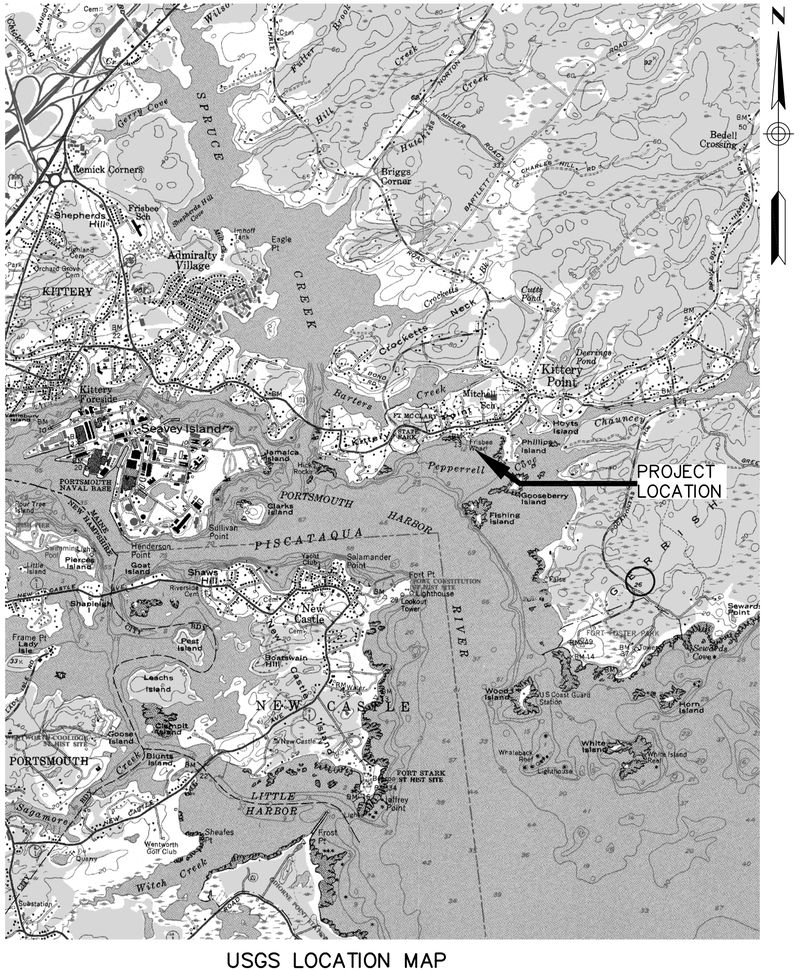
# PEPPERRELL COVE TOWN LANDING
# BOATING INFRASTRUCTURE GRANT

## KITTERY, MAINE
## PROJECT NO. 12-40

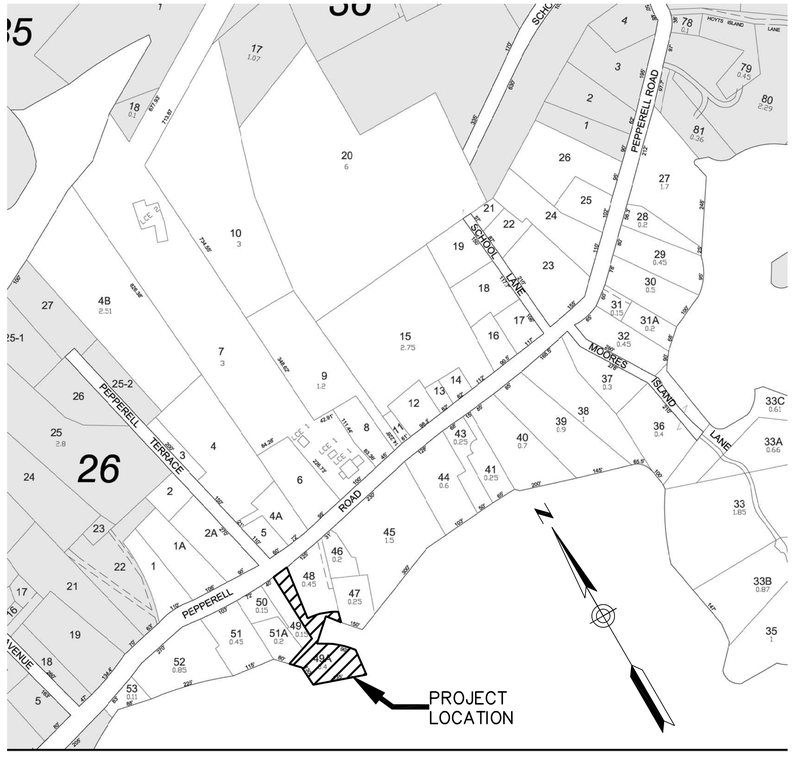
MaineDOT WIN 018144.00




USGS LOCATION MAP

INDEX OF SHEETS






TAX MAP 27

### PROPERTY INFORMATION

| | |
|---|---|
| OWNER: | TOWN OF KITTERY |
| ADDRESS: | 200 ROGERS ROAD<br>KITTERY, MAINE 03904 |
| MAP/LOT: | 027-49A |
| ZONING: | ZONES |
| SETBACKS: | NO CHANGE |


BAKER DESIGN CONSULTANTS
*Civil, Marine, and Structural Engineering*
7 Spruce Road Freeport, Maine 04032 Tel: (207) 846-9724 info@bakerdesignconsultants.com


| NO. | DATE | INT. |
|---|---|---|
| 0 | 6-18-13 | BJB |
| | CONSTRUCTION SUBMISSION | |

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED PROFESSIONAL ENGINEER

| DESIGNED BY: | BJB | CHECKED BY: | BJB |
|---|---|---|---|
| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: COVERSHEET

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE
JUNE 2013

CONTRACT NO.
12-40

SHEET NO. G-1 | REV. 0

p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina general.dwg

## GENERAL NOTES

1. THE CONTRACTOR SHALL BE GOVERNED BY THE CONSTRUCTION SAFETY RULES AS ADOPTED BY THE STATE BOARD OF CONSTRUCTION SAFETY, AUGUSTA, MAINE AND THE SAFETY AND HEALTH REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AS PROMULGATED BY THE US DEPARTMENT OF LABOR.
2. ALL NON-PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED UNLESS OTHERWISE DIRECTED BY THE OWNER OR THEIR REPRESENTATIVE.
3. ALL PAVED AREAS DISTURBED SHALL BE PATCHED WITH BITUMINOUS UNLESS OTHERWISE SPECIFIED.
4. THE CONTRACTOR SHALL INCLUDE IN HIS BID, COSTS FOR COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATORY REQUIREMENTS.
5. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAKE ALL IMPROVEMENTS IN ACCORDANCE WITH THE STATE OF MAINE DEPARTMEMT OF TRANSPORATION STANDARD SPECIFICATION; REVISION OF DECEMBER 2002.
6. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL CONSTRUCTION DEBRIS AT AN APPROVED FACILITY IN ACCORDANCE WITH ALL APPLICABLE LOCAL STATE AND FEDERAL REGULATORY REQUIREMENTS.

## DESIGN CRITERIA

1. SITE EXPOSURE
   - WAVE HEIGHT - 3 FT
   - MAXIMUM WIND SPEED -100 MPH HURRICANE COASTLINE
   - NO ICING HAS BEEN REPORTED AT THIS SITE AND HAS NOT BEEN CONSIDERED.
2. FIXED GANGWAY TAKE-OFF PIER
   - DESIGN LIVE LOAD = 200 PSF
   - ALL HANDRAIL AND POSTS SHALL BE CONSTRUCTED TO WITHSTAND A 200 LB LOAD APPLIED IN ANY DIRECTION OR 50 LB/FT APPLIED ALONG RAIL LENGTH.
3. GANGWAY
   - DEAD LOADS SHALL CONSIST OF THE ENTIRE WEIGHT OF THE GANGWAY STRUCTURE PLUS UTILITY TRAY/ HANGER SYSTEM AND UTILITIES AS NOTED ON THE DRAWINGS.
   - GANGWAY DECK SURFACE AND STRUCTURAL FRAME SHALL NOT EXCEED ALLOWABLE MATERIAL STRESSES FOR A UNIFORM LIVE LOAD OF 100 PSF APPLIED OVER THE FULL SURFACE OF THE GANGWAY WITH DEFLECTION LIMIT NOT TO EXCEED GANGWAY CAMBER.
   - GANGWAY DECK SURFACE AND STRUCTURAL FRAME SHALL NOT EXCEED ALLOWABLE MATERIAL STRESSES FOR A UNIFORM LIVE LOAD OF 50 PSF APPLIED OVER THE FULL SURFACE OF THE GANGWAY WITH DEFLECTION LIMIT NOT TO EXCEED SPAN/360.
   - ALL HANDRAIL AND POSTS SHALL BE CONSTRUCTED TO WITHSTAND A 200 LB LOAD APPLIED IN ANY DIRECTION OR 50 LB/FT APPLIED ALONG RAIL LENGTH.
4. FLOAT SYSTEM
   - FLOAT FREEBOARD AND LIVE LOAD CAPACITY IN ACCORDANCE WITH TABLE BELOW.

| FLOAT LOADING CONDITION | MIN LIVE LOAD CAPACITY (PSF) | ALLOWABLE FREEBOARD (IN) |
|---|---|---|
| DEAD LOADS + UTILITIES | 0 | 19 +/- 1 |
| FLOATATION DRUMS SUBMERGED | 30 | > 10 |
| FLOATATION DECK SUBMERGED | 50 | > 0 |

   - DEAD LOADS SHALL CONSIST OF THE ENTIRE WEIGHT OF THE FLOATING STRUCTURE, INCLUDING UTILITIES, GANGWAYS, DOCK BOXES, PILE GUIDES, MOORING TACKLE.
   - A CONCENTRATED LIVE LOAD OF 400 LBS APPLIED AT ANY POINT SHALL NOT TILT THE DECK MORE THAN SIX DEGREES TO THE HORIZONTAL.
   - VESSELS USING THE FACILITY WILL USE FENDERS AND WILL BE REMOVED FROM THE DOCKS IN ADVANCE OF SIGNIFICANT STORM EVENTS.

## SURVEY & DATUM NOTES

1. ALL ELEVATIONS PROVIDED ON THE PLANS ARE TO NGVD29 DATUM PER CIVIL CONSULTANTS SURVEY NOTES, UNLESS OTHERWISE NOTED.
2. EXISTING TOPOGRAPHIC LOCATION SURVEY PERFORMED BY CIVIL CONSULTANTS DATED JANUARY 15, 2013, RECEIVED BY BAKER DESIGN CONSULTANTS ON JANUARY 17, 2013.
3. BASE FLOOD/TIDAL INFORMATION TAKEN FROM MEDEP, FEMA AND NOAA PUBLISHED DATA FOR SEAVEY ISLAND, TIDAL 5, STA 92, KITTERY.

| Elevation | Chart Datum (ft) | NGVD29 (ft) | NAVD88 (ft) | Notes |
|---|---|---|---|---|
| FEMA Base Flood | 18.9 | 15 | 14.3 | FEMA A3 |
| Highest Annual Tide (HAT) | 11.4 | 7.5 | 6.8 | Maine DEP |
| MHHW | 8.84 | 4.98 | 4.21 | TIDAL 5 STA 92 |
| MHW | 8.43 | 4.57 | 3.80 | " |
| NAVD 88 | 4.63 | - | 0 | " |
| NGVD 29 | 3.86 | 0.0 | - | " |
| MLW | 0.32 | -3.54 | -4.31 | " |
| MLLW | 0.00 | -3.86 | -4.63 | " |

## STRUCTURAL NOTES

STEEL PIPE GUIDE PILES

1. STEEL PIPE PILES SHALL MEET ASTM A252 GRADE 3 STANDARDS WITH A MINIMUM SIZE IN ACCORDANCE WITH THE SCHEDULE ON SHEET S-1.
2. AN OPEN CUTTING SHOE IS NOT REQUIRED.
3. STEEL PIPE SHALL BE TREATED WITH FUSION BONDED EPOXY (COLOR BROWN). REPAIR ANY COATING DAMAGED IN THE FIELD.
4. THE CONTRACTOR SHALL TAKE STEPS TO PROTECT PILE COATING FROM DAMAGE DURING HANDLING AND DRIVING OPERATIONS.
5. ALL SOCKETED PILES SHALL BE FILLED WITH CONCRETE AFTER SOCKETING OPERATIONS ARE COMPLETE.
6. ALL PILES TO HAVE ANODE PROTECTION. USE ALOLINE ALUMINUM ANODE BY WILSON INTERNATIONAL INC. MODLE NO. W-120 (OR APPROVED EQUAL). POSTION VERTICALLY 3'-0" BELOW MLW WITH 2 – ½" WELDED STUDS.
7. ALL PILES SHALL BE FITTED WITH BLACK, UV RESISTANT, LOW DENSITY, CONICAL, POLYETHYLENE CAPS BY FOLLANSBEE (800-223-3444) OR EQUAL. SELECT SIZE TO MATCH PILE DIAMETER AND FASTEN WITH STAINLESS STEEL SCREWS.

TIMBER PILES

1. TIMBER PILES SHALL HAVE A MINIMUM PILE BUTT DIAMETER OF 12-INCHES AND MEET ASTM D2899 DESIGN VALUES FOR TREATED ROUND TIMBER PILES, WITH MINIMUM TIP CIRCUMFERENCE AND DESIGN LOAD CAPACITY AS INDICATED BELOW:

| LOCATION | TIP | P (KIPS) | MATERIAL |
|---|---|---|---|
| VERTICAL PILES | 25" | 20 | PINE OR GREENHEART |
| FENDER PILES | 22" | 5 | GREENHEART |
| GUIDE PILES | 22" | 5 | GREENHEART |

2. VERTICAL TIMBER PILES SHALL BE SOUTHERN YELLOW PINE CONFORMING TO ASTM D25. PROVIDE PROTECTION TO PILE TIP AND BUTT TO AVOID DAMAGE DURING DRIVING AT PIER HEAD LOCATION.
3. EXPOSED FASTENERS TO FENDER AND GUIDE PILES SHALL BE COUNTERSUNK A MINIMUM OF 1-1/2 INCHES.
4. ALL BEARING PILES SHALL BE CAPPED' WITH 'ICE AND WATER SHIELD' BY GRACE CONSTRUCTION PRODUCTS OR APPROVED EQUAL PRIOR TO PLACEMENT OF TIMBER CAP.
5. ALL FENDER AND GUIDE PILES SHALL BE BANDED WITH STAINLESS STEEL UTILITY STRAPPING AND FITTED WITH BLACK, UV RESISTANT, LOW DENSITY, CONICAL, POLYETHYLENE CAPS BY FOLLANSBEE (800-223-3444) OR EQUAL. SELECT SIZE TO MATCH PILE DIAMETER AND FASTEN WITH STAINLESS STEEL SCREWS.
6. REFER TO SPECIFICATIONS FOR PILE DRIVING CRITERIA. THE CONTRACTOR IS CAUTIONED OF ANTICIPATED RAPID INCREASE IN DRIVING RESISTANCE DUE TO ABRUPT CHANGES IN SOIL STRATA. CARE SHOULD BE TAKEN TO AVOID DAMAGE TO THE PILE.
7. THE CONTRACTOR SHALL ORDER PILES OF SUFFICIENT LENGTH TO ALLOW FOR VARIATION IN THE TABULATED LENGTH AND DAMAGE TO THE HEAD FROM DRIVING. REFER TO PILE SCHEDULE ON SHEET S-1.

TIMBER STRUCTURAL MEMBERS

1. REFER TO TIMBER SCHEDULE ON SHEET G-2.
2. ALL EXPOSED EDGES ADJACENT TO PEDESTRIAN TRAVEL SHALL BE PLANED OR SANDED TO PROVIDE SMOOTH SURFACE FREE OF ROUGH EDGES OR DEFECTS.
3. ALL EXPOSED FASTENERS SHALL BE COUNTERSUNK ON WALKING SURFACE, CURBS, PILING AND HANDRAILING.
4. ALL TIMBER JOISTS, BEAMS AND PILE CAPS TO BE 'CAPPED' WITH 'ICE AND WATER SHIELD' OR APPROVED EQUAL PRIOR TO PLACEMENT OF DECK.

MISCELLANEOUS METALS AND FASTENERS

1. REFER TO FASTENER SCHEDULE ON SHEET G-2 AND INDIVIDUAL PLANS.
2. ALL METAL ITEMS TO BE A36 STEEL, HOT-DIP GALVANIZED AFTER FABRICATION UNLESS OTHERWISE NOTED.
3. ALL FASTENERS SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.
4. ALL BOLTS SHALL CONFORM TO ASTM A-307. MINIMUM SIZE SHALL BE ¾" DIA. UNLESS OTHERWISE NOTED. ALL BOLTS TO BE HEAVY HEX UNLESS OTHERWISE NOTED.
5. AT ALL TIMBER CONNECTIONS USE OVERSIZE WASHERS (NY DOCK WASHERS OR EQUAL) OR BACKING PLATES.

## CONSTRUCTION SEQUENCE & COORDINATION

1. ALL ACTIVITIES SHALL BE COORDINATED WITH THE HARBOR MASTER SO THAT PIER USERS CAN BE DIRECTED TO ADJACENT FACILITIES PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL MAINTAIN CLEAR ACCESS TO THE FRISBEE PIER AND THE BOAT RAMP THROUGHOUT THE PROJECT.

## EROSION CONTROL NOTES

1. APPLICATION OF TEMPORARY AND PERMANENT EROSION CONTROL MEASURES FOR THE PROJECT SHALL BE IN ACCORDANCE WITH PROCEDURES AND SPECIFICATIONS OF THE CURRENT MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION; BEST MANAGEMENT PRACTICES.
2. ALL WORK SHALL BE EXECUTED FROM SHORE OR BY BARGE. NO TRACKED OR WHEELED EQUIPMENT SHALL BE OPERATED OR PLACED BELOW THE HIGHWATER MARK.
3. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UPON COMPLETION OF GRADING OPERATIONS AND ESTABLISHMENT OF ACCEPTABLE GROUND COVER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES DURING CONSTRUCTION.

## UTILITY NOTES

1. THE LOCATION OF UTILITIES AS SHOWN ON THE DRAWINGS IS APPROXIMATE AND IS SHOWN ONLY AS A GUIDE TO THE CONTRACTOR. NO GUARANTEE IS MADE THAT UTILITIES WILL BE ENCOUNTERED WHERE SHOWN OR THAT ALL UTILITIES ARE SHOWN. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS IN THE FIELD AND BE COMPLETELY RESPONSIBLE FOR REPAIR OF ALL UTILITIES DISTURBED DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL NOT MAKE ANY OPENING OR EXCAVATION WITHIN THE PROJECT AREA UNTIL CONTACT HAS BEEN MADE WITH 'DIG SAFE' AND ALL UTILITIES HAVE BEEN NOTIFIED.
   - CENTRAL MAINE POWER<br>162 CANCO ROAD<br>PORTLAND, MAINE 04103<br>828-2832
   - KITTERY WATER DISTRICT<br>17 STATE ROAD<br>KITTERY, MAINE 03904<br>439-1128
   - COMCAST (BERWICK AREA)<br>334B CALEF HIGHWAY<br>EPPING, NH 03042
   - FAIRPOINT COMMUNICATIONS<br>1575 GREENLAND ROAD<br>GREENLAND, NH 03840
   - KITTERY SEWER DISTRICT<br>PO BOX 808<br>KITTERY, MAINE 03904

### TIMBER SCHEDULE

| Timber Size | Location | % Moisture at Treatment | Treatment Type | Treatment pcf | Grading to SPIB | Surface Finishing | Minimum Length if not shown on drawings |
|---|---|---|---|---|---|---|---|
| **Take-Off Pier** | | | | | | | |
| 12 x 12 | End Joist | 25% | CCA | 2.5 | No. 1 | S4S | |
| 12 x 12 | Caps | 25% | CCA | 2.5 | No. 1 | S2S | |
| 6 x 12 | Joists | 25% | CCA | 2.5 | No. 1 | S2S | |
| 4 x 8 | Blocking | 25% | CCA | 2.5 | No. 1 | S4S | |
| 4 x 8 | Planking | 25% | ACQ | 0.6 | No. 1 | S4S | 10'-0",No butt Joints |
| 4 x 8 | Diagonal Bracing | 25% | CCA | 2.5 | No. 1 | R | |
| **Timber Handrail (Match existing Railing at infill sections)** | | | | | | | |
| 2 x 6 | Rails | 19% | ACQ | 0.6 | No. 1 | S4S | 15' |
| 4 x 4 | Posts | 25% | ACQ | 0.6 | No. 1 | S4S | 3'-6", 4'-6" |
| **New Floats** | | | | | | | |
| 2 x 6 | Decking | 19% | ACQ | 0.6 | No. 1 | S4S | No Butt Joints except for Float 1630 |
| 4 x 10, 4 x 8 | Stringers, Blocking | 19% | ACQ | 0.6 | No. 1 | S4S | 16' or Full Length |
| 2 x | Facia Boards | 19% | ACQ | 0.6 | No. 1 | S4S | 16' or Full Length |
| 4 x 6 | Skids | 25% | ACQ | 0.6 | No. 1 | S4S | 16' or Full Length |

Chromated Copper Arsenate (CCA)
Alkaline Copper Quaternary (ACQ)
Quantities shall include sufficient material to include blocking and splices (where authorized).
R = Rough Sawn, S2S = Finished Two Side, S4S = Finished All Sides.

### FASTENER SCHEDULE

| Location | Diameter (in) | No. per Connection | Finish/ Notes | Length |
|---|---|---|---|---|
| **Drift Pins** | | | | |
| Cap to Pile | 1" | 1 | Hot Dip Galv. | 30 |
| Joists to Cap | 3/4" | 1 | Hot Dip Galv. | 20 |
| **Spikes** | | | | |
| Joist to Blocking | spike | 2 | Hot Dip Galv. | 6 |
| Wood Decking | 3/8" | 2 | Hot Dip Galv. | 8 |
| **Timber Bolted Connections** (Heavy Hex unless otherwise noted) | | | | |
| Pile Bracing | 1" | 1 | Hot Dip Galv. | Length to suit construction |
| Timber Handrail Post to Cap | 5/8" | 2 | | |
| Timber Handrail Post to Jois | 5/8" | 2 | | |
| Float Hinge Pins | 1-inch stainless steel | 1 per connection | use nylock nut or split pin | |
| Float hardware | 1/2 carriage bolts | 2 | Hot Dip Galv. Size as directed by system manufacturer. All float | |
| Cleats | 1/2 to 3/4-inch | 2 | | |
| **Screw/Lag Connections** | | | | |
| Float Decking | Square Drive | 2 | 316 Stainless | 4 |
| Timber Handrail to post | Square Drive | 2 | 316 Stainless | 4 |

## DEMOLITION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL STRUCTURAL COMPONENTS OF THE EXISTING PIER FROM THE SITE THAT ARE NOT SELECTED FOR RETAINAGE BY THE TOWN.
2. EXISTING TIMBER AND PILE MEMBERS RETAINED SHALL BE SET ASIDE IN A PROTECTED AREA FOR REMOVAL FROM THE SITE BY THE TOWN.
3. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF THE EXISTING PIER COMPONENTS AND CONSTRUCTION DEBRISAT AN APPROVED FACILITY IN ACCORDANCE WITH ALL APPLICABLE REGULATORY REQUIREMENTS.

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| 0 | 6-18-13 | BJB |
| | CONSTRUCTION SUBMISSION | |

STATE OF MAINE
BARNEY J. BAKER No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: NOTES AND SCHEDULES

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE JUNE 2013
CONTRACT NO. 12-40
SHEET NO. G-2
REV. 0

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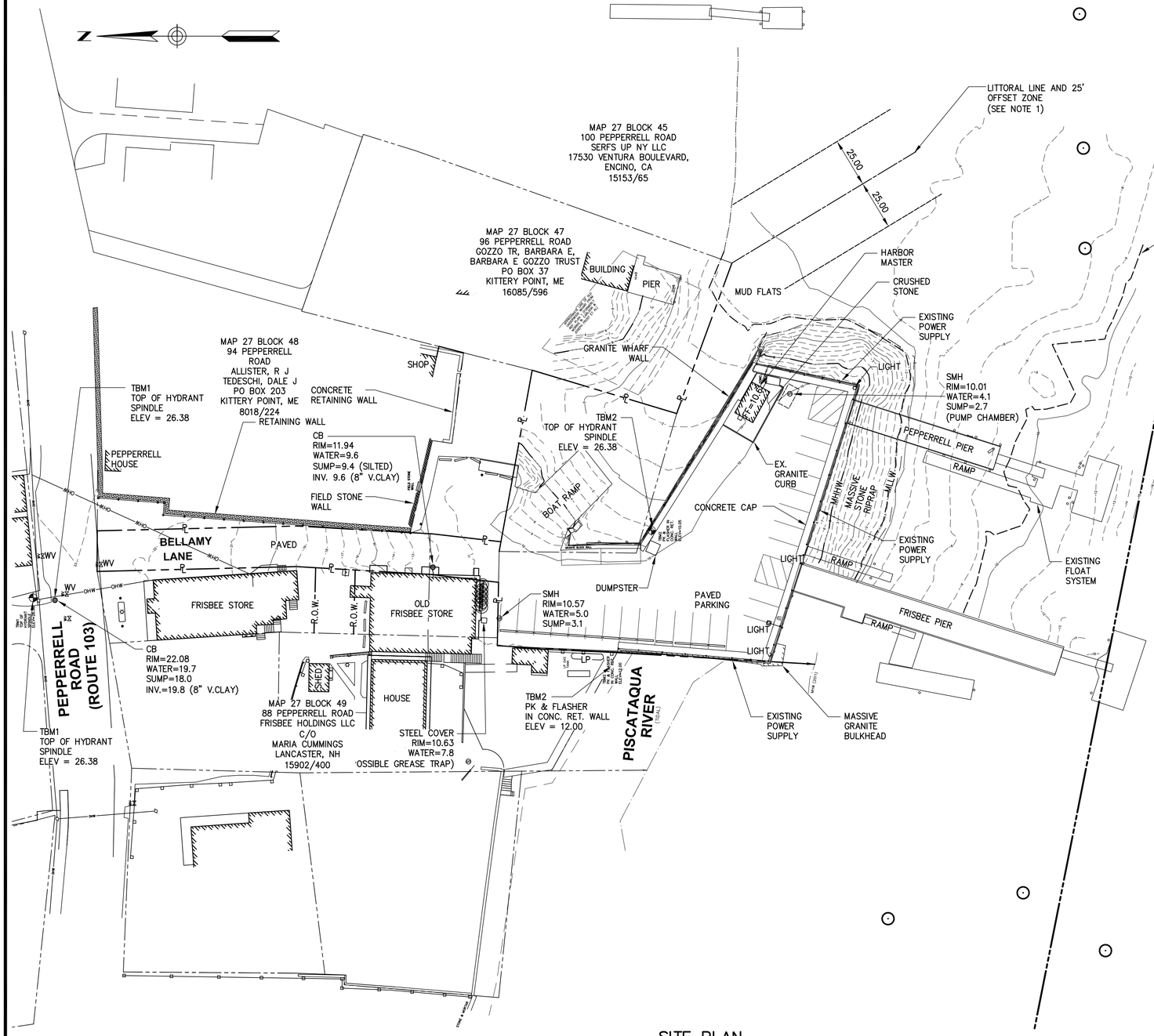


## SITE PLAN

0 15 30 45 90

## SURVEYOR'S LEGEND

- TREE OR SHRUB AS NOTED
- SEWER MAN HOLE
- WATER GATE OR VALVE
- NETT 1295 46.1 CMP. — UTILITY POLE AND NUMBER
- A/C — AIR CONDITIONER
- ELECTRIC PANEL/ENTRANCE
- DRAIN MAN HOLE
- BOLLARD
- PARKING BUMPER
- LAMP POLE
- W/ UGE — UNDER GROUND ELECTRIC
- OHW — OVERHEAD WIRE
- ROOF OH — ROOF OVERHANG
- SAME OWNERSHIP
- (1) — PARCEL IDENTIFIER
- Y.C.R.D. 14810/207 — YORK COUNTY REGISTRY OF DEEDS
- MHHW — MEAN HIGHER HIGH WATER LINE
- MLLW — MEAN LOWER LOW WATER LINE
- TEST BORING
- BENCH MARK
- SPOT ELEVATION
- PILING
- APPROXIMATE PARCEL LINE
- LOCUS BOUNDARY LINE
- V. CLAY — VITRIFIED CLAY PIPE
- CONC. — CONCRETE
- RET. WALL — RETAINING WALL
- GRAN. — GRANITE
- MHW — MEAN HIGH WATER
- MLW — MEAN LOW WATER

NOTE:
1. THE LITTORAL LINE IS BASED ON DEED DESCRIPTIONS OF UPLAND AND INTERTIDAL PROPERTY BOUNDARIES AND APPLICATION OF THE COLONIAL RULE FOR RIPARIAN PROJECTION.

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| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: EXISTING CONDITIONS PLAN

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

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CONTRACT NO.
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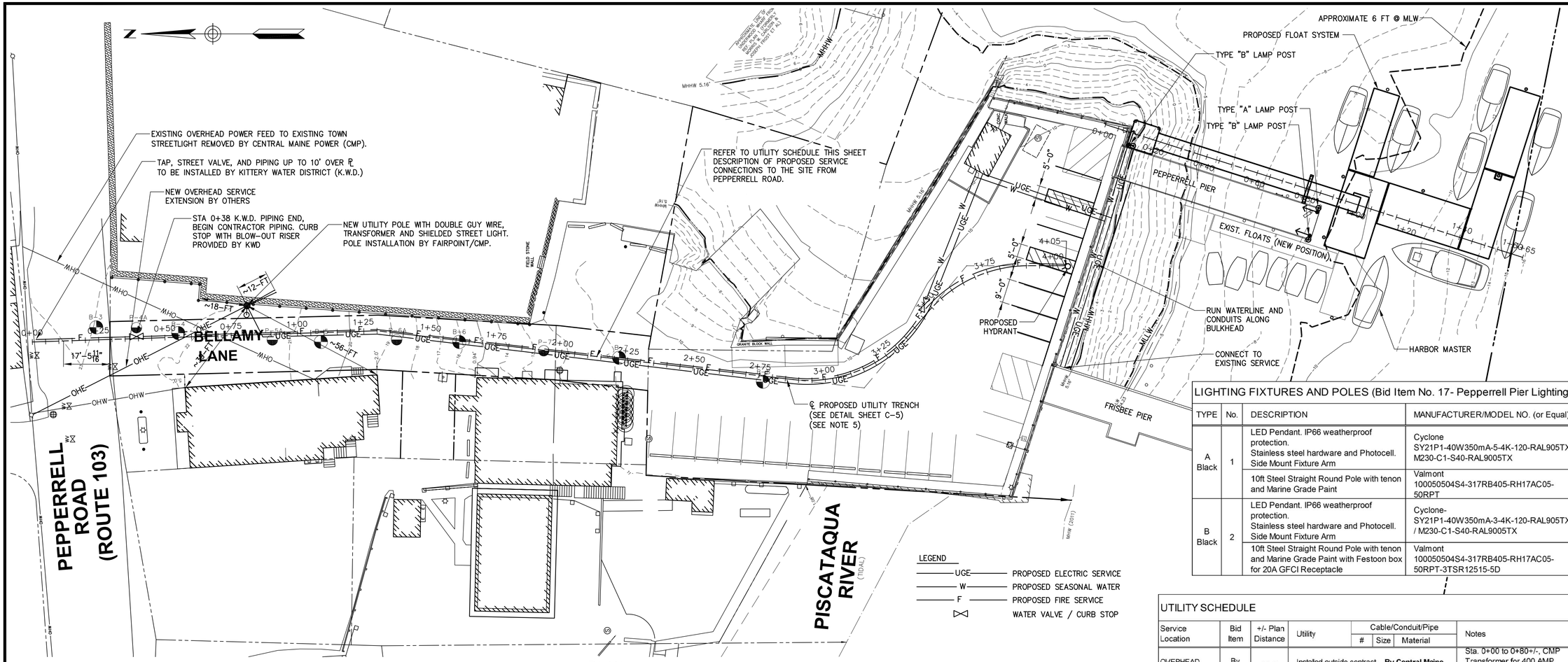
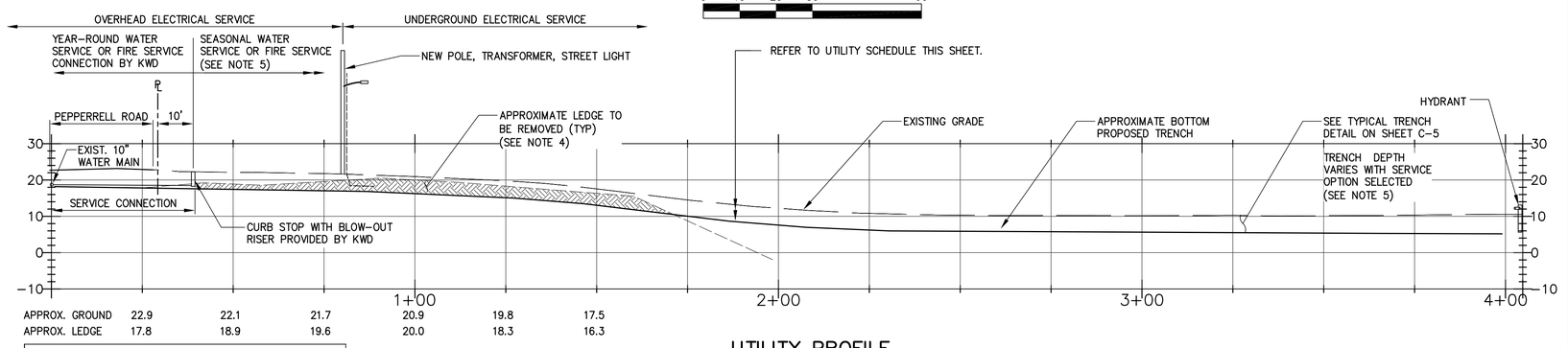



PLAN

0 10 20 30 60




| | | | | | | |
|---|---|---|---|---|---|---|
| APPROX. GROUND | 22.9 | 22.1 | 21.7 | 20.9 | 19.8 | 17.5 |
| APPROX. LEDGE | 17.8 | 18.9 | 19.6 | 20.0 | 18.3 | 16.3 |

UTILITY PROFILE

0 10 20 30 60

BELLAMY LANE BORINGS / PROBES (See Note 1)

| PLAN REFERENCE | GROUND ELEV (FT) | AUGER REFUSAL (FT) | ASSUMED LEDGE ELEV (FT) |
|---|---|---|---|
| B-3 | 22.9 | 5.0 | 17.9 |
| P-4A | 22.2 | 3.0 | 19.2 |
| B-4 | 22.1 | 3.5 | 18.6 |
| P-5A | 21.2 | 0.8 | 20.4 |
| B-5 | 20.4 | 1.0 | 19.4 |
| P-6A | 18.7 | 1.5 | 17.2 |
| B-6 | 15.9 | 0.7 | 15.2 |

NOTES:

1. BELLAMY LANE SUBSURFACE BORING AND PROBE INFORMATION WAS DERIVED FROM BORING LOGS PROVIDED BY ATTAR ENGINEERING. LOCATIONS PICKED UP BY CIVIL CONSULTANTS FIELD SURVEY.
2. PROBES WERE TAKEN AT OR NEAR PROPOSED PEPPERRELL PIER FLOAT GUIDE PILE LOCATIONS. REFER TO SHEET S-1.
3. FOR MARINE SIDE UTILITIES LOCATION SEE SHEET S-2.
4. ESTIMATED LEDGE REMOVAL TO BE PAID FOR UNDER BID ITEM NO.12 IS 20 CY IF BID ITEM 14 (SEASONAL WATER) INSTALLED AND 85 CY IF BID ITEM 15 (FIRE SERVICE) INSTALLED.
5. PLAN SHOWS OPTION FOR BID ITEM 15 (FIRE SERVICE, HYDRANT, YEAR-ROUND WATER SERVICE TO HBR. MASTER BLDG.) REFER TO UTILITY SCHEDULE THIS SHEET.

LIGHTING FIXTURES AND POLES (Bid Item No. 17- Pepperrell Pier Lighting)

| TYPE | No. | DESCRIPTION | MANUFACTURER/MODEL NO. (or Equal) |
|---|---|---|---|
| A Black | 1 | LED Pendant. IP66 weatherproof protection. Stainless steel hardware and Photocell. Side Mount Fixture Arm | Cyclone SY21P1-40W350mA-5-4K-120-RAL905TX/ M230-C1-S40-RAL9005TX |
| | | 10ft Steel Straight Round Pole with tenon and Marine Grade Paint | Valmont 100050504S4-317RB405-RH17AC05-50RPT |
| B Black | 2 | LED Pendant. IP66 weatherproof protection. Stainless steel hardware and Photocell. Side Mount Fixture Arm | Cyclone- SY21P1-40W350mA-3-4K-120-RAL905TX / M230-C1-S40-RAL9005TX |
| | | 10ft Steel Straight Round Pole with tenon and Marine Grade Paint with Festoon box for 20A GFCI Receptacle | Valmont 100050504S4-317RB405-RH17AC05-50RPT-3TSR12515-5D |

UTILITY SCHEDULE

| Service Location | Bid Item | +/- Plan Distance | Utility | Cable/Conduit/Pipe # | Size | Material | Notes |
|---|---|---|---|---|---|---|---|
| OVERHEAD Service | By Others | 90-ft | Installed outside contract. **By Central Maine Power, Fairpoint, Comcast** | | | | Sta. 0+00 to 0+80+/-, CMP Transformer for 400 AMP Service to Landing Relocate existing Street Light |
| UNDERGROUND **Utilities** New Pole to Hbrmaster Office | Bid Item 13 | 325-ft | Phone | 1 | 2 | SCH 80 E Conduit. 2-250 Copper Conductors. | Sta. 0+38 to 3+50 to Hbrmaster Office Ledge removal required, Galvanized steel risers required where exposed. |
| | | | Data | 1 | 2 | | |
| | | | Power | 1 | 4 | | |
| | | | Power/Spare | 1 | 4 | | |
| UNDERGROUND **Seasonal Water** Service OPTION | By Others | 38-ft | Water Supply | 2 | | Copper | **By KWD** Tap Pepperrell Road Main. Extend 10-ft into Bellamy Ln. |
| | Bid Item 14 | 335-ft | Water Supply | 2 | | HDPE (200 PSI) | Sta. 0+38 to Harbor Masters Office |
| UNDERGROUND **Year-Round Water** Service OPTION | By Others | 38-ft | Fire Service (Year-Round) | 6 | | Ductile Iron | **By KWD** Tap Pepperrell Road Main. Extend 10-ft into Bellamy Ln. |
| | Bid Item 15 | 370-ft | Fire Service (Year-Round) | 6 | | Ductile Iron | Sta. 0+38 to Hydrant at Sta. 4+05 |
| | | 55-ft | Water Supply (Year-Round) | 2 | | HDPE (200 PSI) | Tap 6-inch service at Sta. 3+50+/- to Harbor Masters Office |
| UNDERGROUND/ SURFACE Mounted Pepperrell Pier Services | Bid Item 16 | 90-ft | Phone | 1 | 2 | Galvanized Steel Conduit where exposed | Harbor Master Office to respective existing Pepperrell and Frisbee Pier boxes. Cap ends and install messenger lines if not used. Provide valves for winter draining and blowcut of water system. |
| | | | Data | 2 | 1 | | |
| | | | Power+Spare | Size & No. Reqd. | | | |
| | | | Lighting | | | | |
| | | | Pump Out | 1 | 1 | | |
| | | | Water Supply | 1 | | HDPE (200 PSI) | |
| Frisbee Pier Services | | 125-ft | Power | Size & No. Reqd. | | Galvanized Steel Conduit | |
| | | | Lighting | | | | |
| | | | Water Supply | 1 | | HDPE (200 PSI) | |
| Pepperrell Pier TRANSIENT FLOAT UTILITIES | | See Sheet S-2 | Phone | 2 | 1 | Type G Marine Cable | Accommodate tidal movement at gangway cable tray transitions to new junction boxes. Provide chafing gear, strain relief and seasonal disconnects as required. |
| | | | Data | 2 | 1 | | |
| | | | Power + Spare | Size Reqd. | | | |
| | | | Pump Out | 1 | 1 | Conduit Only | |
| | | | Water Supply | 3/4 | | HDPE (200 PSI) | |
| Pepperrell Pier LIGHTING | Bid Item 17 | See LIGHTING FIXTURE AND POLES Schedule | Continuous UV protected conduit fastened to underside of pier from existing Pier Box. Galvanized steel where exposed. No connections below deck elevation. | | | | |

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| NO. | DATE | BY |
|---|---|---|
| 0 | 6-18-13 | BJB |
| | CONSTRUCTION SUBMISSION | INT. |

STATE OF MAINE
BARNEY J. BAKER No. 5737
LICENSED PROFESSIONAL ENGINEER

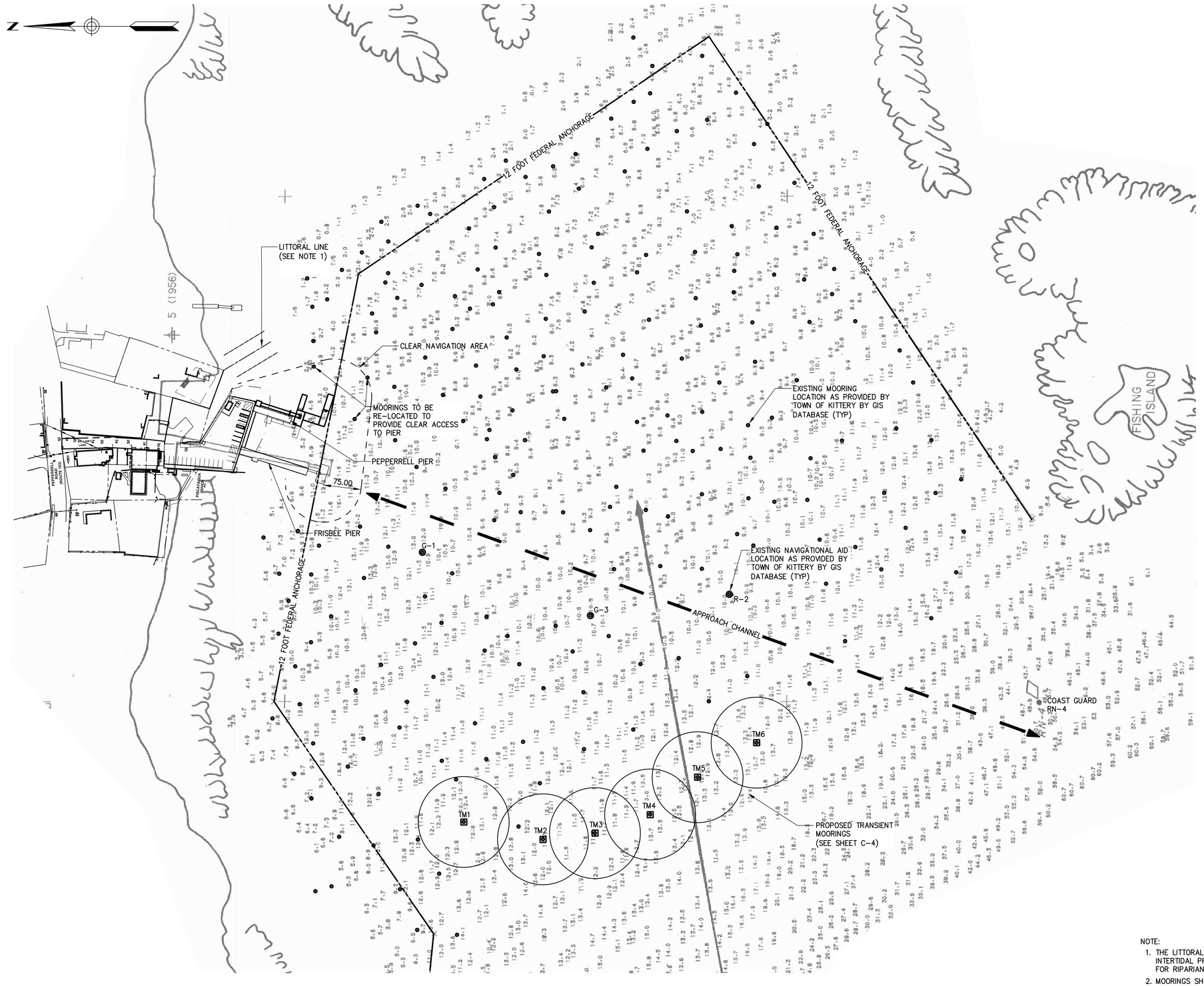
DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: SITE PLAN

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE JUNE 2013
CONTRACT NO. 12-40
SHEET NO. C-2
REV. 0

p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina civil design.dwg




MOORING FIELD SITE PLAN

0 25 50 75 150

LEGEND:

- ○ EXISTING MOORING
- ⊡ NEW TRANSIENT MOORING

NOTE:

1. THE LITTORAL LINE IS BASED ON DEED DESCRIPTIONS OF UPLAND AND INTERTIDAL PROPERTY BOUNDARIES AND APPLICATION OF THE COLONIAL RULE FOR RIPARIAN PROJECTION.
2. MOORINGS SHOWN AS RECEIVED FROM TOWN OF KITTERY (GIS DATABASE, SHP FILE).
3. SOUNDINGS SHOWN ON THIS PLAN ARE FROM ARMY CORPS OF ENGINEERS 12-FOOT ANCHORAGE CONDITION SURVEY DATED 1989 AND FEDERAL NAVIGATION LIMITS ARE REFERENCED TO MLW (CHART DATUM).

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| 0 | CONSTRUCTION SUBMISSION | 6-18-13 | BJB |

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: MOORING FIELD

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE
JUNE 2013

CONTRACT NO.
12-40

SHEET NO. C-3 REV. 0

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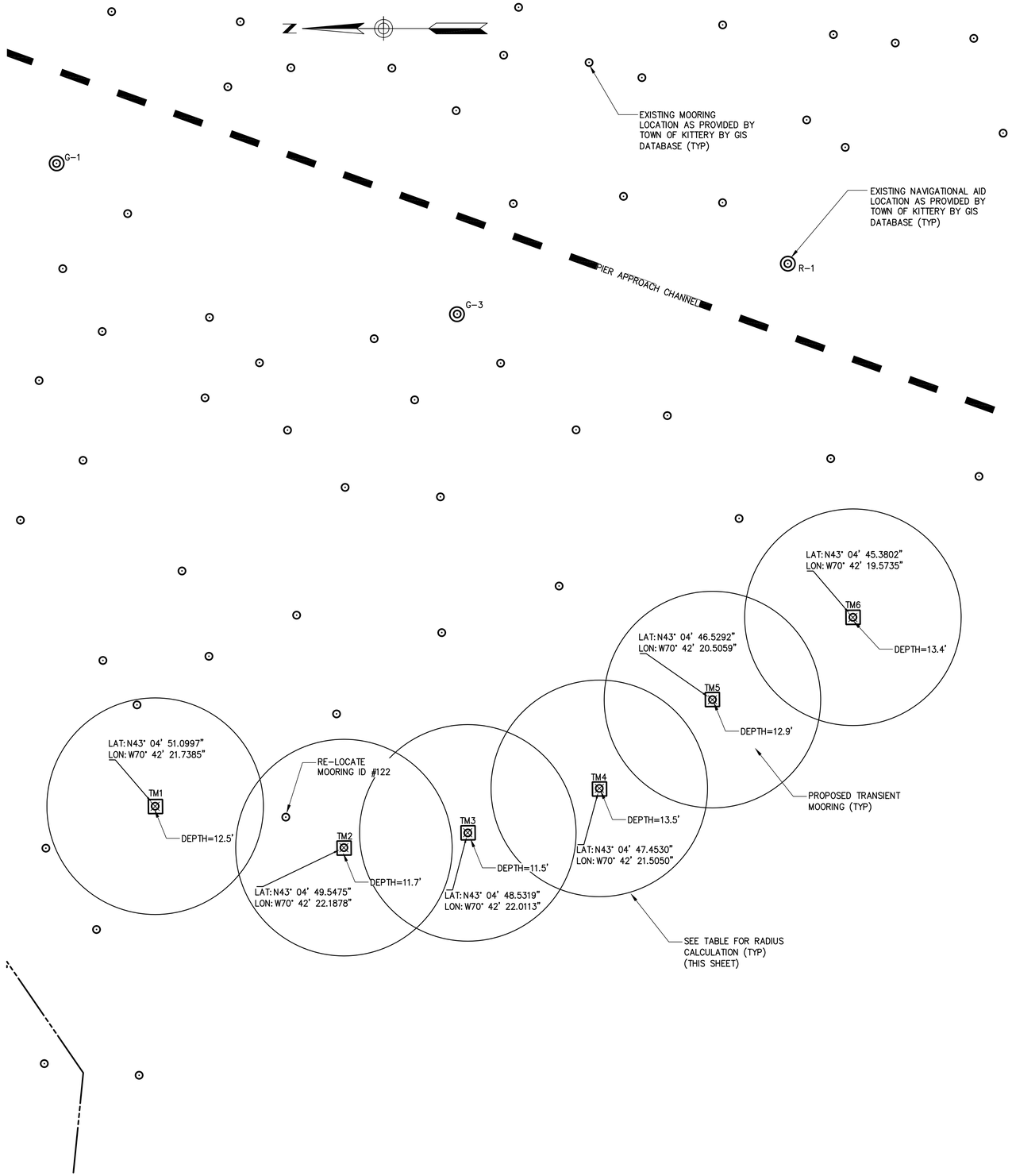
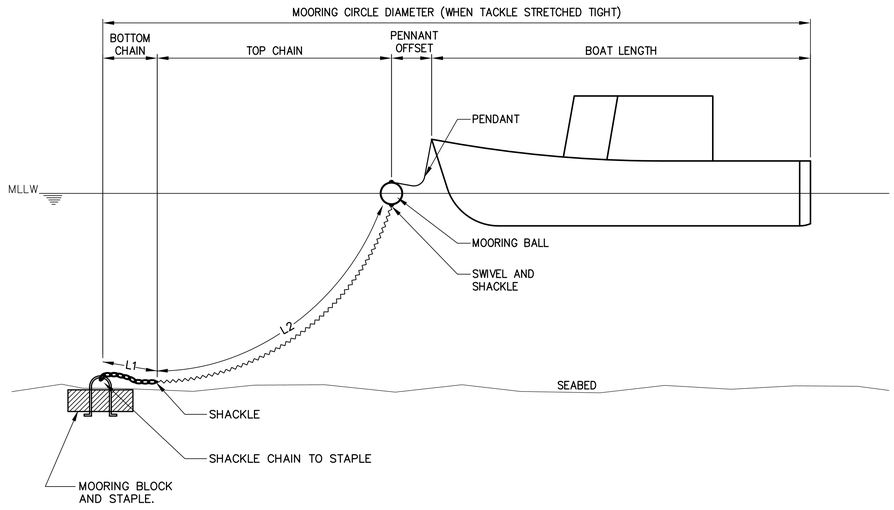



## MOORING FIELD SITE PLAN

0 15 30 45 90




## TYPICAL MOORING CONFIGURATION

0 3.5 7 10.5 21

### MOORING CIRCLE CALCULATION

| Mooring | Boat Length | | Depth of Water | | Bow Ht | Tackle Length FT | | | | Max Mooring Circle Radius (Neglects Catenary) FT | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Range | Design | MLW | MHW | FT | Btm Chain L1 | Top Chain L2 | Total Chain Length | Pennant Offset | MLW | MHW |
| T1 | 26-46 | 46 | 12.5 | 22.5 | 4.6 | 30.0 | 25.0 | 55.0 | 11.5 | 115 | 118 |
| T2 | | 46 | 11.7 | 21.7 | 4.6 | 30.0 | 25.0 | 55.0 | 11.5 | 114 | 118 |
| T3 | | 46 | 11.5 | 21.5 | 4.6 | 30.0 | 25.0 | 55.0 | 11.5 | 114 | 117 |
| T4 | | 46 | 13.5 | 23.5 | 4.6 | 30.0 | 25.0 | 55.0 | 11.5 | 115 | 118 |
| T5 | | 46 | 12.9 | 22.9 | 4.6 | 30.0 | 25.0 | 55.0 | 11.5 | 115 | 118 |
| T6 | | 46 | 13.4 | 23.4 | 4.6 | 30.0 | 25.0 | 55.0 | 11.5 | 115 | 118 |

### TRANSIENT MOORING TACKLE REQUIREMENTS

| Granite Block | | Staple | Bottom Chain (Hot Dip Galvanized) | | | Top Chain (Hot Dip Galvanized) | | | Mooring Ball | | Pendants (See Note 4) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. Reqd | Dry Wt. lbs. | Size in | Size in | Length ft | Proof Load lbs | Size in | Length ft | Proof Load lbs | DIA in | Minimum Bouyancy Lbs | Size in | Length ft | Break Strength (lbs) |
| 6 | 5000 | 1.25 | 1 | 30 | 83,600 | 5/8 | 25 | 33,000 | 24 | 100 | 7/8 | 20 | 50,000 |

Notes

1. Refer to TYPICAL MOORING CONFIGURATION on this sheet.
2. All fittings to be hot dip galvanized.
3. All fittings to be sized for the connection to exceed proof load of connected chain or line.
4. Provide single pendant with hot dip galvanized thimbles, threaded floats, and 3-ft of moveable chafing cover.
5. Mooring Ball shall be white in color with a blue horizontal stripe and prominantly marked with designated Mooring No. "T1" to "T6" in 6-inch block letters and "Kittery" in 2-inch letters.

NOTES:

1. REFER TO MOORING PLAN ON SHEET C–3 FOR LOCATION OF TRANSIENT MOORINGS WITH MOORING FIELD.
2. TRANSIENT MOORING DEPTHS SHOWN ARE TO CHART DATUM, MLW=0.0'
3. TRANSIENT MOORING LOCATION TO BE MARKED WITH A TEMPORARY FLOAT BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE HARBOR MASTER PRIOR TO PERMANENT MOORING INSTALLATION.

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| NO. | DESCRIPTION | DATE | INT. |
|---|---|---|---|
| 0 | CONSTRUCTION SUBMISSION | 6-18-13 | BJB |

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: TRANSIENT MOORINGS

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

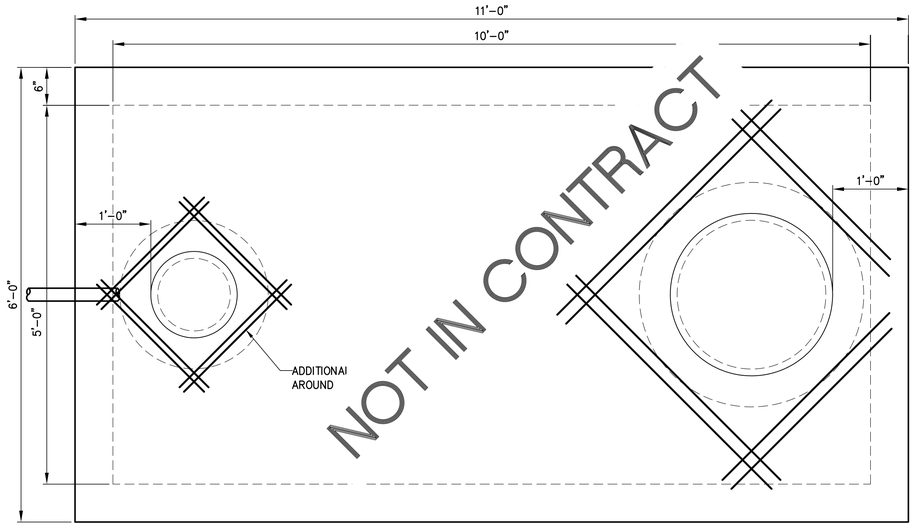
DATE JUNE 2013

CONTRACT NO. 12-40

SHEET NO. C-4

REV. 0

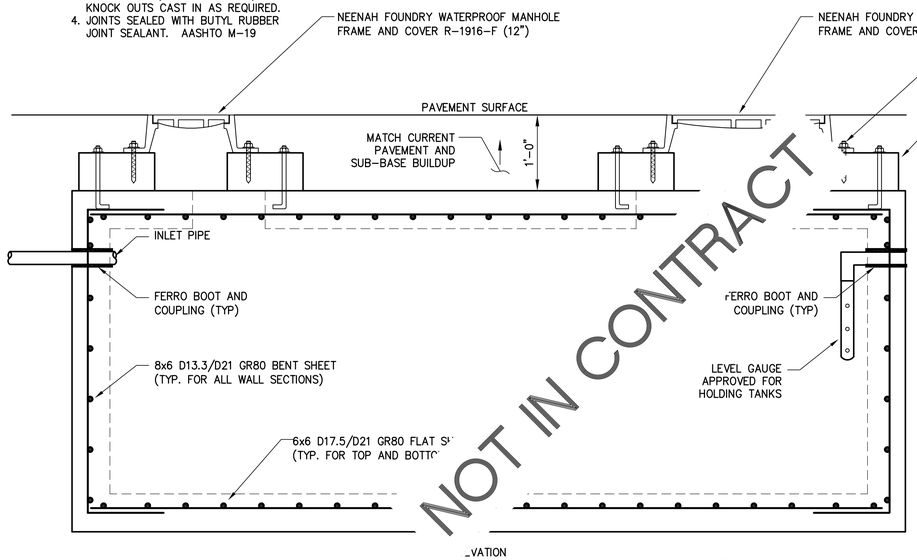
p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina civil design.dwg




PLAN

DESIGN NOTES:
1. CONCRETE 5000 PSI AT 28 DAYS.
2. H-20 LOADING.
3. PULLING EYES, DUCT OPENINGS, AND KNOCK OUTS CAST IN AS REQUIRED.
4. JOINTS SEALED WITH BUTYL RUBBER JOINT SEALANT. AASHTO M-19

PRECAST CONCRETE OF MAINE ITEM #B-1201
WEIGHT - TOP 13,000 LBS

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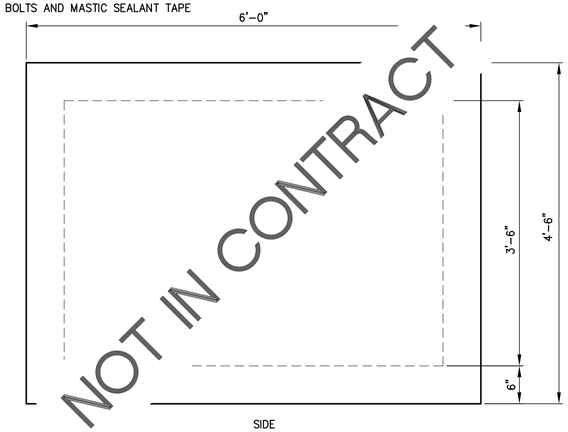
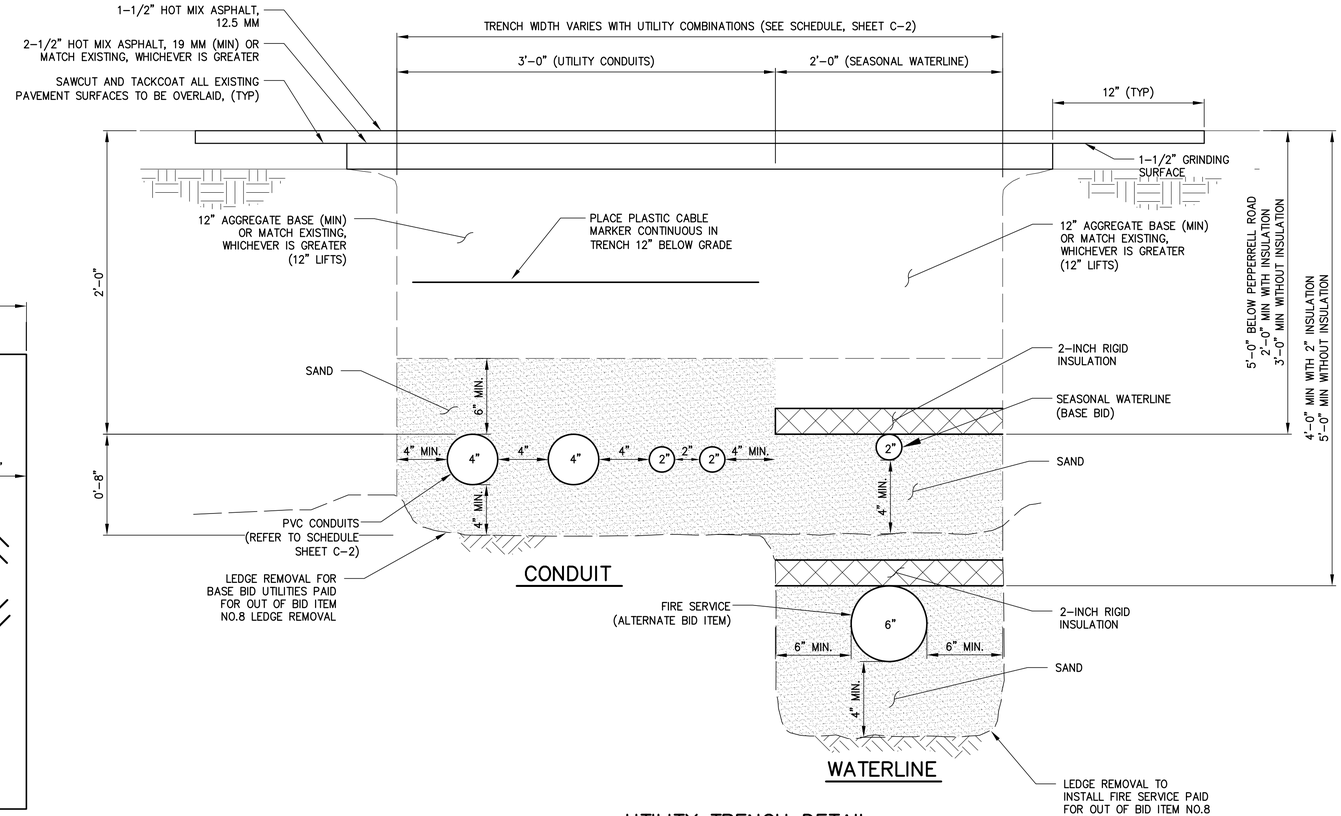



SIDE

## PUMP OUT HOLDING TANK
(1000 GALLONS)

0 0.5 1 1.5 3




## UTILITY TRENCH DETAIL

0 0.25 0.5 0.75 1.5

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STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED PROFESSIONAL ENGINEER

| DESIGNED BY: | BJB | CHECKED BY: | BJB |
|---|---|---|---|
| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: CIVIL DETAILS

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

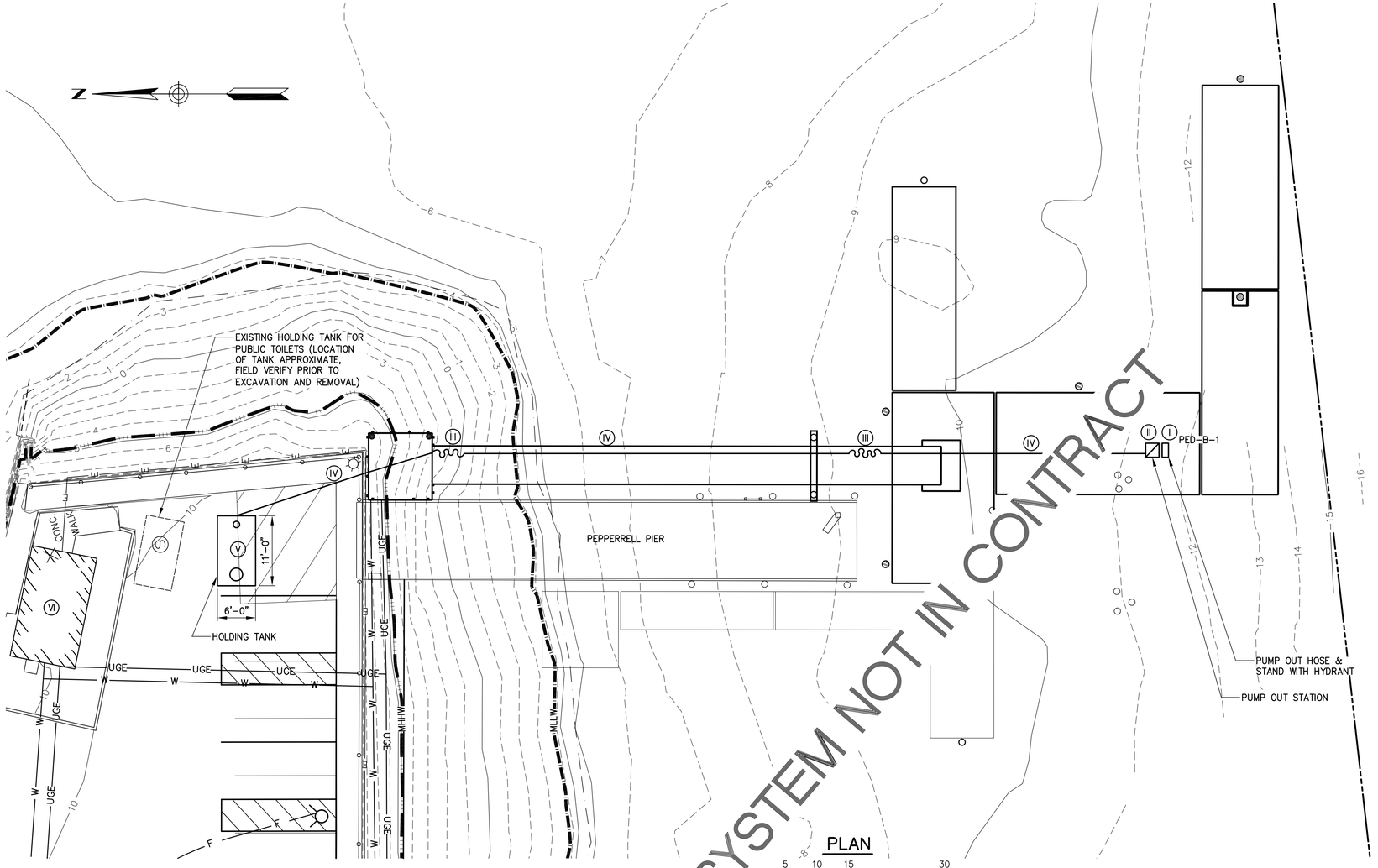
DATE
JUNE 2013

CONTRACT NO.
12-40

SHEET NO. C-5

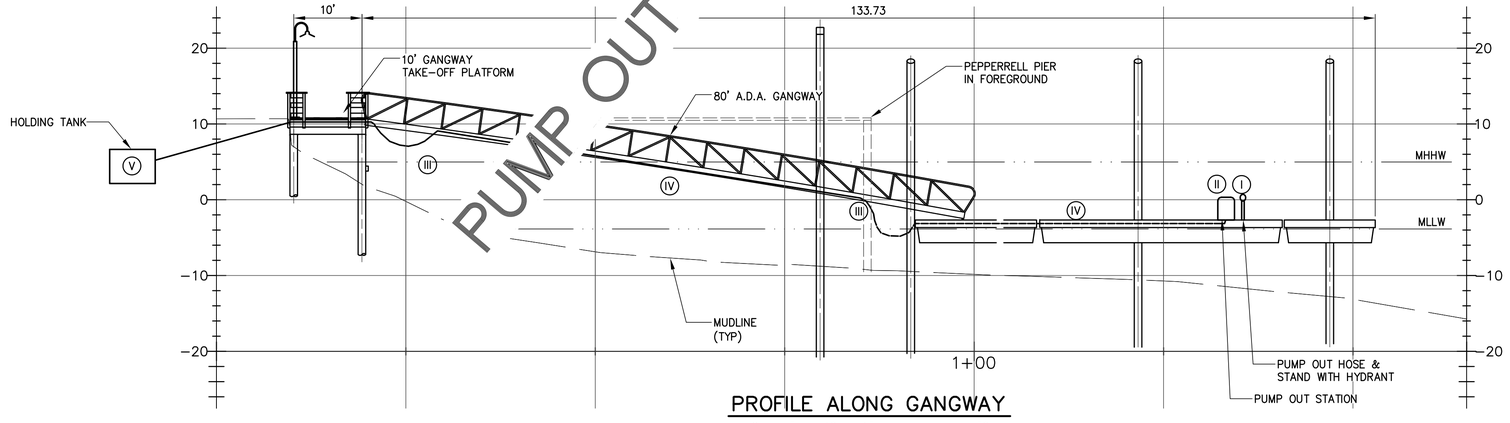
REV. 0

p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina civil design.dwg




PLAN

5 10 15 30




PROFILE ALONG GANGWAY

0 5 10 15 30

KEY

- PEDESTAL
- PUMP OUT
- HOSE STAND

| PUMP OUT SCHEDULE | |
|---|---|
| KEY | PUMP OUT COMPONENT |
| I | HOSE AND STAND<br>25-ft Standard Pump-Out Hose<br>50-ft Pump-Out Hose Extension<br>Connection Adaptor Kit |
| II | PARISTALTIC PUMP<br>Control Panel and Hour Meter<br>Suction Equalizer Pulsation Damper |
| III | FLEXIBLE COUPLING<br>Stainless steel seasonal disconnect at gangway<br>Flexible hose to accommodate tidal movement |
| IV | FIXED PIPING<br>2-inch HDPE SDR-11 Pipe mounted to underside of Gangway<br>Stainless Steel Connections<br>Mounted to underside of Gangway and Float Interior |
| V | HOLDING TANK<br>Inspection Manhole<br>Level Alarm in Harbor Masters Office |
| VI | Harbor Master Building<br>Power Supply and Shut-off<br>Meter Records and Adaptors |

NOTES:

1. THE CONTRACTOR SELECTED FOR THE PUMP OUT SYSTEM INSTALLATION SHALL COORDINATE HIS ACTIVITY WITH THE BOATING INFRASTRUCTURE PROJECT.



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|---|---|---|---|
| 0 | CONSTRUCTION SUBMISSION | 6-18-13 | BJB |

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: PUMP OUT SYSTEM

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE
JUNE 2013

CONTRACT NO.
12-40

SHEET NO. CP-1 REV. 0

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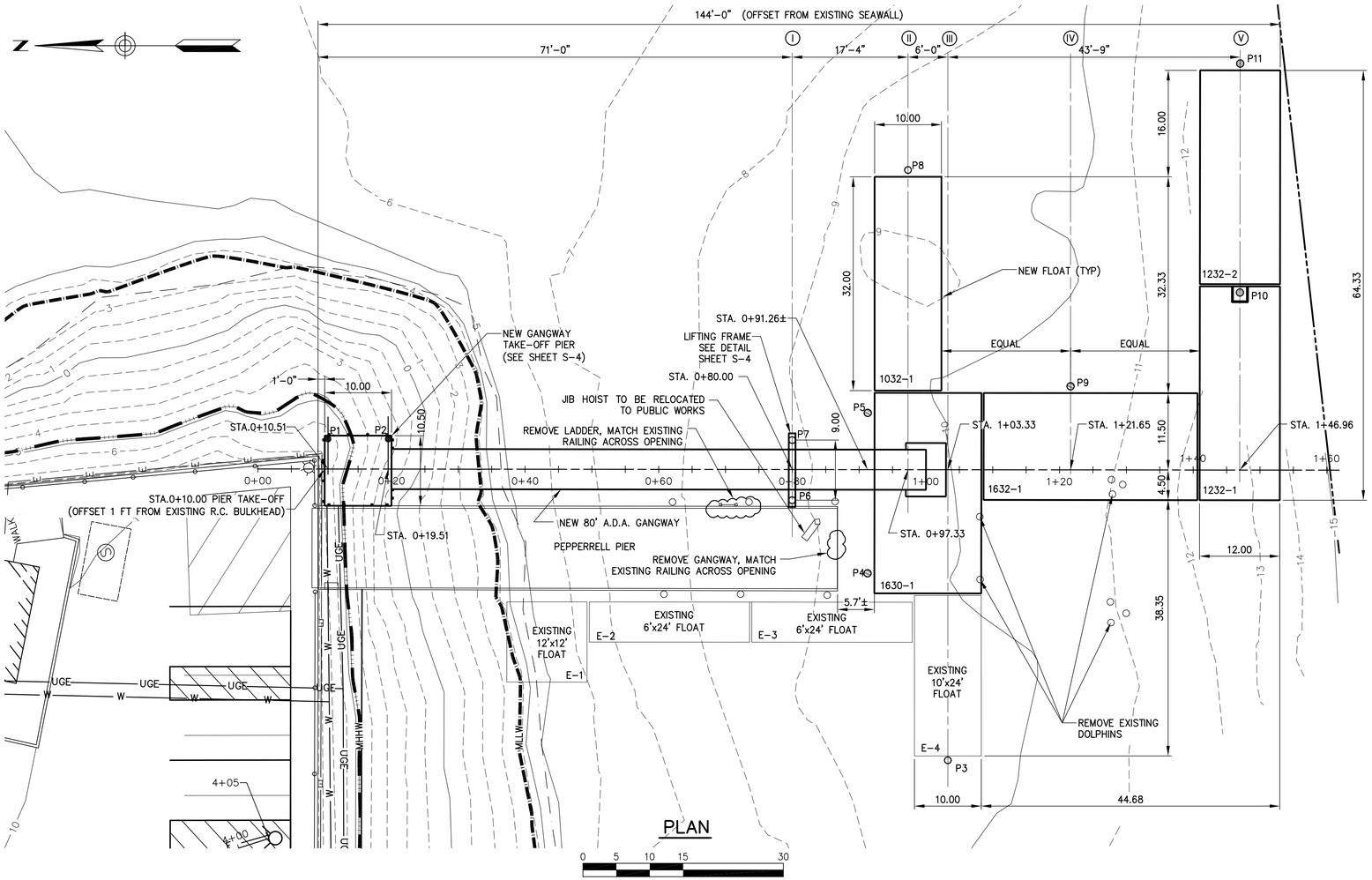


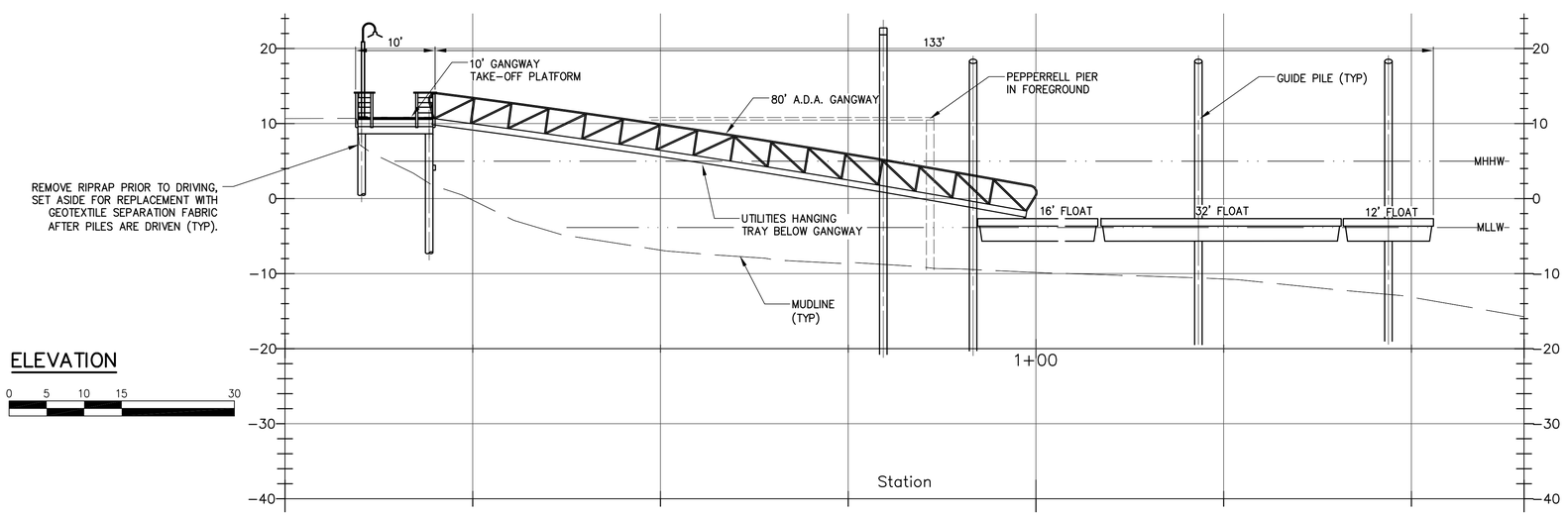


ELEVATION

0 5 10 15 30

## STEEL GUIDE PILES (Bid Item No. 8- Steel Piles, Bid Item No. 9- Rock Sockets)

Elevations based on NGVD 29 Datum

| Pile | Pile Section Size | | | | | Cutoff Elev | Rock Socket Depth | Mudline Elev | Overburden | Ledge Elev | Pile Tip Elevation | Pile Length (min) FT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Size | OD in | ID in | t in | A in² | | | | | | | |
| P 4 | 12 | 12.75 | 11.75 | 0.5 | 19.24 | 18.0 | NA | -9.5 | >21.5 | unknown | -39.5 | 60.0 |
| P 5 | 12 | 12.75 | 11.75 | 0.5 | 19.24 | 18.0 | NA | -9.5 | >21.5 | unknown | -39.5 | 60.0 |
| P 9 | 12 | 12.75 | 11.75 | 0.5 | 19.24 | 18.0 | NA | -10.6 | >23.0 | unknown | -40.6 | 60.0 |
| P 10 | 12 | 12.75 | 11.75 | 0.5 | 19.24 | 18.0 | 6 | -12.8 | -9.0 | -21.8 | -27.8 | 45.8 |
| P 11 | 12 | 12.75 | 11.75 | 0.5 | 19.24 | 18.0 | 6 | -12.8 | -7.7 | -20.5 | -26.5 | 44.5 |
| | | | | | | | | | | | Total Pile Length | 270.3 |
| | | | | | | | | | | | No of Piles | 5 |
| | | | | | | | | | | | Avg Pile Length FT | 54.1 |

## TIMBER PILES

Elevations based on NGVD 29 Datum

| Timber Pile | Pile Type | Bid Item | Cutoff Elev | Mudline Elev | Overburden | Penetration | Pile Tip Elevation | Pile Length (min) FT |
|---|---|---|---|---|---|---|---|---|
| P 1 | Southern Yellow Pine PT | Bid Item 2 | 8.6 | 6.0 | unknown | 32.4 | -26.4 | 35.0 |
| P 2 | | | 8.6 | 2.0 | unknown | 33.4 | -31.4 | 40.0 |
| | | | | | | | Total Pile Length | 75.0 |
| | | | | | | | No of Southern Yellow Pine Piles | 2 |
| | | | | | | | Avg Pile Length FT | 37.5 |
| P 3 | Greenheart | Bid Item 7 | 18.0 | -9.5 | >21.0 | 32.5 | -42.0 | 60.0 |
| P 6 | | | 22.0 | -8.8 | >23.5 | 29.2 | -38.0 | 60.0 |
| P 7 | | | 22.0 | -8.8 | >23.5 | 29.2 | -38.0 | 60.0 |
| P 8 | | | 18.0 | -9.4 | >22.5 | 32.6 | -42.0 | 60.0 |
| | | | | | | | Total Pile Length | 240.0 |
| | | | | | | | No of Greenheart Piles | 4 |
| | | | | | | | Avg Pile Length FT | 60.0 |

## PROBES AT PROPOSED PILE LOCATIONS

| PILE REF # | APPROX. MUDLINE/ RIPRAP ELEV. | APPROX. TOP OF HARD STRATUM | APPROX. TOP OF SOFT STRATUM | APPROX. LEDGE ELEV. |
|---|---|---|---|---|
| P1 | 9.0 | -17.5 | -24.5 | --- |
| P2 | 2.0 | -17.5 | -24.5 | --- |
| P3 | -9.5 | -19.5 | -25.5 | --- |
| P4 | -9.3 | -19.8 | -26.8 | --- |
| P8 | -9.4 | -23.4 | -34.4 | --- |
| P9 | -10.5 | -18.5 | -25.5 | --- |
| P10 | -13.0 | --- | --- | -21.8 |
| P11 | -14.0 | --- | --- | -20.5 |

ALL ELEVATIONS ARE REFERENCED TO NGVD29 DATUM BASED ON CIVIL CONSULTANTS SURVEY

NOTES:
1. PROPOSED PILE LOCATIONS ARE BASED ON FLOAT POSITION AND NEED TO BE ADJUSTED FOR GUIDE BRACKET OFFSET AND FLOAT SHOP DRAWINGS.

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|---|---|---|
| 0 | 6-18-13 | BJB |
| | CONSTRUCTION SUBMISSION | |

STATE OF MAINE
BARNEY J. BAKER No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: PIER PLAN AND ELEVATION

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE JUNE 2013
CONTRACT NO. 12-40
SHEET NO. S-1
REV. 0

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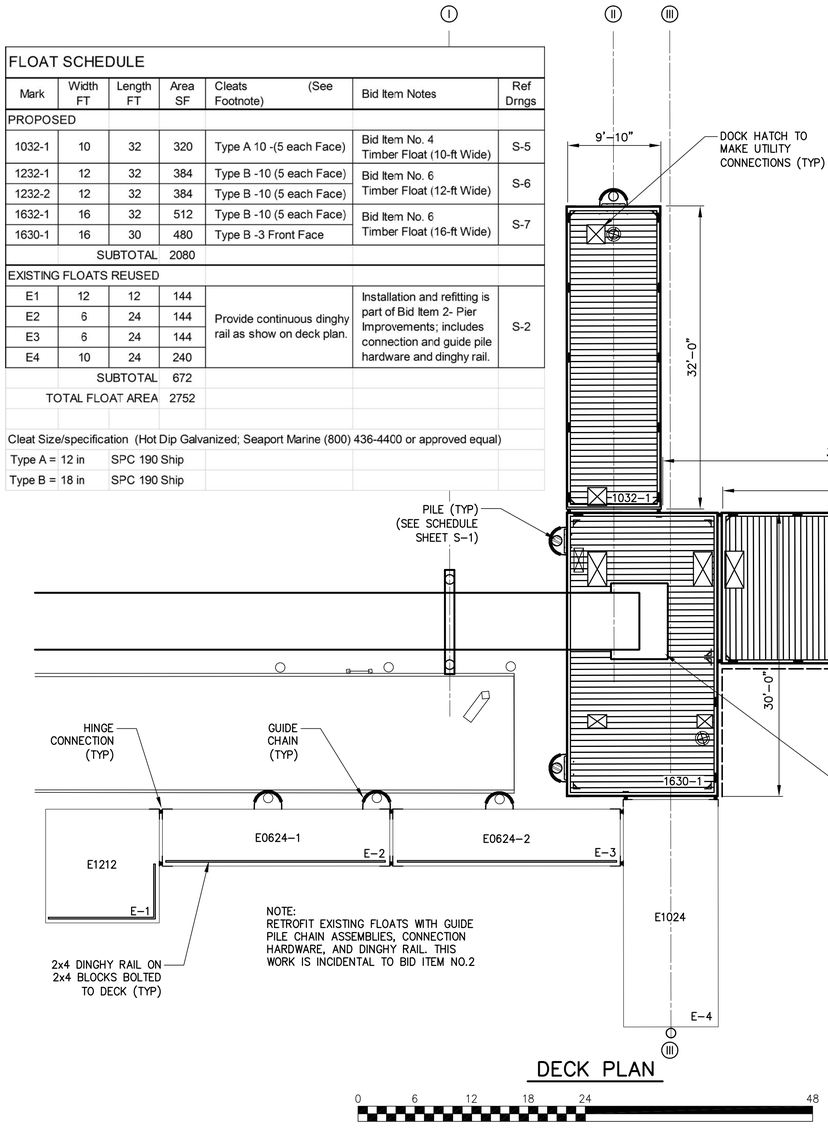
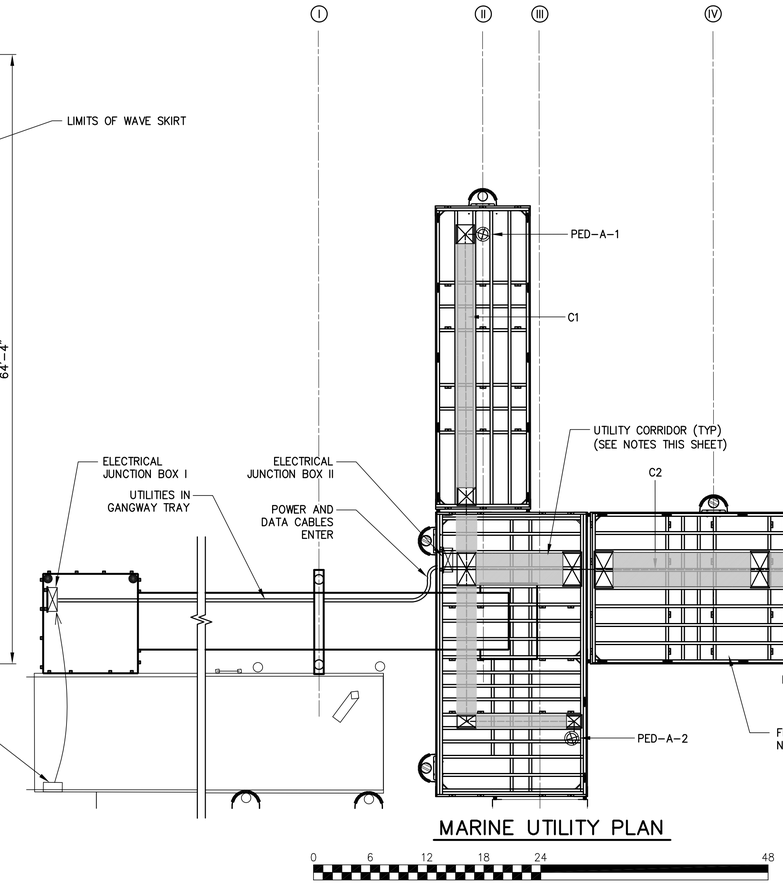
| FLOAT SCHEDULE | | | | | | |
|---|---|---|---|---|---|---|
| Mark | Width FT | Length FT | Area SF | Cleats (See Footnote) | Bid Item Notes | Ref Drngs |
| PROPOSED | | | | | | |
| 1032-1 | 10 | 32 | 320 | Type A 10 -(5 each Face) | Bid Item No. 4 Timber Float (10-ft Wide) | S-5 |
| 1232-1 | 12 | 32 | 384 | Type B -10 (5 each Face) | Bid Item No. 6 Timber Float (12-ft Wide) | S-6 |
| 1232-2 | 12 | 32 | 384 | Type B -10 (5 each Face) | | |
| 1632-1 | 16 | 32 | 512 | Type B -10 (5 each Face) | Bid Item No. 6 Timber Float (16-ft Wide) | S-7 |
| 1630-1 | 16 | 30 | 480 | Type B -3 Front Face | | |
| SUBTOTAL | | | 2080 | | | |
| EXISTING FLOATS REUSED | | | | | | |
| E1 | 12 | 12 | 144 | Provide continuous dinghy rail as show on deck plan. | Installation and refitting is part of Bid Item 2- Pier Improvements; includes connection and guide pile hardware and dinghy rail. | S-2 |
| E2 | 6 | 24 | 144 | | | |
| E3 | 6 | 24 | 144 | | | |
| E4 | 10 | 24 | 240 | | | |
| SUBTOTAL | | | 672 | | | |
| TOTAL FLOAT AREA | | | 2752 | | | |
| | | | | | | |
| Cleat Size/specification (Hot Dip Galvanized; Seaport Marine (800) 436-4400 or approved equal) | | | | | | |
| Type A = 12 in | SPC 190 Ship | | | | | |
| Type B = 18 in | SPC 190 Ship | | | | | |

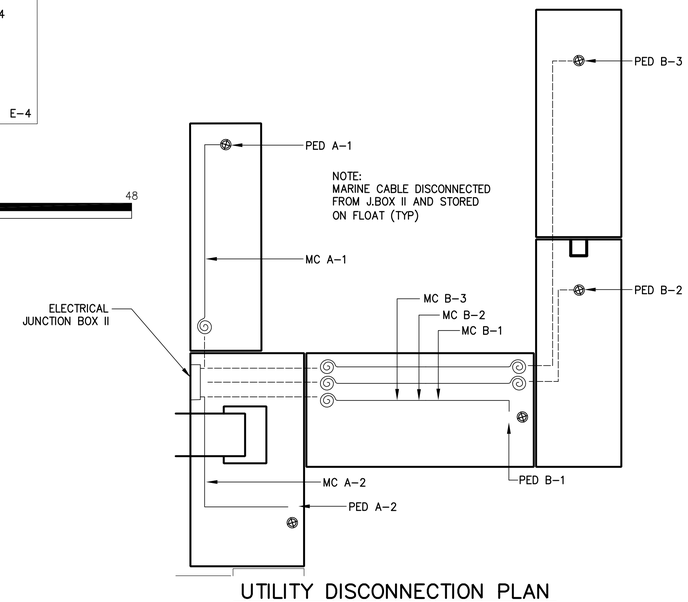



## DECK PLAN




## MARINE UTILITY PLAN

| PEDESTAL/JUNCTION BOX SCHEDULE | | | | | | |
|---|---|---|---|---|---|---|
| TYPE | No. of UNITS | SERVICES | CONNECTIONS No. | AMP | PANEL | SUPPLIER/ MODEL |
| PED-A | 2 | Power | 4 | 30 | A | LIGHTHOUSE PEDESTAL Eaton Corp. (or Equal) (marinasales@eaton.com) with hinge down bases to facilitate winter storage. |
| | | Water | 2 | Integral Bibs | | |
| | | Phone | 2 | | | |
| | | Communication | 2 | | | |
| | | Water | 2 | | | |
| | | Light | Integral | | | |
| PED-B | 3 | Power | 2 | 30 | A | |
| | | | 2 | 50 | | |
| | | Water | 2 | Integral Bibs | | |
| | | Phone | 2 | | | |
| | | Communication | 2 | | | |
| | | Light | Integral | | | |
| Junction Box | 2 | Power and Data Disconnects at top and Bottom of Gangway. | See Utility Notes This Sheet and mounting detail on Sheet S-8. | | | Provide Hoffman Type 4X Fiberglass Box Cat No. A36H3012GQRLP3PT or Equal |




## UTILITY DISCONNECTION PLAN

### MARINE FLOAT SYSTEM

FLOAT UTILITY CORRIDOR

1. ALL FLOAT UTILITIES (POWER, WATER, AND DATA) MUST BE INSTALLED WITH THE ABILITY TO SEPARATE AND REINSTALL INDIVIDUAL FLOATS EACH SEASON AND IN ADVANCE OF A SIGNIFICANT STORM EVENT WITHOUT DAMAGING THE INTEGRITY OF THE UTILITY SYSTEM COMPONENTS. REFER TO THE UTILITY DISCONNECTION PLAN SHOWN ON THIS SHEET.
2. EACH FLOAT WITH A MARINE PEDESTAL SHALL HAVE A SERIES OF DECK HATCHES THAT ACCESS A DESIGNATED UTILITY CORRIDOR. REFER TO THE DECK PLAN AND MARINE UTILITY PLAN THIS SHEET.
3. EACH PEDESTAL SHALL BE SERVED BY AN INDIVIDUAL TYPE G MARINE CABLE OF SUFFICIENT LENGTH TO RUN FROM THE PEDESTAL TO THE DOCK MOUNTED JUNCTION BOX ON FLOAT 1630-1.
4. THE JUNCTION BOX ON FLOAT 1630-1 SHALL SERVE AS THE CONNECTION POINT FOR ALL POWER AND DATA SERVICES THAT FEED THE FLOAT SYSTEM VIA THE GANGWAY. THE JUCTION BOX LOCATED AT THE TAKE-OFF PIER SHALL PROVIDE A DISCONNECT FOR ALL POWER AND DATA SERVICES FEEDS TO ALLOW THE GANGWAY TO BE REMOVED FORM THE SITE WITH SERVICES ATTACHED.
5. WATER LINES LEADING TO EACH PEDESTAL SHALL BE PERMANENTLY INSTALLED IN EACH FLOAT WITH QUICK RELEASE DISCINECTS AT EACH FLOAT JOINT.

CONNECTION HARDWARE

1. REFER TO HARDWARE SCHEDULE OFN SHEET S-5. ALL FLOAT HARDWARE SHOWN ON FRAMING PLANS S-5 TO S-8 IS BASED ON CUSTOM FLOATS CATALOG www.customfloats.com\catalog; PHONE 1-888-844-9666.
2. SUBSTITUTION HARDWARE WILL BE ALLOWED SUBJECT TO SUPPLIER/MANUFACTURER SUBMITTAL APPROVAL.
3. CUSTOM HARDWARE MAY BE REQUIRED TO ACCOMMODATE PROPOSED FLOAT LAYOUT AND DOUBLE EDGE BEAMS.

UTILITY ACCESS HATCHES

1. ACCESS HATCHES SHALL BE CONSTRUCTED TO MATCH DECKING MATERIAL AND SHALL BE ABLE TO RESIST THE SAME APPLIED LOADING.
2. HATCHES SHALL HINGE SHALL BE FASTENED AT EACH CORNER WITH CAPTURED THREADED FITTINGS THAT CAN BE REMOVED BY HAND OR WITH A SCREWDRIVER.
3. EACH HATCH SHALL BE TETHERED TO RESPECTIVE LOACATION WITH A LINE TO PREVENT LOSS OVERBOARD.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| NO. | DATE | INT. |
|---|---|---|
| 0 | 6-18-13 | BJB |
| | CONSTRUCTION SUBMISSION | |

STATE OF MAINE
BARNEY J. BAKER No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: FLOAT PLAN AND UTILITIES

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

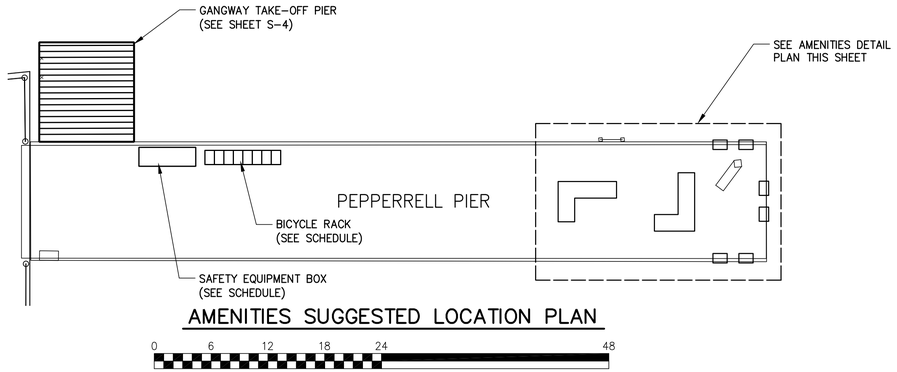
DATE JUNE 2013

CONTRACT NO. 12-40

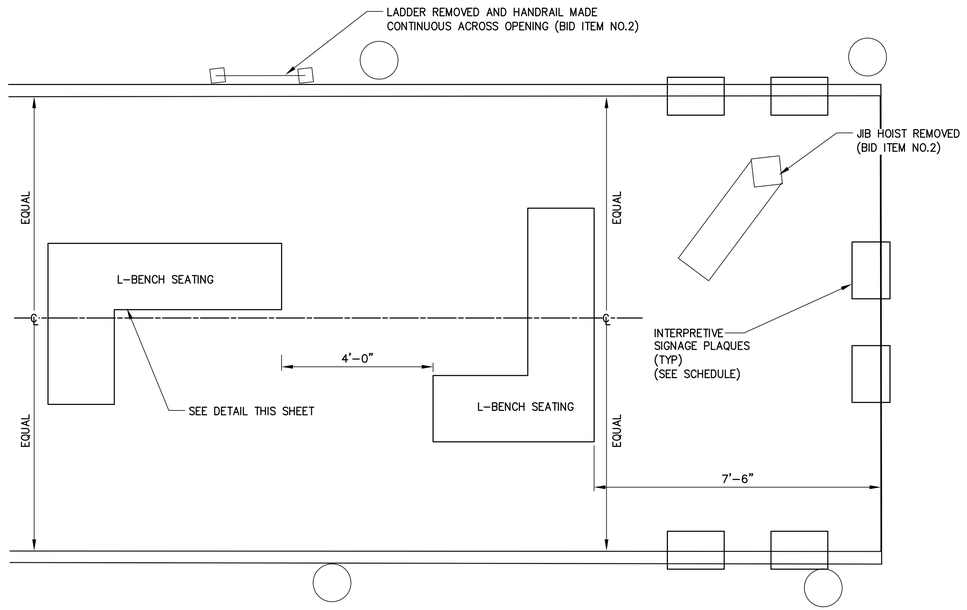
SHEET NO. S-2

REV. 0

p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina structural details.dwg

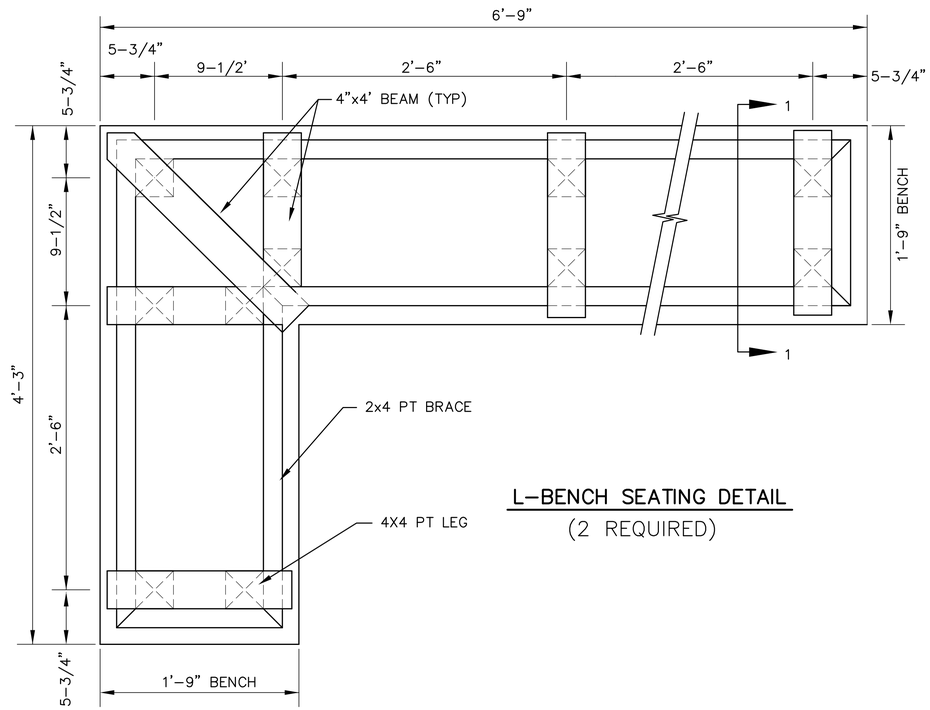



## AMENITIES SUGGESTED LOCATION PLAN

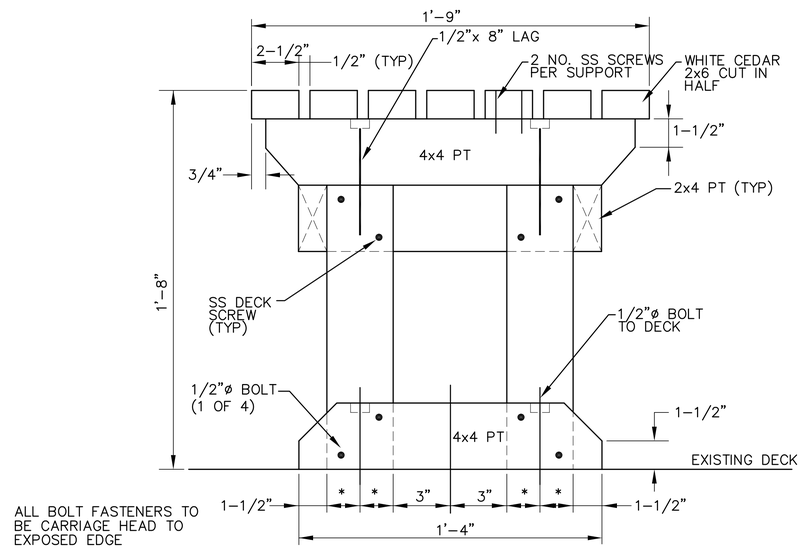



## AMENITIES DETAIL PLAN

| AMENITIES SCHEDULE | | |
|---|---|---|
| AMENITY | DESCRIPTION | PAY ITEM |
| L-BENCH SEATING | BENCH SEATING FOR VISITORS | BID ITEM 2- PIER IMPROVEMENTS |
| SAFETY EQUIPMENT BOX | FIBERGLASS BOX | BID ITEM 11-ALLOWANCES |
| BICYCLE RACK | PROPRIETARY UNIT | |
| INTERPRETIVE SIGNAGE PLAQUES | PLAQUES PROVIDED BY TOWN TO BE INSTALLED BY CONTRACTOR | |
| LIFTING FRAME SIGN | SIGN OVER LIFTING FRAME DISPLAYING PIER NAME (SEE SHEET S-4) | |




## L-BENCH SEATING DETAIL
(2 REQUIRED)




* = 1-3/4"

## SECTION 1-1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BARNEY J. BAKER No. 5737 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

| DESIGNED BY: | BJB | CHECKED BY: | BJB |
|---|---|---|---|
| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: PIER AMENITIES

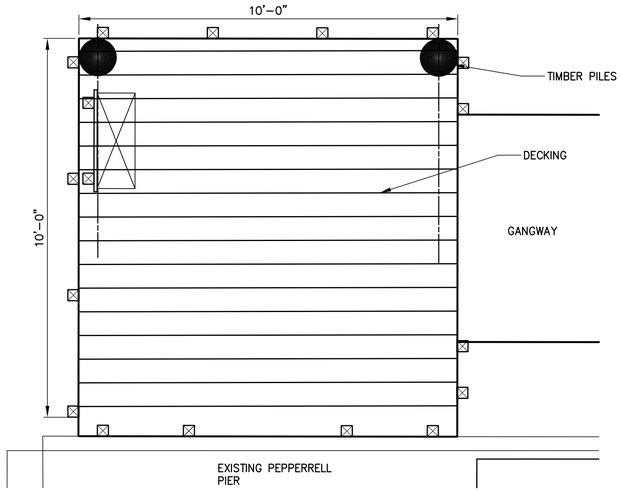
PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE
JUNE 2013

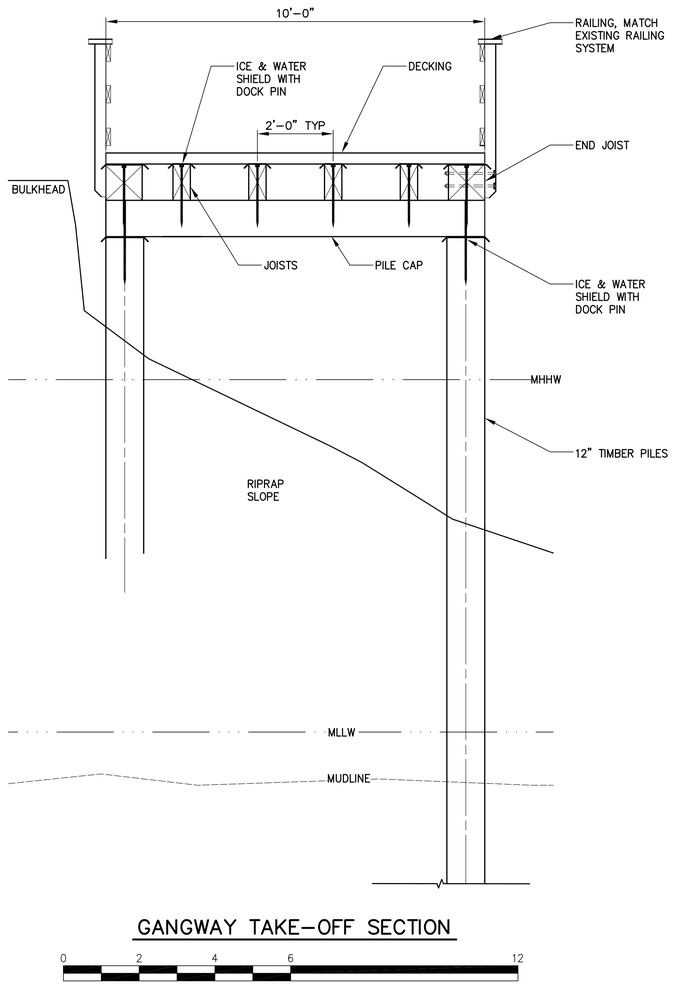
CONTRACT NO.
12-40

SHEET NO. S-3 | REV. 0

p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina structural details.dwg

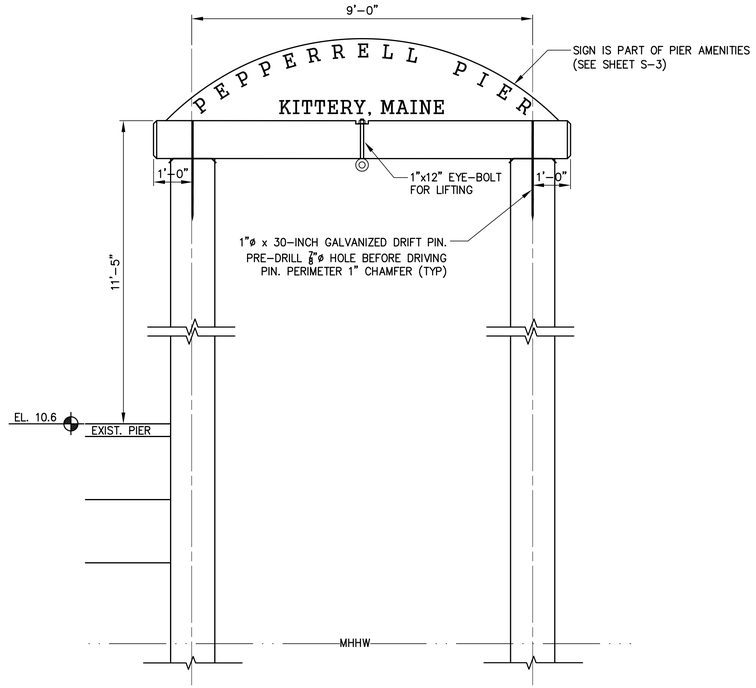



GANGWAY TAKE-OFF PLAN



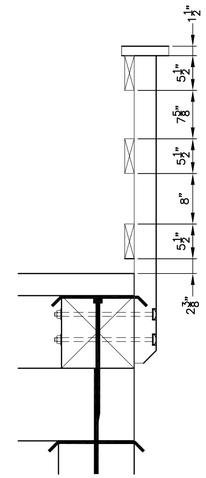

GANGWAY TAKE-OFF SECTION

0 2 4 6 12



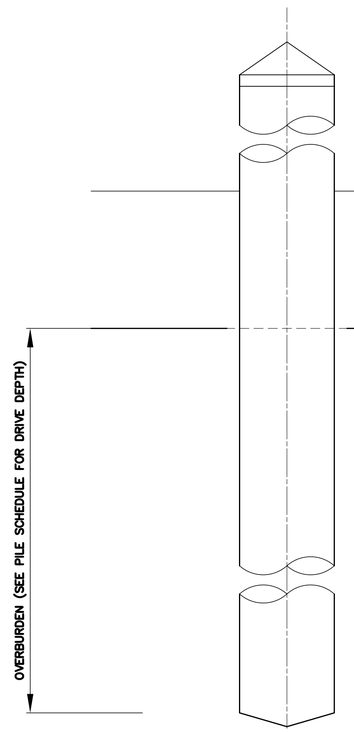

LIFTING FRAME DETAIL

0 2 4 6 12

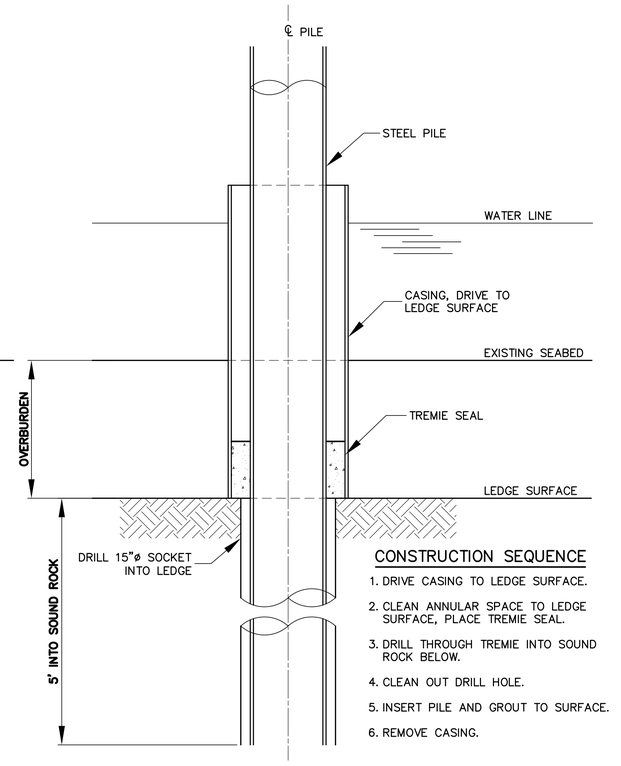



TIMBER HANDRAIL DETAIL

0 1 2 6




TIMBER PILE DETAIL




STEEL PILE SOCKET DETAIL

## CONSTRUCTION SEQUENCE

1. DRIVE CASING TO LEDGE SURFACE.
2. CLEAN ANNULAR SPACE TO LEDGE SURFACE, PLACE TREMIE SEAL.
3. DRILL THROUGH TREMIE INTO SOUND ROCK BELOW.
4. CLEAN OUT DRILL HOLE.
5. INSERT PILE AND GROUT TO SURFACE.
6. REMOVE CASING.

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BARNEY J. BAKER No. 5737 — STATE OF MAINE — LICENSED PROFESSIONAL ENGINEER

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|---|---|---|---|
| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: PIER DETAILS

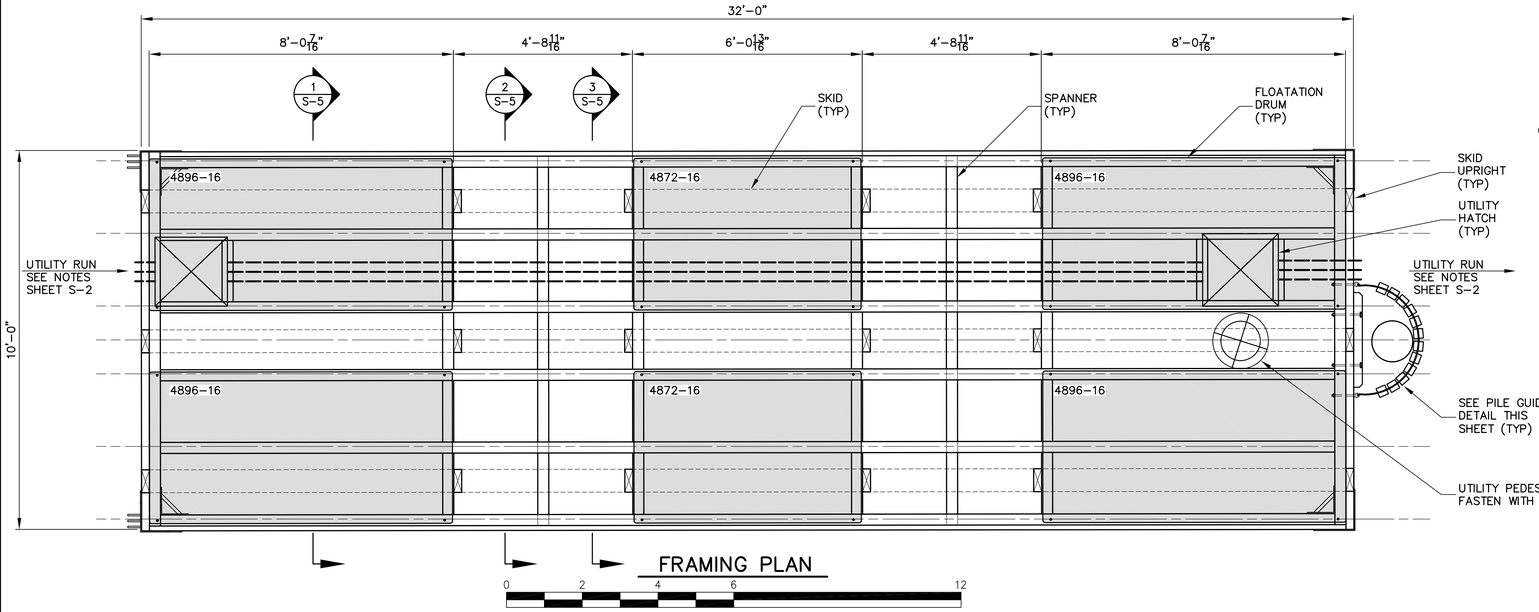
PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE: JUNE 2013

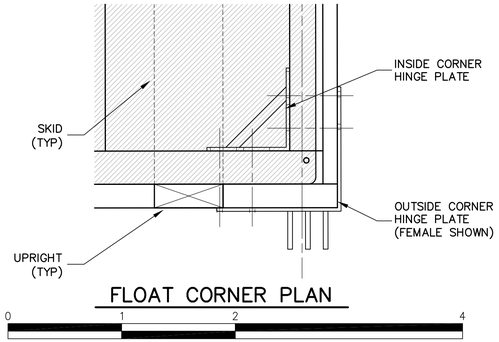
CONTRACT NO. 12-40

SHEET NO. S-4 | REV. 0

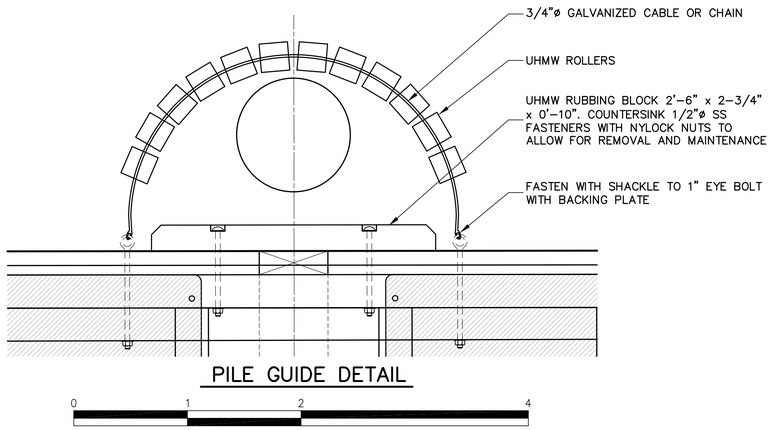
p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina structural details.dwg




## FRAMING PLAN

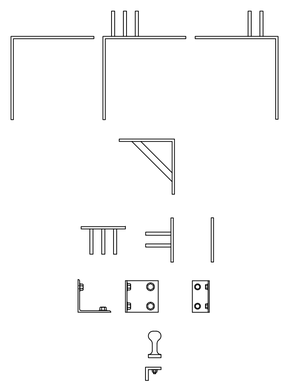



## FLOAT CORNER PLAN




## PILE GUIDE DETAIL

## FLOAT HARDWARE KEY (SEE FLOAT HARDWARE NOTES ON SHEET S-2)



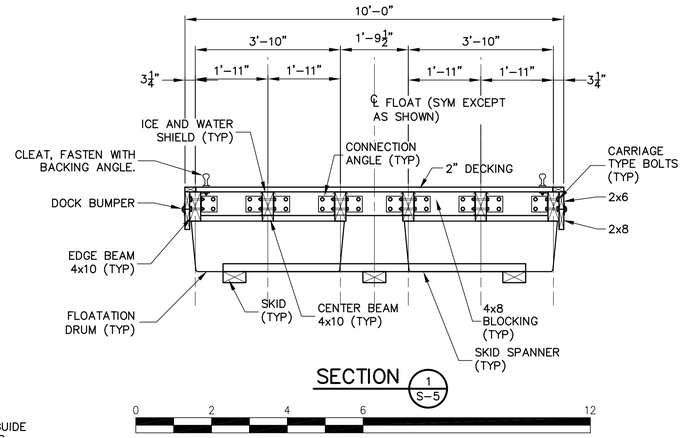
3/8" EXTRA LONG CORNER HINGE PLATE AND BLANK

1/4" INSIDE CORNER

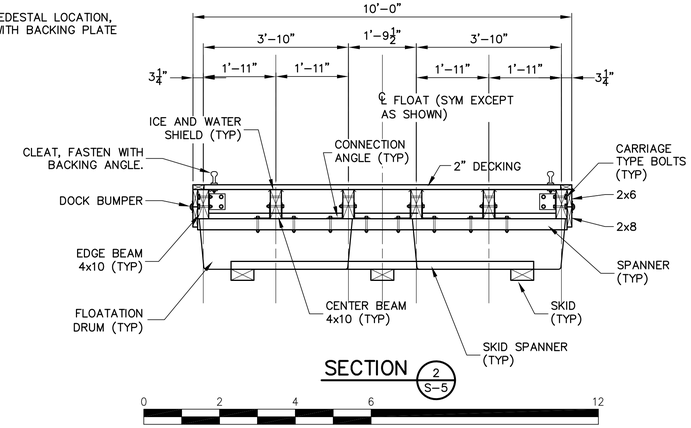
3/8" T-HINGE PLATE AND BACKING PLATE

1/4" 90° STIFFENER PLATE (CONNECTION ANGLES)

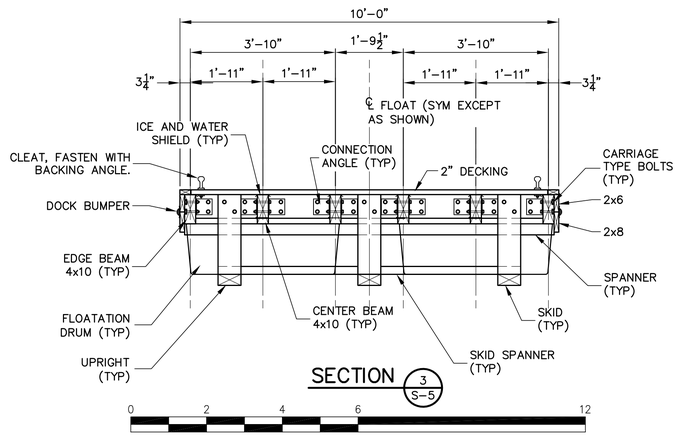
CLEAT WITH BACKING ANGLE




## SECTION 1/S-5




## SECTION 2/S-5




## SECTION 3/S-5

NOTES:
1. REFER TO NOTES AND SCHEDULES ON SHEETS G-2 AND S-2.
2. REFER TO COMPLIMENTARY FLOAT DETAILS AND NOTES ON SHEETS S5-S8.

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STATE OF MAINE
BARNEY J. BAKER No. 5737
LICENSED PROFESSIONAL ENGINEER

| | | | |
|---|---|---|---|
| DESIGNED BY: | BJB | CHECKED BY: | BJB |
| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: 1032 FLOAT

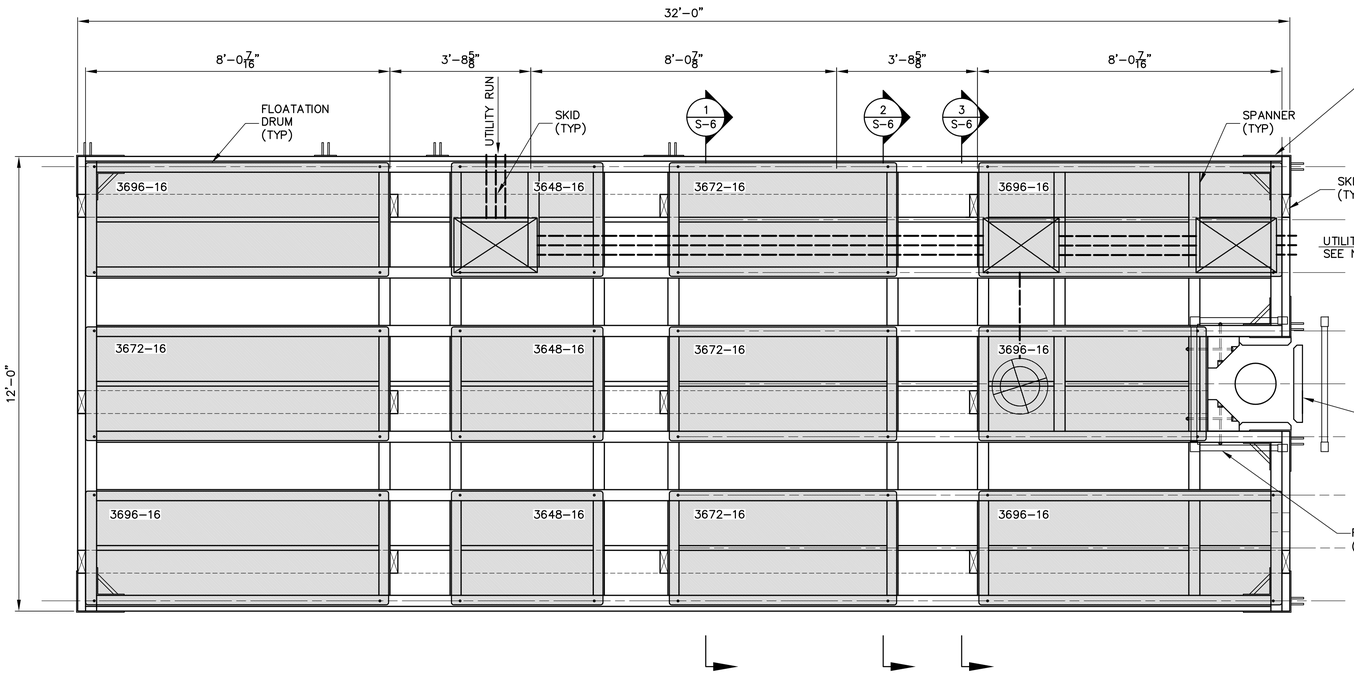
PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE
JUNE 2013

CONTRACT NO.
12-40

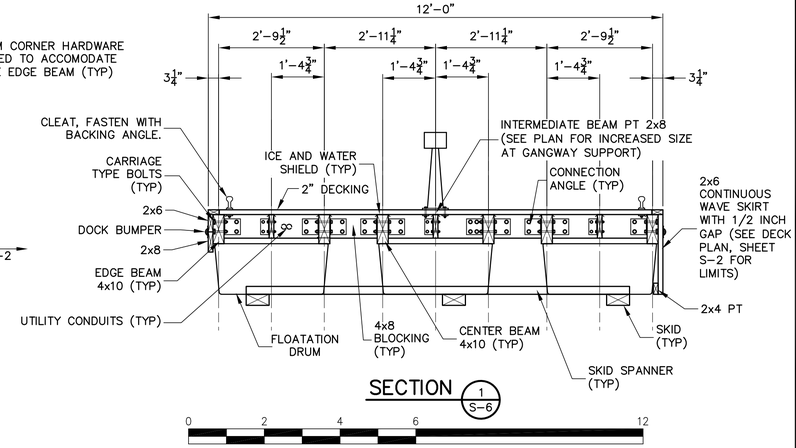
SHEET NO. S-5 | REV. 0

p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina structural details.dwg



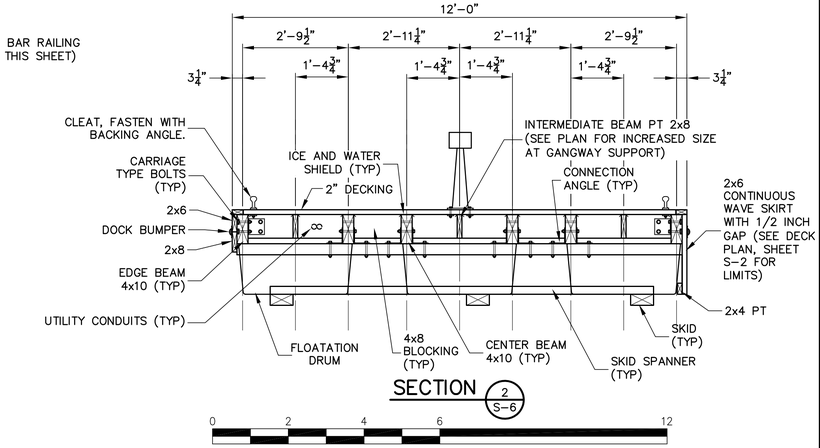

FRAMING PLAN

0 2 4 6 12



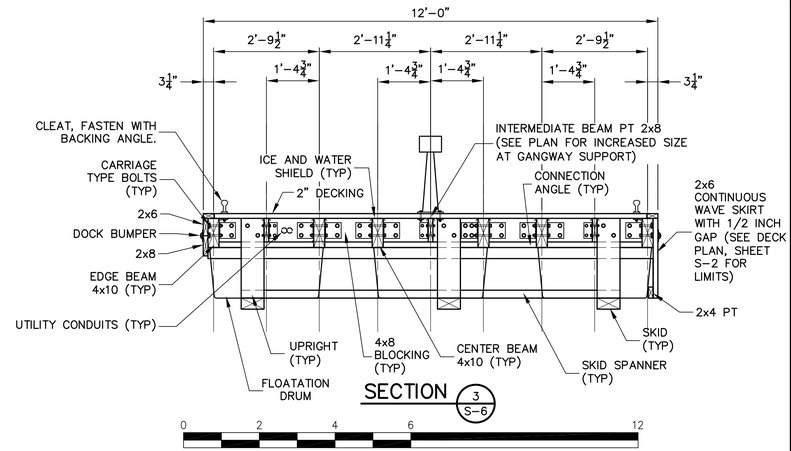

SECTION 1 S-6

0 2 4 6 12



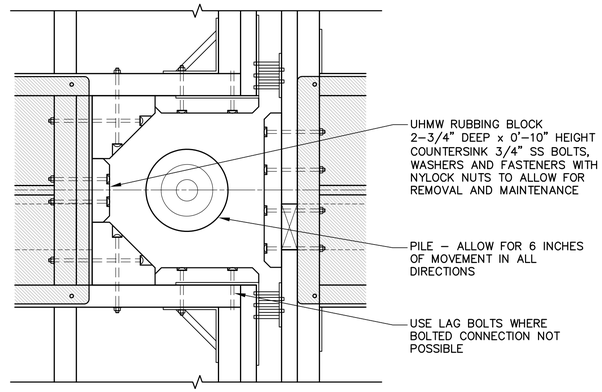

SECTION 2 S-6

0 2 4 6 12



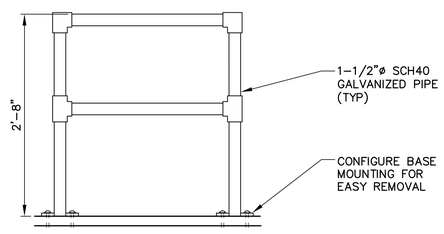

SECTION 3 S-6

0 2 4 6 12




PILE CAPTURE DETAIL

0 1 2 6




REMOVEABLE BAR RAILING

NOTES:
1. REFER TO NOTES AND SCHEDULES ON SHEETS G-2 AND S-2.
2. REFER TO COMPLIMENTARY FLOAT DETAILS AND NOTES ON SHEETS S5-S8.

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| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: 1232 FLOAT

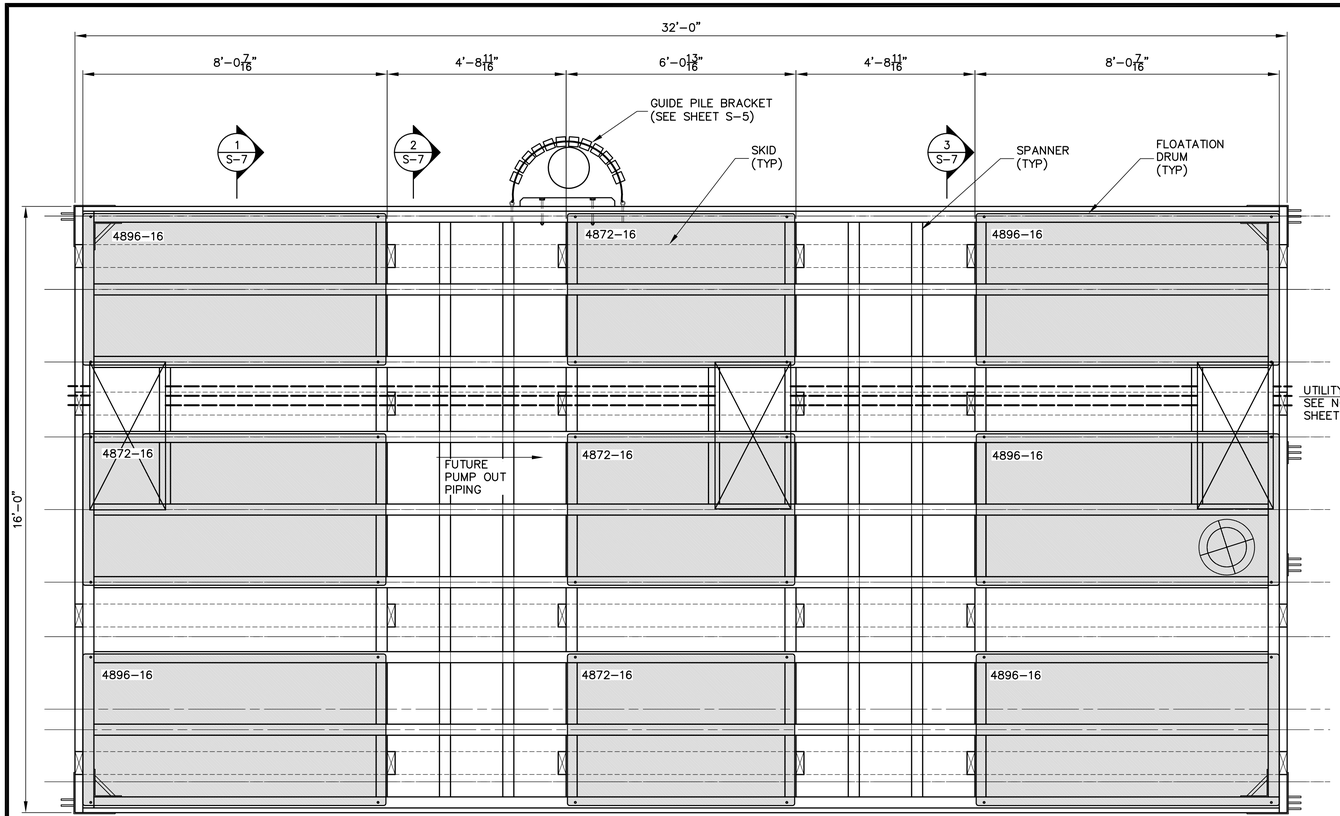
PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE: JUNE 2013

CONTRACT NO. 12-40

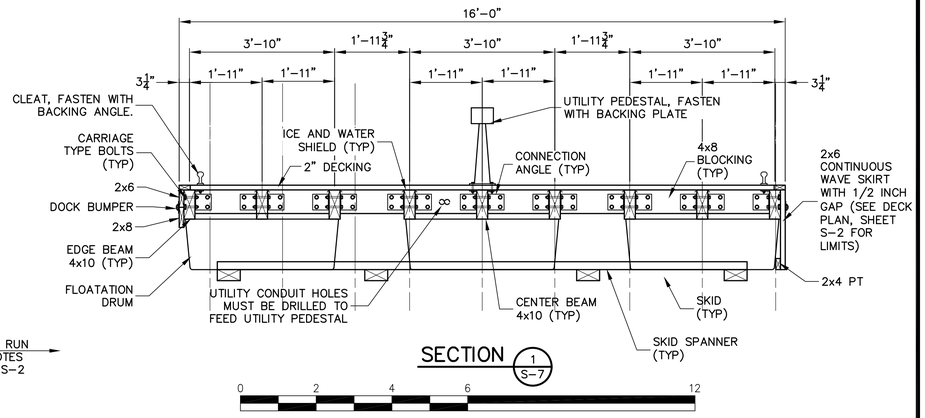
SHEET NO. S-6 REV. 0

p:\12\12-40 pepperrell cove big\cad\12-40 pepperrell cove kittery marina structural details.dwg



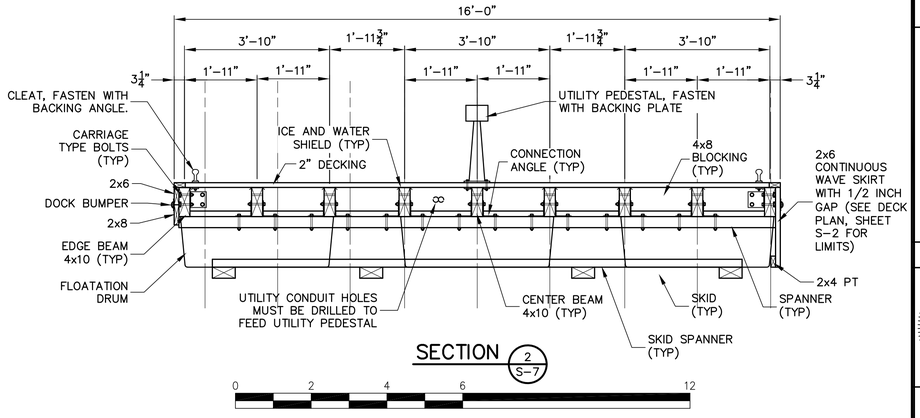

FRAMING PLAN

0 2 4 6 12



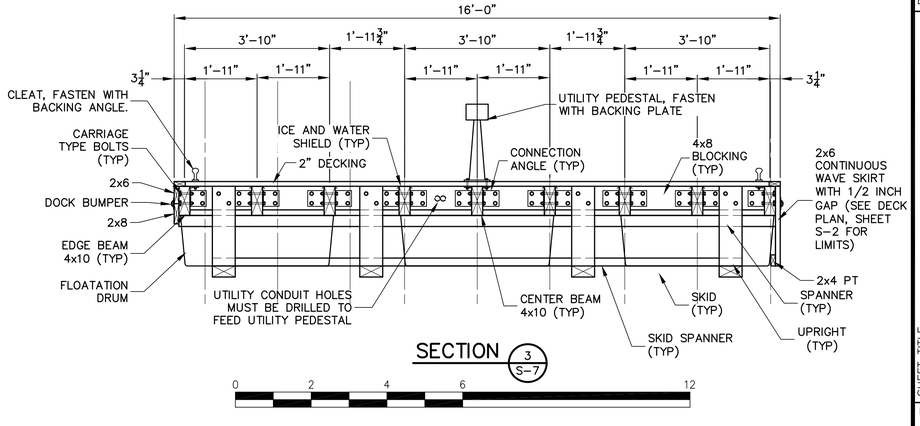

SECTION 1 S-7

0 2 4 6 12




SECTION 2 S-7

0 2 4 6 12




SECTION 3 S-7

0 2 4 6 12

NOTES:
1. REFER TO NOTES AND SCHEDULES ON SHEETS G-2 AND S-2.
2. REFER TO COMPLIMENTARY FLOAT DETAILS AND NOTES ON SHEETS S5-S8.

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LICENSED PROFESSIONAL ENGINEER

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| DRAWN BY: | JJC | SCALE: | AS SHOWN |

SHEET TITLE: 1632 FLOAT

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE
JUNE 2013

CONTRACT NO.
12-40

| SHEET NO. | REV. |
|---|---|
| S-7 | 0 |

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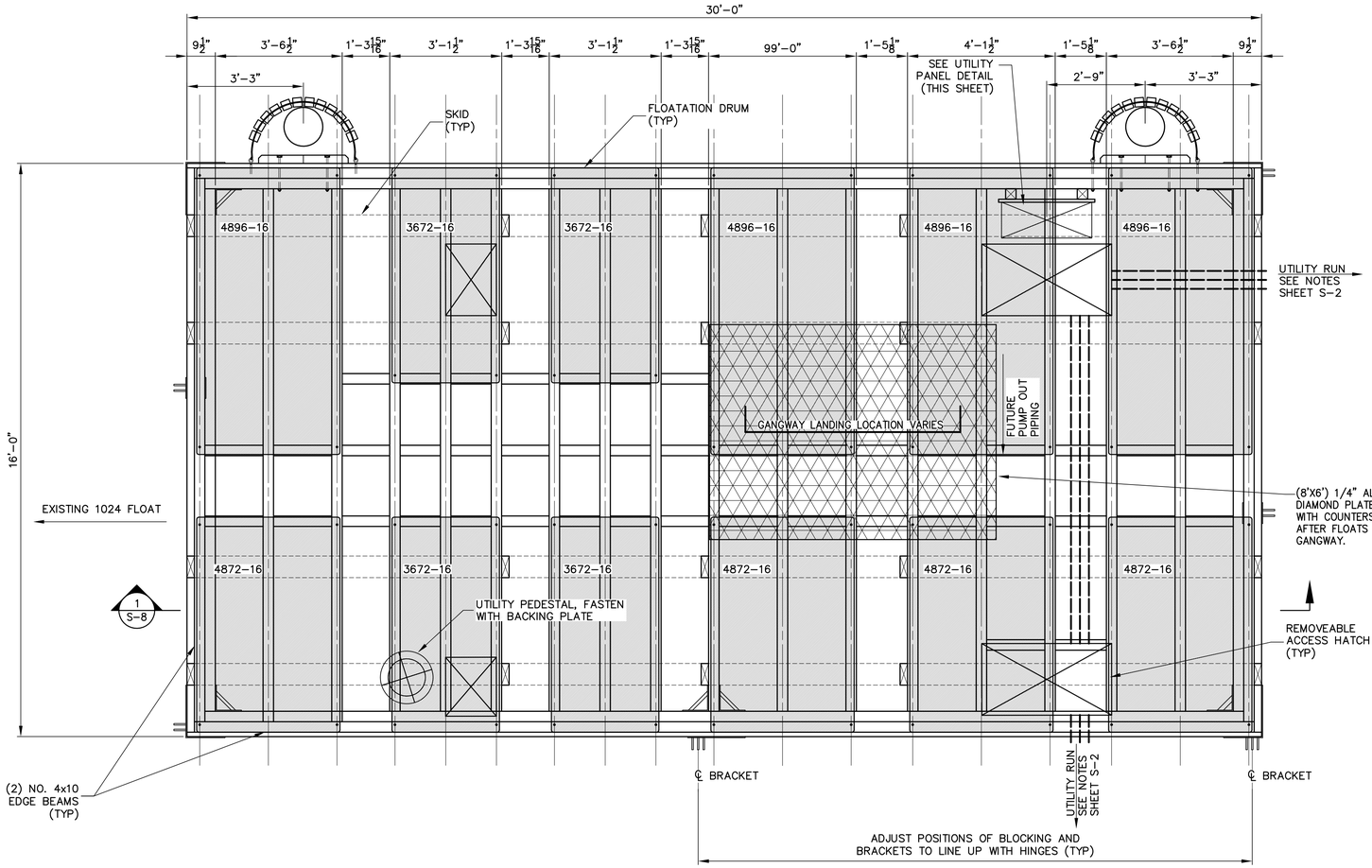
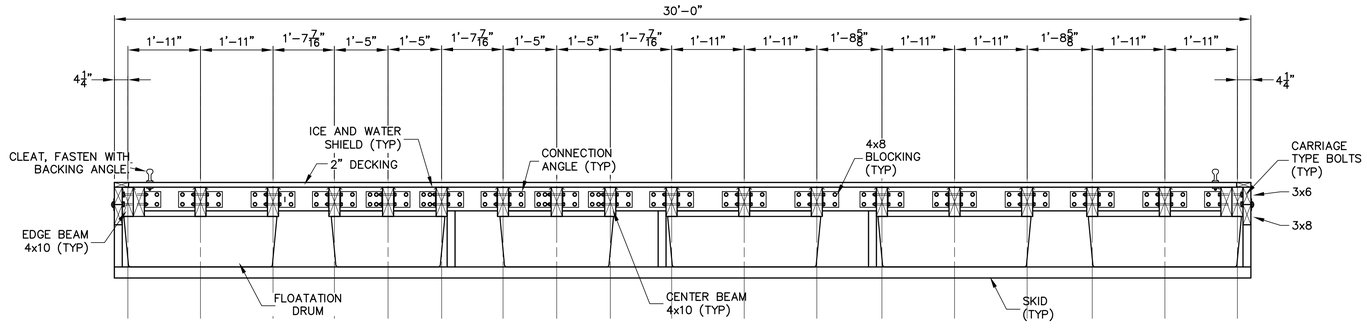


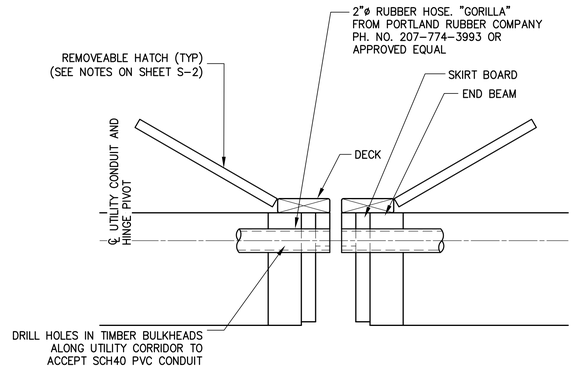

## FRAMING PLAN

0 2 4 6 12

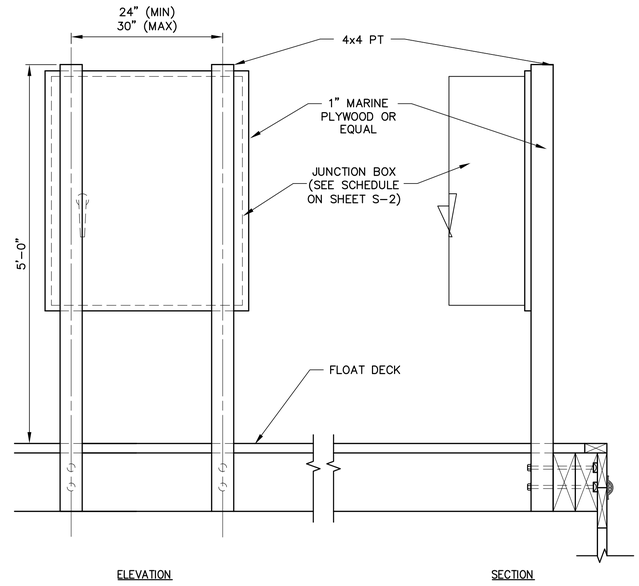



## SECTION 1 S-8

0 2 4 6 12




## UTILITY CONDUITS




## UTILITY PANEL

NOTES:
1. REFER TO NOTES AND SCHEDULES ON SHEETS G-2 AND S-2.
2. REFER TO COMPLIMENTARY FLOAT DETAILS AND NOTES ON SHEETS S5-S8.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STATE OF MAINE — BARNEY J. BAKER No. 5737 — LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: 1630 FLOAT

PROJECT: BOATING INFRASTRUCTURE GRANT
KITTERY, MAINE
PEPPERRELL COVE TOWN LANDING

DATE: JUNE 2013

CONTRACT NO. 12-40

SHEET NO. S-8 REV.

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