIMATE



BATHYMETRY FROM: NOAA 17317
LYNN CANAL - SHERMAN POINT TO SKAGWAY

DISPOSAL SITE PLAN



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REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DESIGN: NJS CHECKED: CRS SCALE: AS SHOWN
DRAWN: PJD APPROVED: CRS

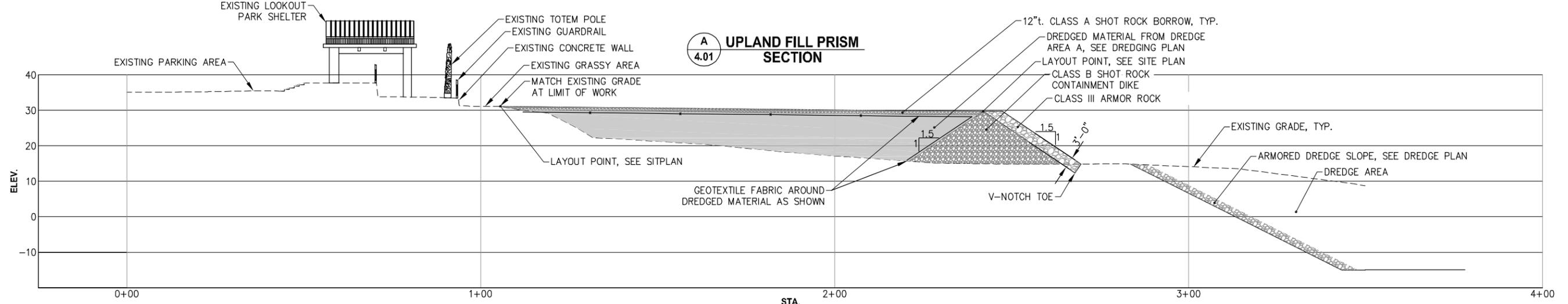
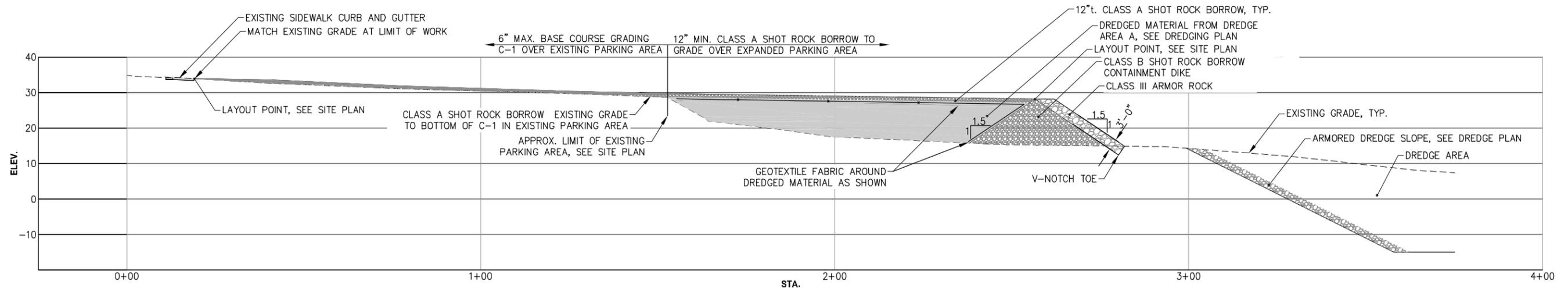
DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE: **DREDGING OFFSHORE
DISPOSAL PLAN**

3.03
SHEET
13 OF 29

PND PROJECT NO.: 102029



LAYOUT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2706366.24	2353308.30	35.30	EGRVL, ME
2	2706455.93	2353304.23	35.08	EGRVL, PC, ME
3	2706523.24	2353365.87	29.94	EGRVL, PRC, ME
4	2706537.02	2353397.51	29.20	POC, GB, ME
5	2706576.01	2353418.36	30.38	EGRVL, PT, ME
6	2706613.43	2353422.64	32.34	EGRVL, PC, GB, ME
7	2706661.43	2353391.55	34.46	EGRVL, PT, ME
8	2706694.45	2353397.70	32.19	EGRVL, ME
9	2706704.46	2353326.36	34.39	EGRVL, ME
10	2706745.97	2353334.01	34.10	EGRVL, ME
11	2706737.69	2353405.25	32.13	LIMIT C-1, PC
12	2706757.86	2353460.22	30.30	LIMIT C-1, POC, GB
13	2706792.72	2353477.05	29.13	LIMIT C-1, PT

LAYOUT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
14	2706940.42	2353498.95	27.18	LIMIT C-1, GB
15	2707010.78	2353509.39	27.37	LIMIT C-1, GB
16	2707038.93	2353513.56	27.11	EGRVL, ME
17	2707036.90	2353519.20	27.28	EGRVL, ME
18	2706993.06	2353590.95	25.62	EGRVL, PC
19	2706973.49	2353601.30	25.26	EGRVL, PT, GB
20	2706597.91	2353558.35	30.27	EGRVL, GB
21	2706493.09	2353546.37	27.63	EGRVL
22	2706427.47	2353538.87	26.64	EGRVL, GB
23	2706342.72	2353529.18	28.63	EGRVL, GB
24	2706316.26	2353526.15	29.16	EGRVL, PC
25	2706303.85	2353450.18	31.39	EGRVL, PRC
26	2706360.73	2353371.61	33.55	EGRVL, PT

LAYOUT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
27	2706860.08	2353353.87	34.33	LIMIT C-1, ME
28	2706864.89	2353383.38	31.20	LIMIT C-1, ME
29	2706881.68	2353414.86	30.51	LIMIT C-1, ME
30	2706889.17	2353423.39	29.87	LIMIT C-1, ME
31	2706901.73	2353428.67	28.78	LIMIT C-1, ME
32	2706917.49	2353428.00	28.50	LIMIT C-1, GB, ME
33	2706931.50	2353420.27	28.84	LIMIT C-1, ME
34	2706937.86	2353387.15	32.26	LIMIT C-1, ME
35	2706956.07	2353394.29	30.72	LIMIT C-1, ME
36	2706956.40	2353389.80	31.47	LIMIT C-1, ME
37	2707046.08	2353384.71	30.30	LIMIT C-1, ME
38	2707076.31	2353380.41	31.28	LIMIT C-1, ME
39	2707101.78	2353375.47	32.84	LIMIT C-1, ME

LAYOUT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
40	2707107.39	2353391.54	31.94	LIMIT C-1, ME
41	2707096.94	2353411.00	29.70	LIMIT C-1
42	2707082.62	2353431.61	27.02	LIMIT C-1
43	2707068.16	2353433.09	28.03	ME
44	2707062.69	2353431.14	27.96	ME
45	2707060.07	2353437.62	27.98	ME
46	2707057.85	2353451.35	27.55	ME
47	2707035.47	2353442.81	27.75	ME
48	2707017.25	2353489.81	27.47	GB
49	2707043.30	2353501.43	26.75	LIMIT C-1, ME

TABLE ABBREVIATIONS:
 EGRVL EDGE OF CLASS A SRB
 GB GRADE BREAK
 ME MATCH EXISTING
 PC POINT OF CURVATURE
 POC POINT ON CURVE
 PRC POINT OF REVERSE CURVATURE
 PT POINT OF TANGENCY

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REVISIONS					
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DESIGN: TCB CHECKED: CRS
DRAWN: TCB APPROVED: CRS

SCALE: SCALE IN FEET
0 15 30 FT.

DATE: 8/7/15

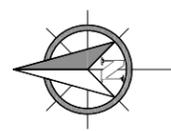
**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE: **UPLAND SECTIONS
AND LAYOUT TABLES**

4.02

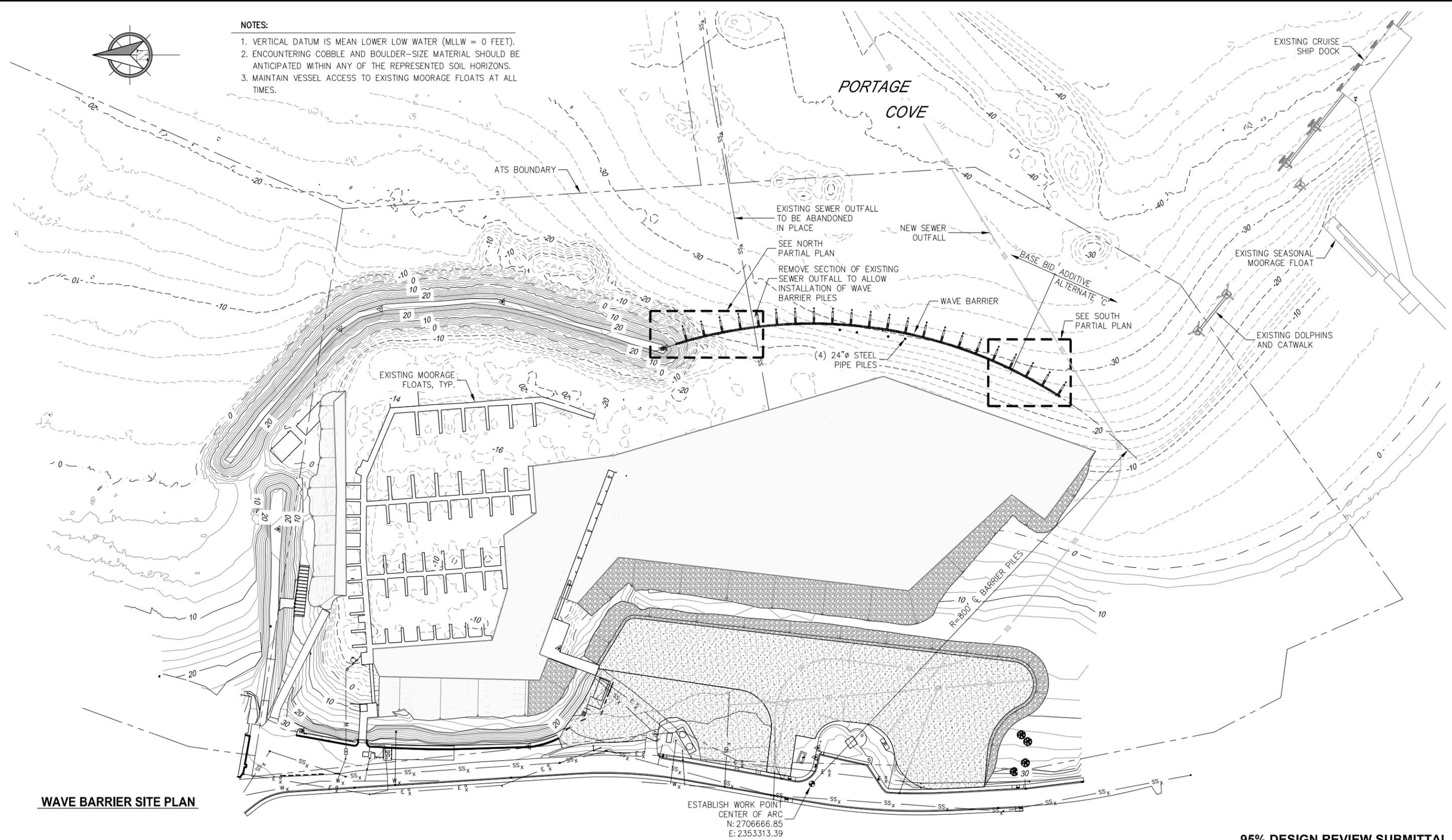
SHEET 15 OF 29

PND PROJECT NO.: 102029



NOTES:

1. VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW = 0 FEET).
2. ENCOUNTERING COBBLE AND BOULDER-SIZE MATERIAL SHOULD BE ANTICIPATED WITHIN ANY OF THE REPRESENTED SOIL HORIZONS.
3. MAINTAIN VESSEL ACCESS TO EXISTING MOORAGE FLOATS AT ALL TIMES.



WAVE BARRIER SITE PLAN

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REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DESIGN: JDO CHECKED: CRS
DRAWN: DRH APPROVED: CRS

SCALE: SCALE IN FEET
0 40 80 160 FT.

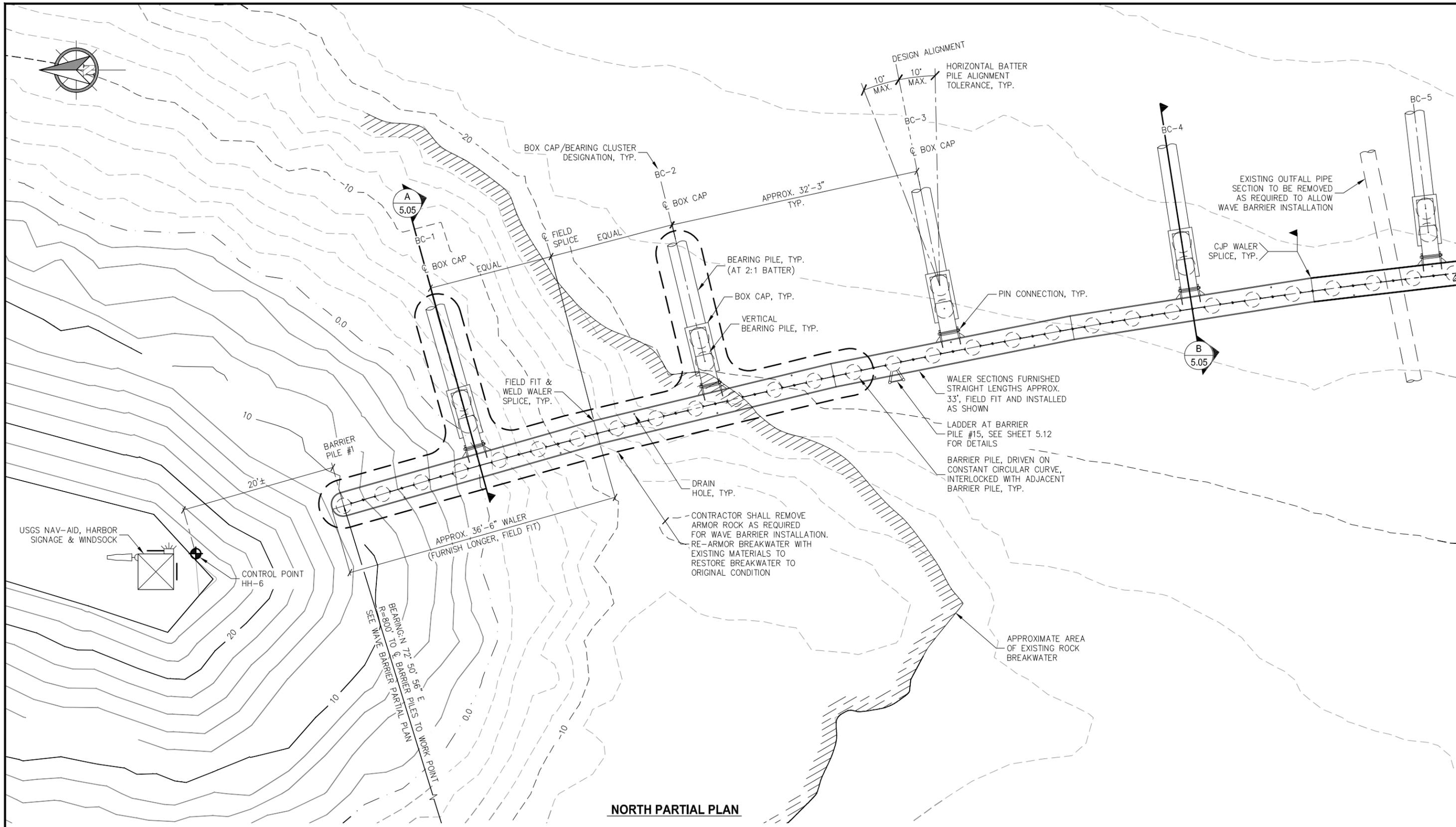
DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE:
WAVE BARRIER SITE PLAN

PN&D PROJECT NO.: 102029.10

5.01
SHEET
17 OF 29



NORTH PARTIAL PLAN

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DESIGN: JDO CHECKED: CRS
DRAWN: DRH APPROVED: CRS

SCALE: SCALE IN FEET
0 6 12 FT.

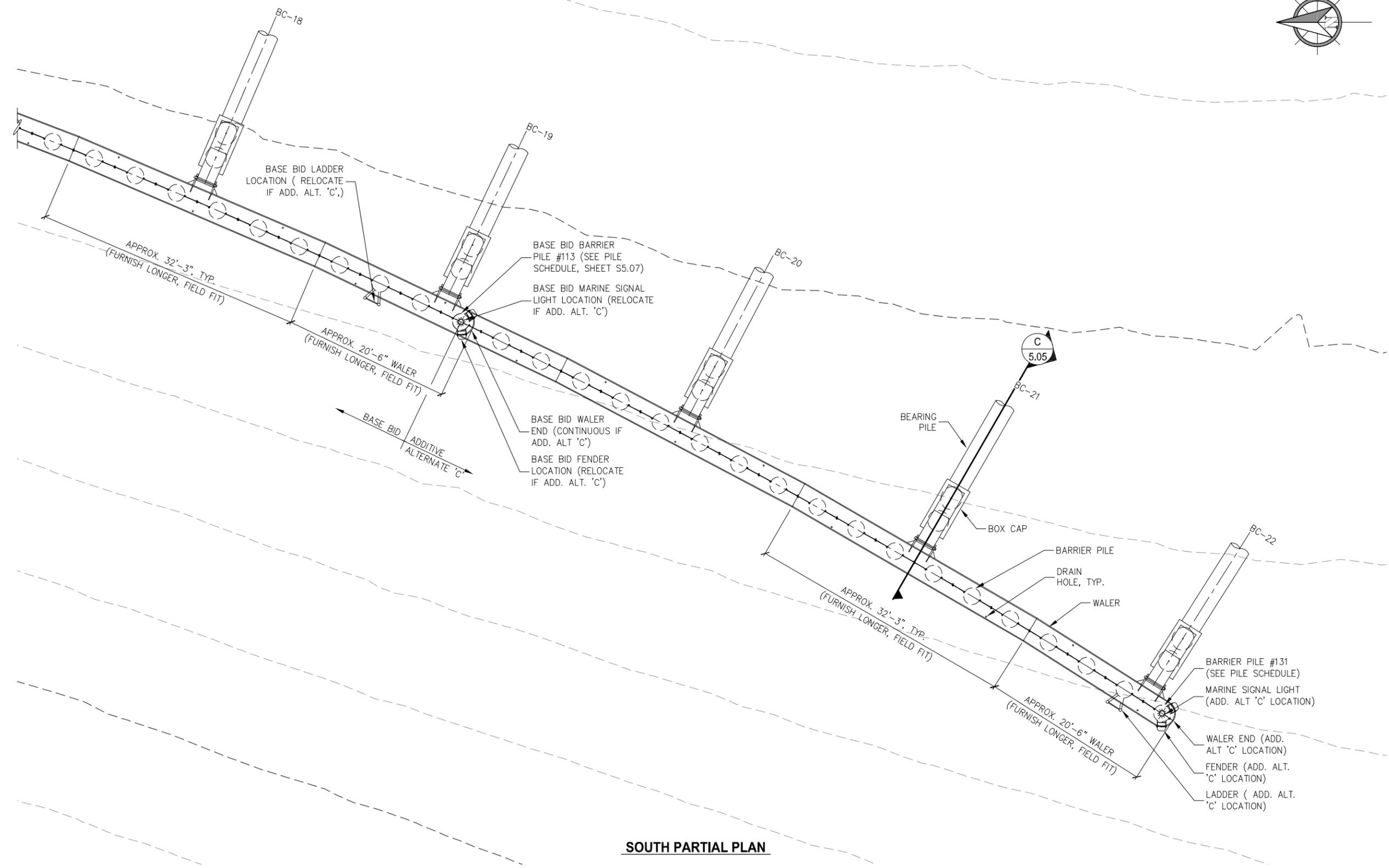
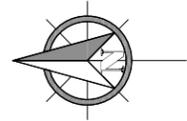
DATE: 8/7/15

HAINES BOROUGH PORTAGE COVE HARBOR EXPANSION

SHEET TITLE: **WAVE BARRIER NORTH PARTIAL PLAN**

PN&D PROJECT NO.: 102029.10

5.02
SHEET 18 OF 29



SOUTH PARTIAL PLAN

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REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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DESIGN: JDO CHECKED: CRS
DRAWN: DRH APPROVED: CRS

SCALE: SCALE IN FEET
0 6 12 FT.

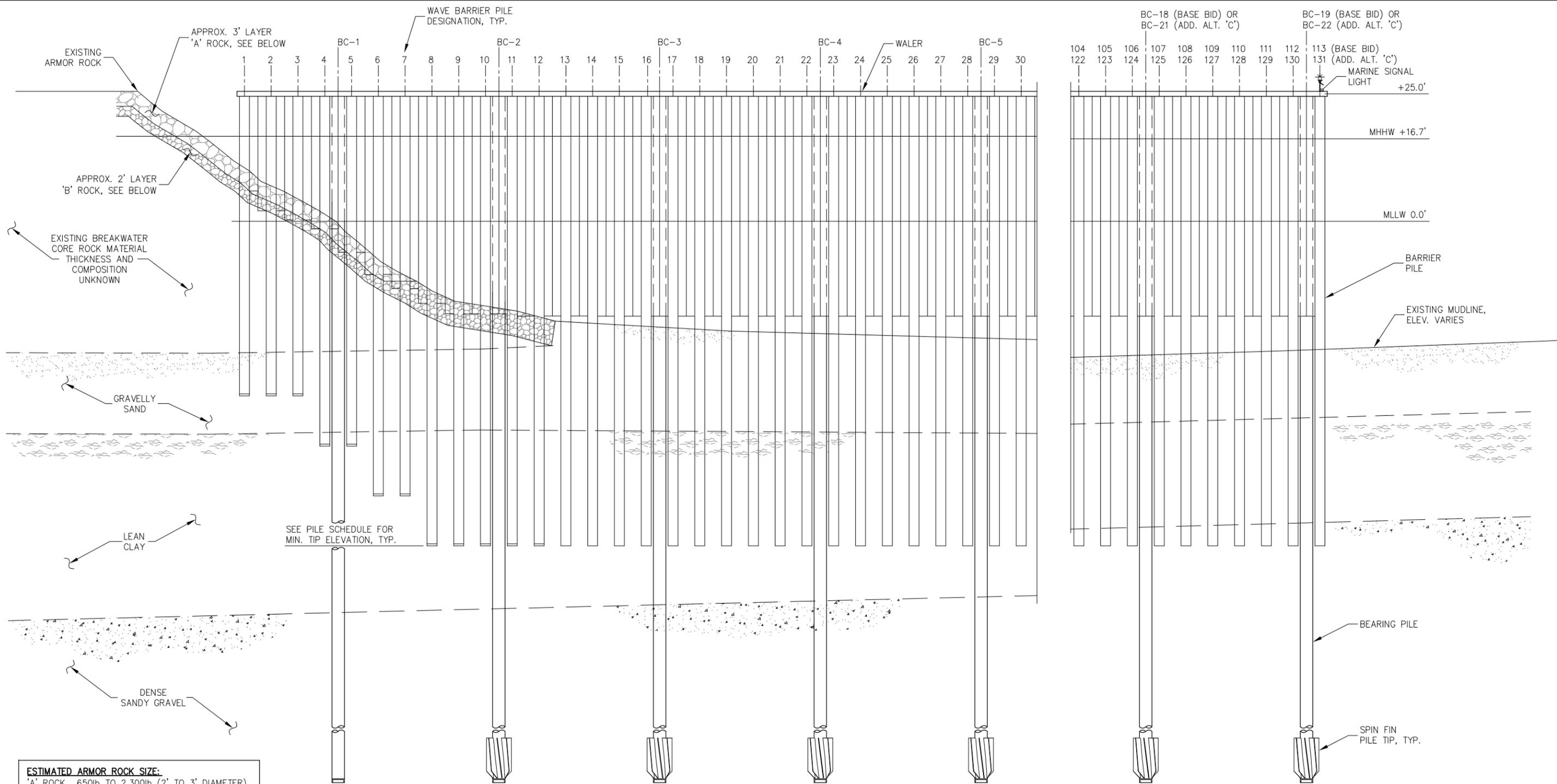
DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE:
**WAVE BARRIER SOUTH
PARTIAL PLAN**

PN&D PROJECT NO.: 102029.10

5.03
SHEET
19 OF 29



ESTIMATED ARMOR ROCK SIZE:
 'A' ROCK 650lb TO 2,300lb (2' TO 3' DIAMETER)
 'B' ROCK 65lb TO 650lb (1' TO 2' DIAMETER)

NOTE:
 1. SOIL INFORMATION SHOWN IS APPROXIMATE AND FOR GENERAL ILLUSTRATION PURPOSES ONLY. SEE GEOTECHNICAL REPORT FOR SPECIFIC SOILS INFORMATION.
 2. SEE PILE SCHEDULE FOR DETAILS NOT SHOWN AND INSTALLATION CRITERIA.

PARTIAL ELEVATION
 NOTE: LADDERS NOT SHOWN FOR CLARITY

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SPIN FIN® PILE IS A REGISTERED TRADEMARK OF PND ENGINEERS, INC.

REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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 Fax: 907-586-2099
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DESIGN: JDO CHECKED: CRS
 DRAWN: DRH APPROVED: CRS
 SCALE: SCALE IN FEET
 0 10 20 FT.

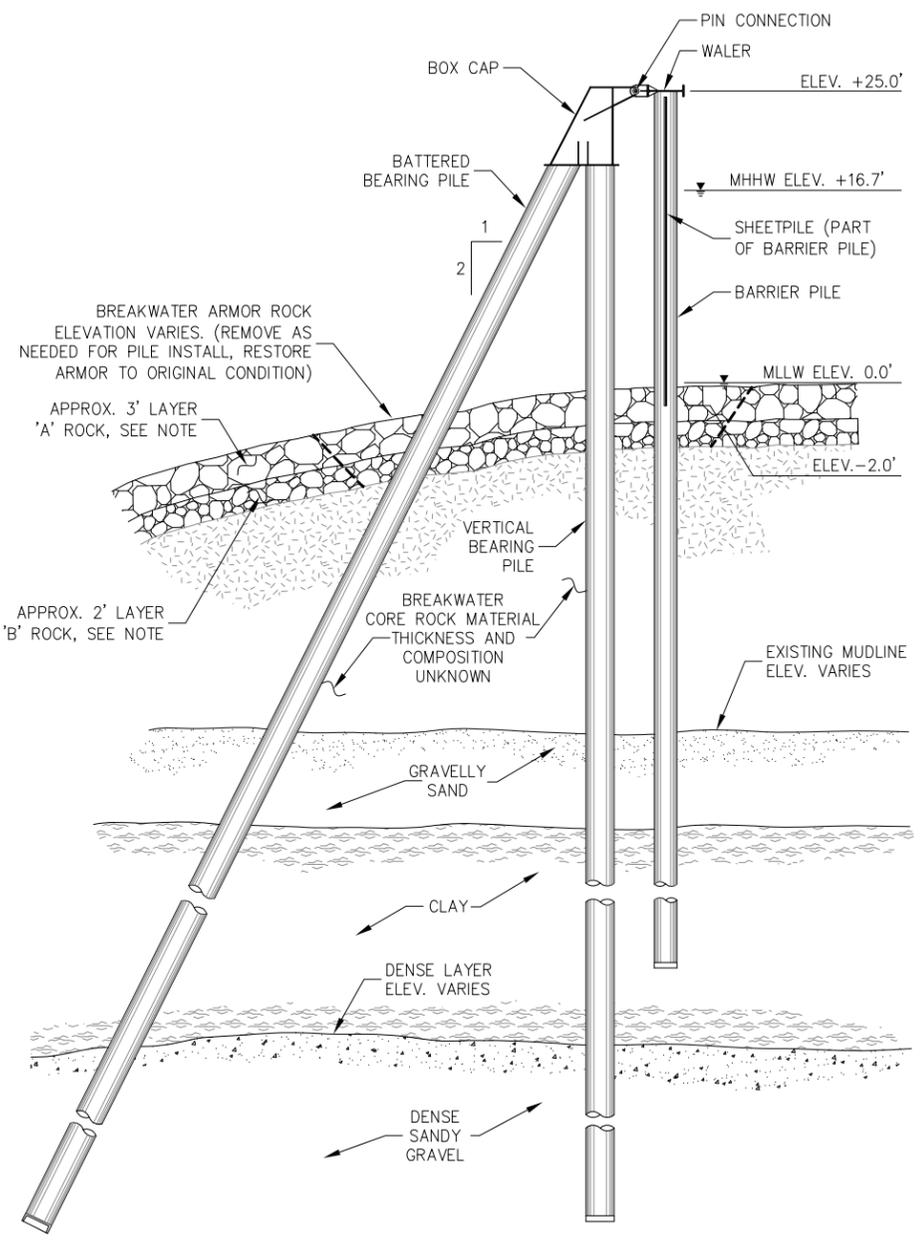
DATE: 8/7/15

HAINES BOROUGH PORTAGE COVE HARBOR EXPANSION

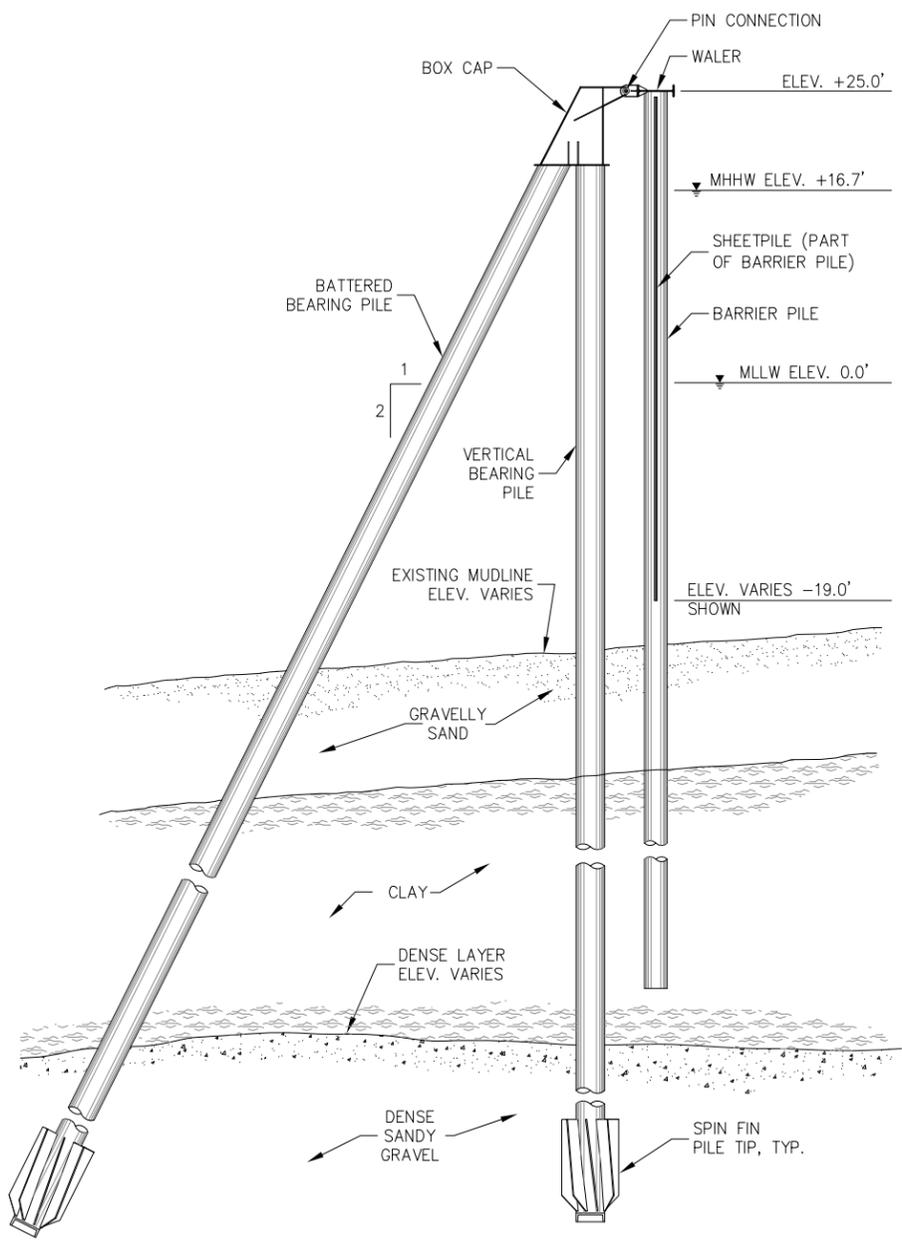
SHEET TITLE: **PARTIAL ELEVATION**
 PND PROJECT NO.: 102029.10

5.04
 SHEET 20 OF 29

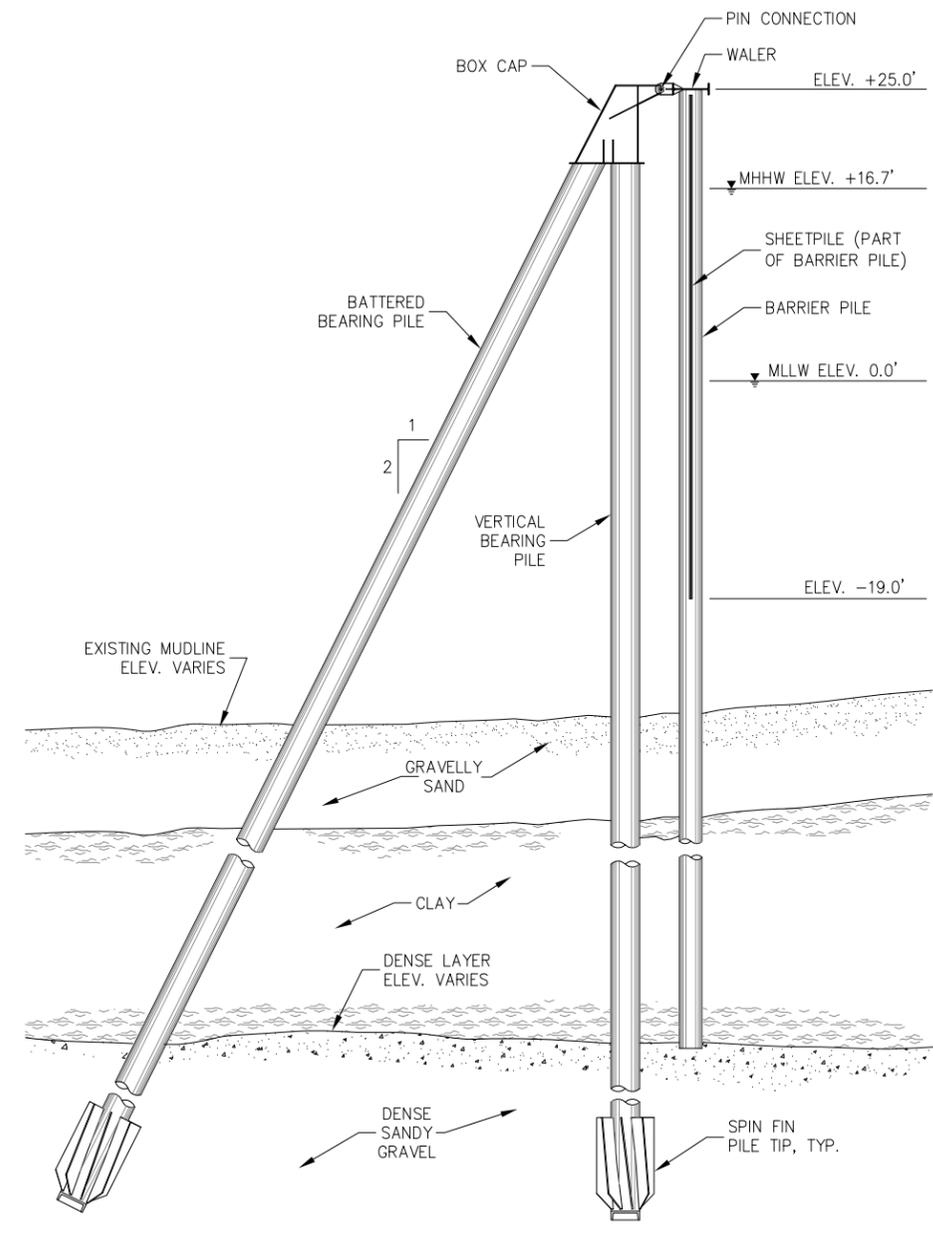
ESTIMATED ARMOR ROCK SIZE:
 'A' ROCK 650lb TO 2,300lb (2' TO 3' DIAMETER)
 'B' ROCK 65lb TO 650lb (1' TO 2' DIAMETER)



A TYPICAL SECTION
5.02



B TYPICAL SECTION
5.02



C TYPICAL SECTION
5.03

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REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



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DESIGN: JDO CHECKED: CRS
 DRAWN: DRH APPROVED: CRS

SCALE: SCALE IN FEET
 0 8 16 FT.

DATE: 8/7/15

**HAINES BOROUGH
 PORTAGE COVE
 HARBOR EXPANSION**

SHEET TITLE:
TYPICAL SECTIONS

PN&D PROJECT NO.: 102029.10

5.05
 SHEET
 21 OF 29

WAVE BARRIER PILE SCHEDULE								
Pile Location	Pile Size Diameter x Wall	Supply Length (ft)	Max. Length of Bare Pile (ft)	Length of Sheetpile (ft)	Tip Type	Pile Tip Elevation (ft)	Design Compression Capacity	Comments
							(Allowable/Ultimate) (kips)	
1	24"dia x 0.500"t	60	20	20	Cutting Shoe	-35	--	PS31 one side of pile only*
2	24"dia x 0.500"t	60	20	23	Cutting Shoe	-35	--	PS31 both sides
3	24"dia x 0.500"t	60	20	25	Cutting Shoe	-35	--	PS31 both sides
4	24"dia x 0.500"t	70	20	27	Cutting Shoe	-45	--	PS31 both sides
5	24"dia x 0.500"t	70	20	32	Cutting Shoe	-45	--	PS31 both sides
6	24"dia x 0.500"t	80	40	36	Cutting Shoe	-55	--	PS31 both sides
7	24"dia x 0.500"t	80	40	40	Cutting Shoe	-55	--	PS31 both sides
8	24"dia x 0.500"t	90	40	42	Cutting Shoe	-65	--	PS31 both sides
9	24"dia x 0.500"t	90	40	44	Cutting Shoe	-65	--	PS31 both sides
10	24"dia x 0.500"t	90	40	44	Cutting Shoe	-65	--	PS31 both sides
11	24"dia x 0.500"t	90	40	44	Cutting Shoe	-65	--	PS31 both sides
12	24"dia x 0.500"t	90	40	44	Cutting Shoe	-65	--	PS31 both sides
13	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
14	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
15	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
16	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
17	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
18	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
19	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
20	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
21	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
22	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
23	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
24	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
25	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
26	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
27	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
28	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
29	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
30	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
31	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
32	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
33	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
34	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
35	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
36	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
37	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
38	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
39	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
40	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
41	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
42	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
43	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
44	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
45	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
46	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
47	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
48	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
49	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
50	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides

* PAY PARTICULAR ATTENTION TO INTERLOCK ORIENTATION

WAVE BARRIER PILE SCHEDULE (Cont.)								
Pile Location	Pile Size Diameter x Wall	Supply Length (ft)	Max. Length of Bare Pile (ft)	Length of Sheetpile (ft)	Tip Type	Pile Tip Elevation (ft)	Design Compression Capacity	Comments
							(Allowable/Ultimate) (kips)	
51	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
52	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
53	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
54	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
55	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
56	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
57	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
58	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
59	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
60	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
61	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
62	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
63	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
64	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
65	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
66	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
67	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
68	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
69	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
70	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
71	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
72	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
73	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
74	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
75	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
76	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
77	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
78	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
79	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
80	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
81	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
82	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
83	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
84	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
85	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
86	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
87	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
88	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
89	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
90	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
91	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
92	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
93	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
94	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
95	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
96	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
97	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
98	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
99	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
100	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides

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REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.

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ENGINEERS, INC.

9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: JDO CHECKED: CRS
DRAWN: DRH APPROVED: CRS

SCALE: _____

DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

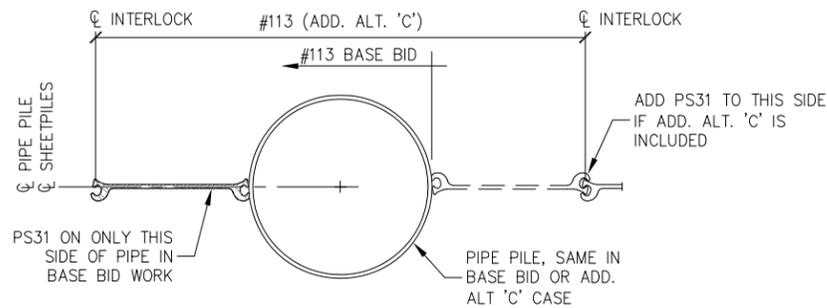
SHEET TITLE:
PILE SCHEDULE

5.06
SHEET
22 OF 29

PN&D PROJECT NO.: 102029.10

WAVE BARRIER PILE SCHEDULE (Cont.)								
Pile Location	Pile Size Diameter x Wall	Supply Length (ft)	Max. Length of Bare Pile (ft)	Length of Sheetpile (ft)	Tip Type	Pile Tip Elevation (ft)	Design Compression Capacity	Comments
							(Allowable/Ultimate) (kips)	
101	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
102	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
103	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
104	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
105	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
106	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
107	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
108	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
109	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
110	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
111	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
112	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
113	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 one side of pile only (see detail below)
ADDITIVE ALTERNATE 'C'								
113	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides of pile (see detail below)
114	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
115	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
116	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
117	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
118	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
119	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
120	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
121	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
122	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
123	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
124	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
125	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
126	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
127	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
128	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
129	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
130	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 both sides
131	24"dia x 0.500"t	90	40	44	None	-65	--	PS31 one side of pile only*

* PAY PARTICULAR ATTENTION TO INTERLOCK ORIENTATION



BARRIER PILE #113
(USE APPROPRIATE PILE FOR BASE BID OR ADD. ALT. 'C')

BEARING PILE SCHEDULE								
Pile Location	Pile Batter	Pile Size Diameter x Wall	Supply Length (ft)	Length of Bare Pile (ft)	Tip Type	Capacity (Allowable/Ultimate) (kips)		Minimum Tip Elevation
						Compression	Tension	
BC-1	Vertical	30"dia x 0.75"t	160	80	Cutting Shoe Only	300/680	290/650	-135'
	2:1	30"dia x 0.750"t	200	100	Cutting Shoe Only	335/750	325/730	-155'
BC-2	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-3	Vertical**	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1**	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-4	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-5	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-6	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-7	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-8	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-9	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-10	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-11	Vertical**	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1**	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-12	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-13	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-14	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-15	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-16	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-17	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-18	Vertical	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-19	Vertical**	30"dia x 0.750"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1**	30"dia x 0.750"t	200	100	SPIN FIN	600/1350	575/1300	-155'
ADDITIVE ALTERNATE 'C'								
BC-20	Vertical	30"dia x 0.75"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.75"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-21	Vertical	30"dia x 0.75"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.75"t	200	100	SPIN FIN	600/1350	575/1300	-155'
BC-22	Vertical	30"dia x 0.75"t	160	80	SPIN FIN	550/1240	525/1180	-135'
	2:1	30"dia x 0.75"t	200	100	SPIN FIN	600/1350	575/1300	-155'

** INDICATES PDA REQUIRED (SEE SPECIFICATION 02896)



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DATE: 8/7/15

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HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION

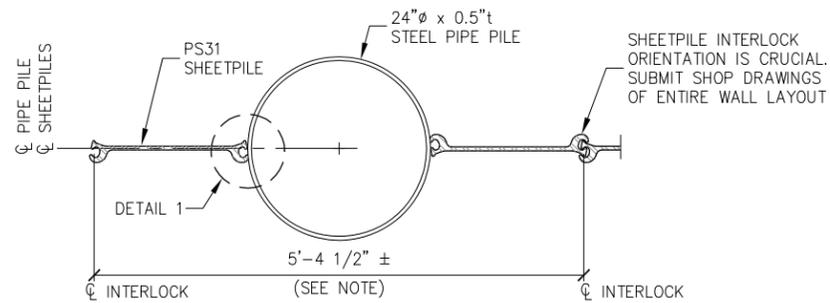
SHEET TITLE:

PILE SCHEDULE

PND PROJECT NO.: 102029.10

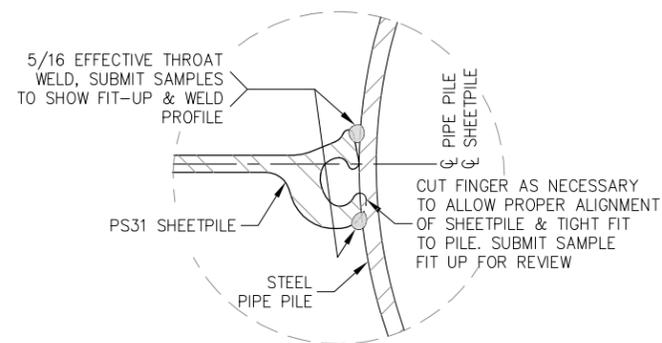
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SHEET 23 OF 29

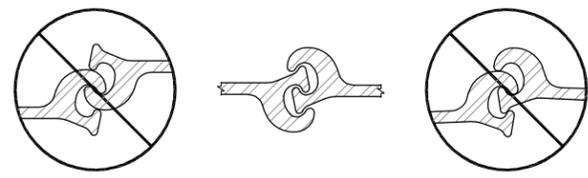


TYPICAL BARRIER PILE

NOTE:
IF DIMENSION VARIES SUBSTANTIALLY FROM THIS ESTIMATE DUE TO FIT-UP OF PROPOSED SHEETPILE, ADDITIONAL BARRIER PILES AND SHEETPILE MAY BE REQUIRED TO OBTAIN OVERALL DESIRED LENGTH OF WAVE BARRIER SHOWN.



DETAIL 1



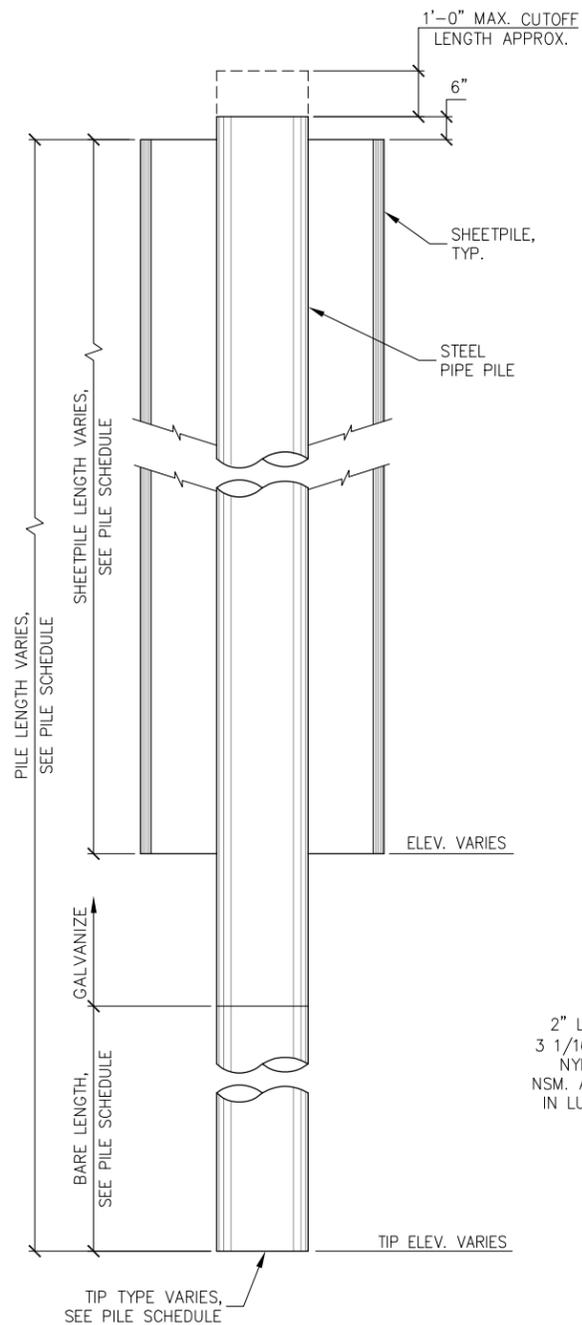
INCORRECT

CORRECT

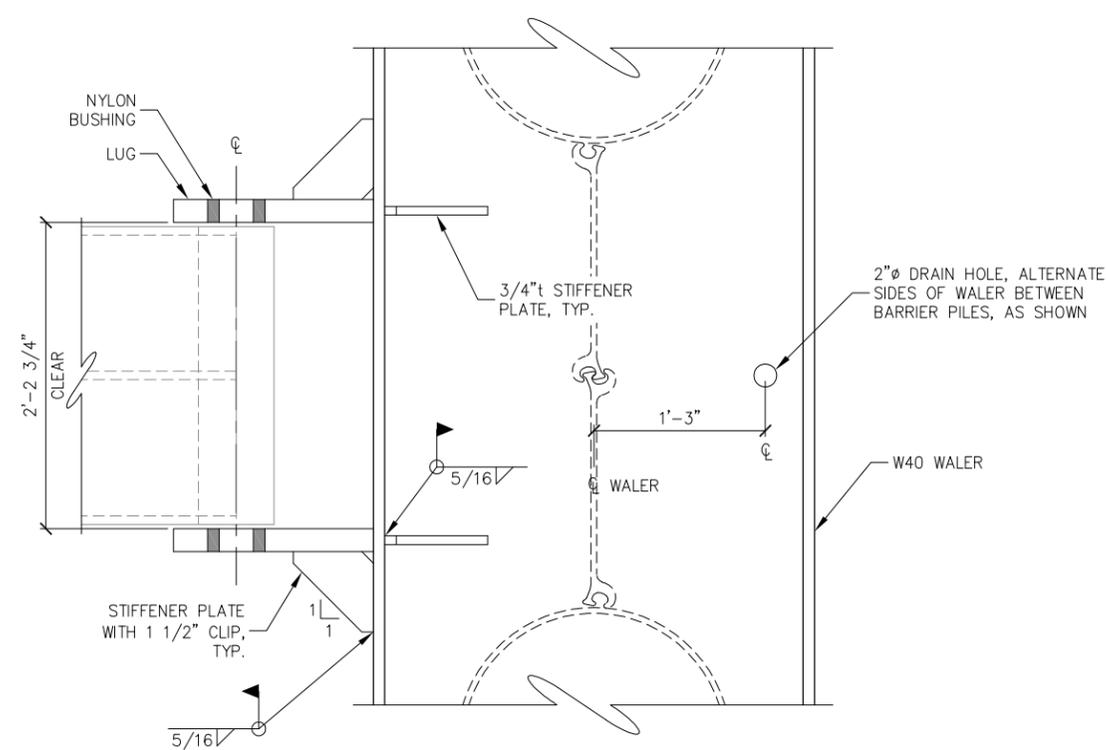
INCORRECT

SHEETPILE INTERLOCK DETAILS

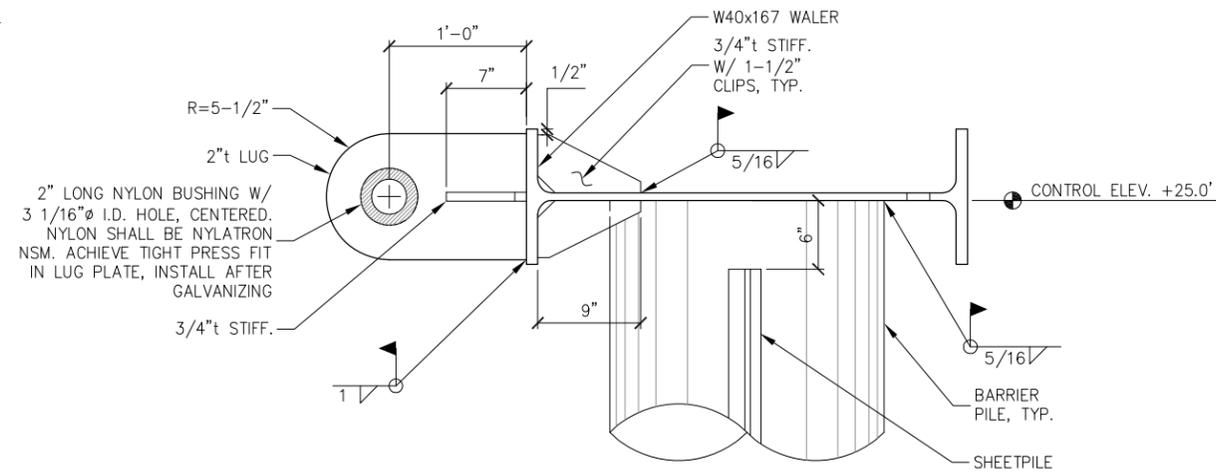
NOTE: ORIENTATION OF INTERLOCKS IS CRUCIAL, VIEW SHOWN FROM TOP.



TYPICAL WAVE BARRIER PILE



PLAN



ELEVATION

WALER DETAILS



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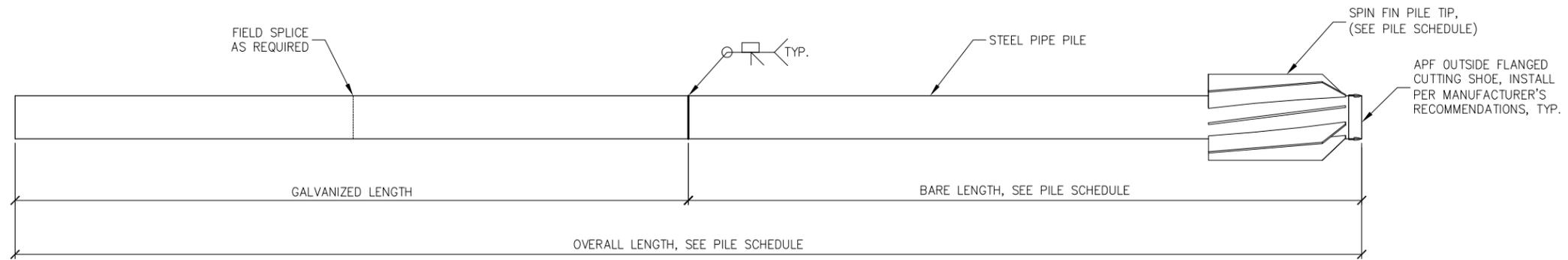
**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE:
BARRIER PILES AND WALERS

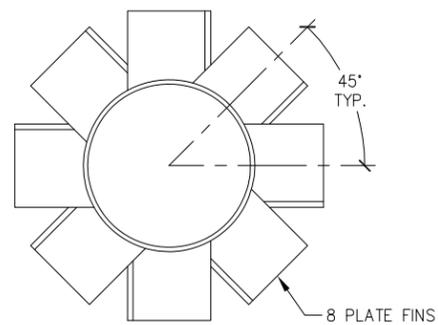
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SHEET
24 OF 29

PN&D PROJECT NO.: 102029.10

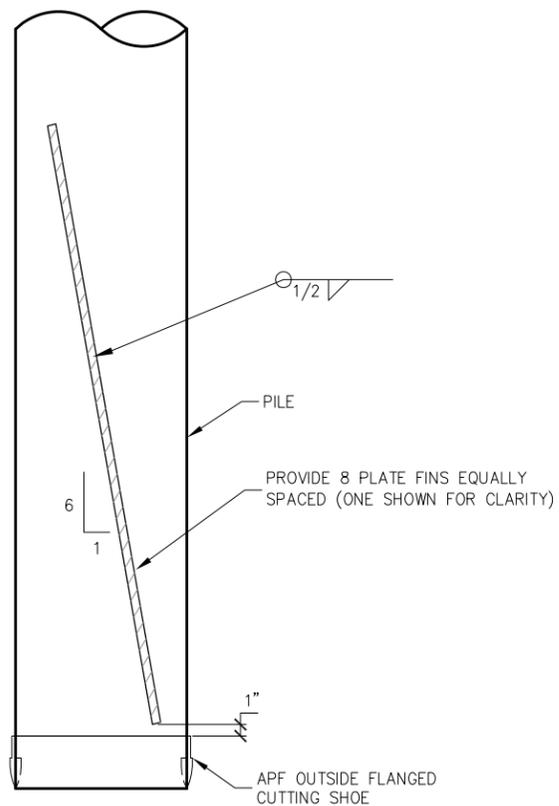


BEARING PILE
NTS



PLAN

SPIN FIN PILE TIP
NTS



ELEVATION

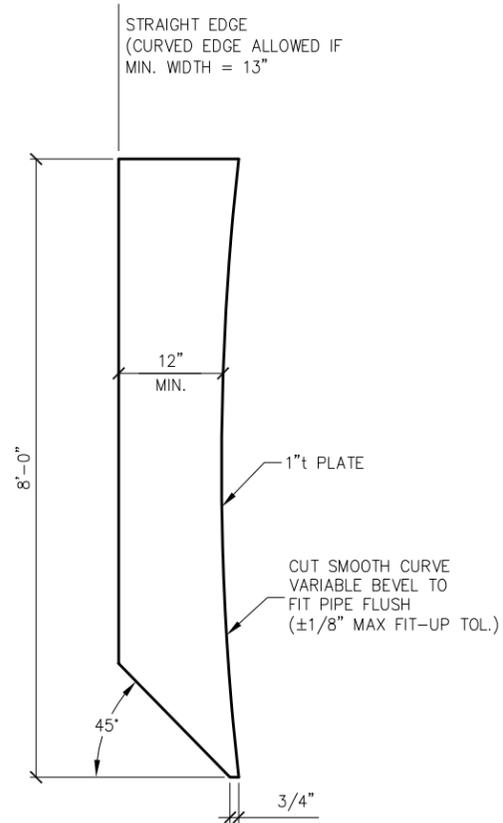
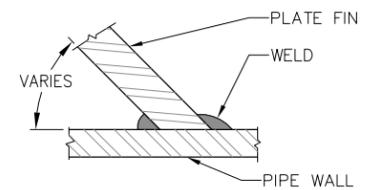
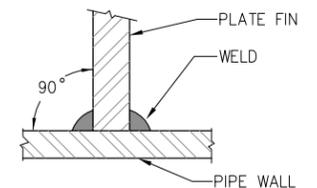


PLATE FIN
NTS



PILE/FIN SECTION
NTS



PILE/FIN SECTION AT CENTERLINE OF PLATE
NTS

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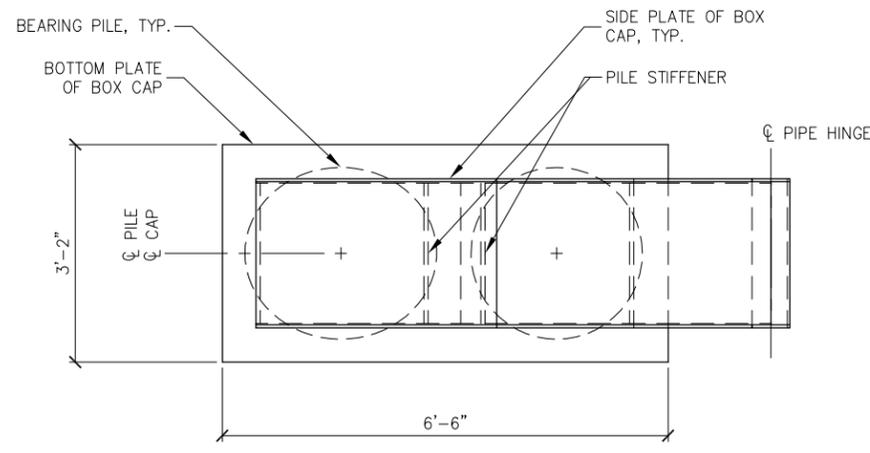
HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION

SHEET TITLE:
BEARING PILE DETAILS

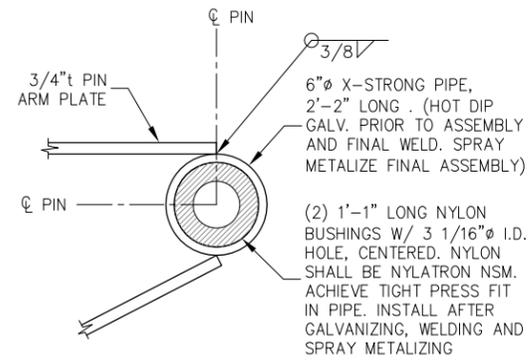
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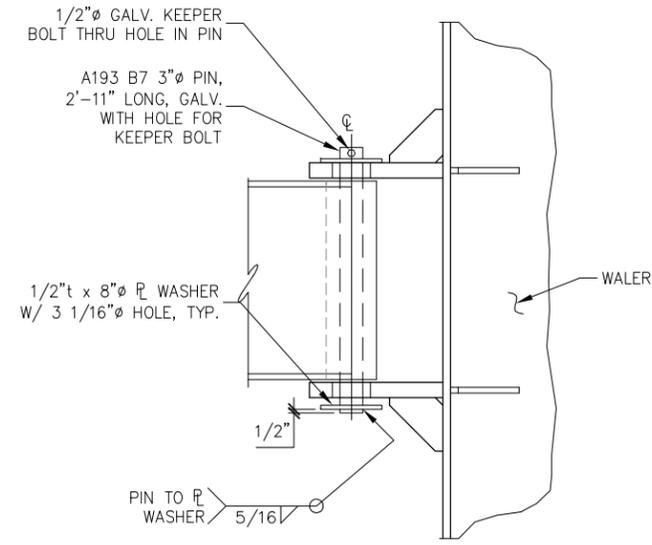
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25 OF 29



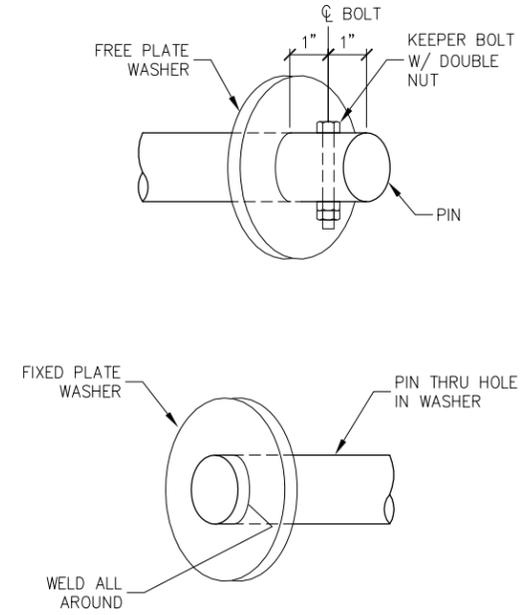
PLAN



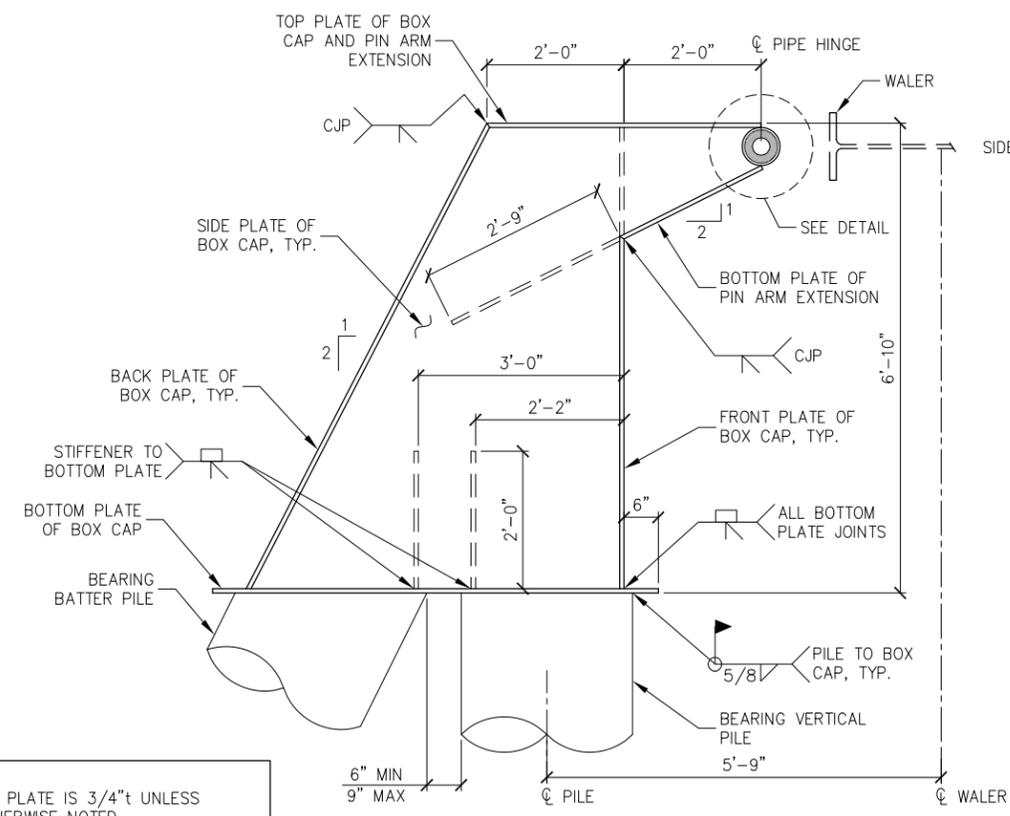
DETAIL



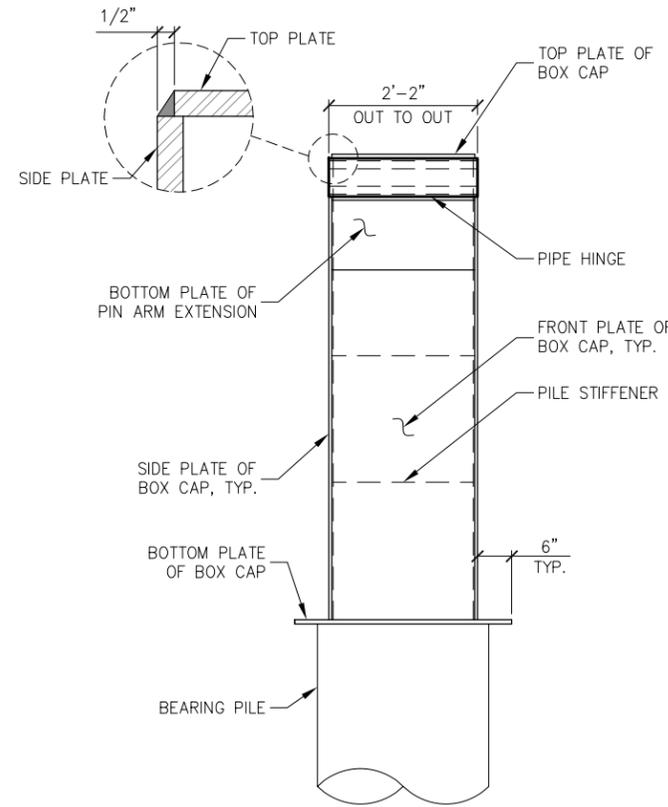
PIN CONNECTION PLAN



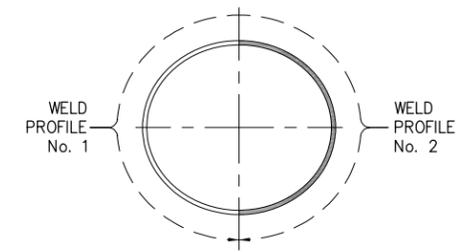
PIN CONNECTION DETAILS



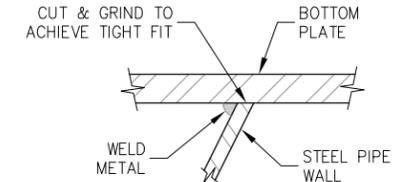
SIDE ELEVATION



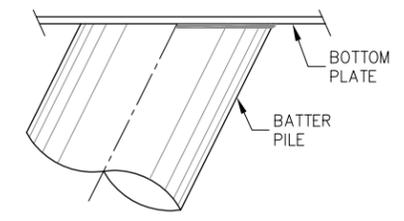
FRONT ELEVATION



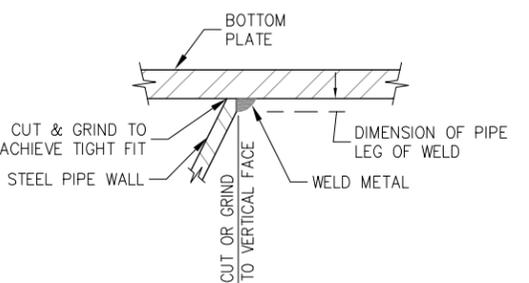
PLAN



No 1 WELD PROFILE



SIDE VIEW



No 2 WELD PROFILE

- NOTES:**
1. ALL PLATE IS 3/4"t UNLESS OTHERWISE NOTED.
 2. ALL OTHER WELDS ON BOX CAP NOT SHOWN SHALL BE 1/2" FILLET OR EQUIVALENT BEVEL, ALL AROUND.
 3. SPRAY METALIZE BOX CAP AFTER FINAL SHOP ASSEMBLY OF STEEL COMPONENTS

BATTER PILE WELD
(ALL BATTER PILES)

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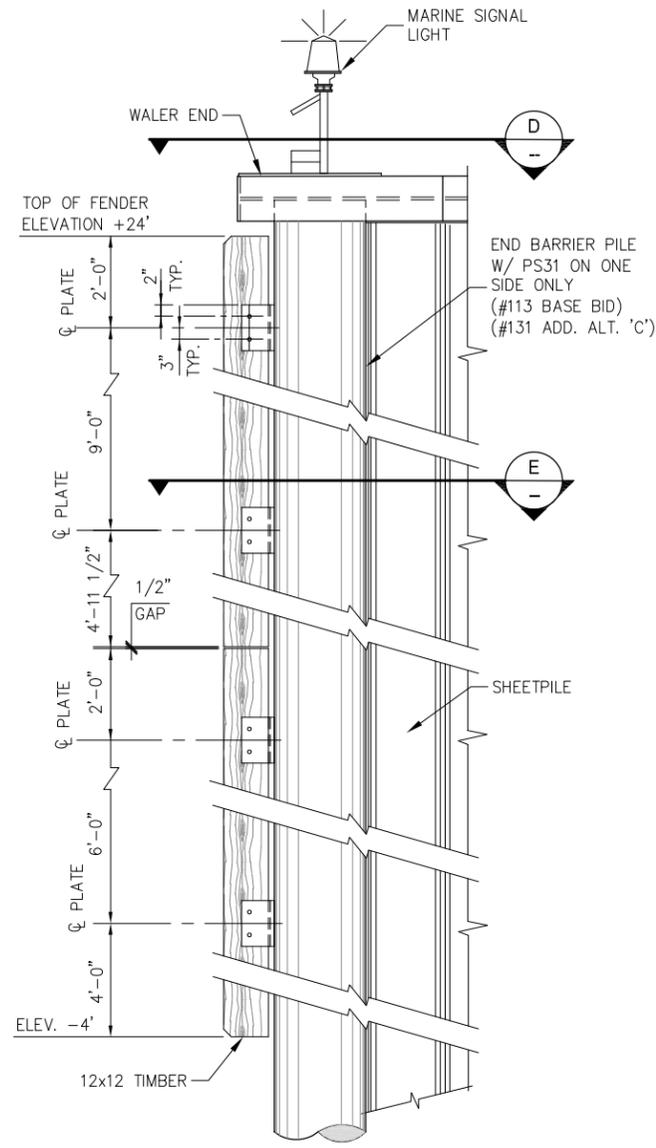
DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

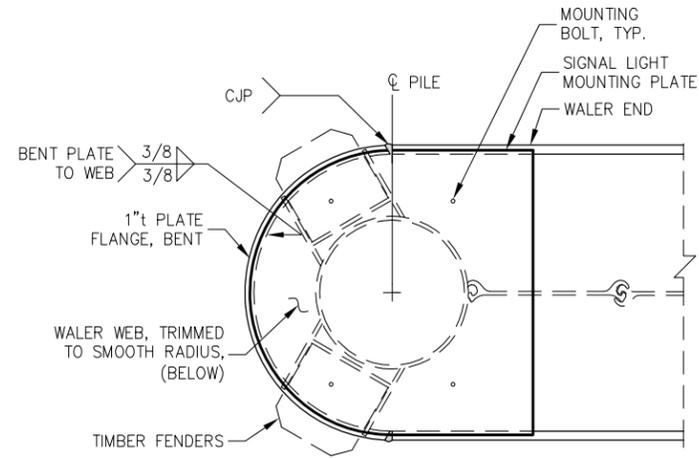
SHEET TITLE:
BOX CAP DETAILS

PN&D PROJECT NO.: 102029.10

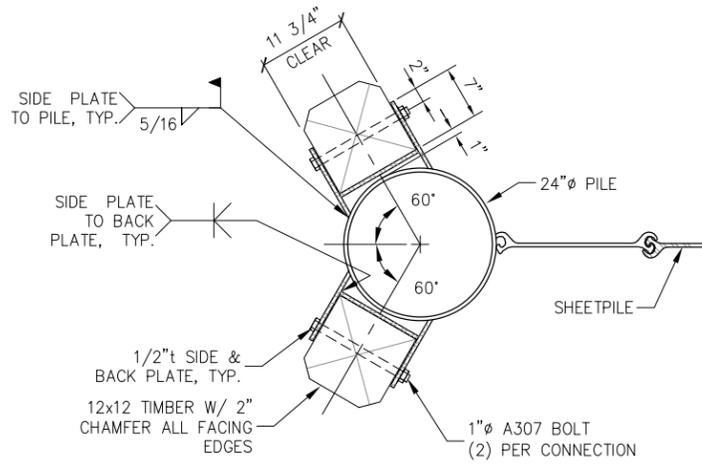
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SHEET
26 OF 29



PARTIAL ELEVATION

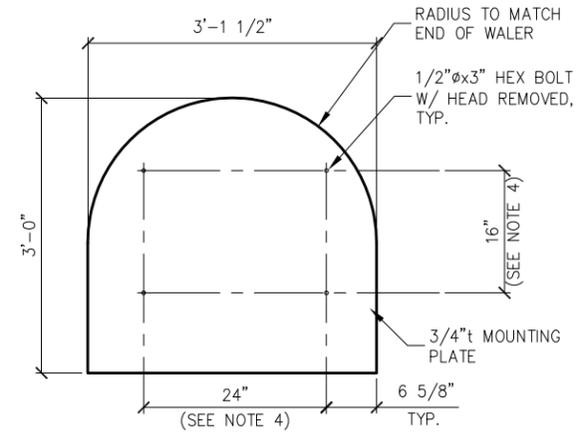


D VIEW

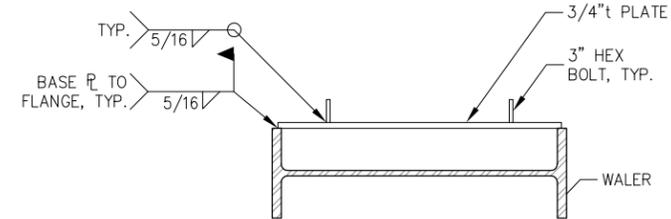


E VIEW

FENDER



PLAN



SECTION

SIGNAL LIGHT MOUNTING PLATE



MARINE SIGNAL LIGHT

SIGNAL LIGHT NOTES:

- 1) ALL METALS AND HARDWARE SHALL BE HOT DIP GALVANIZED PER ASTM A123 OR A153 AS APPROPRIATE.
- 2) BOLTS SHALL BE ASTM A325. STEEL PLATE SHALL BE A MINIMUM ASTM A36.
- 3) TIDELAND SIGNAL CORP. SOLA-CHAN MARINE SIGNAL LIGHT. ML-155 ON 4' PEDESTAL WITH 10W SOLAR MODULE OR APPROVED EQUAL, INCLUDING ON 12V SECONDARY ENERGY CELL AND MAXIFALO-60 LED FLASHER SET AT 0.4 SEC. "ON" AND 3.6 SEC. "OFF" (15 FLASHES/MINUTE) VISIBLE FOR MIN. 2 NM. COLOR AND FLASH PATTERN PER US COAST GUARD PERMIT REQUIREMENTS.
- 4) CENTER MARINE SIGNAL LIGHT ON BASE PLATE. CONTRACTOR TO VERIFY BOLT PATTERN AND SPACING ON LIGHT BASE.
- 5) ORIENT SOLAR PANEL FACING SOUTH.



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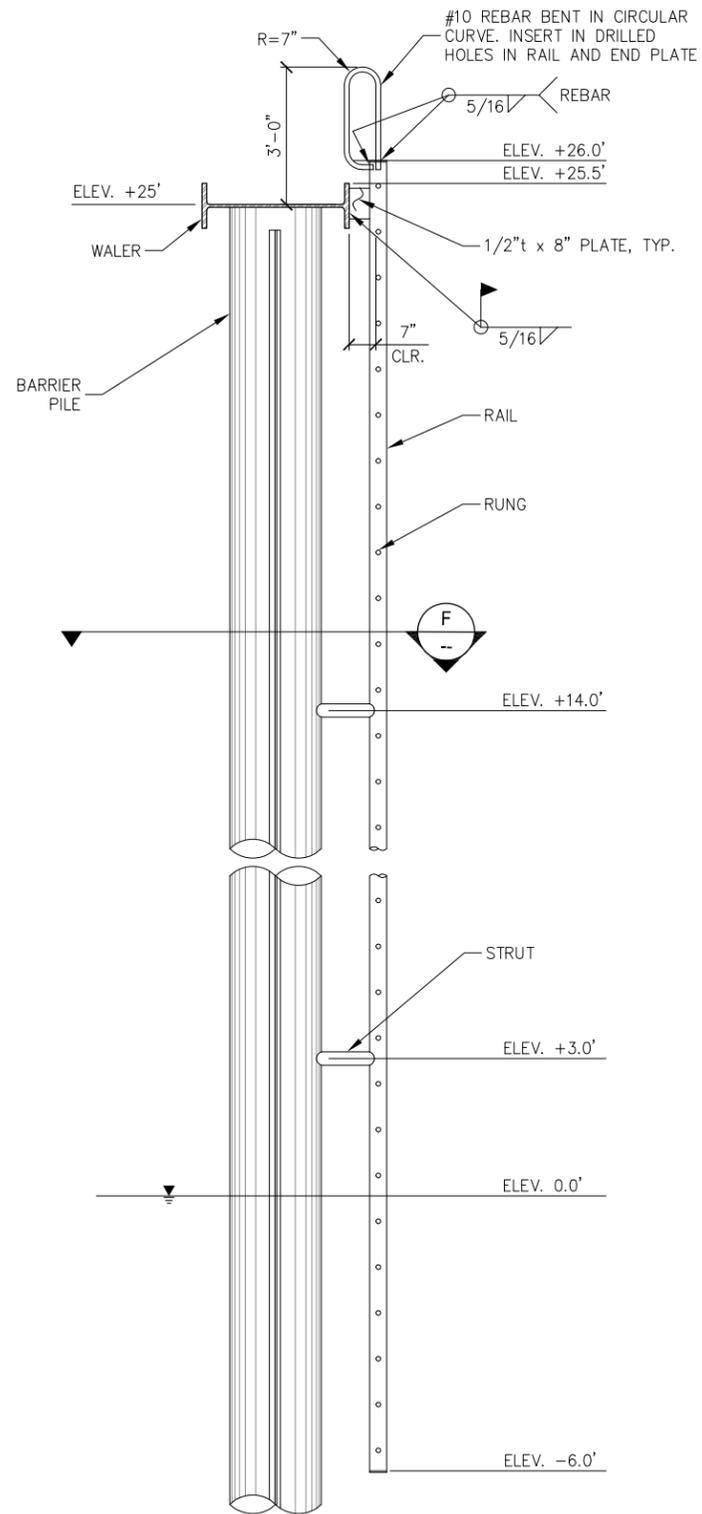
**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE: **FENDER AND MARINE
SIGNAL LIGHT**

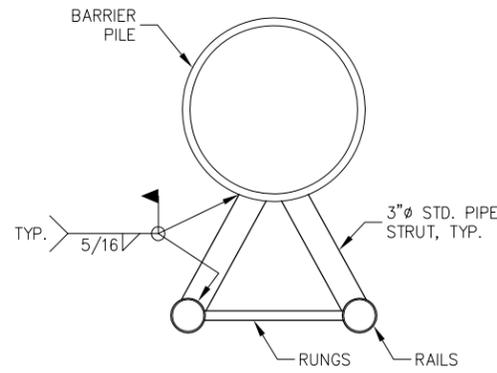
PN&D PROJECT NO.: 102029.10

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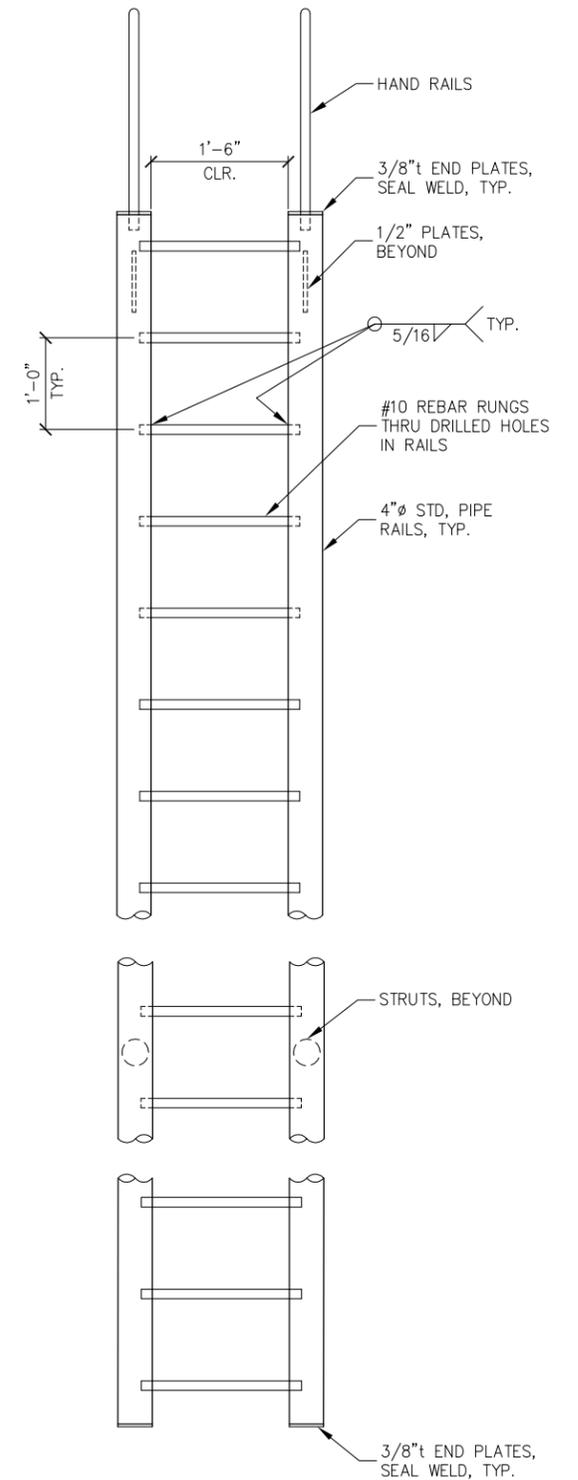
SHEET
27 OF 29



PROFILE



SECTION F



ELEVATION

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DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

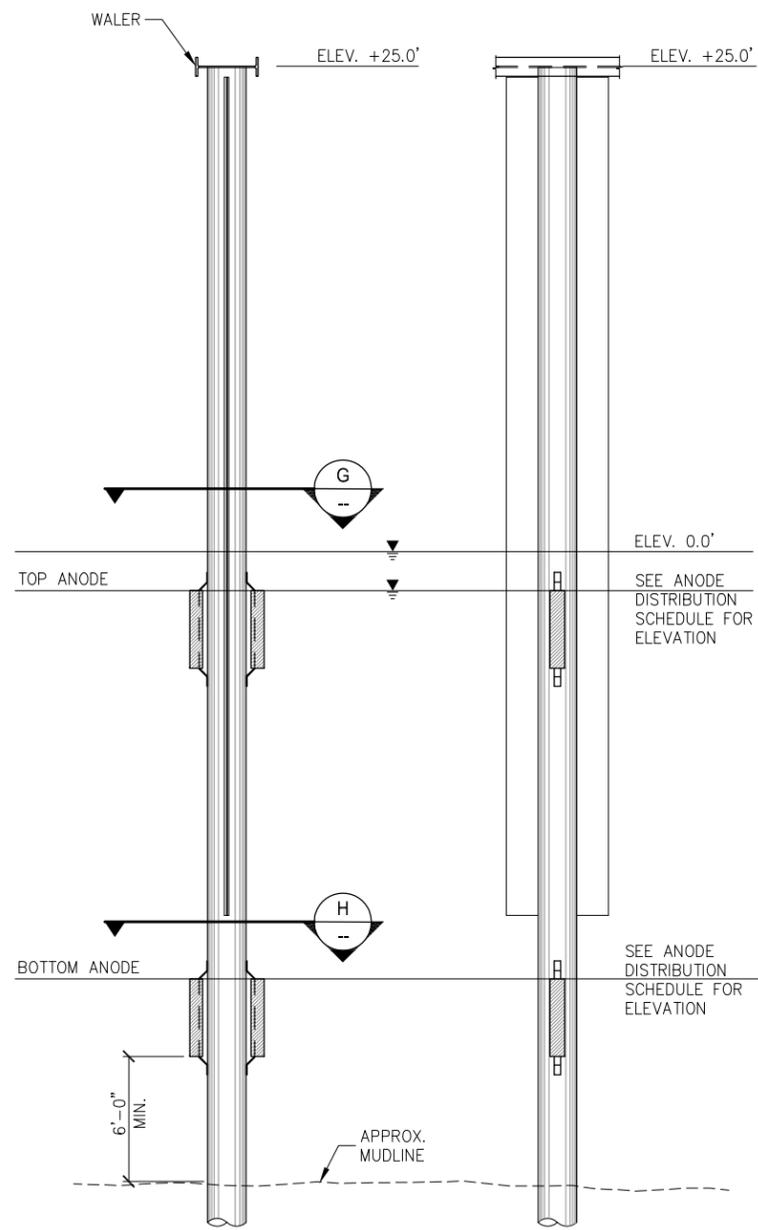
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LADDER

PN&D PROJECT NO.: 102029.10

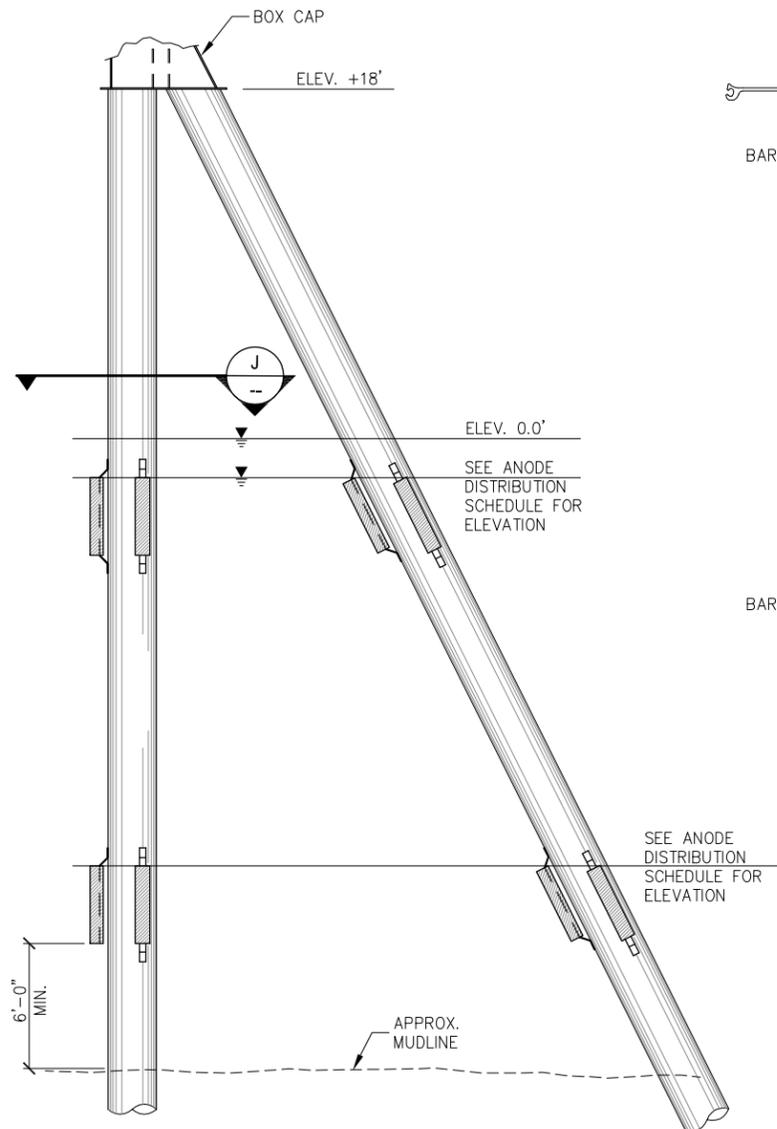
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SHEET
28 OF 29

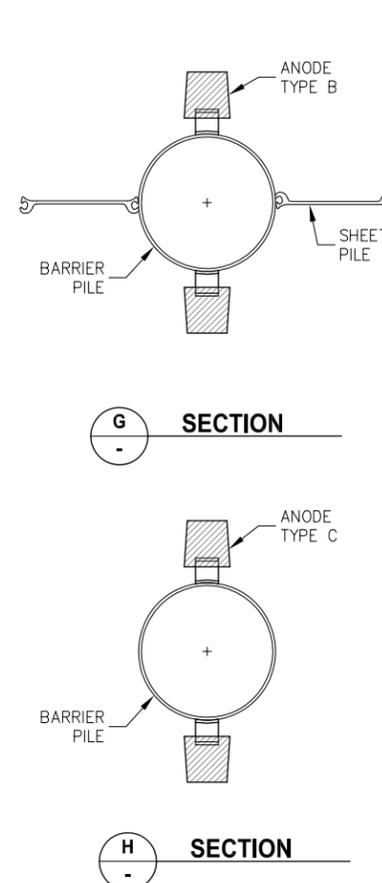


PROFILE **ELEVATION**

BARRIER PILE ANODES

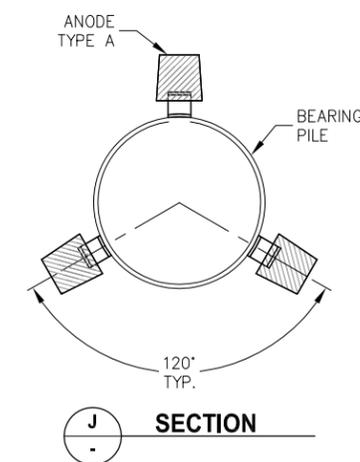


BEARING PILE CLUSTER ANODES

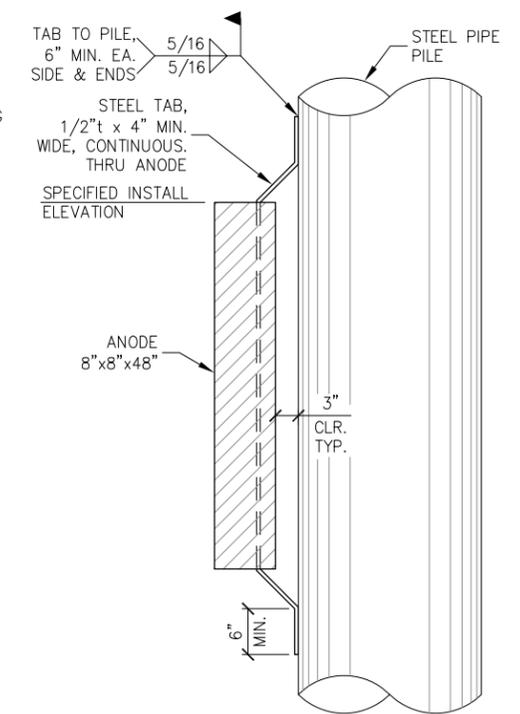


G SECTION

H SECTION



J SECTION



ANODE DETAIL

PILE DESIGNATION	TOP ANODES	BOTTOM ANODES
	ELEV.	ELEV.
BARRIER PILES 1 TO 5	NA	NA
BARRIER PILES 6 TO 32 (EVEN ONLY)	-2.0'	NA
BARRIER PILES 34 TO 40 (EVEN ONLY)	-2.0'	-15.0'
BARRIER PILES 42 TO 46 (EVEN ONLY)	-2.0'	-16.0'
BARRIER PILES 48 TO 122 (EVEN ONLY)	-2.0'	-17.0'
BARRIER PILES 124	-2.0'	-16.0'
BARRIER PILES 126 TO 130 (EVEN ONLY)	-2.0'	-15.0'
BEARING PILE CLUSTER BC-1	NA	NA
BEARING PILE CLUSTERS BC-2 TO BC-5	-2.0'	NA
BEARING PILE CLUSTERS BC-6 TO BC-7	-2.0'	-15.0'
BEARING PIPE CLUSTERS BC-8 TO BC-20	-2.0'	-17.0'
BEARING PILE CLUSTERS BC-21 TO BC-22	-2.0'	-15.0'

NOTE:
ANODES SHOWN ON TYPICAL SECTION VIEWS OF BARRIER PILE AND BEARING PILES FOR GENERAL ILLUSTRATION. QUANTITIES AND PLACEMENT ELEVATIONS VARY ALONG WALL. REFER TO ANODE DISTRIBUTION SCHEDULE FOR SPECIFICS.

95% DESIGN REVIEW SUBMITTAL



REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



9360 Glacier Highway, Ste. 100
Juneau, Alaska 99801
Phone: 907-586-2093
Fax: 907-586-2099
www.pndengineers.com

DESIGN: JDO CHECKED: CRS
DRAWN: DRH APPROVED: CRS

SCALE:

DATE: 8/7/15

**HAINES BOROUGH
PORTAGE COVE
HARBOR EXPANSION**

SHEET TITLE: **PILE ANODES
ADDITIVE ALTERNATE 'D'**

PN&D PROJECT NO.: 102029.10

5.13

SHEET
29 OF 29



Xi Cui

To: haines_port_development_council@yahoo.com
Subject: RE: Harbor expansion

From: haines_port_development_council@yahoo.com [mailto:haines_port_development_council@yahoo.com]
Sent: Tuesday, August 25, 2015 3:59 PM
To: Xi Cui; Rob Goldberg
Subject: Harbor expansion

Hi Tracy;

I would like this included for the next Planning Commission meeting.

Thank you;
Bill kurz

My concerns;

1. The proposed breakwater makes the entrance / exit at the south end heading toward the beach. To me that is a safety issue as well as not being able to see if a boat is coming or going at low tide.
2. With a large cruise ship at the PC dock it makes it tight for boats coming and going. Also it makes it difficult for the fast ferry entering to dock at the PC dock.
3. The proposed breakwater makes no provision for future expansion.
4. Proposed relocation of the sewer discharge line raises concern of pollution at the bathing beach.
5. Proposed relocation of the sewer discharge line would put it in the way of any future expansion.

My remedies;

1. If determined to stay with the sheet pile breakwater. Move the north end 100' east. Move it north 50' thus creating an entrance / exit between the current rubble breakwater and proposed sheet pile breakwater. This solves most of the safety problem.
2. This does not solve the Fast Ferry problem

3. This leaves the south end of the breakwater available for extension to the PC dock, thus greatly expanding the harbor.
- 4&5 Rather than relocate the sewer discharge line use a temporary floating line while the harbor is dredged then replace the line in it's current location. That way it will not be in the way for ant further expansion.
6. If fully expanded there could be a floating dock inside the proposed breakwater to accommodate the Fast Ferry and similar size vessels, thus creating an income.
7. Changing to a properly designed floating breakwater would solve all the safety and visual problems.

Bill

Haines Port Development Council LLC. Board Member
<http://www.hainesalaskaport.com/>

haines_port_development_council@yahoo.com

Haines & Yukon Railway LLC. Board Member

<http://www.HainesYukonRail.com>

wkurz@hainesyukonrail.com

Publisher; Haines Happenings

<http://hainesalaskahappenings>.

Haines Chamber of Commerce Board Member

<http://haineschamber.org/>

Bill Kurz

907-766-2324

Box 1363

Haines, Ak 99827

From: [Dave Nanney](#)
To: [Xi Cui](#)
Subject: Testimony concerning proposed Boat Harbor Expansion
Date: Thursday, September 03, 2015 10:09:41 AM

I read the sheet steel "Wave Barrier - Basis of Design" PDF file on the Borough's website which gives mainly written "take it on faith" assurance of adequacy for the proposed steel curtain wave barrier. This obviously leads to questions about the actual design assumptions that were used and the potential risks associated with the wave barrier as designed, e.g. undisclosed future costs.

http://www.hainesalaska.gov/sites/default/files/fileattachments/ports/basis_of_design_4_10_15.pdf

The City of Anchorage had similar written assurances from the same design engineers that their port expansion project would be cheaper and better using sheet steel piling to support the face of the new backfilled dock area. Unexpected very hard bottom conditions caused deformation and damage to the steel sheet piling during driving and ultimate failure of the sheet piling solution. The City of Anchorage has filed a lawsuit against the contractor and engineers and plans to completely remove the failed sheet piling and re-construct the dock face using more traditional methods. These search results using Google are links to articles in the Anchorage daily newspaper about what they call "the billion dollar mess."

<http://www.adn.com/search/gse?query=port+of+anchorage+dock+failure>

These articles speak eloquently for themselves. During the initial phases of the Haines Boat Harbor project the Borough could have vetted the engineering firm (done a simple Google search) and found out about the Port of Anchorage's ongoing 10-year nightmare.

Documentation provided to the public for the Haines Harbor Expansion Project indicates that bottom conditions here may pose risks also. Especially noteworthy is that the designers based their lateral wind forces analysis on a 17' averaged vertical exposure between high and low tide. Actually, we have giant extreme tide cycles with a possible 25' differential between tides (almost the highest tidal differential on Earth) and a total exposed vertical surface over 30' high at extreme low tide, almost twice as high as the "design vertical exposure." These annual world-class extreme tide events are often accompanied by powerful seasonal storms so lateral overturning forces from the wind at extreme low tides are potentially very significant and should be combined with lateral wave forces in structural calculations (currently wind forces are discounted as inconsequential). This is important because the cantilevered wave barrier resists overturning only by the connection of its piles driven into the existing mostly soft sand and soft clay bottom. With its cantilevered upper edge and the mechanical advantage of lever action to magnify the overturning forces at the soft bottom, continuous flexing of the cantilevered barrier during the rhythmic pounding (gusting and oncoming wave sets) of an extreme low tide storm could gradually stir and liquify (water intrusion) the supporting mostly soft sand and clay base holding the supporting piling. There needs to be a review of the structural design

assumptions currently applied to the wave barrier to guarantee that continuous rhythmic pounding, which itself can magnify the negative effects of the overturning forces, can be successfully resisted.

In addition to the above, the high-maintenance overhead of the steel curtain wave barrier and its inevitable failure from electrolysis (and resulting replacement costs) could make the cost-benefits over the life of the project very unattractive from a taxpayer's perspective. A cost-benefit analysis for the life of the project needs to be done.

Additionally, there is nowhere shown in any of the site plans, as they should be, the close proximity of the adjacent Port Chilkoot Cruise Ship Dock with a large cruise ship moored there. If there were it would be obvious that the planned Boat Harbor entrance at the south end is very constricted in relation to mixed types of marine traffic in the immediate vicinity of the planned Boat Harbor entrance and the Port Chilkoot Dock. A site plan should be provided that also shows the immediately adjacent recreational beach and the Port Chilkoot dock with a large cruise ship moored there so reasoned deductions can be made about marine traffic congestion, safety issues and pollution of the recreation beach from bilge water being pumped by vessels exiting the Boat Harbor. Additionally, at extreme low tide the shallow slope of the beach and the proposed entrance/exit extends the beach way out and that constrictive condition needs to be shown on a site plan of the proposed wave barrier entrance.

To manage risks and future costs the Haines Borough needs to open these practical issues to additional review rather than dismissing the public's concerns as unfounded.

Dave Nanney - Haines Port Development Council - Member of the Board
Webmaster - <http://www.HainesAlaskaPort.com>
Masters Degree, Stanford University, 1967, Department of Engineering,
(Architectural Engineering and Regional Planning)

Date: August 30, 2015

To: Planning Commission

Fr: Debra Schnabel

Re: Harbor Expansion Project

In 2012 a major decision was made by the administration to abandon the plan to expand the boat harbor to the north. Until then, all impact studies - environmental, financial and social – had assumed a northward expansion.

No studies of the environmental, financial, or social conditions have been undertaken to allow the community to evaluate the potential overall impact of expanding the harbor to the south. The initial needs study undertaken by the Army Corps of Engineers in 2004 has not been updated. Yet, we find ourselves at a decision point: we are considering the construction of a major community facility that is underfunded in a waterfront zone with highly competing uses. Of great concern to me is the absence of the Planning Commission's guidance and oversight of this project.

I have only minimal hope that the Planning Commission feels empowered to assume control of this project, though I encourage it. Regardless, I am offering some suggestions that the PC could consider if it was so inclined to address the major issues of financial accountability and aesthetics of this project.

I have prepared a document that suggests design alterations that, if adopted, would

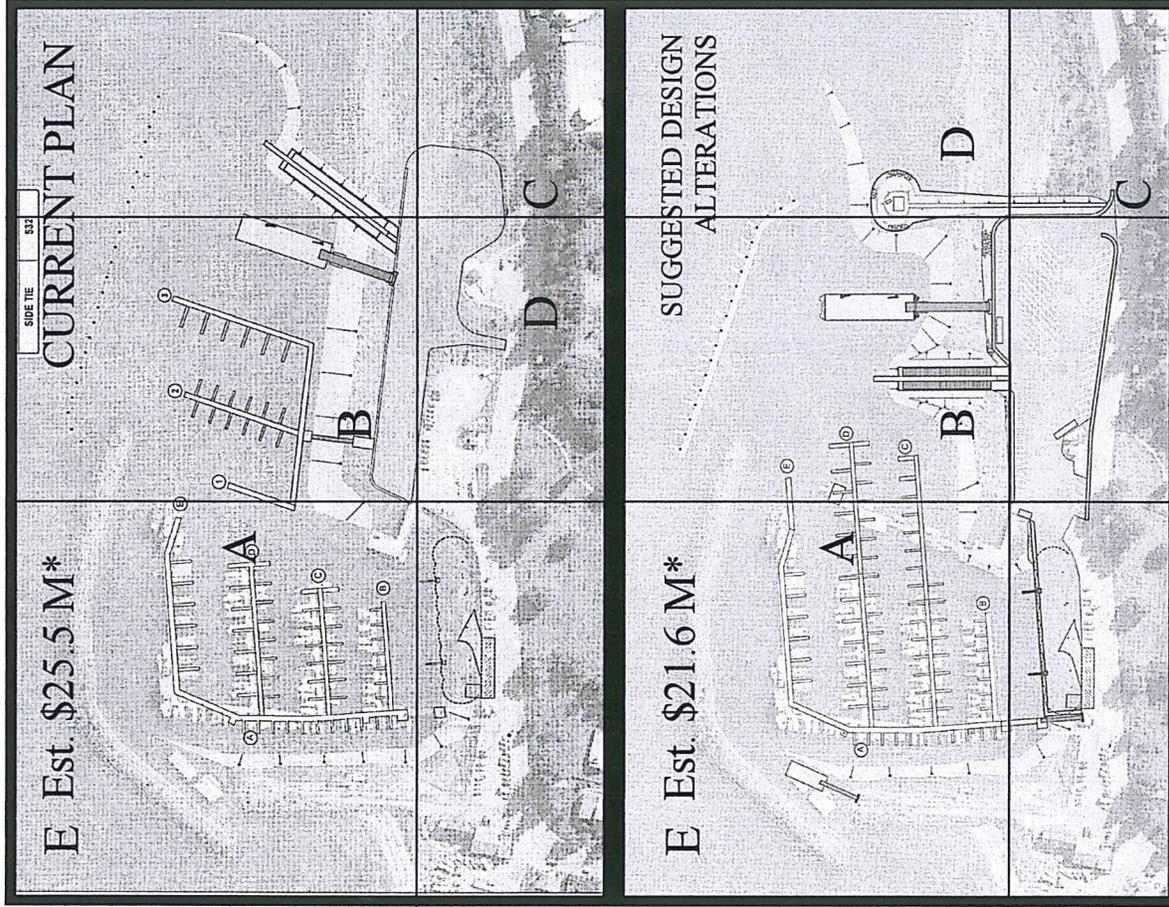
- reduce the capital costs of the first phase of the harbor expansion project ,
- allow for a more timely installation of floats to expand harbor capacity,
- reduce the projected operational costs of the working harbor, and
- offer a comparatively more aesthetic waterfront development .

The major proposals illustrated on the attached document are

- eliminating the second float system, thereby deleting costs of a second gangway and the need to complete the uplands before expanding the capacity of the harbor. We would be able to add additional slips to the harbor with funds "saved" by extending the existing system. Additional consideration: the costs of operating and maintaining a two-float system are greater than that for a one float system;
- relocating or recreating LookOut Park and capturing that space for harbor use. Wrapping uplands around a marine park negates the purpose of a park and compromises commercial use. The consequence of retaining the park structure is that additional uplands must be created elsewhere to meet perceived harbor needs. The result is a larger footprint, higher construction and mitigation costs. Relocation or creation of a waterfront park on the edge of the uplands and overlooking the water retains aesthetics and isolates competing land use.

Suggested design changes to reduce cost and enhance aesthetics of proposed harbor expansion

- A. **Float System(s).** The current plan proposes two separate float systems, each accessible from a unique gangway. If modified to install only **one float system**, we eliminate the cost of the second gangway and gain time in expanding the harbor capacity by adding floats to the existing system as soon as funds allow. The number of slips created is approximately equal.
- B. **Seaward Extension.** The current plan extends the toe of the newly created uplands seaward approximately 100 ft. beyond the toe of the current parking lot. More fill is deposited on the beach, requiring more dredging mitigation costs.
- C. **Southern Extension.** The current plan creates an uplands extending approximately 670 ft. south of the existing transient float dock. (Note: all distances are rough estimates)
An uplands design that captures the space currently utilized by LookOut Park would result in an uplands extending 560 ft. south, reducing the footprint and decreasing mitigation costs and lending to the overall aesthetic.
- D. **Marine Park.** The current plan surrounds LookOut Park with uplands dedicated to harbor use. There may be conflicts between those uses. The design degrades the aesthetics and purpose of LookOut Park. A new LookOut park location on the edge of the uplands looking seaward not only preserves the aesthetics of a waterfront park, but also reduces conflict with commercial upland uses.
- E. **Costs.** The estimated cost of the current plan was \$25.5 M as of 2/2014: wave barrier, entrance and basin dredging: \$19 M, and \$6.5 M for float system and parking lot refurbish and landscaping. By eliminating the seaward expansion and the second float system the project could see savings of approximately \$4 M.
* Cost estimates as of Feb. 2014.



Xi Cui

To: evelyna vignola
Subject: RE: harbor expansion & the park

From: evelyna vignola [mailto:eeevignola@hotmail.com]
Sent: Monday, August 17, 2015 4:14 PM
To: Xi Cui; Julie Cozzi
Cc: evelyna vignola
Subject: Re: harbor expansion & the park

Dear Tracy and Julie, please include this in all info and packets being collected on the harbor expansion. I started to write a letter to the editor, then it got way too long and I looked into this being a paid commentary but that was \$195, too much for yours truly. I took one paragraph and made that a letter to the editor. Included here is my entire piece, I hope you'll read it, but in any case, please put in the proper place. Thanks very much. Evelyn Vignola

The Park at the Harbor

I believe an expanded and improved harbor for fishing folk AND a lovely park and waterfront for all of us is absolutely possible in Haines. Thank you Carol Tuynman for saying out loud that this aesthetics committee is an "empty gesture". Thank you Debra Schnabel for not being able to separate design from aesthetics. Has anyone designed a house with a shared living/dining/garage space? That's what design #14B feels like to me, a garage with a couch in the corner....

Lookout Park is an outdoor living room for Haines, surrounding it with a road and a parking lot is very poor judgement. It will not be an oasis, it will be oddly lost in the middle of all that vehicular activity. An outdoor gathering space works not only because the physical layout is nice but also because its placement as a whole feels right to human beings. Design #14B maintains the park but no one will want to go there because it will be surrounded by cars, trucks, boat trailers and boats, some of which will be moving. The feeling of such a space will be vibrationally uncomfortable. At the very least it will distract from the lovely view. Additionally it will feel subtly unsafe because of all that heavy metal moving around. I'm not saying the lovely view won't be seen or that anyone will consciously have to worry about getting hit by a car. I am saying the park will be used less because with such a drastic change in its surroundings it will be a much less pleasant place to stop.

Let's look at one of our on-the-street outdoor eating spots: Sarah J's is grounded by the stable food trailer itself on one side and then bordered by the street/moving traffic of 2nd Avenue on the other. Between the moving cars and where people sit there is a concrete sidewalk then the grass and gravel space for tables. The traffic on the other ends of Sarah J's is far enough away and little used enough so as to not interfere with the feeling of safety and comfortability, there is no subtle threat of cars vs. people. Can you see and feel that even though Sarah J's actually has traffic on 3 sides, her space is not dominated by cars, that the spot is highly favorable for people eating a quick meal? She also happens to have wonderful flowers and plants beautifully placed, these enhance her basic good design, they're not there to balance out a bad design. I realize the harbor is a much more complex situation than this. I'm just pointing out a basic beneficial plan, a "good"

design, which also has heavy metal close by and which has, but doesn't need, aesthetic enhancements to work well. Design #14B is not such a plan.

The new digital rendering is a whitewash, it's dishonest marketing. That totally empty parking lot is neither a winter nor a summer view. The street barely shows up, the isolation of the park among the acres of cars, trucks, boat trailers and boats isn't there at all. About that steel wave barrier I don't love it at all, and I don't know what to say about it either. The rubble mound certainly looks and feels more organic, is there a problem with it? It seems reasonable to me to continue using a technology that no one objects to and that works well. I'll repeat myself, the #14B placement of Lookout Park diminishes the beauty and tranquility of the park. The earlier design #3A with the perimeter walkway and the park in the corner by the water is much, much better for the park. Does that design do justice to the harbor expansion needs?

I personally don't think this issue belongs on a ballot, I believe the designers and various committees can get the task accomplished if they can proceed as if this is "our" project to do together. It seems like the groups in favor of design #14B think they own this project but they don't, do they? Isn't this project for everyone who wants to play a part in it? Every one of us will benefit if this is done together. I would feel sorry to lose this opportunity by surrendering to those seemingly powers that be.

And please stop it about how many times there were for the public to chime in on this. The bird's eye view drawing of this plan was published in the CVN this spring. Even I who am normally pretty reserved started writing letters when I saw that version, this is my 3rd letter on the same topic. The drawing was not published at the time of the assembly vote a year or more ago. I'm sure we're all sorry about that but it's not too late to come up with an excellent design. It's just not too late.

All of us non-fishing folk, locals and visitors, will enjoy seeing BOTH the workaday world of the fishing folk AND beautiful views of water, boats, mountains, the memorial and the totem pole. Please get the proportions right. Neither is better than the other, neither matters more than the other, it's amounts of each that matter. Some years there's arsenic in our water, the amounts are not enough to kill us, we do all right with some arsenic. I want to say design #14B is enough to kill Lookout Park and the Fishermen's Memorial, but since I just said #14B leaves the park intact, what I mean is #14B will most certainly detrimentally affect the spirit and soul of the park and that's really a shame because we can get this 'right'. Please, please work together and get proportions and placements that work for the harbor as a whole. (Mediators are available at L.C.C.S.) Thank you very much.

Evelyna Vignola

Dear Commissioners,

I am writing in opposition to the planned Boat Harbor Expansion Project. Haines has very little going for it economically. A short tourist season in the summer, an unpredictable heli-ski season in the winter. Haines has one major thing going for it year around, and that is the most undeveloped, beautiful waterfront in Southeast Alaska. And because we have been given a 19 million dollar handout, we are willing to destroy this beautiful and tranquil waterfront with a 4.5 acre industrial parking lot, and obliterate the view of the ocean beyond the beach with a 30 foot high steel wall. If this development happens as planned, the people of Haines will lose forever the beautiful undeveloped view from Lookout Park of the natural rock beach, ocean and mountains beyond. Instead they will see trucks and fishing boats parked in front of them, a steel wall out in the ocean, and a thin strip of ocean between the top of the wall and the mountains. They won't see boats out there fishing. They won't see whales. They won't see much of anything except the parking lot and steel wall.

Is what we are about to lose worth what we will gain? Are there really no other alternatives? If the cost of a slip in Haines were comparable to a cost of a slip in other ports in Southeast, would there still be a list of people waiting to get one? If the fisherman who leave their vehicles parked for weeks at a time at the harbor didn't have free parking, would there still be a parking problem there?

Oil has just dropped below \$50 per barrel. This Boat Harbor Expansion Project was conceived during much higher oil prices. Without the additional ten million dollars to finish the project, we will be stuck with a zero income producing deep hole in the ocean, a high maintenance steel wall out in the ocean, and an ugly ugly parking lot. As a tax paying land owner, I do not want my property taxes raised to support this controversial project.

Please explore the alternatives.

Sincerely,

Gina St. Clair
244 North Sawmill Road
Box 875
Haines, AK 99827

From: [Tresham Gregg](#)
To: [Julie Cozzi](#)
Subject: petition submission request
Date: Tuesday, September 01, 2015 10:17:16 PM

Hi Julie,

I would like to have the Petition for Reconsideration that was submitted in June be resubmitted to the Planning Commission for their Sept 10th meeting about the 95% Harbor plan. This would include all the signatories names, and would be part of my written submission. Can you route this to the appropriate persons?

Thank you so much for your prompt attention,
Tresham Gregg 314 0826 cell

PETITION FOR RECONSIDERATION OF PROPOSED BEACH PARKING LOT

We, the undersigned, and many others like us, do hereby object to the idea that our scenic wetland beachfront that helps make Haines a lovely place to live is to be forever changed into a large parking lot. Since this is a irreversible action, something that will be with us forever, we feel that the general public should be heard. Voices of caution and opposition have put forth succinct statements indicating the inadvisability of this development, but have been totally ignored by the decision makers.

Our two industries, fishing and tourism need not be at odds with each other, but could (and do) enhance each other. People come to Haines - and support our local businesses, and tax base - because Haines is a real and delightful, inspirational place. We have scenic splendor all around, our waterfronts are lovely, our people are friendly, our businesses are locally owned, we have history and arts, festivals and fairs.

Our fishermen are local for the most part, who's needs can be met in ways that do not negate our inherent beauty and charm.

We feel that without any assurance of future funding - especially considering the state's economic situation - that the parking lot is a bad idea. What we need is attraction to enhance our visitor draw. We feel that the potential exists with that space to help create that attraction and get us back on the road to more business and enjoyment by visitors and locals alike.

In light of citizen concerns as well as facilities proposed to the north of the harbor, we trust that our Borough officials can reconsider and move to make a much better overall plan for our waterfront and our future.

May 4, 2015

A handwritten signature in cursive script that reads "Tresham Gregg". The signature is written in black ink and has a long horizontal flourish at the end.

Commentary

Although we realize that the majority of the Assembly supports the project as it is, we feel that, considering the permanent nature of the development and the radical change to our waterfront, that the public needs to be better informed in a more timely fashion about what we will be living with for the infinite future. Also since the money for the actual facilities of the harbor does not exist, and the state and the nation are without discretionary money, where and when will this money appear? Will this be another tax burden on our citizens or will our large dirt parking lot and metal baffle be all we see for a long long time?

If this plan is so beneficial for all of Haines residents, there should be no real problem in having it come up for public input before it is going out to bid. This will be your - and our - legacy for future generations as well as a complete divergence of the appearance of our waterfront in our immediate present.

The Borough Assembly represents the will of the people of the Borough, and as such, has the responsibility to keep the public well informed of any situation which may affect them - especially in a permanent fashion. Since many citizens were not aware of this major change, perhaps the Assembly should take more time before it is too late to include the public's concerns and alternate visions for our future.

RECEIVED Haines Borough

MAY 08 2015

Clerk's Office

Petition to Haines Borough Assembly
April 28, 2015

The undersigned Haines Borough residents aged 18 and older, hereby petition the Haines Borough Assembly to suspend engineering design work on the south harbor expansion project and provide for these essential planning activities:

1. Direct the Planning Commission to conduct a public review of the current design plan and Look Out Park relocation options with intent to reconcile competing land use issues and real financial considerations, as provided by code and referenced in the Haines Borough 2025 Comprehensive Plan, p. 121-122.
2. Conduct an economic analysis of the project as currently described, with intent to project the costs of operating and maintaining the harbor at various levels of completion, and within the funding method described by an Enterprise Fund, as provided for in the Haines Borough 2025 Comprehensive Plan. [Note: the last financial plan for operation of the harbor is "Navigation Improvements Interim Feasibility Report and Environmental Assessment, Haines, AK, July 2004" followed by a value engineering study in July 2005. Both analyses addressed a rubble-mound breakwater harbor located to the north of the existing harbor.]

Date	Printed Name	Signature	Contact Information
4/28/15	Audrey L Smith	Audrey L Smith	907-766-2540
4/28/15	Lorrie Dudzik	Lorrie Dudzik	907 766-2071
4/28/15	Tresham Gregg	Tresham Gregg	766-2540 Box 776
4/28/15	Annette Smith	Annette Smith	766-2708
4/28/15	Genette M. F. Clew	Genette M. F. Clew	766-3275
4/28/15	Molly Wilson	Molly C. Wilson	P.O. BOX 745 766-3698
4/28/15	Shawn McNamara	Shawn McNamara	Box 1633 321-3549
4/29/15	Alton Schubel	Alton Schubel	BOX 129
4/29/15	JANE PASCOE	Jane Pascoe	BOX 102 766 3775
4/29/2015	Samuel Wright	Samuel Wright	Box 1152 907 723 8235
4/30/15	Rapun S Parker	Rapun S Parker	Box 1031 766-3733
4/30/15	Ian Seward	Ian Seward	PO Box 1644 766-3540
4/30/15	Nancy Berland	Nancy Berland	Box 952 303-7302
4/30/15	FRAN SHIELDS	FRAN SHIELDS	77 -2300
5/1/15	Michael Marks	Michael Marks	POB 1101 2071

MAY 06 2015
Clerk's Office

Petition to Haines Borough Assembly
April 28, 2015

RECEIVED Haines Borough

MAY 13 2015

Clerk's Office

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Date	Printed Name	Signature	Contact Information
4/30	HEATHER LORDE	Heather Lorde	hlorde@aet.alaska.net
4/30	LARRY HURA	Larry Hura	lhuracarp@hotmail.com
4/30	TERESA HURA	Teresa Hura	teresahura@hotmail.com
4/30	Nelle Jungkeit-Greene	Nelle Jungkeit-Greene	PO Box 515 Hns
5/1	Beth Macleady	Beth Macleady	BOX 407 Hns
	MURDELL GUNN	Murdell Gunn	#60 BX 3880
5/1	Alexana Stout	Alexana Stout	Box 616
5/1	Sandra Barclay	Sandra Barclay	Box 26
5/1	ELIZABETH VAN BURG	Elizabeth Van Burg	Box 122
5/2	Susan Nelson	Susan Nelson	Box 672, Haines
5/6	Cathy A. Boor	Cathy A. Boor	Box 444
5/6	STANLEY BOOR	Stanley Boor	.. 444
5/6	Jean Smith	Jean Smith	Box 1025
5/6	Ron Smith	Ron Smith	Box 1025

Petition to Haines Borough Assembly
April 28, 2015

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Date	Printed Name	Signature	Contact Information
5/1/15	John F. Sullivan	[Signature]	Box 449 - HAINES - AK 99827
	John Brainerd	[Signature]	Box 713 Haines AK 99827
	Debi Kennedy	[Signature]	Box 931 Haines AK 99827
5/3	Gershon Cohen	[Signature]	Box 956 " " "
5/3	Thomas Heywood	[Signature]	Box 901 Haines AK 99827
5/3	Deborah Yumchuk	[Signature]	Box 203 Haines AK 99827
5/3/15	Sharon Resnick	[Signature]	Box 771 Haines AK 99827
5/3/15	James Alborough	[Signature]	Box 123 Haines
5/4/15	FREDERICK G BIGSBY	[Signature]	Box 157 Haines
5/4/15	HELEN ALLEN	[Signature]	Box 691 HAINES
5/4/15	Blythe Carter	[Signature]	Box 912 Haines
5/4/15	MICHAEL STARK	[Signature]	Box 691 HAINES
5/4/15	Leanne Converse & Leanne Converse	[Signature]	Box 885 99827
5/4/15	Marlene Saupé	[Signature]	Box 484 99827
5/4/15	Jamie Stagner	[Signature]	Box 1421 99827
5/4/15	Paul A. A. Nelson	[Signature]	Box 858 99827

Petition to Haines Borough Assembly
April 28, 2015

RECEIVED Haines Borough
MAY 25 2015

The undersigned Haines Borough residents aged 18 and older, hereby petition the Haines Borough Assembly to suspend engineering design work on the south harbor expansion project and provide for these essential planning activities:

1. Direct the Planning Commission to conduct a public review of the current design plan and Look Out Park relocation options with intent to reconcile competing land use issues and real financial considerations, as provided by code and referenced in the Haines Borough 2025 Comprehensive Plan, p. 121-122.
2. Conduct an economic analysis of the project as currently described, with intent to project the costs of operating and maintaining the harbor at various levels of completion, and within the funding method described by an Enterprise Fund, as provided for in the Haines Borough 2025 Comprehensive Plan. [Note: the last financial plan for operation of the harbor is "Navigation Improvements Interim Feasibility Report and Environmental Assessment, Haines, AK, July 2004" followed by a value engineering study in July 2005. Both analyses addressed a rubble-mound breakwater harbor located to the north of the existing harbor.]

Date	Printed Name	Signature	Contact Information
5/4/15	JOE RODRIGUEZ		pearggs@gmail.com
5/4/15	Phillip Lende		766-2700
5/4/15	DAN EGOLF		766-2876
5-4-15	JoAnna Egolf		766-2876
5-5-15	Linn H. Asper		766-2580
"	Mary Ann		" "
5.5.15	Lisa Schwartz		767 5612
5/5/15	Dennis Geason		766-2656
5/5/15	Mike Bozak		-3771
5/5/15	Mike Wika		
5-5-15	JAMES S. SHOOK		766-3835

D

Petition to Haines Borough Assembly
April 28, 2015

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Date	Printed Name	Signature	Contact Information
5/3/15	ERIC HOLLE	<i>Eric Holle</i>	Box 1324 Haines AK 99827
5-5-15	Patricia Karmouk	<i>Patricia Karmouk</i>	Box 1024 Haines AK 99827
5-5-15	Katharine Palmer	<i>Katharine Palmer</i>	POB 1324 HNS AK 99827
5/5/15	Melissa Aronson	<i>Melissa Aronson</i>	POB 114 HNS 99827
05/05/15	Laurie Tadourian	<i>Laurie Tadourian</i>	Box 288 HNS AK 99827
5/3/15	JOAN McCament	<i>Joan McCament</i>	POB 587 HNS AK 99827
"	GEORGE McCament	<i>George McCament</i>	P " " " "

RECEIVED Haines Borough

MAY 06 2015

Clerk's Office

**PETITION FOR RECONSIDERATION OF PROPOSED
BEACH PARKING LOT**

Date	Printed Name	Signature	Contact information
4/27/15	Judy Jacobson	Judy Jacobson	766-2333
4-27-15	Terry Jacobson	Terry Jacobson	766-2333
4/28/15	michele Cornelius	michelle Cornelius	766-3795
28 April	Gene Cornelius	Gene Cornelius	766-3795
28 April	Molly Sturdyant	Molly Sturdyant	766-2571
28 April	M. Kays Williams	M. Kays Williams	766-3901
28 April	Stacie Evans	Stacie Evans	208.940.1238
28 April	Jeremy Taylor	Jeremy Taylor	907 201 4561
28 April	Dy Schult	Dy Schult	907 303 3200
4/28/2015	Ramona J Holmes	Ramona J Holmes	766-3721
4/28/2015	Frank L. Holmes	Frank L. Holmes	766-3721
4/28/2015	George Figdor	George Figdor	766-3755
4/28/2015	Paulea Raudlis	Paulea Raudlis	766-3664
4/28/2015	Karla Jacobs	Karla Jacobs	907-635-8889
4/28/2015	Russell Whit	Russell Whit	766-3802
4/28/2015	Rebecca Knos	Rebecca Knos	766-2410
4/28/15	James Wilson	James Wilson	766 3698
4/28/15	Jacque Horn	Jacque Horn	766-2797
4/30/15	Christina Baskaya	Christina Baskaya	766-2708
5/4/15	Linnus Danne	Linnus Danne	766-2554

RECEIVED

MAY 06 2015

Clerk

PETITION FOR RECONSIDERATION OF PROPOSED BEACH
PARKING LOT

Date Printed Name Signature Contact information

WAYNE G. PRICE Wayne G. Price 303 0447
Cherri Price Cherri Price 706-3045

RECEIVED FINES DIVISION

MAY 06 2015

Clerk's Office

706-3045

706-3045

Harbor expansion unanswered questions

With the impending transformation of our natural looking waterfront into a parking lot looming quickly upon us, some of us are wondering if this is the best thing to happen to our charming city. It seems what we will be getting for 19 million will be pretty much of an eyesore. What does that do for our draw as a tourist destination and is this giving the fishermen what they really need?

Among the many unanswered questions are: If it will take another 10 to 12 million to finish the job and actually provide something that the fishermen say they need, where is that money coming from? In today's economy there is no money in the state or federal governments. Do we take out a community bond, increasing our taxes and doubling our moorage fees? What is the real boon to our economy? What is the overall business plan? Does this proposed parking lot improve our tourist appeal? Can't private enterprise accommodate boat storage? What will our continuously zinc treated 50 year metal barrier really look like? When will it start to deteriorate, look worse, and start to need expensive repairs? What will the cost overruns look like? How long will we have to live with a useless metal breakwater and a huge pile of sludge on the beach before we have something that we can use?

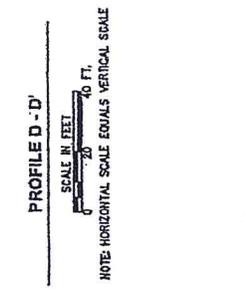
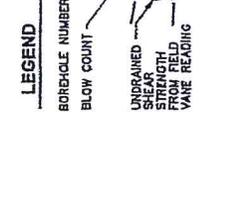
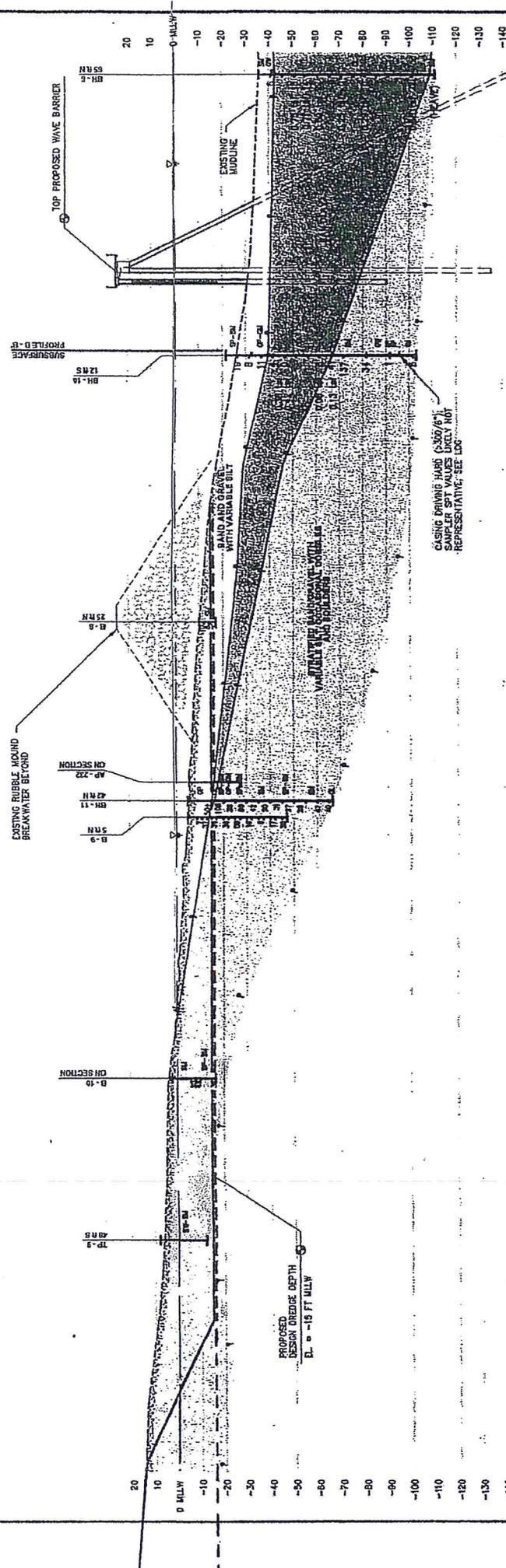
Many in our community are questioning the advisability of pursuing this project as planned. Isn't there some way that a boat harbor expansion be built closer to our financial means and more sensitive to our aesthetic appeal to both visitors and locals?

From studying the engineer's specs on the underwater substructure it would seem that there is a very good possibility that a rubble breakwater could be built in the same line of projection off the current breakwater as the clay depth is shallow there with solid substrata beneath and a 3 foot layer of gravel and sand above. Further out where the steel breakwater is proposed (and the estimate for a rubble breakwater was done), there is a large depth of clay. A new shorter rubble breakwater could be installed some distance off the current one to create an access between the two as well as around the far end. In order to create the same amount of boat slips planned, further excavation dredging towards the shoreline would be necessary. This of course would cut down on the size of the proposed parking lot, but there is the potential of available parking inland at 2nd and Mission. There is a roadway platted from Front Street to Willard and the distance is as short as from the Lookout Point to the current harbor masters building.

It would also save a lot of money if the current sewer outlet did not need to be moved but could continue out between the two rubble breakwaters.

With the realization that the deadline for doing this expansion can be extended, it seems expedient to make sure that what we are doing there is something that we can live with, will work well, and not bankrupt us. Although we realize that a lot of money has been spent on engineering for the project, if that plan is really unacceptable, at least to part of the community, and will cost us a lot more money in the near future, is it really wise to continue with that plan?

Tresham Gregg
Box 776 Haines, AK 99827
907 314 - 0826



- NOTES**
- SECTION IS A PLACEMATE SUBSTITUTE FOR INFORMATIONAL PURPOSES ONLY. CONDITIONS ARE SUBJECT TO CHANGE THROUGHOUT INVESTIGATION AREA.
 - ENCOUNTERING COBBLE AND BOULDER-SIZE MATERIAL SHOULD BE ANTICIPATED WITHIN ANY OF THE REPRESENTED SOIL HORIZONS.
 - VARIATION IN AURUMINE ELEVATIONS WERE OBSERVED BETWEEN BATHYMETRIC SURVEY DATA AND LEADLINE MEASUREMENTS TAKEN AT BOREHOLE COLLARS.
 - SEE BOREHOLE LOGS FOR DETAILED SOIL DESCRIPTIONS AND BOREHOLE SAMPLE PHOTOGRAPHS FOR VISUAL REFERENCE.

HAINES BOROUGH
SOUTH PORTAGE COVE
HARBOR EXPANSION

GENERALIZED SUBSURFACE
PROFILE D - D'

DATE: FEB. 2015

UNIT: FT. 2015

AS SHOWN

SCALE: 1" = 20'

VERTICAL SCALE: 1" = 10'

PROJECT NO. 102028.07

Sheet 7 of 10

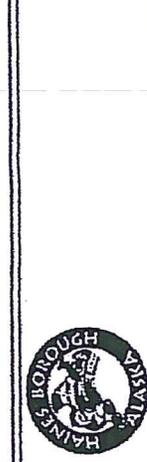
910 Chocoma Highway, Inc.
10000 1st Avenue, Suite 100
P.O. Box 10000
P.O. Box 10000
P.O. Box 10000

P | N | D
ENGINEERS, INC.

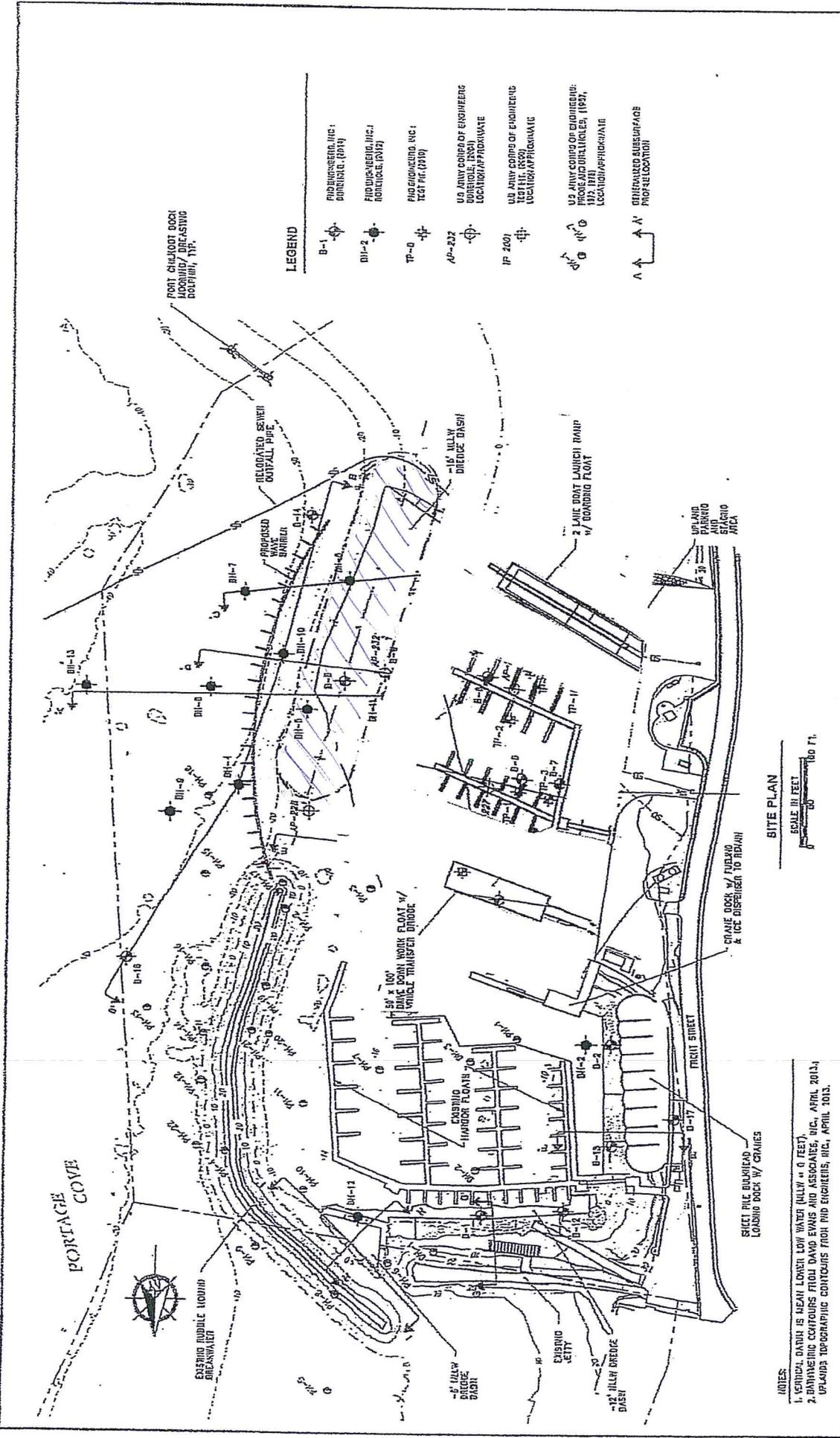
DESIGN: P.H. CHECKED: C.H.L. APPROVED: M.H.L.

SCALE: AS SHOWN

REV.	DATE	DESCRIPTION	CHKD.	APP.



Elevation directly out from current breakwater



INDEX

- VERTICAL DASH IS NEAR LOWER LOW WATER (LLW) AT 0 FEET.
- ORTHOMETRIC CONTOURS FROM DAVID EWAN AND ASSOCIATES, INC., APRIL 2011.
- UPLANDS TOPOGRAPHIC CONTOURS FROM PND ENGINEERS, INC., APRIL 2013.

LEGEND

- B-1 PND ENGINEERS, INC. BORING LOG (PND)
- B1P-2 PND ENGINEERS, INC. BORING LOG (PND)
- TP-0 PND ENGINEERS, INC. TEST PIT (PND)
- AP-232 U.S. ARMY CORPS OF ENGINEERING BORING LOG LOCATION (AP) (PND)
- IP 2001 U.S. ARMY CORPS OF ENGINEERING TEST PIT (IP) (PND)
- U.S. ARMY CORPS OF ENGINEERING PROPOSED SUBSURFACE LOCATION (AP) (PND)
- OBSERVED SUBSURFACE PROP RELOCATION

REVISIONS

REV.	DATE	DESCRIPTION

ENGINEERS, INC.

300 River Highway, 6th Fl.
Jacksonville, FL 32201
Phone: 904.399.2101
Fax: 904.399.2102
www.pnd.com

PROJECT: SOUTH PORTAGE COVE HARBOR EXPANSION
DRAWING: GEOTECHNICAL SITE PLAN WITH SAMPLING LOCATIONS
DATE: FEB. 2015

DESIGNED BY: AS SHORN
CHECKED BY: [Blank]
APPROVED BY: [Blank]

SOUTH PORTAGE COVE HARBOR EXPANSION

GEOTECHNICAL SITE PLAN WITH SAMPLING LOCATIONS

SCALE: 1" = 100 FT.

Possible site for rubble breakwater



August 31, 2015

John Sickman
4 Mathias Avenue / P.O. Box 66
Haines, AK 99827
602-312-4318

RECEIVED Haines Borough

Haines Borough Planning Commission
213 Haines Highway
Haines, AK 99827

AUG 31 2015
Clerk's Office

Re. Denial of a land use permit for a SFR, based upon height restriction.
Lot 1, Block C, Skyline Estates Subdivision; C-SKY-0C-0100

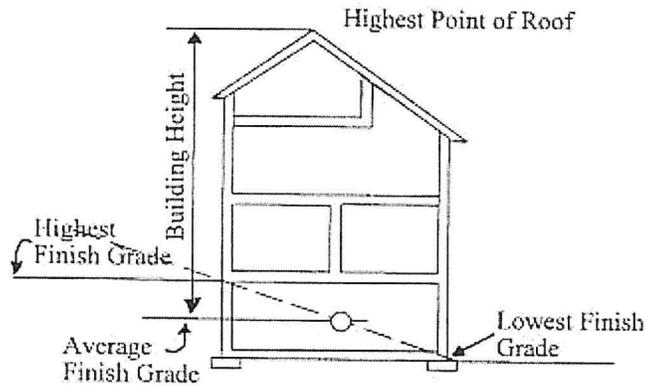
Dear Planning Commission Members,

Thank you for the opportunity to appeal the decision of the land use permit for a SFR I have submitted to the Haines Borough. I am appealing the manager's interpretation of the borough code relating to building height. The borough manager has denied my permit application, and numerous site plan drawing submissions, based upon an unreasonable interpretation of how average grade is determined, and location of measurement for building height. The manager has interpreted average grade as being the ground level or finished grade at the center point of each of the exterior walls, and building height as the highest point of the structure.

HBC 18.80.030(B) states, "Height is measured from the average grade of the footprint of the structure to the highest point on the structure, measured at the center of each of the four exterior walls."

EVIDENCE: Haines borough officials have determined average grade as a specific point at ground level measured at the center of each of the four exterior walls.

STRENGTH/WEAKNESS: Provides a specific measurement of grade, but not an average grade. The International Code Council, residential building code, defines the grade plane as: "A reference plane representing the average of finished ground level adjoining the building at *exterior walls*." (ICC, 2007) Thus, the interpretation of average grade by the Borough manager as at a fixed point measured at the center of each exterior wall is a measurement of grade at a particular point, and not an average. The Haines Borough code directs where measurement should be taken; at the average grade of the footprint of the structure. The city of Sitka, Alaska provides an example of average grade in their general code as figure 22.20.050:



Retrieved from: <http://www.codepublishing.com/AK/Sitka/mobile/?pg=Sitka22/Sitka2220.html>

EVIDENCE: Borough officials assert that building height is measured to the highest point on the structure. Per the borough manager, code emphasizes the highest point on the structure, rather than the highest point of the structure measured at the center of each of the four exterior walls.

STRENGTH/WEAKNESS: The Borough code does not only mandate the measurement of the highest point of the structure. Rather, as written, the code directs specifically where a height measurement is to be taken, at the center of each of the four exterior walls.

Sincerely, John Sickman

A handwritten signature in black ink, appearing to read "John Sickman".

Reference

International Code Council Online Library [Internet]. 2007 International Residential Code for one and two family dwellings. Available from:

http://publicecodes.cyberregs.com/icod/irc/2012/icod_irc_2012_2_sec002.htm

Sitka, AK General Code [Internet]. 2015 22.20.050 Building height. Available from:

<http://www.codepublishing.com/AK/Sitka/mobile/?pg=Sitka22/Sitka2220.html>

Attachments

A: Haines Borough correspondence dated 08/25/2015

B: Building height calculation



HAINES BOROUGH, ALASKA
P.O. BOX 1209
HAINES, AK 99827
(907) 766-2231 FAX (907) 766-2716

August 25, 2015

John Sickman
PO Box 66
Haines, AK 99827

Re: Land Use Permit Application – a single family residence (SFR)
Lot 1, Block C, Skyline Estates Subdivision; C-SKY-0C-0100

Dear Mr. Sickman:

Thank you for submitting your land use application to construct a three-story SFR on the above-listed vacant lot. In reviewing your permit application, Borough staff has determined that the proposed SFR will exceed the 30' height limit. The intended building plan is not in accordance with Haines Borough Code (HBC) 18.80.030.

HBC 18.80.030(B) states, "Height is measured from the average grade of the footprint of the structure to **the highest point on the structure**, measured at **the center of each of the four exterior walls**." This means measuring each **wall** in the center from **ground level** to the highest point and taking the average of those measurements to determine building height as it applies to code. By this interpretation, the actual measurements on side elevations will be more than what they indicate in the intended building plan. Thus, the average height will be over 30'.

At this point, the Borough cannot approve your building plan. You may want to consider the following options:

- You may submit an amended building plan that will comply with Borough code.
- You may apply for a height variance. A variance is designed to allow the adjustment of regulations in special cases where unusual physical features of a particular parcel involved would make a strict application of the zoning regulations unreasonable. All variances require a public hearing by the Planning Commission. If you are willing to apply for a height variance, please contact the Borough for assistance.
- Per HBC 18.30.050, you have the right to appeal staff's determination to the Planning Commission. To do so, a written appeal stating with particularity the grounds for the appeal must be submitted to the Borough Clerk within ten days of the date of this letter. The deadline is September 8th, 2015. The Planning Commission may consider the alternatives and make a recommendation to staff or the Borough Assembly.

Sincerely,



Tracy Cui
Planning and Zoning Technician III
xcui@haines.ak.us
(907) 766-2231 Ext 23

CC:

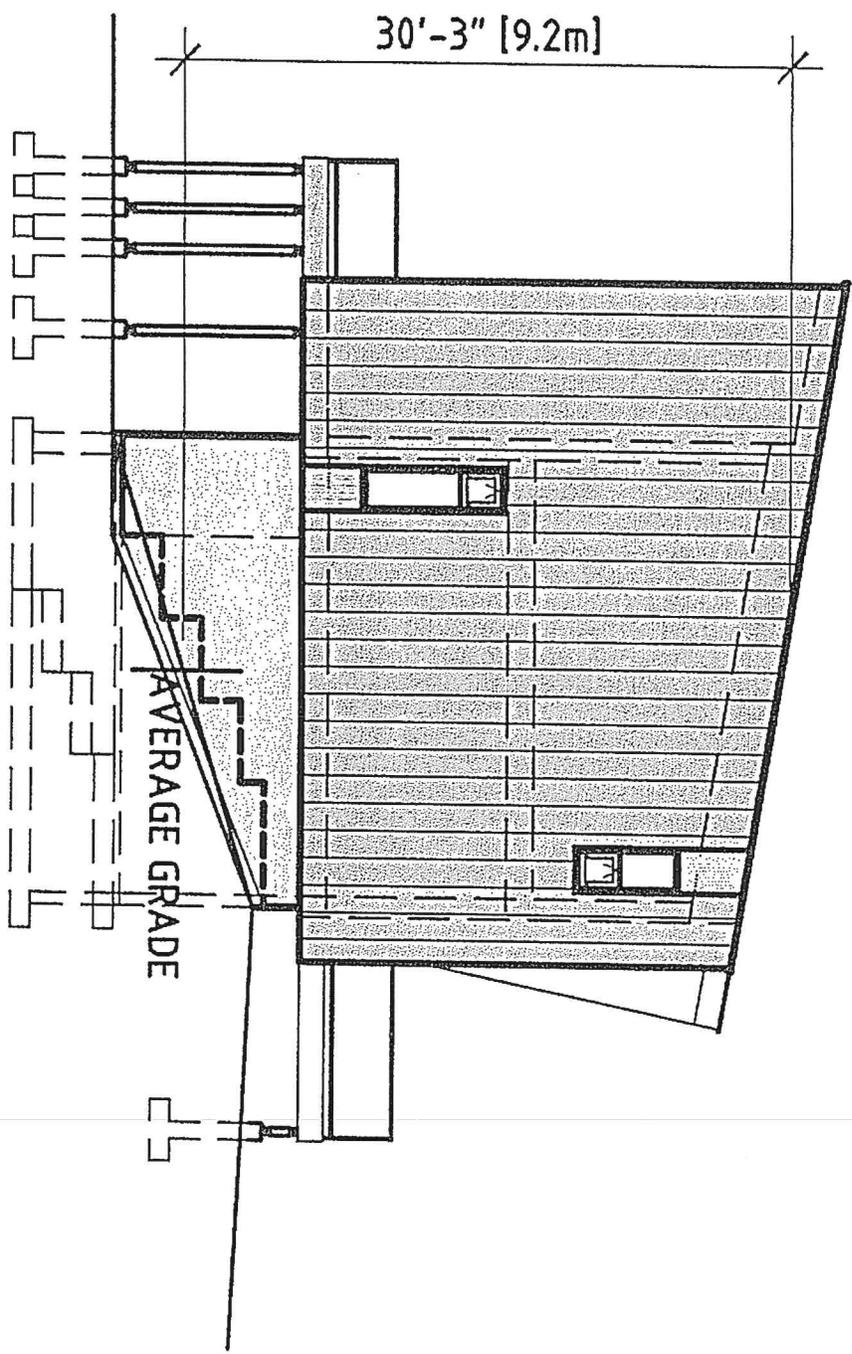
kobayashi+zedda architects ltd.
Attn: Antonio Zedda
26-1114 First Avenue
Whitehorse, Yukon, Canada Y1A1A3

Rob Goldberg, Planning Commission Chairman

David Sosa, Borough Manager

Julie Cozzi, Borough Clerk

Brian Lemcke, Interim Borough Public Facilities Director





Haines Borough

Planning and Zoning

103 Third Ave. S., Haines, Alaska, 99827
 Telephone: (907) 766-2231 * Fax: (907) 766-2716

APPLICATION FOR LAND USE PERMIT

I. Owner/Authorized Representative		Owner's Contractor(If Any) - <u>NONE</u>	
Name: <u>John Sickman</u>		Name:	
Mailing Address: <u>P.O. Box 66 HAINES AK 99827</u>		Haines Borough Business License #:	
Contact Phone: Day - Night - <u>602-312-4318</u>		Alaska Business License #:	
Fax: <u>NONE</u>		Contractor's License #:	
E-mail: <u>John.Sickman@gmail.com</u>		Mailing Address:	
		Contact Phone: Day Night	
		Fax:	
		E-mail:	
II. Property Information			
Property Tax ID #: <u>C-Sky-0C-0100</u>			
Size of Property: <u>0.62 ACRES</u>			
Site Street Address: (If Any) <u>NONE</u>			
Legal Description: Lot (s) <u>1</u> Block <u>C</u> Subdivision <u>SKYLINE ESTATES SUB.</u>			
OR			
Parcel/Tract _____ Section _____ Township _____ Range _____			
[Attach additional sheets if necessary.]			
Zoning: <input type="checkbox"/> Waterfront <input checked="" type="checkbox"/> Single Residential <input type="checkbox"/> Rural Residential <input type="checkbox"/> Significant Structures Area			
<input type="checkbox"/> Rural Mixed Use <input type="checkbox"/> Multiple Residential <input type="checkbox"/> Heavy Industrial <input type="checkbox"/> Waterfront Industrial			
<input type="checkbox"/> Commercial <input type="checkbox"/> Industrial Light Commercial <input type="checkbox"/> Recreational <input type="checkbox"/> Mud Bay Zoning District			
<input type="checkbox"/> Lutak Zoning District <input type="checkbox"/> General Use			
III. Description of Work			
Type of Application (Check all that apply)	Project Description (Check all that apply)	Water Supply Existing or Proposed	Sewage Disposal Existing or Proposed
<input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Single Family Dwelling <input type="checkbox"/> Change of Use <input type="checkbox"/> Multi-Family Dwelling Total # of Units _____ <input type="checkbox"/> Cabin <input type="checkbox"/> Addition <input type="checkbox"/> Accessory Structure <input type="checkbox"/> Other _____	<input type="checkbox"/> None <input type="checkbox"/> Community well <input type="checkbox"/> Private well <input checked="" type="checkbox"/> Public Water System <input type="checkbox"/> Other _____	<input type="checkbox"/> None <input type="checkbox"/> Septic Tank <input type="checkbox"/> Holding Tank <input checked="" type="checkbox"/> Public Sewer System <input type="checkbox"/> Pit Privy <input type="checkbox"/> Composting Toilet <input type="checkbox"/> Other _____
_____ sq. ft. _____ seating capacity if eating/drinking establishment <input type="checkbox"/> Industrial <input type="checkbox"/> Church <input type="checkbox"/> Other _____			
Estimate Cost of Work: <u>\$ 500,000. -</u>			

Land Use Requested For: (Describe the project, and use additional sheets if necessary)

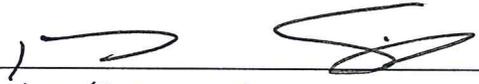
PERSONAL RESIDENCE, THREE STORY HOME

Required Attachments:

- Completed Application Form
- Site plan (see Attachment A) showing lot lines, building dimensions, setbacks, streets, etc.
- \$50 Non-Refundable Fee (Checks must be made payable to the Haines Borough)

IV. CERTIFICATION

I hereby certify that I am the owner or authorized representative of the property described above and that I petition for a land use permit in conformance with all of the provisions in the Haines Borough Code. I also certify that the site plan submitted is a complete and accurate plan showing any and all existing and proposed structures on the subject property. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the proposed use. I also understand that all contract work on this project will be done by a contractor holding valid licenses issued by the State of Alaska and the Haines Borough. **I am aware that if I begin work prior to receiving permit approval, I may be assessed a penalty fee, as per HBC 18.30.070.**



 Signature (Representatives must provide written proof of authorization)

8-21-2015

 Date

PROVISIONS: The applicant is advised that issuance of this permit will not relieve responsibility of the owner or authorized representative to comply with the provisions of all laws and ordinances, including federal, state and local jurisdictions, which regulate construction and performance of construction, or with any private deed restrictions.

Office Use Only Below This Line

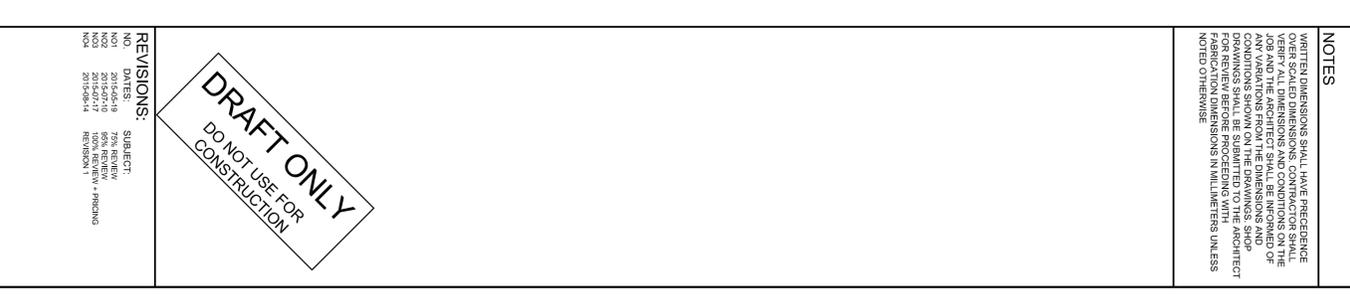
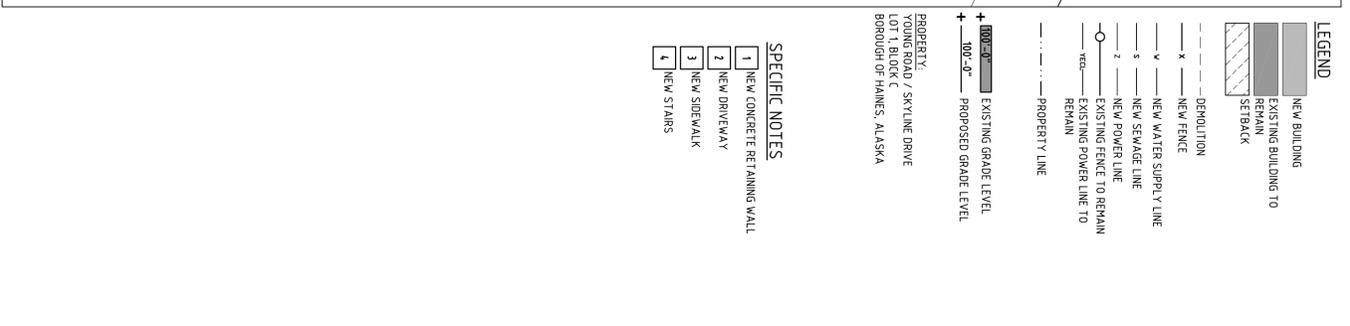
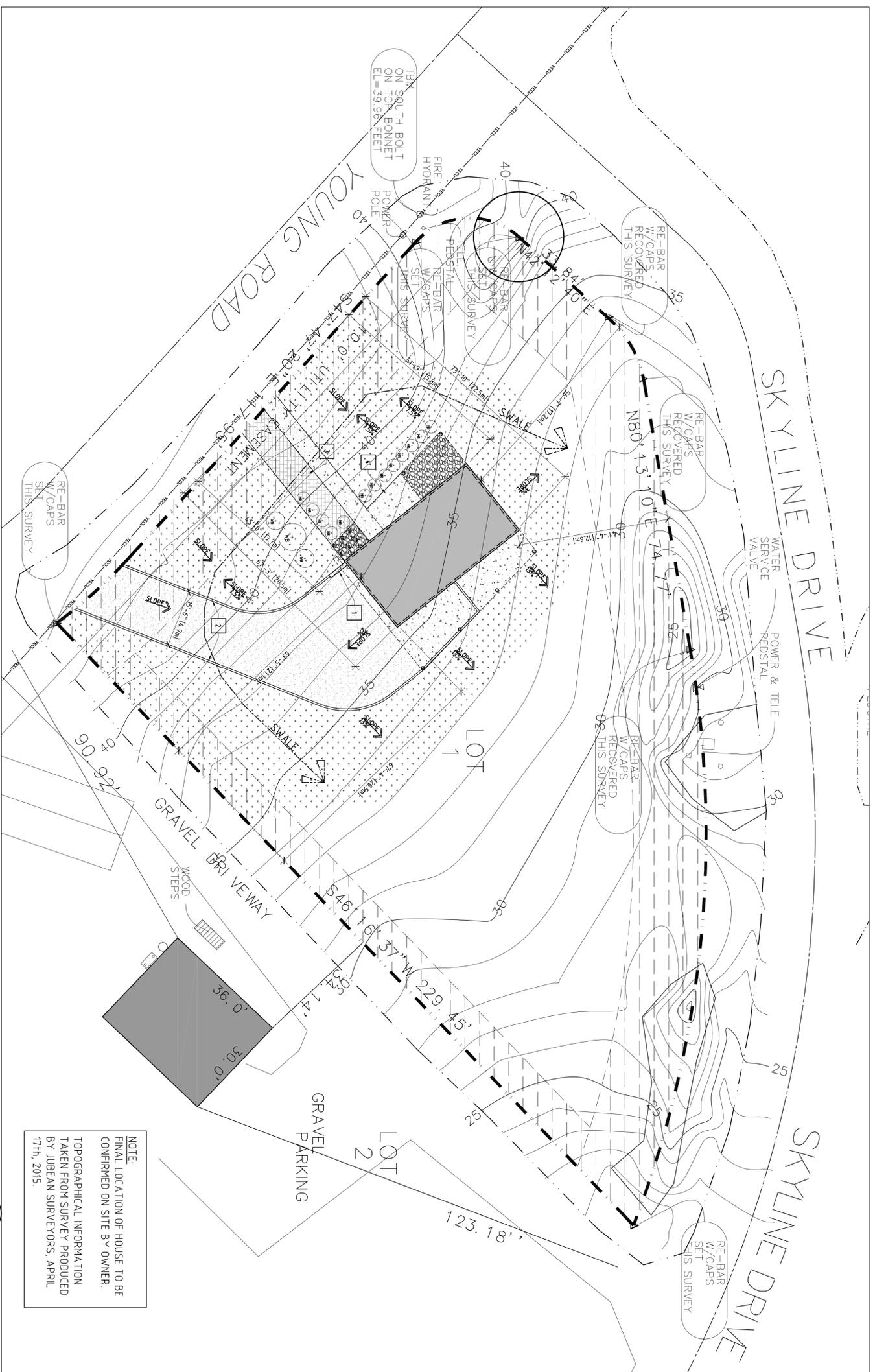
Non-Refundable Application Fee	\$ <u>50.00</u>	If Application is Complete:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Payment Method:	<u>Cash</u>	Notified Via:	_____	
Receipt #:	<u>023954</u>	Notified By:	_____	
Received By:	<u>J.F.</u>	Date:	_____	
Date:	<u>8/21/15</u>			

If application is approved: Yes No

If yes,	If no,
Approved By: _____ Borough Manager/P&Z Tech/Designee	Denied By: _____ Borough Manager/P&Z Tech/Designee
Permit ID #: _____	Date: _____
Permit Effective Date: _____	Reason: _____

Notice of Right to Appeal: All decisions of the Borough Officials are appealable per HBC 18.30.050

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED



NOTES
WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS ON THE JOB AND THE ARCHITECT SHALL BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH THE FABRICATION DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.

LEGEND

- NEW BUILDING
- EXISTING BUILDING TO REMAIN
- SETBACK
- DEMOLITION
- NEW FENCE
- NEW WATER SUPPLY LINE
- NEW SEWAGE LINE
- NEW POWER LINE
- EXISTING POWER LINE TO REMAIN
- PROPERTY LINE
- EXISTING GRADE LEVEL
- PROPOSED GRADE LEVEL

SPECIFIC NOTES

- 1 NEW CONCRETE RETAINING WALL
- 2 NEW DRIVEWAY
- 3 NEW SIDEWALK
- 4 NEW STAIRS

PROPERTY:
YOUNG ROAD / SKYLINE DRIVE
LOT 1, BLOCK C
BOROUGH OF HAINES, ALASKA

DRAFT ONLY
DO NOT USE FOR CONSTRUCTION

REVISIONS:
NO. DATES SUBJECT
N01 2015-05-19 75% REVIEW
N02 2015-07-17 90% REVIEW + HATCHING
N03 2015-07-17 90% REVIEW + HATCHING
N04 2015-08-14 REVISION 1

SUB-CONSULTANTS
MECHANICAL: NA
ELECTRICAL: NA
LANDSCAPE: NA
QUANT. SURVEY: NA

kobayashi + zedda
Architecture | Planning | Urban Design
26-1114 First Avenue
Whitehorse, Yukon, Canada
Y1A 1A3
867.633.6874
867.633.4602
info@kzay.ca

CLIENT: PRIVATE

PROJECT: SICKMAN RESIDENCE

TITLE: SITE PLAN	DATE: 2015-08-10	SCALE: 1/8" = 1'-0"
PROJECT NORTH	FILE NAME: PROJECT NUMBER 1516-200	PROJECT NUMBER: 1516
DRAWN BY: P.A.	REVIEWED BY: A.Z.	

A101

HBC 18.20.020 Definitions – Regulatory.

“Building height” means the maximum vertical dimension of a building which is measured from a horizontal plane intersecting the mean building grade and measured at the center of each of the four exterior walls, but not including radio antennas, water towers, church spires, structures or enclosures constructed primarily for mechanical equipment and similar building mechanical features.

HBC 18.80.030 Setbacks and height.

B. Height is measured from the average grade of the footprint of the structure to the highest point on the structure, measured at the center of each of the four exterior walls.

HBC 18.30.050 Appeals to the commission.

An appeal made to the commission of a decision by the manager shall be requested by filing with the clerk, within 10 days of the date of the decision appealed, a written notice of appeal stating with particularity the grounds for the appeal.

A. The commission shall decide at its next regularly scheduled meeting whether to rehear the manager’s decision. The commission shall decline to hear appeals in which the particular grounds for the appeal have not been stated. Any aggrieved person, including the developer, may appear at that meeting and explain to the commission why or why not it should rehear the manager’s decision. If the commission chooses to rehear the decision, it may choose to rehear the entire decision, or any portion thereof.

B. If the commission decides to rehear a decision, or any portion thereof, it shall then immediately do so at that meeting and make its decision.

1. Findings of fact adopted expressly or by necessary implication shall be considered as true if, based upon a review of the whole record, they are supported by substantial evidence. Substantial evidence means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. If the record as a whole affords a substantial basis of fact from which the fact in issue may be reasonably inferred, the fact is supported by substantial evidence. The burden of proof shall be on the appellant to demonstrate the facts and resolution of the issues on appeal by substantial evidence. The evidence shall be limited to a review of the record, although further argument may be allowed.

2. In all decisions the burden of proof shall be on the party challenging the decision of the manager. The commission may confirm the manager’s decision, reverse the manager’s decision, or change the conditions which the manager placed on approval. The commission shall support its action with written findings.

C. A decision by the manager shall not be stayed pending appeal, but action by the appellee in reliance on the decision shall be at the risk that the decision may be reversed on appeal.

D. The commission’s decision may be appealed to the borough assembly pursuant to HBC [18.30.060](#). (Ord. 14-02-369 § 4; Ord. 04-05-078; Ord. 05-02-091)