

Prepared for The:

NEW BEDFORD HARBOR DEVELOPMENT COMMISSION

COAL POCKET PIER RECONSTRUCTION
AND FISHING PIER REPAIRS

CITY OF NEW BEDFORD, MASSACHUSETTS

JULY 2017

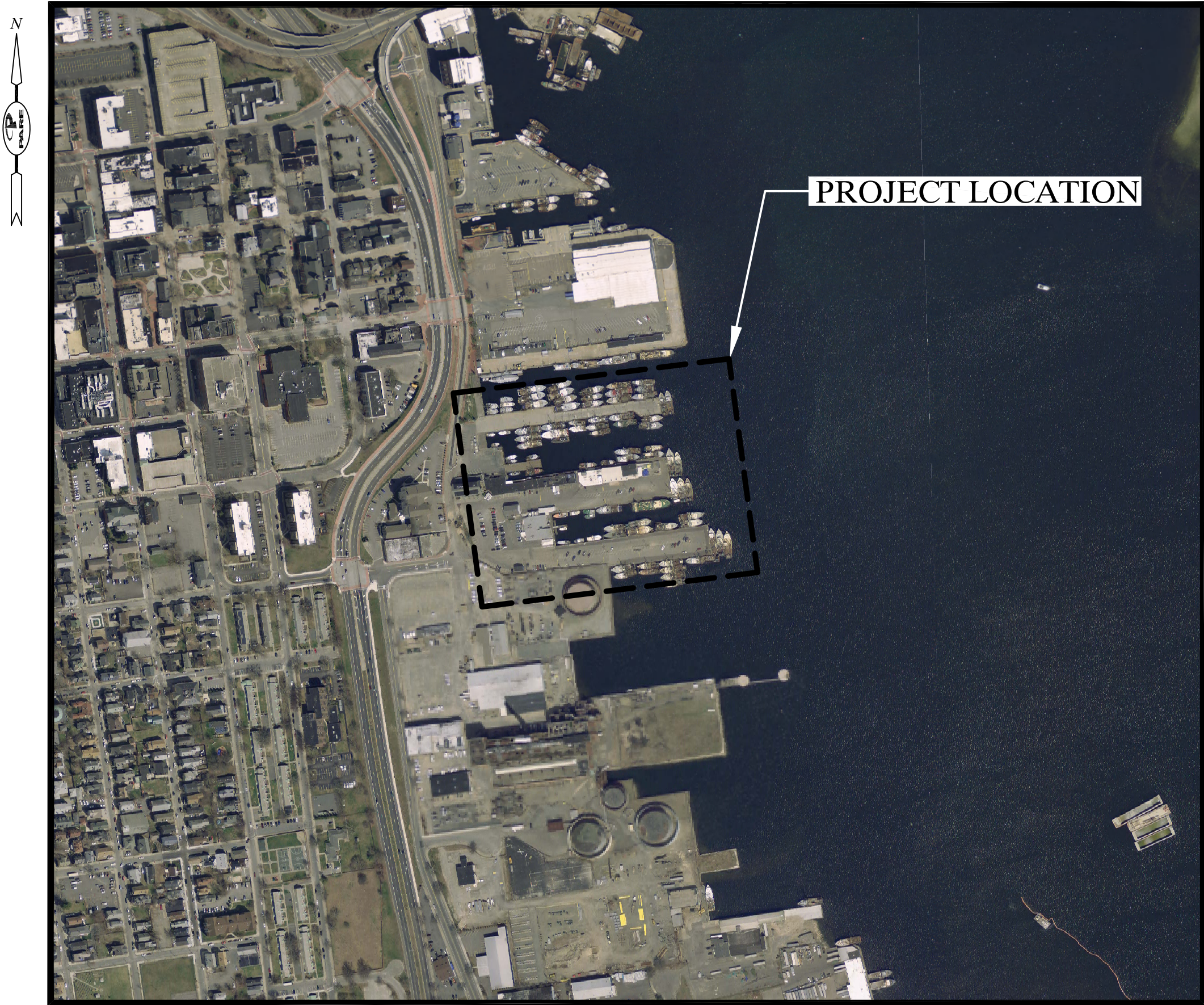
FUNDING PROVIDED BY THE SEAPORT ECONOMIC COUNCIL

Drawing Index

- 0.0 COVER SHEET
- 1.0 NOTES AND LEGEND
- 2.0 COAL POCKET PIER
EXISTING SITE PLAN
- 2.1 COAL POCKET PIER
PROPOSED SITE PLAN AND SECTIONS
- 2.2 COAL POCKET PIER
SECTIONS AND DETAILS
- 3.0 STEAMSHIP PIER REPAIRS
PROPOSED SITE PLAN
- 3.1 STEAMSHIP PIER REPAIRS
SECTIONS AND DETAILS
- 4.0 LEONARD'S WHARF REPAIRS
PROPOSED SITE PLAN AND DETAILS
- 4.1 LEONARD'S WHARF REPAIRS
SECTIONS AND DETAILS



LOCUS PLAN
SCALE: 1" = 2000'



AERIAL PLAN
SCALE: 1" = 400'

Prepared by:

PARE CORPORATION

Foxboro, Massachusetts



GENERAL NOTES:

1. FOR THE PURPOSE OF THIS PROJECT

OWNER –

NEW BEDFORD HARBOR DEVELOPMENT COMMISSION
52 FISHERMAN'S WHARF
NEW BEDFORD, MA 02740

ENGINEER –

PARE CORPORATION
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
CONTACT – RYAN MCCOY, P.E.
2. ALL CONSTRUCTION INDICATED ON THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE MASSACHUSETTS STATE BUILDING CODE, ALL FEDERAL AND MUNICIPAL BUILDING CODES, AND THE SPECIFICATIONS INCLUDED IN THIS CONTRACT. THESE PLANS ARE INCOMPLETE UNLESS ACCOMPANIED BY THE SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS.
3. THE COAL POCKET PIER BASE PLAN WAS DEVELOPED BASED UPON DRAWING ENTITLED "CONSTRUCTION OF STEAMSHIP PIER AND COAL POCKET PIER-EXISTING CONDITIONS PLAN" BY TIBBETTS ENGINEERING CORP. DATED NOV. 1977, AND CONDITIONS OBSERVED DURING THE INSPECTION PERFORMED BY PARE CORPORATION OF FOXBORO, MA ON NOVEMBER 17, 2008 AND BASED ON THE INSPECTION REPORT PERFORMED BY CLE ENGINEERING IN 2016. ANY DISCREPANCIES ON THESE PLANS WITH REGARD TO DIMENSIONS OR CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.
4. THE STEAMSHIP PIER BASE PLAN WAS DEVELOPED BASED UPON DRAWING ENTITLED "CONSTRUCTION OF STEAMSHIP PIER AND COAL POCKET PIER-EXISTING CONDITIONS PLAN" BY TIBBETTS ENGINEERING CORP. DATED NOV. 1977, "STRUCTURAL DETAILS – EXTENSION OF STEAMSHIP PIER" BY TIBBETTS ENGINEERING CORP, DATED MARCH 1986, AND "NEW BEDFORD HDC COMMERCIAL FISHING PIER REPAIRS – PHASE 1, 2011 STEAMSHIP PIER" BY PARE CORPORATION, DATED MAY 2011. CONDITIONS PREVIOUS INSPECTION REPORTS AS WELL AS THE INSPECTION REPORT PERFORMED BY CLE ENGINEERING IN 2016. ANY DISCREPANCIES ON THESE PLANS WITH REGARD TO DIMENSIONS OR CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.
5. THE LEONARD'S WHARF POCKET PIER BASE PLAN WAS DEVELOPED BASED UPON DRAWING ENTITLED "NEW BEDFORD HDC FISHING PIER REPAIRS – PHASE 1, 2011 LEONARD'S WHARF PIER BY PARE CORPORATION, DATED MAY 2011. CONDITIONS WERE BASED ON THE PREVIOUS INSPECTIONS AS WELL AS THE INSPECTION REPORT PERFORMED BY CLE ENGINEERING IN 2016. ANY DISCREPANCIES ON THESE PLANS WITH REGARD TO DIMENSIONS OR CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.
6. INFORMATION REGARDING THE LOCATION OF SURROUNDING STRUCTURES AND UTILITIES IS FURNISHED SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR AND SHALL BE FIELD VERIFIED. THE CONTRACTOR SHALL CONDUCT ITS OWN INDEPENDENT EXAMINATION OF SITE CONDITIONS FOR THE PURPOSE OF BIDDING, FABRICATION, AND CONSTRUCTION ASSOCIATED WITH THE PROJECT. ANY RELIANCE UPON INFORMATION MADE AVAILABLE BY THE OWNER OR THE ENGINEER SHALL BE AT THE CONTRACTOR'S RISK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS. PLANS SHALL NOT BE SCALED FOR DIMENSIONS.
8. SHOP AND ERECTION DRAWINGS FOR ALL WORK SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL AS PER THE SPECIFICATIONS. FABRICATION OF THESE ITEMS SHALL NOT COMMENCE WITHOUT APPROVED SHOP DRAWINGS. SHOP DRAWINGS ARE PREPARED AND USED BY THE CONTRACTOR AS INSTRUMENTS TO SEQUENCE HIS WORK AND TO FACILITATE FABRICATION AND ERECTION. REVIEW OF SHOP DRAWINGS SHALL BE FOR GENERAL DETAIL AND ARRANGEMENT ONLY. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR DIMENSIONS, PROPER FIT, AND DETAILED DESIGN OF CONNECTIONS. THEIR APPROVAL BY THE ENGINEER IS NOT TO BE CONSTRUED AS A WAIVER OF CONSTRUCTION CONTRACT REQUIREMENTS OR RESPONSIBILITIES, UNLESS THE CONTRACTOR HAS BEEN GRANTED A DEVIATION IN WRITING.
9. NOTES, TYPICAL DETAILS AND SCHEDULES APPLY TO ALL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS OF SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
10. THE VERTICAL DATUM IS M.L.W. FOR THE PROJECT. CONTRACTOR SHALL ESTABLISH HORIZONTAL AND VERTICAL CONTROL AS REQUIRED TO ENABLE COMPLETION OF THE WORK.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL PROJECT DEMOLITION AND EXCESS MATERIAL IN ACCORDANCE WITH MASSACHUSETTS, LOCAL, AND FEDERAL LAWS.
12. THE CONTRACTOR SHALL PROTECT ALL ADJACENT STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ALL DAMAGE TO ADJACENT STRUCTURES AND UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
13. CONTRACTOR SHALL ENSURE THAT ADEQUATE SHORING AND FALSEWORK ARE PROVIDED TO THE EXISTING STRUCTURE(S) RESULTING IN A STABLE AND SAFE STRUCTURE AT ALL TIMES. CONTRACTOR IS ADVISED THAT THE EXISTING STEEL SHEET PILES, WALLS, AND TIE RODS ARE DETERIORATED, THEREFORE THE STRUCTURAL CAPACITY OF THE RETAINING SYSTEM IS REDUCED.
14. CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, AND SAFETY OF WORK.
15. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL VISIT THE SITE AND SHALL NOTIFY THE ENGINEER OF ANY ADDITIONAL UTILITIES, STRUCTURES, OR ANY OTHER ELEMENTS WHICH MAY IMPEDE WORK. UTILITY AND/OR STRUCTURE RELOCATIONS, IF NECESSARY, SHALL BE COORDINATED THROUGH THE OWNER'S ENGINEER.
16. THE CONTRACTOR SHALL FOLLOW ALL OSHA, FEDERAL, STATE, AND LOCAL STANDARDS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL SITE SAFETY PROCEDURES AND PRACTICES REGARDLESS OF THE PRESENCE OF THE OWNER OR ENGINEER.
17. ALL CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO THE LIMITS OF WORK AND TEMPORARY EASEMENTS DEFINED HEREIN.
18. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A CONSTRUCTION SCHEDULE TO THE OWNER WITHIN 5 DAYS OF THE NOTICE OF AWARD. THE CONTRACTOR SHALL UPDATE SCHEDULE AS NEEDED THROUGHOUT THE COURSE OF WORK.
19. THE CONTRACTOR SHALL STAGE ALL EQUIPMENT IN THE DESIGNATED STAGING AREA. ALL GREASING AND REFUELING ACTIVITIES SHALL OCCUR IN THE STAGING AREA. ALL NECESSARY MEASURES SHALL BE TAKEN TO PREVENT BY ANY METHOD, OIL, FUEL, OR CONSTRUCTION DEBRIS, STOCKPILED MATERIALS, AND OTHER MATERIALS ON THE SITE, FROM ENTERING THE WATERWAY. STAGING/LAYDOWN AREAS, AS APPROVED BY THE ENGINEER, SHALL BE RESTORED BY THE CONTRACTOR TO THE EXISTING CONDITION. IN ADDITION, THE CONTRACTOR SHALL REPLACE ALL DAMAGED MATERIALS AS A RESULT OF HIS OPERATIONS, TO THE SATISFACTION OF THE ENGINEER.
20. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ALL CONSTRUCTION DEBRIS OR WASTE FROM FALLING INTO THE WATER. ANY DEBRIS FALLING INTO THE WATER SHALL BE RECOVERED AND PROPERLY DISPOSED OF.
21. THE CONTRACTOR SHALL MAINTAIN A SECURE SITE AND PROVIDE APPROPRIATE SAFETY MEASURES TO PREVENT ACCIDENTS. THE SAFETY MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO SIGNAGE, BARRICADES, FENCES, FLASHING WARNING LIGHTS, AND POLICING IF NECESSARY.
22. IN CASE OF CONTRADICTION BETWEEN THE DRAWINGS, THE SPECIFICATIONS, AND THE CODES, OR IF ANY CHANGE IS REQUIRED, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY. NO CHANGE SHALL BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
23. UPON COMPLETION OF THE PROJECT, CONTRACTOR IS TO PROVIDE TWO AS-BUILT PLAN SETS TO THE OWNER DEPICTING ANY FIELD CHANGES OF DIMENSION OR DETAIL, LOCATION OF UNDERGROUND STRUCTURES AND/OR UTILITIES, CONSTRUCTION DEVIATIONS, CHANGES DUE TO FIELD OR CHANGE ORDER, AND DETAILS NOT ON THE ORIGINAL DRAWINGS.

DESIGN LOADS:

1. COAL POCKET PIER SHALL BE DESIGNED FOR HS-20 LOADING.

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL ADHERE TO THE EROSION CONTROL MEASURES INDICATED IN THE SPECIAL CONDITIONS PRESENTED IN THE ORDER OF CONDITIONS INCLUDED WITHIN THE SPECIFICATIONS.
2. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES FOR THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL PREVENT SEDIMENT FROM ENTERING THE HARBOR VIA DISCHARGES THROUGH ANY DRAINAGE STRUCTURES OR RUNOFF FROM WITHIN THE LIMITS OF WORK.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING, RESTORING AND REPAIRING ALL DAMAGE AS A RESULT OF UNAUTHORIZED WORK OR DISCHARGES AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TURBIDITY BARRIERS AS INDICATED IN THE CONTRACT DOCUMENTS. TURBIDITY BARRIERS SHALL BE ANCHORED SECURELY AS NECESSARY TO ENSURE COLLECTION OF SEDIMENT AND ENABLE THE WORK TO BE PERFORMED.
6. SOIL STOCKPILES SHALL BE A MINIMUM OF 2- FEET FROM THE EDGE OF THE BULKHEAD TO LIMIT RUNOFF INTO THE HARBOR.
7. EROSION CONTROL BARRIERS SHALL BE MODIFIED OR EXPANDED AS FIELD CONDITIONS WARRANT.
8. ALL EROSION CONTROL BARRIERS SHALL BE INSPECTED AT LEAST ONCE PER WEEK. ANY DAMAGED AREAS OF THE EROSION CONTROL BARRIER SHALL BE REPAIRED WITHIN 24 HOURS OF DISCOVERY.
9. DEWATERING BASINS SHALL CONSIST OF HAY BALE ENCLOSURES, TANKS, PERMEABLE BLADDERS, OR OTHER APPROPRIATE METHOD. DEWATERING WASTE WATERS SHALL BE PUMPED TO THE DEWATERING BASINS AND TREATED PRIOR TO DISCHARGE.
10. DISCHARGE OF TURBID WATER TO THE HARBOR SHALL BE PROHIBITED.
11. THE TURBIDITY BARRIER SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF WORK AND SHALL REMAIN IN PLACE UNTIL ALL TEMPORARY PILES AND FORMWORK ARE REMOVED.

SPILL PREVENTION AND CONTROL NOTES:

1. SPILLS AND LEAKS SHALL BE AVOIDED THROUGH FREQUENT INSPECTION OF EQUIPMENT AND MATERIAL STORAGE AREAS.
2. HEAVY EQUIPMENT AND OTHER VEHICLES SHALL BE ROUTINELY INSPECTED FOR LEAKS AND REPAIRED AS NECESSARY.
3. HAZARDOUS MATERIAL STORAGE TO BE PLACED ONLY IN DESIGNATED AREAS. MATERIAL STORAGE AREAS SHALL BE ROUTINELY INSPECTED FOR LEAKY CONTAINERS, OPEN CONTAINERS, OR IMPROPER STORAGE TECHNIQUES THAT MAY LEAD TO SPILLS OR LEAKS.
4. APPROPRIATE SPILL REMEDIATION PROCEDURES AND SUPPLIES SHALL BE READILY AVAILABLE ON-SITE. TOOLS AND SUPPLIES SHALL BE CLEARLY MARKED SO THAT ALL PERSONNEL CAN LOCATE AND ACCESS THESE SUPPLIES.
5. SPILL REMEDIATION SHALL BE PERFORMED IMMEDIATELY. CONTRACTOR SHALL FOLLOW PROPER RESPONSE PROCEDURES IN ACCORDANCE WITH ANY APPLICABLE REGULATORY REQUIREMENTS.
6. AT NO TIME SHALL SPILLS BE DIVERTED TOWARD STORM DRAINS OR TO THE HARBOR.
7. EQUIPMENT/VEHICLE FUELING AND REPAIR/MAINTENANCE OPERATIONS SHALL TAKE PLACE ONLY WITHIN DESIGNATED STAGING AREAS.
8. THE EQUIPMENT OPERATOR SHALL FULLY MONITOR FUELING OPERATIONS TO EQUIPMENT AND VEHICLES AT ALL TIMES.
9. ANY SPILLAGE SHALL BE IMMEDIATELY CLEANED WITH SPILL KITS KEPT ON SITE.
10. IN THE CASE OF SMALL AMOUNTS OF SOIL CONTAMINATION, SUCH SOIL SHALL BE PLACED IN 55 GALLON DRUMS FOR DISPOSAL BY A LICENSED HAZARDOUS WASTE HAULER.
11. IN THE CASE OF A LARGE AMOUNT OF SOIL CONTAMINATION OR DISCHARGE TO THE HARBOR, MASSACHUSETTS DEP AND APPLICABLE AGENCIES SHALL BE NOTIFIED AS NECESSARY. A HAZARDOUS WASTE REMEDIATION FIRM SHALL BE CONTRACTED TO REMOVE AND DISPOSE OF THE CONTAMINATED MATERIAL OR CONTAIN THE SPILL AT NO ADDITIONAL COST.

DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO ANY DEMOLITION OR CONSTRUCTION. ANY DISCREPANCIES RELATING TO THE DRAWINGS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
2. CONTRACTOR TO BE AWARE OF SELECTIVE DEMOLITION AT ALL SECTIONS OF WORK. CONTRACTOR WILL BE RESPONSIBLE FOR REPLACEMENT IN-KIND OF ALL WORK INADVERTENTLY REMOVED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL REMOVE ITEMS TO BE DEMOLISHED AS INDICATED ON THE DRAWINGS WITH CARE AND NOT TO DAMAGE ADJACENT STRUCTURES. THE WORK AREA WILL BE LEFT READY TO RECEIVE NEW WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OFFSITE DISPOSAL OF ALL PROJECT DEMOLITION MATERIAL, TRASH, AND DEBRIS IN ACCORDANCE WITH LOCAL AND STATE LAWS.
5. REFER TO SPECIFICATION SECTION 02050-"DEMOLITION AND REMOVAL" FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

LUMBER NOTES:

1. ALL NEW LUMBER SHALL BE SOUTHERN YELLOW PINE NO. 1 OR BETTER (1/B=1,200 PSI).
2. NEW LUMBER SHALL BE PRESSURE TREATED TO A MINIMUM NET RETENTION OF 0.6 PCF OF CCA IN ACCORDANCE WITH AWPA STANDARD C18.
3. ALL FIELD CUTS AND BOLT HOLES SHALL BE PROTECTED IN ACCORDANCE WITH AWPA STANDARD M4.
4. LUMBER DIMENSIONS PROVIDED IN THE PLANS ARE DRESSED SIZES UNLESS SPECIFIED OTHERWISE.

STEEL NOTES:

1. NEW PLATES AND BARS WELDED TO EXISTING METALS SHALL CONFORM TO ASTM A572 GRADE 50 REQUIREMENTS. RECTANGULAR OR SQUARE HSS SHALL CONFORM TO ASTM A500 GRADE B. BOLTS AND FASTENERS SHALL CONFORM TO ASTM A325 REQUIREMENTS.
2. STEEL SHEET PILES, WALES AND ASSOCIATED HARDWARE SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATION. STEEL SHEET PILES SHALL BE NEW, HOT ROLLED. AZ14-770 SECTION, HAVING A SECTION MODULUS OF 25.2 IN/FT AND A UNIT WEIGHT OF 21.14 LBS/FT2/.
3. WALES AND HARDWARE SHALL NOT BE COATED.
4. EXISTING SHEET PILE, TIE ROD ENDS AND HARDWARE METALS WILL BE INSPECTED PRIOR TO ANY JOINING OF NEW METALS ONTO SURFACES. INSPECT EXISTING METALS FOR SOUNDNESS PRIOR TO START OF ANY WORK.
5. EXISTING TIE RODS SHALL BE LOAD TESTED AT TWO LOCATIONS TO DETERMINE MAXIMUM TENSILE CAPACITY AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
6. NEW TIE RODS SHALL BE DWYWDAG, GRADE 75 OR EQUAL, WITH ASSOCIATED CONNECTORS AND HARDWARE.
7. FIELD SPLICES TO EXISTING TIE RODS WILL BE PERFORMED AT 1 FOOT BEYOND THE START OF SOUND SECTION OF THE ROD.

CONCRETE NOTES:

1. CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF ACI 318 – "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE MASSACHUSETTS STATE BUILDING CODE.
2. CONCRETE SHALL BE PROPORTIONED, MIXED, AND PLACED UNDER THE SUPERVISION OF THE APPROVED TESTING AGENCY.
3. CONCRETE SHALL BE NORMAL WEIGHT, WITH TYPE II CEMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4,000 PSI 3/4" AGGREGATE-TYPICAL. ALL CONCRETE DESIGN MIXES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
4. TEST CYLINDERS SHALL BE TAKEN FROM THE MIXER IN ACCORDANCE WITH ASTM C172 AND THE PROJECT SPECIFICATIONS.
5. ALL CONCRETE SHALL BE AIR-ENTRAINED WITH AN AIR CONTENT OF 6% +/- 1%.
6. ALL EXPOSED EDGES SHALL BE CHAMFERED 1" UNLESS NOTED OTHERWISE.
7. WHEN CONCRETE IS PLACED AGAINST PREVIOUSLY HARDENED CONCRETE, THE INTERFACE SHALL BE CLEAN, FREE OF LAITANCE AND INTENTIONALLY ROUGHENED TO FULL AMPITUDE OF APPROXIMATELY 1/4 INCH.
8. CONCRETE WASHOUT OPERATIONS TO OR WITHIN THE HARBOR MUST NOT TAKE PLACE AT ANY TIME.
9. CONCRETE PRESSURE MUST BE LIMITED TO AVOID EXCESSIVE DEFLECTION OR OVERSTRESS ANY FORMWORK. REFERENCE ACI 347 – "GUIDE TO FORMWORK FOR CONCRETE" REQUIREMENTS.

REINFORCING STEEL NOTES:

1. REINFORCING BARS SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 – "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND THE MASSACHUSETTS STATE BUILDING CODE.
2. COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF THAT PORTION OF THE WORK. ALL ACCESSORIES MUST BE SHOWN ON THE SHOP DRAWINGS.
3. REINFORCING BARS SHALL CONFORM TO ASTM A615 OR A706 (WELDABLE) GRADE 60.
4. EPOXY COATED REINFORCING BARS SHALL IN CONFORMANCE WITH ASTM A775 WHERE NOTED.
5. ALL SUPPORTS SUCH AS CHAIRS, BOLSTERS, SPACERS, BLOCKS AND HANGERS SHALL BE OF NON-CORROSIVE MATERIAL. BLOCKS SHALL BE MADE OF 4,000 PSI (UN-REINFORCED) CONCRETE.
6. UNLESS NOTED ON THE DRAWINGS, THE MINIMUM CONCRETE PROTECTION (CLEAR COVER) FOR CAST-IN-PLACE CONCRETE COVER SHALL BE AS FOLLOWS:
A.FORMED CONCRETE EXPOSED TO EARTH OR WATER: 3"
B.CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
7. MINIMUM REINFORCEMENT DEVELOPMENT LENGTH SHALL BE IN ACCORDANCE WITH ACI 318 UNLESS NOTED ON THE DRAWINGS. LAP SPLICE LENGTHS SHALL BE IN ACCORDANCE WITH ACI 318 FOR CLASS B LAPS UNLESS NOTED OTHERWISE.
8. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185 OR A706 AND SHALL BE SUPPLIED IN FLAT SHEETS ONLY. SPLICES OF WWF SHALL BE AT LEAST 12 INCHES. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS 1.4 – "STRUCTURAL WELDING CODE – REINFORCING STEEL"
9. ALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS. UNLESS NOTED OTHERWISE, BARS SHALL BE CONTINUOUS AND SHALL RUN CONTINUOUSLY AROUND CORNERS AND LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS.

PILE JACKET NOTES:

1. THE FIBERGLASS FORM THICKNESS SHALL BE A MINIMUM OF 3/16 INCH DEPENDING ON FORCES AND STRESSES IT MAY ENCOUNTER DURING HANDLING AND INJECTION OF GROUT.
2. THE FORM SHALL BE TRANSLUCENT TO PROVIDE VISUAL INSPECTION DURING THE PUMPING OF THE GROUT.
3. PRIOR TO APPLICATION, THOROUGHLY CLEAN AND REMOVE MARINE GROWTH, OIL, GREASE, RUST AND ANY OTHER DELETERIOUS MATERIAL.
4. EXCAVATE THE MUD TO APPROXIMATELY (2) FEET AT THE BASE OF THE PILE AND INSTALL THE FIBER-FORM.
5. THE FORM SHALL BE SECURED BY TEMPORARY NYLON STRAPS, STEEL STRAPS OR OTHER MEANS TO ASSURE THAT IT WILL NOT MOVE OR DISTORT DURING PLACEMENT OF CEMENT.
6. AFTER THE PUMPING PROCESS IS COMPLETED AND THE GROUT HAS CURED, ALL TEMPORARY SUPPORTS SHALL BE REMOVED.
7. THE TOP OF EACH FIBERGLASS FORM SHALL BE FINISHED WITH SEASHIELD 525 UNDERWATER EPOXY OR SEASHIELD 550 EPOXY GROUT.

WELDING NOTES:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 AND AWS D1.4.
2. CLEAN AND INSPECT EXISTING MATERIAL PRIOR TO WELDING OF NEW MATERIAL. EXISTING MATERIAL SHALL BE TESTED FOR WELDABILITY TO NEW MATERIAL.
3. EXISTING MATERIAL SHALL BE PRE-HEATED IN ACCORDANCE WITH AWS D1.1.
4. ALL ELECTRODES SHALL BE E60 OR E70.
5. FIELD WELDS SHALL BE INSPECTED BY AWS QUALIFIED PERSONNEL.

SCOPE OF WORK:

GENERAL NOTES:

1. PRIOR TO PROJECT COMMENCEMENT, NOTIFY AND COORDINATE WITH ALL STATE, LOCAL AND FEDERAL AUTHORITIES AS REQUIRED. DETERMINE TEMPORARY LOCATIONS AND COORDINATE TEMPORARY RELOCATION OF EXISTING VESSELS AS NECESSARY IN ORDER TO PERFORM CONSTRUCTION OPERATIONS.
2. MOBILIZE CONSTRUCTION EQUIPMENT AND PERSONNEL TO THE SITE. UTILIZATION OF OFFSITE STAGING AREA WILL BE COORDINATED WITH THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AS APPROPRIATE AND AS NECESSARY. WATERSIDE BARGE OPERATIONS SHALL BE COORDINATED WITH THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE USCG.
3. INSTALL SIGNAGE AND SECURITY FENCING AS NECESSARY.
4. INSTALL EROSION AND SEDIMENT CONTROLS INCLUDING TURBIDITY BARRIERS.
5. NOTIFY THE ENGINEER OF SUBSTANTIAL PROJECT COMPLETION.
6. PERFORM SITE CLEANUP AND RE-SEEDING OF AREAS AS NECESSARY. RETURN ANY DISTURBED AREAS OF THE SITE TO PRE-CONSTRUCTION CONDITIONS. PERFORM FINAL WALK THROUGH WITH KEY PROJECT PERSONNEL UPON COMPLETION.
7. COMPLETE DEMOBILIZATION AND PROJECT CLOSEOUT.

COAL POCKET PIER:

1. REMOVE AND PROTECT FOR REUSE ALL SIGNAGE, BENCHES, BOLLARD, AND CHAIN.
2. REMOVE ALL TIMBER DECKING, CURBING, STRINGERS, AND PILE CAPS. EXISTING TIMBER STRINGERS SHALL BE STOCKPILED AND PROTECTED FOR REUSE. ALL DECKING, CURB, AND PILE CAPS SHALL BE PROPERLY DISPOSED OF.
3. REMOVE EXISTING TIMBER PILES AS INDICATED ON THE DRAWINGS.
4. INSTALL NEW TIMBER PILES, TIMBER PILE CAPS, STRINGERS, DECKING, AND CURBING AS INDICATED ON THE DRAWINGS.
5. REMOVE AND REPLACE FULL DEPTH BITUMINOUS PAVEMENT AS INDICATED ON DRAWINGS.

STEAMSHIP PIER:

1. INSTALL NEW TIMBER SISTER PILES.
2. REPLACE MISSING FENDER PILES.
3. BID ALTERNATE 2: INSTALL NEW CONCRETE PILE ENCASEMENTS.

LEONARD'S WHARF:

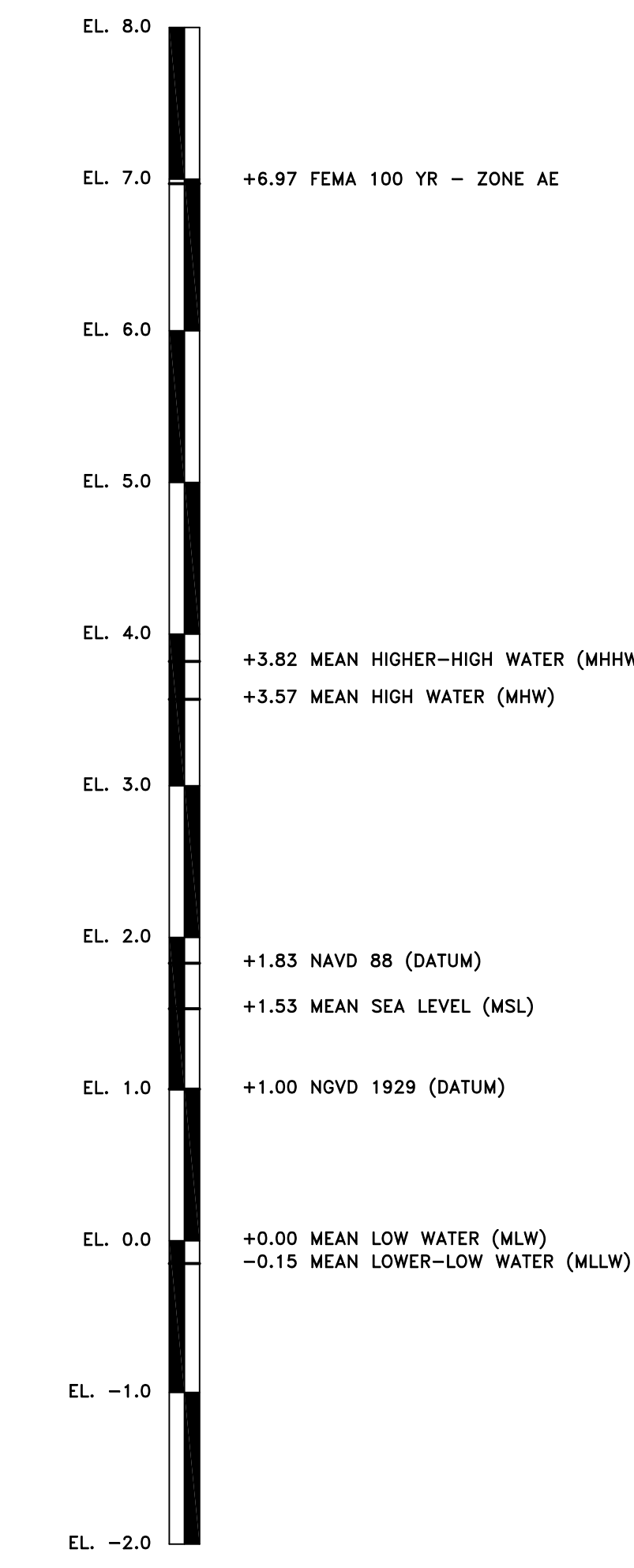
1. EXCAVATE BEHIND THE SHEET PILE WALL TO EXPOSE THE EXISTING INTERNAL WALE. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SHORING OR REMOVAL AND REPLACEMENT OF ALL LIGHT PEDESTALS, CLEATS, AND OTHER EXISTING STRUCTURES TO REMAIN.
2. REMOVE THE EXISTING FIXING BOLTS AND WATERSIDE PLATE WASHERS.
3. INSTALL NEW FIXING BOLTS AND WATERSIDE PLATE WASHERS. THE LANDSIDE PLATE IS TO BE REUSED.
4. BID ALTERNATE 2: REMOVE AND REPLACE FULL DEPTH BITUMINOUS PAVEMENT AS INDICATED ON DRAWINGS.

LEGEND:

- EXISTING TIMBER PILE
- EXISTING TIMBER PILE WITH <50% REMAINING
- CLEAT
- LADDER
- LIFE RING
- LIGHT PEDESTAL
- CATCH BASIN
- BENT NUMBER
- PILE NUMBER
- 1+00

BASELINE/STATION

TIDAL REFERENCE:



DATUM ELEVATION INFORMATION

PID: LW0072 VM: 2072 STATION ID: 8447712

PARE

PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
508-543-1755

COAL POCKET PIER RECONSTRUCTION
AND FISHING PIER REPAIRS

NEW BEDFORD, MASSACHUSETTS
NEW BEDFORD HARBOR DEVELOPMENT COMMISSION

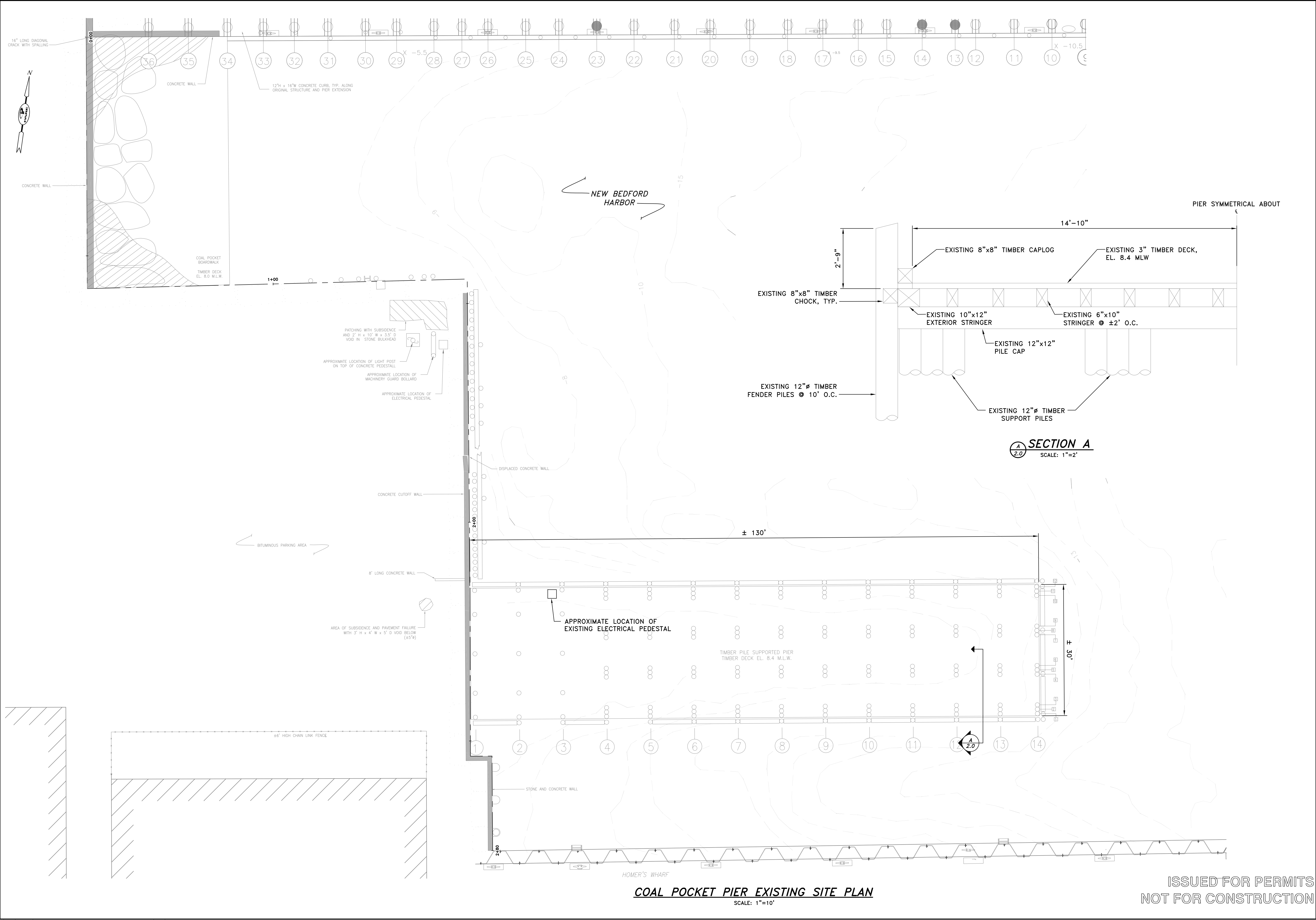
REVISIONS:


PROJECT NO.: 17049.00
DATE: JULY 2017
SCALE: AS NOTED
DESIGNED BY: RMM
CHECKED BY: KWH
DRAWN BY: LMC
APPROVED BY: KWH

NOTES
AND LEGEND

SHEET NO.: 1.0

Y:\086\17 Jobs\17049.00 NBHDC-Engr Permit Design Bid Const PH Svcs-MA\dwgs\1.0 NOTES AND LEGEND.dwg





PARE
PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
10 LINCOLN ROAD, SUITE 210
FOXBORO, MA 02035
508-543-1755

SCALE ADJUSTMENT
GUIDE

0" 1"

BAR IS ONE INCH ON
ORIGINAL DRAWING.

**COAL POCKET PIER RECONSTRUCTION
AND FISHING PIER REPAIRS**

NEW BEDFORD, MASSACHUSETTS

NEW BEDFORD HARBOR DEVELOPMENT COMMISSION

REVISIONS:	

PROJECT NO.:	17049.00
DATE:	JULY 2017
SCALE:	AS NOTED
DESIGNED BY:	RMM
CHECKED BY:	KWH
DRAWN BY:	LMC
APPROVED BY:	KWH

COAL POCKET PIER
EXISTING SITE PLAN

SHEET NO.:

2.0



COAL POCKET PIER RECONSTRUCTION
AND FISHING PIER REPAIRS
NEW BEDFORD, MASSACHUSETTS
NEW BEDFORD HARBOR DEVELOPMENT COMMISSION

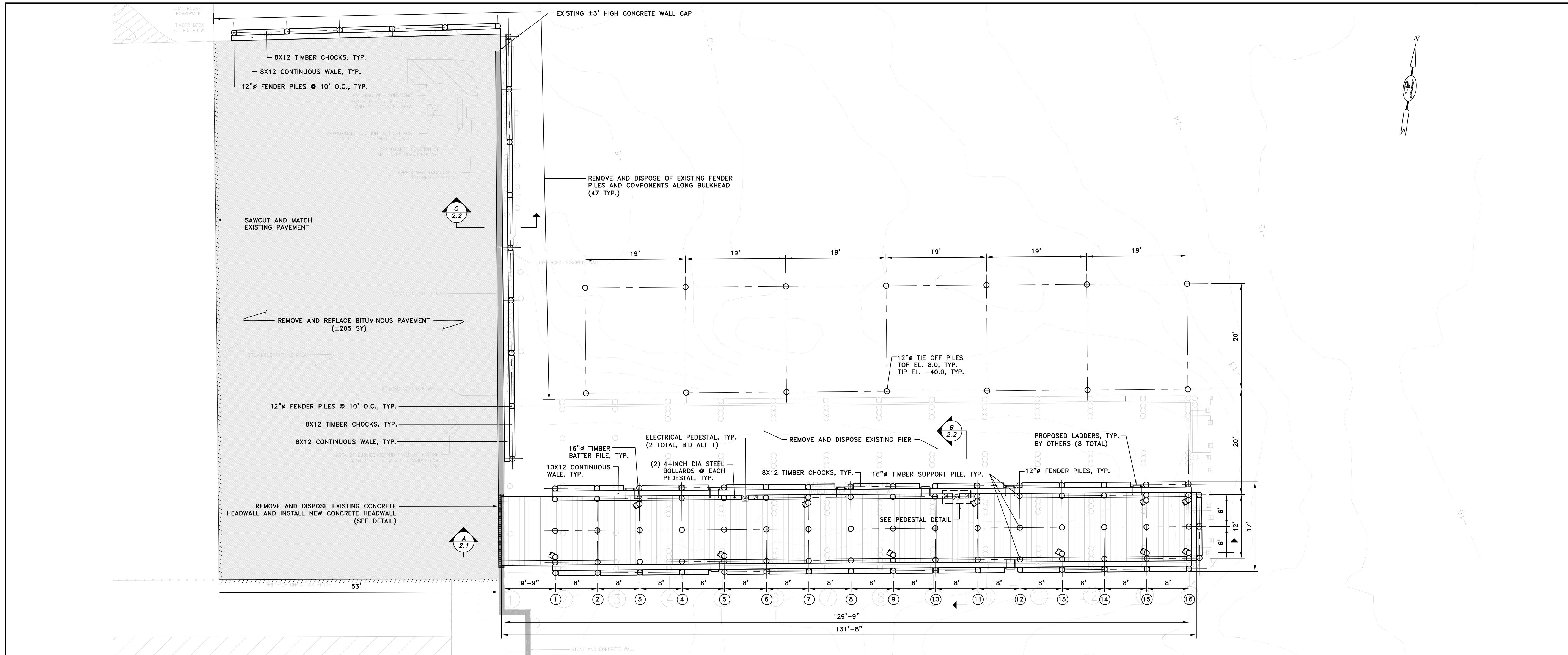
REVISIONS:

PROJECT NO.:	17049.00
DATE:	JULY 2017
SCALE:	AS NOTED
DESIGNED BY:	RMM
CHECKED BY:	KWH
DRAWN BY:	LMC
APPROVED BY:	KWH

OAL POCKET PIER PROPOSED SITE PLAN AND SECTIONS

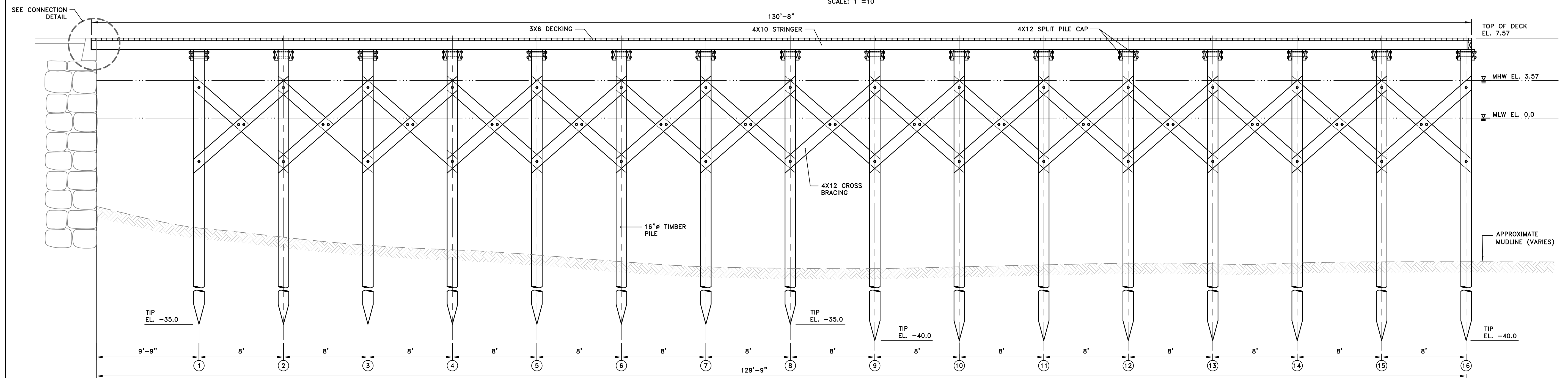
SHEET NO.: _____

.1



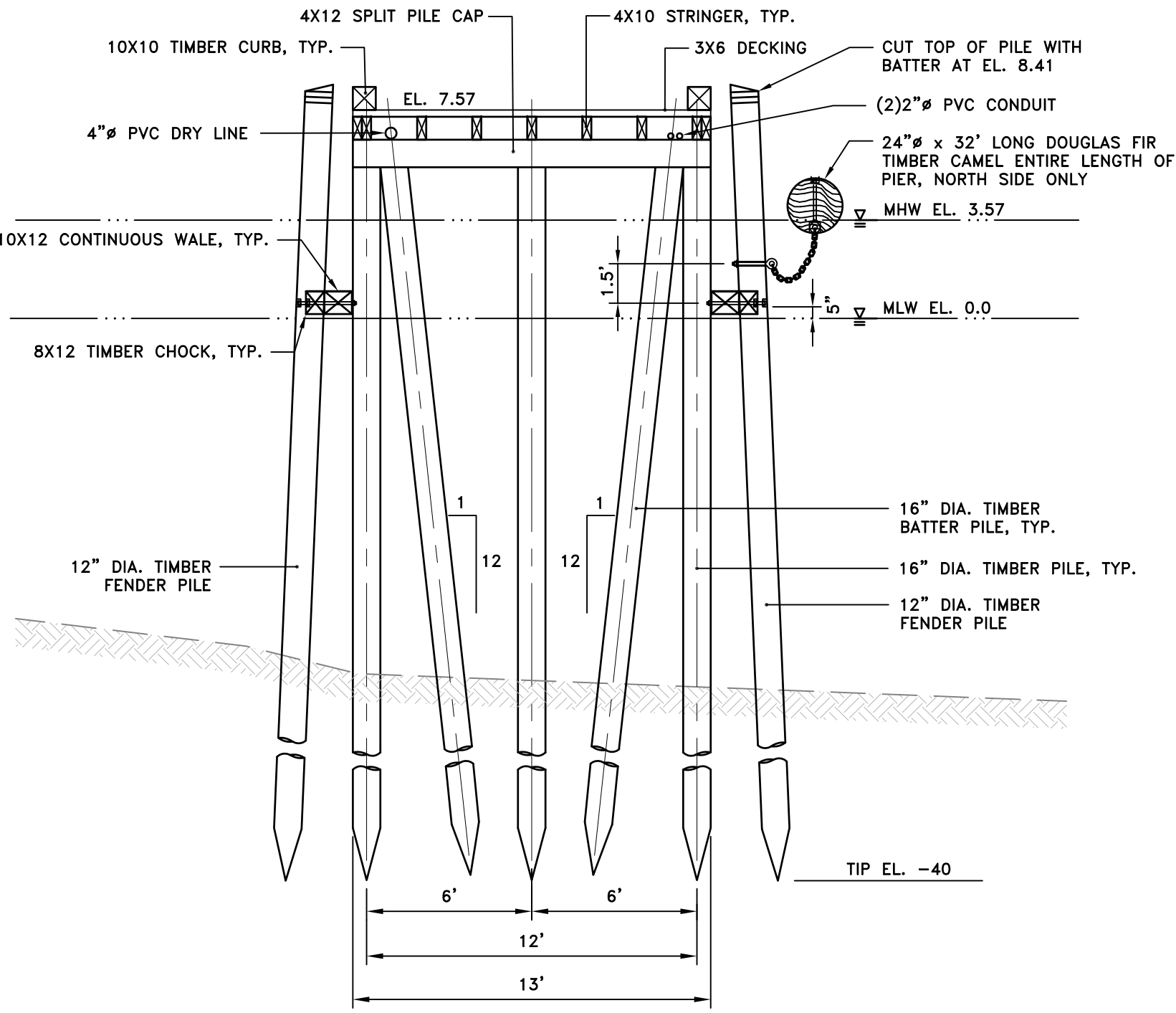
COAL POCKET PIER PROPOSED SITE PLAN

SCALE: 1"=10'

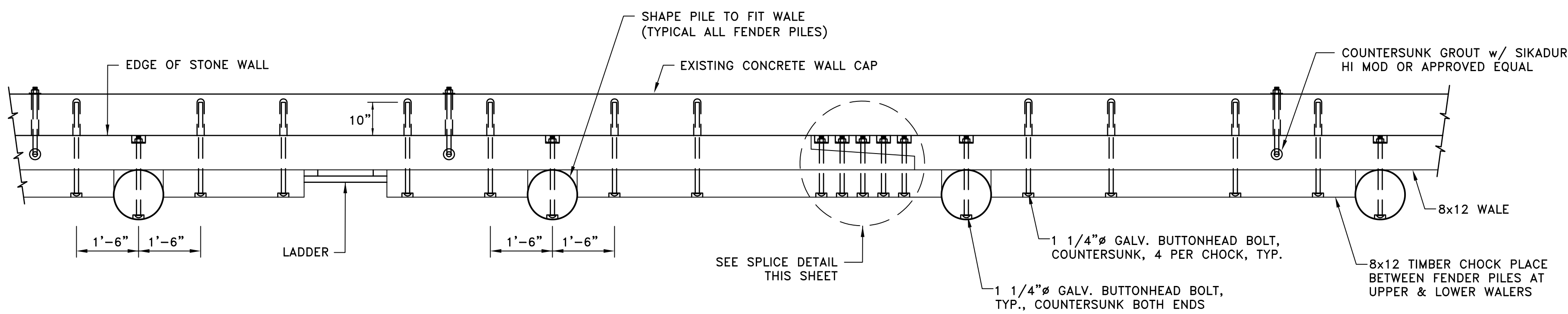


SECTION A
SCALE: 1"=5'

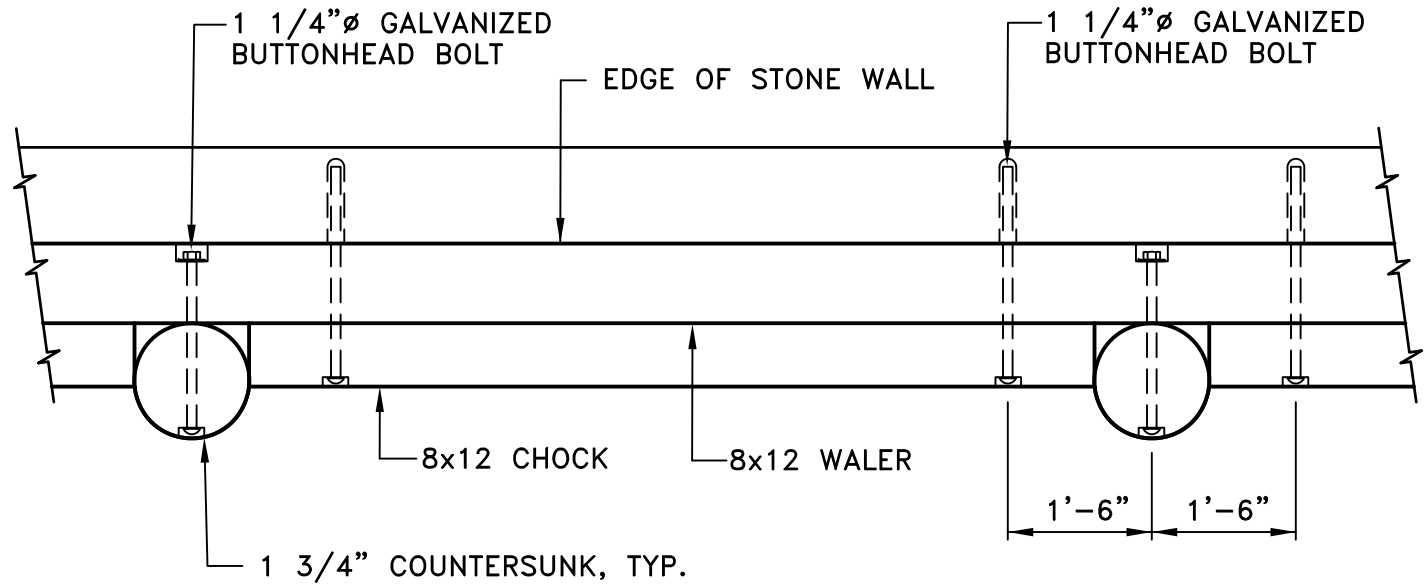
ISSUED FOR PERMITS
NOT FOR CONSTRUCTION



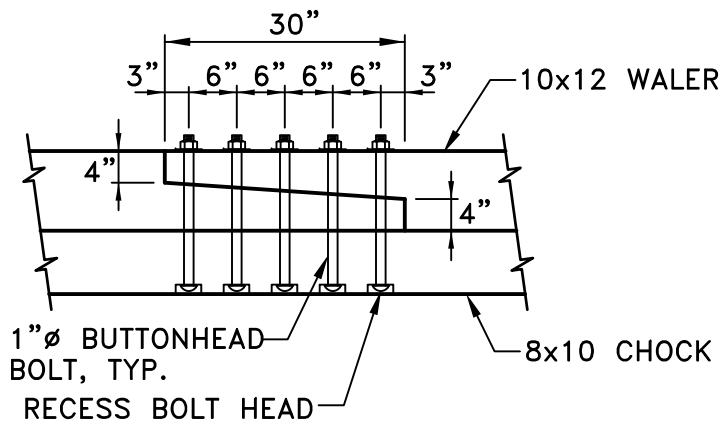
SECTION B
SCALE: 1"=5'



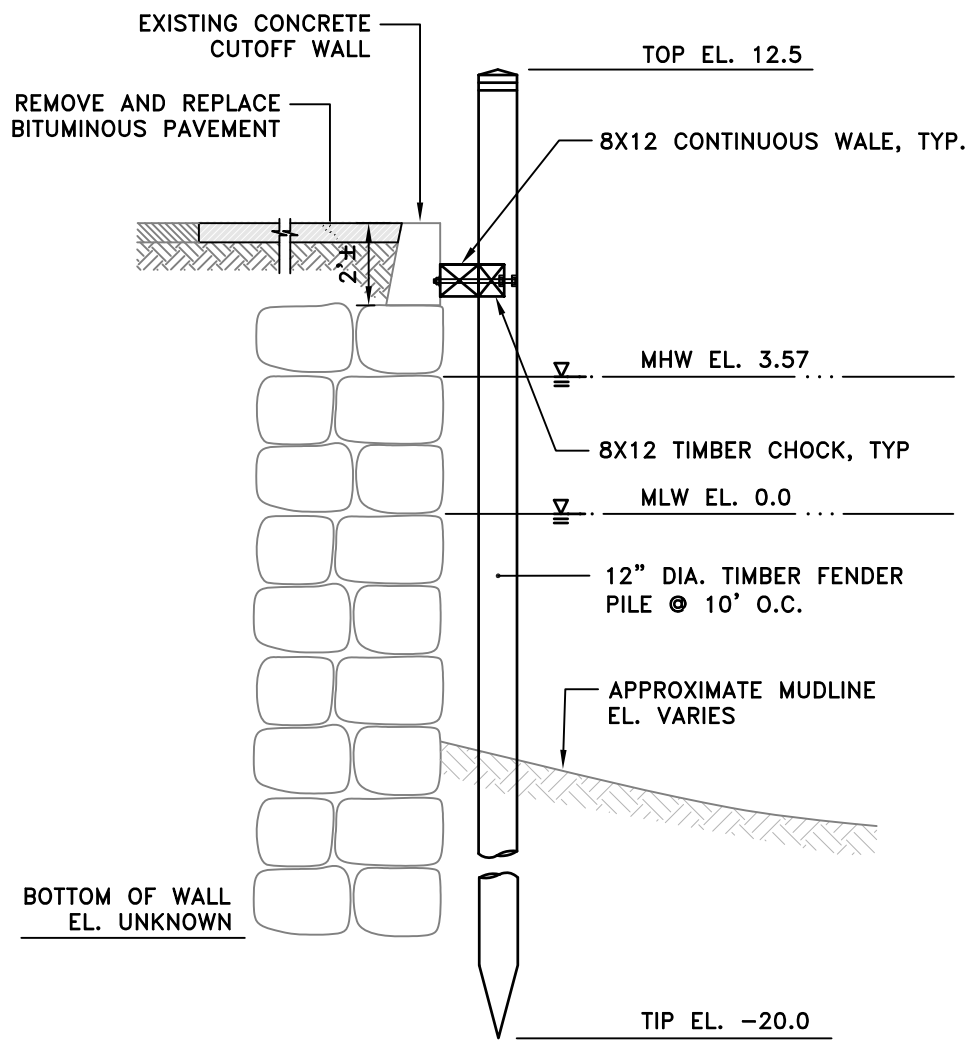
FENDER SYSTEM PLAN
SCALE: 1"=2'



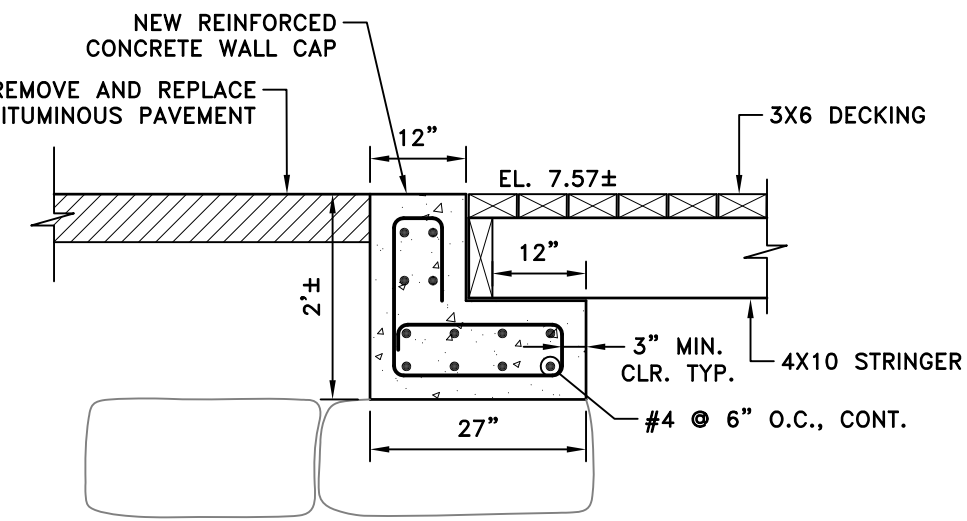
LOWER WALE PLAN
SCALE: 1"=2'



TIMBER WALE SPLICE
SCALE: 1"=2'

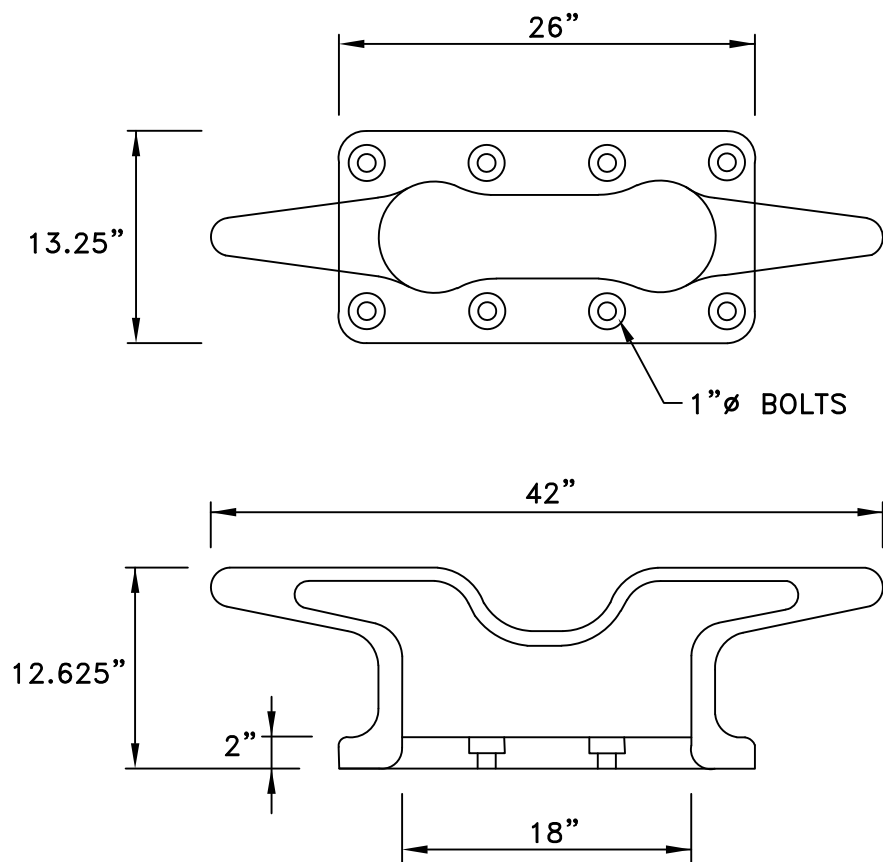


SECTION C
SCALE: 1"=5'



NOTE:
EXTENT OF CONCRETE WALL CAP DEMOLITION AND RECONSTRUCTION TO BE FIELD VERIFIED BASED ON STONE WALL ORIENTATION AND STABILITY.

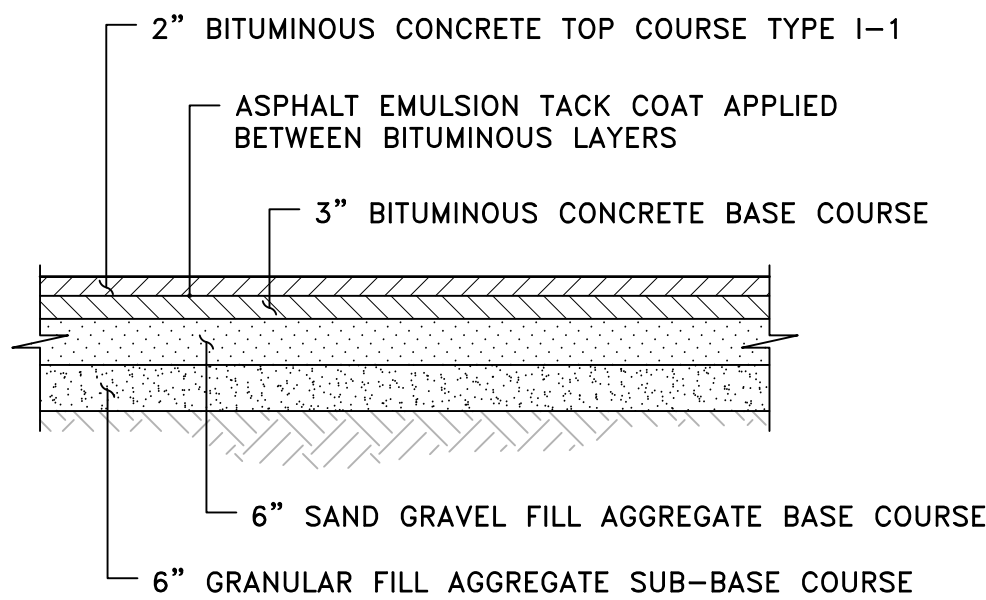
COAL POCKET PIER CONNECTION DETAIL
SCALE: 1"=2'



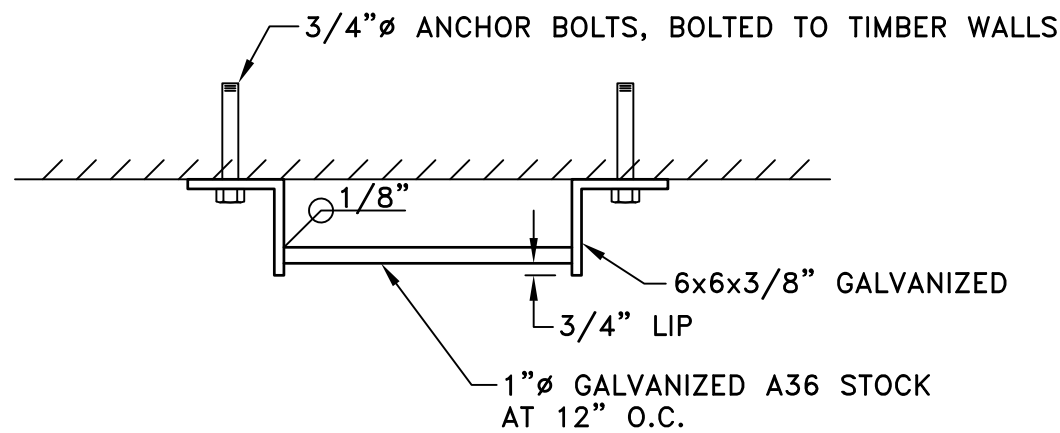
CLEAT CAPACITY = 35 TONS
TYPICAL CLEAT
SCALE: 1"=1'

NOTES:

- FASTEN CLEATS TO OUTSIDE OF BEAM USING EPOXY ANCHOR BOLTS.
- CURB TO BE DISCONTINUOUS AT CLEAT LOCATIONS.



PAVEMENT SECTION
NOT TO SCALE



LADDERS SHALL BE 15 FEET LONG. FASTEN LADDER TO TIMBER WALES WITH FOUR 3/4" GALVANIZED ANCHOR BOLTS, NUTS, AND WASHERS.

STEEL LADDER DETAIL
SCALE: 1"=1'

ISSUED FOR PERMITS
NOT FOR CONSTRUCTION

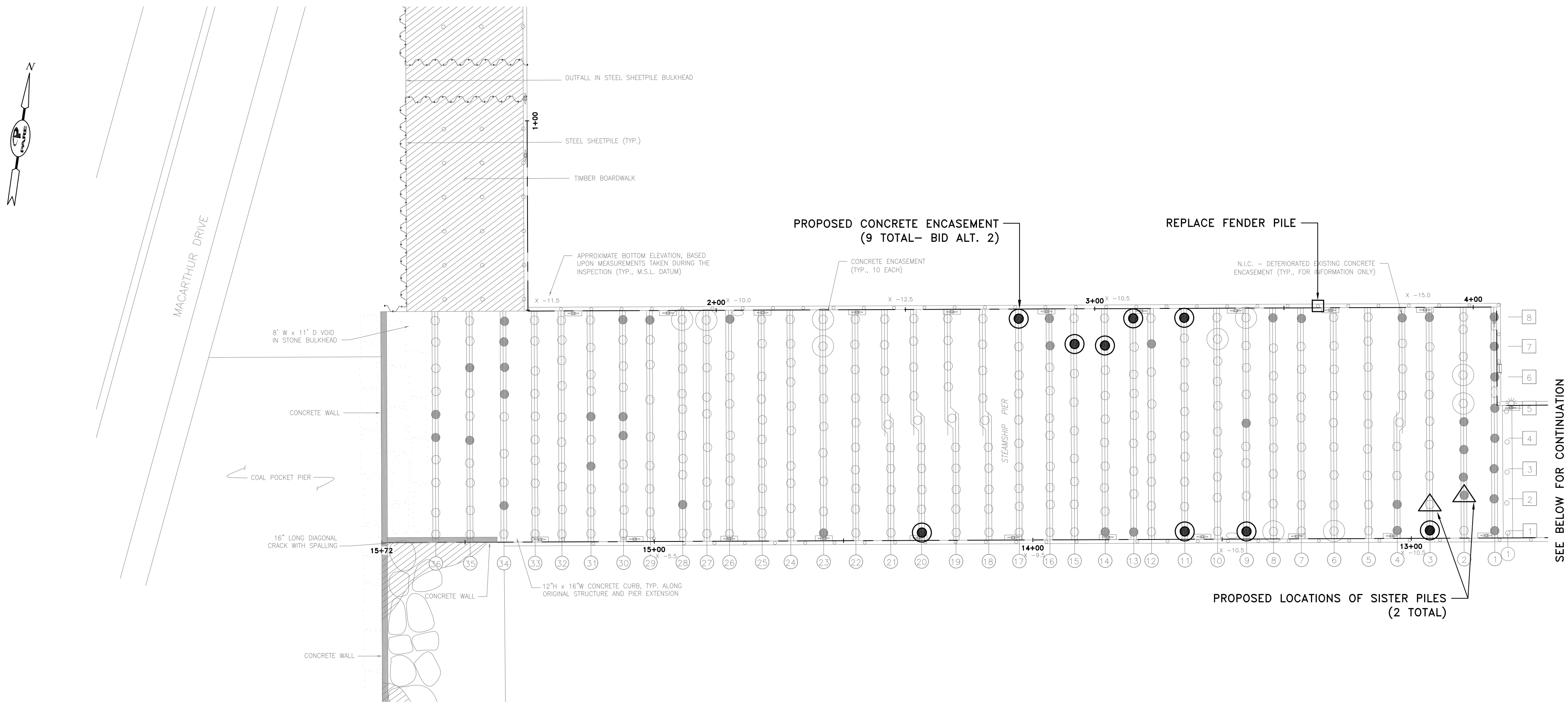
**COAL POCKET PIER RECONSTRUCTION
AND FISHING PIER REPAIRS**
NEW BEDFORD, MASSACHUSETTS
NEW BEDFORD HARBOR DEVELOPMENT COMMISSION

REVISIONS:

PROJECT NO.:	17049.00
DATE:	JULY 2017
SCALE:	AS NOTED
DESIGNED BY:	RMM
CHECKED BY:	KWH
DRAWN BY:	LMC
APPROVED BY:	KWH

COAL POCKET PIER
SECTIONS AND DETAILS

SHEET NO.:

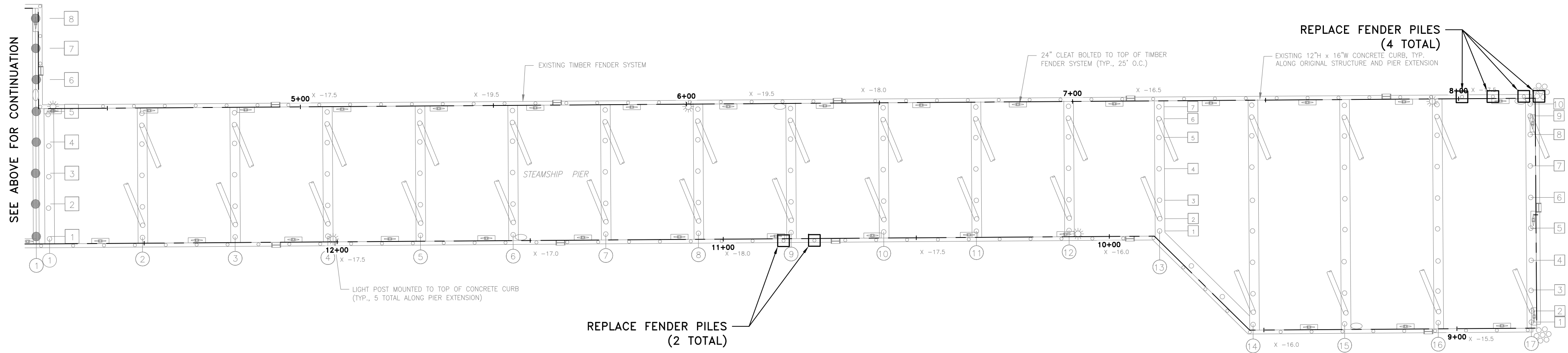


STEAMSHIP PIER PROPOSED REPAIRS

SCALE: 1"=20'

PILE REPAIR SCHEDULE:

- DETERIORATED CONCRETE ENCASEMENTS TO BE REPAIRED WITH NEW 26"Ø FIBERGLASS JACKET ENCASEMENT.
- △ PILES TO BE SISTERED WITH NEW TIMBER SUPPORT PILES.
- MISSING OR BROKEN FENDER PILES TO BE REPLACED.
- EXISTING CONCRETE ENCASEMENT DETERIORATED IN TIDAL ZONE NOTED DURING SITE INSPECTION IN NOVEMBER, 2014 BY PARE CORPORATION.
- PREVIOUSLY REPAIRED PILE ENCASEMENT FROM PLANS ENTITLED "FISHING PIER REPAIRS – PHASE 1, 2011" BY PARE CORPORATION.



STEAMSHIP PIER EXTENSION PROPOSED REPAIRS

SCALE: 1"=20'

STEAMSHIP PIER SCOPE OF WORK:

1. INSTALL NEW PIER SISTER PILES (2 TOTAL).
 - CUT DECK, INSTALL PILE, INSTALL REINFORCEMENT, PLACE CONCRETE.
2. REPLACE MISSING OR BROKEN FENDER PILES (7 TOTAL).
 - REMOVE AND REPLACE PILES (CUTTING OF PILES SHALL NOT BE PERMITTED)
3. BID ALT. 2 – INSTALL NEW CONCRETE PILE ENCASEMENTS (9 TOTAL).
 - CONTRACTOR SHALL CONFIRM PILE CONDITION, LOCATION, QUANTITY, DIAMETER, AND LENGTH PRIOR TO ORDERING MATERIALS.

ISSUED FOR PERMITS
NOT FOR CONSTRUCTION

SCALE ADJUSTMENT
GUIDE
0" 1"
BAR IS ONE INCH ON
ORIGINAL DRAWING.

**COAL POCKET PIER RECONSTRUCTION
AND FISHING PIER REPAIRS**
NEW BEDFORD, MASSACHUSETTS
NEW BEDFORD HARBOR DEVELOPMENT COMMISSION

REVISIONS:

PROJECT NO.:	17049.00
DATE:	JULY 2017
SCALE:	AS NOTED
DESIGNED BY:	RMM
CHECKED BY:	KWH
DRAWN BY:	LMC
APPROVED BY:	KWH

STEAMSHIP PIER REPAIRS
PROPOSED SITE PLAN

SHEET NO.:
3.0

COAL POCKET PIER RECONSTRUCTION
AND FISHING PIER REPAIRS
NEW BEDFORD, MASSACHUSETTS
NEW BEDFORD HARBOR DEVELOPMENT COMMISSION

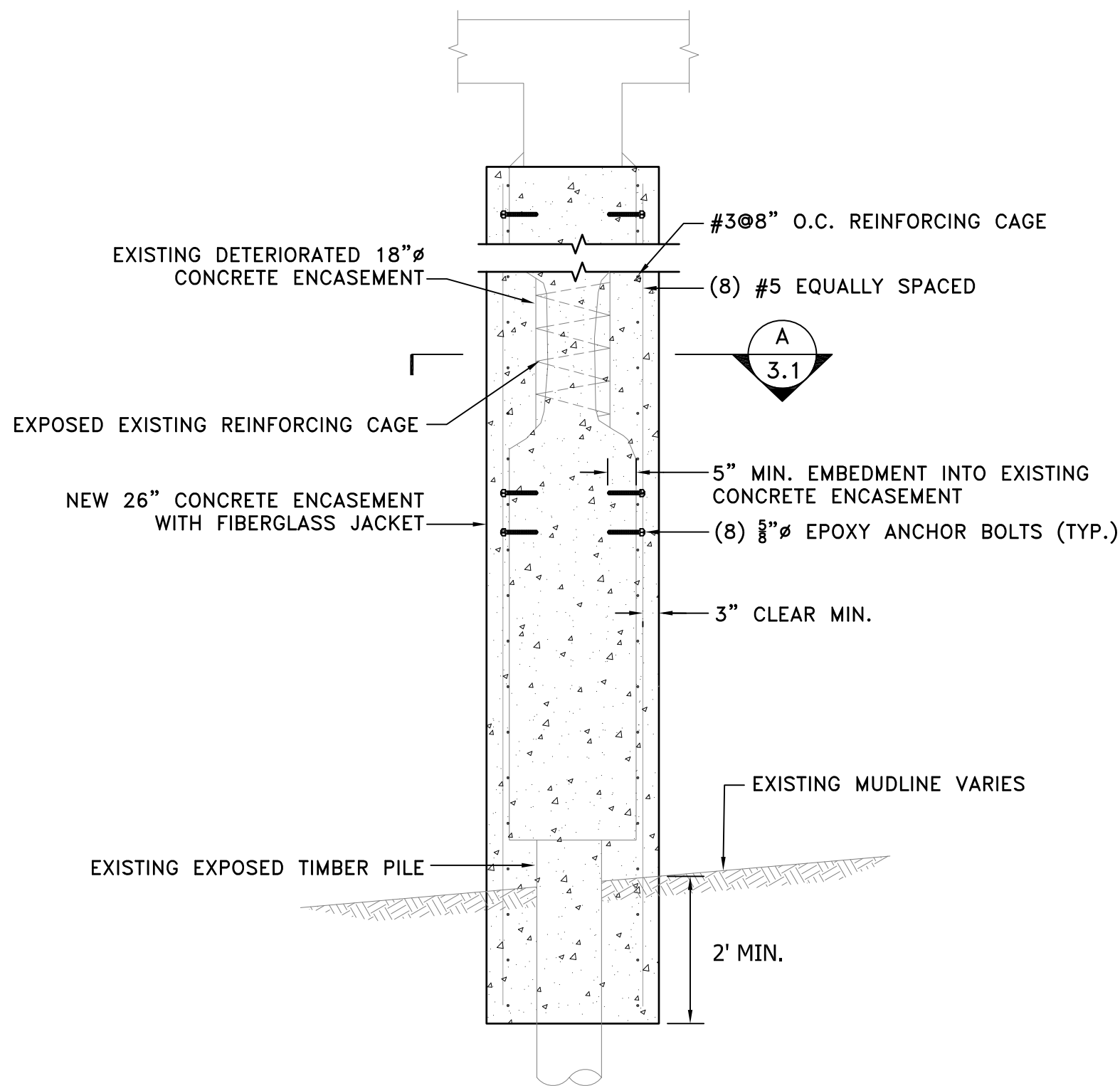
REVISIONS:

PROJECT NO.: 17049.00
DATE: JULY 2017
SCALE: AS NOTED
DESIGNED BY: RMM
CHECKED BY: KWH
DRAWN BY: LMC
APPROVED BY: KWH

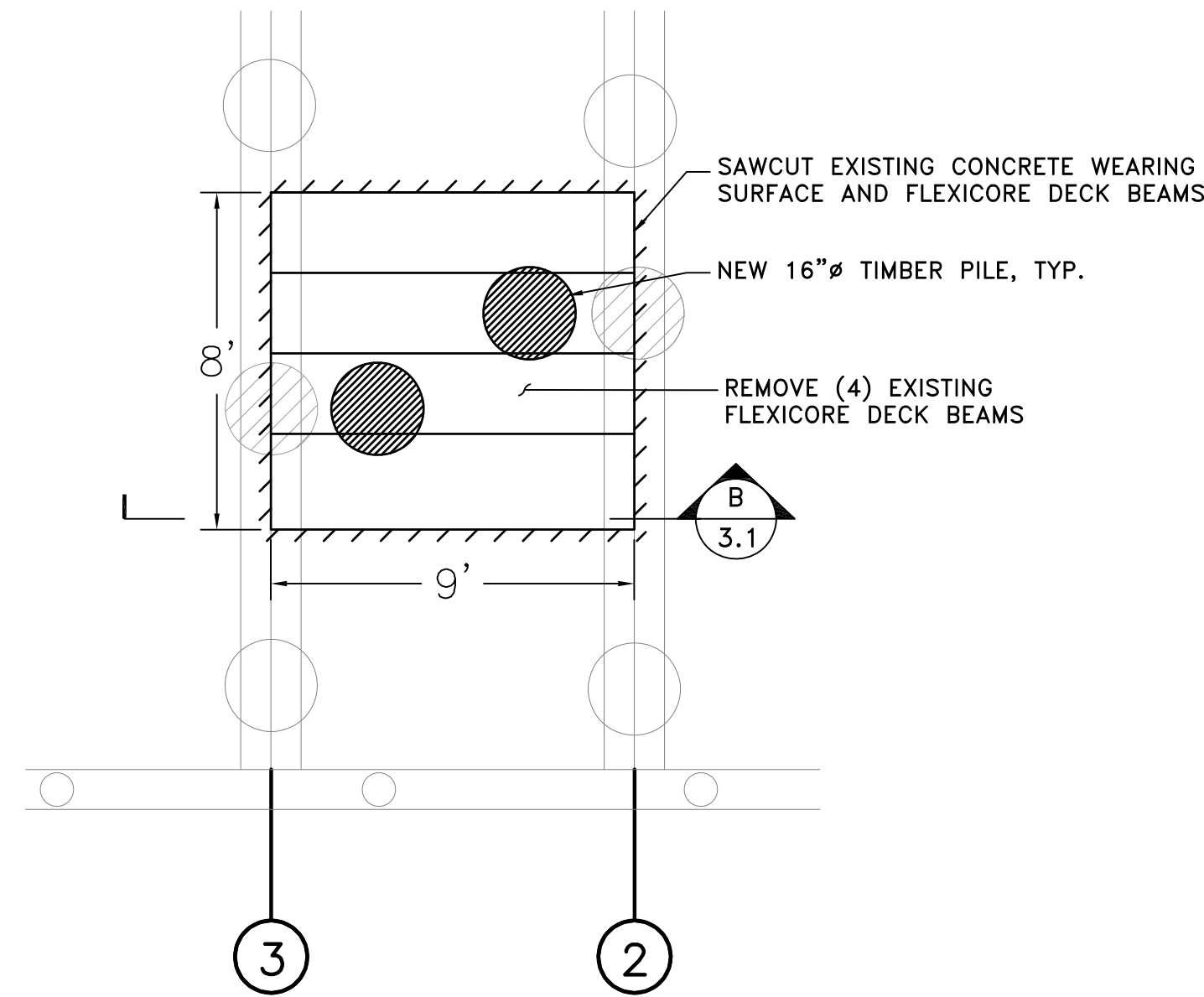
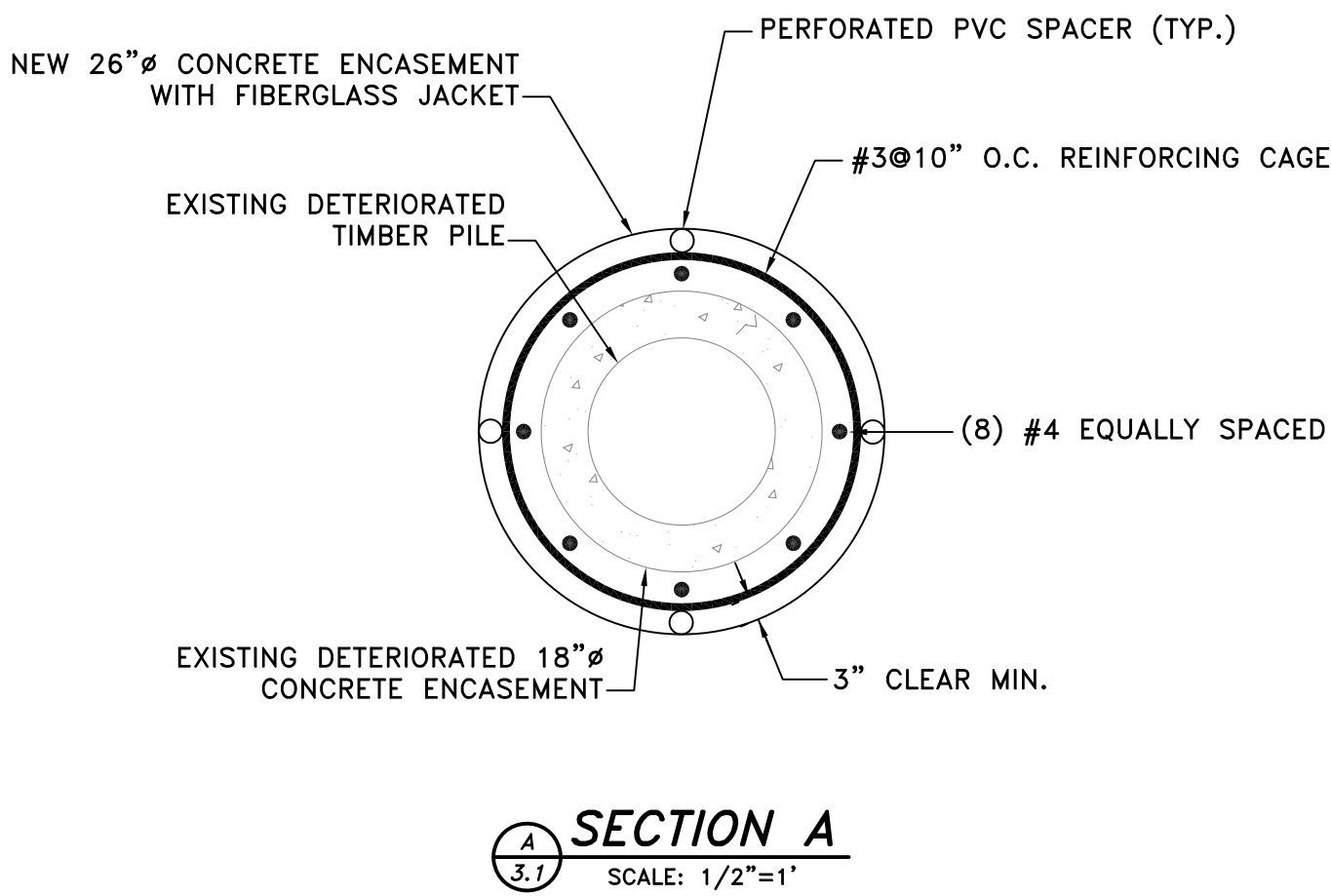
STEAMSHIP PIER REPAIRS
SECTIONS AND DETAILS

SHEET NO.:

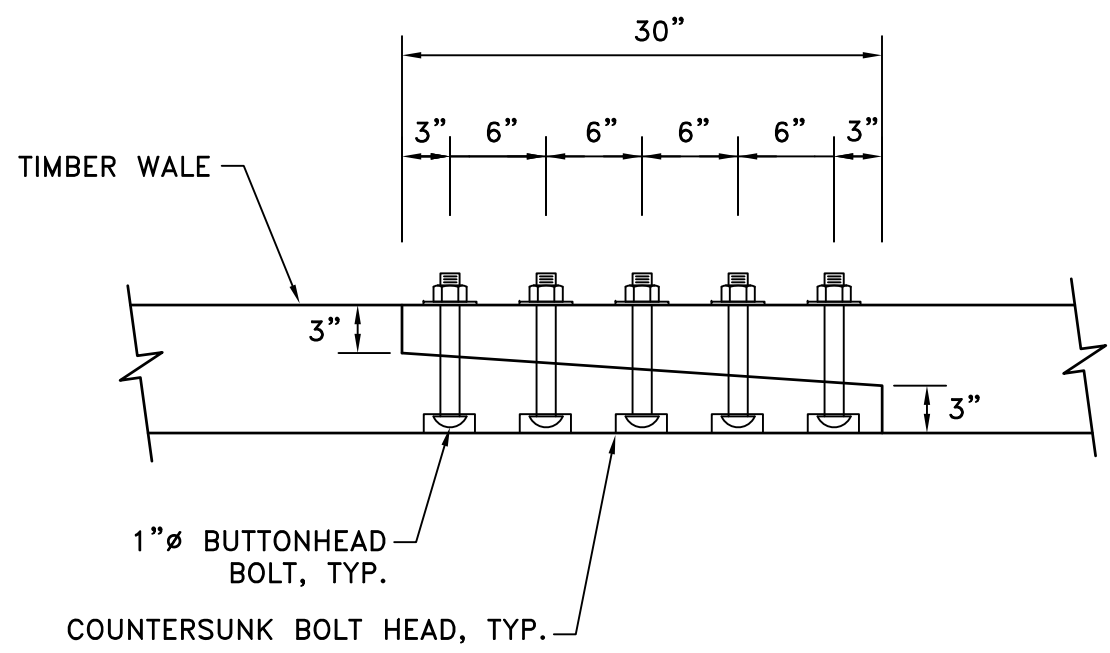
3.1



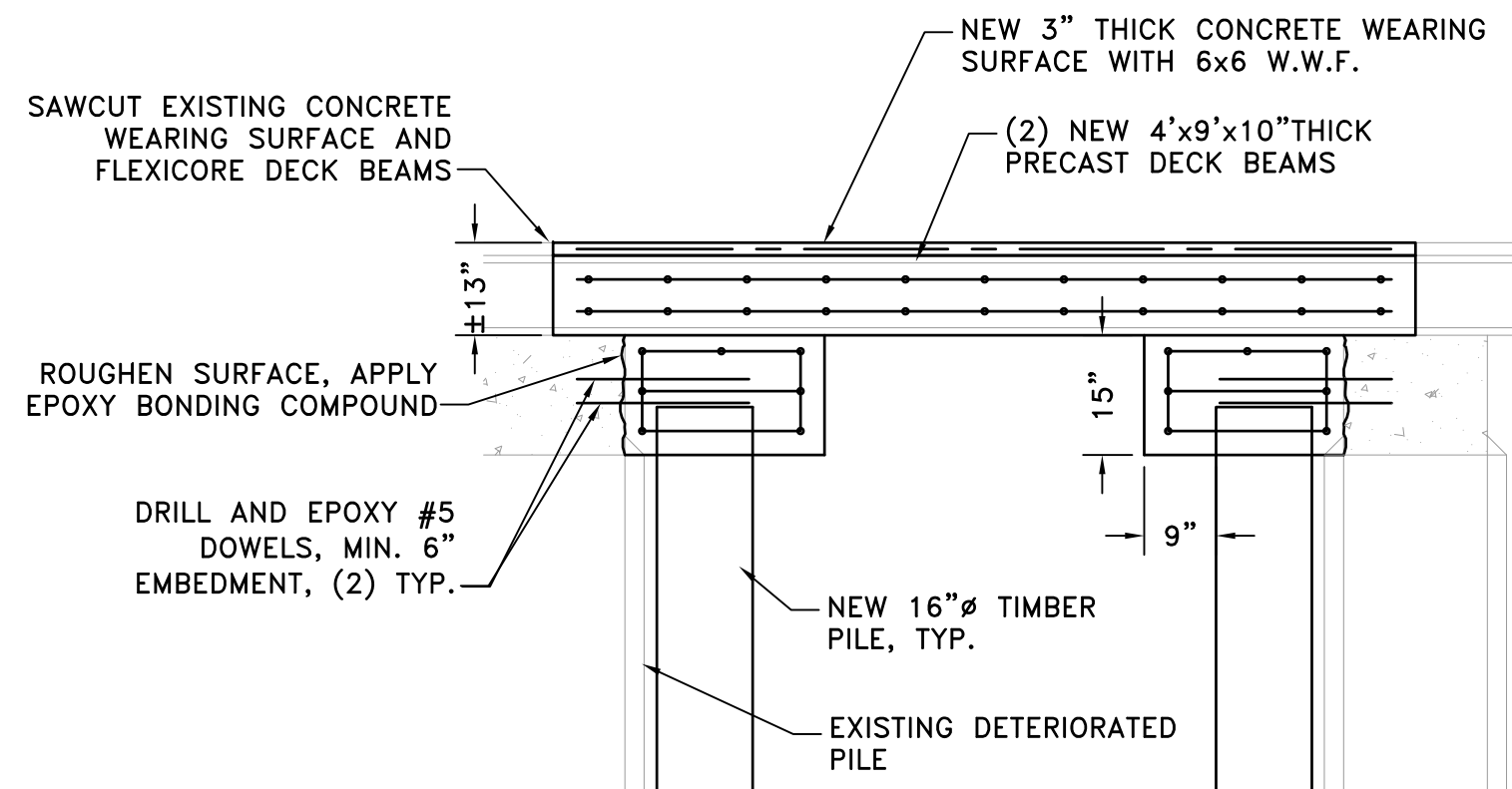
BID ALT. 2
PILE ENCASEMENT DETAIL (9 EACH)
NOT TO SCALE



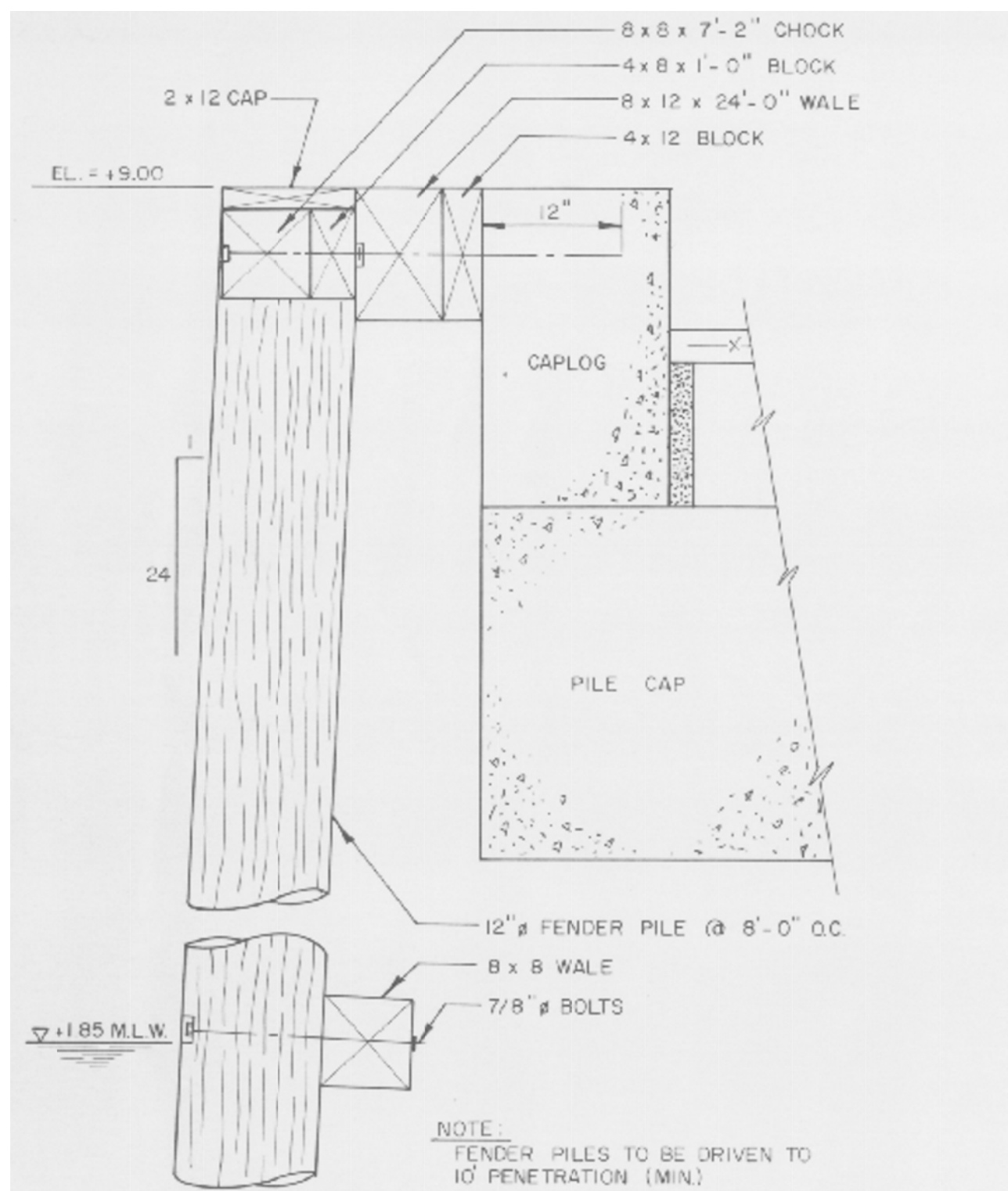
SISTER PILE PLAN
NOT TO SCALE



TIMBER WALE SPLICE DETAIL
SCALE: 1"=1'

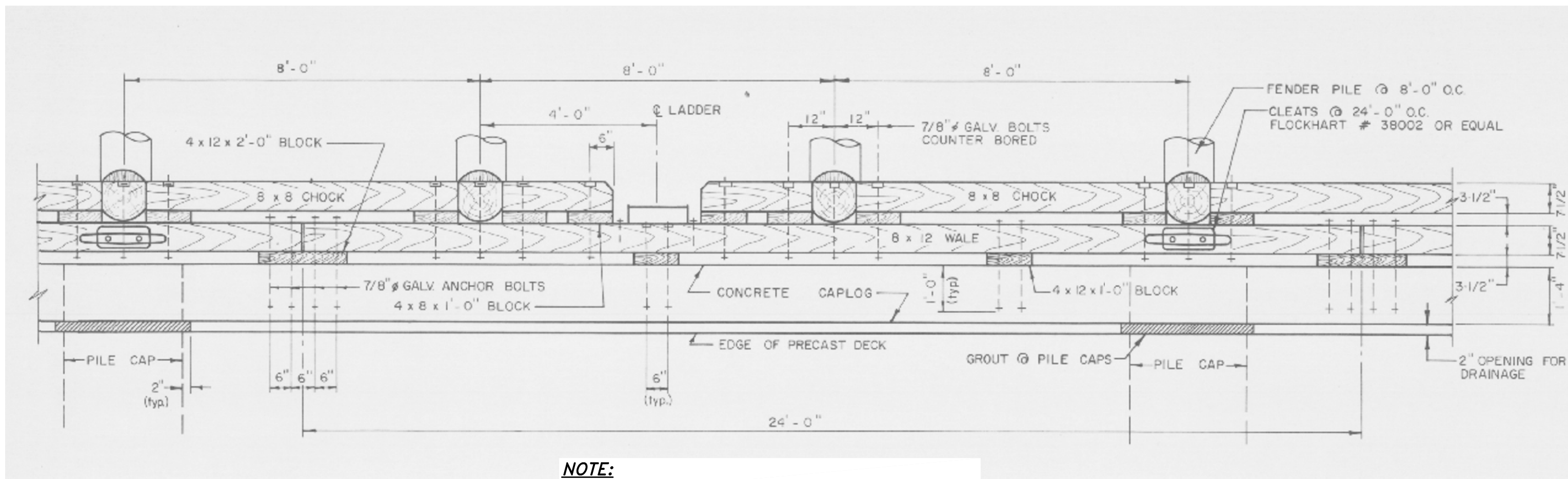


SECTION B
SCALE: 1/2"=1'



NOTE:
1. NEW TIMBER PILES TO BE 12"Ø GREENHEART, 42 LF LONG, DRIVEN TO EL. -37.0 M.S.L. MUDLINE IS AT APPROXIMATELY EL. -15.0 M.S.L.

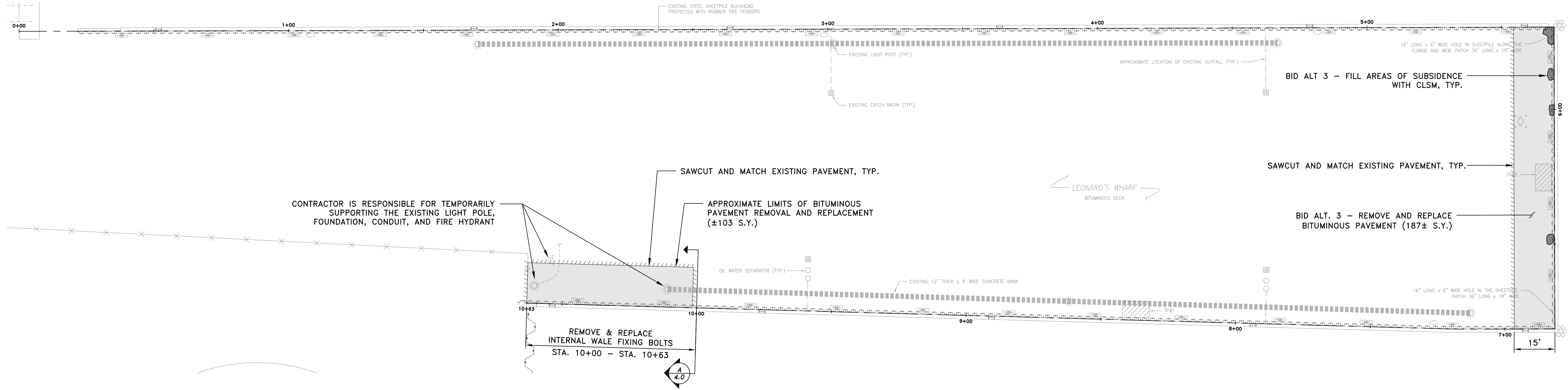
TIMBER FENDER SECTION
NOT TO SCALE



NOTE:
1. NEW TIMBER FENDERS TO MATCH EXISTING

EXISTING TIMBER FENDER PLAN
NOT TO SCALE

ISSUED FOR PERMITS
NOT FOR CONSTRUCTION

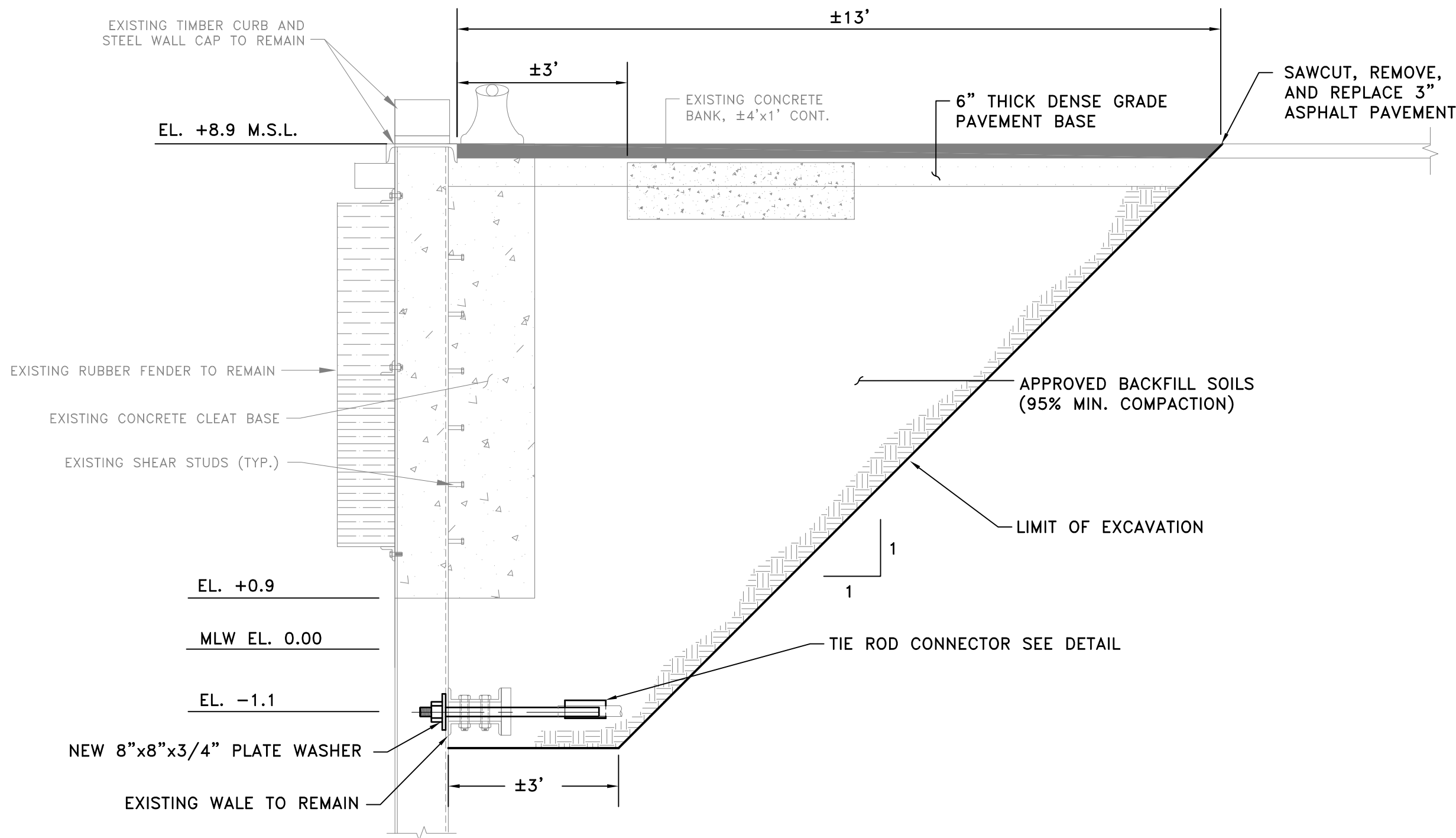


LEONARD'S WHARF PROPOSED SITE PLAN

SCALE: 1"=20'

LEONARD'S WHARF SCOPE OF WORK:

1. EXCAVATE BEHIND THE SHEET PILE WALL TO EXPOSE THE EXISTING INTERNAL WALE. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SHORING OR REMOVAL AND REPLACEMENT OF ALL LIGHT PEDESTALS, CLEATS, AND OTHER EXISTING STRUCTURES TO REMAIN.
2. REMOVE THE EXISTING FIXING BOLTS AND WATERSIDE PLATE WASHERS.
3. INSTALL NEW FIXING BOLTS AND WATERSIDE PLATE WASHERS. THE LANDSIDE PLATE IS TO BE REUSED.
4. INSTALL NEW BITUMINOUS PAVEMENT TO MATCH EXISTING ELEVATION.
5. BID ALT. 3 - REMOVE AND REPLACE EXISTING BITUMINOUS PAVEMENT AT HEAD OF WHARF AND FILL AREAS OF SUBSIDENCE.



PROPOSED INTERNAL WALE CONNECTION REPAIR SECTION

SCALE: 1"=2'

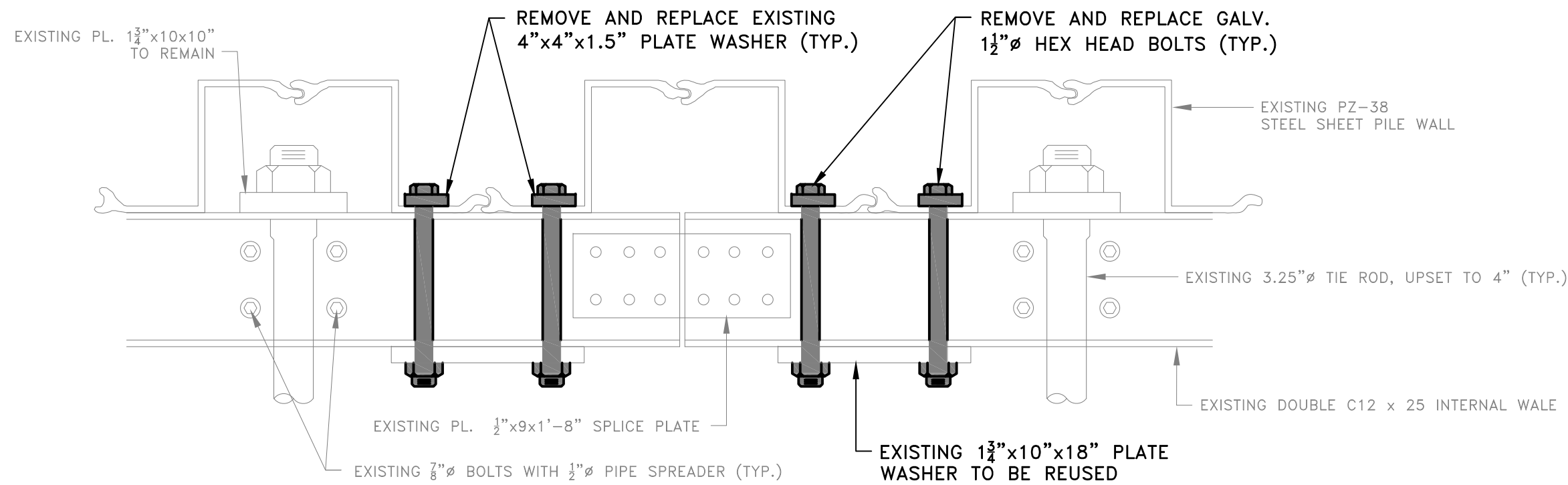
ISSUED FOR PERMITS
NOT FOR CONSTRUCTION

REVISIONS:

PROJECT NO.:	17049.00
DATE:	JULY 2017
SCALE:	AS NOTED
DESIGNED BY:	RMM
CHECKED BY:	KWH
DRAWN BY:	LMC
APPROVED BY:	KWH

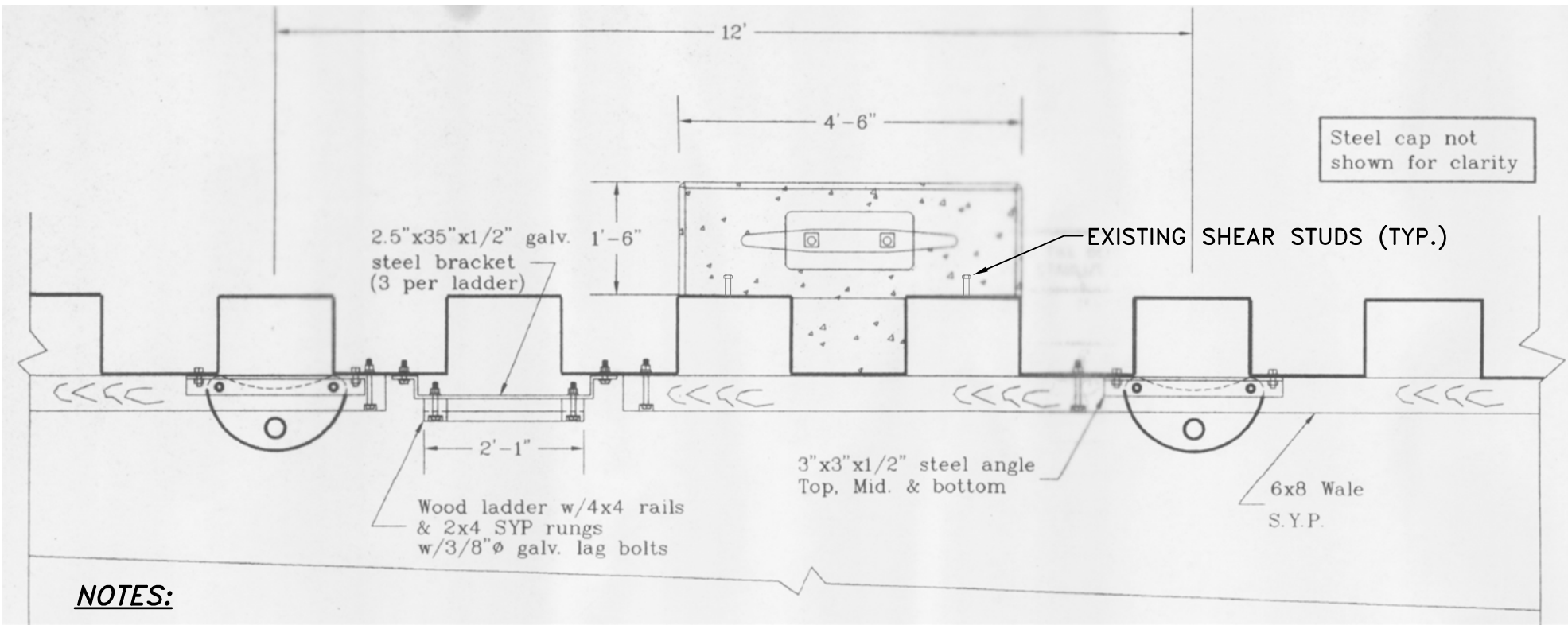
LEONARD'S WHARF REPAIRS
PROPOSED SITE PLAN
AND DETAILS

SHEET NO.:
4.0



EXISTING INTERNAL WALE CONNECTION PLAN

SCALE: 1"=1'

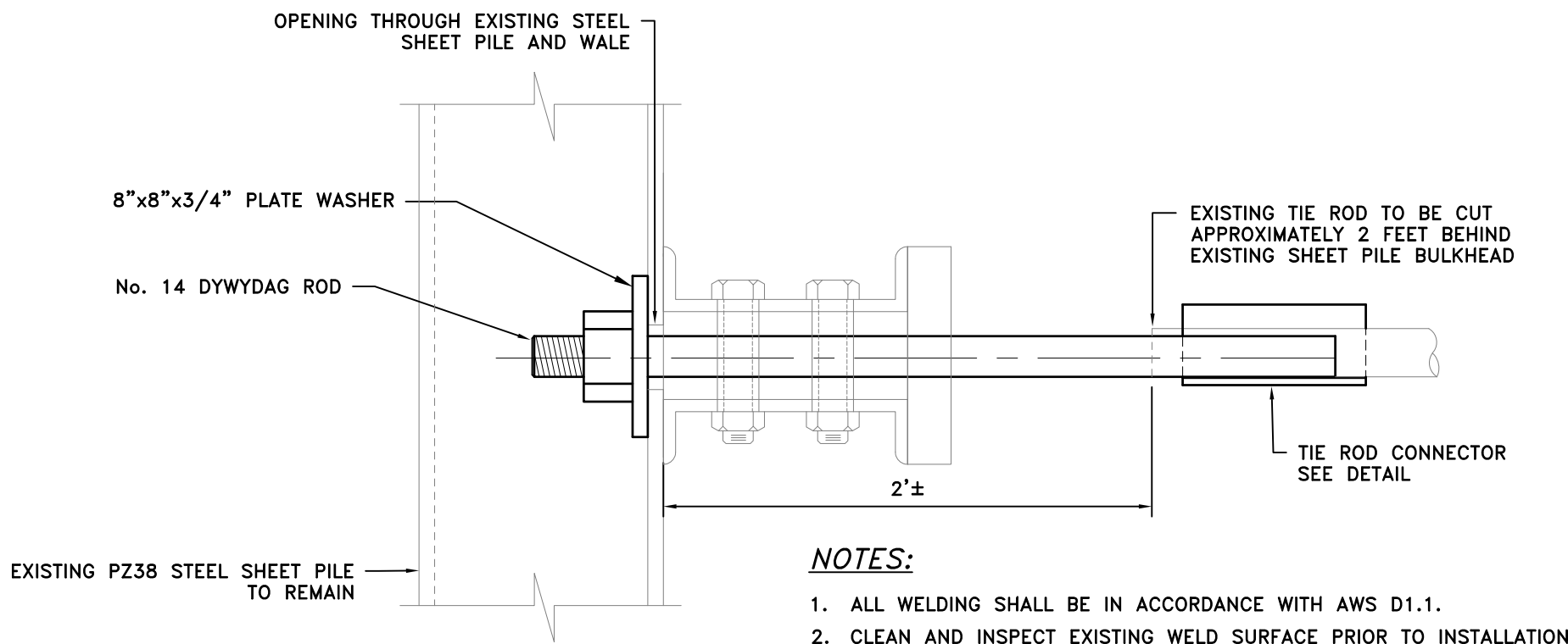


NOTES:

1. SHEETING PLAN AND SECTIONS BASED UPON DRAWING ENTITLED "PROPOSED REPAIRS AND IMPROVEMENTS TO WHARVES AND PIERS IN NEW BEDFORD AND FAIRHAVEN" BY TIBBETTS ENGINEERING CORP. DATED JAN. 23, 1998.
2. WALE DETAIL BASED UPON DRAWING ENTITLED "SOUTH TERMINAL RENEWAL PROJECT – STRUCTURAL DETAILS 1" BY GOODKIND AND O'DEA, INC., DATED MARCH, 1974.

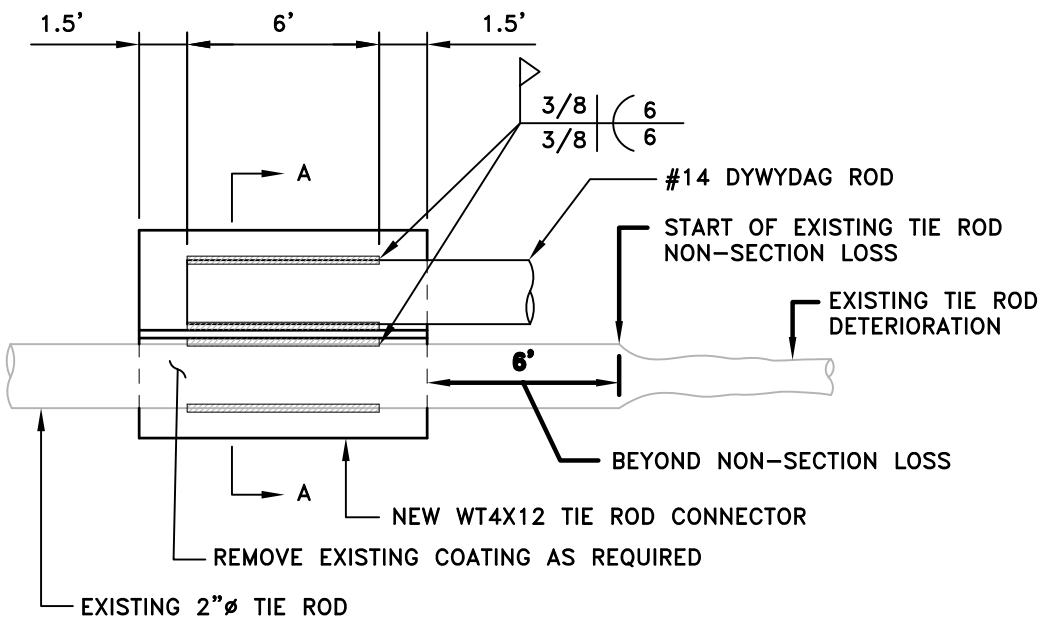
TYPICAL EXISTING SHEETING PLAN

SCALE: 3/4"=1'



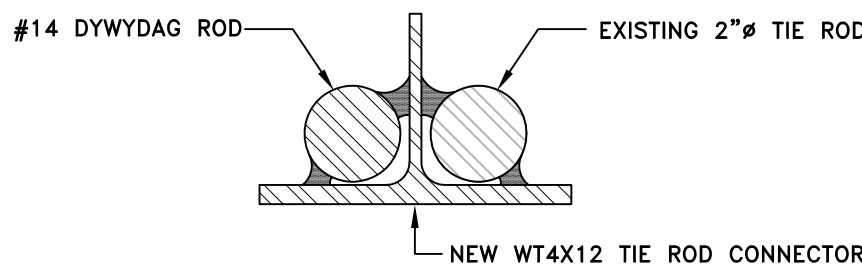
PROPOSED TIE ROD EXTENSION DETAIL

SCALE: 1 1/2"=1'-0"



DETERIORATED TIE ROD CONNECTOR DETAIL

SCALE: 2"=1'-0"

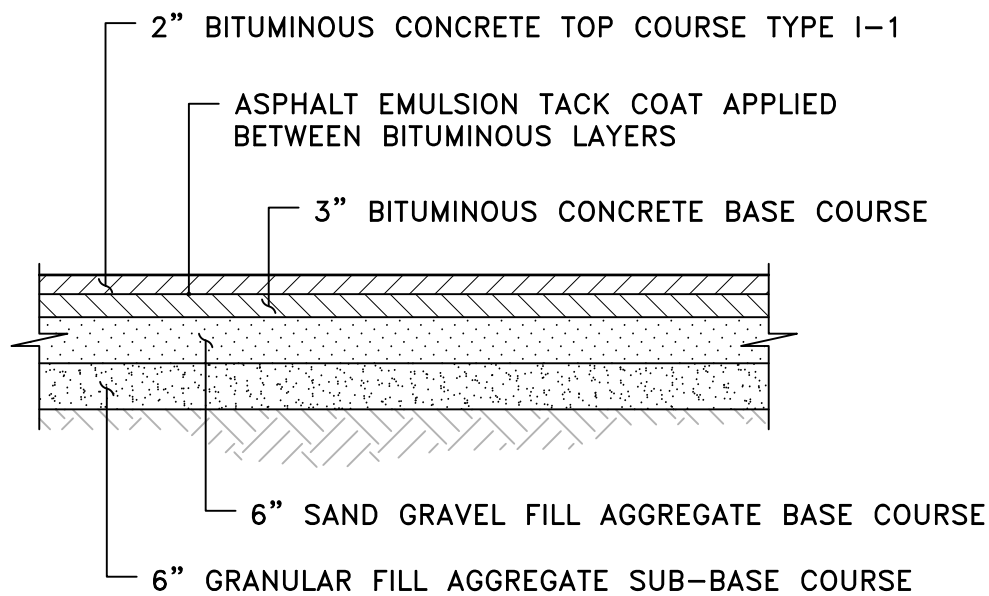


NOTES:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 AND AWS D1.4.
2. EXISTING MATERIAL SHALL BE TESTED FOR WELDABILITY PRIOR TO INSTALLATION OF NEW MATERIAL.
3. PRE-HEAT EXISTING MATERIAL IN ACCORDANCE WITH AWS D1.1.
4. ALL ELECTRODES SHALL BE E60 WHEN WELDING TO EXISTING MATERIAL.

DETERIORATED TIE ROD CONNECTOR SECTION A-A

SCALE: 3"=1'-0"



PAVEMENT SECTION

NOT TO SCALE

REVISIONS:

PROJECT NO.:	17049.00
DATE:	JULY 2017
SCALE:	AS NOTED
DESIGNED BY:	RMM
CHECKED BY:	KWH
DRAWN BY:	LMC
APPROVED BY:	KWH

LEONARD'S WHARF REPAIRS
SECTIONS AND DETAILS

SHEET NO.: