

DESIGN CRITERIA:

1. THE COMPLETED STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE OF THE COMMONWEALTH OF MASSACHUSETTS, AS APPLICABLE.
2. TIDAL DATUM INFORMATION IS TAKEN FROM V-DATUM SOFTWARE, LAT 42.051166, LONG -70.182654, PROVINCETOWN HARBOR, MA, DATED 10/31/2023, PUBLISHED BY THE U.S. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA).

TIDAL STAGE	MLLW DATUM	NAVD88 DATUM
HTL	11.77	6.31
MHHW	10.08	4.62
MHW	9.62	4.16
NAVD88	5.46	0.00
MLW	0.33	-5.13
MLLW	0.00	-5.46

3. TIDAL DATA IS PER NOAA AVERAGES BASED ON THE 1983-2001 TIDAL EPOCH AND NOT GUARANTEED TO REPRESENT CONDITIONS WHICH MAY OCCUR DURING CONSTRUCTION. ACTUAL WATER LEVELS WILL VARY FROM LEVELS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN ESTIMATES OF WATER LEVELS WHICH MAY OCCUR DURING CONSTRUCTION.
4. THE FOLLOWING REFERENCE DOCUMENT WAS USED IN CONJUNCTION WITH THE SITE INFORMATION:

MACMILLAN PIER INSPECTION AND ASSESSMENT, DATED AUGUST 31, 2023, BY FOTH INFRASTRUCTURE & ENVIRONMENT, LLC.
5. THE STRUCTURES HAVE BEEN DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER CONSTRUCTION IS COMPLETE. THE STABILITY OF THE STRUCTURES PRIOR TO COMPLETION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY EXTENDS TO RELATED ASPECTS OF THE CONSTRUCTION ACTIVITY INCLUDING, BUT NOT LIMITED TO, ERECTION METHODS, ERECTION SEQUENCE, CONNECTIONS, TEMPORARY BRACING, FORMS, SHORING, USE OF EQUIPMENT, AND SIMILAR CONSTRUCTION PROCEDURES. REVIEW OF CONSTRUCTION BY THE OWNER AND ENGINEER OF RECORD IS FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS ONLY. LACK OF COMMENT BY THE OWNER AND ENGINEER OF RECORD WITH REGARD TO CONSTRUCTION PROCEDURES SHALL NOT BE INTERPRETED AS APPROVAL OR ACCEPTANCE OF SUCH PROCEDURES.

BATHYMETRIC SURVEY NOTES:

1. PROJECT NAME: MACMILLAN PIER EXITING CONDITIONS
2. PROJECT NUMBER: 0023P167
3. SURVEY DATE: JULY 12, 2023
4. SURVEYOR: M.CAMPAGNONE, J. HILL, M. HARBAUGH
5. VESSEL: OLAF, 200KHZ, ODOM CVM
6. TRANS./FATH.: RTK KEYNET CORRECTIONS
7. WEATHER COND: SUNNY, 85 DEGREES, LIGHT, CALM
8. PROJECT DATUM: MLLW AS NOTED IN DATUM CONVERSION CHART
9. COOR. SYSTEM: NAD-83, MASSACHUSETTS MAINLAND
10. DATA REDUCTION: DATA SORTED 20' MINIMUM.
11. BENCHMARK: NOAA TIDAL BM 6121C DISK IN TOP OF SEAWALL AT MACMILLAN PIER

SITE PLAN NOTES:

1. ELEVATIONS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW) VERTICAL DATUM AND COORDINATES ARE BASED ON NAD 83 STATE PLANE MASSACHUSETTS MAINLAND COORDINATE GRID.
2. ORTHO-IMAGERY AND SCALED DATA IS APPROXIMATE UNLESS OTHERWISE NOTED AND SHOULD BE USED AS A GENERAL REFERENCE ONLY.
3. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES SHOWN, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. INTERPOLATED INFORMATION FROM BETWEEN SOUNDING RUNS IS NOT GUARANTEED. SHOALS, OBSTRUCTIONS OR OTHER DIFFERING CONDITIONS MAY EX. BETWEEN THESE RUNS. CONSULT WITH FOTH FOR MORE DETAILED INFORMATION.
4. POSSESSION AND USE OF THE MATERIAL CONTAINED ON THESE DRAWINGS IS GRANTED ONLY IN CONNECTION WITH ITS USE AS IT RELATES TO THE TITLED PROJECT, ANY OTHER USE, REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED HEREON IS EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF FOTH.

GENERAL CONDITIONS:

1. NO GUARANTEE TO THE ACCURACY OF THE REFERENCE DOCUMENTS IS PROVIDED HEREIN AND THE CONTRACTOR SHALL RELY ON HIS OWN FIELD VERIFICATION FOR ITEMS SO REQUIRED.
2. SECTIONS, DETAILS, NOTES, DIMENSIONS AND CONDITIONS ARE APPLICABLE AT ANY OTHER LOCATION WHERE CONDITIONS AND DETAIL ARE SIMILAR BUT ARE NOT SPECIFICALLY NOTED AS SUCH OR ARE NOT SHOWN.
3. THE CONTRACTOR SHALL PERFORM THE WORK IN A MANNER THAT DOES NOT IMPEDE THE OWNER'S OPERATIONS ON SITE OR THE OWNER'S ON SITE OPERATING EQUIPMENT.
4. THE CONTRACTOR PRIOR TO CONSTRUCTION AND FABRICATION OF CONSTRUCTION MATERIALS SHALL VERIFY EX.ING CONDITIONS AND DIMENSIONS.
5. IF, DURING THE PERFORMANCE OF THE WORK, THE CONTRACTOR FINDS A CONFLICT, ERROR, OR DISCREPANCY IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SO REPORT TO THE ENGINEER OF RECORD IN WRITING AT ONCE. BEFORE PROCEEDING WITH THE WORK AFFECTED THEREBY, THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION OR CLARIFICATION FROM THE ENGINEER OF RECORD. WORK DONE BEFORE THE ENGINEER OF RECORD RENDERS HIS DECISION IS AT THE CONTRACTOR'S SOLE RISK.
6. THE WORK SHALL BE PERFORMED IN A GENERAL SEQUENCE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW, IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE SEQUENCES AND PROCEDURES TO BE USED.

7. THE CONTRACTOR SHALL FURNISH AND COORDINATE PLANT, LABOR, SUPERVISION, MATERIALS, EQUIPMENT AND APPLIANCES FOR DEMOLITION AND/OR CONSTRUCTION WORK IN CONNECTION WITH THE DEMOLITION AND/OR CONSTRUCTION OF THE MARINE FACILITIES.
8. THE OWNER HAS SECURED CERTAIN PERMITS REQUIRED BY FEDERAL, AND STATE AUTHORITIES FOR THE PROPOSED ACTIVITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THE WORK IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE PERMITS. THE CONTRACTOR SHALL POST COPIES OF THE PERMITS AT THE SITE THROUGHOUT THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN PERMITS ASSOCIATED WITH THE LEGAL DISPOSAL OF CONSTRUCTION DEBRIS. THE CONTRACTOR SHALL SECURE REQUIRED LOCAL AUTHORIZATIONS AND PERMITS.
9. SPECIAL INSPECTION REQUIREMENTS PER LOCAL AND/OR STATE BUILDING CODES SHALL BE FULFILLED AND SHALL BE COORDINATED BY THE OWNER. THE CONTRACTOR SHALL INFORM THE OWNER OF THE PROGRESS OF WORK AND PROVIDE ADEQUATE NOTICE AS TO WHEN SPECIAL INSPECTIONS ARE TO OCCUR SUCH AS TO NOT DELAY THE SCHEDULE.
10. THE CONTRACTOR SHALL FURNISH MATERIALS FOR INSTALLATION IN THE COMPLETED WORK AS SPECIFIED HEREINAFTER. THE CONTRACTOR SHALL HANDLE THESE MATERIALS AS THEY ARE DELIVERED TO THE SITE OR OFF-SITE WORK AREAS, AND SHALL STORE THEM IN A DESIGNATED STORAGE AREA.
11. THE CONTRACTOR WILL INDEMNIFY AND SAVE HARMLESS THE OWNER AND ENGINEER OF RECORD FROM AND AGAINST ALL LOSSES AND ALL CLAIMS, DEMANDS, PAYMENTS, SUITS, ACTIONS, RECOVERIES, AND JUDGMENTS OF EVERY NATURE AND DESCRIPTION BROUGHT OR RECOVERED AGAINST THE OWNER AND ENGINEER OF RECORD BY REASON OF ANY ACT OR OMISSION OF THE CONTRACTOR, OR OF ANY SUBCONTRACTOR TO THE CONTRACTOR, OR OF ANY PERSON DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR OR ANY SUCH SUBCONTRACTOR, IN THE PERFORMANCE OF ANY WORK FOR, OR THE RENDERING OF ANY SERVICES TO, THE OWNER.
12. THE CONTRACTOR AGREES THAT, AT ITS OWN COST AND EXPENSE, IT SHALL PROCURE AND CONTINUE IN FORCE; INSURANCE COVERAGE AS REQUIRED BY THE OWNER. SUCH INSURANCE SHALL BE WRITTEN BY A COMPANY OR COMPANIES AUTHORIZED TO ENGAGE IN THE BUSINESS OF GENERAL LIABILITY INSURANCE IN THE STATE IN WHICH THE DEMISED PREMISES ARE LOCATED, AND THERE SHALL BE DELIVERED TO THE OWNER WITH THE BID CUSTOMARY CERTIFICATES EVIDENCING SUCH PAID-UP INSURANCE, WHICH CERTIFICATES ARE TO BE ISSUED BY THE INSURANCE COMPANIES. GOOD AND RESPONSIBLE COMPANIES, REASONABLY ACCEPTABLE TO THE OWNER, SHALL WRITE SUCH INSURANCE.
13. THE OWNER, ENGINEER AND ITS SUB CONSULTANTS SHALL BE ADDED TO THE CONTRACTORS GENERAL LIABILITY INSURANCE POLICY AS ADDITIONAL INSURED ON PRIMARY AND NON-CONTRIBUTORY BASIS. SUBMIT CERTIFICATES OF INSURANCE TO THE ENGINEER AS EVIDENCE OF THIS COVERAGE, PRIOR TO THE START OF WORK.
14. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF LOCATIONS, DIMENSIONS, AND LEVELS AND NO PLEA AS TO INSTRUCTIONS OR ORDER RECEIVED FROM OTHER SOURCES OTHER THAN INFORMATION CONTAINED ON CONTRACT DRAWINGS, SPECIFICATIONS OR IN WRITTEN ORDERS OF THE OWNER OR ENGINEER OF RECORD SHALL JUSTIFY DEPARTURE FROM THE DIMENSIONS AND ELEVATIONS REQUIRED BY THE CONTRACT DRAWINGS.
15. THE CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT THE SITE, VERIFYING THE SAME WITH THE CONTRACT DRAWINGS AND EX.ING FACILITIES, AND WILL BE HELD RESPONSIBLE FOR THE PROPER FIT AND ALIGNMENT OF COMPLETED WORK IN POSITION.
16. THE CONTRACTOR SHALL GUARANTEE TO THE OWNER MATERIALS AND WORKMANSHIP AGAINST ORIGINAL DEFECTS, OR AGAINST INJURY FROM PROPER AND USUAL WEAR WHEN USED FOR THE PURPOSE INTENDED, FOR TWELVE (12) MONTHS AFTER DATE OF FINAL PAYMENT CERTIFICATIONS, AND SHALL MAINTAIN ITEMS IN PERFECT CONDITION DURING THE PERIOD OF GUARANTEE. DEFECTS APPEARING DURING THE PERIOD OF GUARANTEE SHALL BE MADE GOOD BY THE CONTRACTOR AT HIS EXPENSE UPON DEMAND OF THE OWNER, IT BEING REQUIRED THAT WORK SHALL BE IN PERFECT CONDITION WHEN THE PERIOD OF GUARANTEE SHALL HAVE ELAPSED. IN THE EVENT OF DEFAULT BY THE CONTRACTOR, THE OWNER SHALL HAVE THE RIGHT TO MAKE GOOD DEFECTS AND BILL THE CONTRACTOR COST PLUS 15% FOR ADMINISTRATION FEES.
17. AT THE CONTRACTOR'S EXPENSE, THE CONTRACTOR'S WORKING AREAS SHALL BE CLEANED BY HIM ON A DAY-TO-DAY BASIS, WITH RUBBISH REMOVED FROM THE SITE AND WORK AREAS CLEANED AT THE END OF EACH DAY. AT FINAL COMPLETION OF WORK THE CONTRACTOR SHALL LEAVE THE ENTIRE PREMISES, WITHIN THE SITE OF HIS OPERATIONS, CLEAN AND FREE FROM THE RUBBISH RESULTING FROM HIS CONSTRUCTION OPERATIONS.
18. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AND MAINTAIN UTILITIES AS DEEMED NECESSARY TO AFFECT THE WORK.
19. THE CONTRACTOR SHALL PROVIDE FIELD ENGINEERING SERVICES REQUIRED FOR PROPER COMPLETION OF THE WORK INCLUDING, BUT NOT NECESSARILY LIMITED TO: ESTABLISHING AND MAINTAINING LINES AND LEVELS; STRUCTURAL DESIGN OF SHORES, FORMS, AND SIMILAR ITEMS PROVIDED BY THE CONTRACTOR AS PART OF HIS MEANS AND METHODS OF CONSTRUCTION.
20. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AT HIS EXPENSE REQUIRED FIRE PROTECTION SYSTEMS AND DEVICES AS NECESSARY TO SAFELY PERFORM THE WORK IN ACCORD WITH THE APPLICABLE REGULATIONS. IT SHALL BE OPERATIONAL THROUGHOUT THE PERIOD OF CONSTRUCTION.
21. THE OWNER SHALL HAVE THE RIGHT TO WITHHOLD WITHOUT PENALTY PAYMENT DESCRIBED ABOVE, OR SECTIONS REFERENCED HEREIN, FOR COMPLETED WORK SHOULD THE CONTRACTOR FAIL TO MEET OBLIGATIONS OR REQUIREMENTS OF THE CONTRACT. WITHHELD PAYMENT SHALL BE PROMPTLY MADE UPON THE CONTRACTOR'S FULL COMPLIANCE WITH THE CONTRACT.
22. COMPLY WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR PROTECTION OF THE ENVIRONMENT DURING THE WORK. ENSURE THAT PERSONNEL ARE PROPERLY TRAINED AND THAT SUFFICIENT EQUIPMENT AND MATERIALS ARE READILY AVAILABLE FOR USE IF REQUIRED. ABIDE BY STATE AND FEDERAL SPILL REPORTING REQUIREMENTS.
23. THE OWNER RESERVES THE RIGHT TO CHARGE THE CONTRACTOR FOR ADDITIONAL ENGINEERING SERVICES IF REQUIRED DUE TO THE CONTRACTOR'S ACTIONS OR INACTIONS.

24. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF HIS OPERATIONS. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY, OR LOSS TO PERSONS EMPLOYED BY THE CONTRACTOR IN PERFORMANCE OF THE WORK, AND PERSONS NEARBY THAT MAY BE AFFECTED BY THE CONTRACTOR'S OPERATIONS OR THE WORK, INCLUDING EQUIPMENT AND MATERIALS WHICH WILL BE INCORPORATED IN THE WORK, AND OTHER PROPERTIES AND STRUCTURES AT THE SITE, OR ON ADJACENT PROPERTIES.
25. OBSTRUCTIONS ARE DEFINED AS UNFORESEEN OBJECTS, WHICH IMPEDE PROGRESS. OBJECTS, WHICH ARE MADE KNOWN TO THE CONTRACTOR, WILL NOT BE CONSIDERED TO BE OBSTRUCTIONS. NOTIFY THE ENGINEER OF RECORD IMMEDIATELY UPON ENCOUNTERING OBSTRUCTIONS. NO CONSIDERATION WILL BE GIVEN FOR ADDITIONAL COMPENSATION ON THIS ACCOUNT WITHOUT THIS TIMELY NOTIFICATION.
26. SUBSTITUTIONS MAY BE FURNISHED FOR MATERIALS SPECIFIED HEREIN PROVIDED THE CONTRACTOR SECURES ACCEPTANCE FROM THE ENGINEER OF RECORD.

SELECTIVE DEMOLITION & DISPOSAL:

1. SELECTIVE DEMOLITION AND DISPOSAL SHALL BE PERFORMED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL PERMIT AND BUILDING CODE REQUIREMENTS.
2. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THOSE STRUCTURES AND DERELICT COMPONENTS AS INDICATED ON THE DRAWINGS.
3. SELECTIVE DEMOLITION INCLUDES BUT IS NOT LIMITED TO REMOVAL AND REUSE (WHERE POSSIBLE) OF EX.ING MATERIALS, UTILITIES, AND OTHER COMPONENTS ESSENTIAL FOR A COMPLETE PROJECT.
4. THE CONTRACTOR SHALL TAKE REASONABLE CARE IN REMOVING ELEMENTS SELECTED TO BE DEMOLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. DAMAGE OR DESTRUCTION BY THE CONTRACTOR TO EX.ING ELEMENTS DESIGNATED TO REMAIN SHALL BE REPAIRED OR REPLACED IN-KIND AT THE DISCRETION OF THE OWNER AT NO ADDITIONAL COST.
5. ITEMS TO BE REMOVED AND REUSED SHALL BE PLACED IN A STAGING AREA ACCESSIBLE FOR INSPECTION BY THE OWNER AND/OR ENGINEER.
6. PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION, THE CONTRACTOR SHALL SUBMIT A DISPOSAL PLAN FOR ITEMS TO BE DEMOLISHED. DEMOLITION MATERIAL DESIGNATED BY THE OWNER TO BE REMOVED FROM THE SITE SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE DEBRIS DISPOSAL PLAN SHALL ACKNOWLEDGE THIS OWNERSHIP AND SHALL IDENTIFY THE MEANS AND METHODS AND FINAL DISPOSITION FOR DISPOSAL MATERIALS.
7. PRIOR TO COMMENCEMENT OF DEMOLITION, THE CONTRACTOR SHALL CLEARLY MARK THE LIMITS OF THE DEMOLITION FOR REVIEW AND APPROVAL BY THE OWNER AND ENGINEER.
8. COMPLETELY REMOVE ITEMS DESIGNATED LEAVING SURFACES CLEAN, SOUND, AND READY TO RECEIVE MATERIALS AS SPECIFIED IN THE CONTRACT DOCUMENTS.
9. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING THE COURSE OF DEMOLITION.
10. THE CONTRACTOR SHALL SUBMIT A DISPOSAL CERTIFICATE TO THE OWNER'S REPRESENTATIVE CERTIFYING LEGAL AND PROPER DISPOSAL.

TEMPORARY WORK:

1. LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PERFORM THE WORK THAT, UPON COMPLETION, ARE NOT A PART OF THE WORK, SHALL BE FURNISHED, INSTALLED, AND SUBSEQUENTLY REMOVED FROM THE SITE BY THE CONTRACTOR.
2. TEMPORARY WORK SHALL BE SUBJECT TO THE REQUIREMENTS OF THE STATE AND APPLICABLE LOCAL BUILDING CODES.
3. DURING EXECUTION OF THE WORK, THE CONTRACTOR IS REQUIRED TO INSTALL AND MAINTAIN REQUIRED SEDIMENTATION AND EROSION CONTROL MEASURES TO PROTECT ADJACENT WATERWAYS, STREETS, AND PROPERTIES. MEASURES WHICH MAY INCLUDE BUT NOT BE LIMITED TO TEMPORARY BERMS, HAY BALES, SILT FENCES, CONTAINMENT BOOMS, AND TURBIDITY CURTAINS. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN TEMPORARY CONTROLS DURING CONSTRUCTION. TEMPORARY MATERIALS AND EQUIPMENT SHALL CONFORM TO REQUIREMENTS FOR TEMPORARY WORK.
4. LOAD RATING FOR EQUIPMENT AND/OR VEHICLES SHALL NOT EXCEED PIER LOAD LIMIT OF HS20.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL COMPLY WITH THE "STEEL CONSTRUCTION MANUAL", FIFTEENTH EDITION, PUBLISHED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
2. WELDING SHALL CONFORM TO THE "STRUCTURAL WELDING CODE - STEEL", AS ADOPTED BY THE AMERICAN WELDING SOCIETY (AWS D1.1). A WELDER CERTIFIED IN ACCORDANCE WITH AWS STANDARDS SHALL PERFORM WELDING.
3. WELDING ELECTRODES SHALL BE E70XX AND COMPLY WITH AWS A5.1 AND AWS A5.5.
4. STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A 572, GRADE 50. STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE C. STEEL PLATES SHALL CONFORM TO ASTM A572 Fy = 50 KSI.
5. STRUCTURAL STEEL MEMBERS FOR THE LADDERS SHALL BE HOT DIPPED GALVANIZED.
6. WELDING SHALL CONFORM TO THE "STRUCTURAL WELDING CODE - STEEL", AS ADOPTED BY THE AMERICAN WELDING SOCIETY (AWS D1.1). A WELDER CERTIFIED IN ACCORDANCE WITH AWS STANDARDS SHALL PERFORM WELDING. WELDING ELECTRODES SHALL BE E70XX AND COMPLY WITH AWS A5.1 AND AWS. CONTRACTOR TO SUBMIT A WELDING PROCEDURE SPECIFICATION (WPS) AND PROPOSED ELECTRODE FOR ENGINEER REVIEW AND APPROVAL WITHIN 48 HOUR PRIOR TO COMMENCEMENT OF WELDING OPERATIONS.

7. STEEL HARDWARE:
ANCHOR BOLTS: ASTM F 1554 Gr. 36
TIMBER BOLTS: A307 HDG
NUTS: ASTM A563
WASHERS: ASTM F436

8. GALVANIZING SHALL CONFORM TO ASTM A 123 OR ASTM A 153, AS APPLICABLE.

TIMBER:

1. VISUALLY GRADED STRUCTURAL LUMBER AND WOOD CONSTRUCTION SHALL CONFORM TO ASTM D245-06 STANDARD PRACTICE FOR ESTABLISHING STRUCTURAL GRADES AND RELATED ALLOWABLE PROPERTIES FOR VISUALLY GRADED LUMBER.
2. MECHANICAL STRENGTH OF TIMBER SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D4761-16.
3. TIMBER BLOCKS, WALES, BRACING AND ALL OTHER TIMBER FRAMING SHALL BE PRESERVATIVE PRESSURE TREATED WITH A MINIMUM CCA CONTENT OF 2.5 PCF.
4. HARDWARE USED TO CONNECT CCA TREATED TIMBER, INCLUDING BOLTS, NUTS AND WASHERS, ETC., SHALL BE HOT DIP GALVANIZED STEEL CONFORMING TO ASTM A307 GRADE A. GALVANIZING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A153.
5. HARDWARE AND FASTENERS USED TO CONNECT ACQ TREATED TIMBER INCLUDING BOLTS, NUTS AND WASHERS, ETC., SHALL BE GRADE 316 STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF THE RESPECTIVE ASTM STANDARD. HARDWARE SHALL PROVIDE A FLUSH FINISH WHERE APPLICABLE.

PILES - TIMBER:

1. TIMBER PILES SHALL HAVE A MINIMUM BUTT DIAMETER OF 12 INCHES, MINIMUM TIP DIAMETER OF 8 INCHES (12-3-8), CLASS B PILE. MATERIAL, TAPER, STRAIGHTNESS, AND ALLOWABLE DEFECTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-25.
2. TIMBER PILES SHALL BE FREE FROM DEFECTS THAT MAY IMPAIR STRENGTH, DURABILITY OR DERIVABILITY; UT FROM SOLID, SOUND LINE, CLOSED GRAINED TREES, FREE FORM INJURIOUS RINGS AND LARGE UNSOUND KNOTS OR DECAY. USE TREES THAT HAVE A UNIFORM STRAIGHT TAPER FORM BUTT TO TIP.
3. HANDLE TIMBER PIELS CAREFULLY, WITHOUT SUDDEN DROPPING, BREAKING OF OUTER FIBERS, BRUISING OR PENETRATING THE SURFACE WITH TOOLS.

PILE DRIVING:

1. DRIVE PILES WITH AN AIR OR DIESEL OPERATED HAMMER WITH SUFFICIENT ENERGY AND ENERGY TRANSFER CHARACTERISTICS TO DRIVE THE PILES TO THE REQUIRED CAPACITY AND TOE ELEVATIONS WITHOUT DAMAGING THE PILE HEAD. USE CAUTION NOT TO DAMAGE THE PILES BY OVER DRIVING AS WOULD BE INDICATED BY REBOUND OF HAMMER OR STAGGERING OF PILE. CUT OFF HEADS OF PILES ACCURATELY IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AFTER COMPLETION OF DRIVING.
2. DRIVE THE PILES STRAIGHT AND TRUE AT INDICATED LOCATIONS, WITH DEVIATION FROM THE LONGITUDINAL AXIS OF NOT MORE THAN 1/4 INCH PER FOOT.
3. LOCATE THE PILES WITHIN 3 INCHES OF THE POSITIONS INDICATED ON THE DRAWINGS.
4. CONTINUOUSLY DRIVE EACH PILE TO REACH THE CAPACITY AND/OR FULL EMBEDDED LENGTH CALLED FOR ON THE DRAWINGS.
5. WITHDRAW PILES THAT ENCOUNTER UNDERGROUND OBSTRUCTIONS SUFFICIENT TO IMPEDE PILE DRIVING. REDRIVE AS CLOSE AS POSSIBLE TO ORIGINAL POSITION, SUBJECT TO REVIEW BY THE ENGINEER AND OWNER. REMOVE PILES WHICH SPLIT, BROOM, BREAK OR DRIVE OUT OF LINE. DRIVE ANOTHER PILE IN ITS PLACE. PROVIDE AND MAINTAIN NECESSARY LIGHTING AND BARRIERS TO ADEQUATELY ASSURE PUBLIC SAFETY. PROVIDE ADEQUATE SAFEGUARDS TO PROTECT FROM DAMAGE IMPROVEMENTS ON THE WORK SITE AND ON ADJACENT PROPERTIES.
6. LENGTHS SHOWN ON THE DRAWINGS ARE CONSIDERED AVERAGE VALUES, AND THE ACTUAL LENGTHS MAY VARY WHEN SO ACCEPTED BY THE ENGINEER OF RECORD.
7. PROVIDE DRIVING RESISTANCE PENETRATION AND REFUSAL VALUES AS ACCEPTED BY THE ENGINEER OF RECORD.
8. USE SUITABLE CUSHIONS OR DRIVING HEADS TO AVOID DAMAGE TO THE PILES, DEVELOPING PROPER TOTAL DRIVING ENERGY, AND DIRECTING THE ENERGY ALONG THE LONGITUDINAL CENTER OF GRAVITY OF THE PILE.
9. DRIVE PILES TO THEIR FULL PENETRATION WITHOUT BENDING, RUPTURING, OR SEVERELY DAMAGING THE PILES. IF FAILURE IN THE ABOVE RESPECTS IS ENCOUNTERED, PULL THE PILE AND DRIVE A NEW PILE AT NO ADDITIONAL COST TO THE OWNER. IF A REPLACEMENT PILE FAILS TO DEVELOP FULL DRIVING RESISTANCE, PULL THE REPLACEMENT PILE AND DRIVE A NEW PILE WITH LARGER DIAMETER AT NO ADDITIONAL COST TO THE OWNER.
10. JETTING TO ASSIST PENETRATION WILL NOT BE PERMITTED UNLESS ACCEPTED BY THE ENGINEER OF RECORD. PRE-DRILLING WILL NOT BE PERMITTED UNLESS ACCEPTED BY THE ENGINEER OF RECORD, WHEREBY ACCEPTED PRE-DRILLING TO ASSIST PENETRATION MAY BE USED WHERE EXTREME DRIVING RESISTANCE IS ENCOUNTERED, OR WHERE VIBRATIONS FROM DRIVING MAY BE DETRIMENTAL TO ADJACENT STRUCTURES.
11. WHERE PILES ARE PUSHED UP BY PRESSURE FROM DRIVING OF ADJACENT PILES, RE-DRIVE AS REQUIRED AND AT NO ADDITIONAL COST TO THE OWNER.
12. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A COMPLETE DRIVING RECORD WITH THE DATE OF FINAL INSTALLATION AND TIP ELEVATIONS. THIS RECORD SHALL BE SUBMITTED WEEKLY AND SIGNED BY A REPRESENTATIVE OF THE CONTRACTOR. THE CONTRACTOR SHALL KEEP AN ACCURATE SET OF PILE RECORDS INDICATING PILE NUMBER, PILE TYPE AND INSTALLED LENGTH, TYPE OF HAMMER AND RATED ENERGY, DATE OF INSTALLATION, FINAL TIP ELEVATION, AND CONTRACTOR'S REPRESENTATIVE NAME AND SIGNATURE.
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TOWN OF PROVINCETOWN
MACMILLAN PIER, PROVINCETOWN, MA
SAFETY UPGRADES & PIER REPAIRS

NO.	DATE	DESCRIPTION
1	4/30/26	HDG LAIDER
2		
3		
4		

DATE OF PREPARATION		
SURVEYED	BY	DATE
DRAWN	MGB/SCC	12/2/25
DESIGNED	MGB/JSG	10/30/25
CHECKED	JSG	2/10/26

SHEET TITLE:

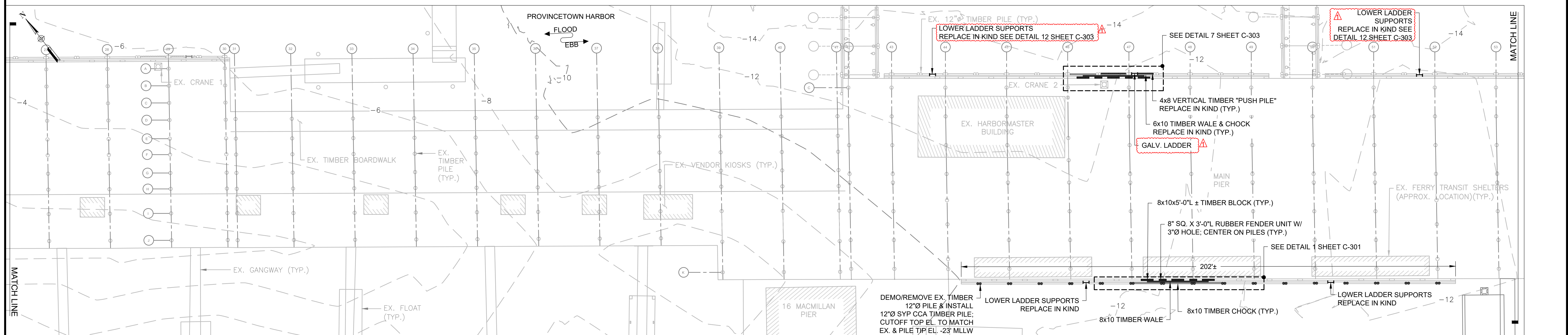
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ISSUANCE:
ISSUED FOR BID

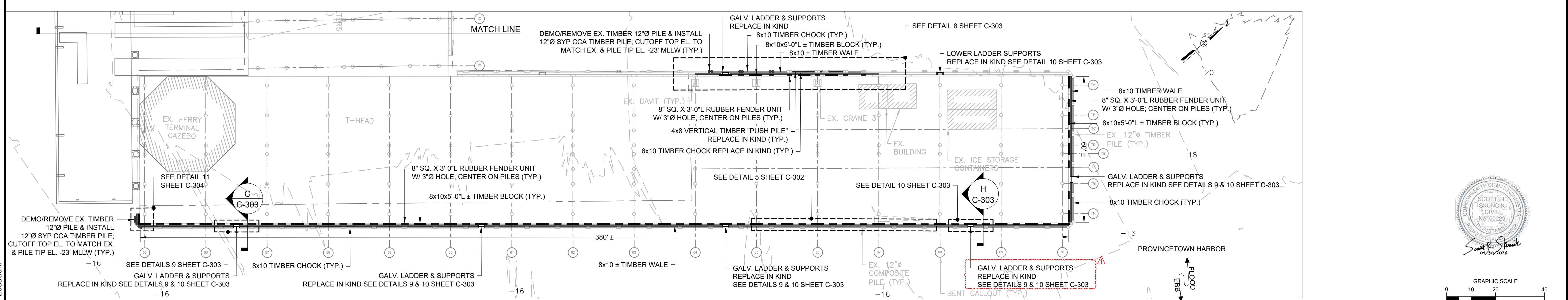
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SHEET NUMBER: G-002



1 APPROACH PIER (BENTS 1 TO 27)
 C-101 SCALE: 1" = 20'



2 APPROACH PIER & MAIN PIER (BENTS 27 TO 54)
 C-101 SCALE: 1" = 20'



3 T-HEAD & MAIN PIER (BENTS 55 TO 70)
 C-101 SCALE: 1" = 20'

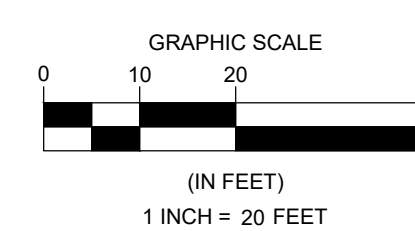
REVISIONS	
NO.	DESCRIPTION
1	H-DG LADDER

DATE OF PREPARATION		
BY	DATE	DATE
AS NOTED	AS NOTED	AS NOTED
12/2/25	10/30/25	2/10/26

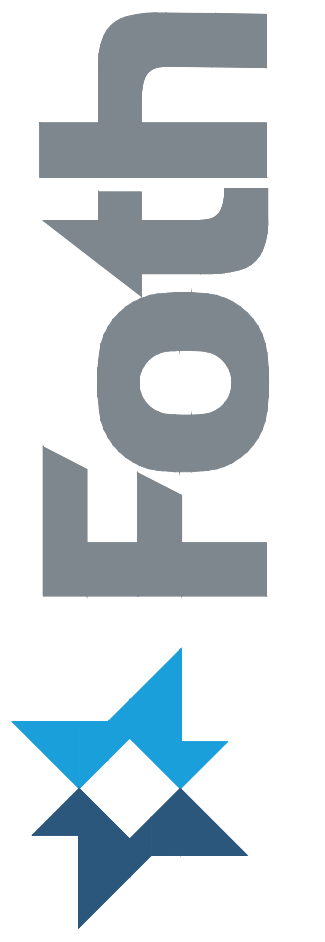
SHEET TITLE:
SITE PLAN

ISSUANCE:
ISSUED FOR BID

PROJECT NO: 24P125
 SHEET NUMBER
C-101

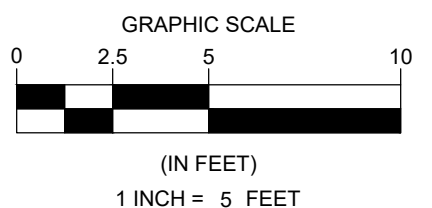
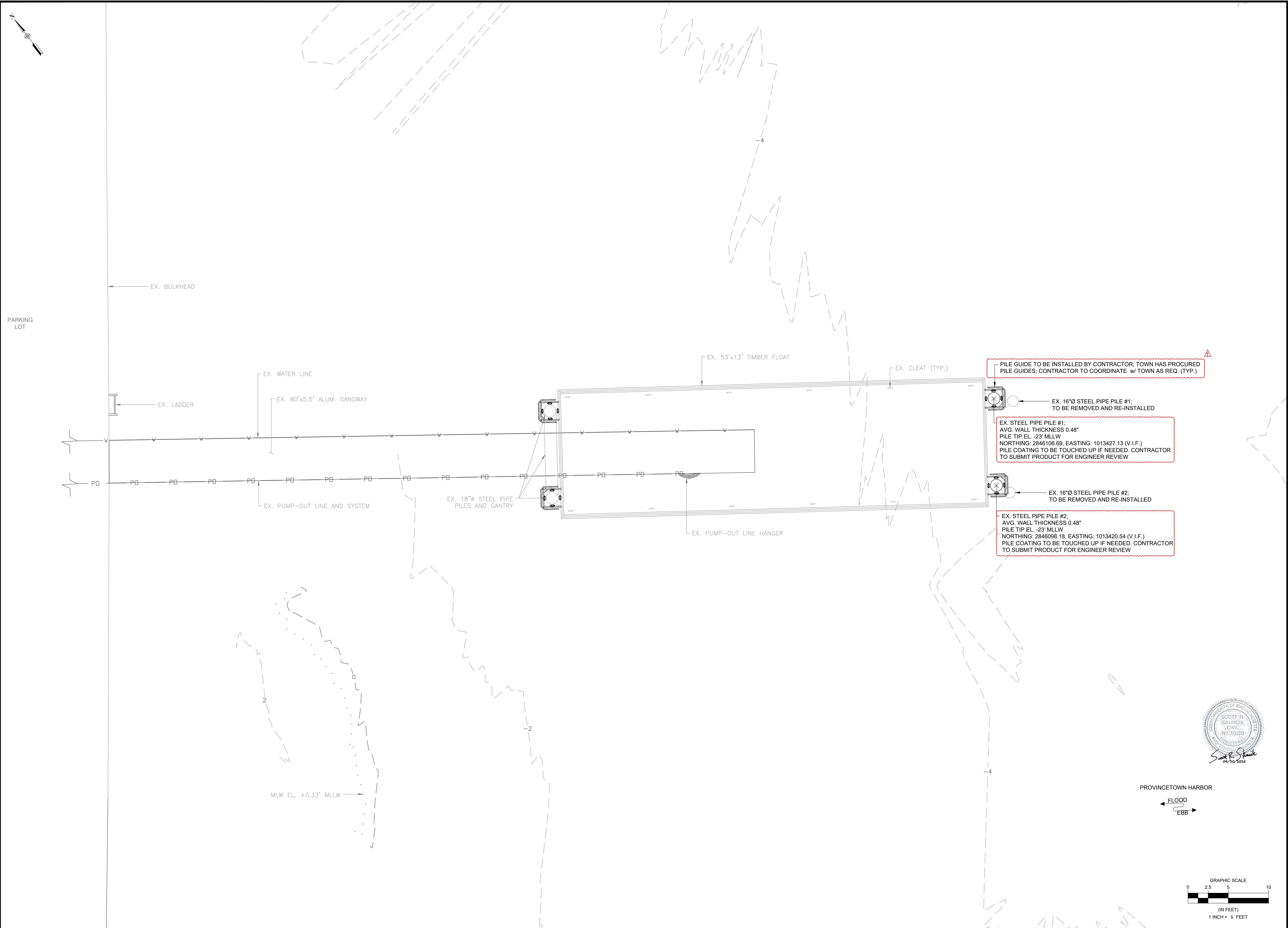


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TOWN OF PROVINCETOWN
MACMILLAN PIER, PROVINCETOWN, MA

SAFETY UPGRADES & PIER REPAIRS

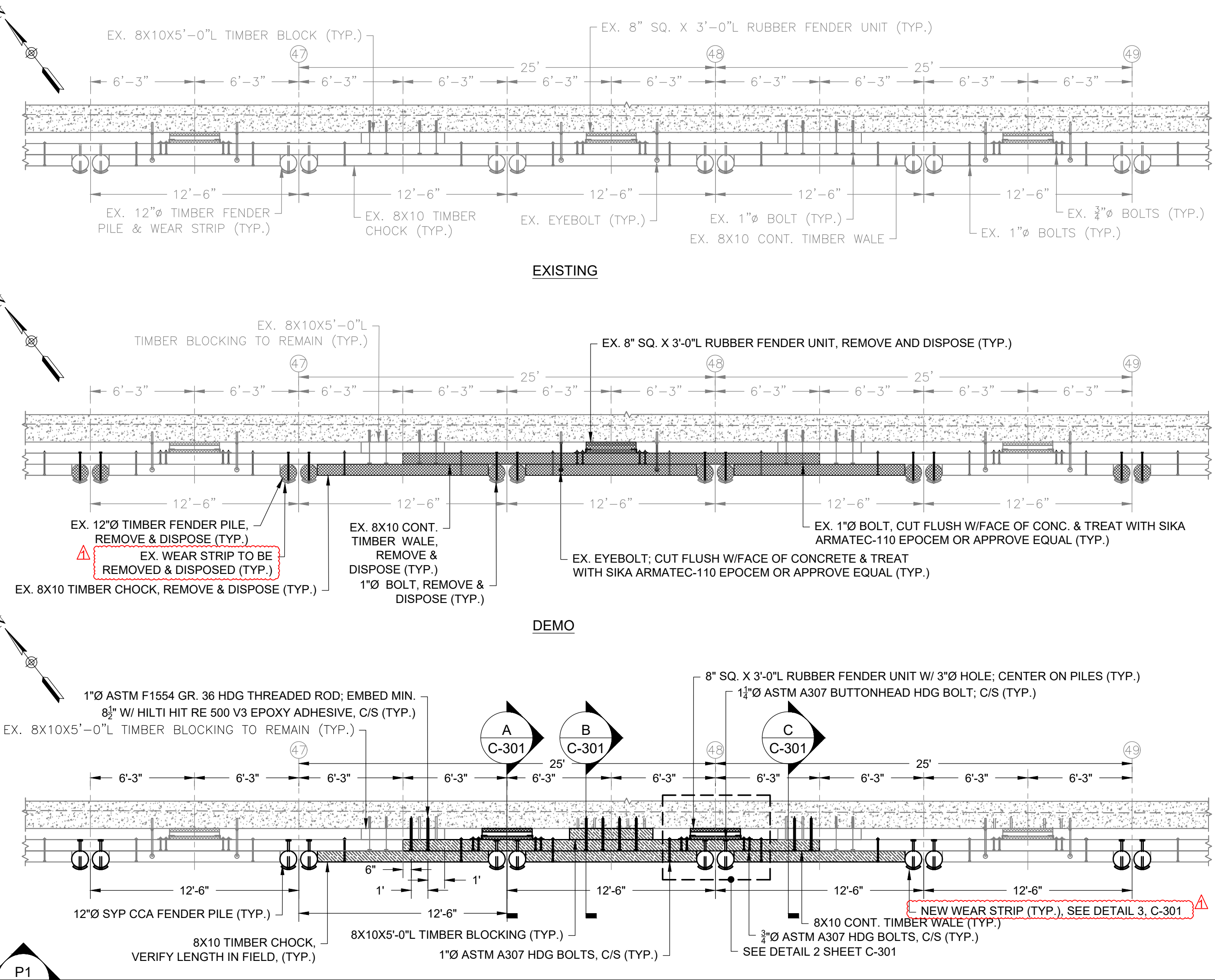


REVISIONS	
NO.	DESCRIPTION
1	PILE GUIDES & PILE THICKNESS
2	
3	
4	
5	

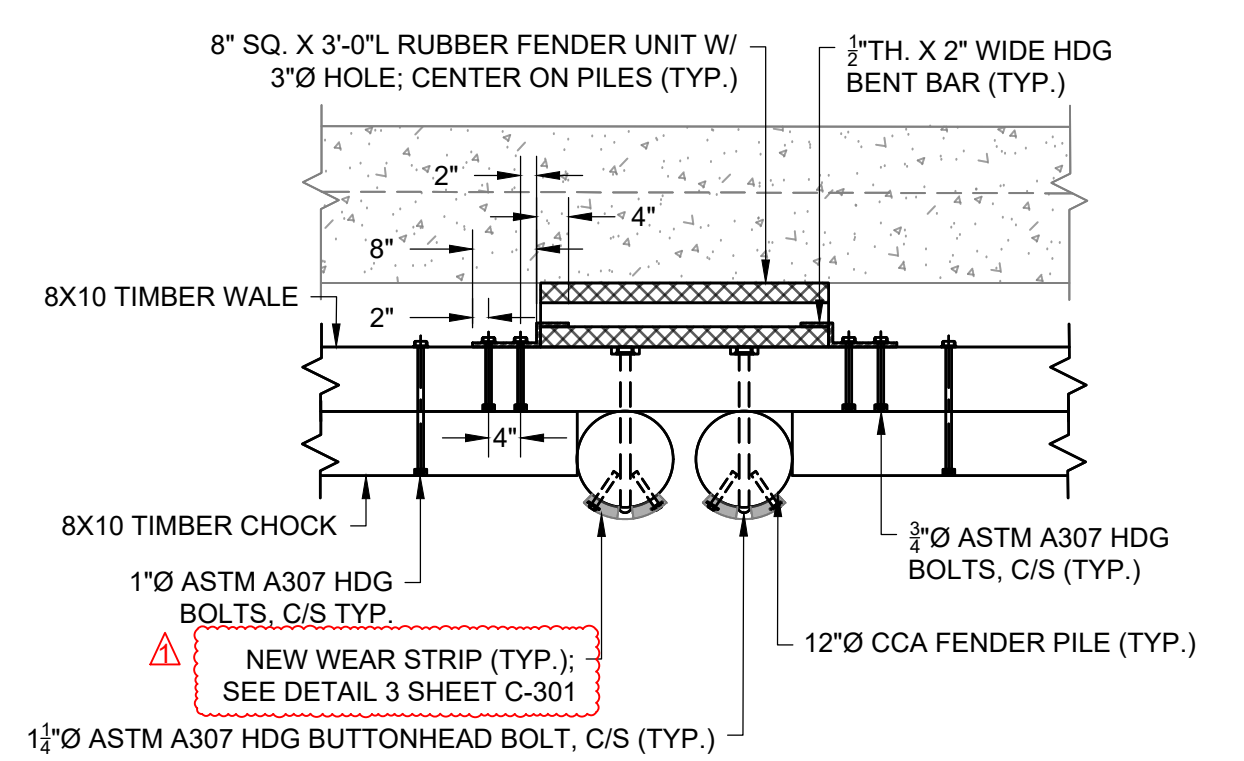
DATE OF PREPARATION		
BY	DATE	
MGB	4/30/26	

SHEET TITLE:		
COURTESY FLOAT REPOSITIONING SITE PLAN		

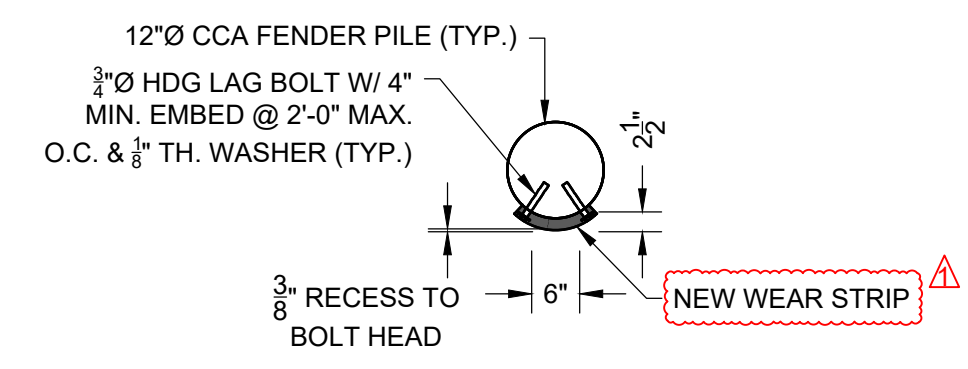
ISSUANCE:		
ISSUED FOR BID		
PROJECT NO:	24P125	
SHEET NUMBER	C-102	



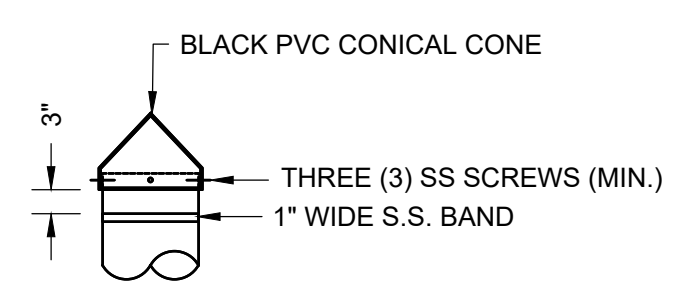
1 TIMBER FENDER SYSTEM DETAILS
SCALE: 1" = 5'



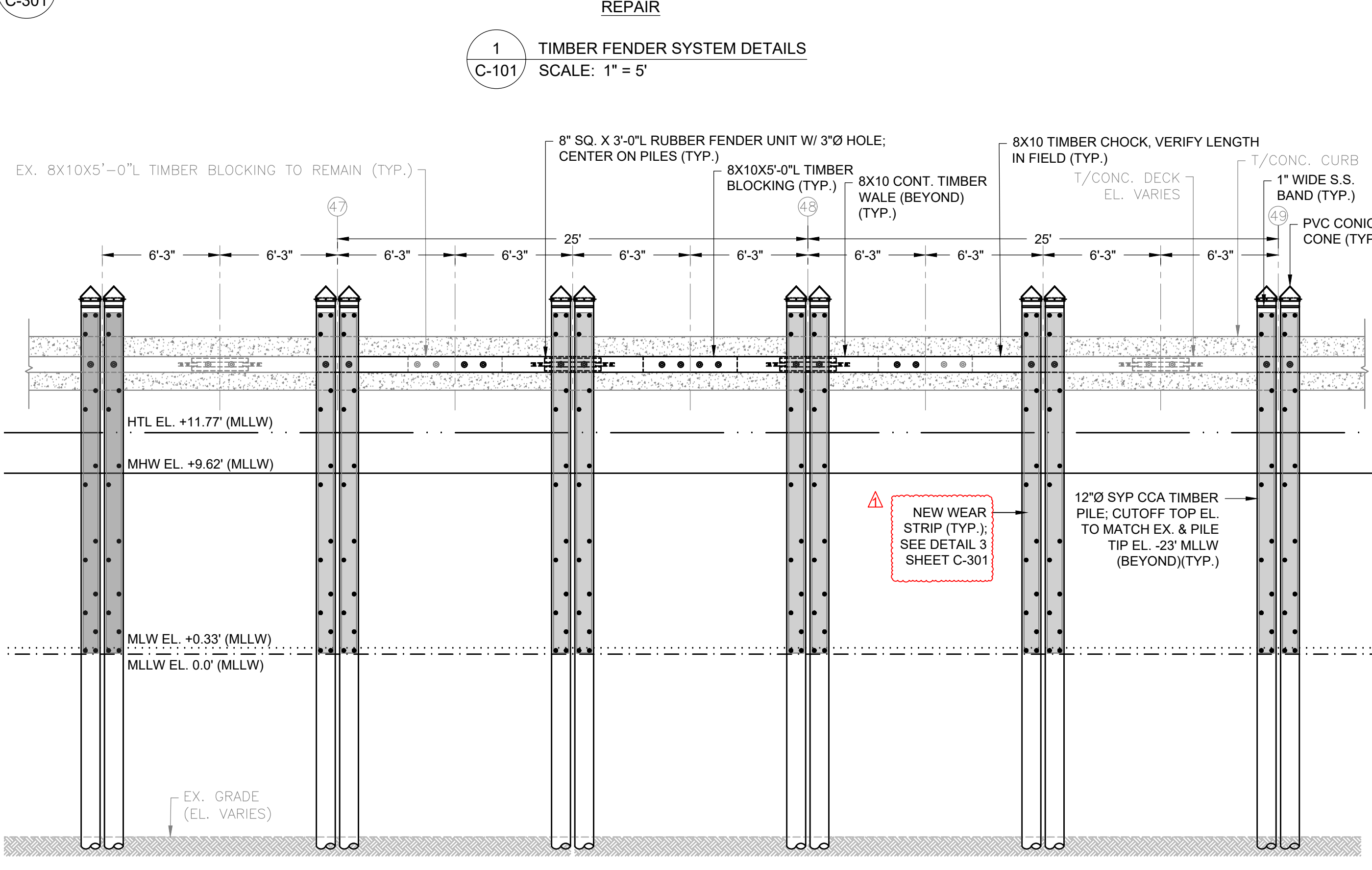
2 TYPICAL RUBBER FENDER UNIT INSTALLATION DETAIL
SCALE: 1" = 2'



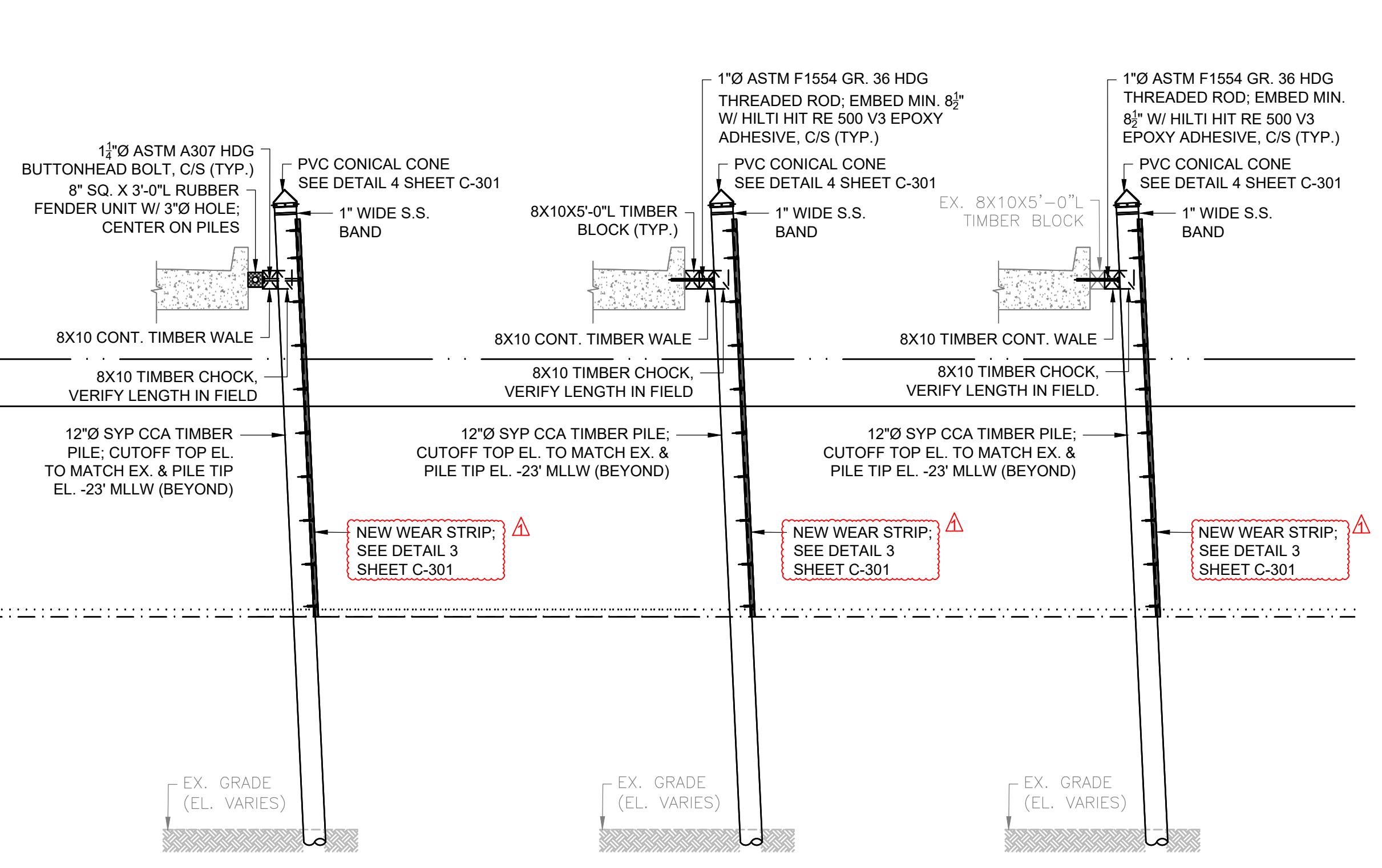
3 TYPICAL UHMW WEAR STRIP ATTACHMENT DETAIL
SCALE: 1" = 2'



4 TYPICAL PILE CONE DETAIL
SCALE: 1" = 2'



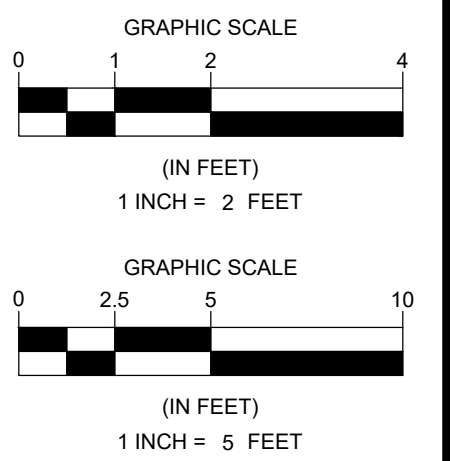
P1 TIMBER FENDER SYSTEM REPAIR PROFILE
SCALE: 1" = 5'



A FENDER SYSTEM REPAIR SECTION
SCALE: 1" = 5'

B FENDER SYSTEM REPAIR SECTION
SCALE: 1" = 5'

C FENDER SYSTEM REPAIR SECTION
SCALE: 1" = 5'



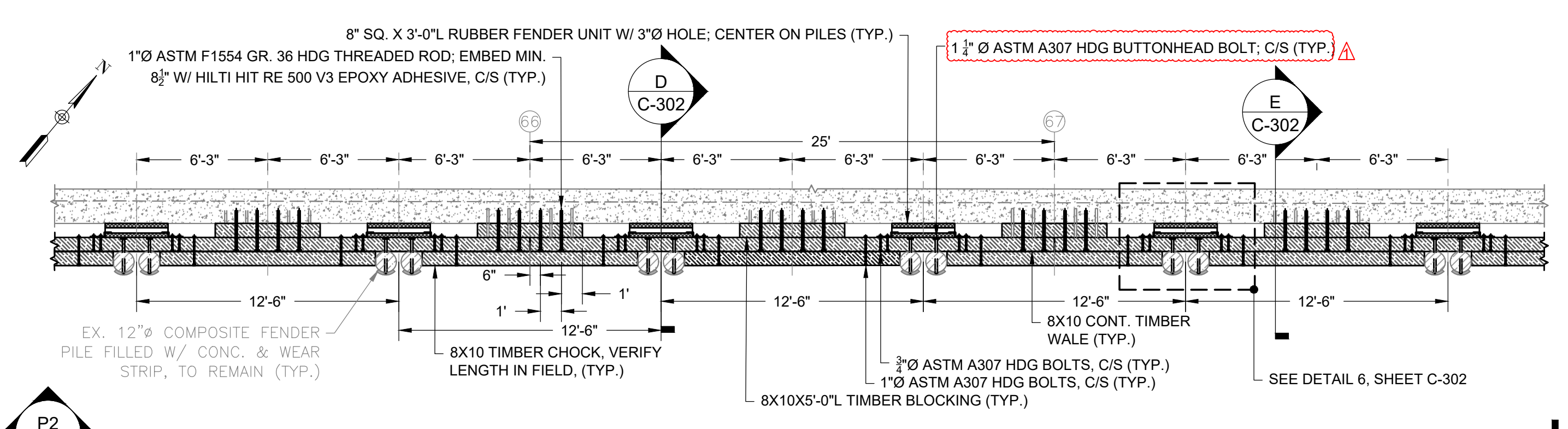
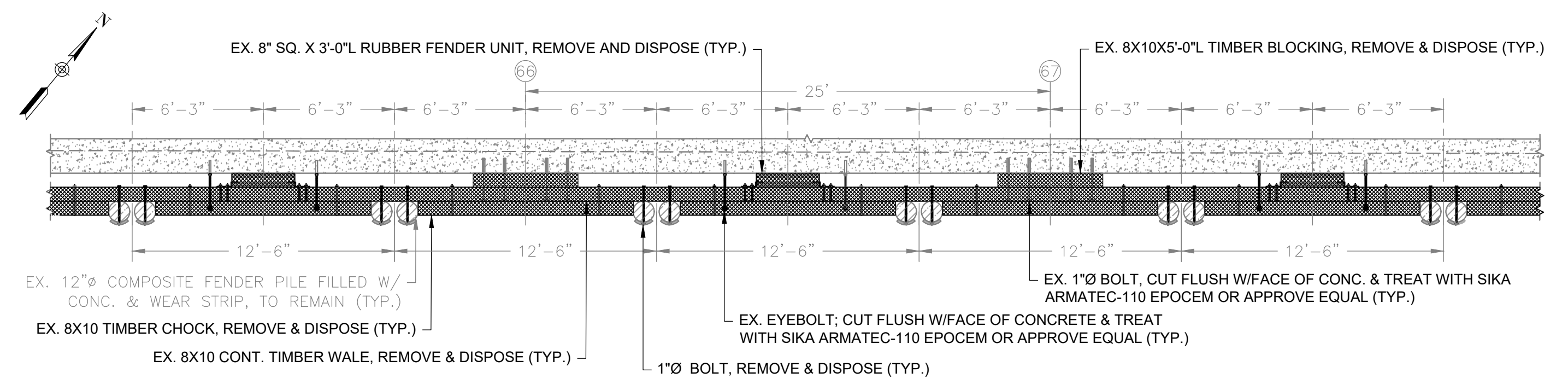
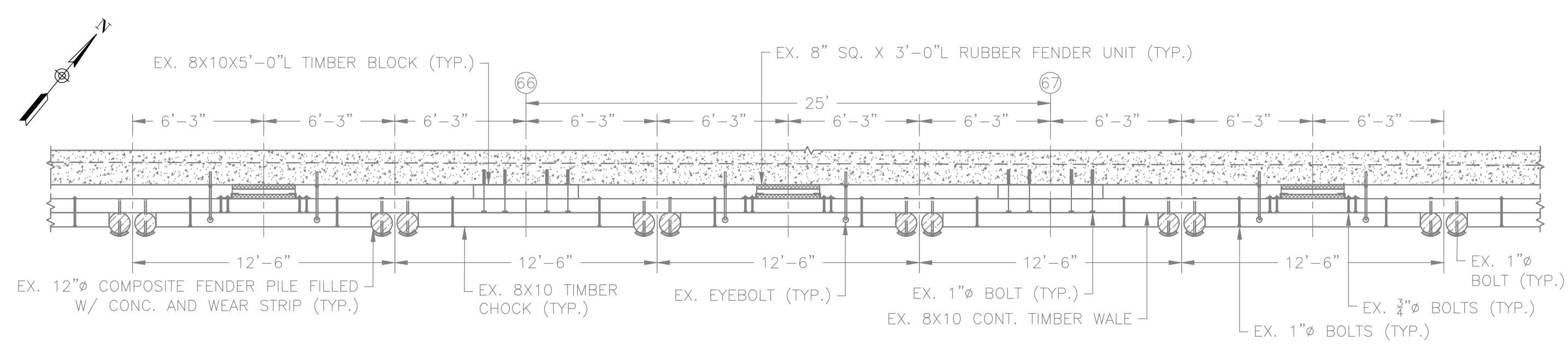
NO.	DATE	DESCRIPTION
1	4/30/26	WEAR STRIPS

DATE OF PREPARATION		
BY	DATE	DATE
SURVEYED	AS NOTED	AS NOTED
DRAWN	MBG/SCC	12/2/25
DESIGNED	MBG/JSG	10/30/25
CHECKED	JSG	2/10/26

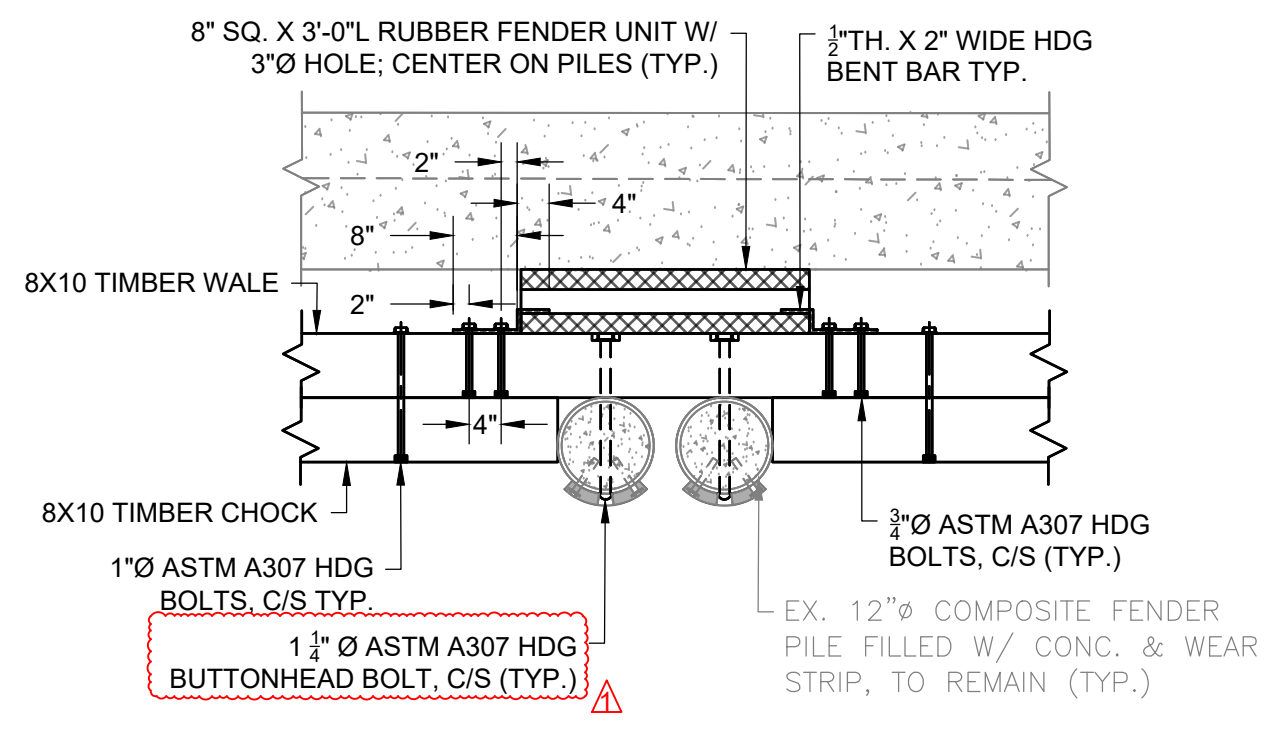
SECTIONS, DETAILS, & PROFILES
1 OF 4

ISSUED FOR BID

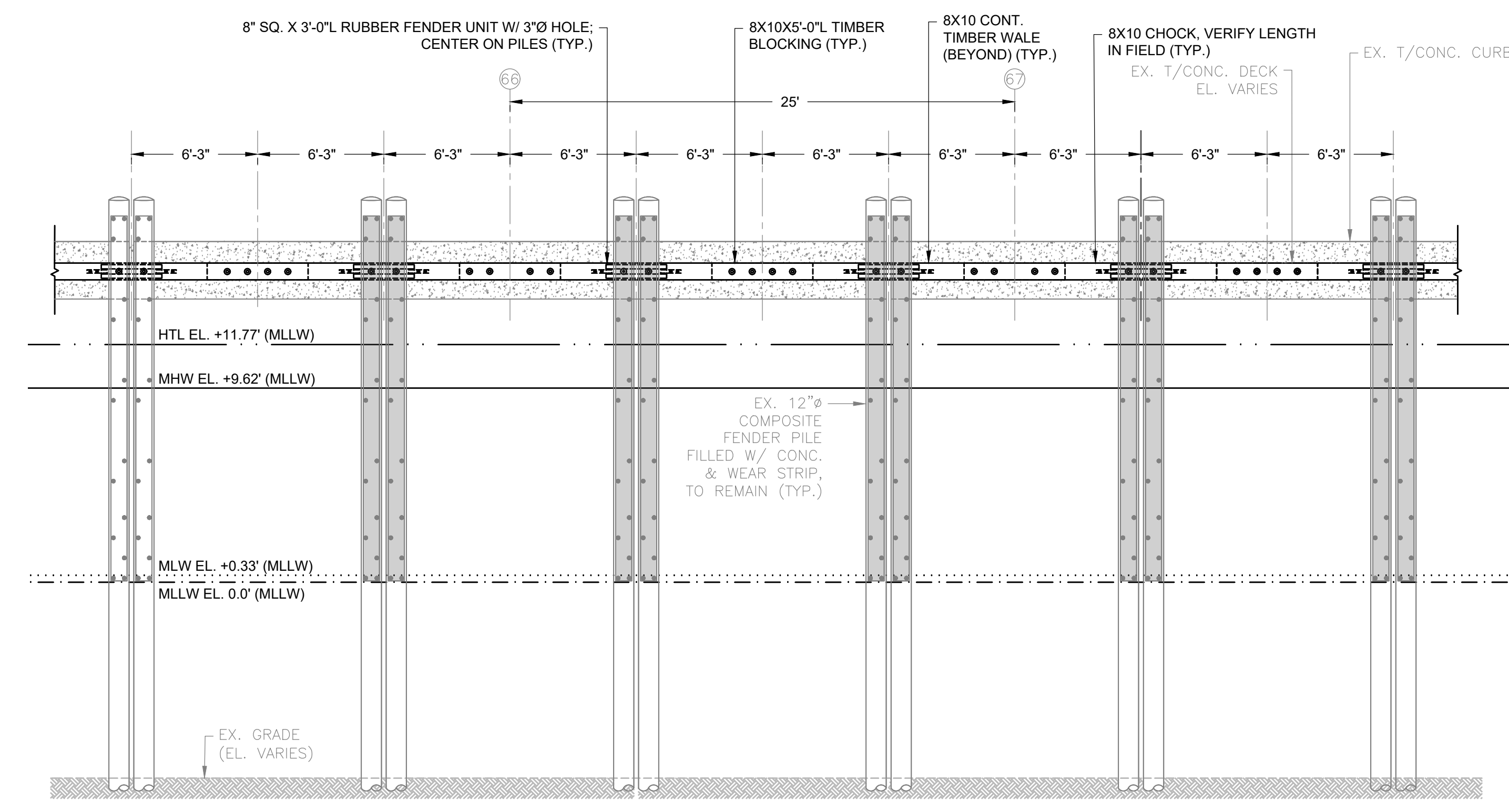
PROJECT NO: 24P125
SHEET NUMBER
C-301



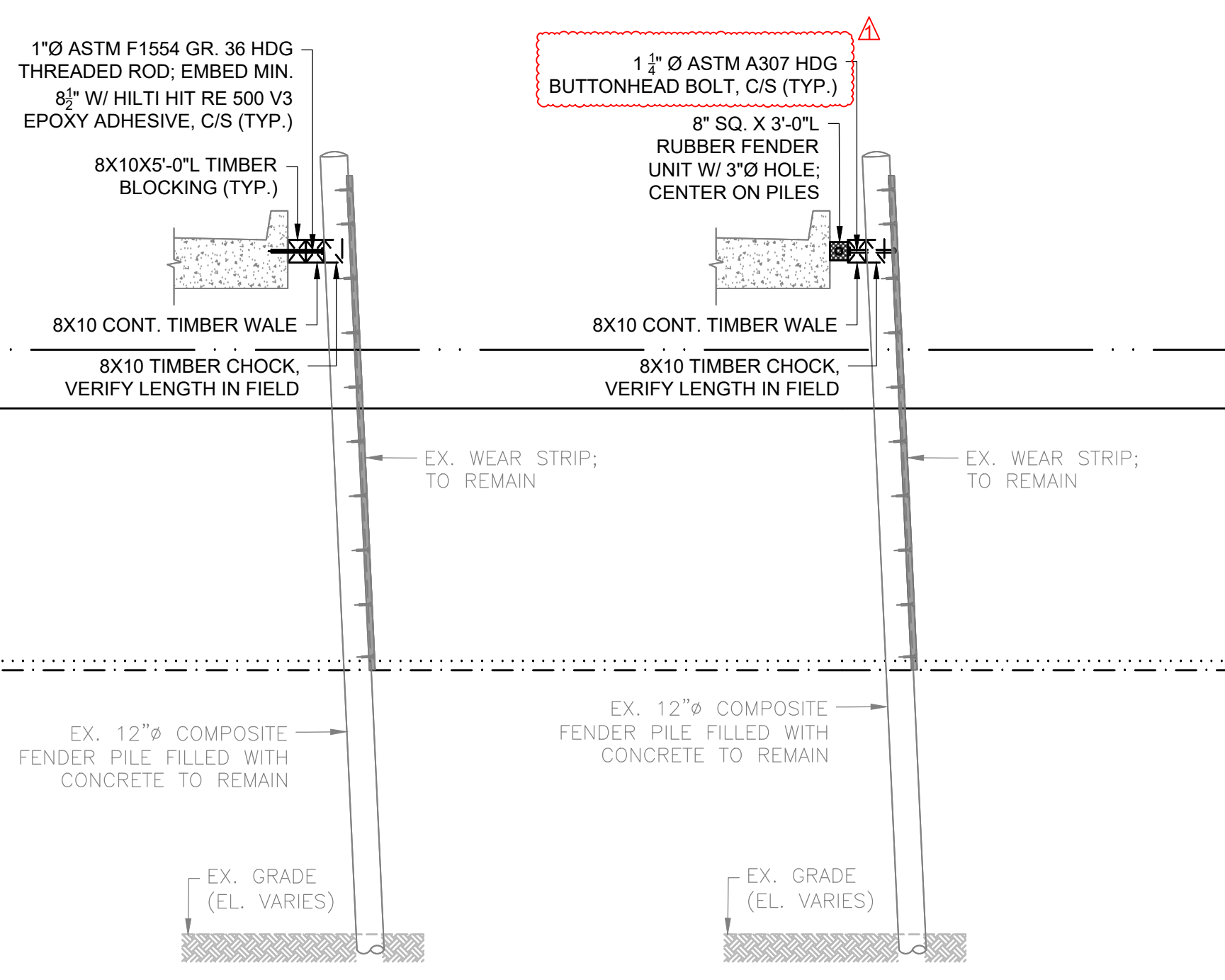
5 COMPOSITE FENDER SYSTEM DETAILS
C-101 SCALE: 1" = 5'



6 TYPICAL RUBBER FENDER UNIT INSTALLATION DETAIL
SCALE: 1" = 2'

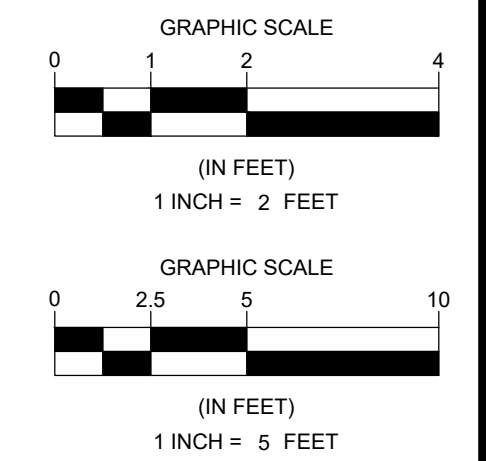


P2 COMPOSITE FENDER SYSTEM REPAIR PROFILE
C-302 SCALE: 1" = 5'



D FENDER SYSTEM REPAIR SECTION
C-302 SCALE: 1" = 5'

E FENDER SYSTEM REPAIR SECTION
C-302 SCALE: 1" = 5'



REVISIONS	
NO.	DESCRIPTION
1	1" DIA. BOLTS C/S

DATE	BY	DATE
4/30/26	MGB	

DATE OF PREPARATION		
SURVEYED	AS NOTED	AS NOTED
DRAWN	MGB/SCC	12/2/25
DESIGNED	MGB/JSG	10/30/25
CHECKED	JSG	2/10/26

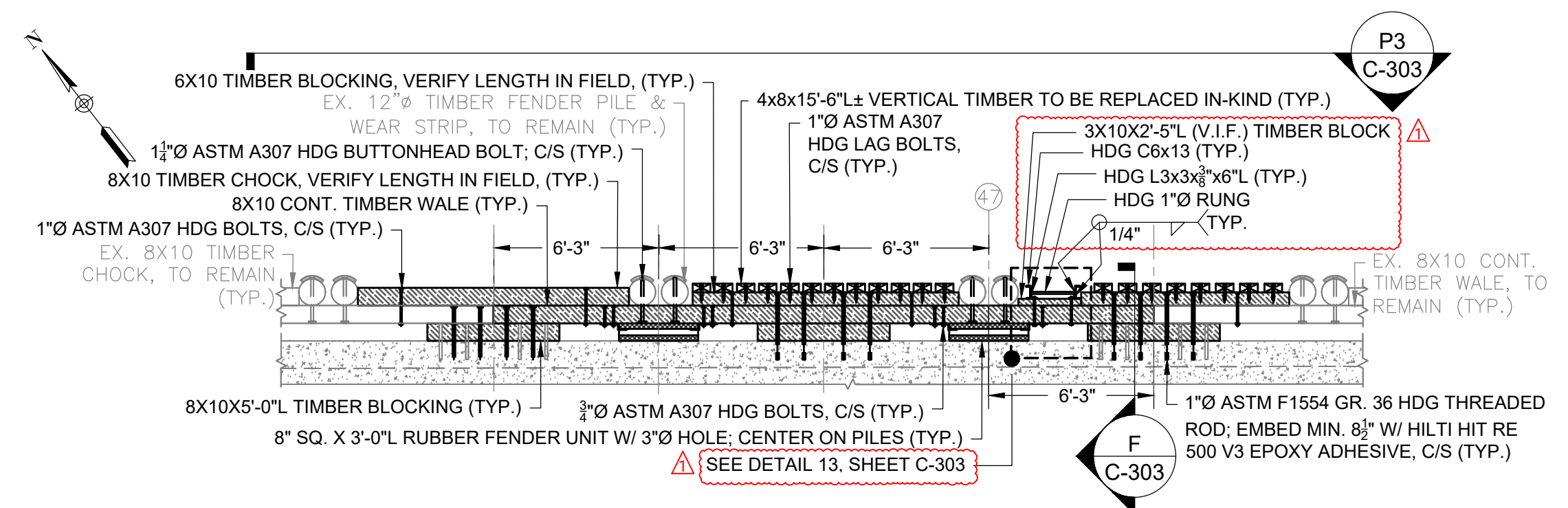
SHEET TITLE:
SECTIONS, DETAILS, & PROFILES
2 OF 4

ISSUANCE:
ISSUED FOR BID

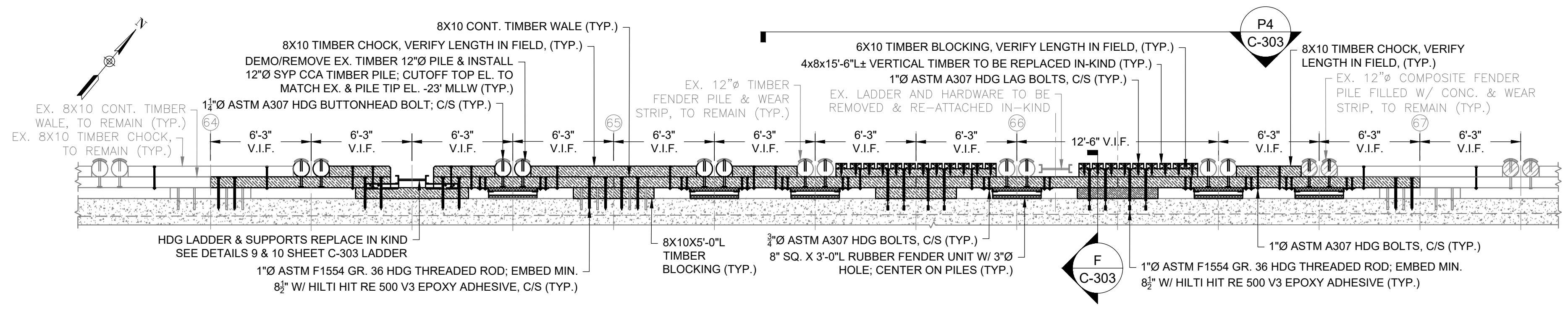
PROJECT NO: 24P125
SHEET NUMBER
C-302

Thursday, April 30, 2026 11:01:28 AM
DWG Filename: macmillan pier - safety upgrades & pier repairs - ifb rev 1.dwg Layout: c-302
DWG Folder Location:

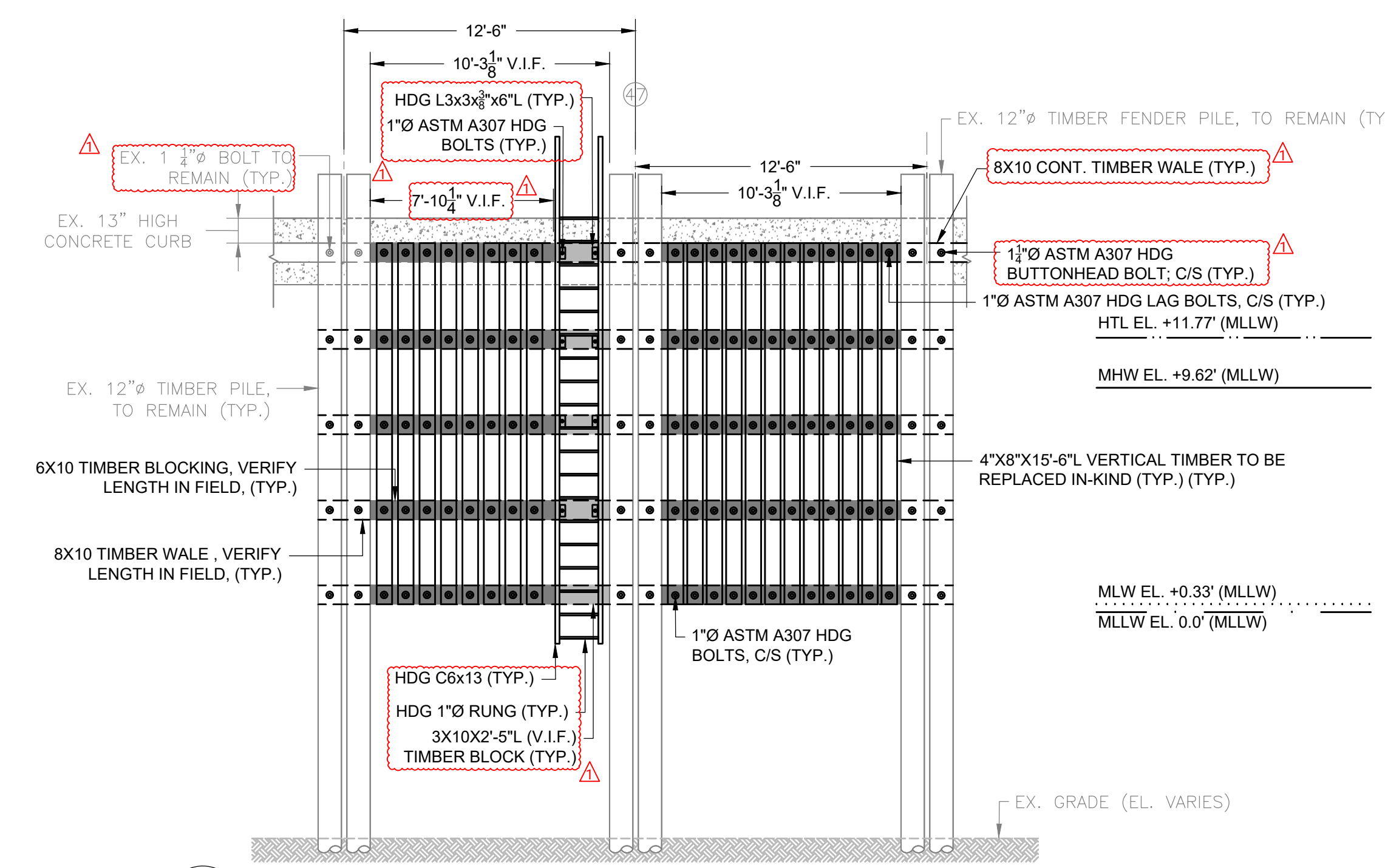
NOTE:
1. UTILITIES NOT SHOWN FOR CLARITY.



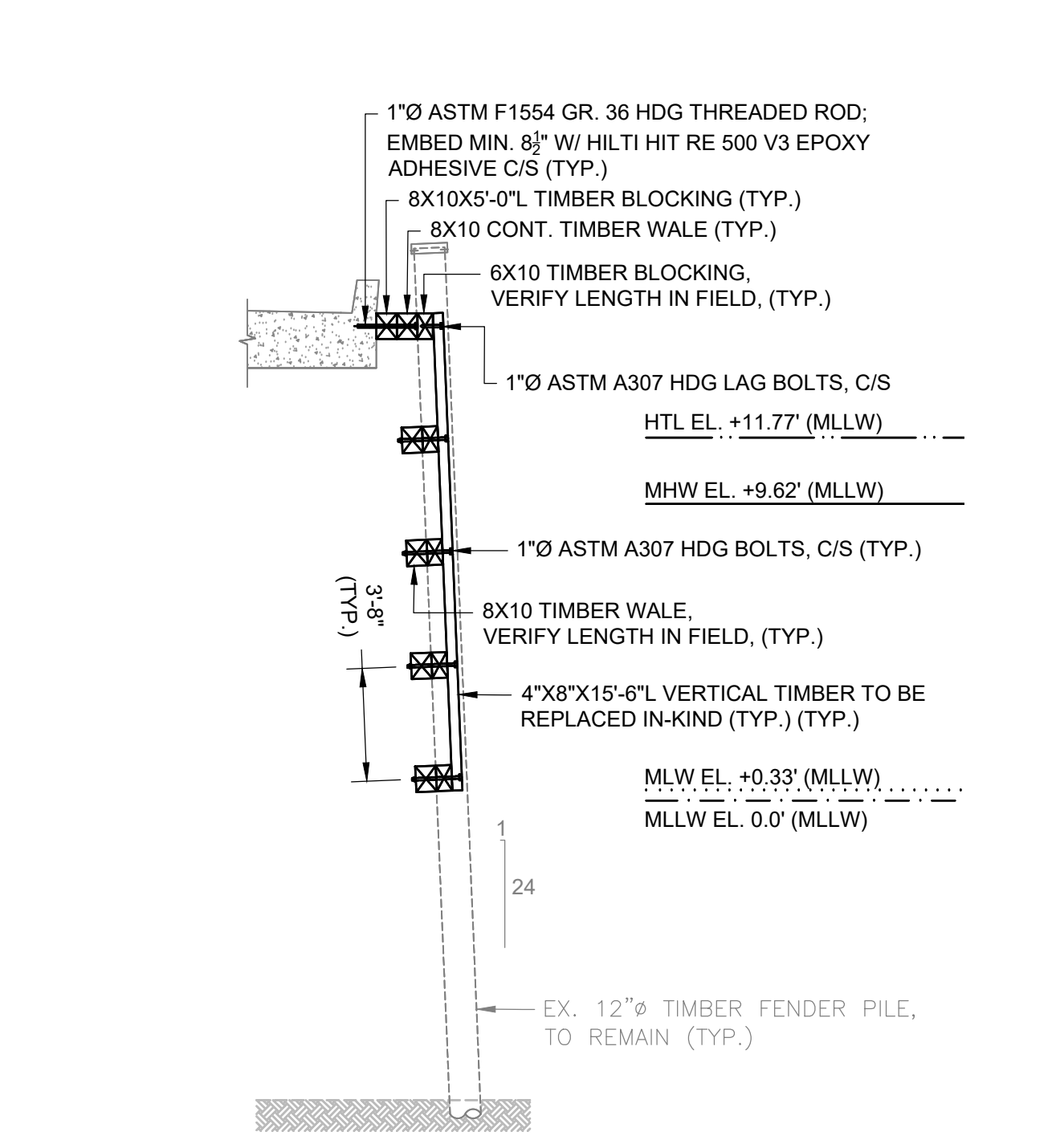
7 VERTICAL TIMBER "PUSH PILE" WALL REPAIR DETAIL - BENTS 46-48
SCALE: 1" = 5"



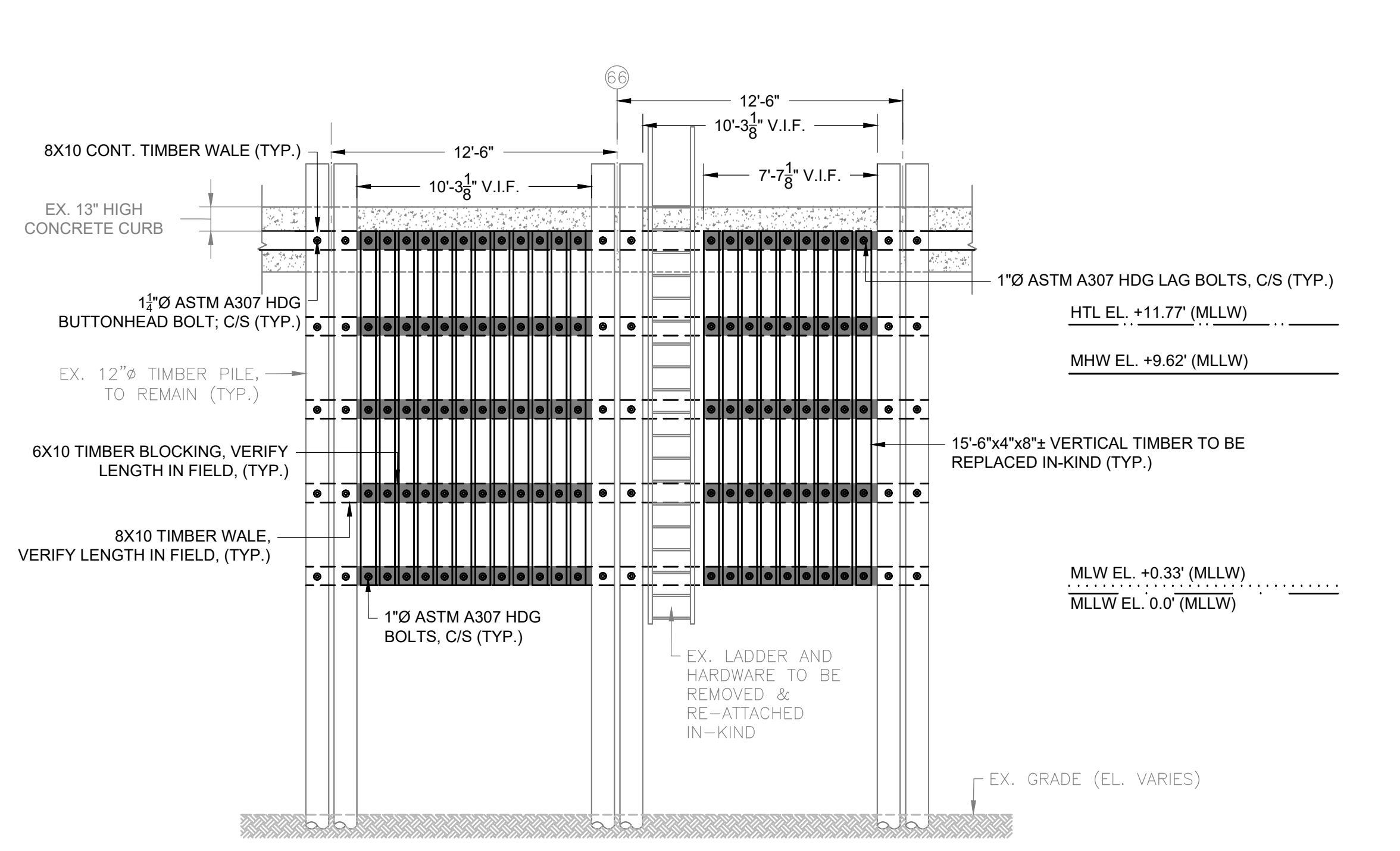
8 VERTICAL TIMBER "PUSH PILE" WALL REPAIR DETAIL - BENTS 64-67
SCALE: 1" = 5"



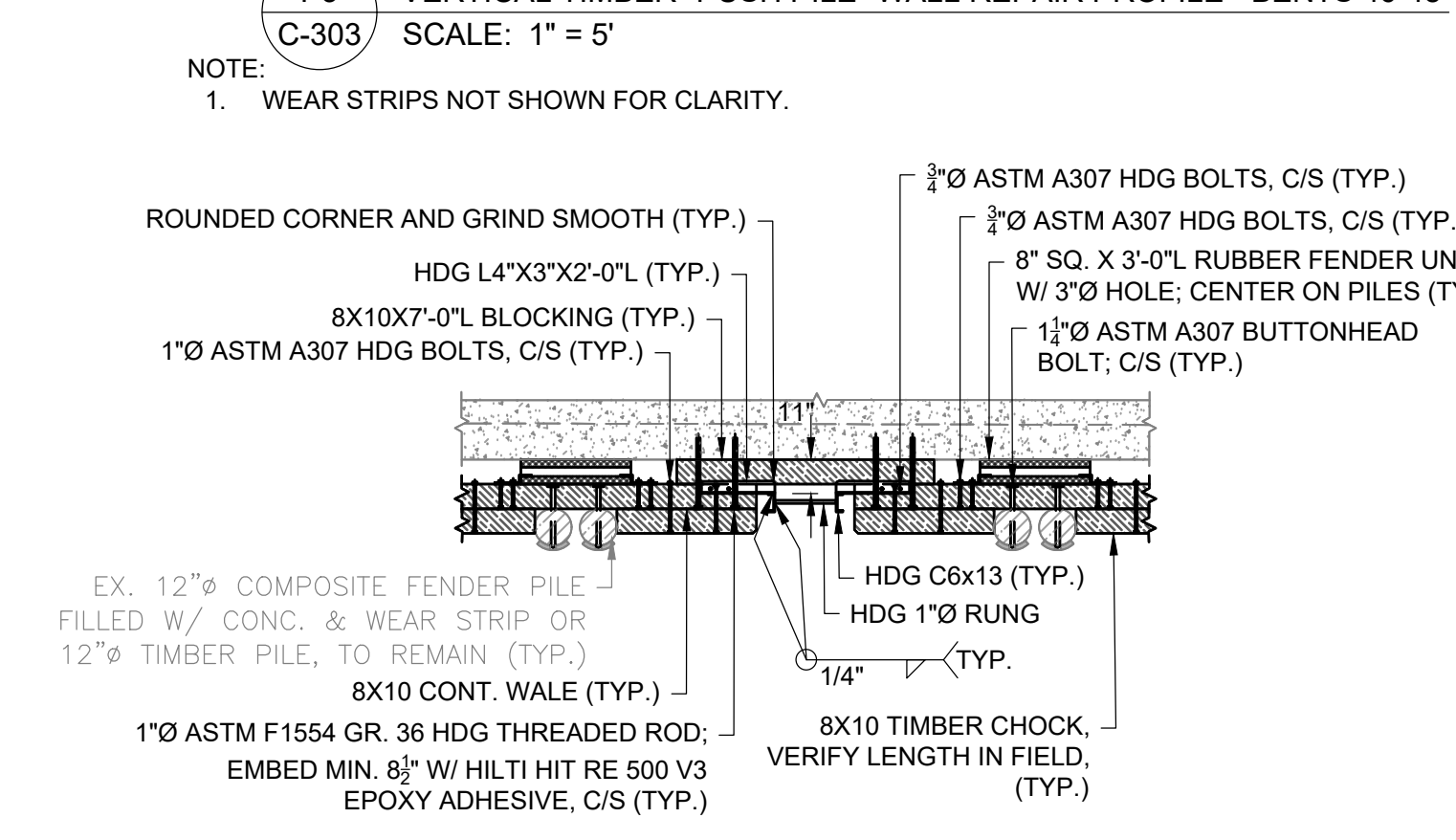
P3 VERTICAL TIMBER "PUSH PILE" WALL REPAIR PROFILE - BENTS 46-48
SCALE: 1" = 5"



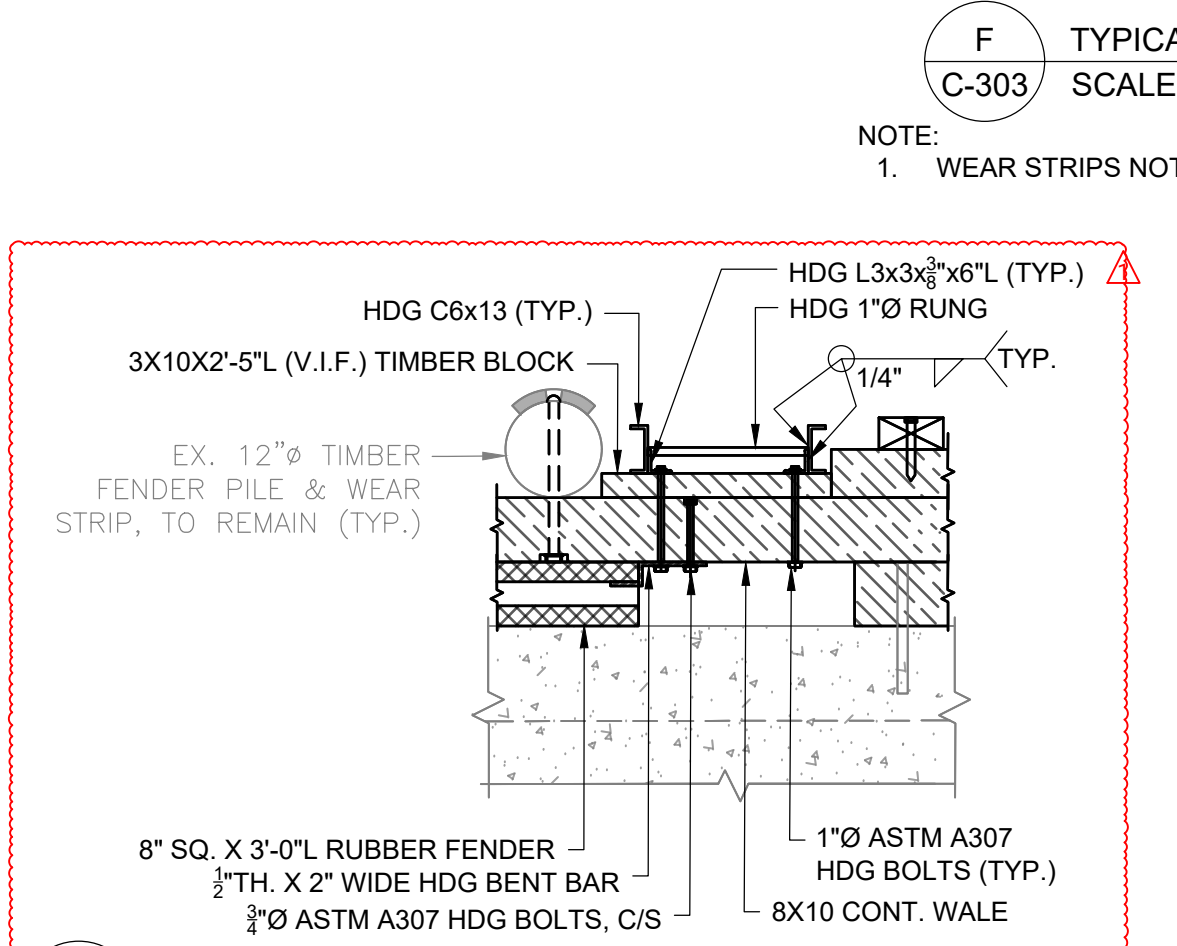
F TYPICAL VERTICAL TIMBER "PUSH PILE" WALL REPAIR SECTION
SCALE: 1" = 5"



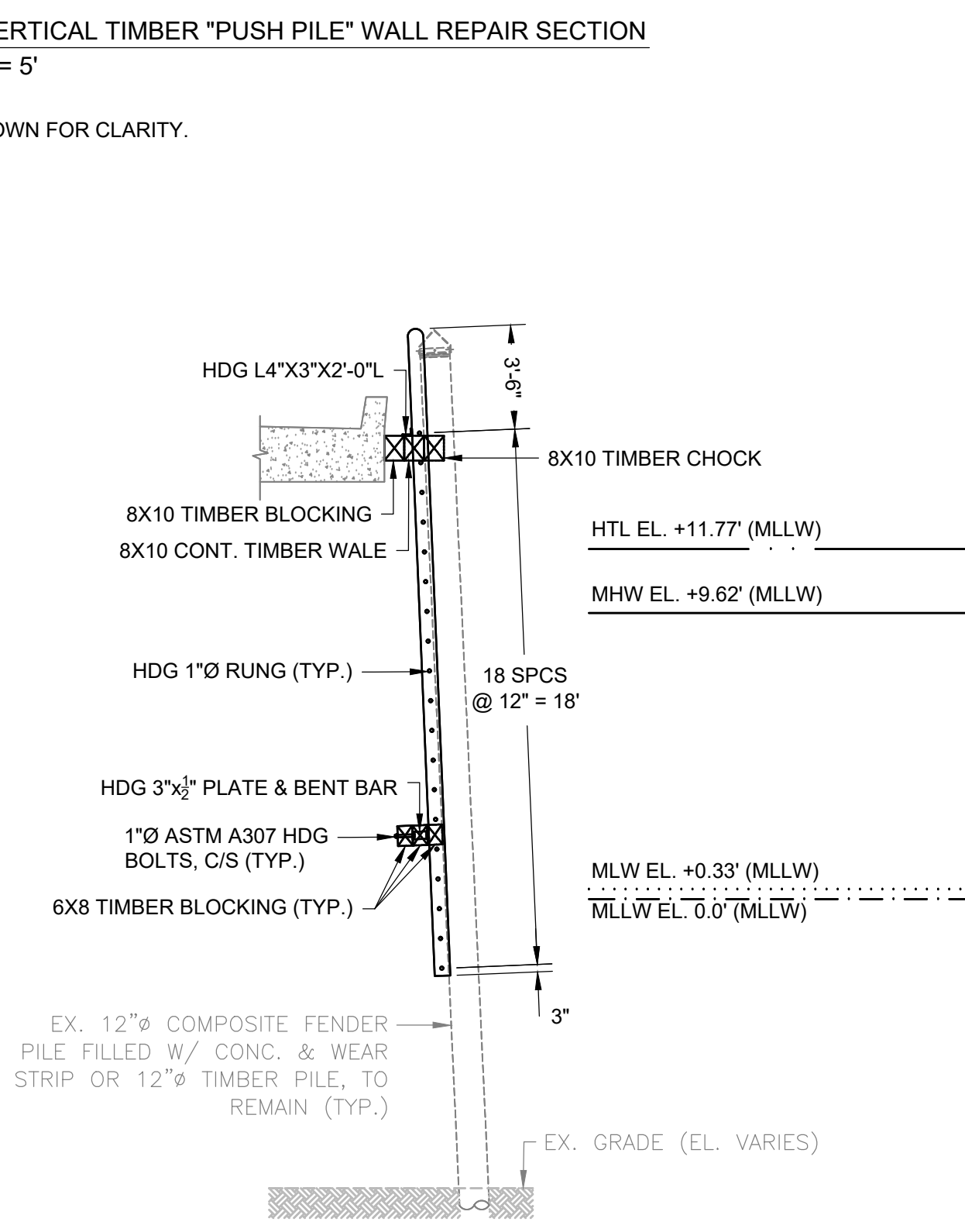
P4 VERTICAL TIMBER "PUSH PILE" WALL REPAIR PROFILE - BENTS 64-67
SCALE: 1" = 5"



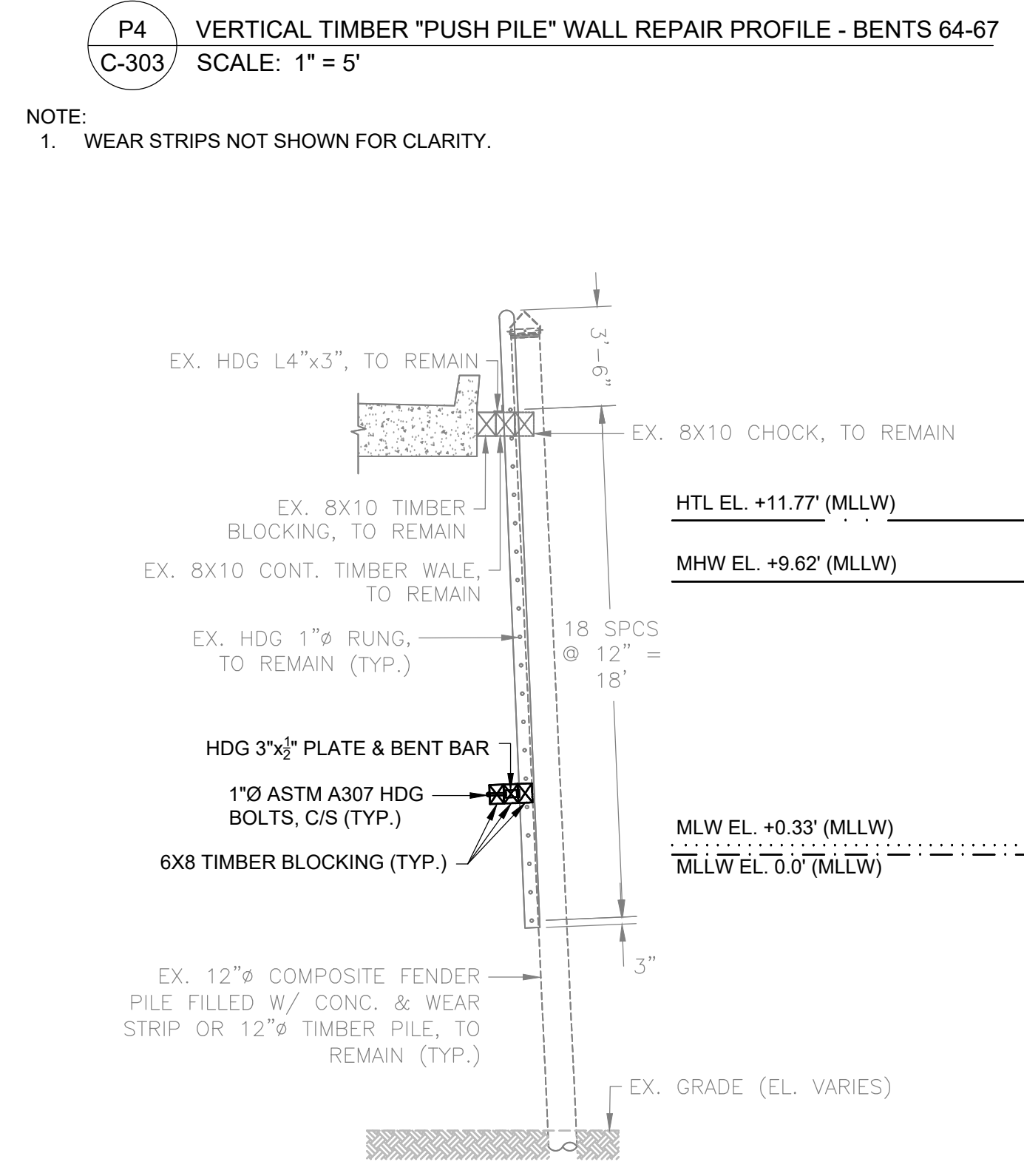
9 LADDER REPLACEMENT DETAIL - UPPER
SCALE: 1" = 5"



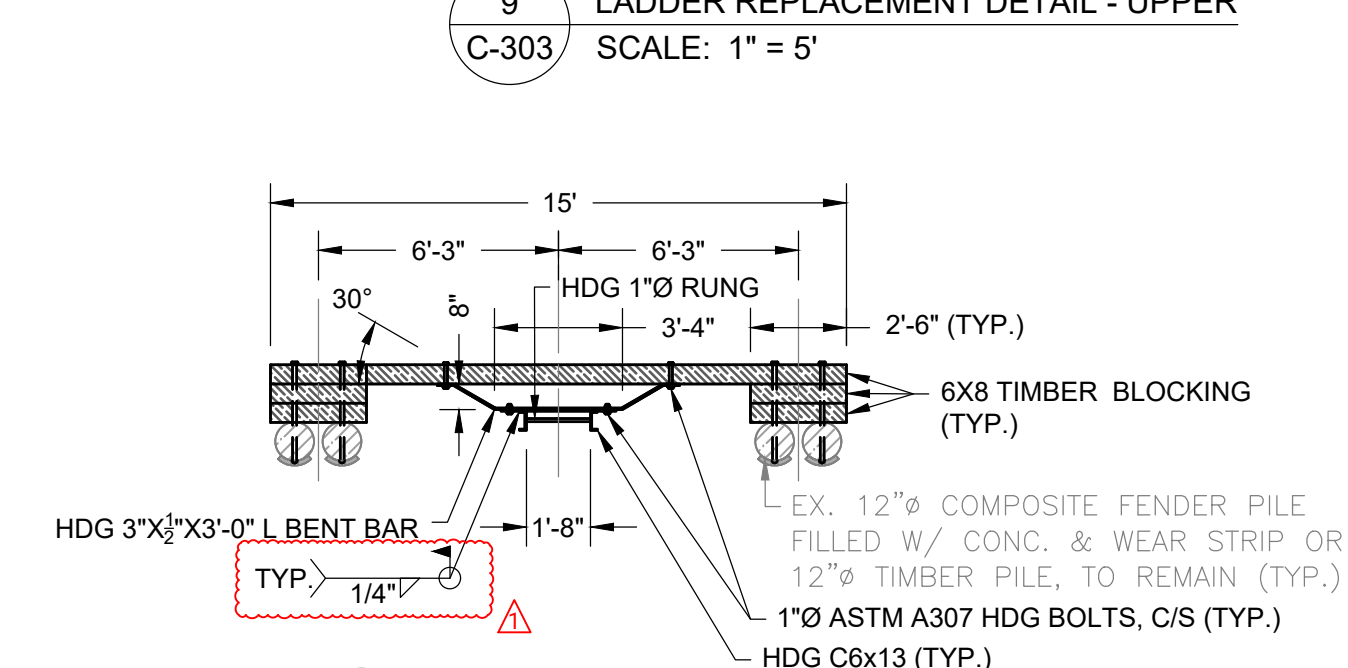
13 LADDER REPLACEMENT DETAIL - "PUSH PILE" - BENTS 46-48
SCALE: 1" = 2"



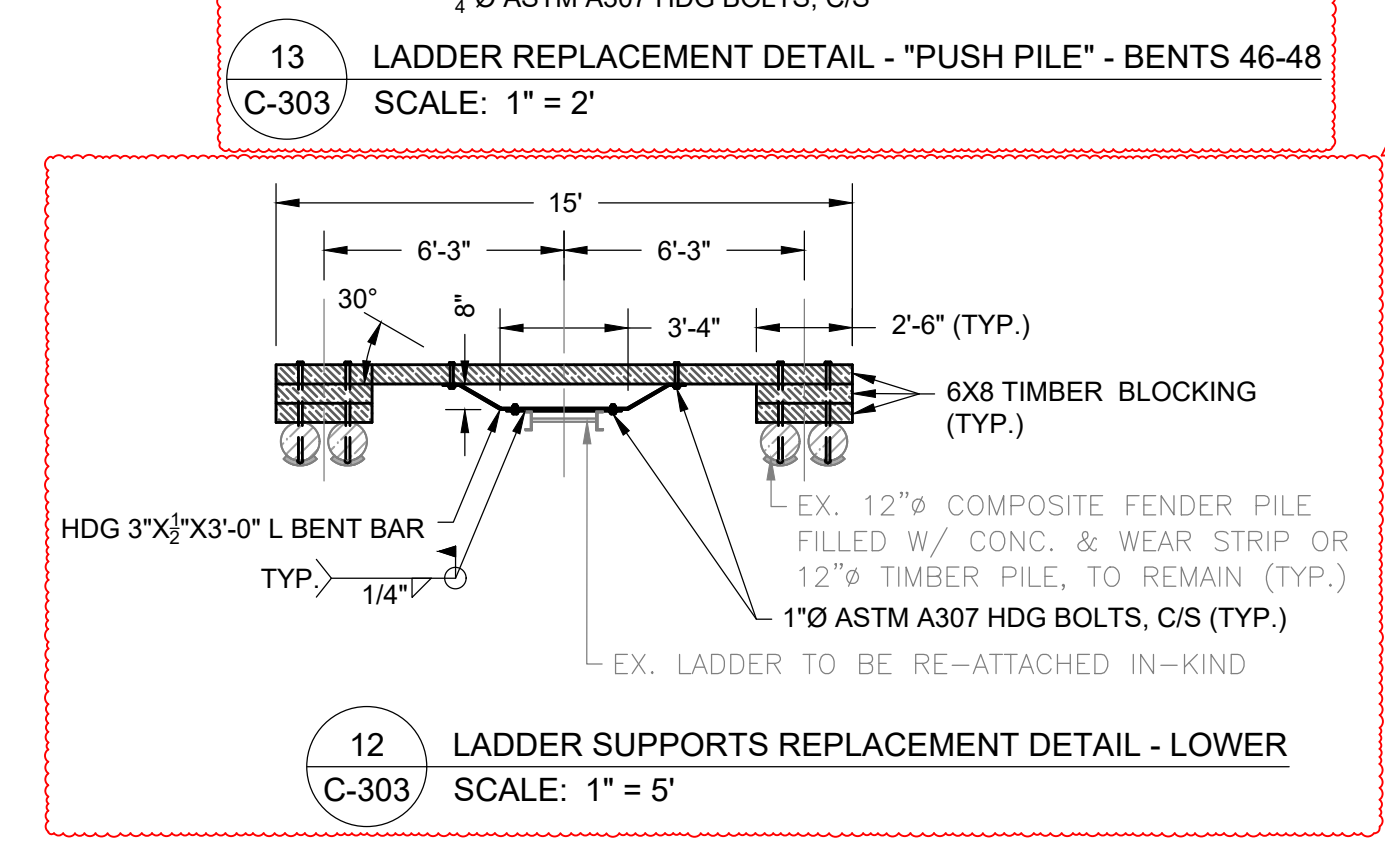
G FULL LADDER REPLACEMENT SECTION
SCALE: 1" = 5"



H LOWER LADDER SUPPORTS REPLACEMENT SECTION
SCALE: 1" = 5"



10 LADDER REPLACEMENT DETAIL - LOWER
SCALE: 1" = 5"

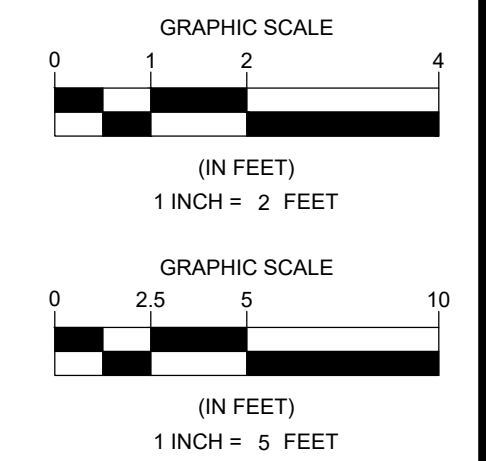


12 LADDER SUPPORTS REPLACEMENT DETAIL - LOWER
SCALE: 1" = 5"

NOTE:
1. UTILITIES NOT SHOWN FOR CLARITY.

NOTE:
1. WEAR STRIPS NOT SHOWN FOR CLARITY.

NOTE:
1. WEAR STRIPS NOT SHOWN FOR CLARITY.

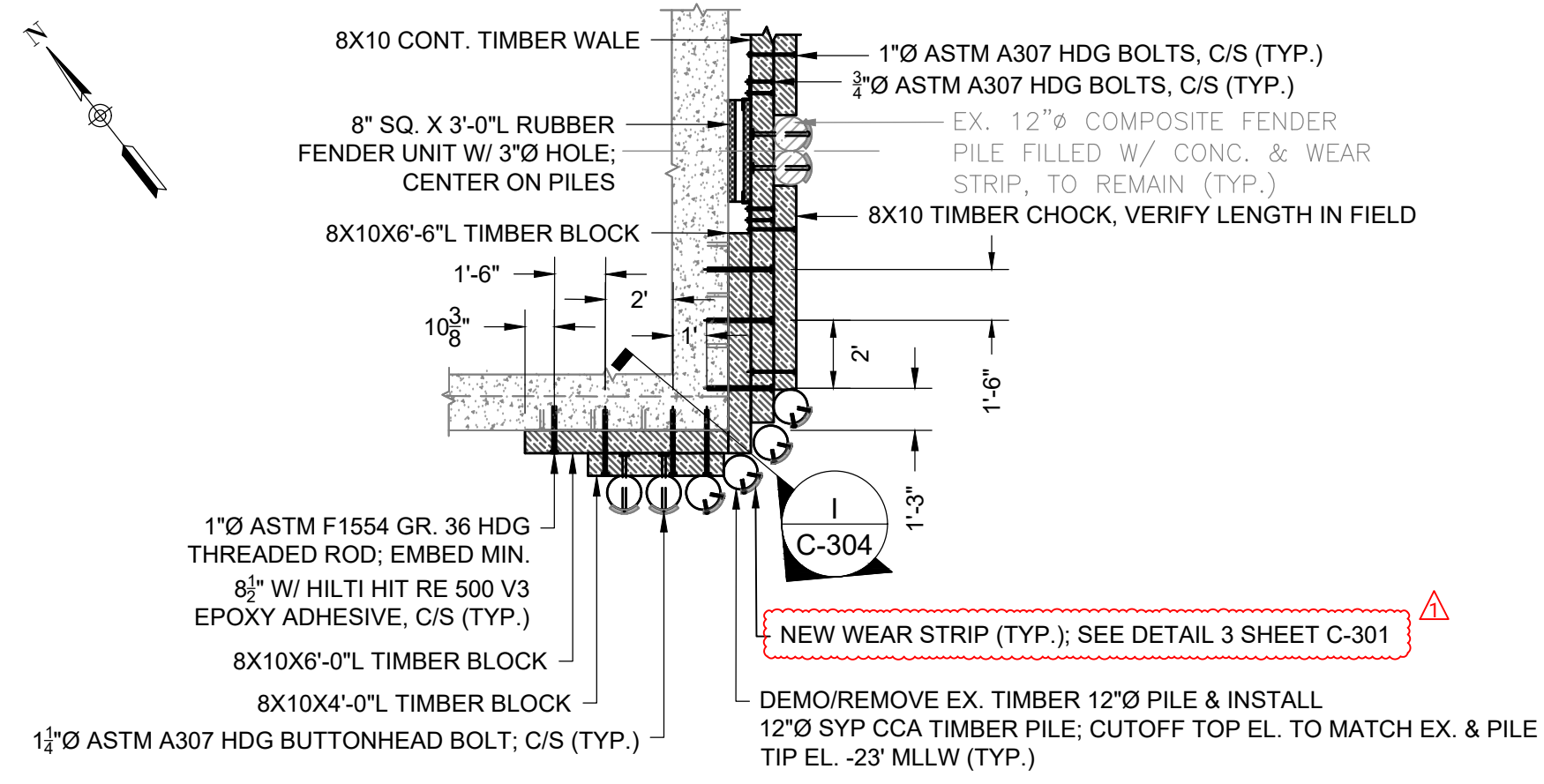


NO.	DATE	DESCRIPTION
1	4/30/26	NEW DETAILS 12 & 13 & HDG LADDERS & OFFLOADING AREA

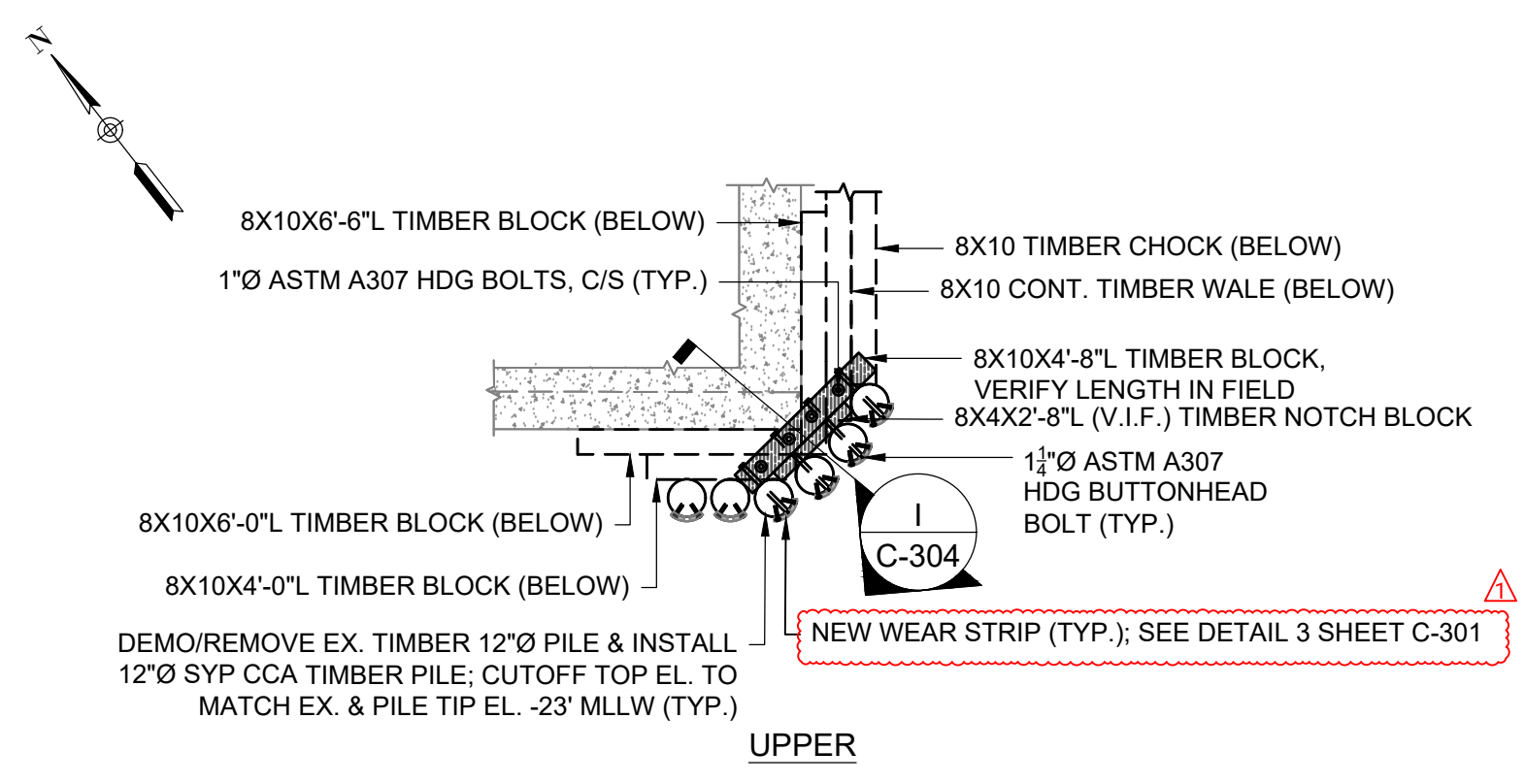
DATE OF PREPARATION	BY	DATE
	AS NOTED	AS NOTED
	12/2/25	
	10/30/25	
	2/10/26	

SHEET TITLE:
SECTIONS, DETAILS, & PROFILES
3 OF 4

ISSUED FOR BID
PROJECT NO: 24P125
SHEET NUMBER
C-303



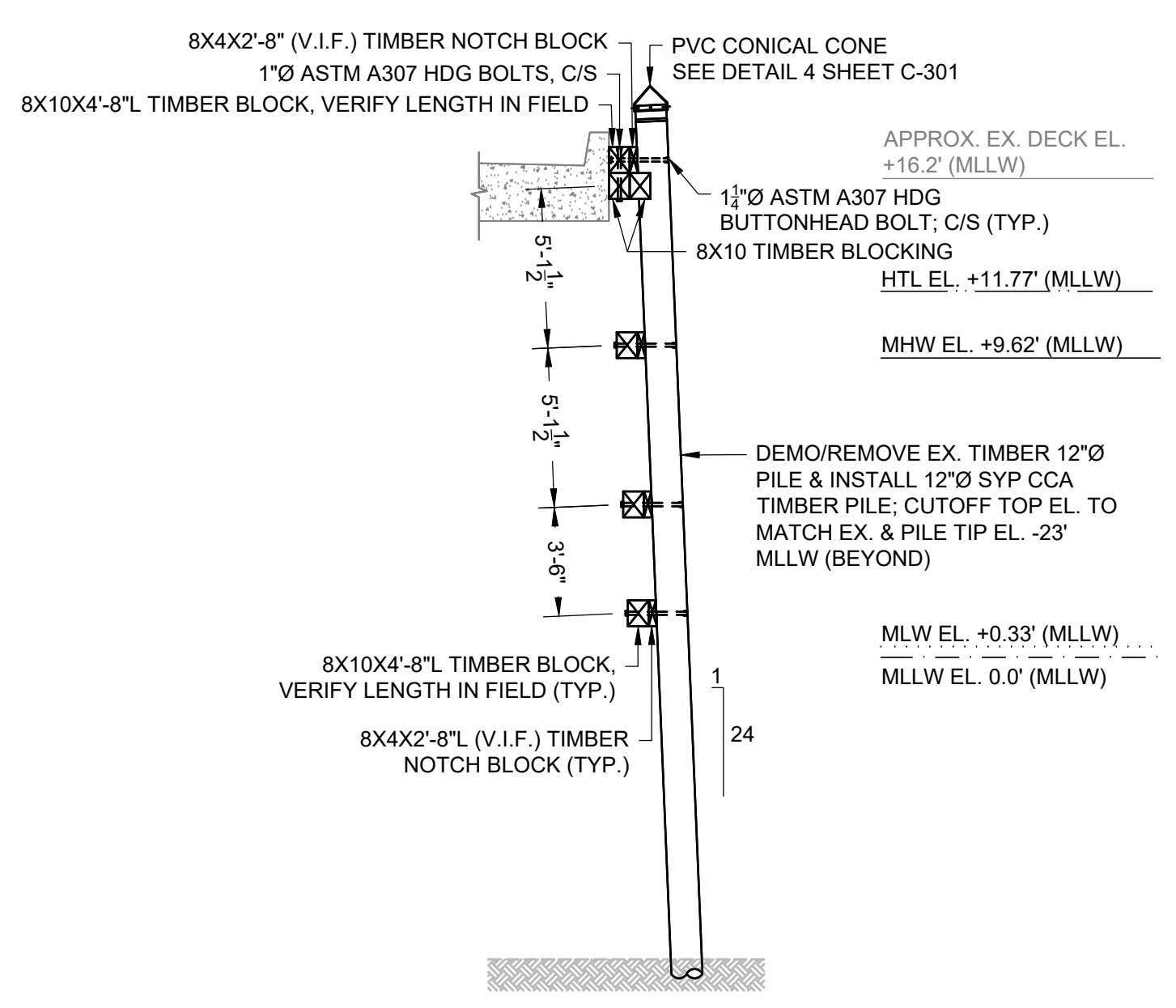
LOWER
 NOTE:
 1. UPPER BLOCKING NOT SHOWN FOR CLARITY.



UPPER
 NOTE:
 1. LOWER BLOCKING HARDWARE NOT SHOWN FOR CLARITY.

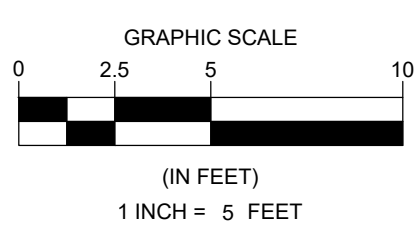
11 SOUTHWEST T-HEAD CORNER FENDER - DECK LEVEL BLOCKING REPAIR DETAIL
 C-101 SCALE: 1" = 5'

NOTE:
 1. UTILITIES NOT SHOWN FOR CLARITY.



1 SOUTHWEST T-HEAD CORNER FENDER SECTION
 C-304 SCALE: 1" = 5'

NOTE:
 1. WEAR STRIPS NOT SHOWN FOR CLARITY.



TOWN OF PROVINCETOWN
 MACMILLAN PIER, PROVINCETOWN, MA
 SAFETY UPGRADES & PIER REPAIRS

REVISIONS	
NO.	DESCRIPTION
1	WEAR STRIPS

DATE OF PREPARATION		
BY	DATE	DATE

SHEET TITLE:
 SECTIONS, DETAILS, & PROFILES
 4 OF 4

ISSUANCE:
 ISSUED FOR BID

PROJECT NO: 24P125
 SHEET NUMBER
 C-304