

**PROJECT
AREA**

POA - 1980 - 468

CITY OF SEWARD

SEWARD MARINE INDUSTRIAL CENTER
IMPROVEMENTS - SEWARD, ALASKA

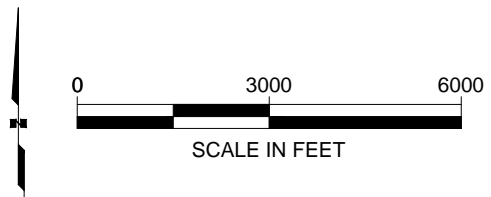
WATERBODY: RESURRECTION BAY

T1S, R1E, SEC 18/T1S, R1W, SEC 13
SEWARD MERIDIAN
USGS QUADRANGLE SEWARD A-7 SE

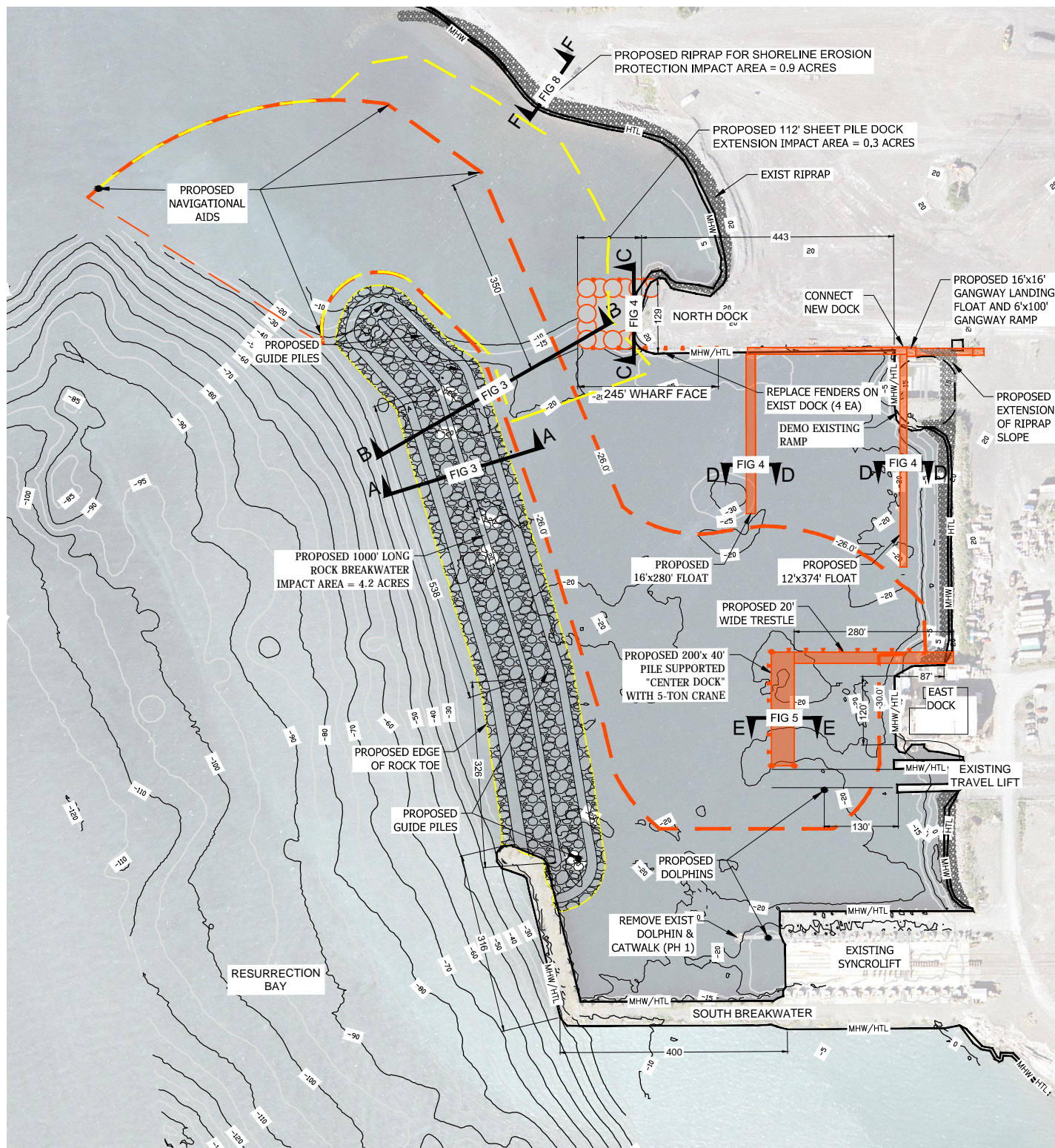
**LOCATION AND
VICINITY MAP**

FEBRUARY 2014

FIGURE | OF 10



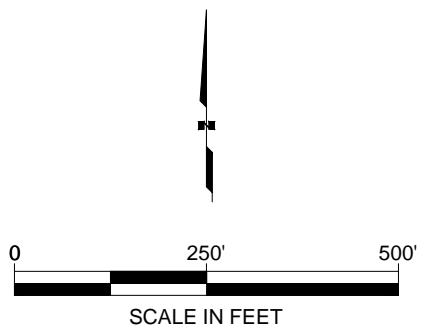
Plotted 3/13/2014 4:28 PM by Luke Ayer
 Z:\projects\1770.01 City Of Seward SMC Harbor Improvements\Earth\ACAD\USACE Permit\1770.01 - USACE Permit 2.dwg



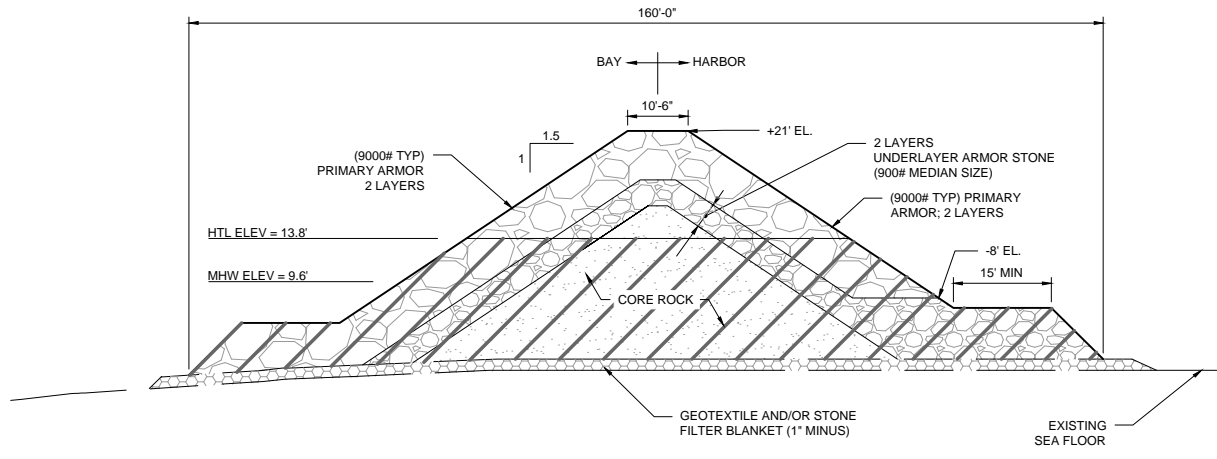
POA - 1980 - 468

ALL DEPTHS & ELEVATION ARE REFERENCED TO MLLW

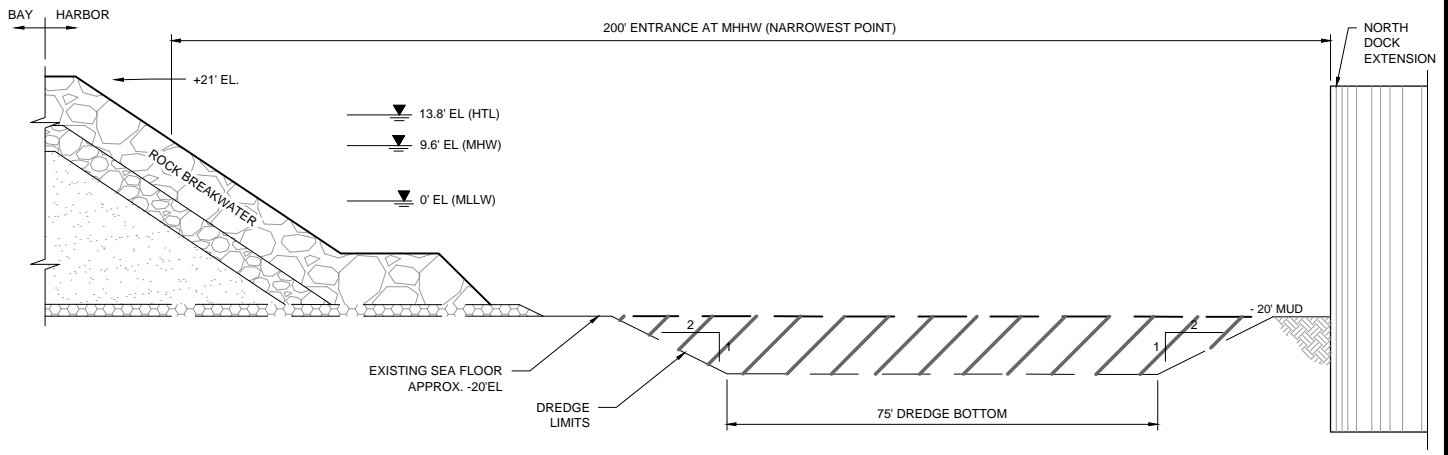
LEGEND	
—	PHASE 1 PROPOSED IMPROVEMENTS
---	PHASE 1 DREDGE LIMITS (6.9 ACRES)
—	PHASE 2 PROPOSED IMPROVEMENTS
---	PHASE 2 DREDGE LIMITS (11.6 ACRES)



CITY OF SEWARD
SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS - SEWARD, ALASKA
WATERBODY: RESURRECTION BAY
T1S, R1E, SEC 18/T1S, R1W, SEC 13 SEWARD MERIDIAN USGS QUADRANGLE SEWARD A-7 SE
PLAN VIEW
FEBRUARY 2014 FIGURE 2 OF 10



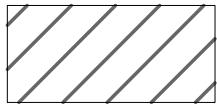
A **TYPICAL ROCK BREAKWATER SECTIONS**
 DEPTHS REFERENCED TO MLLW NTS



B **ENTRANCE CHANNEL SECTION**
 DEPTHS REFERENCED TO MLLW NTS

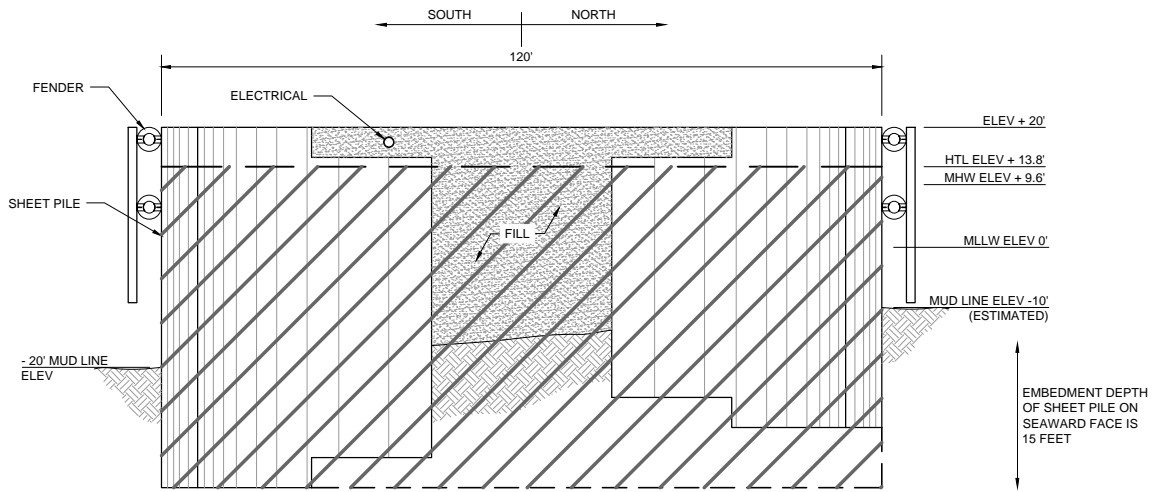
POA - 1980 - 468

CITY OF SEWARD	
SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS - SEWARD, ALASKA	
WATERBODY: RESURRECTION BAY	
T1S, R1E, SEC 18/T1S, R1W, SEC 13 SEWARD MERIDIAN USGS QUADRANGLE SEWARD A-7 SE	
SECTIONS A & B	
FEBRUARY 2014	FIGURE 3 OF 10

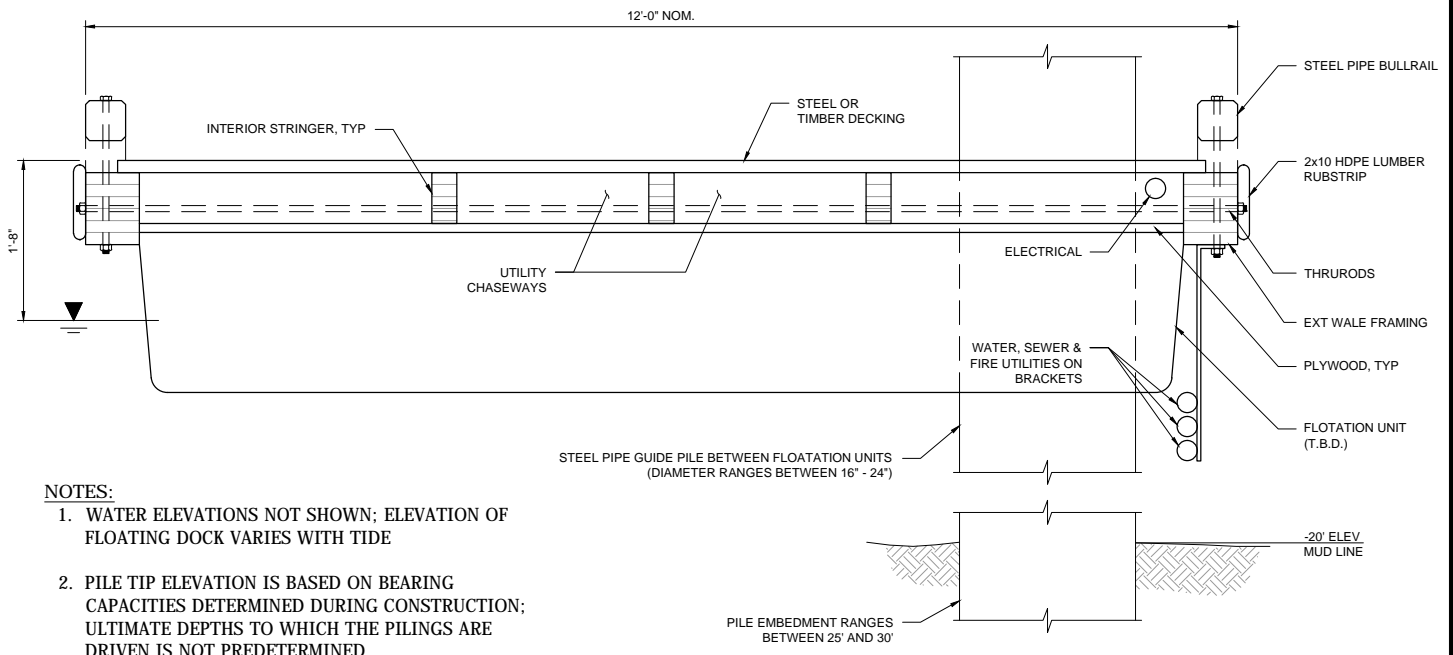


JURISDICTIONAL FILL/DREDGE

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 Plotted 2/14/2014 9:27 AM by Patrick Hewlett



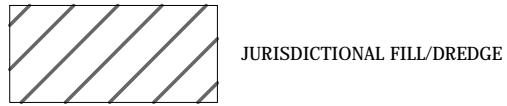
C NORTH DOCK EXTENSION
 DEPTHS REFERENCED TO MLLW NTS



- NOTES:**
1. WATER ELEVATIONS NOT SHOWN; ELEVATION OF FLOATING DOCK VARIES WITH TIDE
 2. PILE TIP ELEVATION IS BASED ON BEARING CAPACITIES DETERMINED DURING CONSTRUCTION; ULTIMATE DEPTHS TO WHICH THE PILING IS DRIVEN IS NOT PREDETERMINED.

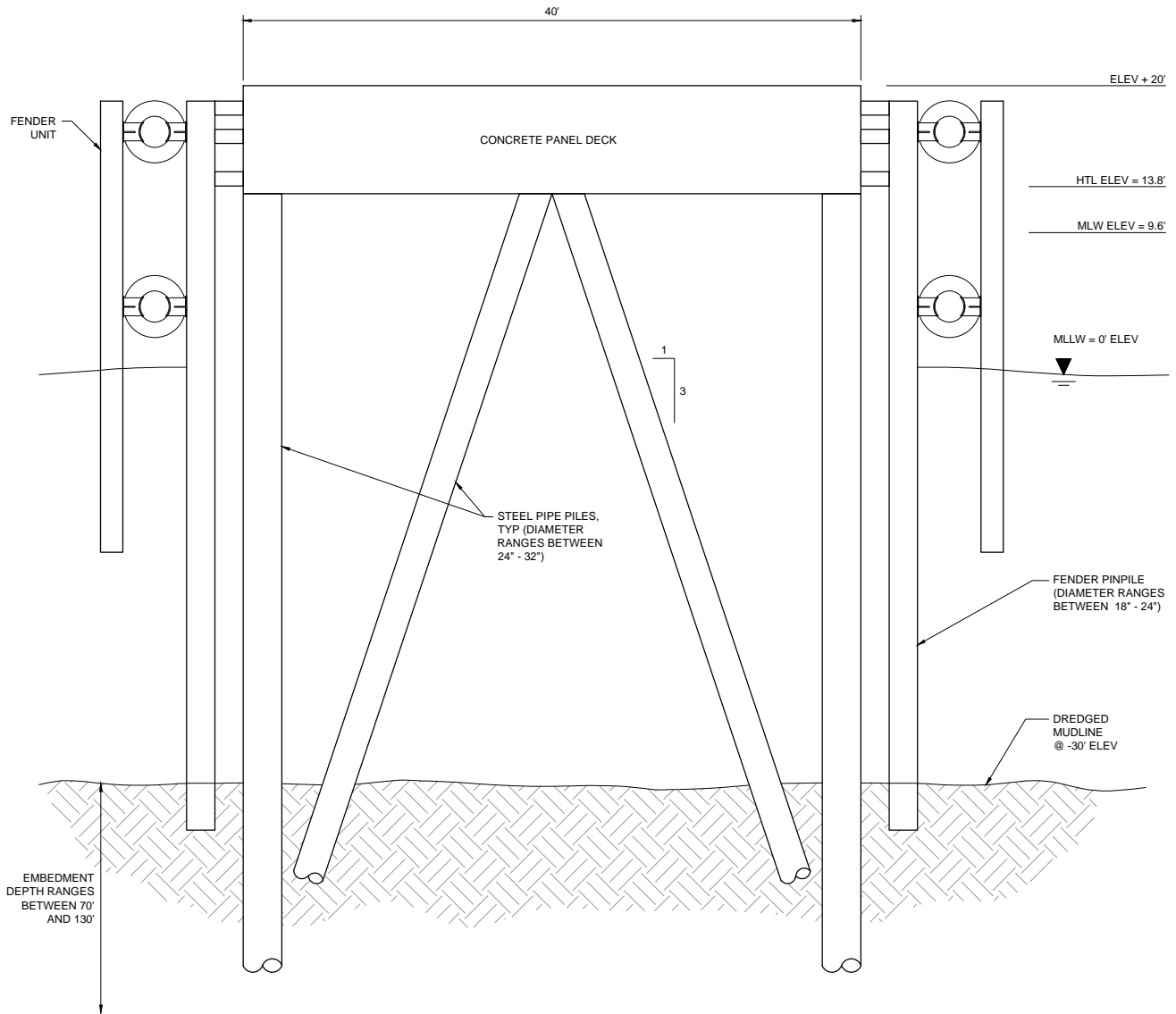
D TYPICAL FLOAT SECTION
 NTS

POA - 1980 - 468



CITY OF SEWARD	
SEWARD MARINE INDUSTRIAL CENTER IMPROVEMENTS - SEWARD, ALASKA	
WATERBODY: RESURRECTION BAY	
T1S, R1E, SEC 18/T1S, R1W, SEC 13 SEWARD MERIDIAN USGS QUADRANGLE SEWARD A-7 SE	
SECTIONS C & D	
FEBRUARY 2014	FIGURE 4 OF 10

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E

CENTER DOCK SECTION

DEPTHS REFERENCED TO MLLW

NTS

POA - 1980 - 468

CITY OF SEWARD

SEWARD MARINE INDUSTRIAL CENTER
IMPROVEMENTS - SEWARD, ALASKA

WATERBODY: RESURRECTION BAY

T1S, R1E, SEC 18/T1S, R1W, SEC 13
SEWARD MERIDIAN
USGS QUADRANGLE SEWARD A-7 SE

SECTION E

FEBRUARY 2014

FIGURE 5 OF 10

NOTE:

1. EMBEDMENT DEPTH WILL BE DETERMINED DURING CONSTRUCTION BASED ON THE ULTIMATE TOTAL CAPACITIES THAT ARE ACHIEVED DURING PILE DRIVING/TESTING. BASED ON GEOLOGICAL INVESTIGATIONS AND PRELIMINARY CALCULATIONS, THE ANTICIPATED EMBEDMENT DEPTH IS 70' FOR THE TRESTLE PILES TO 130' FOR THE PILES AT THE END OF THE DOCK.

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Plotter: 2/19/2014 9:04 AM by Patrick Hewlett

SPRING CREEK

RESURRECTION BAY

SMIC FACILITY

60.0822
-149.3707

60.0822
-149.3646

APPROXIMATE LOCATION
OF PROPOSED DEEPWATER
DISPOSAL SITE
ROUGHLY 28 ACRES

60.0793
-149.3707

60.0793
-149.3646

NOTE: HORIZONTAL DATUM FOR COORDINATES IS NAD83

POA - 1980 - 468



SCALE IN FEET

CITY OF SEWARD

SEWARD MARINE INDUSTRIAL CENTER
IMPROVEMENTS - SEWARD, ALASKA

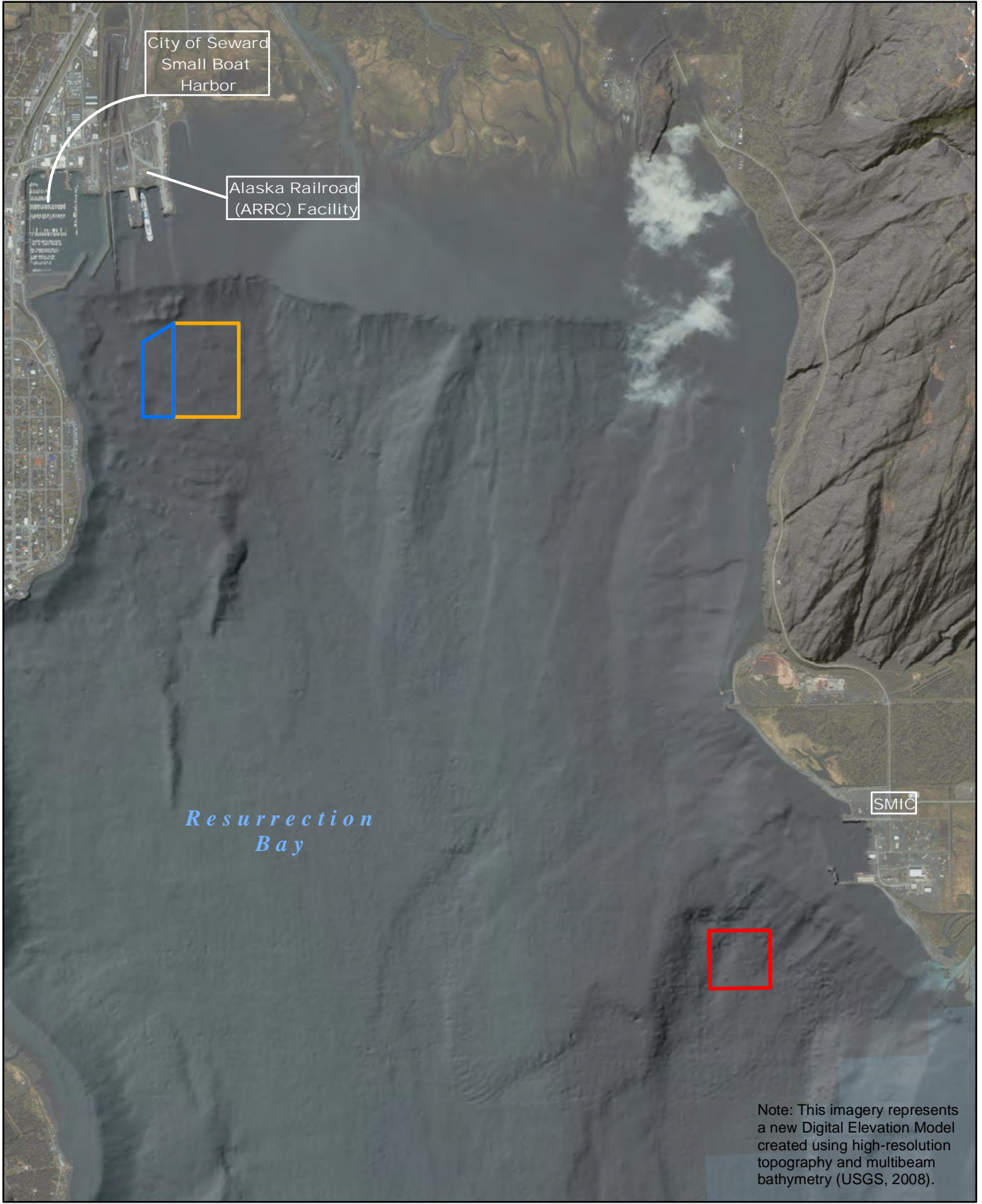
WATERBODY: RESURRECTION BAY

T1S, R1E, SEC 18/T1S, R1W, SEC 13
SEWARD MERIDIAN
USGS QUADRANGLE SEWARD A-7 SE

PROPOSED DEEPWATER
DISPOSAL SITE

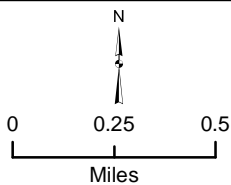
FEBRUARY 2014

FIGURE 6 OF 10



Disposal Site

- ▭ Proposed Disposal Site
- ▭ Existing ARRC Disposal Site
- ▭ Existing USACE Disposal Site



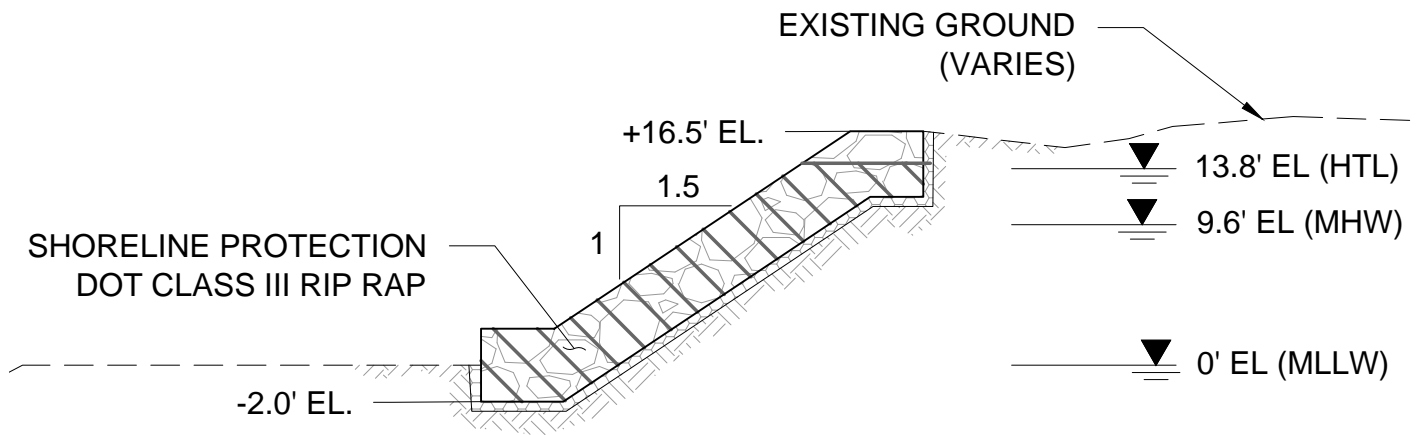
Prepared By:
R&M CONSULTANTS, INC

**CITY OF SEWARD
SEWARD MARINE INDUSTRIAL CENTER
IMPROVEMENTS - SEWARD, ALASKA**

PROPOSED AND EXISTING
DEEP WATER DISPOSAL SITES
POA-1980-468
WATERBODY: RESURRECTION BAY

SCALE 1:30,000	DESIGNED LB	DRAWN LB	DATE Jan 2014
	CHECKED		

Z:\projects\1770.01 City of Seward SMC Harbor Improvements\Earth\ACAD\USACE Permit\1770.01 - USACE Figure 8.dwg
Plotted 3/2/2014 2:11 PM by Luke Ayer



F

SHORELINE EROSION PROTECTION SECTION

DEPTHS REFERENCED TO MLLW

NTS



JURISDICTIONAL FILL/DREDGE

POA-1980-468-M13

City of Seward

Seward Marine Industrial Center

Improvements - Seward, AK

Resurrection Bay

T1S, R1E, SEC 18/T1S, R1W, SEC 13

Seward Meridian

POA - 1980 - 468

CITY OF SEWARD

SEWARD MARINE INDUSTRIAL CENTER
IMPROVEMENTS - SEWARD, ALASKA

WATERBODY: RESURRECTION BAY

T1S, R1E, SEC 18/T1S, R1W, SEC 13
SEWARD MERIDIAN
USGS QUADRANGLE SEWARD A-7 SE

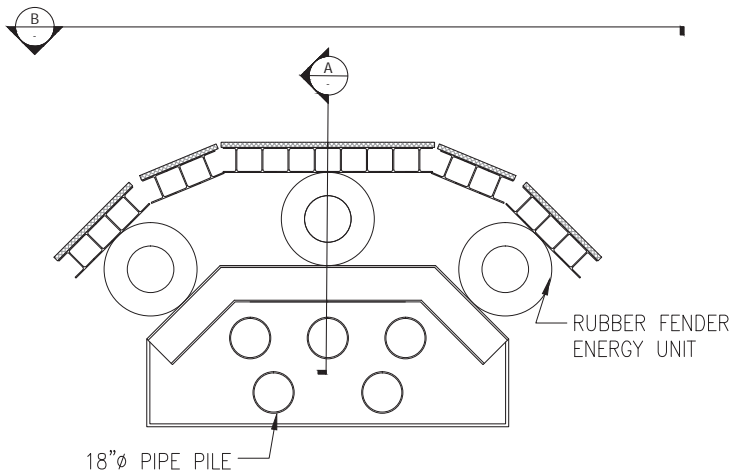
SECTION F

FEBRUARY 2014

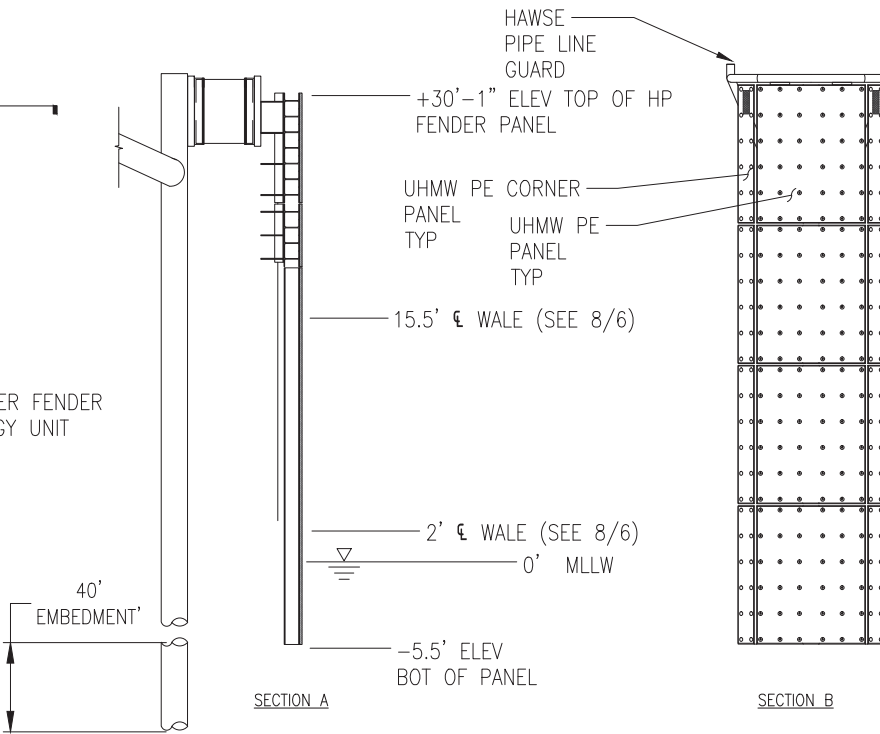
FIGURE 8 OF 10

Z:\project\1770.01 City of Seward SMIC Harbor Improvements\Civil\A001\Phase 1\1770.01-S2.1 Turning Dolphin.dwg

Plotted 2/27/2014 3:34 PM by Luke Ayer



1 **DOLPHIN PLAN**



2 **FENDER SECTION**

ADDITIVE ALTERNATE A

NOTES:

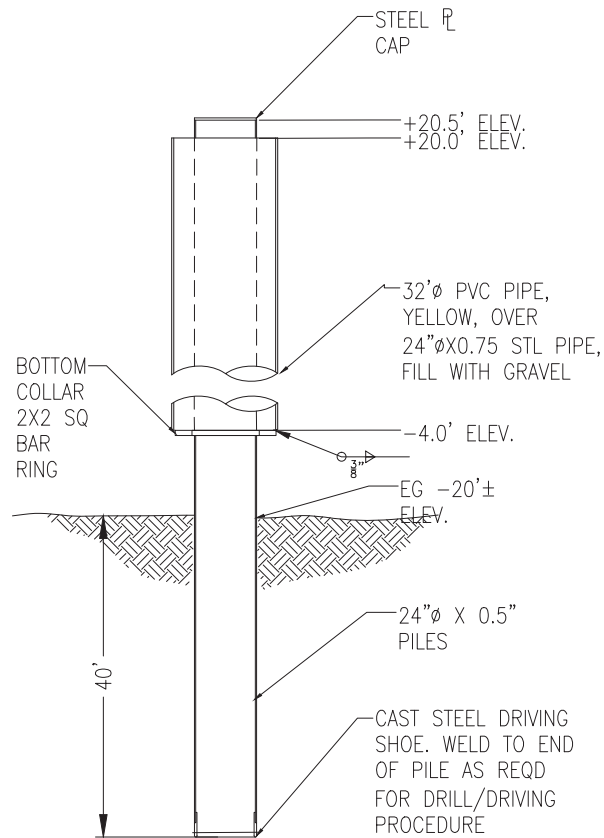
1. CONTRACTOR SHALL VERIFY PIPE PILE LOCATIONS PRIOR TO FABRICATION OR PREPERATION OF SHOP DRAWINGS.
2. STRUCTURAL STEEL SHALL CONFORM TO ASTM DESIGNATION A-35 UNLESS NOTED OTHERWISE.
3. ALL IRON AND STEEL MATERIALS EXCEPT BOLLARDS, SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
4. RUBBER SHEAR FENDER SHALL BE CONSTRUCTED OF NEOPRENE RUBBER OR EQUAL, UNLESS NOTED OTHERWISE.
5. **DESIGN CRITERIA**
DESIGN ENERGY FENDER CAPACITY 5.5 FT-KIPS
6. **DESIGN VESSEL**
DISPACEMENT TONNAGE 3,000 LTT.
ANGLE OF APPROACH 10°
BERTHING VELOCITY (PERP TO DOCK) 0.3 FPS
7. SEE SPECIFICATIONS

POA-1980-468-M13
City of Seward
Seward Marine Industrial Center
Improvements - Seward, AK
Resurrection Bay
T1S, R1E, SEC 18/T1S, R1W, SEC 13
Seward Meridian

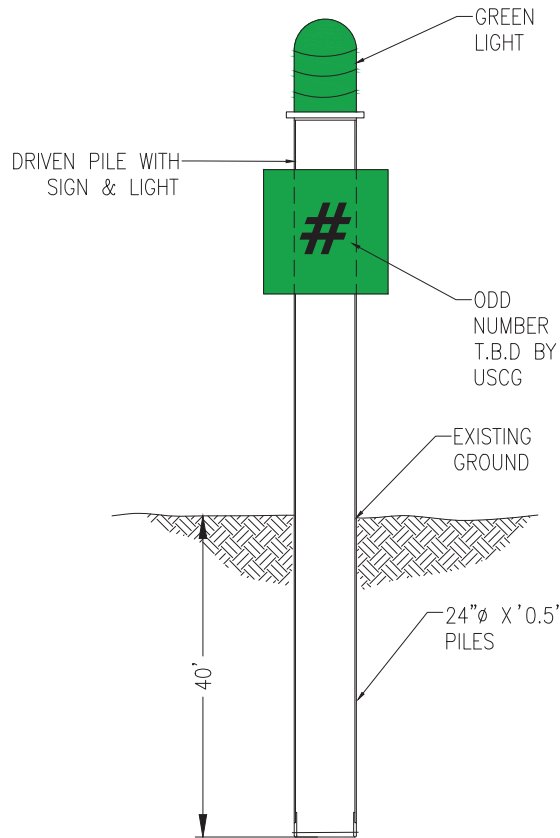


No.	Description	Date

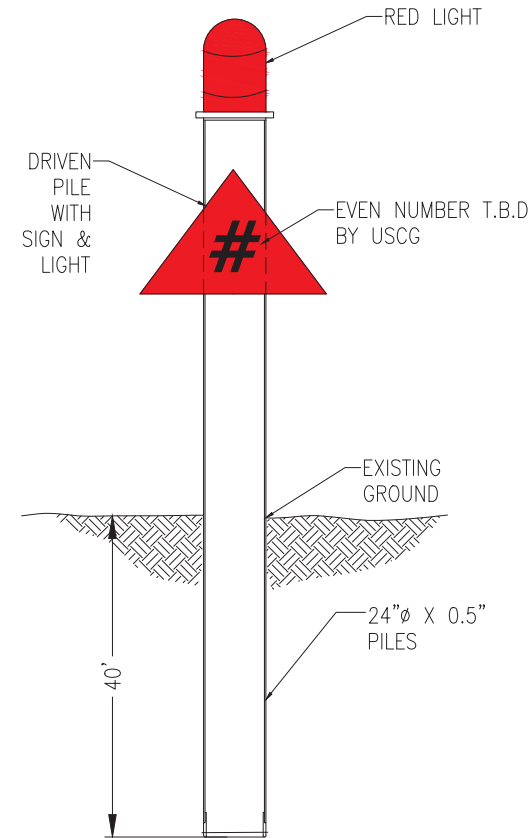
Drawn by: LA
Checked by: KN
DATE: FEBRUARY 2014
STATUS: PRELIMINARY
PROJECT: 1871.01
SHEET FILE: TURNING DOLPHIN
SHEET NO.:



1 **GUIDE PILE DETAIL**



2 **CHANNEL MARKER GREEN DAY MARKER**



2 **CHANNEL MARKER RED DAY MARKER**

POA-1980-468-M13
City of Seward
Seward Marine Industrial Center
Improvements - Seward, AK
Resurrection Bay
T1S, R1E, SEC 18/T1S, R1W, SEC 13
Seward Meridian



No.	Description	Date

Drawn: LA Checked: KN
Date: FEBRUARY 2014
Type: PRELIMINARY
Project: 1871.01
Sheet Title: GUIDE PILES
Sheet No.: