


**04 - STRUCTURES
INDEX OF DRAWINGS**

DRAWING NUMBER	DRAWING TITLE	DRAWING NUMBER	DRAWING TITLE
STR-01	INDEX OF DRAWINGS		
STR-02	BRIDGE NO. 00388 DEMOLITION PLAN		
STR-03	BRIDGE NO. 00389 DEMOLITION PLAN		
STR-04	BRIDGE NO. 00870 GENERAL PLAN AND ELEVATION		
STR-05	BRIDGE NO. 00870 TYPICAL BRIDGE SECTIONS AND GENERAL NOTES		
STR-06	BRIDGE NO. 00870 DEMOLITION PLAN AND ELEVATION		
STR-07	BRIDGE NO. 00870 LAYOUT PLAN		
STR-08	BRIDGE NO. 00870 CONSTRUCTION STAGE SECTIONS - 1		
STR-09	BRIDGE NO. 00870 CONSTRUCTION STAGE SECTIONS - 2		
STR-10	BRIDGE NO. 00870 SUBSTRUCTURE REPAIR DETAILS		
STR-11	BRIDGE NO. 00870 FRAMING PLAN AND STRUCTURAL STEEL DETAILS		
STR-12	BRIDGE NO. 00870 BEARINGS		
STR-13	BRIDGE NO. 00870 SLAB PLAN AND DETAILS		
STR-14	BRIDGE NO. 00870 ASPHALTIC PLUG JOINT DETAILS		
STR-15	BRIDGE NO. 00870 DRAINAGE DETAILS		
STR-16	BRIDGE NO. 00870 END BLOCK DETAILS - 1		
STR-17	BRIDGE NO. 00870 END BLOCK DETAILS - 2		
STR-18	BRIDGE NO. 00870 BRIDGE MEDIAN METAL BEAM RAIL (TYPE MD-B MASH) DETAILS		
STR-19	PRECAST CULVERT INLET HEADWALL DETAILS		
STR-20	CULVERT OUTLET ENDWALL DETAILS		
STR-21	4' POLYVINYL CHLORIDE CHAIN LINK FENCE		

DESIGNED BY:
WSP USA, INC.
500 WINDING BROOK DR.
GLASTONBURY, CT 06033

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

WSP WSP USA, INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL



PROJECT TITLE:
**REMOVAL OF BR. NOS. 00388 & 00389, DECK
 REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS
 TO ROUTE 17 & NEW LONDON TURNPIKE**

TOWN(S):
GLASTONBURY

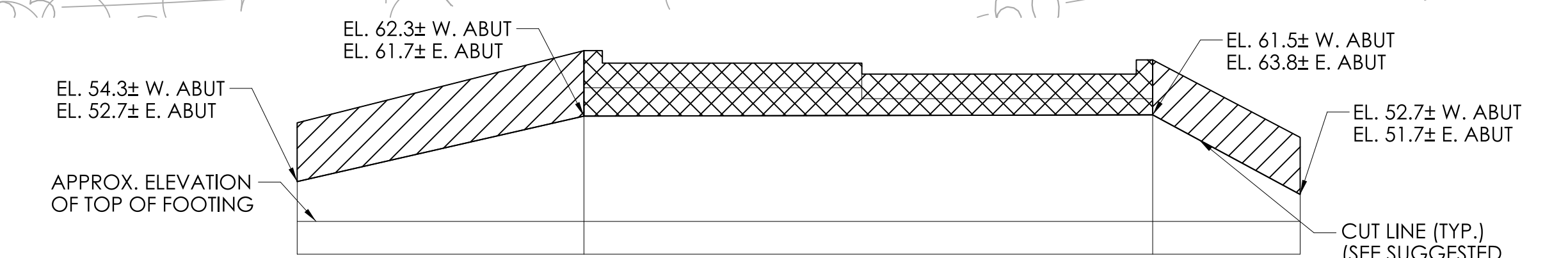
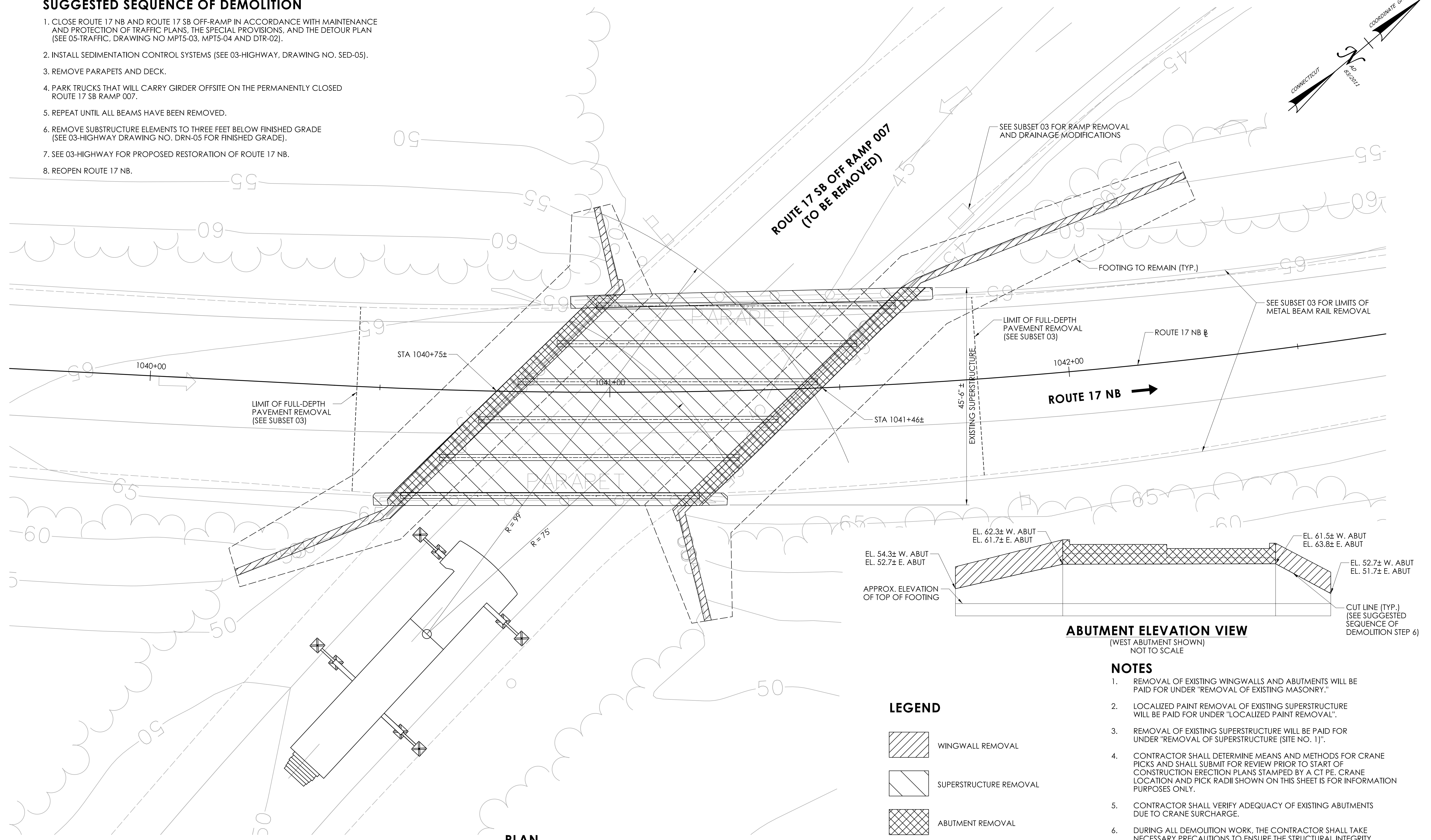
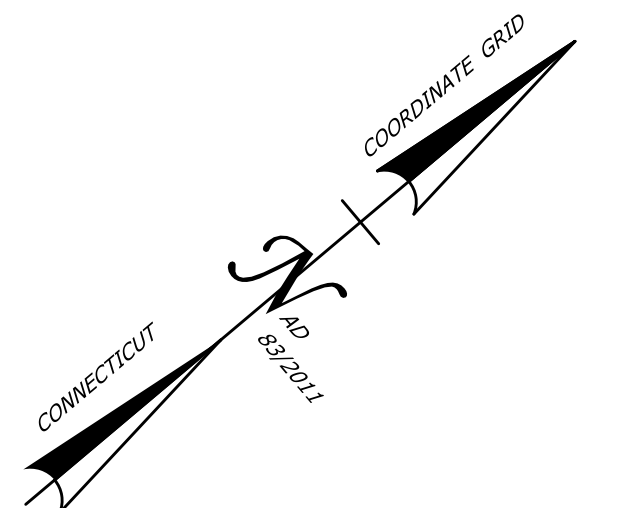
DRAWING TITLE:
INDEX OF DRAWINGS

PROJECT NO.:
0053-0189

DRAWING NO.:
STR-01
 SHEET NO.:
04.01

SUGGESTED SEQUENCE OF DEMOLITION

1. CLOSE ROUTE 17 NB AND ROUTE 17 SB OFF-RAMP IN ACCORDANCE WITH MAINTENANCE AND PROTECTION OF TRAFFIC PLANS, THE SPECIAL PROVISIONS, AND THE DETOUR PLAN (SEE 05-TRAFFIC, DRAWING NO MPT5-03, MPT5-04 AND DTR-02).
2. INSTALL SEDIMENTATION CONTROL SYSTEMS (SEE 03-HIGHWAY, DRAWING NO. SED-05).
3. REMOVE PARAPETS AND DECK.
4. PARK TRUCKS THAT WILL CARRY GIRDER OFFSITE ON THE PERMANENTLY CLOSED ROUTE 17 SB RAMP 007.
5. REPEAT UNTIL ALL BEAMS HAVE BEEN REMOVED.
6. REMOVE SUBSTRUCTURE ELEMENTS TO THREE FEET BELOW FINISHED GRADE (SEE 03-HIGHWAY DRAWING NO. DRN-05 FOR FINISHED GRADE).
7. SEE 03-HIGHWAY FOR PROPOSED RESTORATION OF ROUTE 17 NB.
8. REOPEN ROUTE 17 NB.



ABUTMENT ELEVATION VIEW
(WEST ABUTMENT SHOWN)
NOT TO SCALE

NOTES

1. REMOVAL OF EXISTING WINGWALLS AND ABUTMENTS WILL BE PAID FOR UNDER "REMOVAL OF EXISTING MASONRY."
2. LOCALIZED PAINT REMOVAL OF EXISTING SUPERSTRUCTURE WILL BE PAID FOR UNDER "LOCALIZED PAINT REMOVAL".
3. REMOVAL OF EXISTING SUPERSTRUCTURE WILL BE PAID FOR UNDER "REMOVAL OF SUPERSTRUCTURE (SITE NO. 1)".
4. CONTRACTOR SHALL DETERMINE MEANS AND METHODS FOR CRANE PICKS AND SHALL SUBMIT FOR REVIEW PRIOR TO START OF CONSTRUCTION ERECTION PLANS STAMPED BY A CT PE. CRANE LOCATION AND PICK RADII SHOWN ON THIS SHEET IS FOR INFORMATION PURPOSES ONLY.
5. CONTRACTOR SHALL VERIFY ADEQUACY OF EXISTING ABUTMENTS DUE TO CRANE SURCHARGE.
6. DURING ALL DEMOLITION WORK, THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURES UNTIL ALL DEMOLITION IS COMPLETE.
7. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISION "REMOVAL OF SUPERSTRUCTURE (SITE NO. 1)", "LOCALIZED PAINT REMOVAL", AND "PROSECUTION AND PROGRESS."

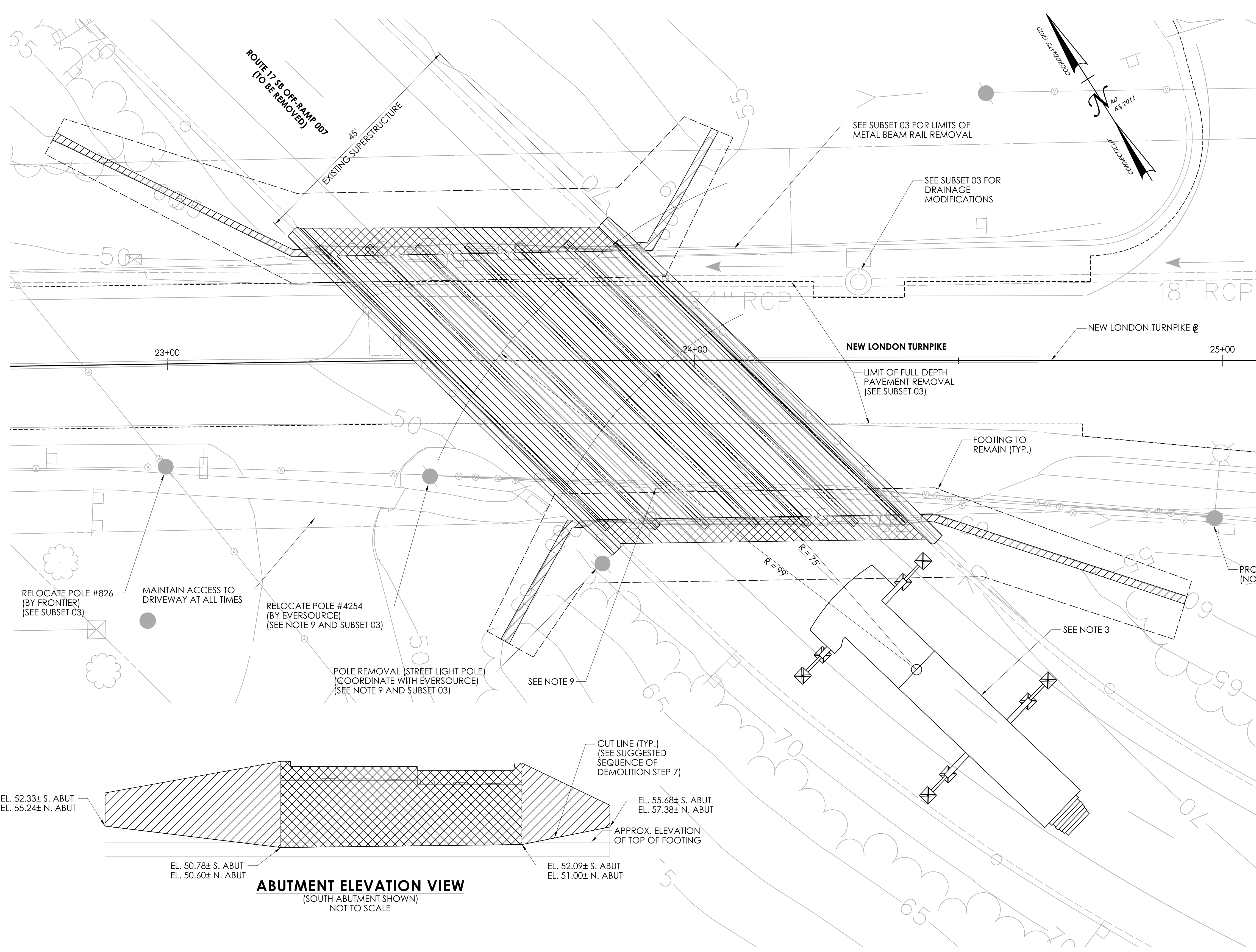
LEGEND

- WINGWALL REMOVAL
- SUPERSTRUCTURE REMOVAL
- ABUTMENT REMOVAL

PLAN
SCALE: 1" = 10' - 0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: WSP USA INC 500 WINDING BROOK DR GLASTONBURY, CT 06033	SCALE AS NOTED	CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE	TOWN(S): GLASTONBURY	DRAWING TITLE: BRIDGE NO. 00388 DEMOLITION PLAN	PROJECT NO.: 0053-0189	DRAWING NO.: STR-02 SHEET NO.: 04.02
--	----------------	--	--	--------------------------------	--	----------------------------------	---



SUGGESTED SEQUENCE OF DEMOLITION

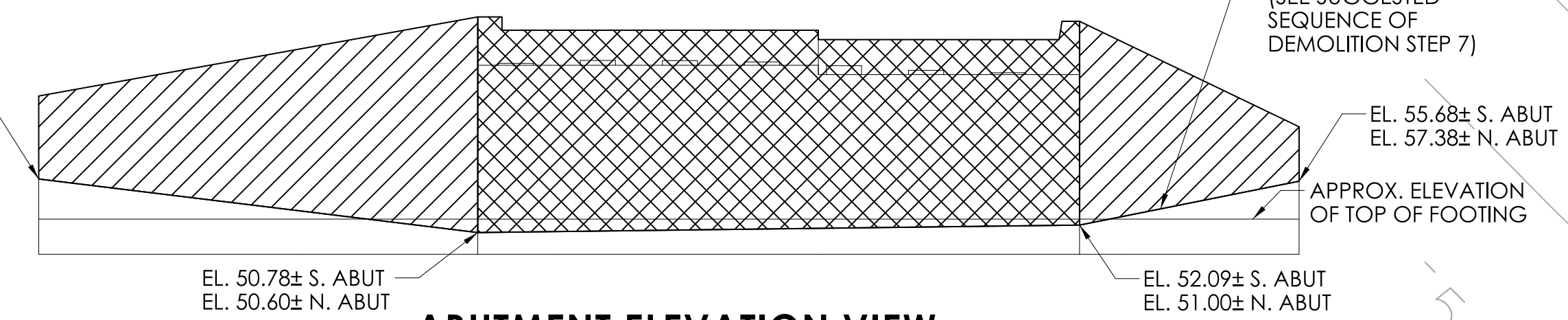
1. CLOSE NEW LONDON TURNPIKE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND DETOUR PLAN (SEE 05-TRAFFIC, DRAWING NO. DTR-01).
2. REMOVE PARAPETS AND DECK.
3. REOPEN NEW LONDON TURNPIKE AS NEEDED.
4. DURING OFF PEAK CLOSURE, MOVE CRANE INTO POSITION.
5. PARK TRUCKS THAT WILL CARRY GIRDER OFFSITE ON THE PERMANENTLY CLOSED ROUTE 17 SB RAMP.
6. REPEAT UNTIL ALL BEAMS HAVE BEEN REMOVED.
7. REMOVE SUBSTRUCTURE ELEMENTS TO THREE FEET BELOW FINISHED GRADE (SEE 03-HIGHWAY DRAWING NO. DRN-02 FOR FINISHED GRADE).

LEGEND

- WINGWALL REMOVAL
- SUPERSTRUCTURE REMOVAL
- ABUTMENT REMOVAL

NOTES

1. REMOVAL OF EXISTING WINGWALLS AND ABUTMENTS WILL BE PAID FOR UNDER "REMOVAL OF EXISTING MASONRY."
2. LOCALIZED PAINT REMOVAL OF EXISTING SUPERSTRUCTURE WILL BE PAID FOR UNDER "LOCALIZED PAINT REMOVAL".
3. REMOVAL OF EXISTING SUPERSTRUCTURE WILL BE PAID FOR UNDER "REMOVAL OF SUPERSTRUCTURE (SITE NO. 2)."
4. CONTRACTOR SHALL DETERMINE MEANS AND METHODS FOR CRANE PICKS AND SHALL SUBMIT FOR REVIEW PRIOR TO START OF CONSTRUCTION ERECTION PLANS STAMPED BY A CT PE. CRANE LOCATION AND PICK RADII SHOWN ON THIS SHEET IS FOR INFORMATION PURPOSES ONLY.
5. CONTRACTOR SHALL VERIFY ADEQUACY OF EXISTING ABUTMENTS DUE TO CRANE SURCHARGE.
6. DURING ALL DEMOLITION WORK, THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURES UNTIL ALL DEMOLITION IS COMPLETE.
7. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISION "REMOVAL OF SUPERSTRUCTURE (SITE NO. 2)", "LOCALIZED PAINT REMOVAL", AND "PROSECUTION AND PROGRESS."
8. SIDEWALKS TO BE CLOSED DURING SUPERSTRUCTURE AND SOUTHERN BRIDGE ABUTMENT REMOVAL. SEE MPT 1B-01 IN THE TRAFFIC SUBSET.
9. DEMOLITION SCHEME ASSUMES EQUIPMENT PLACEMENT ON THE CLOSED ROUTE 17 OFF-RAMP 007. UNDER THIS SCHEME OFF-RAMP 007 MUST BE CLOSED PRIOR TO BRIDGE NO. 00389 DEMOLITION AND BRIDGE NO. 00388 MUST BE DEMOLISHED AFTER BRIDGE NO. 00389 DEMOLITION TO ALLOW ACCESS FROM NORTH AND FROM SOUTH.
10. CONTRACTOR SHALL COORDINATE PROTECTION OF UTILITIES BENEATH BRIDGE NO. 00389.



ABUTMENT ELEVATION VIEW
(SOUTH ABUTMENT SHOWN)
NOT TO SCALE

PLAN
SCALE: 1" = 10' - 0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
 WSP USA INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED



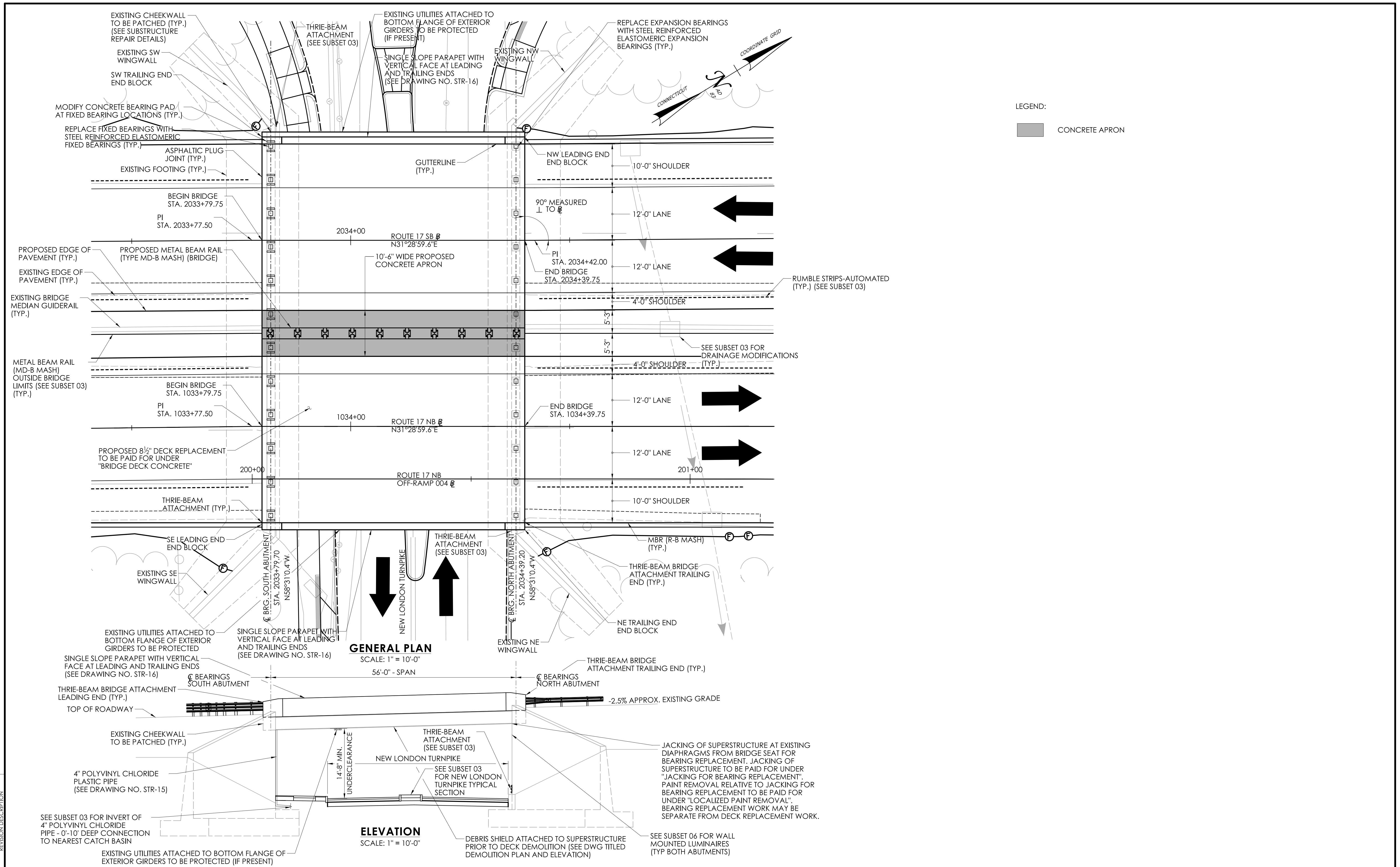
PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00389 DEMOLITION PLAN

PROJECT NO.:
0053-0189

DRAWING NO.:
STR-03
 SHEET NO.:
04.03



REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

 WSP USA, INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033

SCALE AS NOTED



PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00870 GENERAL PLAN AND ELEVATION

PROJECT NO.:
0053-0189

DRAWING NO.:
STR-04

SHEET NO.:
04.04

GENERAL NOTES

- SPECIFICATIONS: WORK UNDER THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 819 DATED 2024.
- DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (9TH EDITION - 2020), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003), WITH REVISIONS THROUGH 12/19.
- MATERIAL STRENGTH:
 - CONCRETE:
 - CLASS PCC 04460.....F_c = 4,000 PSI
 - CLASS PCC 04462.....F_c = 4,000 PSI
 - CLASS PCC 04483.....F_c = 4,000 PSI
 - CLASS PRC 04060.....F_c = 4,000 PSI

THE CONCRETE STRENGTH, F_c, USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 5.14 - PREFABRICATED CONCRETE STRUCTURAL COMPONENTS, 6.01 - CONCRETE FOR STRUCTURES, M.03 - PORTLAND CEMENT CONCRETE, AND M.14 PREFABRICATED CONCRETE ELEMENTS.

 - REINFORCEMENT:
 - (ASTM A615 GRADE 60).....F_y = 60,000 PSI
 - STRUCTURAL STEEL:
 - (AASHTO M270, GRADE 50).....F_y = 50,000 PSI
- LIVE LOAD: HL-93, LEGAL AND PERMIT VEHICLES.
- FUTURE PAVING ALLOWANCE: NONE
- EXISTING GIRDERS SHALL BE CLEANED OF EXISTING PAINT AND FIELD PAINTED, PAINT SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIAL PROVISIONS, "ABRASIVE BLAST CLEANING AND FIELD PAINTING OF STRUCTURE (SITE NO. 3)". THE COLOR OF THE TOPCOAT MATERIAL ON THE STRUCTURAL STEEL SHALL CONFORM TO GREEN AMS-STD-595, COLOR NO. 24172.
- BITUMINOUS CONCRETE OVERLAY: THE TOTAL THICKNESS SHALL BE COMPRISED OF THE FOLLOWING. THE FIRST COURSE SHALL BE 1" HMA S0.25 TRAFFIC LEVEL 2 TO BE PLACED AT A UNIFORM THICKNESS. THE FINAL COURSE SHALL BE 2" PMA S0.5 TRAFFIC LEVEL 3 TO BE PLACED AT A UNIFORM THICKNESS.
- DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.
- EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.
- MASH TEST LEVEL: THE PROPOSED PARAPET MEETS THE TL-4 CRITERIA FOR MASH 2016.

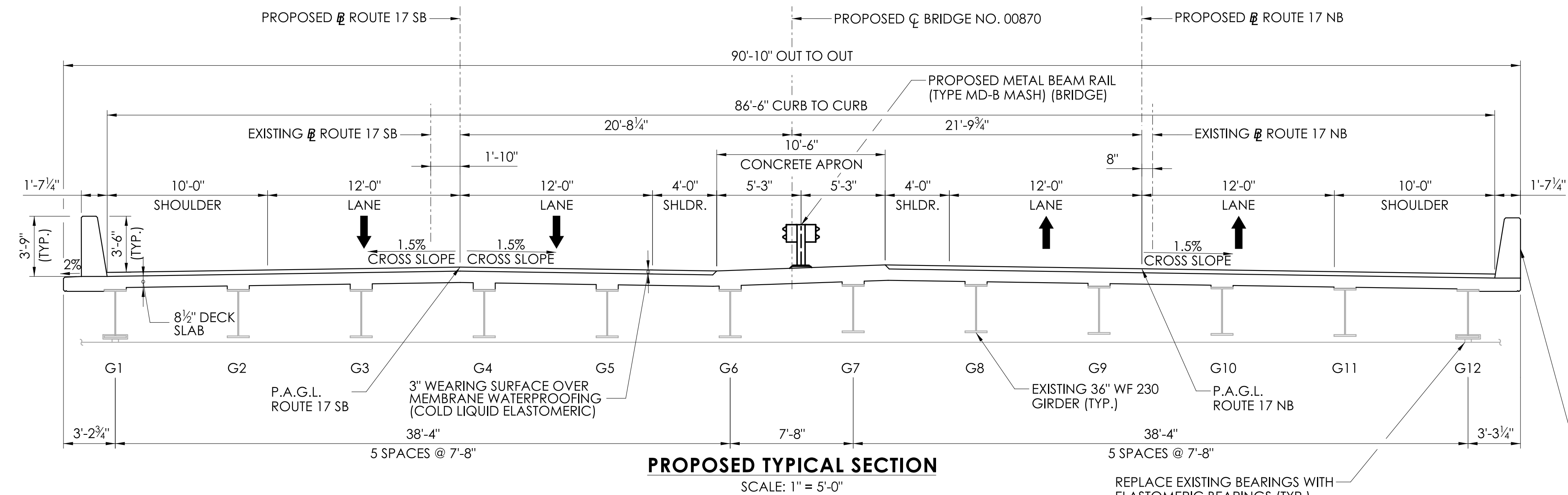
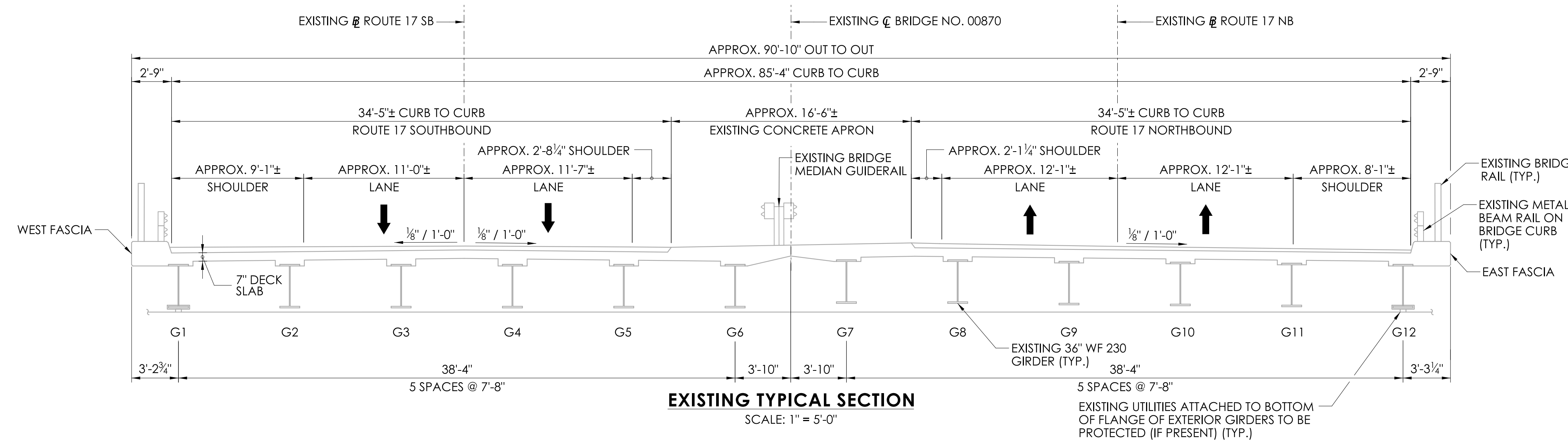
GENERAL CONCRETE NOTES

- COMPOSITE CONSTRUCTION: NO TEMPORARY INTERMEDIATE SUPPORTS SHALL BE USED DURING THE PLACING AND SETTING OF THE CONCRETE DECK SLAB. TEMPORARY SUPPORTS MAY BE USED FOR STRUCTURAL STEEL ERECTION ONLY. CONSTRUCTION LOADS AND DEAD LOADS WILL BE PERMITTED WHEN DIRECTED BY THE ENGINEER BUT ONLY WHEN THE CONTRACTOR'S TEST RESULTS SHOW THAT THE CONCRETE HAS REACHED A STRENGTH OF F_c = 3500 PSI. LIVE LOADS (TRAFFIC) WILL BE PERMITTED ON THE STRUCTURE AFTER THE CONTRACTOR'S TEST RESULTS SHOW THAT THE CONCRETE HAS REACHED A STRENGTH OF F_c = 4000 PSI.
- THE FOLLOWING PAY ITEMS AND CONCRETE CLASSES ARE REQUIRED FOR CAST IN PLACE AND PRECAST BRIDGE COMPONENTS:

CAST IN PLACE BRIDGE COMPONENTS		
PAY ITEM	BRIDGE COMPONENTS	PCC CLASS
ABUTMENT AND WALL CONCRETE	CULVERT OUTLET ENDWALL	PCC04460
BRIDGE DECK CONCRETE AND PARAPET CONCRETE	BRIDGE DECK, END BLOCK, AND BRIDGE PARAPET	PCC04462
SURFACE REPAIR CONCRETE	CONCRETE BEARING PAD BUILD-OUT, SURFACE REPAIRS	PCC04483

PRECAST BRIDGE COMPONENTS		
PAY ITEM	BRIDGE COMPONENTS	PRC CLASS
WING ENDWALL	CULVERT INLET HEADWALL	PRC04060

- EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1"X1" UNLESS DIMENSIONED OTHERWISE.
- CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE TWO INCHES COVER UNLESS DIMENSIONED OTHERWISE.
- REINFORCEMENT: ALL PROPOSED REINFORCEMENT SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. REINFORCEMENT GALVANIZING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENT SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS - GALVANIZED".
- CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- PENETRATING SEALER: PENETRATING SEALER PROTECTIVE COMPOUND SHALL BE APPLIED TO THE FACE AND TOPS OF PARAPETS IN ADDITION TO EXPOSED BRIDGE DECK BEHIND PARAPET, PREFERABLY BEFORE THE WEARING SURFACE IS APPLIED. PENETRATING SEALER PROTECTIVE COMPOUND SHALL ALSO BE APPLIED TO EXPOSED SURFACES OF EXISTING ABUTMENTS, BACKWALLS, WINGWALLS, AND RECONSTRUCTED CHEEKWALLS.
- ADHESIVE BONDED ANCHORS: THE ADHESIVE BONDING MATERIAL FOR ANCHORS SHALL HAVE A MINIMUM CHARACTERISTIC BOND STRESS OF 990 PSI. THE EMBEDMENT LENGTH FOR ANCHORS SHALL BE AS SHOWN ON THE PLANS.
- DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.



BRIDGE IDENTIFICATION PLAQUE:

THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW BRIDGE IDENTIFICATION SIGNS (CTDOT SIGN NO. 51-2014) AT THE LEADING END OF EACH BRIDGE PARAPET ON THE TRAFFIC SIDE. EACH SIGN SHALL READ: "00870". ALL COST ASSOCIATED WITH PROVIDING AND INSTALLING THE IDENTIFICATION PLAQUE TO BE COVERED UNDER THE ITEM "SIGN FACE - SHEET ALUMINUM (TYPE XI RETROREFLECTIVE SHEETING)". THE FINAL LOCATION AND ATTACHMENT METHOD FOR THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

REPLACE EXISTING BEARINGS WITH ELASTOMERIC BEARINGS (TYP.) BEARING REPLACEMENT WORK MAY BE SEPARATE FROM DECK REPLACEMENT WORK.

SINGLE SLOPE PARAPET WITH VERTICAL FACE AT LEADING AND TRAILING ENDS (SEE DRAWING NO. STR-14) (TYP.)

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: WSP USA INC. 500 WINDING BROOK DR. GLASTONBURY, CT 06033

SCALE AS NOTED

CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: **REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE**

TOWN(S): **GLASTONBURY**

DRAWING TITLE: **BRIDGE NO. 00870 TYPICAL BRIDGE SECTIONS AND GENERAL NOTES**

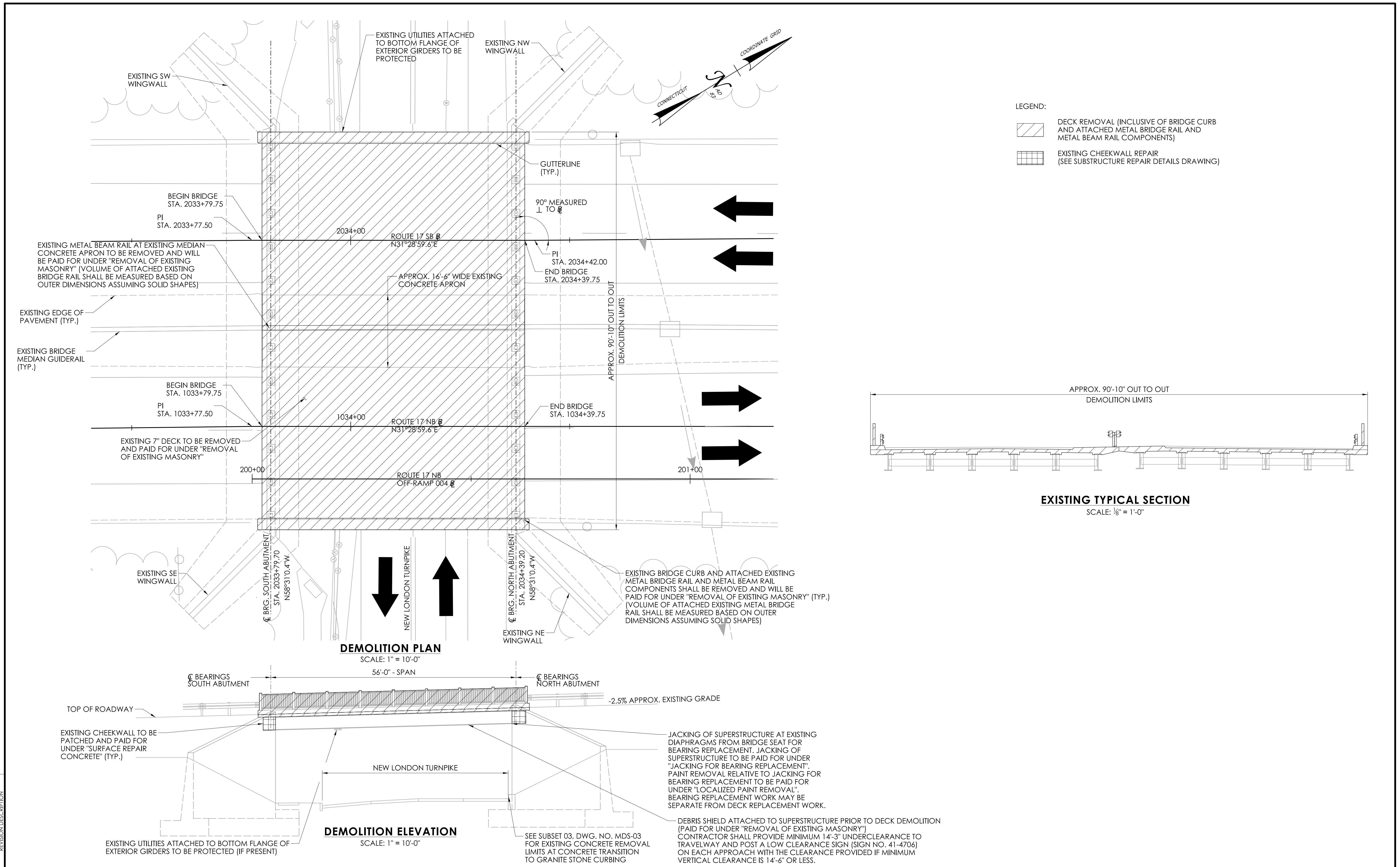
PROJECT NO.: **0053-0189**

DRAWING NO.: **STR-05**

DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SHEET NO.: **04.05**

LASTED SAVED BY: USCC683710 FILE NAME: C:\Users\longcy\State of Connecticut\0053-0189 - Design\Bridge\Contract_Plans\SB_CP_0053-0189_STR-05_Br00870 Typical Bridge Sections and General Notes.dgn PLOTTED DATE: 2/21/2025



REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
 DESIGNER/DRAFTER: CMC/TEG
 CHECKED BY: CYL

SCALE AS NOTED



PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

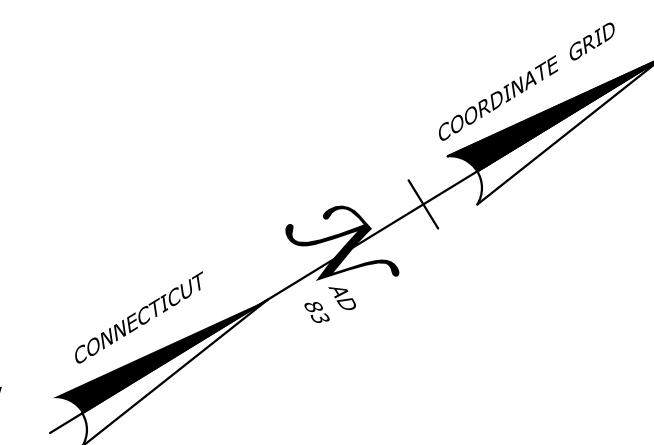
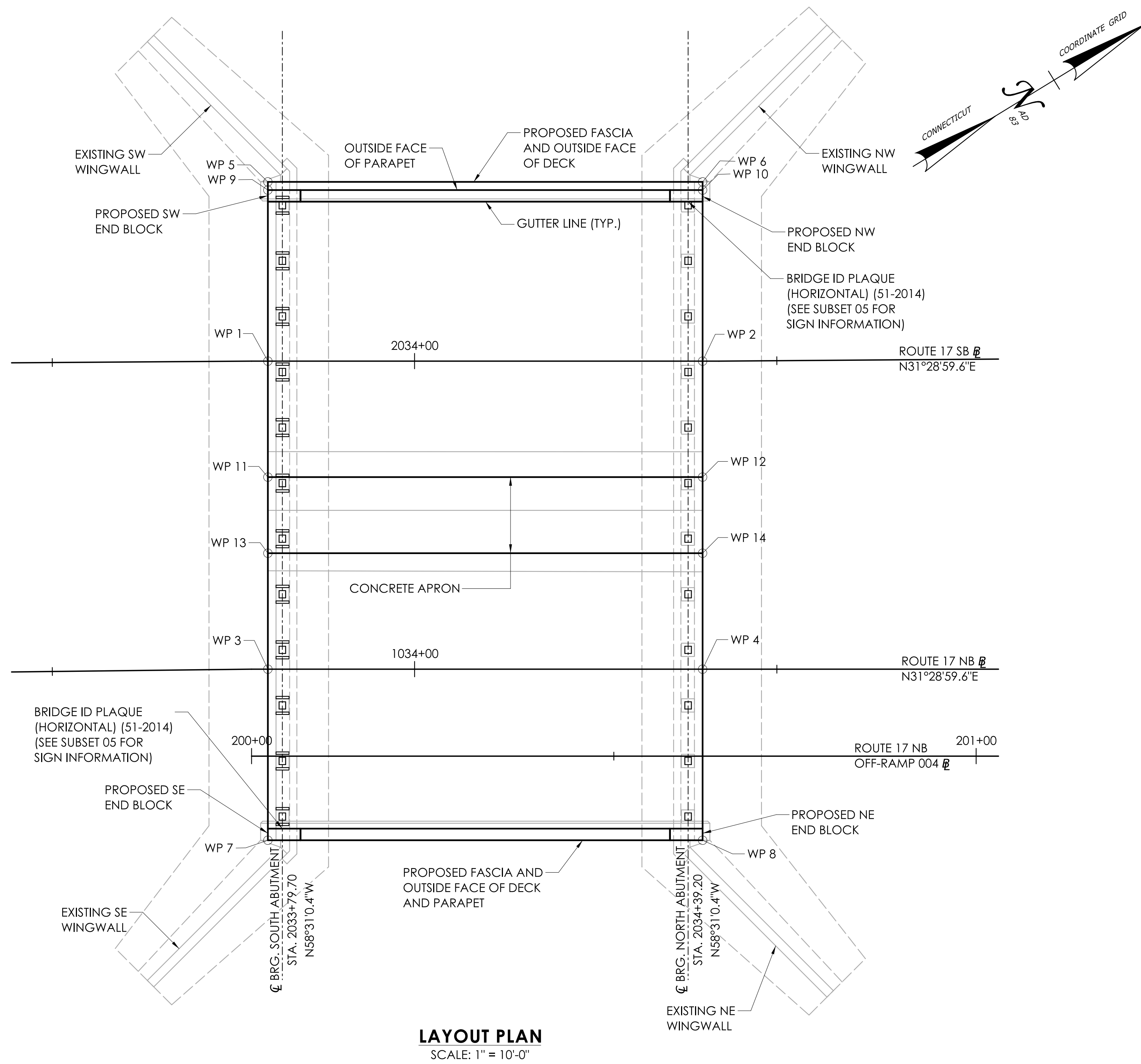
TOWN(S):
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00870 DEMOLITION PLAN AND ELEVATION

PROJECT NO.:
0053-0189

DRAWING NO.:
STR-06

SHEET NO.:
04.06



WORKING POINT COORDINATES			
NO.	NORTHING	EASTING	LOCATION
WP 1	818712.960'	1040930.012'	ROUTE 17 SB BASELINE AT SOUTH BRIDGE DECK
WP 2	818764.128'	1040961.347'	ROUTE 17 SB BASELINE AT NORTH BRIDGE DECK
WP 3	818690.765'	1040966.256'	ROUTE 17 NB BASELINE AT SOUTH BRIDGE DECK
WP 4	818741.932'	1040997.591'	ROUTE 17 NB BASELINE AT NORTH BRIDGE DECK
WP 5	818725.877'	1040908.921'	SOUTHWEST BRIDGE DECK
WP 6	818777.044'	1040940.256'	NORTHWEST BRIDGE DECK
WP 7	818678.438'	1040986.386'	SOUTHEAST BRIDGE DECK AND PARAPET START
WP 8	818729.605'	1041017.720'	NORTHEAST BRIDGE DECK AND PARAPET END
WP 9	818725.288'	1040909.883'	SOUTHWEST PARAPET START
WP 10	818776.455'	1040941.218'	NORTHWEST PARAPET END
WP 11	818704.604'	1040943.657'	SOUTHWEST CONCRETE APRON
WP 12	818755.772'	1040974.992'	NORTHWEST CONCRETE APRON
WP 13	818699.121'	1040952.611'	SOUTHEAST CONCRETE APRON
WP 14	818750.288'	1040983.946'	NORTHEAST CONCRETE APRON

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
 WSP USA INC
 500 WINDING BROOK DR
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED



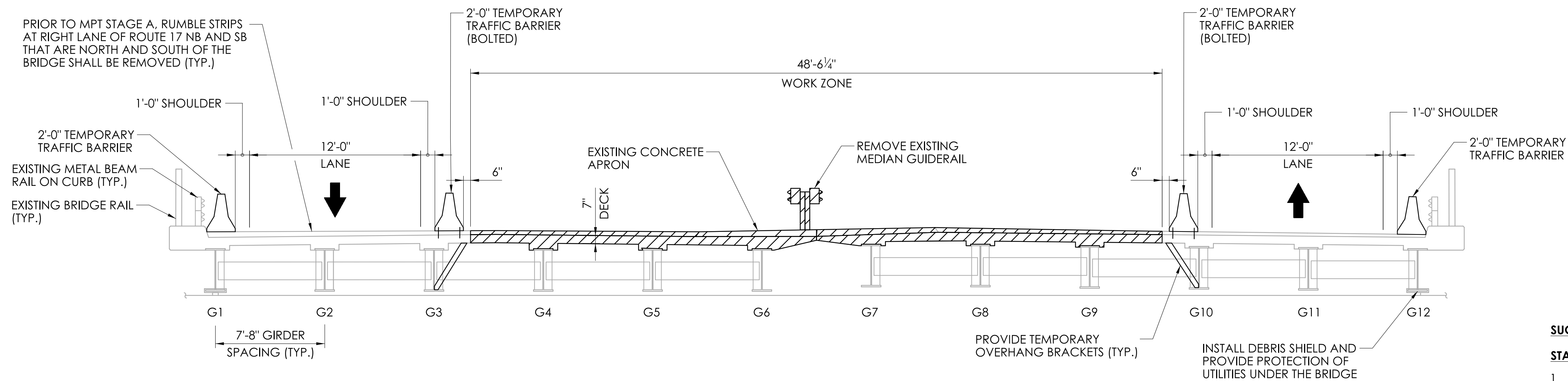
PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00870 LAYOUT PLAN

PROJECT NO.:
0053-0189

DRAWING NO.:
STR-07
 SHEET NO.:
04.07

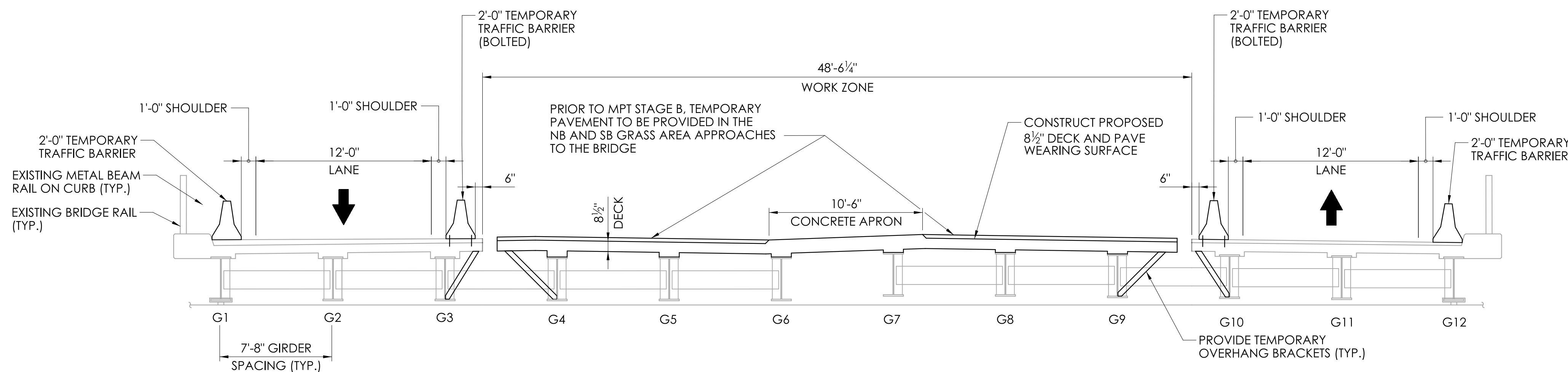


STAGE A - DEMOLITION

SCALE: 1" = 5'-0"

LEGEND:

 STRUCTURE REMOVAL



STAGE A - CONSTRUCTION

SCALE: 1" = 5'-0"

SUGGESTED CONSTRUCTION SEQUENCE:

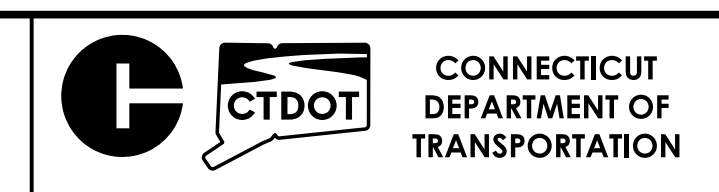
STAGE A

1. INSTALL DEBRIS SHIELD AND PROVIDE PROTECTION OF UTILITIES UNDER THE BRIDGE.
2. REMOVE ROUTE 17 NB AND SB RIGHT LANE RUMBLE STRIPS NORTH AND SOUTH OF BRIDGE. REFER TO TRAFFIC SUBSET FOR REMOVAL LIMITS.
3. PROVIDE TEMPORARY OVERHANG BRACKETS AT GIRDERS G3 AND G10 TO SUPPORT EXISTING BRIDGE DECK.
4. INSTALL TEMPORARY TRAFFIC BARRIER (BOLTED) AND TEMPORARY TRAFFIC BARRIER (PINNED) NORTH AND SOUTH OF THE BRIDGE. SHIFT TRAFFIC TO EXTERIOR LANES. REFER TO TRAFFIC SUBSET FOR TEMPORARY TRAFFIC BARRIER LIMITS AND MAINTENANCE AND PROTECTION OF TRAFFIC.
5. REMOVE EXISTING MEDIAN GUIDERAIL. REMOVE EXISTING 7" DECK AND EXISTING CONCRETE APRON.
6. INSTALL CONCRETE BEARING PAD MODIFICATION AT FIXED BEARING LOCATIONS. REPLACE FIXED BEARINGS AND REPLACE EXPANSION BEARINGS AT GIRDERS G4 THROUGH G9.
7. PROVIDE TEMPORARY OVERHANG BRACKETS AT GIRDERS G4 AND G9 TO SUPPORT FORM AND CONSTRUCT PROPOSED 8 1/2" DECK AND PROPOSED CONCRETE APRON. APPLY MEMBRANE WATERPROOFING ON ALL PROPOSED CONCRETE DECK AND APRON.
8. INSTALL ASPHALTIC PLUG JOINT AT LIMITS OF COMPLETED DECK CONSTRUCTION.
9. PAVE WEARING SURFACE OVER COMPLETED DECK.
10. PROVIDE TEMPORARY PAVEMENT IN THE GRASS AREA APPROACHES TO THE BRIDGE PRIOR TO MPT STAGE B.

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
 WSP USA INC
 500 WINDING BROOK DR
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED

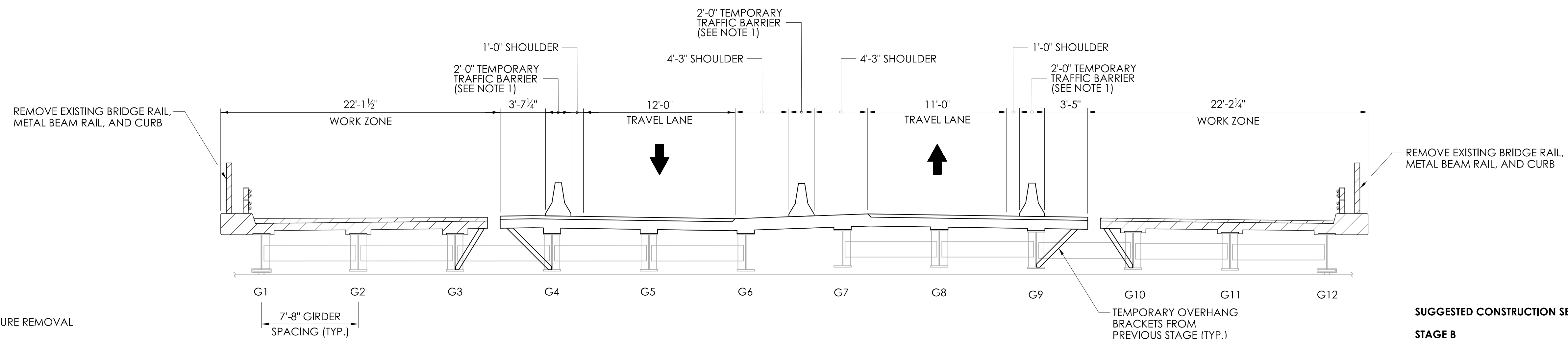


PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

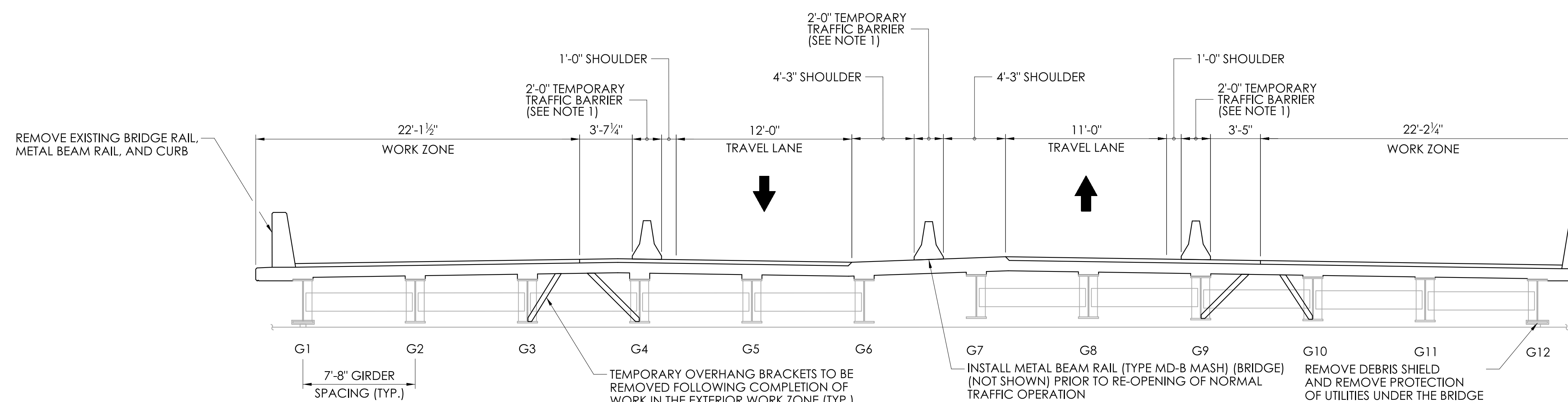
TOWN(S):
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00870 CONSTRUCTION STAGE SECTIONS - 1

PROJECT NO.:
0053-0189
 DRAWING NO.:
STR-08
 SHEET NO.:
04.08



STAGE B - DEMOLITION
SCALE: 1" = 5'-0"



STAGE B - CONSTRUCTION
SCALE: 1" = 5'-0"

SUGGESTED CONSTRUCTION SEQUENCE:

- STAGE B**
1. INSTALL DEBRIS SHIELD, INSTALL TEMPORARY TRAFFIC BARRIER AT BRIDGE AND AT NORTH AND SOUTH OF THE BRIDGE. SHIFT TRAFFIC TO INTERIOR LANES. REFER TO TRAFFIC SUBSET FOR TEMPORARY TRAFFIC BARRIER LIMITS AND MAINTENANCE AND PROTECTION OF TRAFFIC.
 2. REMOVE EXISTING BRIDGE RAIL, EXISTING METAL BEAM RAIL ON CURB, AND REMOVE EXISTING 7" DECK AND CURB.
 3. INSTALL CONCRETE BEARING PAD MODIFICATION AT FIXED BEARING LOCATIONS. REPLACE FIXED BEARINGS AND REPLACE EXPANSION BEARINGS AT GIRDERS G1 THROUGH G3, AND G10 THROUGH G12.
 4. FORM AND CONSTRUCT PROPOSED 8 1/2" DECK AND SINGLE SLOPE PARAPET. APPLY MEMBRANE WATERPROOFING (OVERLAP BEYOND DECK PHASE LINE FROM PREVIOUS MPT STAGE A).
 5. INSTALL THRIE BEAM ATTACHMENT AND THE NECESSARY METAL BEAM RAIL CONNECTIONS NORTH AND SOUTH OF THE BRIDGE.
 6. INSTALL ASPHALTIC PLUG JOINT AT LIMITS OF DECK CONSTRUCTION.
 7. PAVE WEARING SURFACE OVER COMPLETED DECK WITH NECESSARY TRANSITIONS TO WEARING SURFACE PAVED IN MPT STAGE A.
 8. INSTALL MASH COMPLIANT MEDIAN GUIDERAIL PRIOR TO RE-OPENING OF NORMAL TRAFFIC OPERATION.
 9. REMOVE DEBRIS SHIELD, TEMPORARY OVERHANG BRACKETS, AND TEMPORARY PROTECTION OF UTILITIES.
 10. RE-OPEN TRAFFIC.

NOTES:

1. TEMPORARY TRAFFIC BARRIER (BOLTED) IS NOT PERMITTED ONTO NEW DECK.

LEGEND:
 STRUCTURE REMOVAL

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
 WSP USA INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED



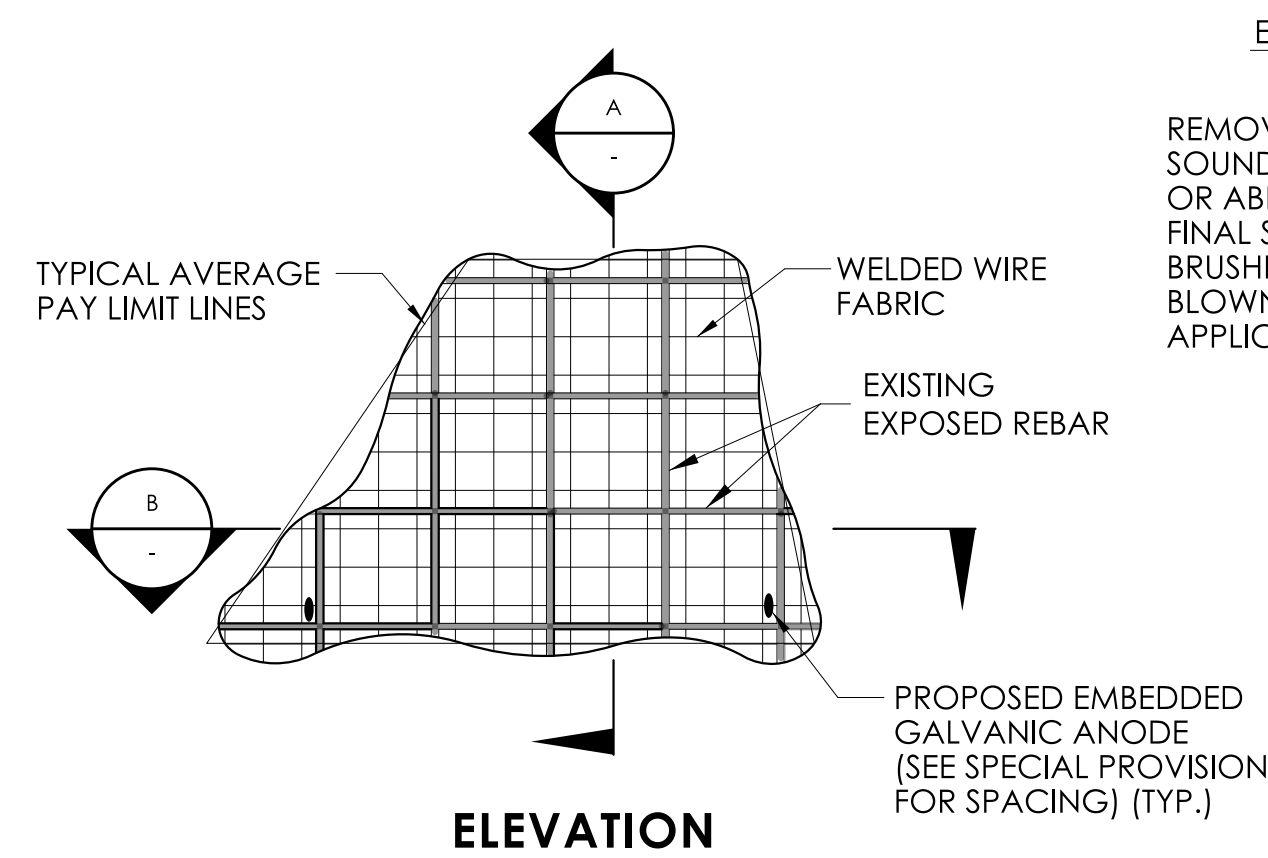
PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00870 CONSTRUCTION STAGE SECTIONS - 2

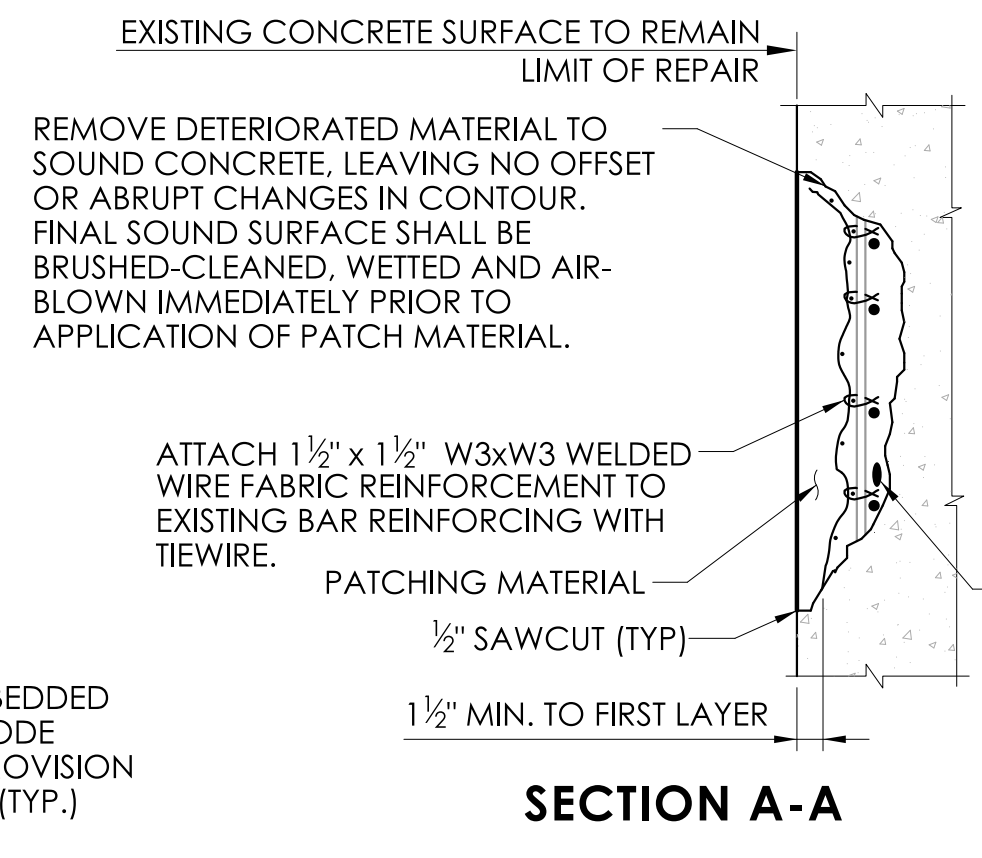
PROJECT NO.:
0053-0189

DRAWING NO.:
STR-09
 SHEET NO.:
04.09

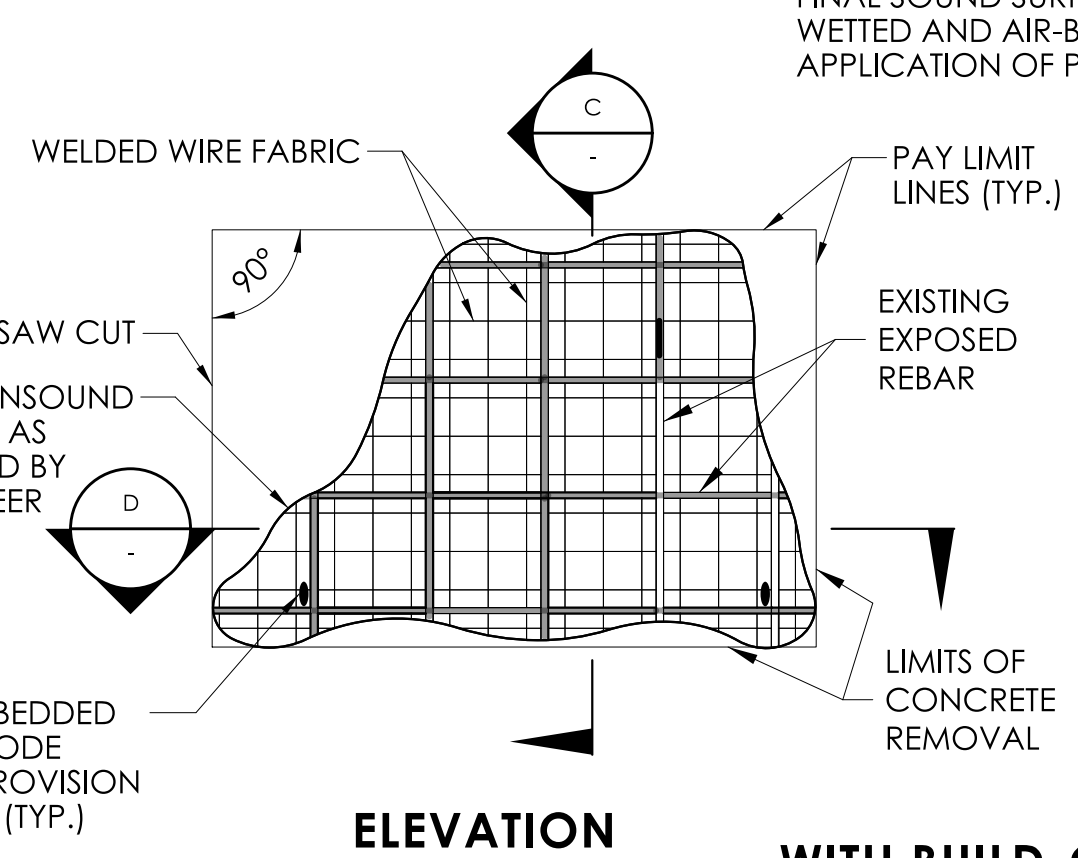


ELEVATION

WITHOUT BUILD-OUT

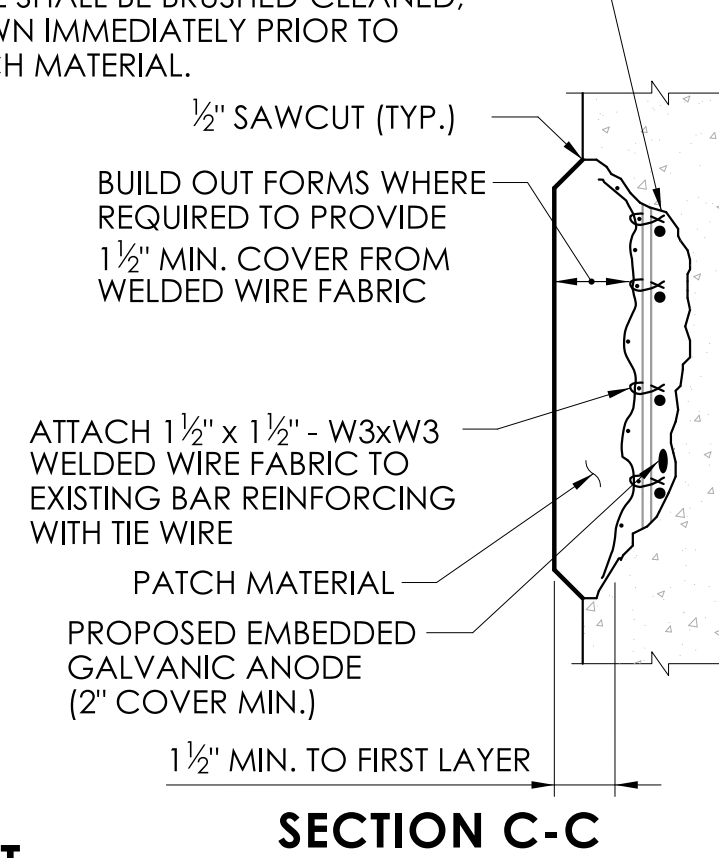


SECTION A-A



ELEVATION

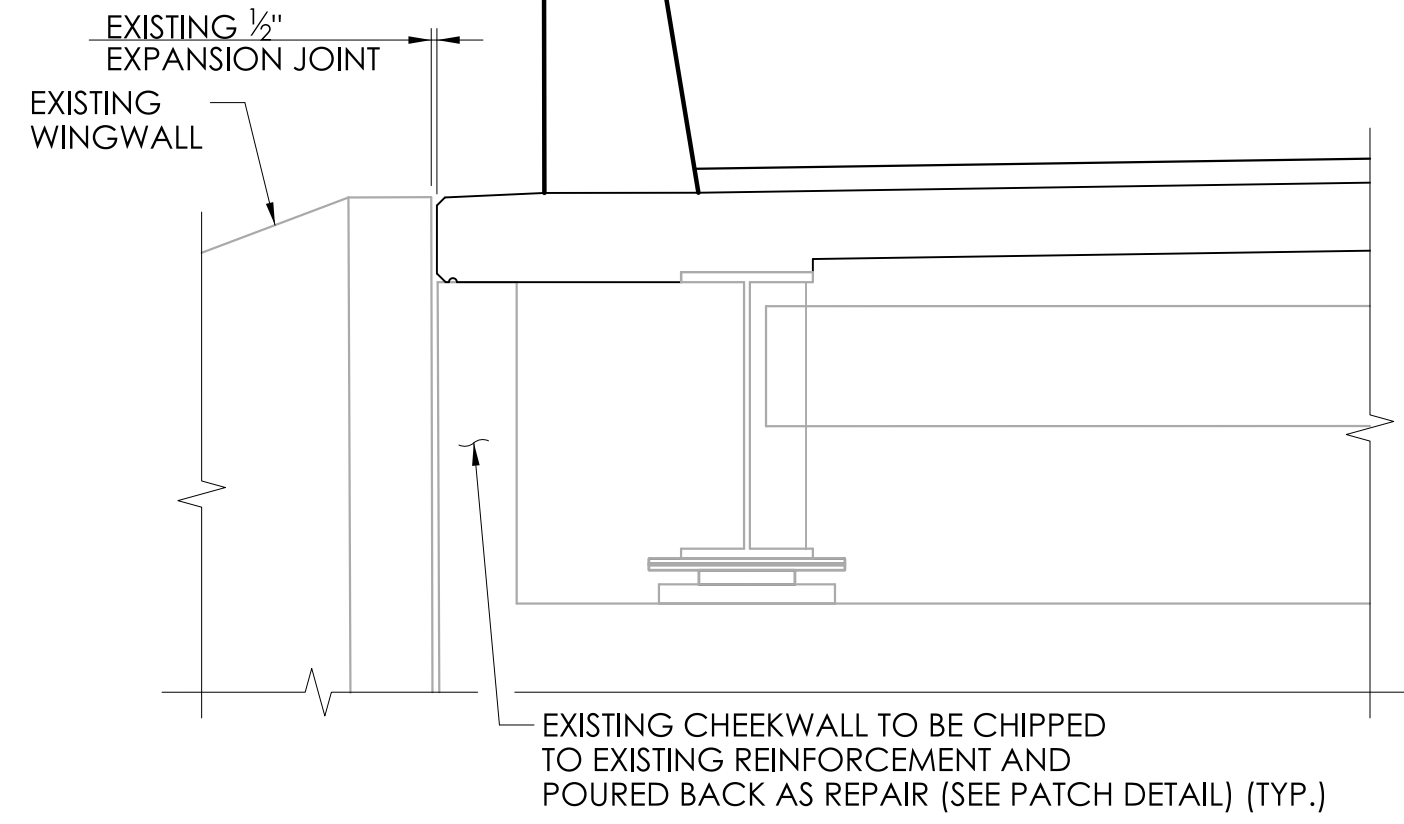
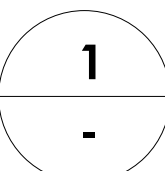
WITH BUILD-OUT



SECTION C-C

DEEP PATCH DETAIL 1

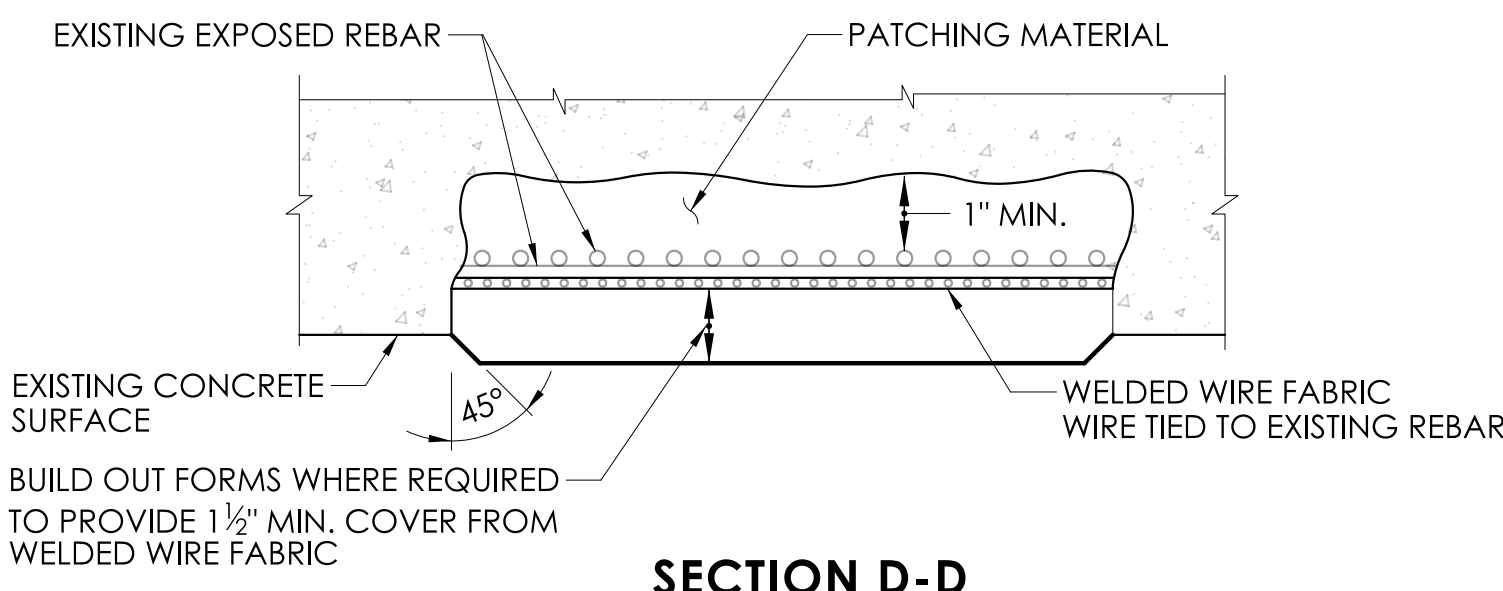
NOT TO SCALE



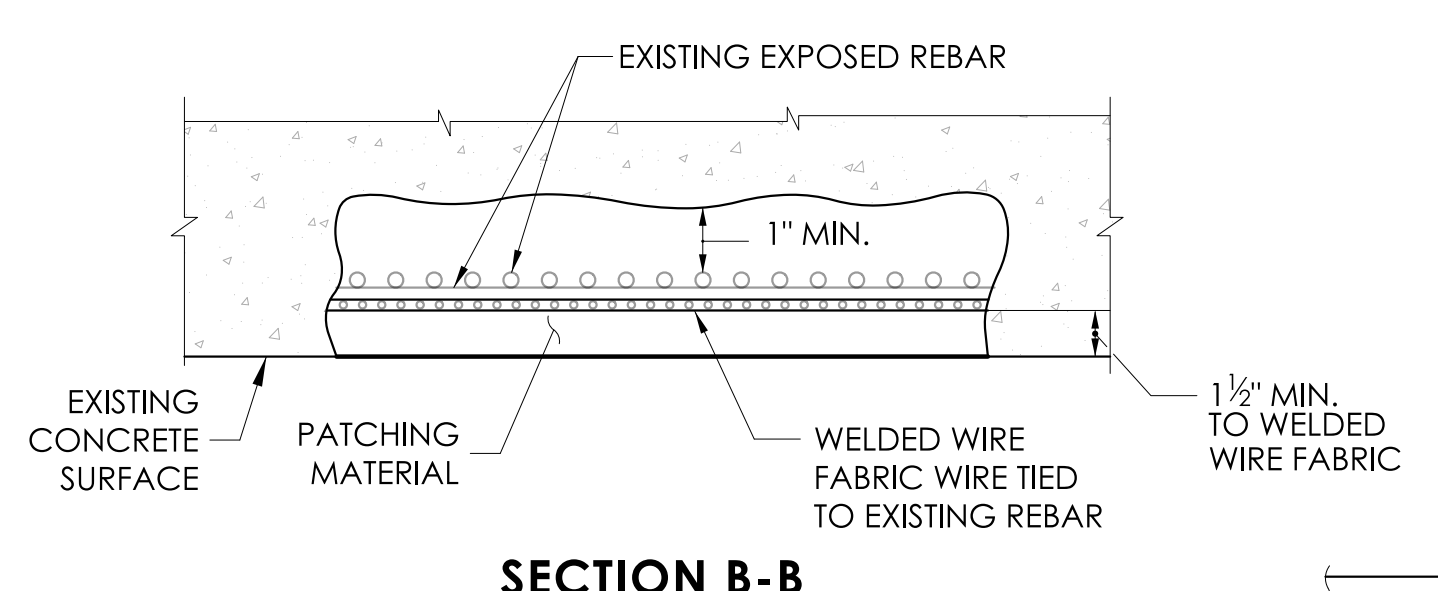
CHEKWALL REPAIR DETAIL

NOT TO SCALE

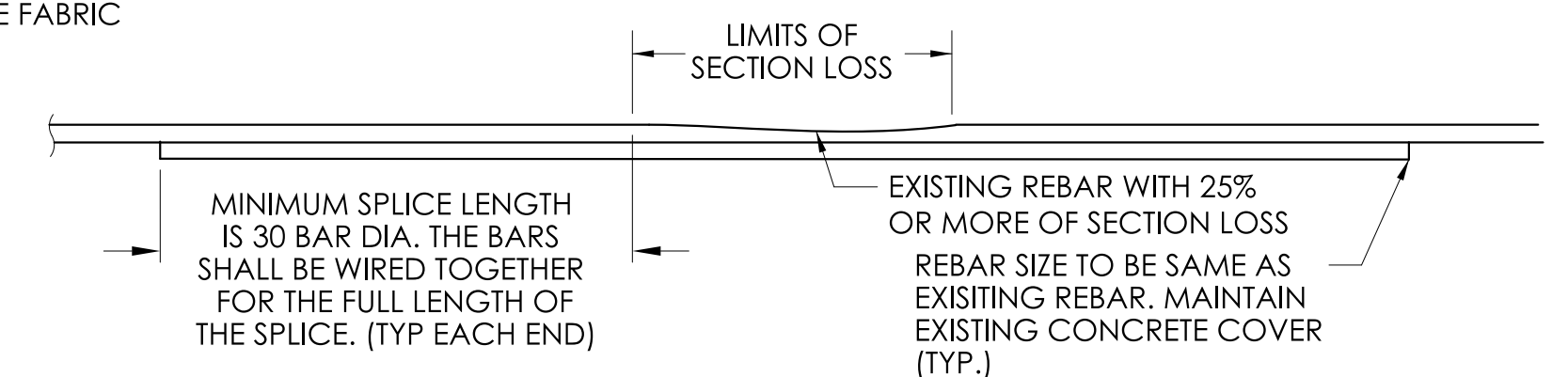
(SHOWN AT CHEKWALL LOCATION WHERE DECK DRIP EDGE ADDITIONAL OVERHANG WILL BE CONSTRUCTED)



SECTION D-D

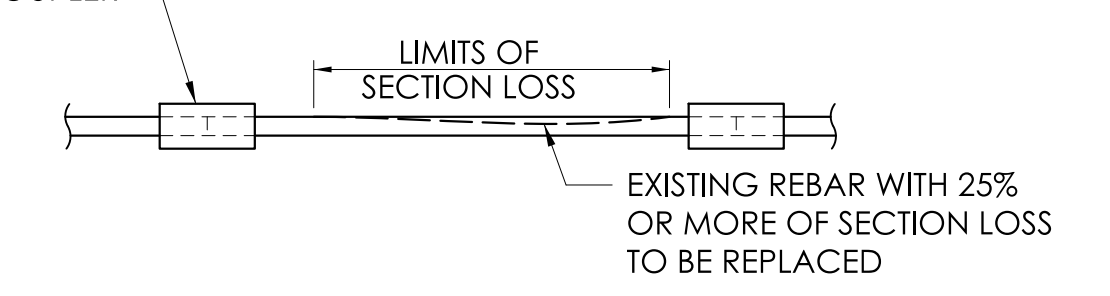


SECTION B-B



LAPPED, TIED SPLICE BAR

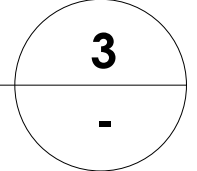
MECHANICAL COUPLER (TYP.)



MECHANICAL SPLICE DETAIL

REINFORCEMENT SPLICE DETAIL 3

NOT TO SCALE



SHALLOW PATCH REPAIR NOTES:

1. SHALLOW PATCH REPAIR DETAIL APPLIES TO DETERIORATED AREAS OF UNREINFORCED CONCRETE OR REPAIR AREAS WHERE NO REINFORCING IS EXPOSED.
2. REPAIR DEPTH SHALL BE 1/2" (MIN.) OR GREATER. REPAIR DEPTHS LESS THAN 1/2" NEED NOT BE REPAIRED.
3. FOR AREAS WHERE THE CONCRETE REPAIR EXCEEDS 4" IN DEPTH, A SINGLE LAYER OF WIRE MESH SHALL BE USED TO REINFORCE EACH 2" THICKNESS OF PATCHING MATERIAL.
4. THE PERIMETER OF EACH DETERIORATED AREA SHALL BE SQUARED-OFF BY SAWCUTTING.
5. SURFACE PREPARATION
 - A. REMOVE LOOSE AND DETERIORATED CONCRETE, INCLUDING DIRT, OIL, GREASE AND ALL BOND-INHIBITING MATERIALS FROM SURFACE, LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR. SURFACE PREPARATION SHALL BE DONE BY SCABBLER, CHISELING, WIRE BRUSHING OR OTHER APPROPRIATE MECHANICAL MEANS.
 - B. ROUGHEN CONTACT SURFACE WITH A MINIMUM PROFILE OF APPROXIMATELY 1/16" FOR BONDING WITH PATCHING MATERIAL.
 - C. SATURATE WITH CLEAN WATER PRIOR TO APPLYING PATCHING MATERIAL. SUBSTRATE SHOULD BE SATURATED SURFACE DRY (SSD) WITH NO STANDING WATER DURING APPLICATION OF PATCHING MATERIAL.
6. HOOK-TYPE EXPANSION ANCHOR BOLTS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50, TYPE 1.

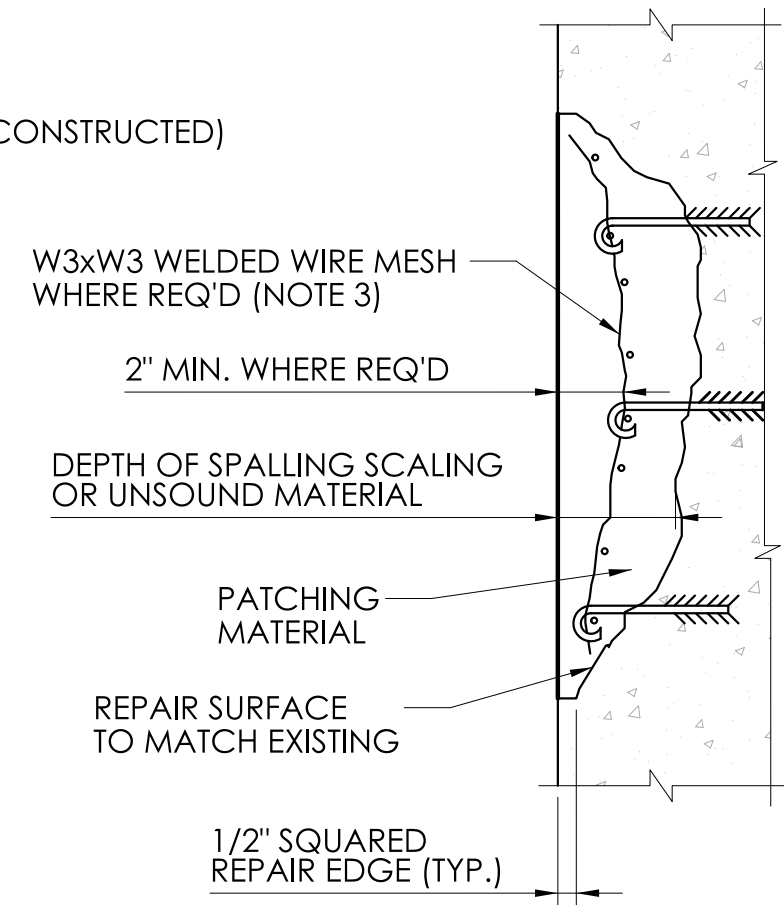
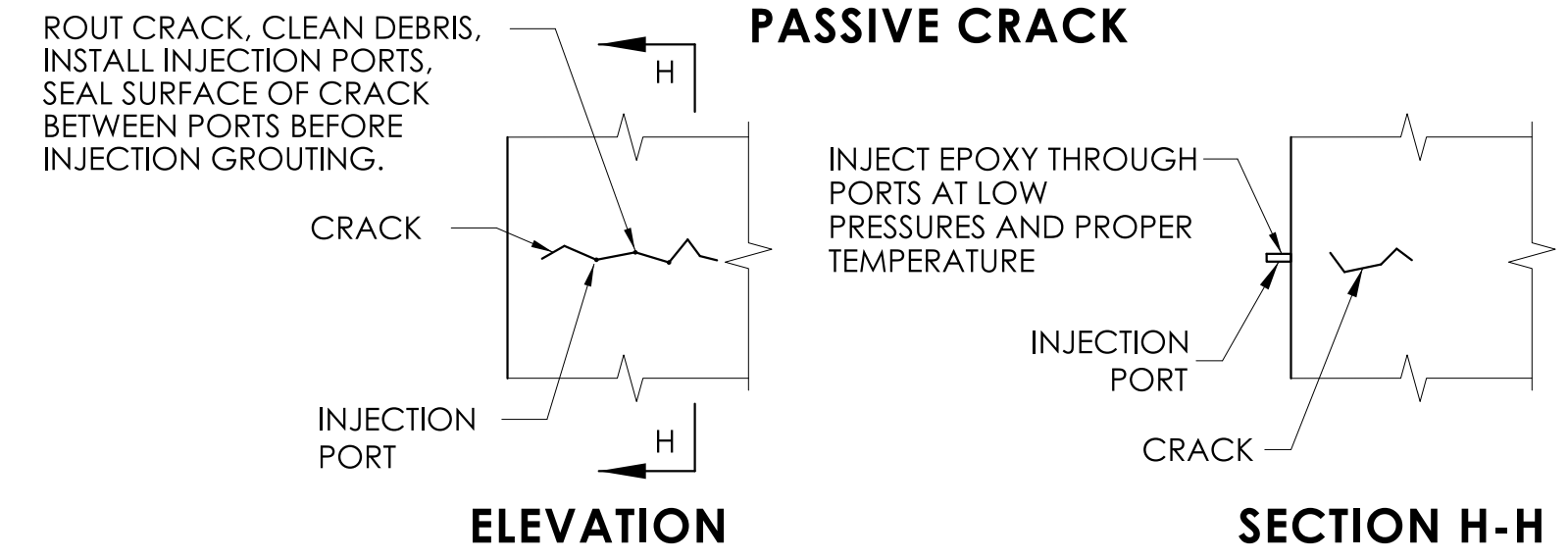
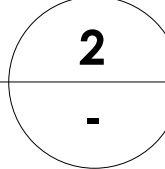


TABLE A	
SIZE AND SPACING OF HOOK-TYPE BOLTS	
THICKNESS OF PATCH MAT'L	SIZE AND SPACING
2" +/-	1/4" DIA. AT 18" +/- CTRS.
4" +/-	1/2" DIA. AT 24" +/- CTRS.
5" +/-	1/2" DIA. AT 22" +/- CTRS.
6" +/-	1/2" DIA. AT 20" +/- CTRS.

SHALLOW PATCH DETAILS 2

NOT TO SCALE



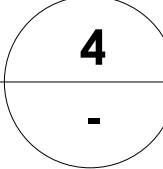
ELEVATION

SECTION H-H

ACTIVE CRACK

CRACK REPAIR DETAIL 4

NOT TO SCALE



GENERAL NOTES:

1. THE REMOVAL OF DETERIORATED CONCRETE SHALL PROCEED AS DIRECTED BY THE DEPARTMENT. IF THE REMOVAL OF DETERIORATED CONCRETE BECOMES EXCESSIVE, THE REMOVAL WORK SHALL BE STOPPED AT THE LOCATION AND THE ENGINEER NOTIFIED IMMEDIATELY.
2. SURFACE PREPARATION, PROPORTIONING AND MIXING OF MATERIALS, APPLICATION OF MATERIALS AND REPAIR PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. CONCRETE PATCHES SHALL MATCH SHAPE OF EXISTING CONCRETE SURFACES, UNLESS NOTED OTHERWISE. COLOR OF PATCH CONCRETE SHALL MATCH COLOR OF THE ADJACENT SURFACES AS CLOSELY AS POSSIBLE.
4. EXPOSED REINFORCING BARS SHALL BE BLAST CLEANED BEFORE APPLYING THE PATCHING MATERIAL.
5. AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE NOTED OR AS ORDERED BY ENGINEER.
6. DEEP PATCH REPAIR DETAIL SHALL BE USED FOR ALL AREAS WITH EXPOSED REBAR.
7. CLASS PCC04483 CONCRETE SHALL BE USED FOR ALL SURFACE REPAIRS.
8. SHALLOW PATCH REPAIR AND DEEP PATCH REPAIR TO BE PAID FOR UNDER ITEM "SURFACE REPAIR CONCRETE".
9. ACTIVE CRACK REPAIR TO BE PAID FOR UNDER ITEM "EPOXY INJECTION CRACK REPAIR".
10. PENETRATING SEALER PROTECTIVE COMPOUND SHALL BE APPLIED TO EXPOSED SURFACES OF EXISTING ABUTMENTS, BACKWALLS, WINGWALLS, AND RECONSTRUCTED CHEEKWALLS.

DEEP PATCH REPAIR PROCEDURE:

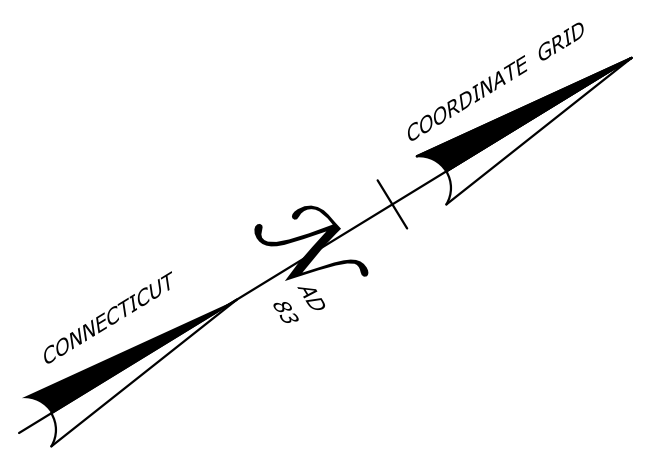
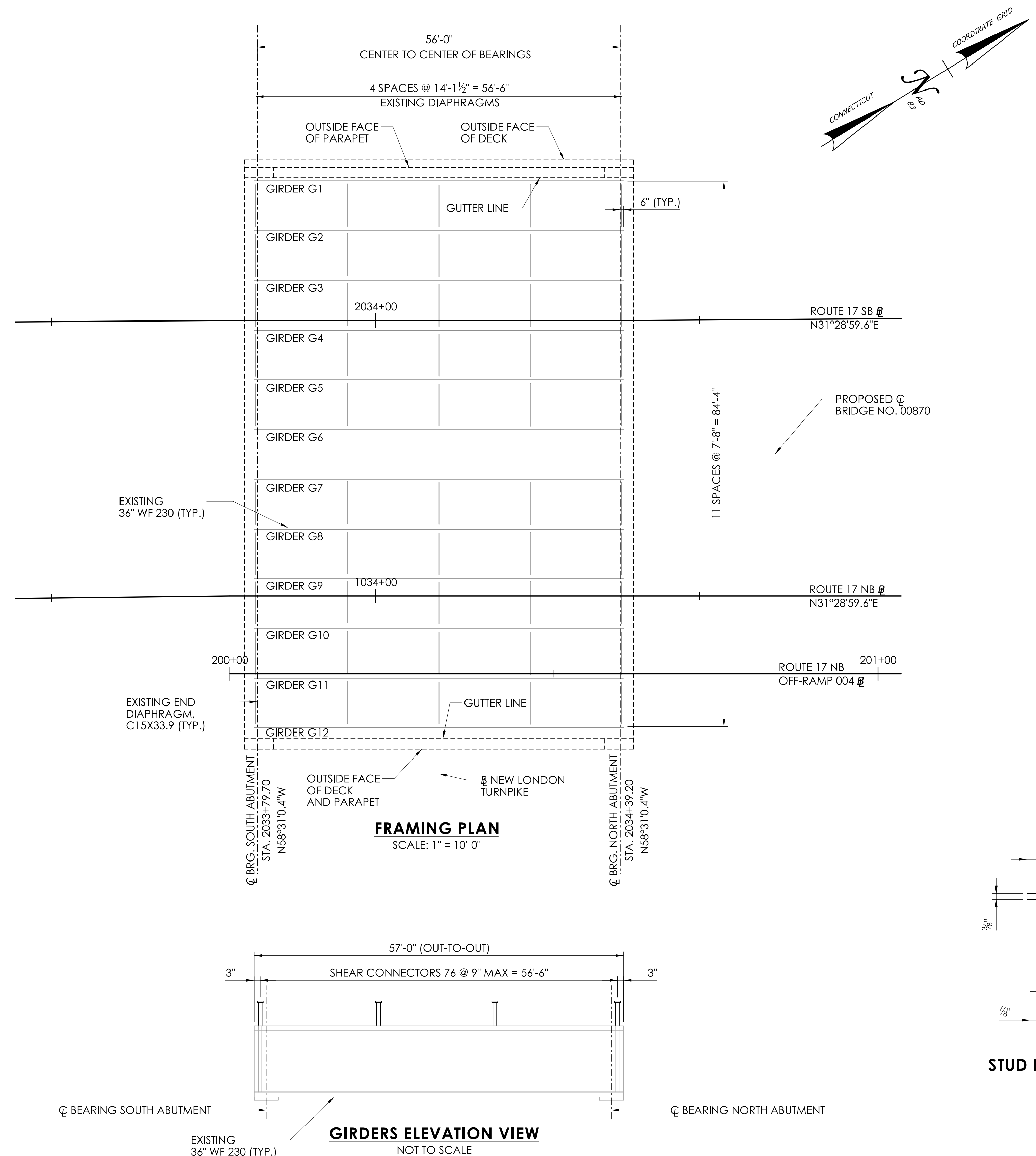
1. REMOVE DETERIORATED MATERIAL TO SOUND CONCRETE LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR.
2. CLEAN EXISTING REINFORCING STEEL AND CONCRETE (NEWLY EXPOSED) BY ABRASIVE BLASTING. SEE SPECIFICATION "SURFACE REPAIR CONCRETE". MISSING OR DETERIORATED REINFORCING STEEL SHALL BE REPLACED AS SHOWN IN DETAIL OR AS DIRECTED BY THE ENGINEER.
3. INSTALL GALVANIC ANODES IN REPAIR AREA.
4. ALL NEW EXPOSED CONCRETE SURFACES WITHIN AREA TO BE REPAIRED SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH.

ACTIVE CRACK REPAIR PROCEDURE:

1. PRIOR TO SEALING, THE CRACK SHALL BE CLEANED FREE OF DUST, SILT AND ANY OTHER MATERIAL WHICH WOULD IMPAIR BONDING. CLEANING SHALL BE DONE WITH OIL-FREE AIR JETS OR INDUSTRIAL VACUUM CLEANER.
2. SET GROUT PRESSURE INJECTION PORTS INTO PLACE ACCORDING TO EPOXY MANUFACTURER'S RECOMMENDATIONS.
3. SEAL SURFACE OF CRACKS BETWEEN INJECTION PORTS WITH TAPE OR OTHER TEMPORARY SURFACE SEALANT CAPABLE OF RETAINING THE EPOXY ADHESIVE DURING PRESSURE INJECTION.
4. PUMP EPOXY ADHESIVE INTO CRACKS THROUGH THE INJECTION PORTS.
5. ALLOW THE INJECTED EPOXY TO SET THEN CUT INJECTION PORTS FLUSH WITH SURFACE OF CONCRETE.

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: WSP USA INC. 500 WINDING BROOK DR. GLASTONBURY, CT 06033. SCALE AS NOTED. CONNECTICUT DEPARTMENT OF TRANSPORTATION. PROJECT TITLE: REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE. TOWN(S): GLASTONBURY. DRAWING TITLE: BRIDGE NO. 00870 SUBSTRUCTURE REPAIR DETAILS. PROJECT NO.: 0053-0189. DRAWING NO.: STR-10. SHEET NO.: 04.10.



EXISTING GIRDER FUTURE JACKING LOADS (UNFACTORED) (KIPS)

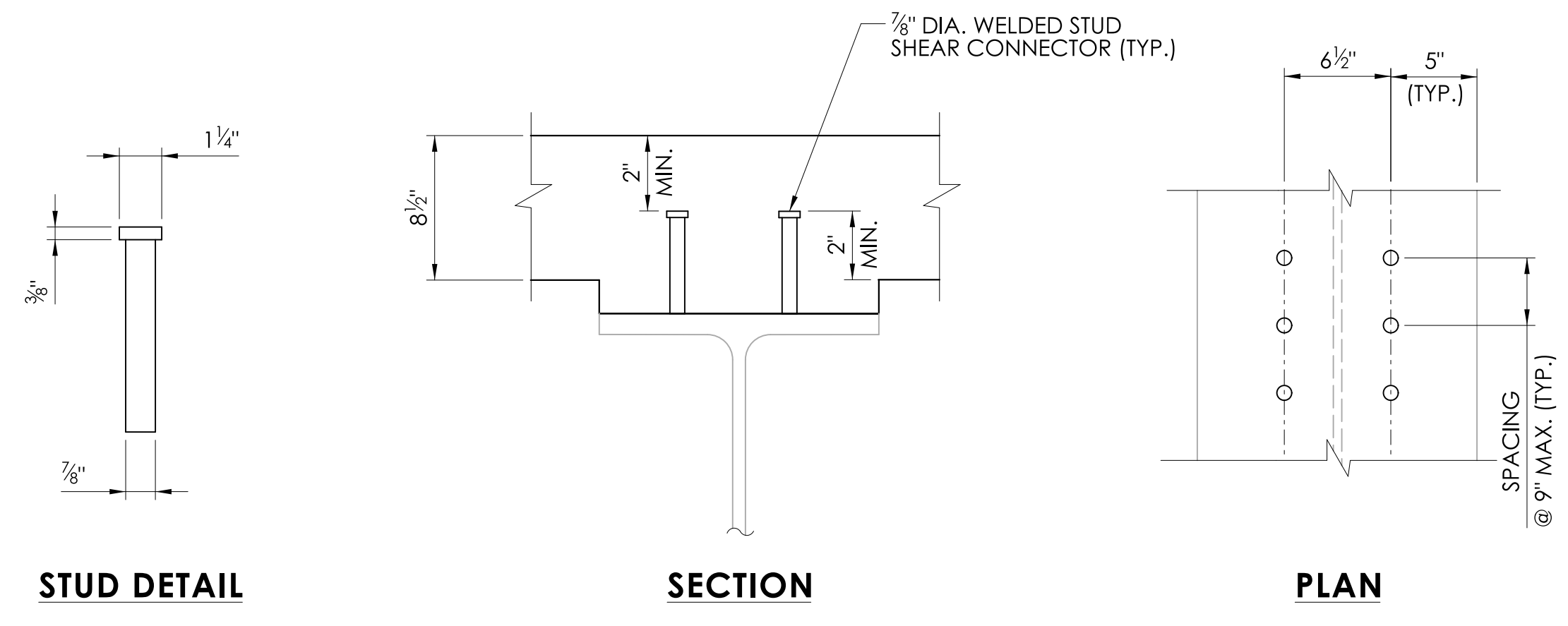
GIRDER	INDIVIDUAL		SIMULTANEOUS	
	DL	LL+I	DL	LL+I
G1	79.92	79.28	53.28	52.85
G2-G5, G8-G11	80.66	115.94	53.77	77.29
G6	90.89	115.94	60.59	77.29
G7	94.37	115.94	62.91	77.29
G12	80.18	99.42	53.45	66.28

DL = DEAD LOAD
 LL+I = LIVE LOAD + IMPACT
 INDIVIDUAL = JACKING LOAD IF GIRDER IS JACKED INDIVIDUALLY
 SIMULTANEOUS = JACKING LOAD IF ALL GIRDERS IN LINE ARE JACKED SIMULTANEOUSLY

DEFLECTIONS & CAMBERS (INCHES)

MARK	DEAD LOAD DEFLECTIONS @ $\frac{1}{4}$ OF SPAN				CAMBERS @ $\frac{1}{4}$ OF SPAN
	STRUCTURAL STEEL	ADDITIONAL DEAD LOAD	COMPOSITE DEAD LOAD	TOTAL DEAD LOAD DEFLECTION	TOTAL*
G1	0.13	0.48	0.26	0.87	1.50
G2-G5	0.14	0.48	0.24	0.86	1.50
G6	0.14	0.48	0.21	0.83	1.50
G7	0.14	0.48	0.21	0.83	1.50
G8-G11	0.14	0.48	0.24	0.86	1.50
G12	0.13	0.48	0.26	0.87	1.50

*NOTE: CAMBER BASED ON CAMBER FROM ORIGINAL CONTRACT DRAWINGS



WELDED STUD SHEAR CONNECTOR DETAIL
NOT TO SCALE

STRUCTURAL STEEL NOTES
 1. EXISTING STRUCTURAL STEEL IS ASTM A7.

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL
 WSP USA INC.
 500 WINDING BROOK DR
 GLASTONBURY, CT 06033

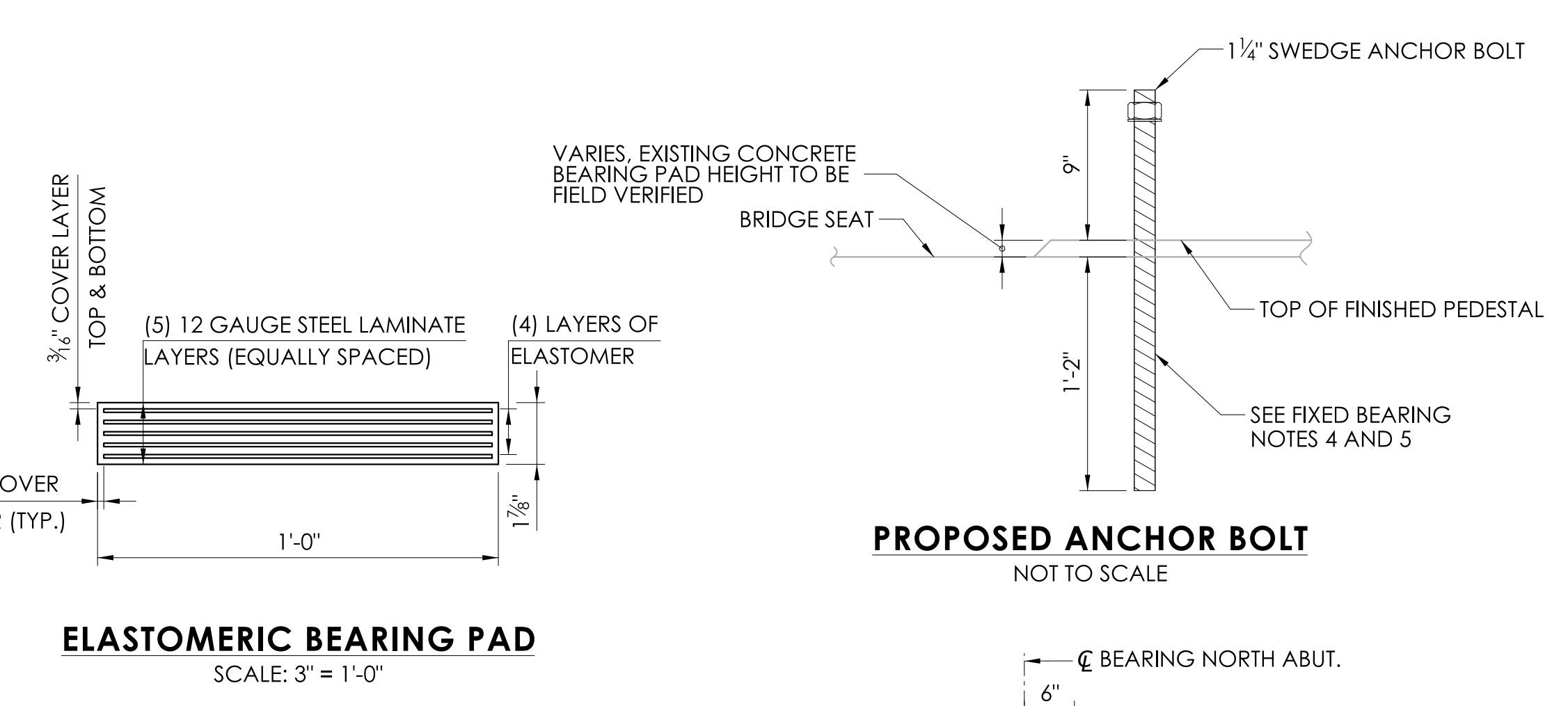
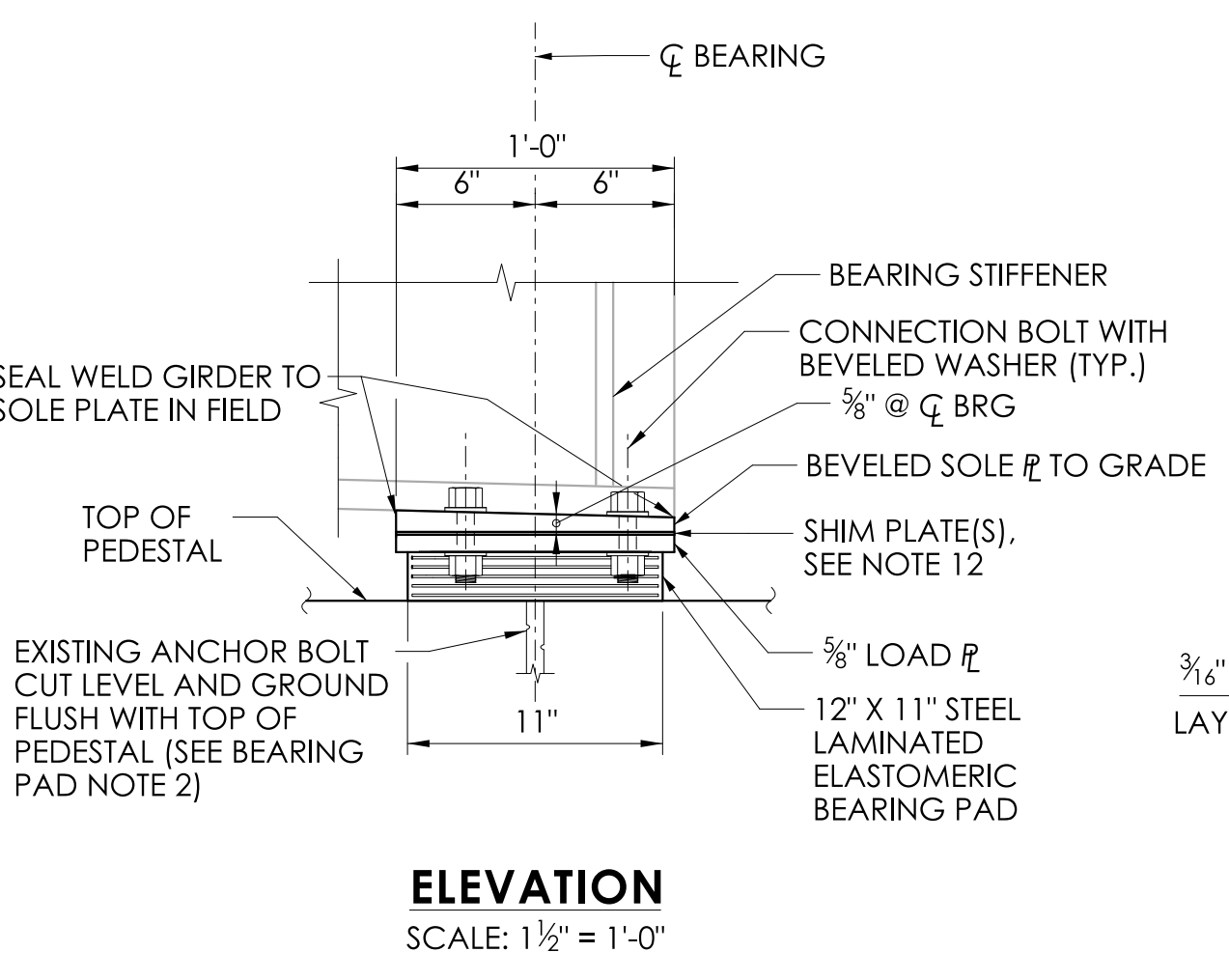
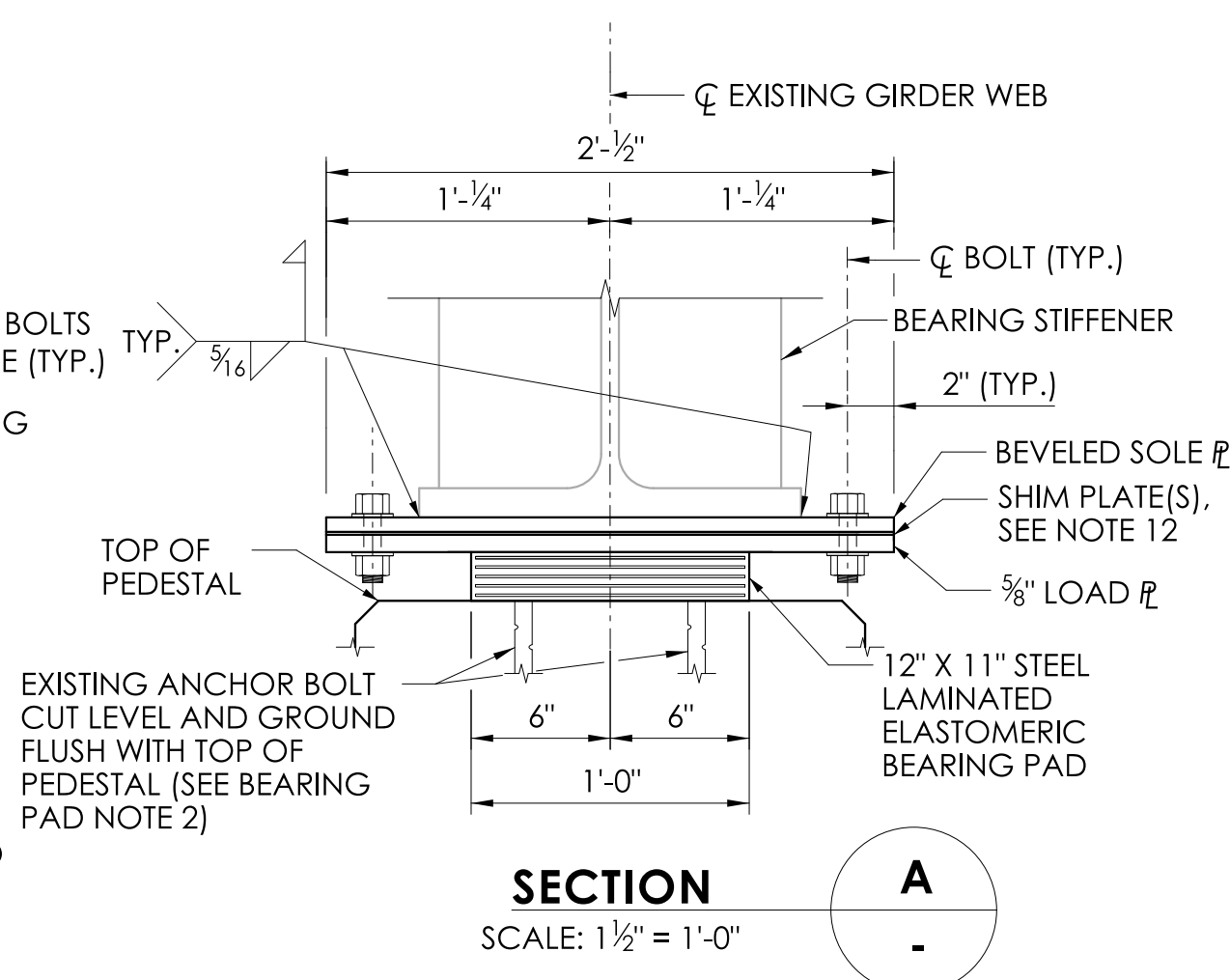
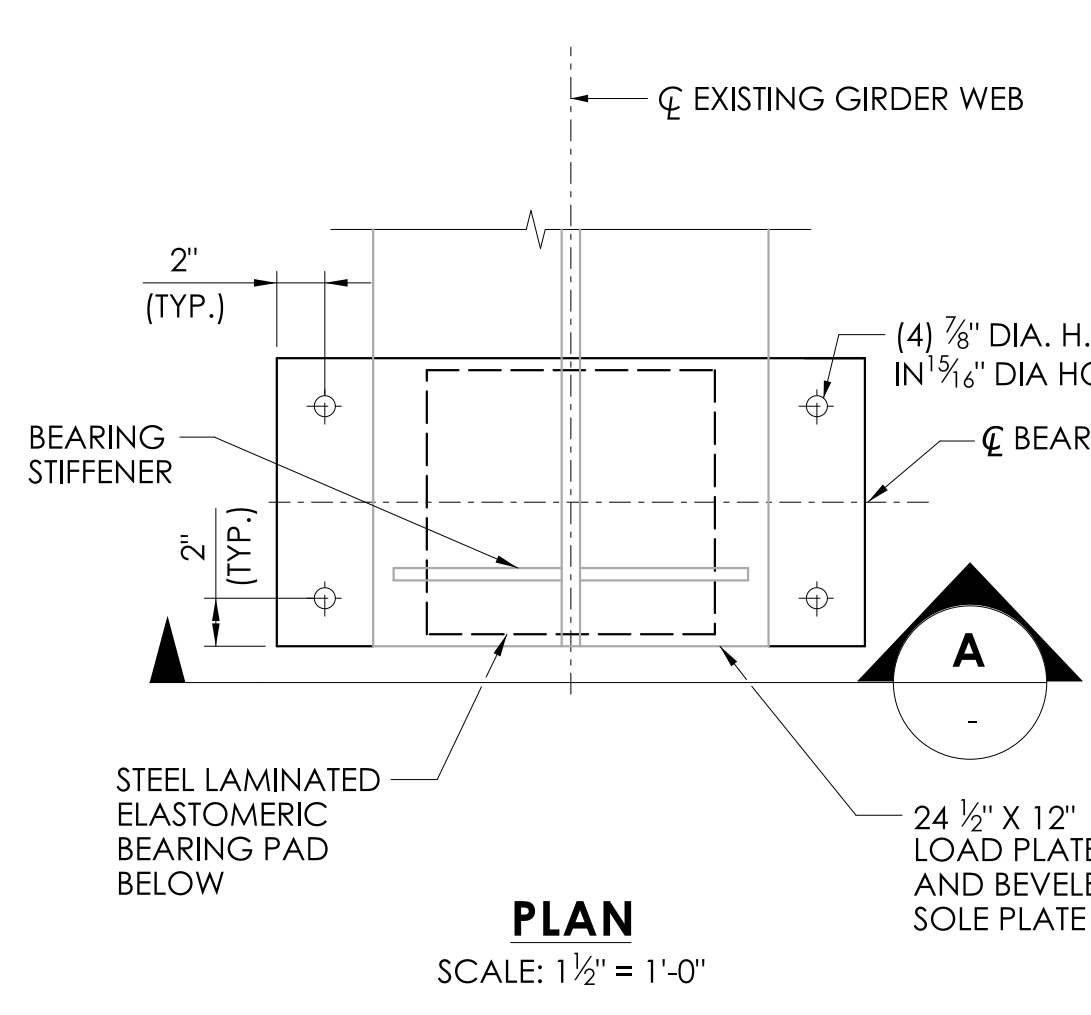
SCALE AS NOTED
 CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

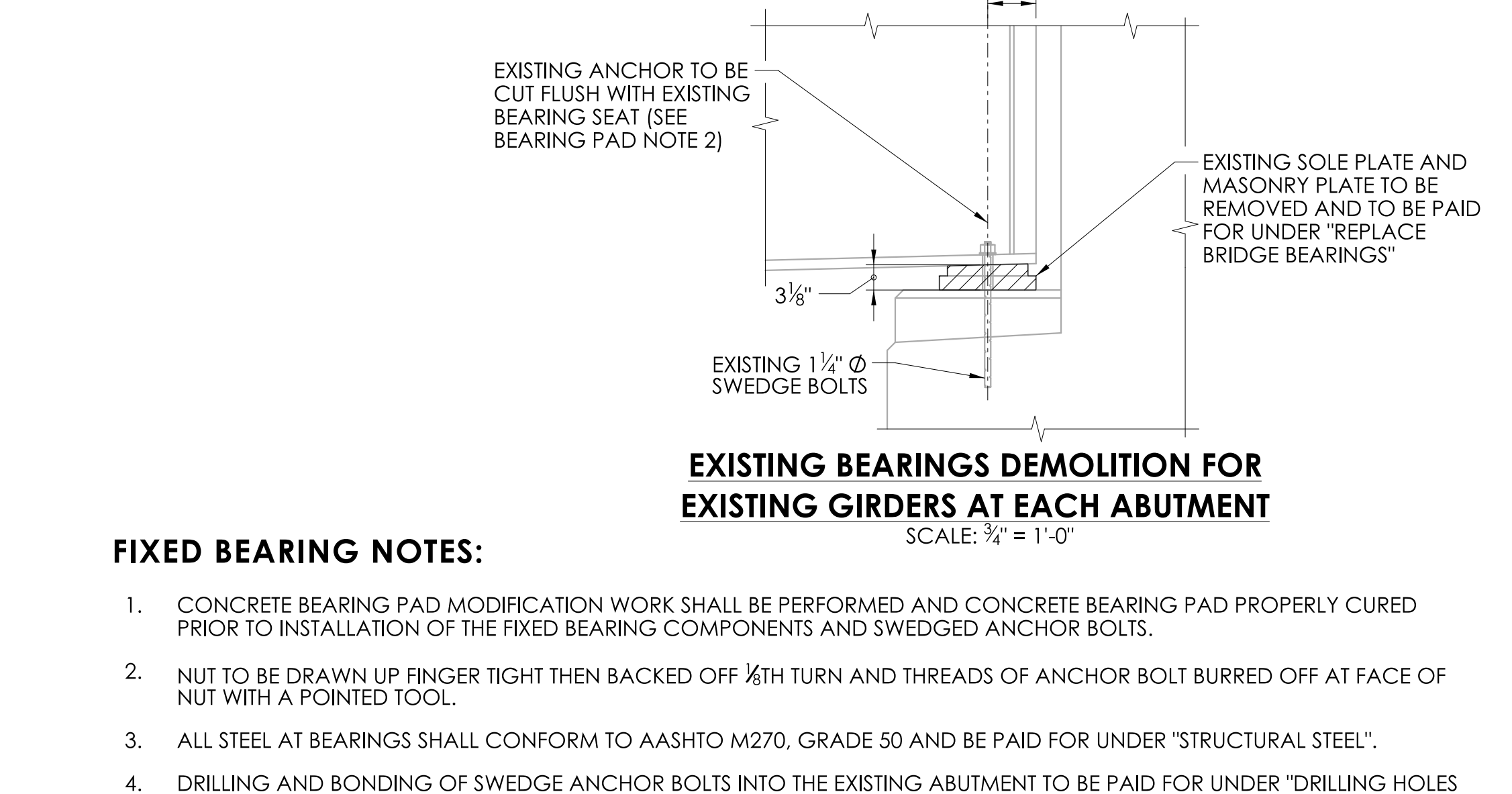
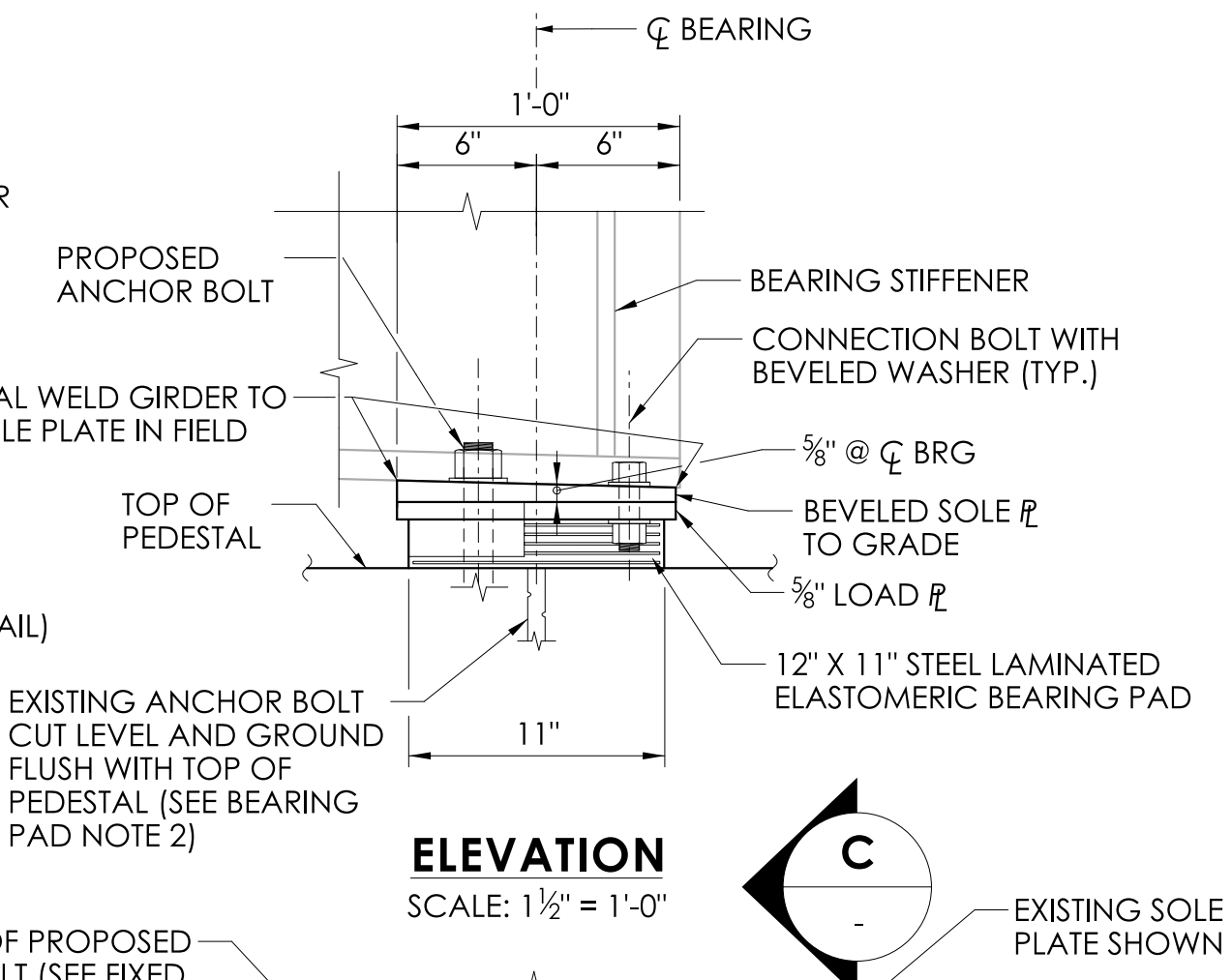
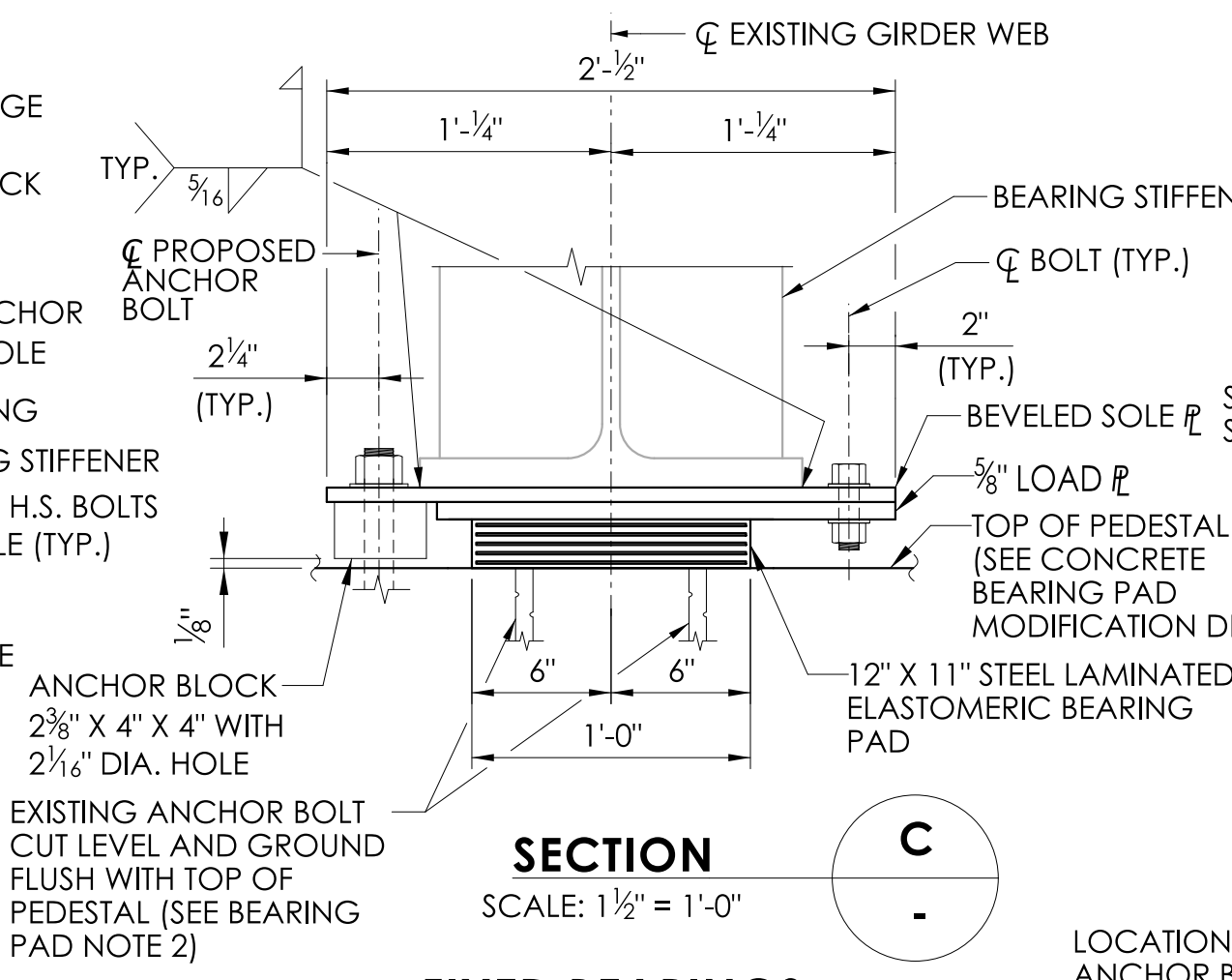
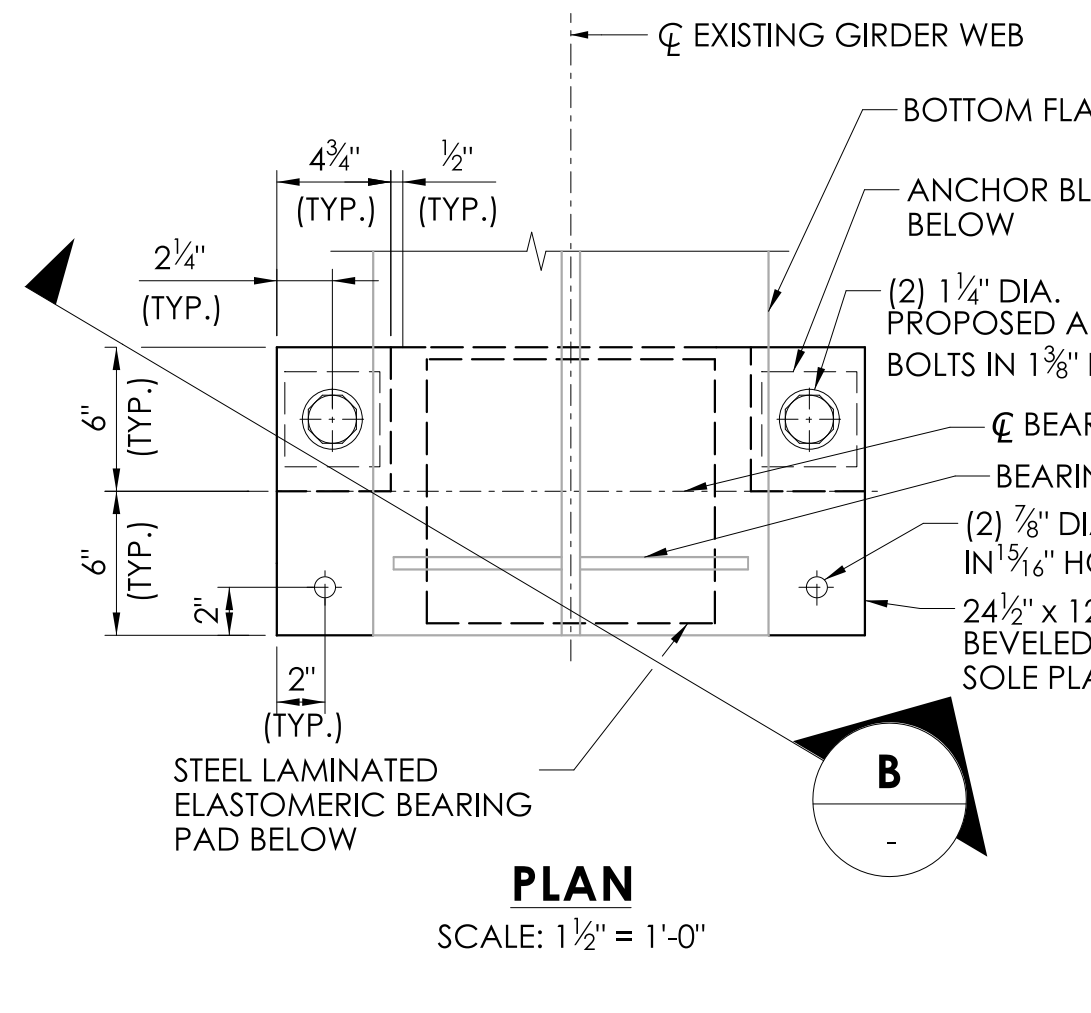
TOWNSHIP:
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00870 FRAMING PLAN AND STRUCTURAL STEEL DETAILS

PROJECT NO.: **0053-0189**
 DRAWING NO.: **STR-11**
 SHEET NO.: **04.11**



EXPANSION BEARINGS
(NORTH ABUTMENT ONLY)



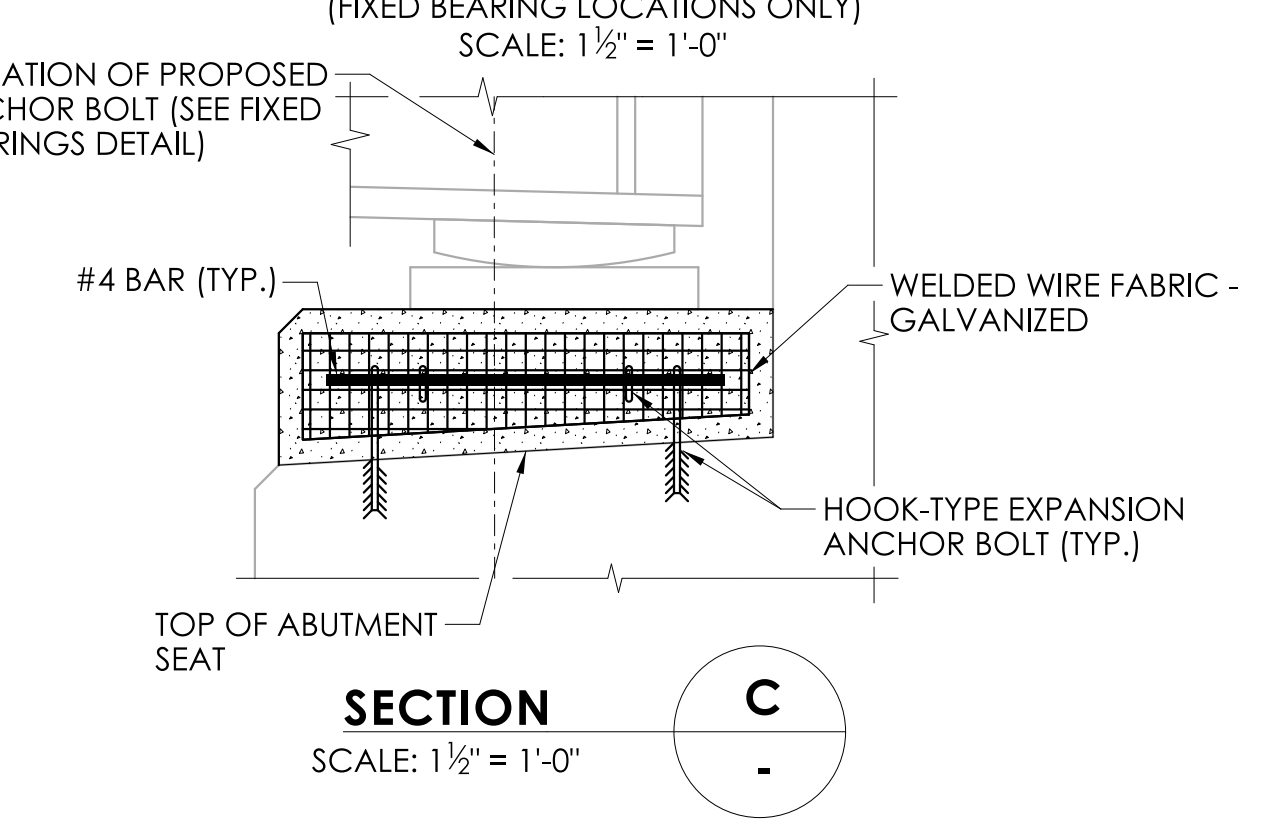
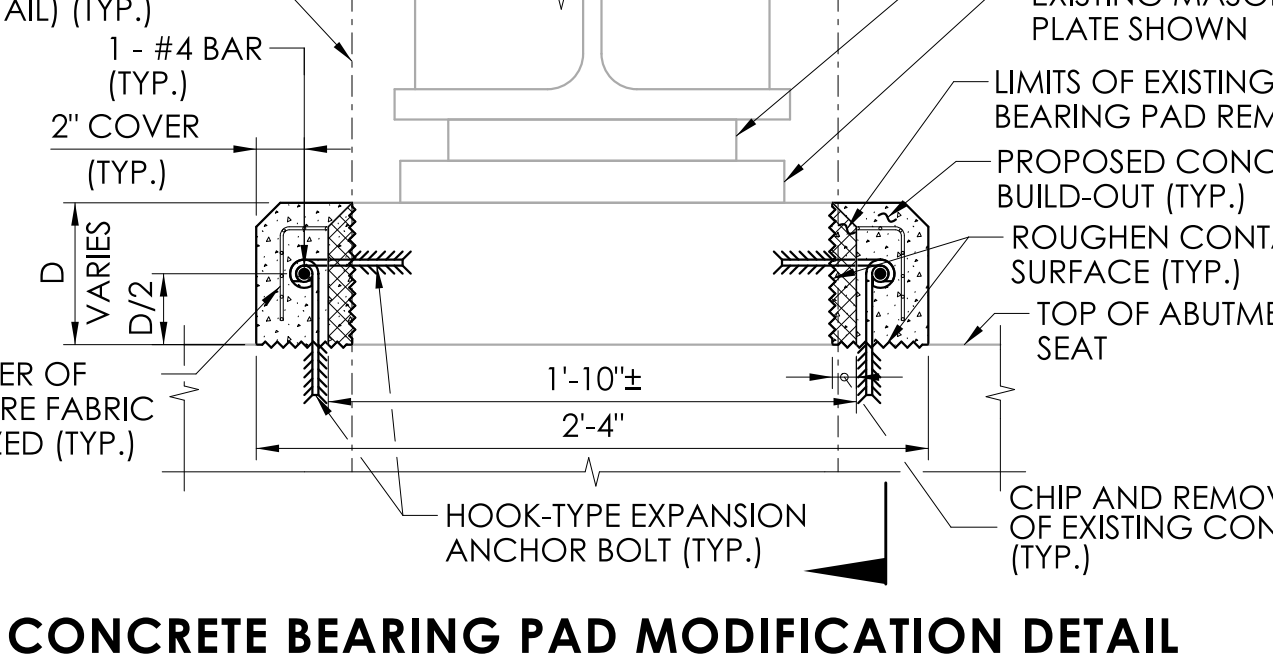
FIXED BEARINGS
(SOUTH ABUTMENT ONLY)

CONCRETE BEARING PAD MODIFICATION NOTE:

- CONCRETE BEARING PAD MODIFICATION TO BE PAID FOR UNDER "MODIFY CONCRETE BEARING PAD", INCLUSIVE OF "SURFACE REPAIR CONCRETE", "DEFORMED STEEL BARS GALVANIZED", "WELDED WIRE FABRIC - GALVANIZED", AND "DRILLING HOLES AND BONDING DOWELS".

SUGGESTED CONSTRUCTION SEQUENCE FOR CONCRETE BEARING PAD MODIFICATION:

- CHIP AND REMOVE 1"± OF EXISTING CONCRETE PEDESTAL TO SOUND CONCRETE. LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR. FINAL SOUND SURFACE SHALL BE BRUSHED-CLEANED, WETTED AND AIR-BLOWN IMMEDIATELY PRIOR TO APPLICATION OF SURFACE REPAIR CONCRETE MATERIAL.
- SURFACE PREPARATION
 - REMOVE LOOSE AND DETERIORATED CONCRETE, INCLUDING DIRT, OIL, GREASE AND ALL BOND-INHIBITING MATERIALS FROM SURFACE. LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR. SURFACE PREPARATION SHALL BE DONE BY SCABBLER, CHISELING, WIRE BRUSHING OR OTHER APPROPRIATE MECHANICAL MEANS.
 - ROUGHEN CONTACT SURFACE WITH A MINIMUM PROFILE OF APPROXIMATELY 1/16" FOR BONDING WITH SURFACE REPAIR CONCRETE MATERIAL.
 - SATURATE WITH CLEAN WATER PRIOR TO APPLYING SURFACE REPAIR CONCRETE MATERIAL. SUBSTRATE SHOULD BE SATURATED SURFACE DRY (SSD) WITH NO STANDING WATER DURING APPLICATION OF SURFACE REPAIR CONCRETE MATERIAL.
- HOOK-TYPE EXPANSION ANCHOR BOLTS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50, TYPE 1 AND BE PAID FOR UNDER "DRILLING HOLES AND BONDING DOWELS".
- FORM THE CONCRETE BEARING PAD, AND PLACE REINFORCEMENT AND WELDED WIRE FABRIC.
- APPLY A NEAT CEMENT GROUT OR OTHER SUITABLE BONDING MATERIAL IMMEDIATELY PRIOR TO PLACING CONCRETE BEARING PAD BUILD-OUT AS APPROVED BY THE ENGINEER.
- POUR SURFACE REPAIR CONCRETE FOR PROPOSED CONCRETE BEARING PAD BUILD-OUT.



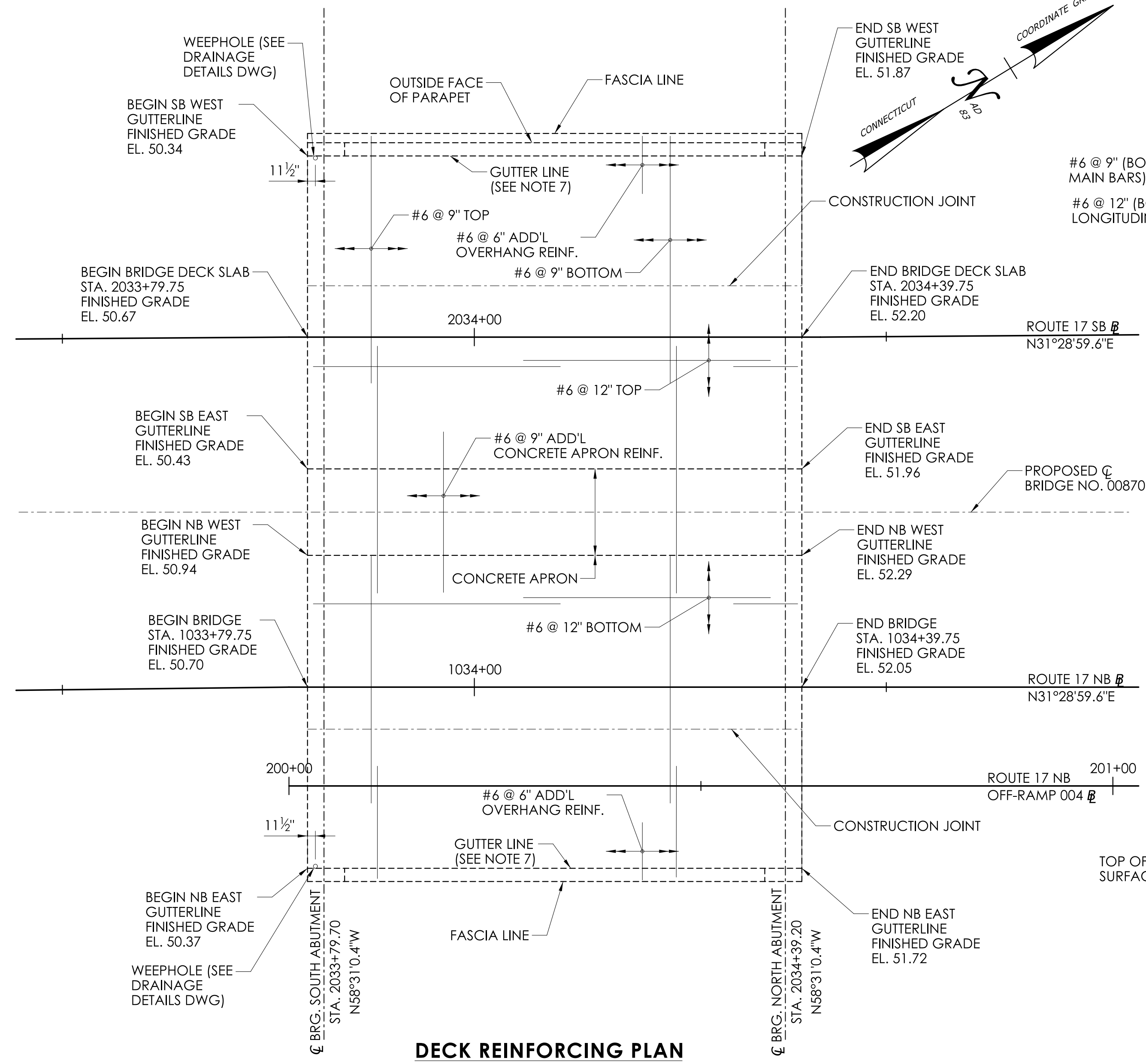
FIXED BEARING NOTES:

- CONCRETE BEARING PAD MODIFICATION WORK SHALL BE PERFORMED AND CONCRETE BEARING PAD PROPERLY CURED PRIOR TO INSTALLATION OF THE FIXED BEARING COMPONENTS AND SWEDGED ANCHOR BOLTS.
- NUT TO BE DRAWN UP FINGER TIGHT THEN BACKED OFF 1/8TH TURN AND THREADS OF ANCHOR BOLT BURRED OFF AT FACE OF NUT WITH A POINTED TOOL.
- ALL STEEL AT BEARINGS SHALL CONFORM TO AASHTO M270, GRADE 50 AND BE PAID FOR UNDER "STRUCTURAL STEEL".
- DRILLING AND BONDING OF SWEDGE ANCHOR BOLTS INTO THE EXISTING ABUTMENT TO BE PAID FOR UNDER "DRILLING HOLES AND BONDING ANCHORS".
- SWEDGE ANCHOR BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 105. THE HEAVY HEX NUTS SHALL CONFORM TO ASTM A563 OR ASTM A194 GRADE 2H AND WASHER TO ASTM F436. THE BOLTS, NUTS, ANCHOR BLOCKS, AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.

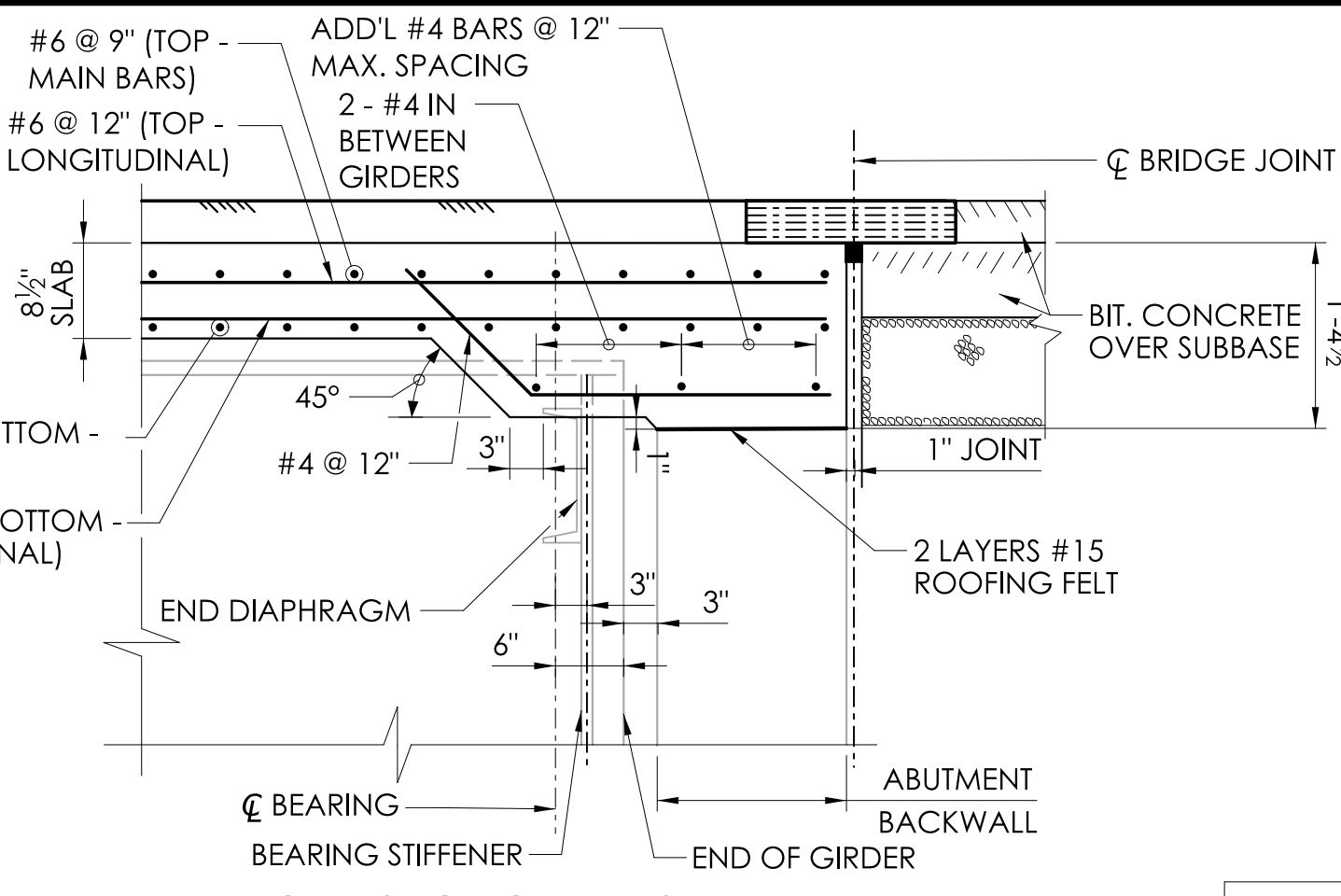
BEARING PAD NOTES:

- MANUFACTURE ALL BEARINGS IN ACCORDANCE WITH SPECIAL PROVISION FOR "STEEL LAMINATED ELASTOMERIC BEARINGS".
- THE BEARING AREAS OF THE MASONRY UPON WHICH THE ELASTOMERIC BEARING PADS ARE TO REST SHALL BE CAREFULLY FINISHED, BY GRINDING IF NECESSARY, TO A SMOOTH, EVEN LEVEL SURFACE OF THE REQUIRED ELEVATION, AND SHALL SHOW NO VARIATIONS FROM A TRUE PLANE GREATER THAN 1/16 INCH OVER THE ENTIRE AREA. EXISTING ANCHOR BOLT CUT LEVEL AND GROUND FLUSH WITH TOP OF PEDESTAL TO BE PAID FOR UNDER "REPLACE BRIDGE BEARINGS".
- THE ELASTOMER SHALL BE VIRGIN NEOPRENE GRADE 60 DUROMETER WITH A SHEAR MODULUS BETWEEN 0.130 KSI AND 0.200 KSI.
- WELDING DETAILS, PROCEDURES, AND TESTING METHODS SHALL CONFORM TO ANSI/AASHTO/AWS D1.5-15 BRIDGE WELDING CODE.
- THE LOAD PLATE SHALL BE HOT BONDED TO THE ELASTOMERIC BEARING PAD DURING VULCANIZATION.
- THE SOLE PLATE SHALL BE BEVELED TO MATCH THE SLOPE OF THE GIRDER SO THAT THE BOTTOM SURFACE OF THE PLATES IS LEVEL AFTER THE APPLICATION OF STEEL DEAD LOAD.
- ELASTOMERIC BEARINGS SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE HAS BEEN BETWEEN 40 AND 90 DEGREES FAHRENHEIT FOR A PERIOD OF AT LEAST TWO HOURS. CENTERLINE OF BEARING PAD AND SOLE PLATE TO BE INSTALLED AT THE CENTERLINE OF BEARING.
- IN NO CASE SHALL THE ELASTOMER OR VULCANIZED BOND BE SUBJECTED TO TEMPERATURES HIGHER THAN 400 DEGREES FAHRENHEIT.
- BEARING DESIGN METHOD: AASHTO LRFD SECTION 14, METHOD A.
- ANCHOR BLOCK SHALL BE FABRICATED FROM ASTM M270 GRADE 50 STEEL. BEARING ASSEMBLY INCLUDING SOLE PLATES, LOAD PLATES, SHIM PLATES, BOLSTERS AND OTHER PLATES SHALL CONFORM TO AASHTO M270 GRADE T2 AND BE PAID FOR UNDER "STRUCTURAL STEEL".
- THE HIGH STRENGTH (H.S.) BOLTS SHALL BE ASTM F3125 GRADE A325, TYPE 3 AND BE PAID FOR UNDER "STRUCTURAL STEEL".
- SHIM PLATE DIMENSIONS ARE BASED ON EXISTING INFORMATION. THICKNESS OF EXISTING BEARINGS TO BE FIELD VERIFIED PRIOR TO FABRICATION, SHIM PLATE MAY BE REPLACED WITH PLATES OF VARYING THICKNESS TO MEET FIELD CONDITIONS. NO MORE THAN THREE STACKED SHIM PLATES MAY BE USED.

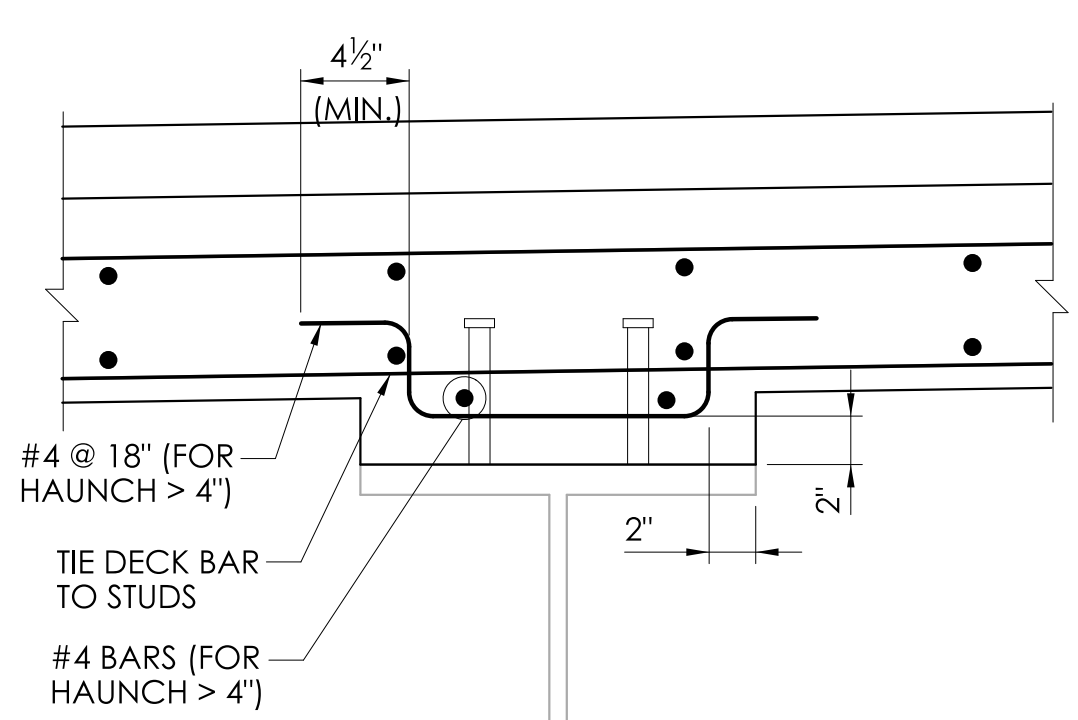
REVISION DESCRIPTION REV. DATE	SIGNATURE BLOCK:	SCALE AS NOTED	CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE	TOWN(S): GLASTONBURY	DRAWING TITLE: BRIDGE NO. 00870 BEARINGS	PROJECT NO.: 0053-0189	DRAWING NO.: STR-12
	DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL							
LASTED SAVED BY: USCC683710 FILE NAME: C:\Users\USCC683710\State of Connecticut\0053-0189 - Design\Bridge\Contract_Plans\SB_CP_0053-0189_STR-12_Br00870 Bearings.dgn PLOTTED DATE: 1/21/2025								



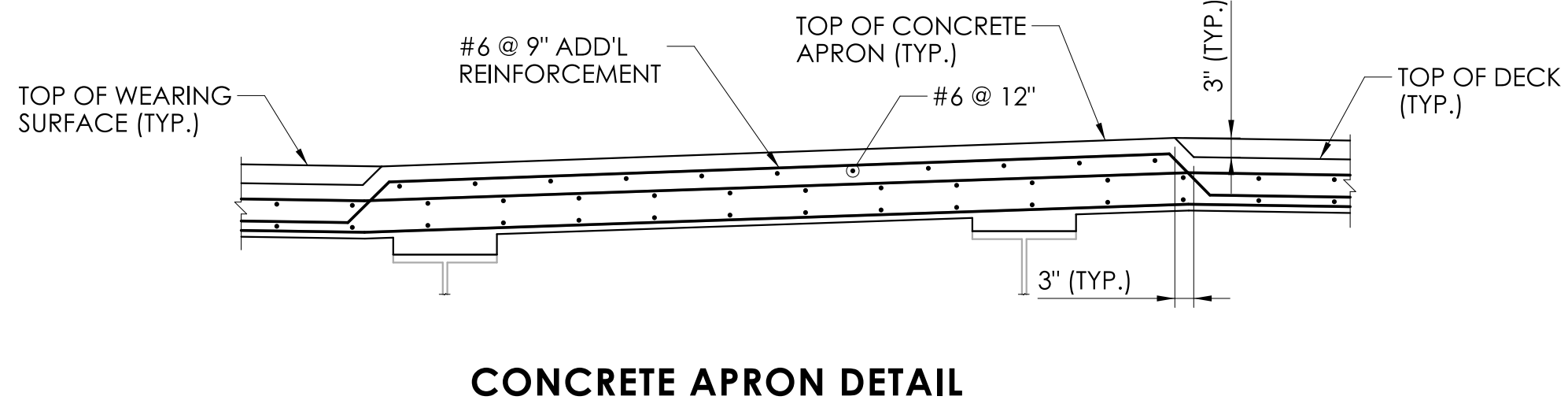
DECK REINFORCING PLAN
SCALE: 1" = 10'-0"



TYPICAL SECTION AT SLAB END
SCALE: 3/4" = 1'-0"



TIE DOWN AND HAUNCH DETAIL
SCALE: 1 1/2" = 1'-0"

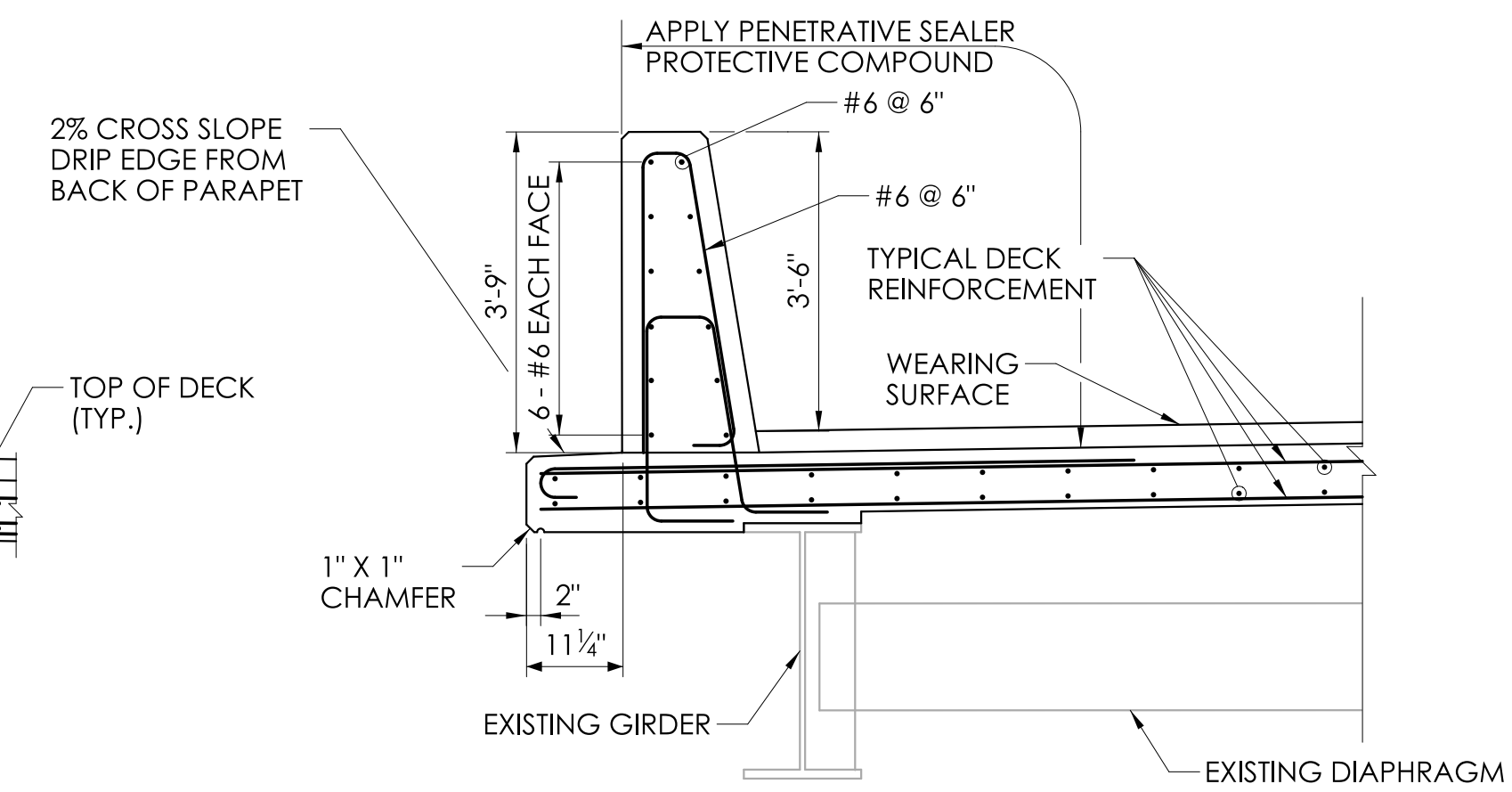


CONCRETE APRON DETAIL
METAL BEAM RAIL (TYPE MD-B MASH) (BRIDGE) NOT SHOWN
SCALE: 1/2" = 1'-0"

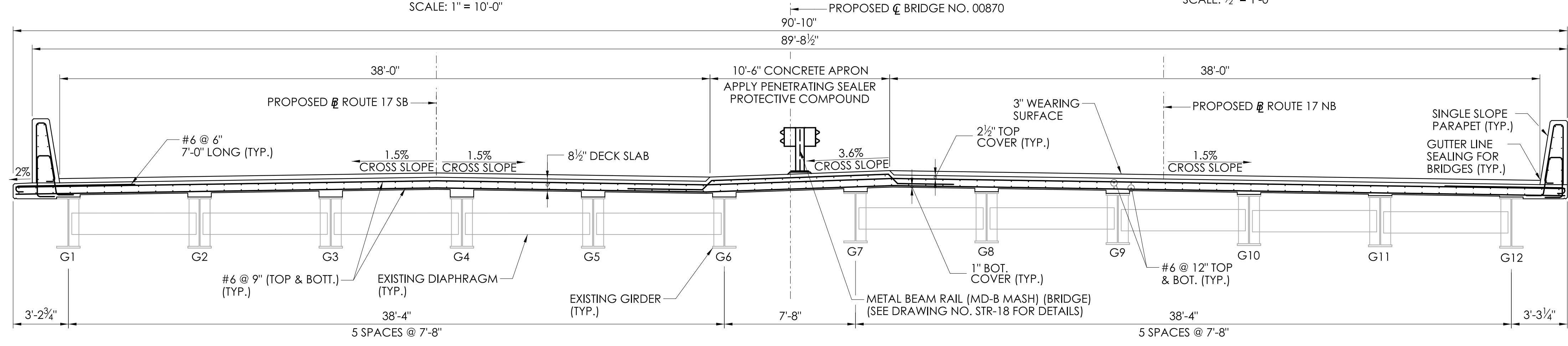
NOTES

- STEEL MEMBERS, DIAPHRAGMS AND GIRDERS ARE NOT SHOWN IN THE SLAB PLAN FOR CLARITY.
 - ALL LAP SPLICES SHALL BE ALTERNATED AS FULL LAP LENGTH. MINIMUM SPLICE LENGTHS SHALL BE AS FOLLOWS:
- | BAR SIZE | SPLICE LENGTH (INCHES) |
|----------|------------------------|
| #6 | 4'-6" |
- MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC) SHALL BE APPLIED TO THE ENTIRE DECK INCLUDING 3" RISE ON FACE OF PARAPET.
 - FOR DETAILS OF SINGLE SLOPE PARAPET REINFORCING, SEE STR-17.
 - DECK POUR SHALL START AT MID SPAN AND PROCEED TOWARD ABUTMENTS.
 - THE GIRDERS HAVE BEEN DESIGNED FOR THE ADDITIONAL WEIGHT OF 5 PSF FOR THE STAY-IN-PLACE FORMS. LIGHTWEIGHT FOAM FILLER SHALL BE USED TO FILL VALLEYS OF THE STAY-IN-PLACE FORMS. REMAIN-IN-PLACE FORMS WILL NOT BE ALLOWED IN THE DECK OVERHANG.
 - SEALING AT GUTTERLINES TO BE PAID FOR UNDER "GUTTER LINE SEALING FOR BRIDGES".

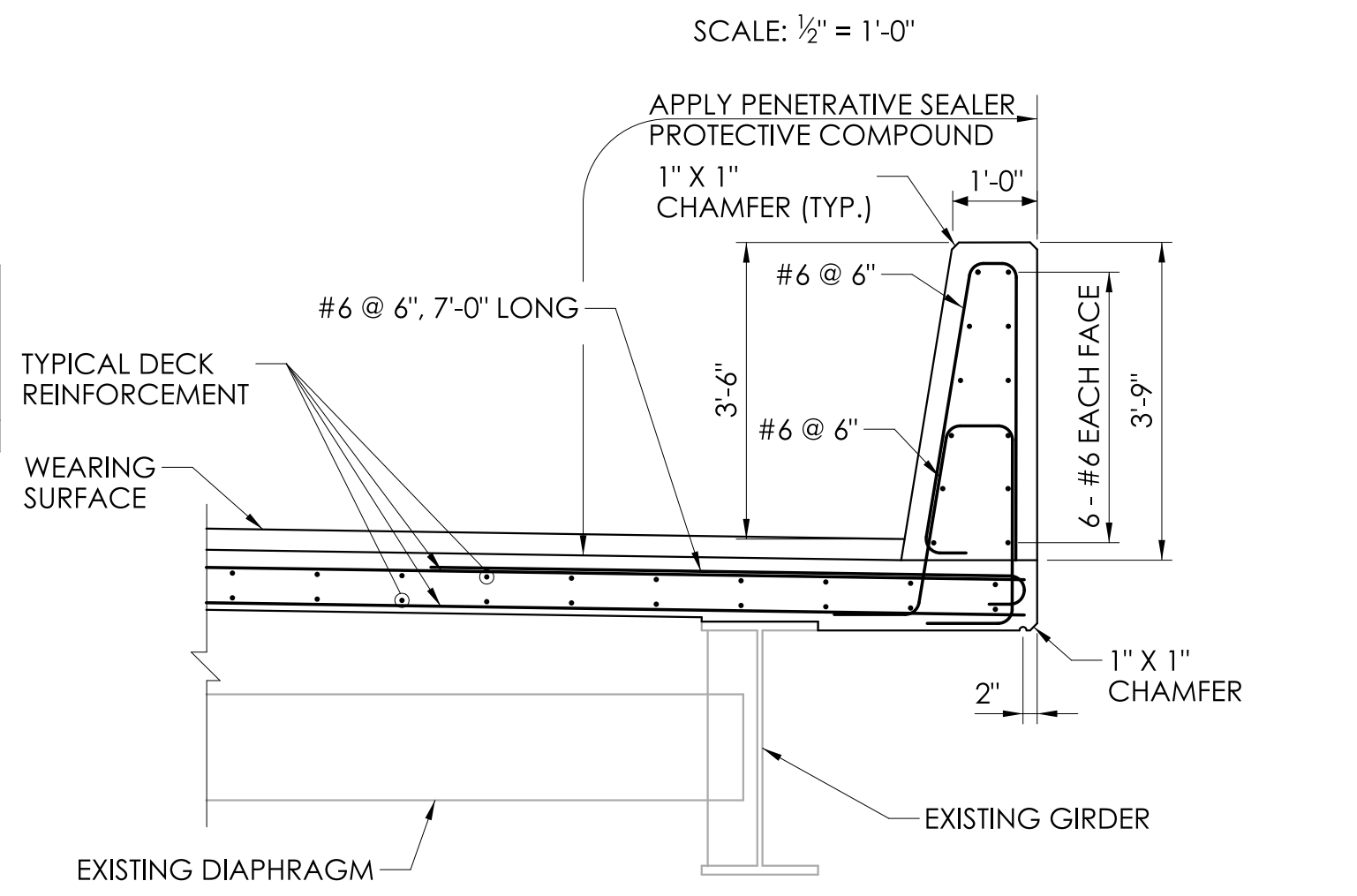
GIRDER	C BRG. ABUT. 1	TOP OF DECK ELEVATIONS										C BRG. ABUT. 2
		0.1 L	0.2 L	0.3 L	0.4 L	0.5 L	0.6 L	0.7 L	0.8 L	0.9 L		
G1	50.152	50.295	50.438	50.581	50.723	50.866	51.009	51.152	51.295	51.437	51.580	
G2	50.267	50.410	50.553	50.696	50.838	50.981	51.124	51.267	51.410	51.552	51.695	
G3	50.382	50.525	50.668	50.811	50.953	51.096	51.239	51.382	51.525	51.667	51.810	
G4	50.452	50.595	50.738	50.881	51.023	51.166	51.309	51.452	51.595	51.737	51.880	
G5	50.337	50.480	50.623	50.766	50.908	51.051	51.194	51.337	51.480	51.622	51.765	
G6	50.514	50.657	50.800	50.943	51.086	51.228	51.371	51.514	51.657	51.800	51.942	
G7	50.913	51.039	51.165	51.291	51.417	51.543	51.669	51.795	51.921	52.047	52.173	
G8	50.649	50.775	50.901	51.027	51.153	51.279	51.405	51.531	51.657	51.783	51.909	
G9	50.534	50.660	50.786	50.912	51.038	51.164	51.290	51.416	51.542	51.668	51.794	
G10	50.419	50.545	50.671	50.797	50.923	51.049	51.175	51.301	51.427	51.553	51.679	
G11	50.304	50.430	50.556	50.682	50.808	50.934	51.060	51.186	51.312	51.438	51.564	
G12	50.189	50.315	50.441	50.567	50.693	50.819	50.945	51.071	51.197	51.323	51.449	



TYPICAL DECK OVERHANG WITH DRIP EDGE DETAIL
SCALE: 1/2" = 1'-0"



TYPICAL PROPOSED CROSS SECTION AT MIDSPAN
SCALE: 1/4" = 1'-0"



TYPICAL DECK OVERHANG DETAIL
SCALE: 1/2" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: WSP USA INC. 500 WINDING BROOK DR. GLASTONBURY, CT 06033

SCALE AS NOTED CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE: **REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE**

TOWN(S): **GLASTONBURY**

DRAWING TITLE: **BRIDGE NO. 00870 SLAB PLAN AND DETAILS**

PROJECT NO.: **0053-0189**

DRAWING NO.: **STR-13**

DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

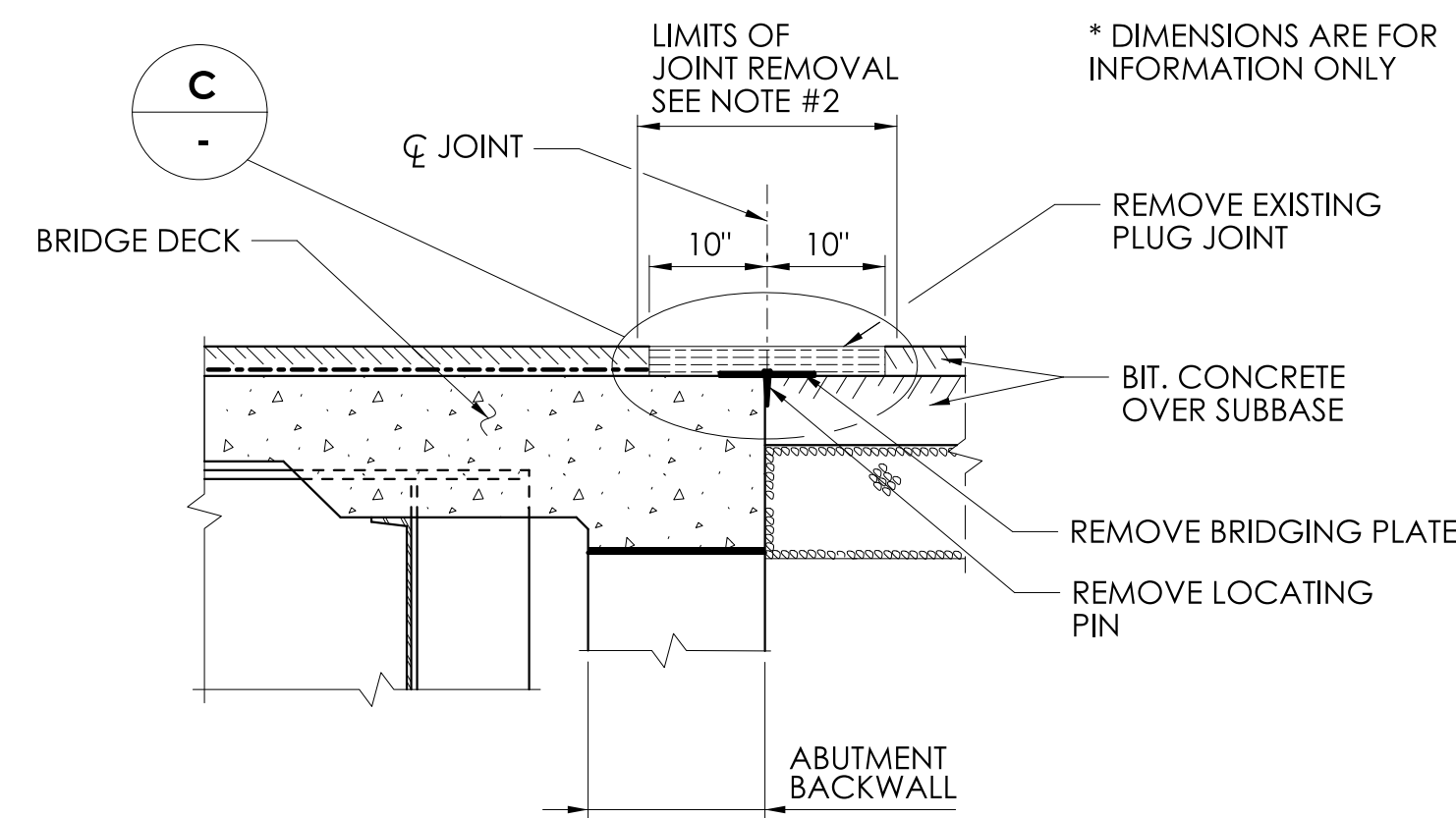
SHEET NO.: **04.13**

LASTED SAVED BY: USCC683710 FILE NAME: C:\Users\USCC683710\State of Connecticut\0053-0189 - Design\Bridge\Contract_Plans\SB_CP_0053-0189_STR-13_Br00870 Slab Plan and Details.dgn PLOTTED DATE: 1/21/2025

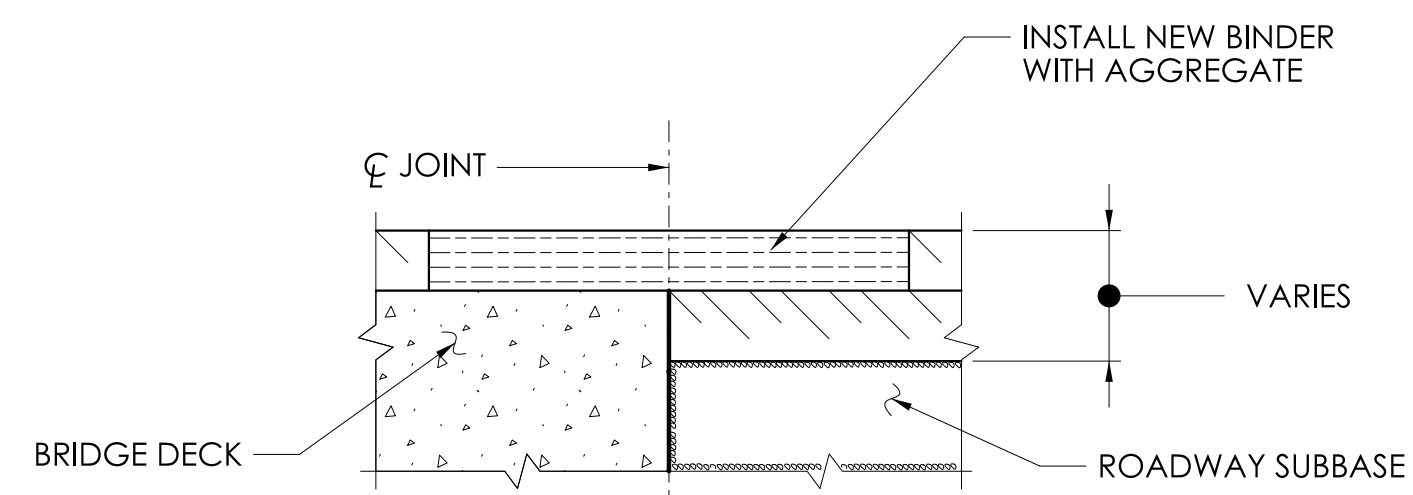
**BITUMINOUS CONCRETE PLACEMENT
AT ASPHALTIC PLUG JOINTS (APJ)**

1. THE REQUIREMENTS OF SECTION 4.06 SHALL BE MET EXCEPT IN LIEU OF DENSITY TESTING, THE METHODS DESCRIBED BELOW SHALL BE FOLLOWED TO ASSURE PROPER COMPACTION.
2. TOP LIFT MUST BE UNIFORM IN THICKNESS; INTERMEDIATE LIFTS CAN BE PLACED AT 1 1/4" TO 2 1/2" COMPACTED.
3. REQUIREMENTS FOR PROPER COMPACTION:
 - A. MINIMUM 265F DELIVER TEMPERATURE OF MATERIAL, PLACE AND SPREAD MATERIAL BEFORE IT COOLS TO 260F. MATERIAL BELOW TEMPERATURE REQUIREMENT WILL BE REJECTED.
 - B. COMPACT NON-SURFACE LIFTS WITH VIBRATORY PLATE COMPACTOR MEETING THE FOLLOWING REQUIREMENTS:
 - i. DESIGNED TO COMPACT ASPHALT
 - ii. EQUIPPED WITH A WATER TANK
 - iii. CENTRIFUGAL FORCE 3200 LBS TO 6000 LBS
 - iv. WEIGHS MINIMUM 160 LBS (WITHOUT WATER)
 - v. MINIMUM 4400 VIBRATIONS PER MINUTE
 - C. COMPACT TOP LIFT WITH 3 1/2 TO 4 1/2 TON DOUBLE DRUM ROLLER, DESIGNED TO COMPACT BITUMINOUS CONCRETE.
 - D. PROVIDE NUMBER OF PASSES BASED ON LIFT THICKNESS AS FOLLOWS:

LIFT THICKNESS (INCHES)	NUMBER OF PASSES
1 1/4 TO 1 1/2	8
1 1/2 TO 2	10
2 TO 2 1/2	12
 - E. ADDITIONAL COMPACTING EQUIPMENT MAY BE REQUIRED TO COMPLETE LIFT COMPACTION BEFORE MATERIAL COOLS TO 180F.
 - F. AT CORNERS OR OTHER AREAS INACCESSIBLE TO PLATE TAMPER, HAND TAMP 20 TIMES MINIMUM BEFORE MATERIAL COOLS TO 180F.
4. ALTERNATE EQUIPMENT MAY BE REQUESTED AS A SUPPLEMENT TO CONTRACTOR'S QC PLAN. THE EQUIPMENT AND PROCEDURES MUST BE APPROVED BY THE ENGINEER PRIOR TO USE.
5. IF THESE METHODS ARE NOT PERFORMED TO THE SATISFACTION OF THE CTDOT INSPECTOR, DENSITY VERIFICATION MAY BE REQUIRED WHERE IN THE CONTRACTOR SHALL PROVIDE DENSITY TESTING WITH A QC NUCLEAR DENSITY GAUGE OR COLLECT CORE SAMPLES AS SPECIFIED IN SECTION 4.06.



REMOVAL - EXISTING ASPHALTIC PLUG JOINT
NOT TO SCALE



INSTALLATION OF ASPHALTIC PLUG EXPANSION JOINT SYSTEM
NOT TO SCALE

JOINT WORK FOR BRIDGES


1. ALL WORK TO REMOVE BITUMINOUS CONCRETE OVERLAY, MEMBRANE WATERPROOFING, EXISTING JOINT COMPONENTS AND SEALING ELEMENTS, SHALL BE IN ACCORDANCE WITH "REMOVAL OF EXISTING WEARING SURFACE".
2. WHERE EXISTING BRIDGE DECK JOINTS ARE CONCEALED BENEATH BITUMINOUS CONCRETE OVERLAY THE CONTRACTOR SHALL VERIFY THE BRIDGE DECK JOINT LOCATION AND SUBMIT THE LIMITS OF SAW-CUTTING FOR THE ENGINEERS APPROVAL.
3. MEMBRANE WATERPROOFING SHALL BE IN CONFORMANCE WITH SPECIAL PROVISION "MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)" AND SHALL BE PLACED PRIOR TO PLACEMENT OF PAVEMENT OVERLAY.
4. APJ TREATMENT AT PARAPETS SHOWN AT SINGLE SLOPE JOINT TREATMENTS.
5. ROUGH OR DAMAGED CONCRETE DECK SURFACES SHALL BE REPAIRED WITH A CONCRETE LEVELING MATERIAL.
6. THE TYPICAL 20" ASPHALTIC BINDER WIDTH (10" EITHER SIDE OF JOINT C) SHALL BE UTILIZED.

ASPHALTIC PLUG EXPANSION JOINT SYSTEM NOTES

1. A BRIDGING PLATE SHALL BE USED TO SPAN THE GAP BETWEEN THE JOINT BETWEEN A DECK END AND AN APPROACH ROADWAY.
2. DISCONTINUE THE INSTALLATION OF THE BRIDGING PLATE WHERE THE APPROACH SLAB IS DISCONTINUED (TYPICALLY IN THE ROADWAY SHOULDERS). SEE "ASPHALTIC PLUG EXPANSION JOINT SYSTEM" SPECIAL PROVISION.
3. NEW STEEL BRIDGING PLATES SHALL BE A MINIMUM OF 1/2" THICK BY 8" WIDE. FOR JOINT OPENINGS WHICH EXCEED 3", A 3/8" THICK BY 12" WIDE PLATE WILL BE REQUIRED.
4. NO BRIDGING PLATE SHALL BE USED AT THE FOLLOWING LOCATIONS:
 - A. JOINT BETWEEN A DECK END AND A CONCRETE APPROACH PAVEMENT
 - B. WHERE A BRIDGE DECK END MEETS A BITUMINOUS APPROACH PAVEMENT
5. TEMPORARY CLOSED CELL BACKER ROD DIAMETER SHALL BE DETERMINED AFTER MEASURING THE JOINT OPENING, THE ROD SHALL BE 25% LARGER THAN THE JOINT OPENING.
6. INSTALLATION OF MEMBRANE WITHIN THE LIMITS SHOWN TO BE IN ACCORDANCE WITH SPECIAL PROVISION "MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)".
7. THE FURNISHING AND PLACING OF HMA S0.25 TO BE IN ACCORDANCE WITH STANDARD ITEM "HMA S0.25".
8. SAW-CUTTING AND REMOVAL OF PAVEMENT FOR JOINT INSTALLATION TO BE IN ACCORDANCE WITH SPECIAL PROVISION "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
9. INSTALLATION OF FOAM SUPPORTED SILICONE GLAND TO BE IN ACCORDANCE WITH SPECIAL PROVISION "PREFORMED JOINT SEAL".
10. ASPHALTIC PLUG EXPANSION JOINT SYSTEMS MAY BE INSTALLED ONLY WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE SPECIAL PROVISION "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". REFERENCE THE RANGE OF THERMAL MOVEMENT FOR THE SELECTED JOINT PRODUCT IN THE TABLE FOR "INSTALLATION RESTRICTIONS" IN THE SPECIAL PROVISION.
11. EXPLORATION OF PAVEMENT THICKNESS AND JOINT LOCATION TO BE IN ACCORDANCE WITH SPECIAL PROVISION "REMOVAL OF EXISTING WEARING SURFACE".
12. CONTRACTOR SHALL NOTIFY THE DEPARTMENT IF THE EXISTING PAVEMENT IS DETERMINED TO BE LESS THAN 2" OR GREATER THAN 6" WITHIN THE BRIDGE LIMITS.

REV.	DATE	REVISION DESCRIPTION


SIGNATURE BLOCK:



WSP USA, INC.
500 WINDING BROOK DR
GLASTONBURY, CT 06033

DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

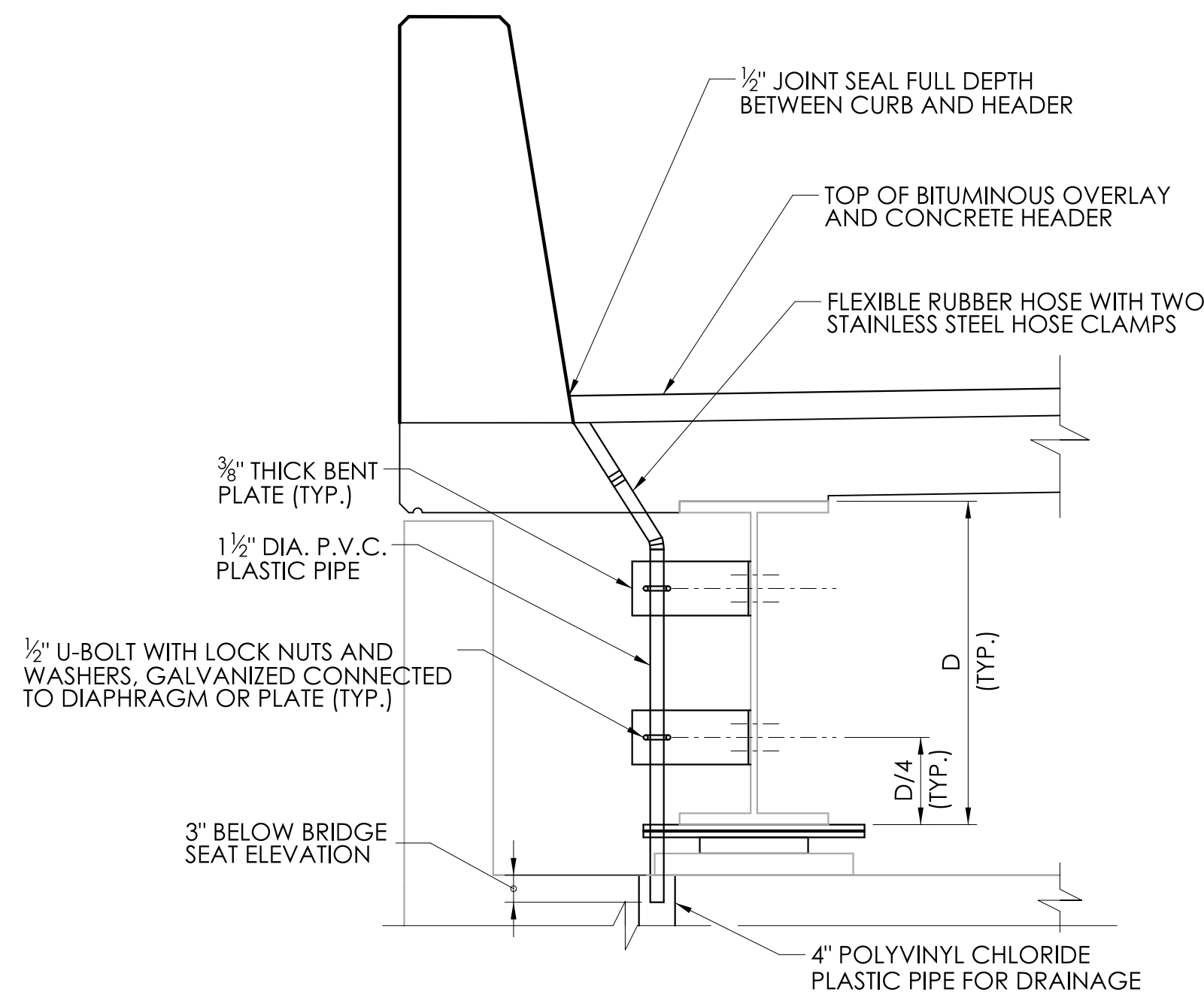
PROJECT TITLE:
**REMOVAL OF BR. NOS. 00388 & 00389, DECK
REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS
TO ROUTE 17 & NEW LONDON TURNPIKE**

TOWN(S):
GLASTONBURY

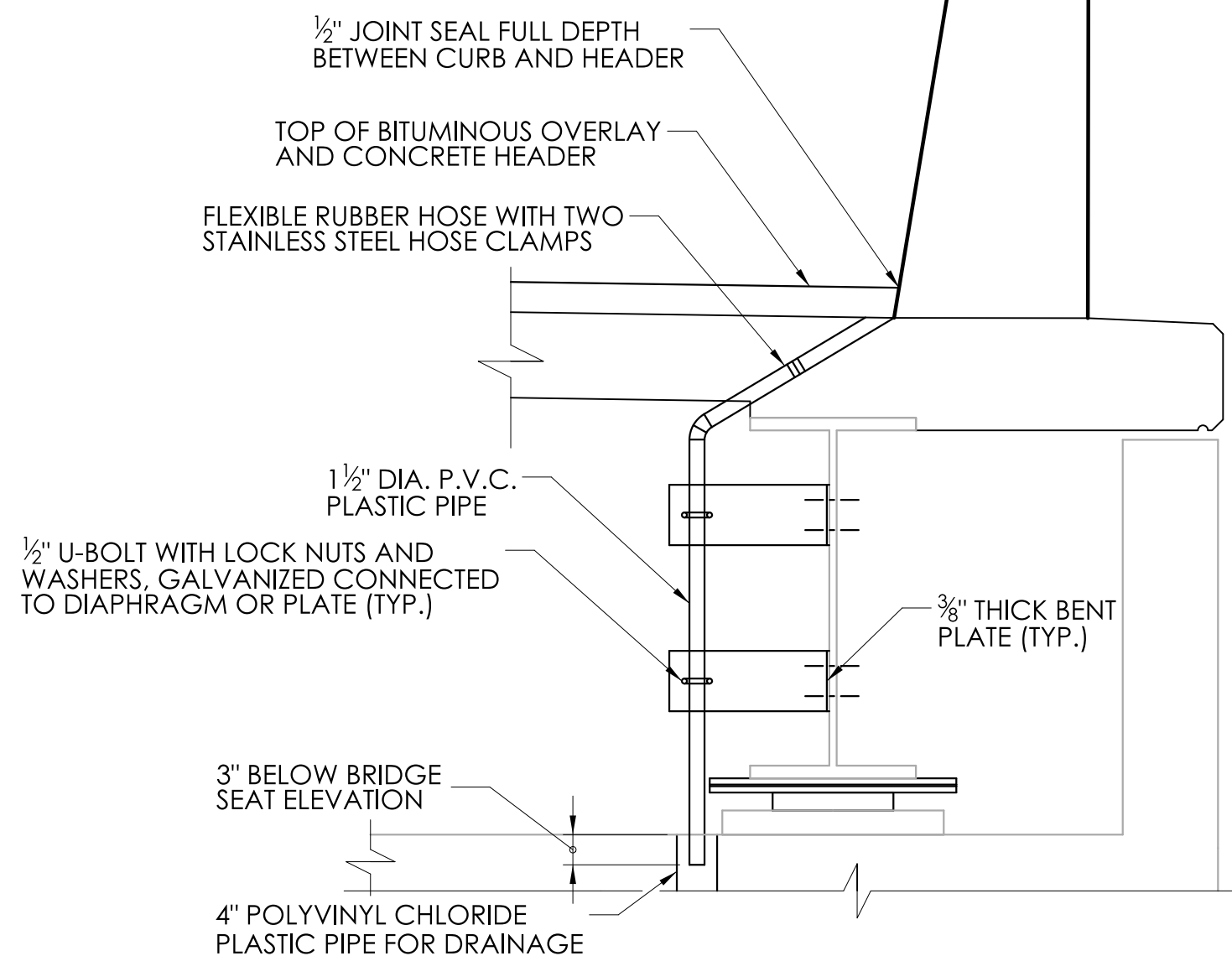
DRAWING TITLE:
**BRIDGE NO. 00870
ASPHALTIC PLUG JOINT
DETAILS**

PROJECT NO.:
0053-0189

DRAWING NO.:
STR-14
SHEET NO.:
04.14



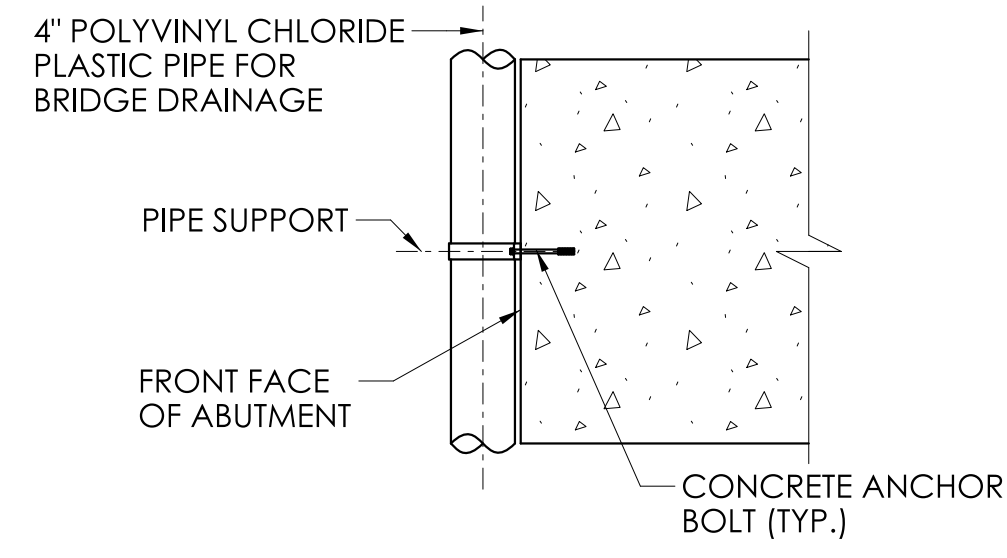
DECK WEEPHOLE - NORTHBOUND ELEVATION
SCALE: 3/4" = 1'-0"



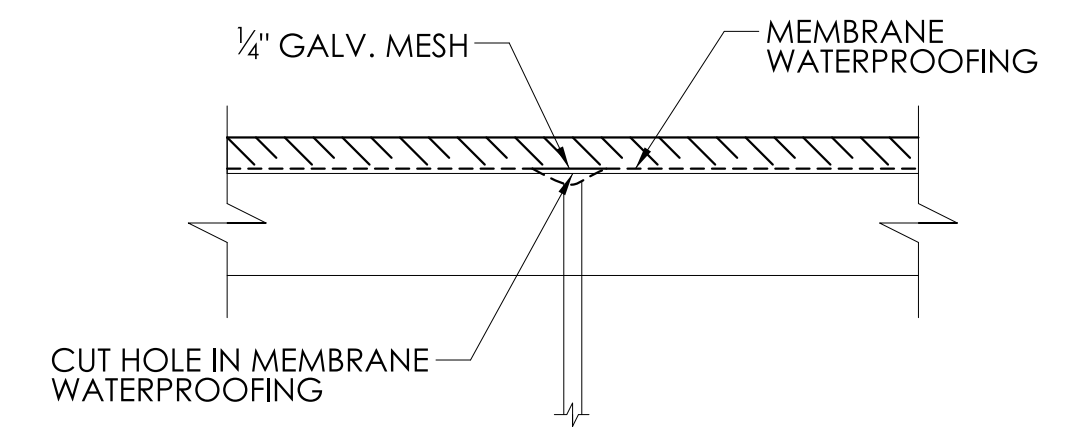
DECK WEEPHOLE - SOUTHBOUND ELEVATION
SCALE: 3/4" = 1'-0"

NOTES:

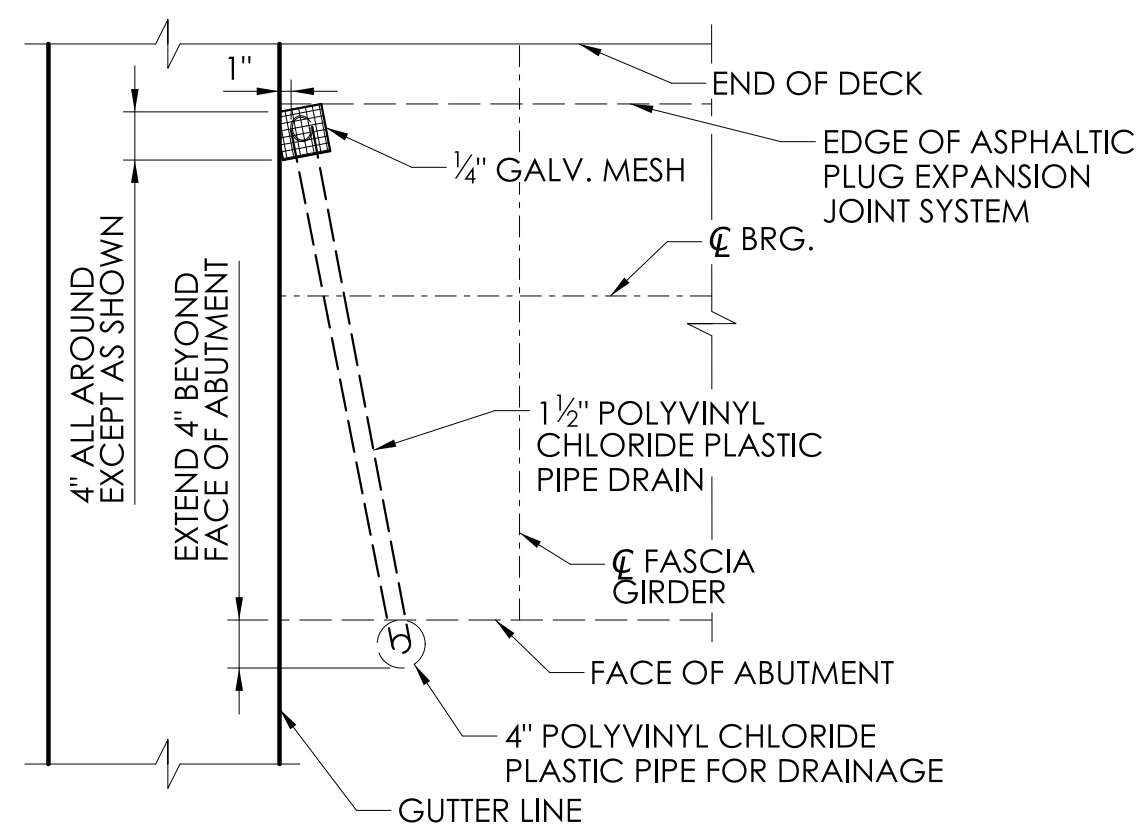
- 1 1/2" POLYVINYL CHLORIDE PLASTIC PIPE DRAINS SHALL BE PLACED THRU SLAB WHERE SHOWN ON THE "SLAB PLAN". LOCATIONS MAY BE FIELD ADJUSTED, AS DIRECTED BY THE ENGINEER, SUCH THAT PIPE DRAINS ARE NOT ABOVE THE TRAVEL LANES, SHOULDERS, OR SIDEWALKS.
- COST OF PIPE DRAINS TO BE PAID FOR UNDER ITEM "1-1/2" POLYVINYL CHLORIDE PLASTIC PIPE".
- THE COST OF FURNISHING AND INSTALLING MESH SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR "HMA S0.25".
- DETAILS SHOWN AT FASCIA.
- PIPE FOR BRIDGE DRAINAGE SHALL BE ATTACHED TO THE BRIDGE USING PIPE SUPPORT ANCHORAGES AS SHOWN.
- COST OF PIPE DRAINS ALONG VERTICAL ABUTMENT FACE TO BE PAID UNDER ITEM "4" POLYVINYL CHLORIDE PLASTIC PIPE". COST OF PIPE DRAINS BELOW GRANULAR FILL TO BE PAID UNDER ITEM "4" POLYVINYL CHLORIDE PIPE - 0'-10" DEEP".
- PIPE SUPPORTS SHALL BE MADE UP OF HEAVY DUTY GALVANIZED STEEL STRAPS AND GALVANIZED ANCHOR BOLTS.
- STEEL HARDWARE SHALL BE HOT-DIP GALVANIZED.
- RUBBER HOSE SHALL EXTEND FROM 3" ABOVE TOP OF SIDEWALK TO 1" BELOW GRANULAR FILL.



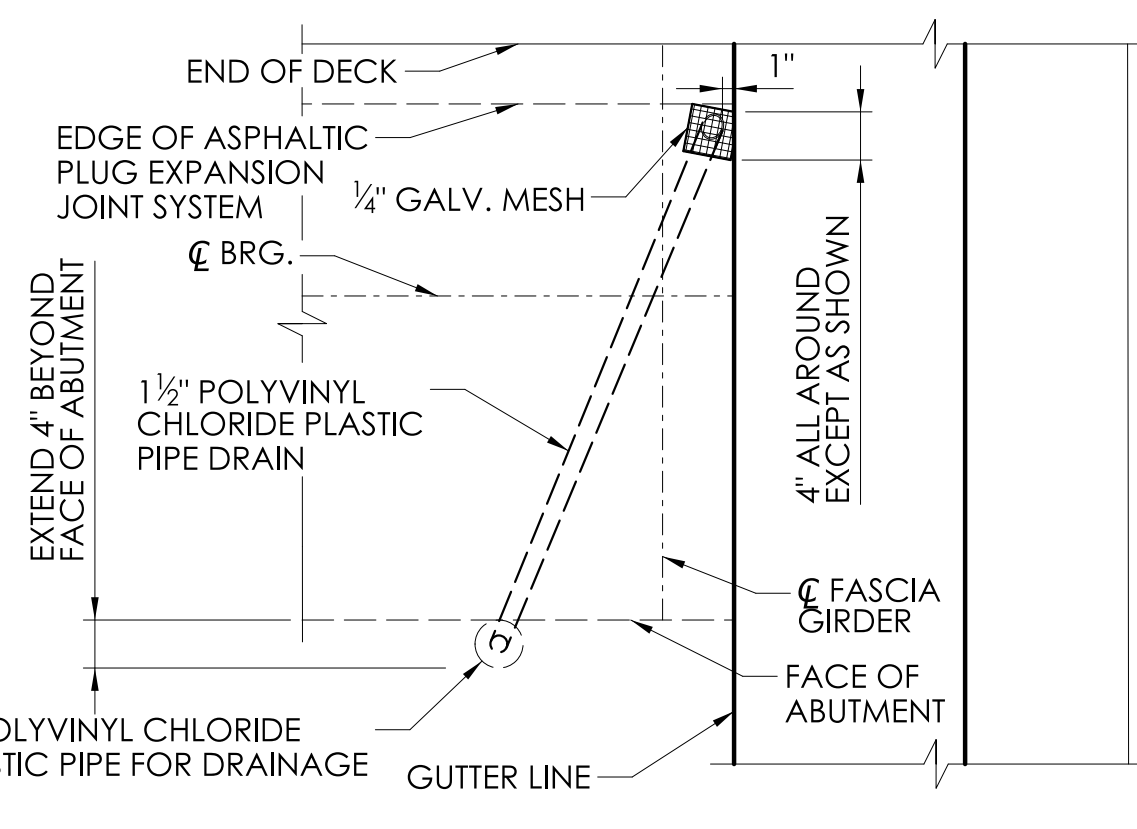
TYPICAL ATTACHMENT DETAIL
NOT TO SCALE



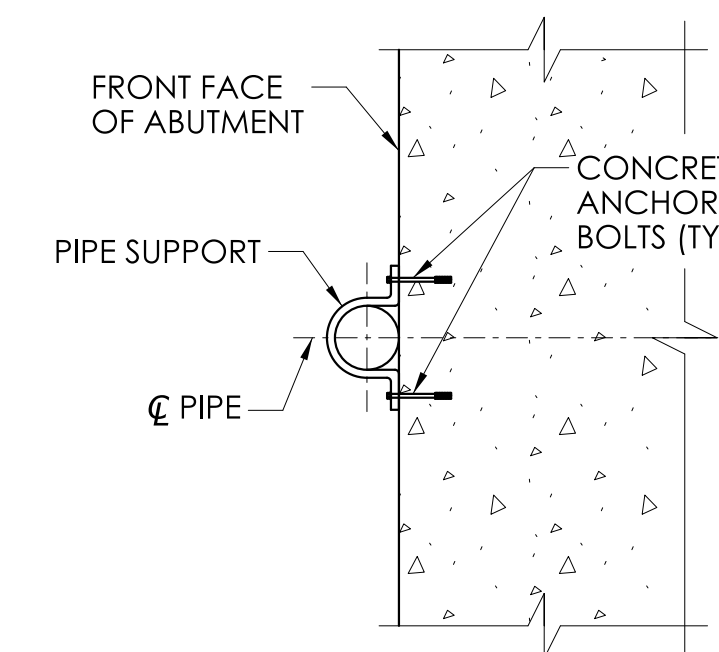
TYPICAL DECK WEEPHOLE SECTION
SCALE: 3/4" = 1'-0"



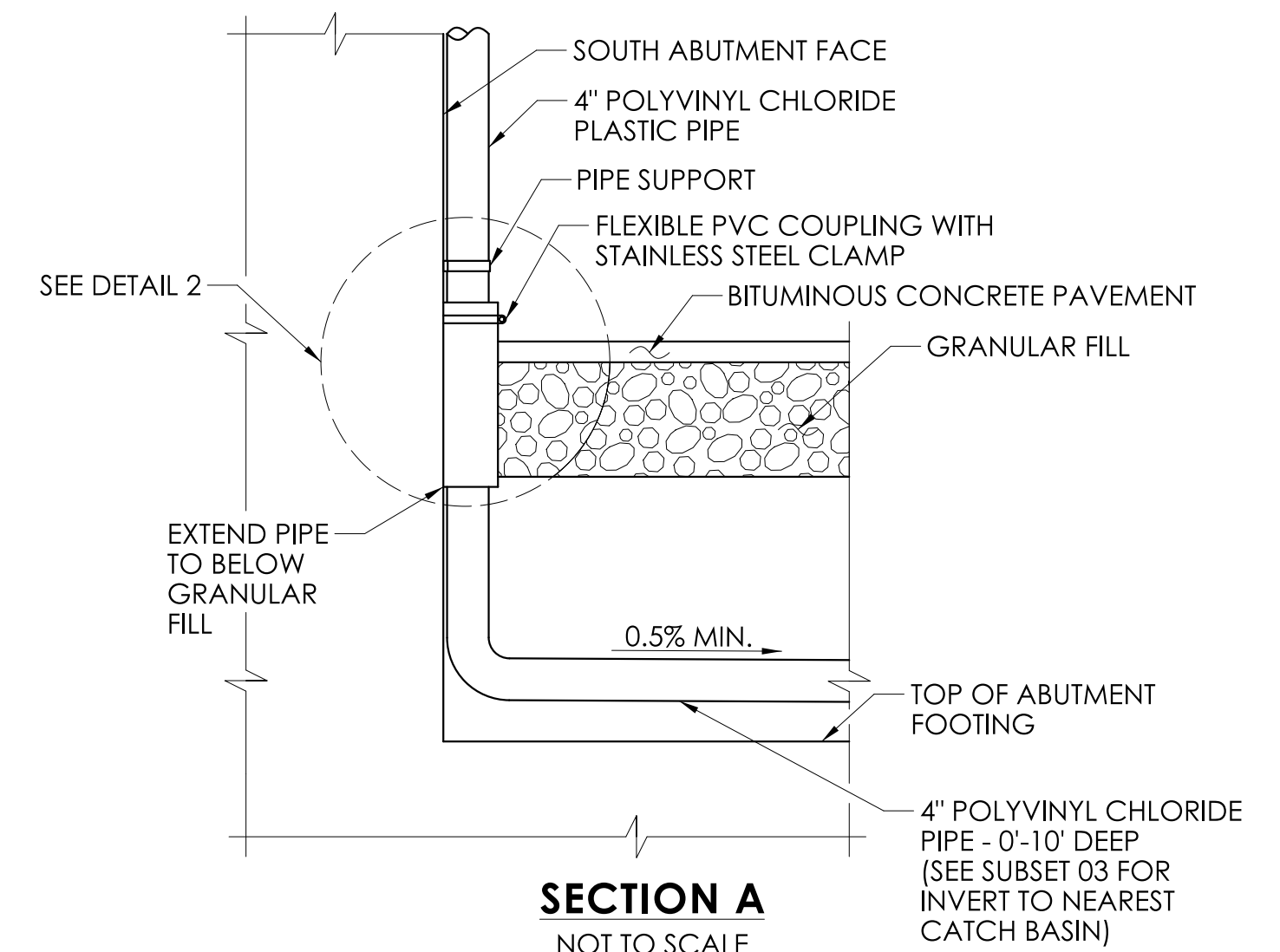
DECK WEEPHOLE - NORTHBOUND PLAN
NOT TO SCALE



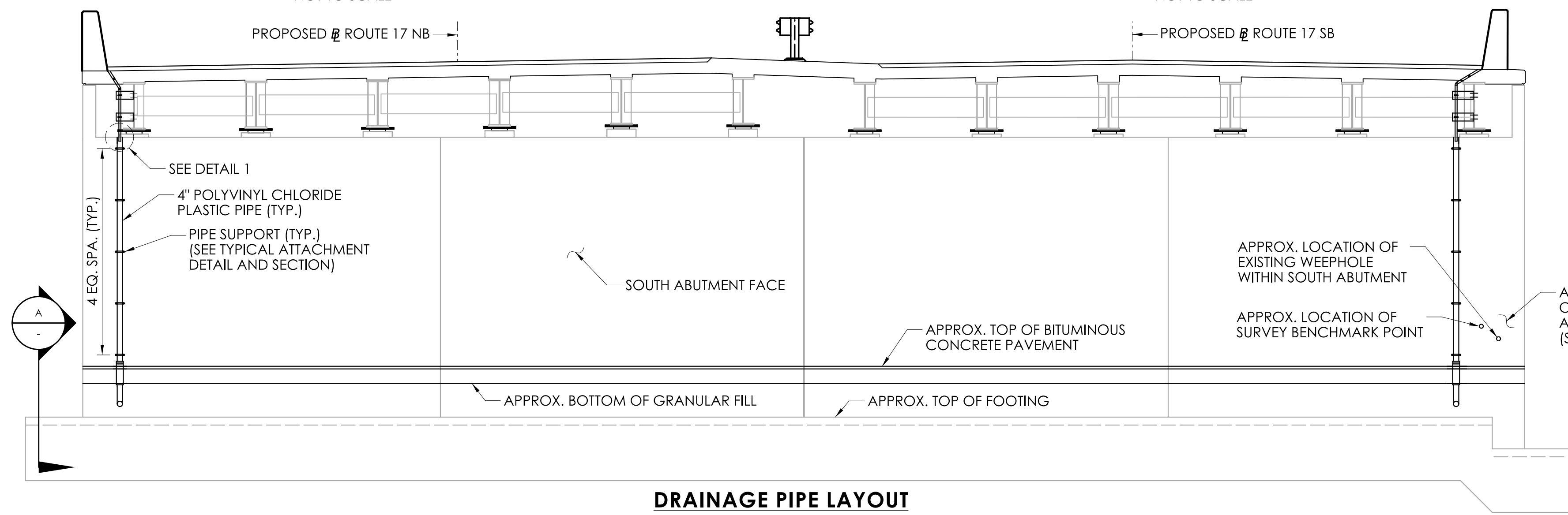
DECK WEEPHOLE - SOUTHBOUND PLAN
NOT TO SCALE



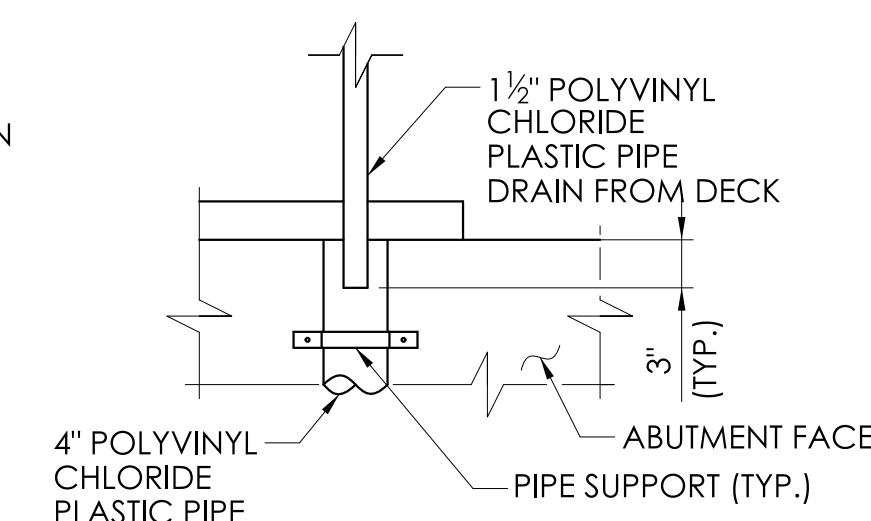
TYPICAL ATTACHMENT SECTION
NOT TO SCALE



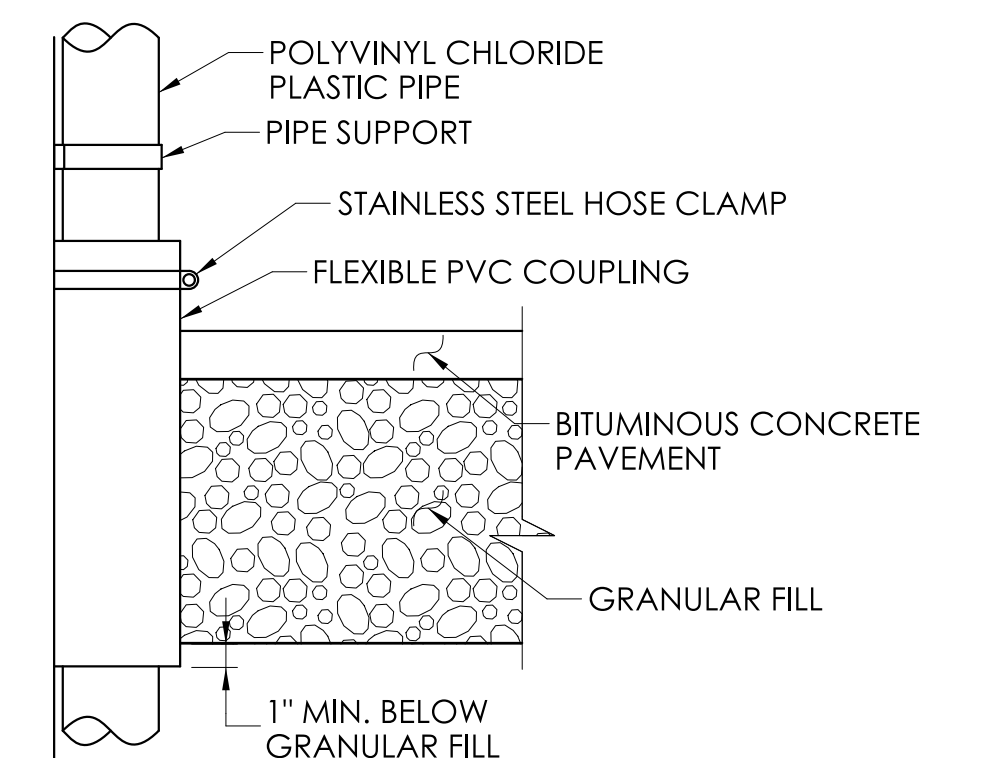
SECTION A
NOT TO SCALE



DRAINAGE PIPE LAYOUT SOUTH ABUTMENT ELEVATION
NOT TO SCALE



DETAIL 1
NOT TO SCALE



DETAIL 2
NOT TO SCALE

REVISION DESCRIPTION

SIGNATURE BLOCK:
DESIGNER/DRAFTER: CMC/TEG
CHECKED BY: CYL

SCALE AS NOTED



PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

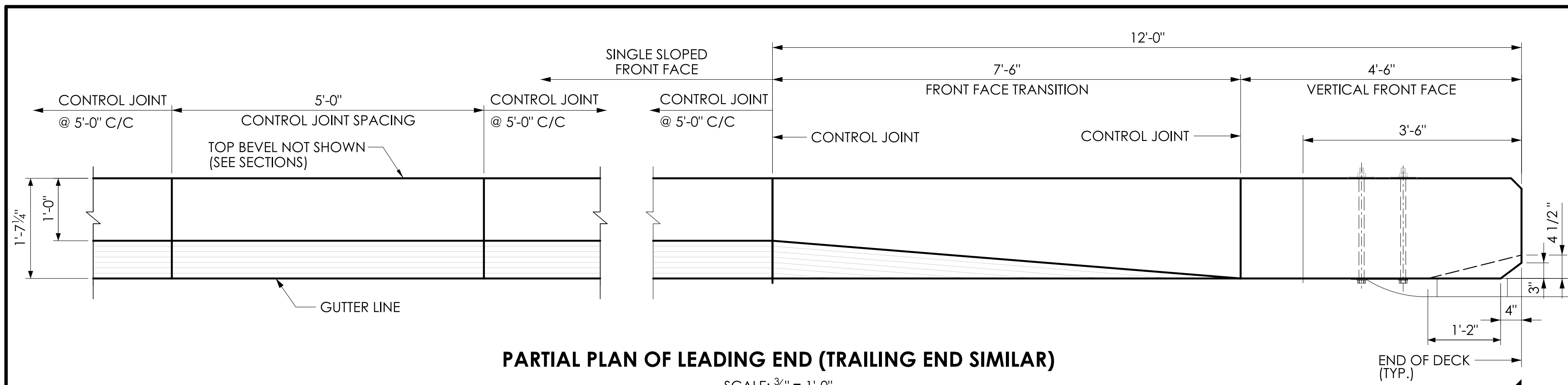
TOWN(S):
GLASTONBURY

DRAWING TITLE:
BRIDGE NO. 00870 DRAINAGE DETAILS

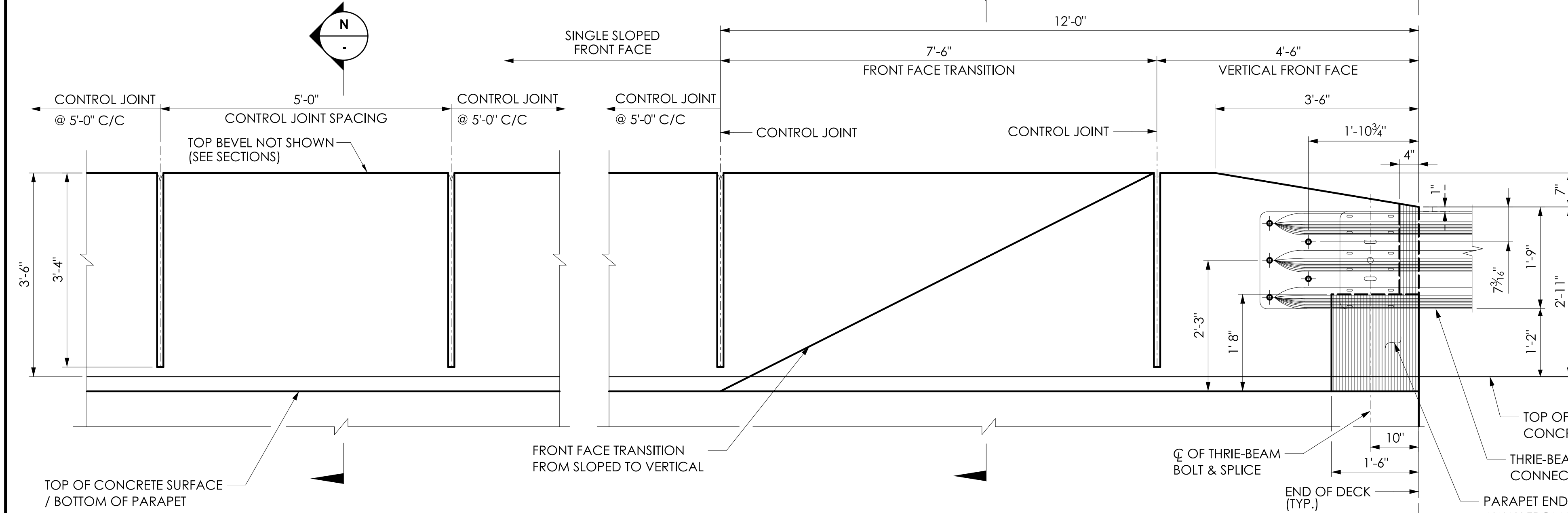
PROJECT NO.:
0053-0189

DRAWING NO.:
STR-15

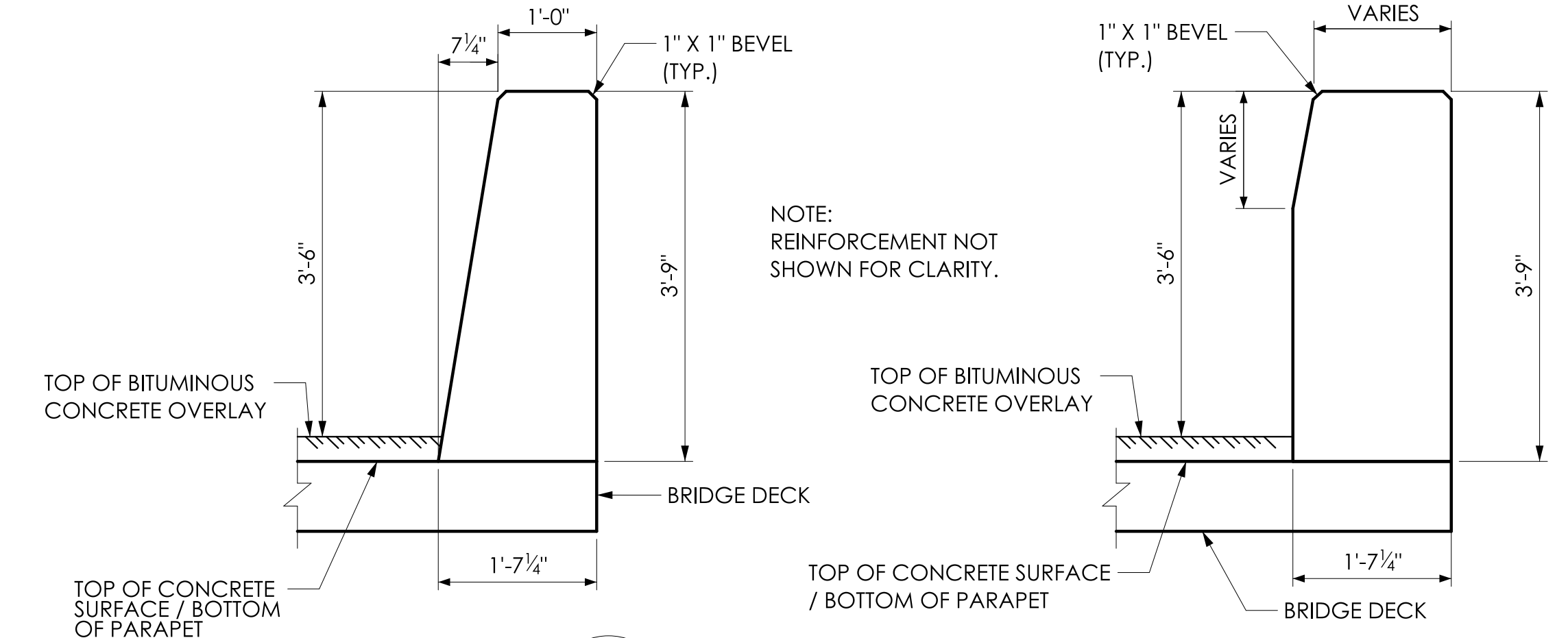
SHEET NO.:
04.15



PARTIAL PLAN OF LEADING END (TRAILING END SIMILAR)
SCALE: 3/4" = 1'-0"

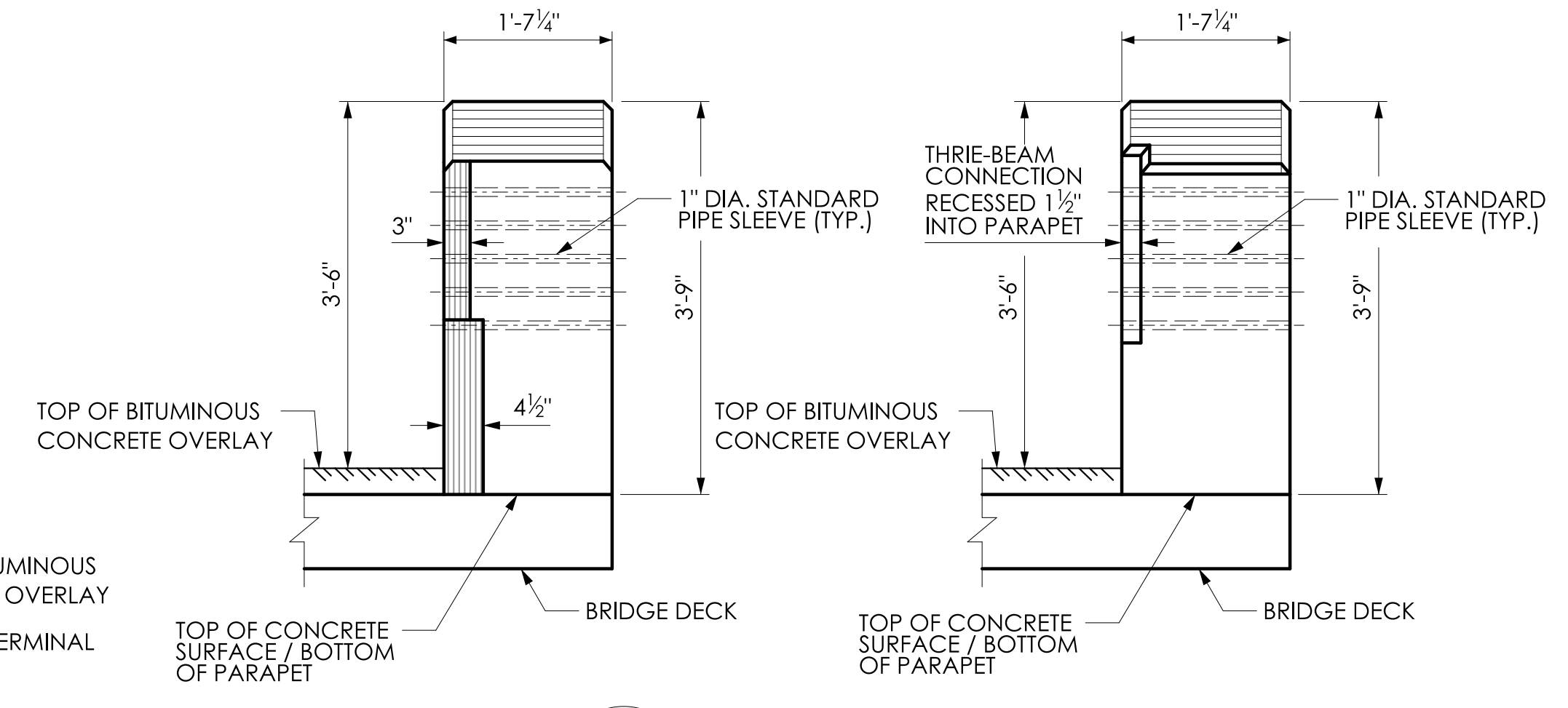


PARTIAL ELEVATION OF LEADING END (TRAILING END SIMILAR)
SCALE: 3/4" = 1'-0"



SECTION N
SCALE: 3/4" = 1'-0"

SECTION O
SCALE: 3/4" = 1'-0"

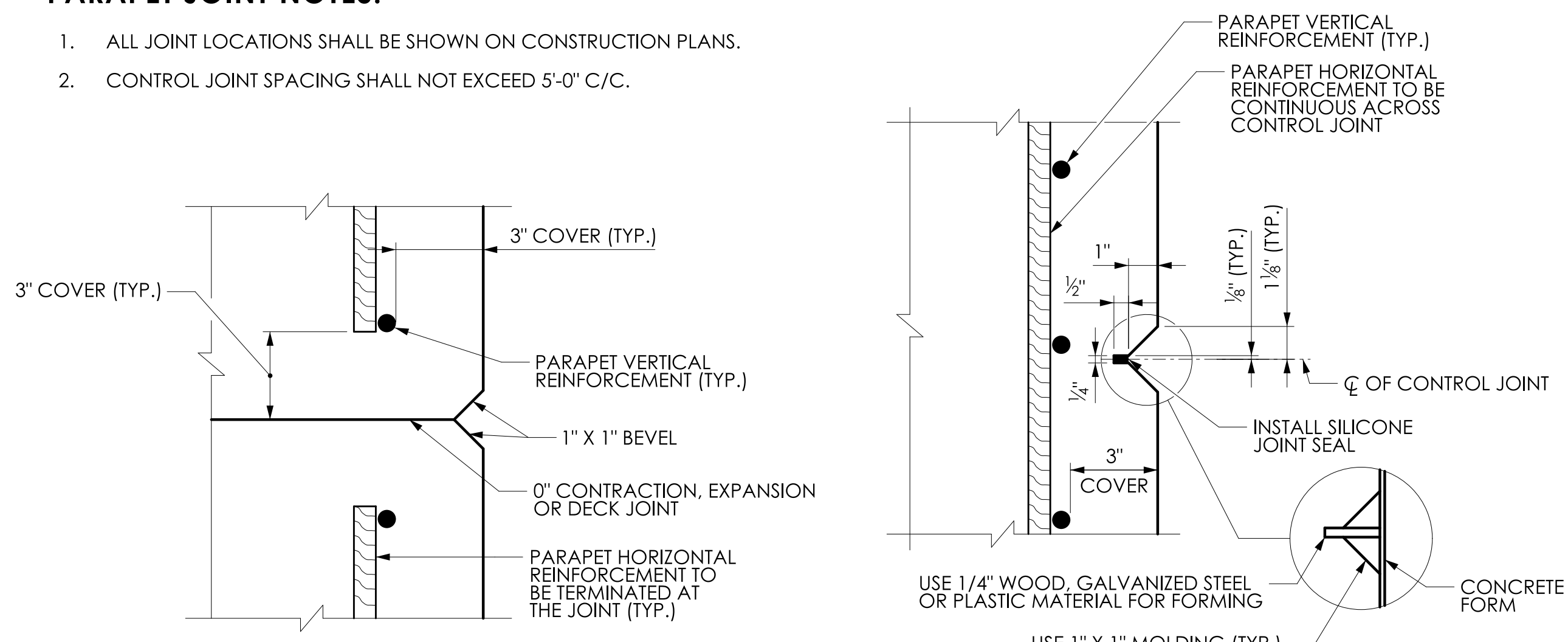


LEADING END SECTION P
SCALE: 3/4" = 1'-0"

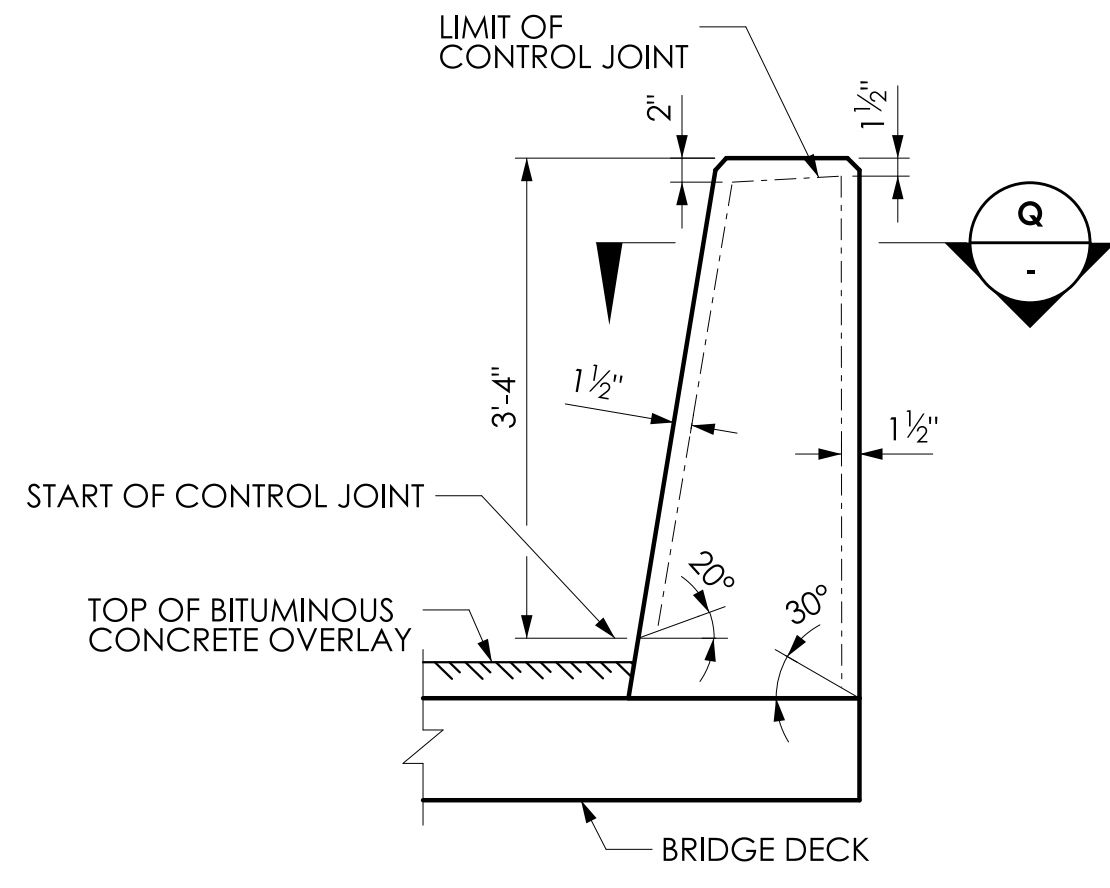
TRAILING END SECTION Q
SCALE: 3/4" = 1'-0"

PARAPET JOINT NOTES:

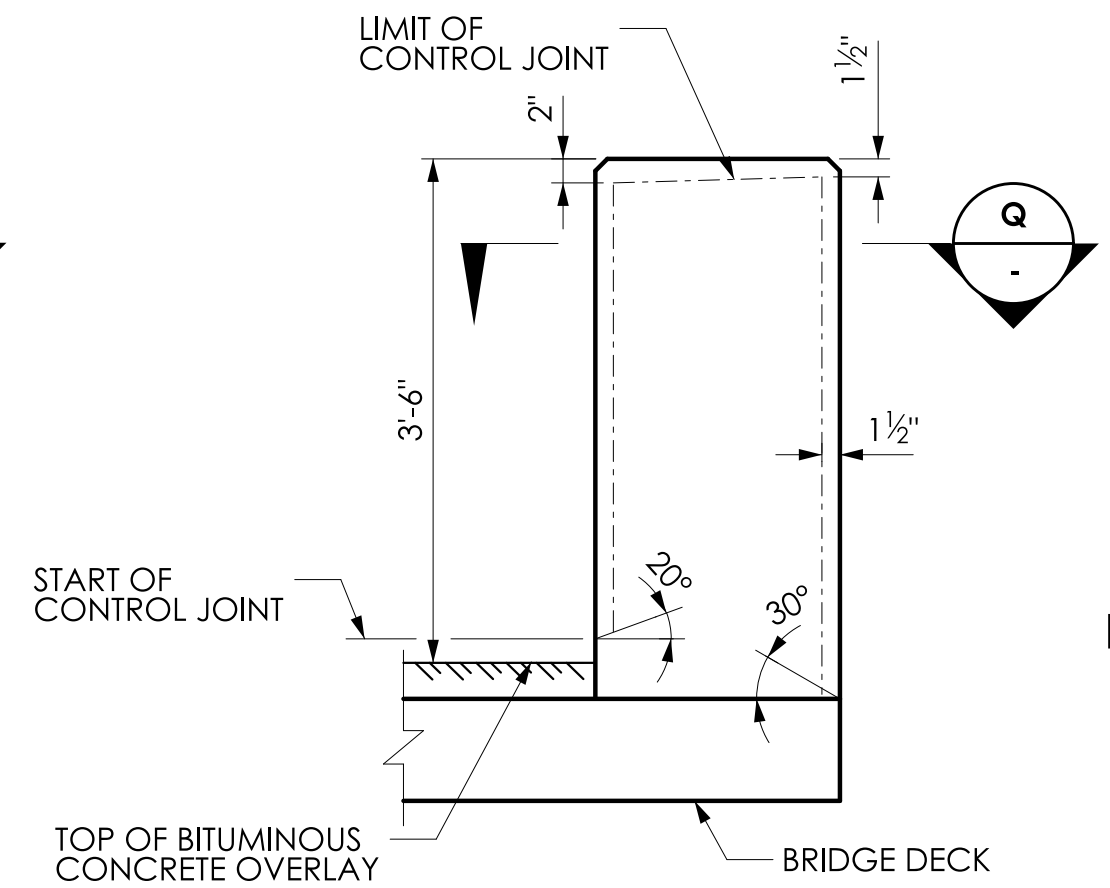
1. ALL JOINT LOCATIONS SHALL BE SHOWN ON CONSTRUCTION PLANS.
2. CONTROL JOINT SPACING SHALL NOT EXCEED 5'-0" C/C.



PARAPET JOINT DETAIL
NOT TO SCALE



TYPICAL SLOPED FACE



TYPICAL VERTICAL FACE

PARAPET CONTROL JOINT DETAIL
SCALE: 3/4" = 1'-0"

NOTES:

1. PARAPET ENDBLOCK TREATMENT DETAILS SHOWN ARE FOR LEADING END LOCATIONS ONLY. AT TRAILING END LOCATIONS, THE TYPICAL PARAPET REINFORCING SHALL BE UTILIZED WITH A LEVEL TOP OF PARAPET AND R-8 MASH BRIDGE ATTACHMENT PER HIGHWAY STANDARD DWG. HW-910_29.
2. R-8 MASH BRIDGE ATTACHMENT - TRAILING END SHALL BE ANCHORED TO PROPOSED PARAPETS WITH 3 - 1" DIA. X 1'-8" LONG ANCHOR BOLTS WITH 4 NUTS AND WASHERS AND 3/8" ANCHOR PLATE EMBEDDED 1'-3" INTO THE PROPOSED PARAPET.

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

 WSP USA INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED

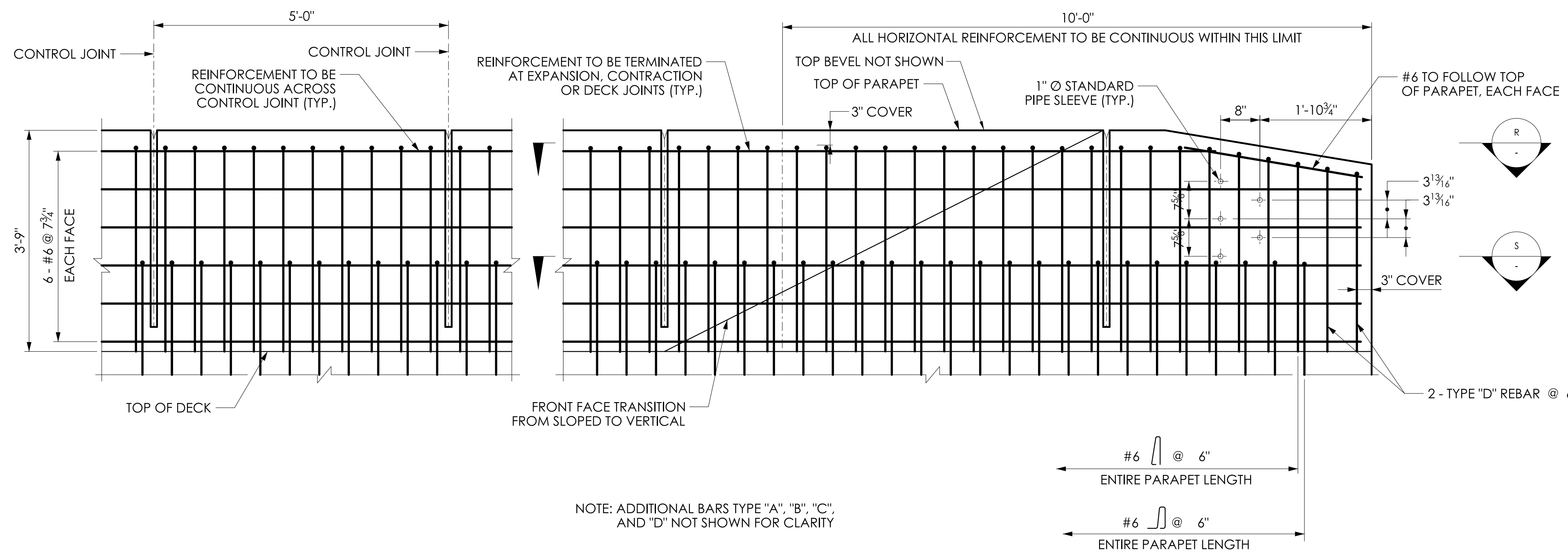
CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

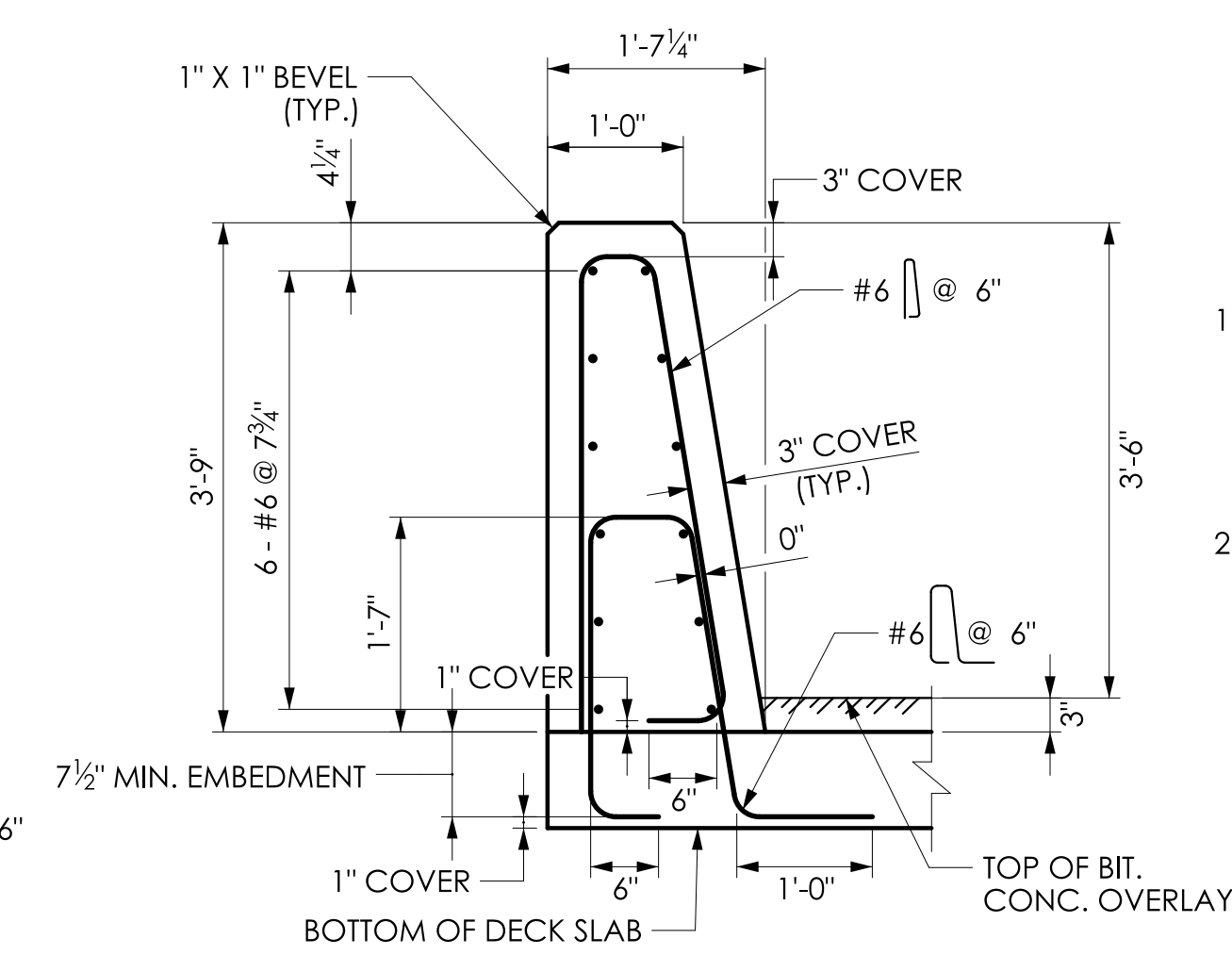
DRAWING TITLE:
BRIDGE NO. 00870 ENDBLOCK DETAILS - 1

PROJECT NO.:
0053-0189
 DRAWING NO.:
STR-16
 SHEET NO.:
04.16



PARTIAL ELEVATION - TYPICAL REINFORCED CONCRETE PARAPET DETAILS

SCALE: 3/4" = 1'-0"



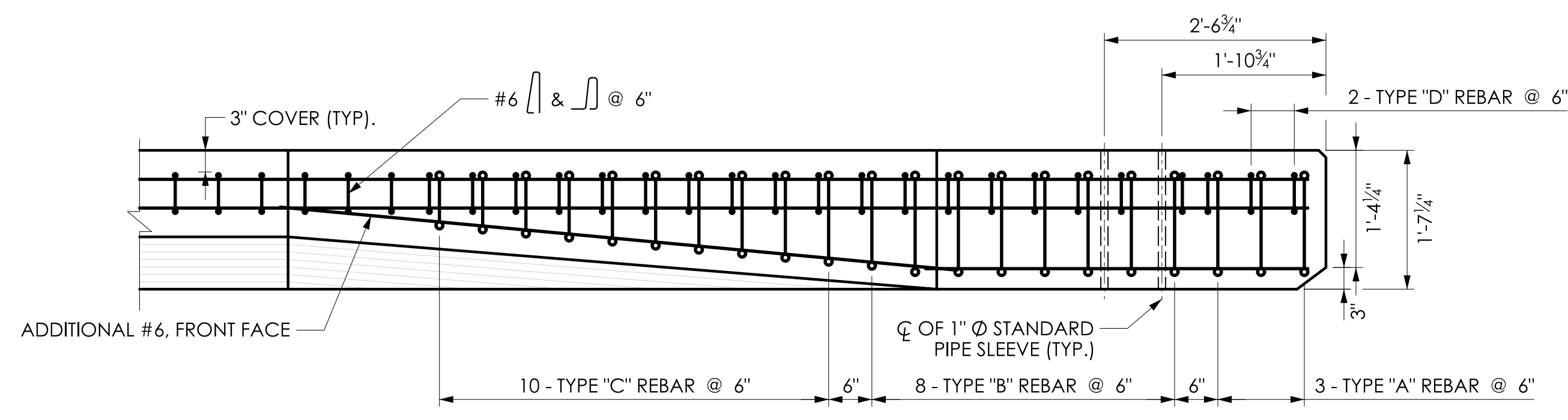
PARAPET ON DECK SLAB

SCALE: 3/4" = 1'-0"

REINFORCEMENT SPLICE NOTES:

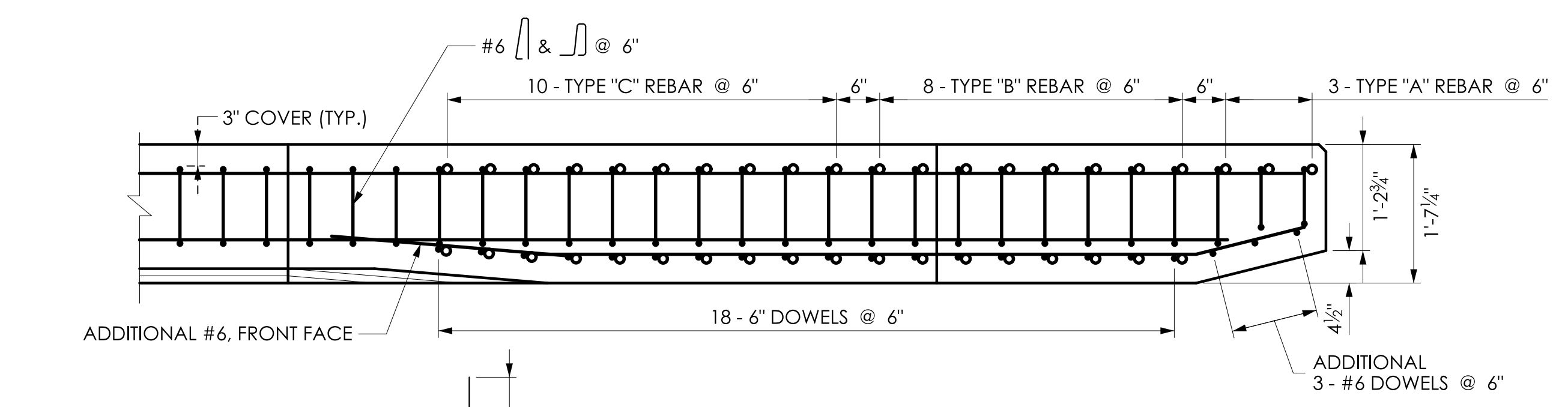
1. THE SPLICE LENGTH FOR THE REINFORCEMENT IN THE PARAPETS SHALL BE AS FOLLOWS UNLESS DIMENSIONED OTHERWISE:

BAR SIZE	SPLICE LENGTH
#6	2'-6"
2. THE SPLICES SHALL BE ALTERNATED SO THAT 50% OR LESS OF THE LONGITUDINAL BARS ARE SPLICED AT THE SAME LOCATION.



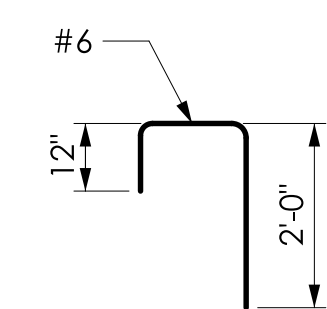
SECTION R

SCALE: 3/4" = 1'-0"



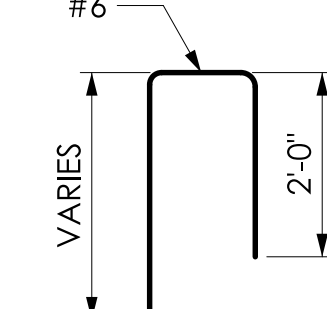
SECTION S

SCALE: 3/4" = 1'-0"



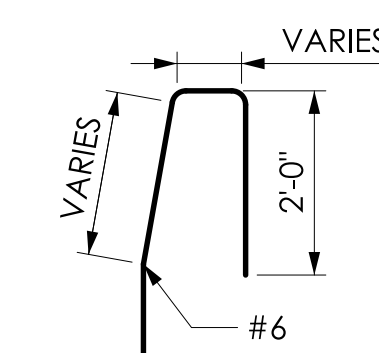
TYPE "A" REBAR

SCALE: NOT TO SCALE



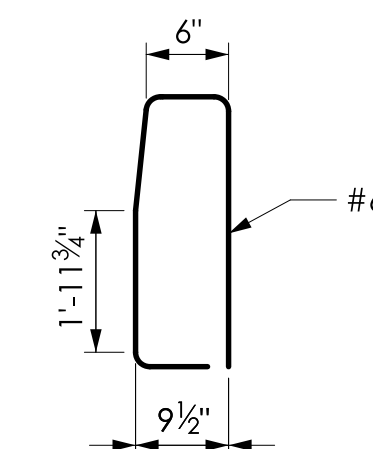
TYPE "B" REBAR

SCALE: NOT TO SCALE



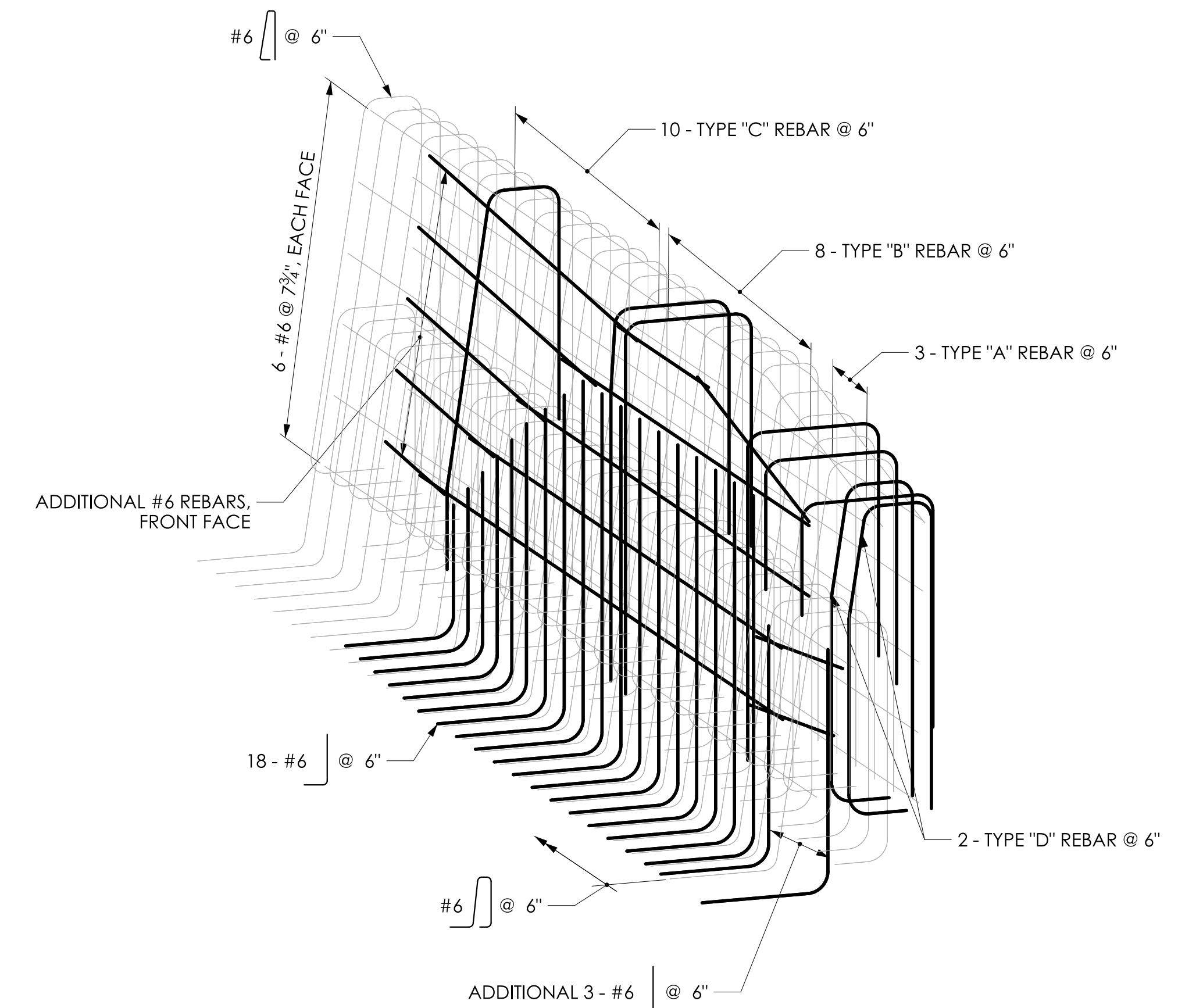
TYPE "C" REBAR

SCALE: NOT TO SCALE



TYPE "D" REBAR

SCALE: NOT TO SCALE



ISOMETRIC VIEW - REINFORCEMENT DETAIL AT PARAPET END AND TRANSITION

SCALE: NOT TO SCALE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

 WSP USA INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED

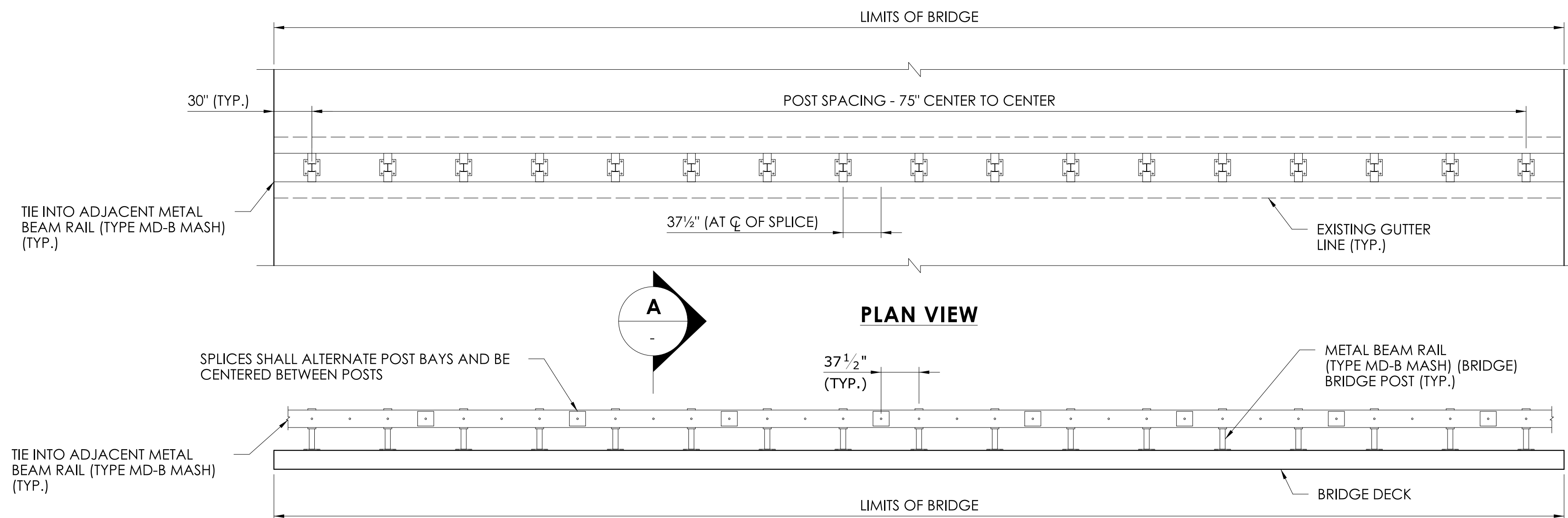
 CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

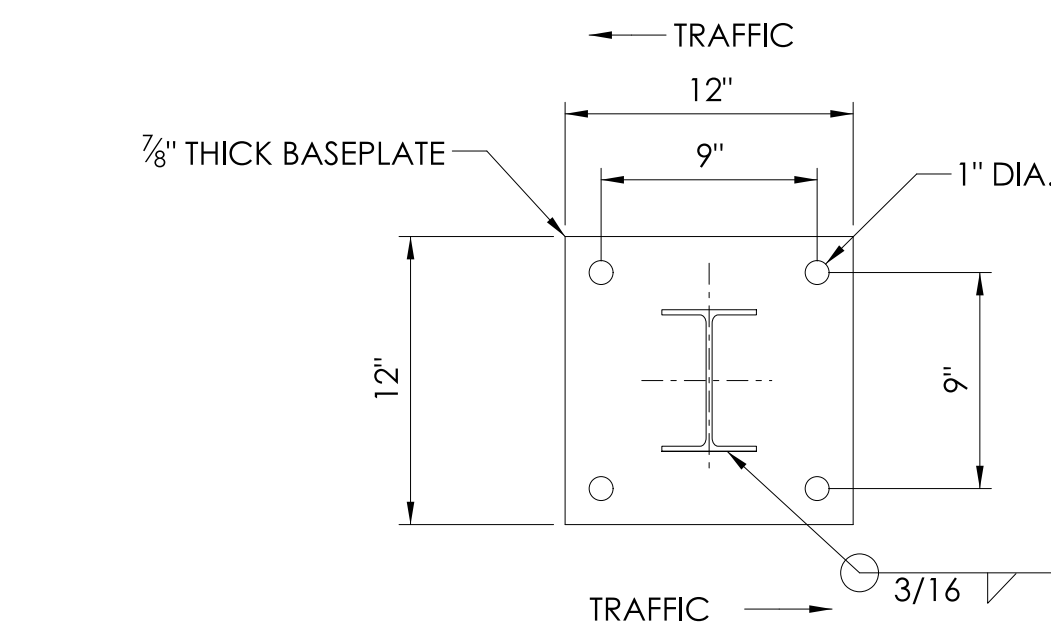
DRAWING TITLE:
BRIDGE NO. 00870 ENDBLOCK DETAILS - 2

PROJECT NO.:
0053-0189
 DRAWING NO.:
STR-17
 SHEET NO.:
04.17

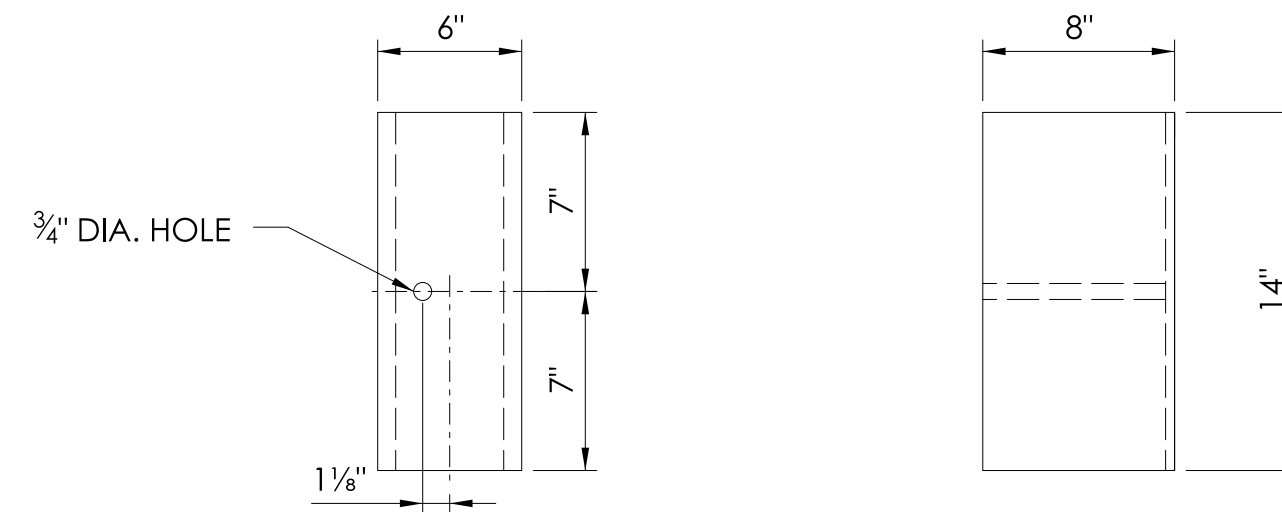


BRIDGE MEDIAN METAL BEAM RAIL (TYPE MD-B MASH) (BRIDGE) LAYOUT

SCALE: N.T.S.

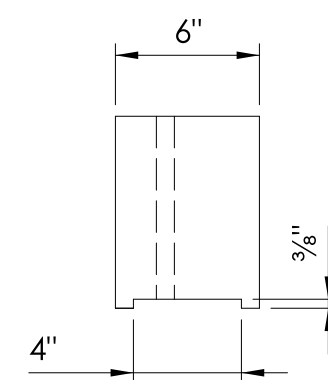


BRIDGE MEDIAN METAL BEAM RAIL (TYPE MD-B MASH) (BRIDGE) POST BASEPLATE DETAIL



FRONT

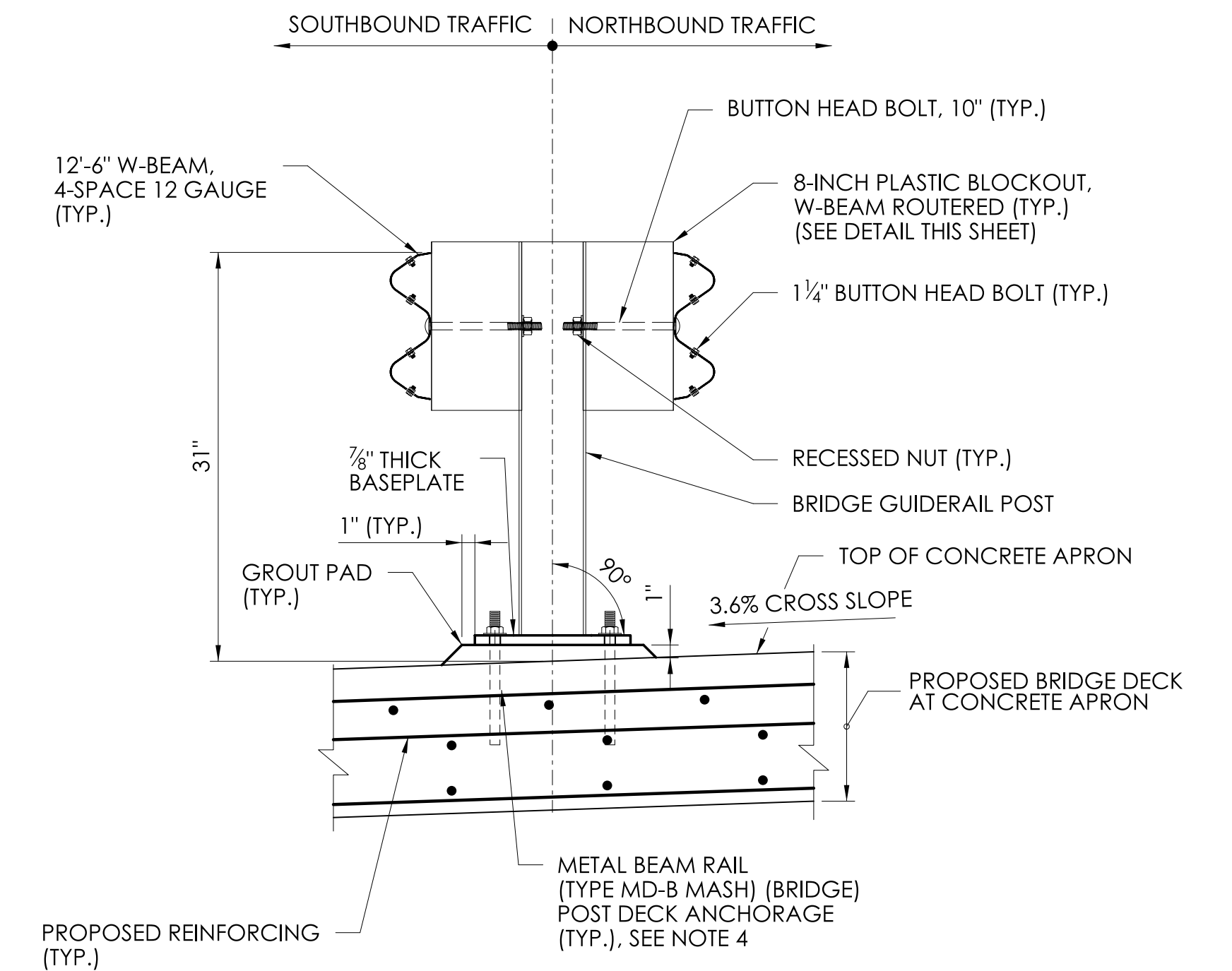
SIDE



TOP

8" PLASTIC BLOCKOUT DETAILS

SCALE: N.T.S.



SECTION A

SCALE: N.T.S.

NOTES:

1. ALL POST SPACINGS ON BRIDGE SHALL BE 75" CENTER TO CENTER WITH W-BEAM SPLICE LOCATED AT MIDPOINT OF POST.
2. BRIDGE MEDIAN METAL BEAM RAIL POST SHALL BE ASTM A992.
3. BRIDGE MEDIAN METAL BEAM RAIL POST BASEPLATE SHALL BE ASTM A36.
4. BRIDGE MEDIAN METAL BEAM RAIL POST DECK ANCHORAGE SHALL BE HILTI HAS-E 7/8" DIA. 10' LONG WITH WASHER AND NUT. ANCHORAGE SHALL BE INSTALLED WITH HILTI RE500 EPOXY ACCORDING TO MANUFACTURER REQUIREMENTS. ANCHORAGE SHALL HAVE MINIMUM 6" EMBEDMENT.
5. TO BE PAID UNDER ITEM NO. 0910311A METAL BEAM RAIL (TYPE MD-B MASH) (BRIDGE).
6. W-BEAM GUIDERAIL SHALL USE CLASS A (12 GAUGE), TYPE II W-BEAM RAIL ELEMENTS.
7. SEE STANDARD SHEET HW-910_20 FOR MASH HARDWARE AND W-BEAM DELINEATOR DETAILS.
8. RAIL HEIGHT CONSTRUCTION TOLERANCE IS +/- INCH.
9. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.

BRIDGE MEDIAN METAL BEAM RAIL (TYPE MD-B MASH) (BRIDGE) POST DETAIL

SCALE: N.T.S.

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED



PROJECT TITLE: **REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE**

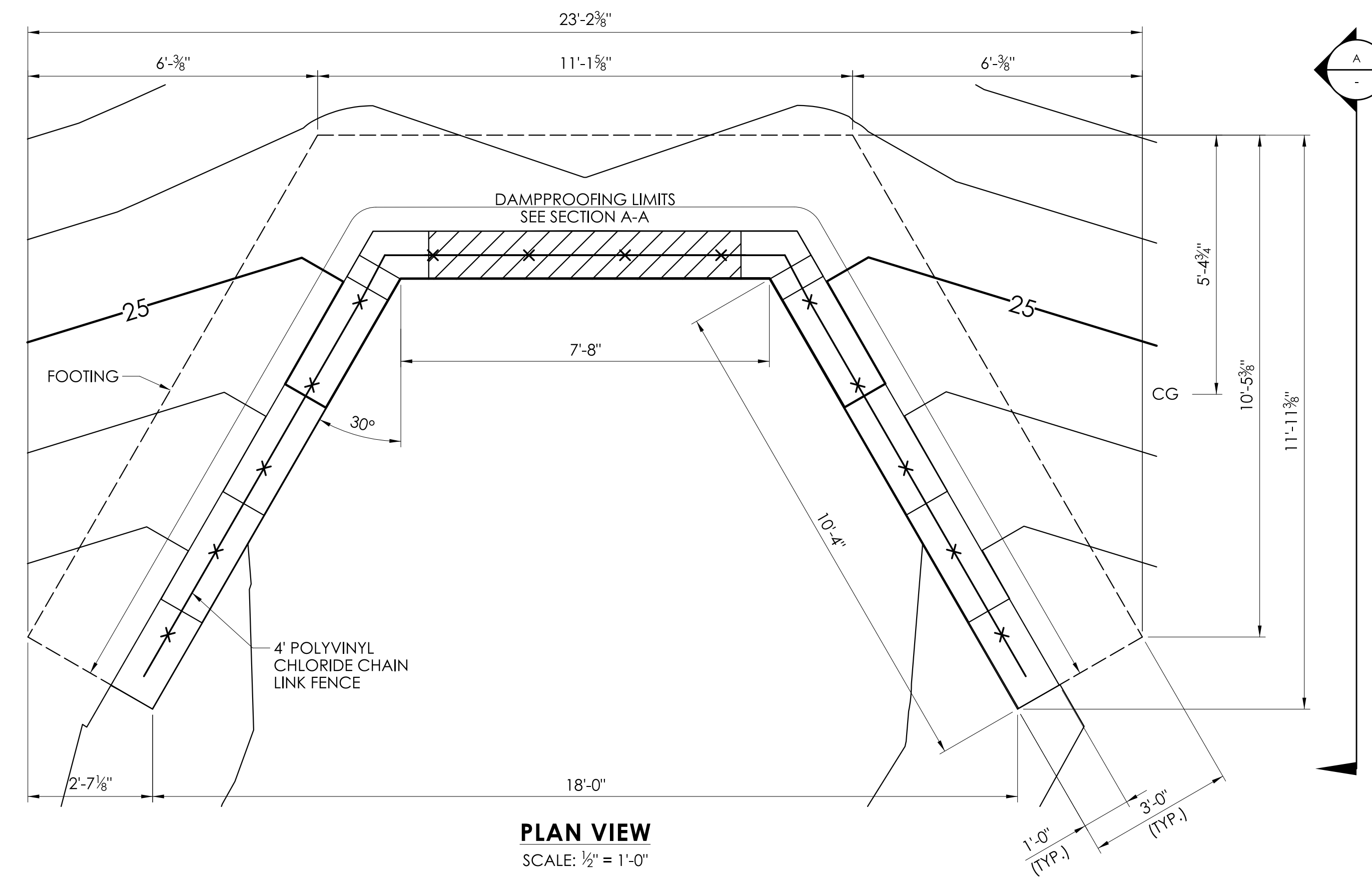
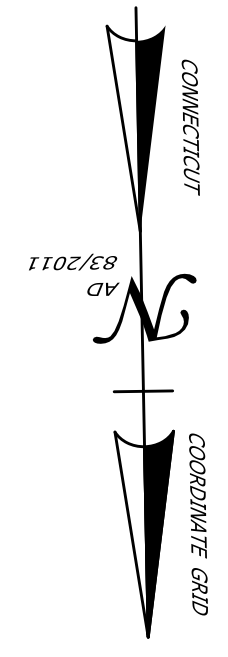
TOWN(S): **GLASTONBURY**

DRAWING TITLE: **BRIDGE NO. 00870 MEDIAN GUIDERAIL DETAILS**

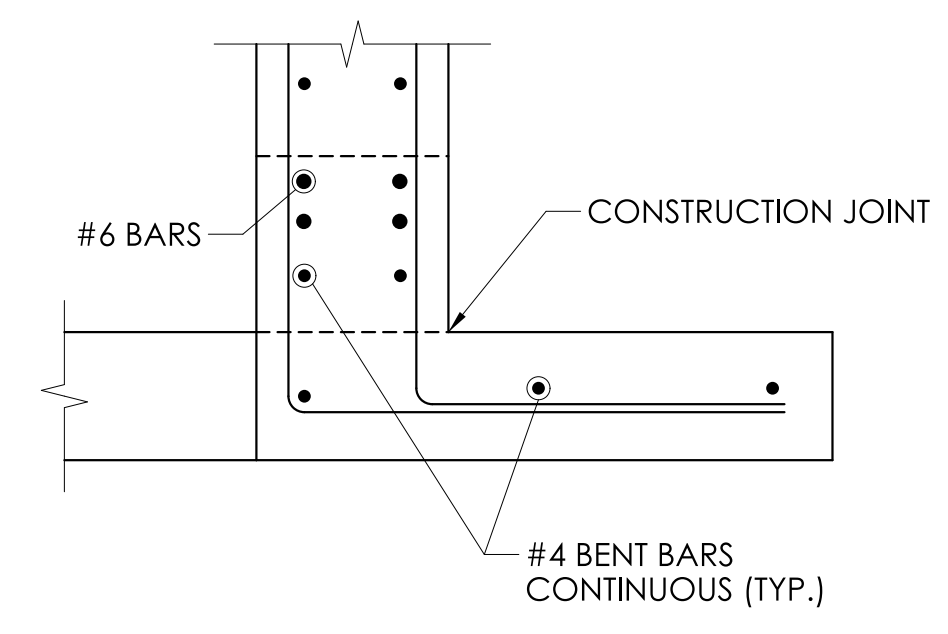
PROJECT NO.: **0053-0189**

DRAWING NO.: **STR-18**

SHEET NO.: **04.18**

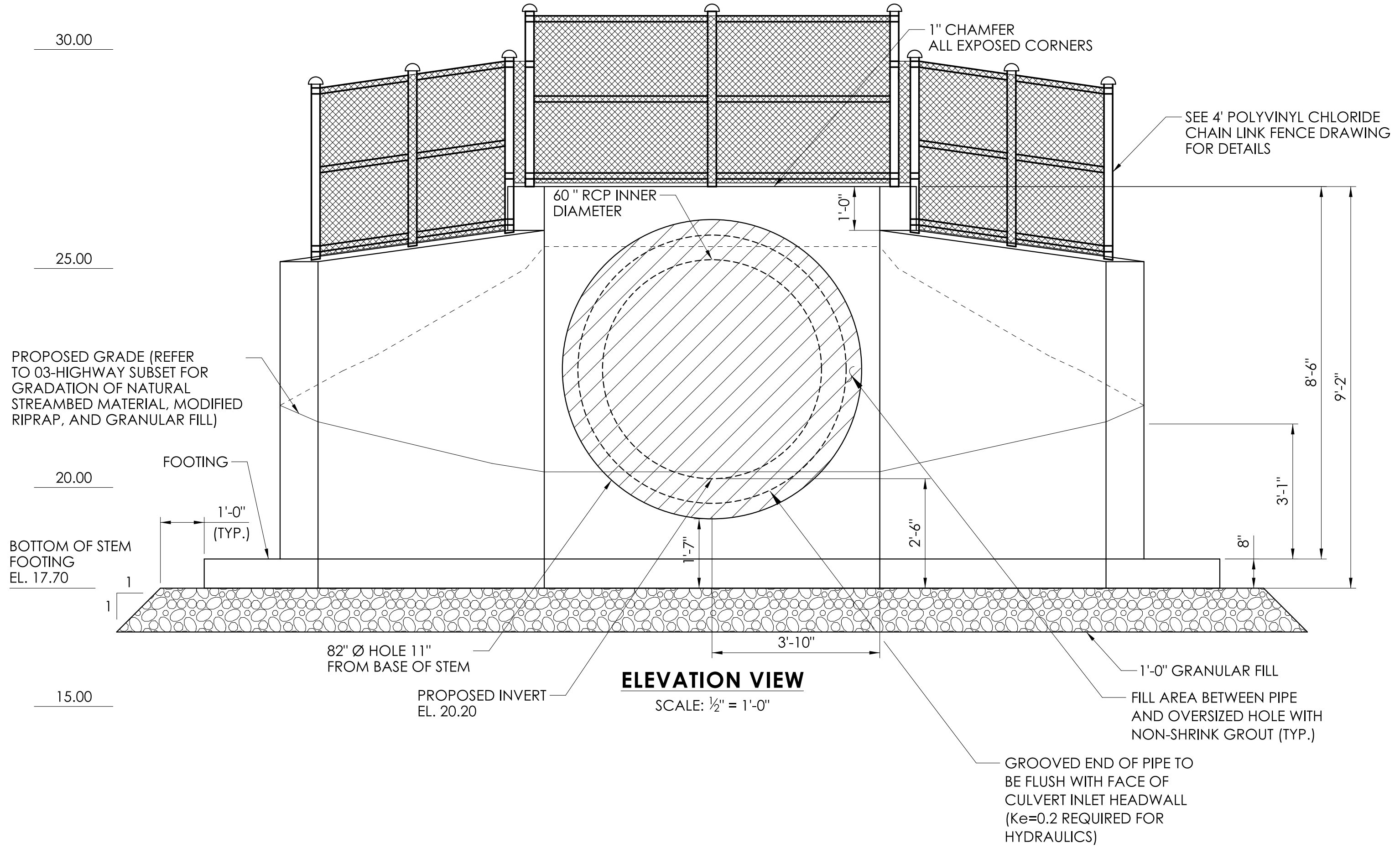


PLAN VIEW
SCALE: 1/2" = 1'-0"

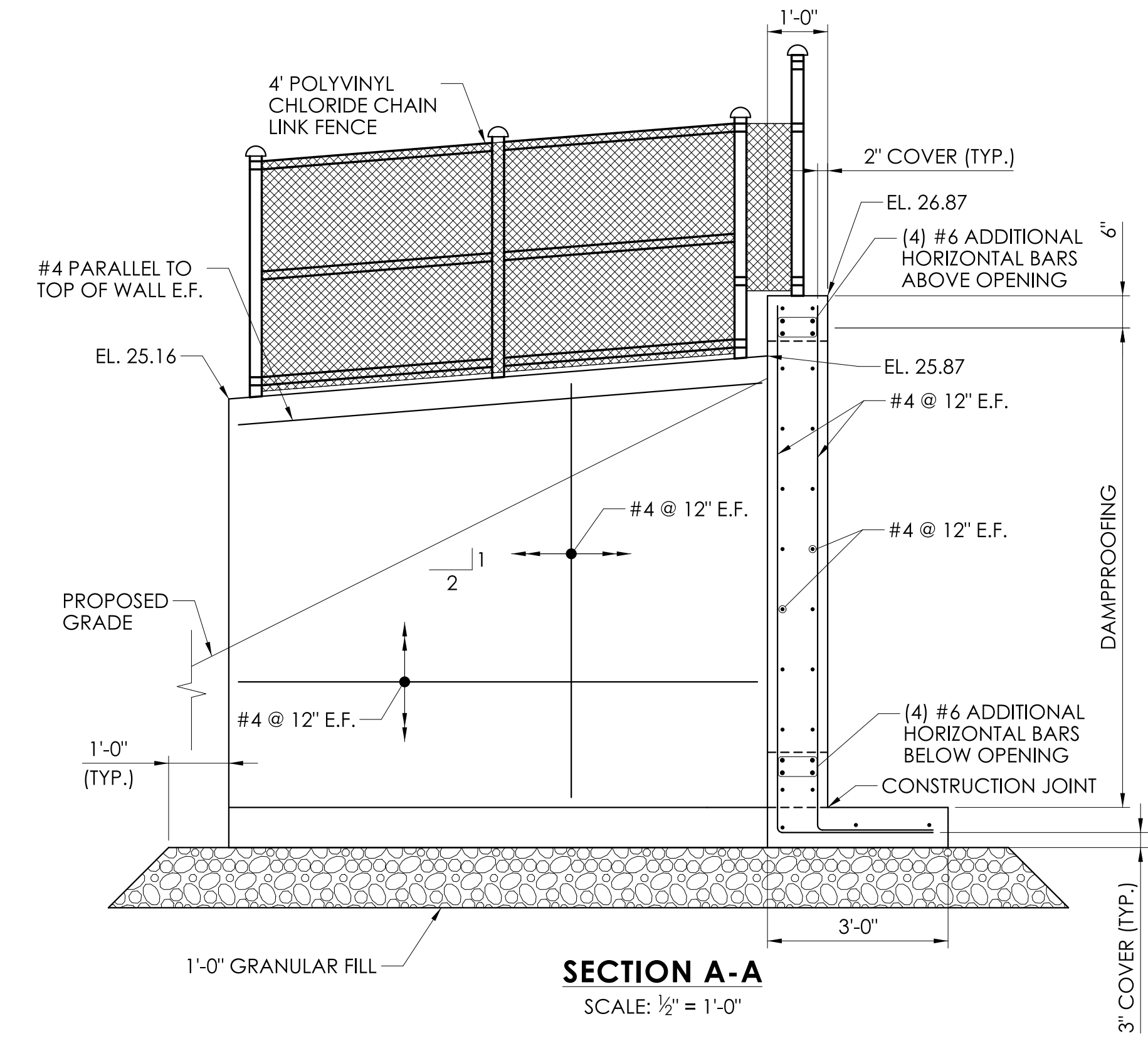


SECTION A-A DETAIL
SCALE: 1" = 1'-0"

- NOTES**
1. REINFORCING STEEL DEFORMED BARS SHALL CONFORM TO LATEST ASTM SPECIFICATION A615/A706, GRADE UNCOATED REINFORCING.
 2. CONCRETE COMPRESSIVE STRENGTH - 4,000 PSI AT 28 DAYS SELF COMPACTING CONCRETE MIX.
 3. METHOD OF MANUFACTURE: WET CAST.
 4. SEE SUBSET 03 FOR LOCATION OF CULVERT INLET HEADWALL.
 5. CULVERT INLET HEADWALL AND WINGWALL CONCRETE, REINFORCING STEEL DEFORMED BARS, AND PERVIOUS STRUCTURE BACKFILL WILL BE PAID FOR UNDER "WING ENDWALL".
 6. APPROXIMATE WEIGHT OF PRECAST HEADWALL IS 40,000 LBS.
 7. GRANULAR FILL WILL BE PAID FOR UNDER "GRANULAR FILL".



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



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

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

 WSP USA, INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED



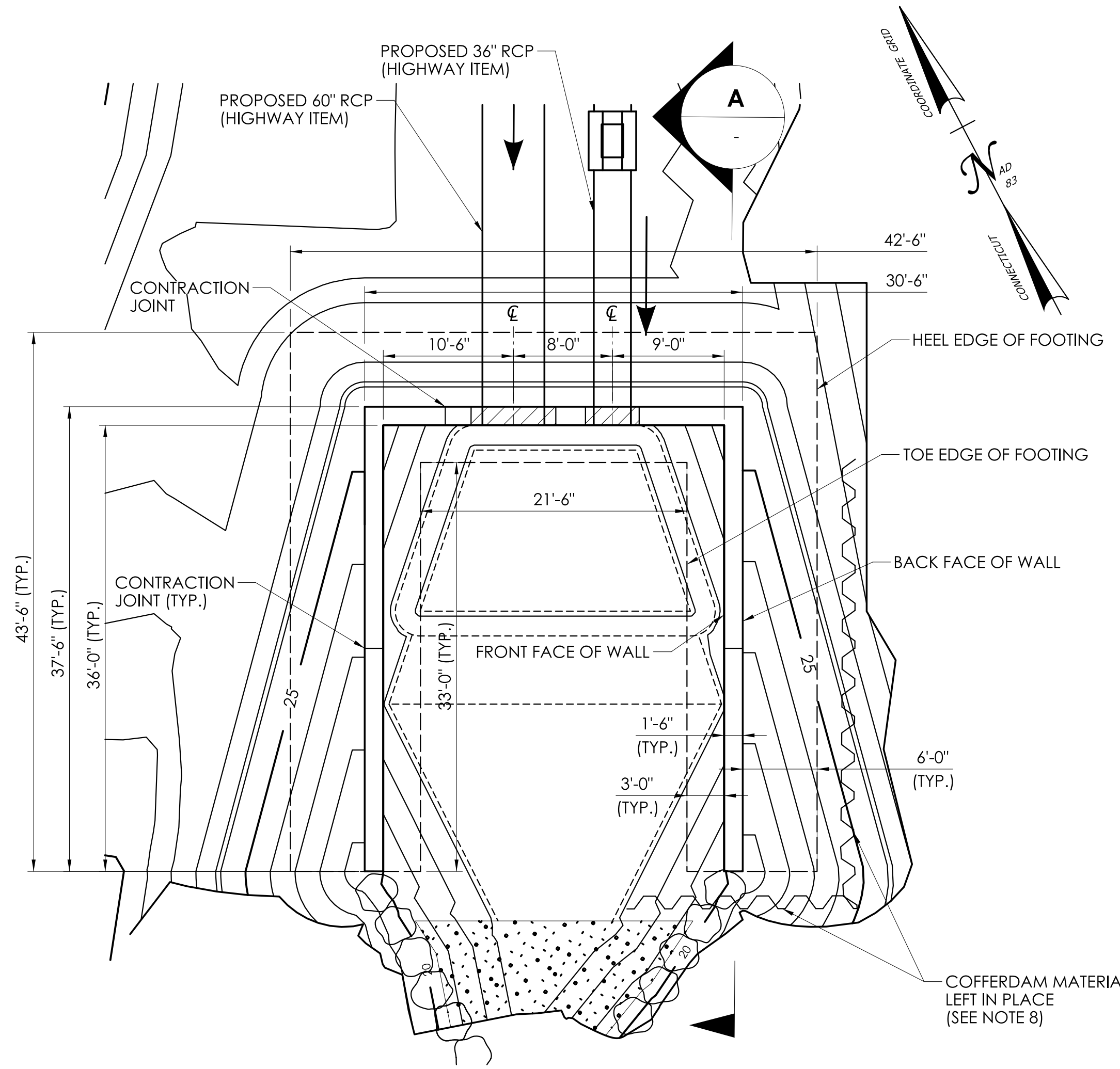
PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

DRAWING TITLE:
PRECAST CULVERT INLET HEADWALL DETAILS

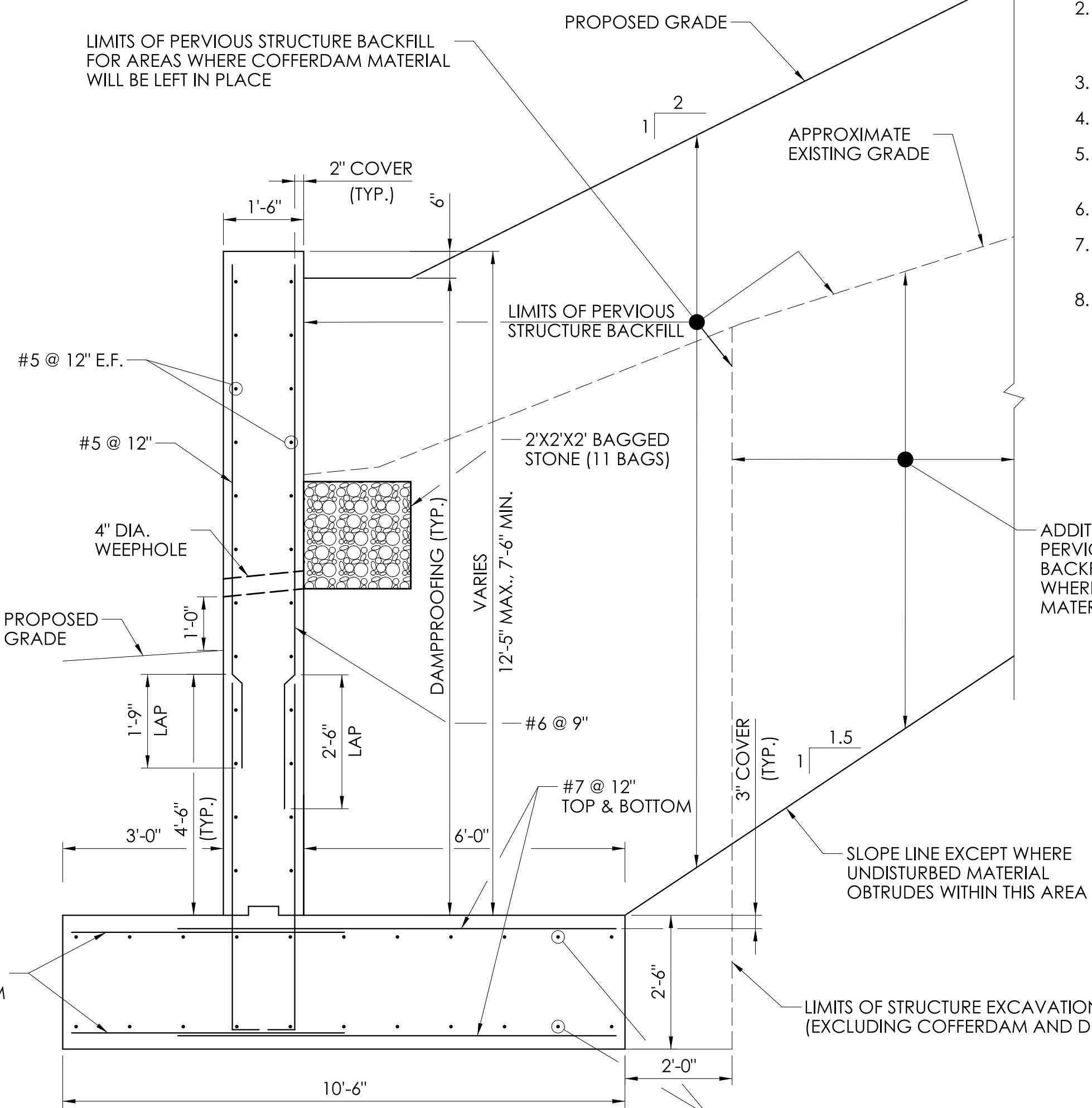
PROJECT NO.:
0053-0189

DRAWING NO.:
STR-19
 SHEET NO.:
04.19



PLAN VIEW

SCALE: 1/8" = 1'-0"

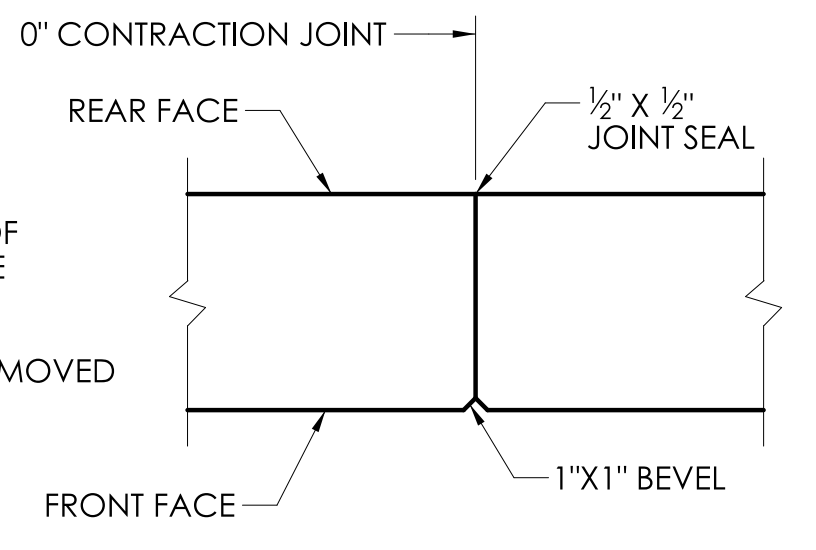


TYPICAL WALL REINFORCEMENT SECTION

(WALL HOLE OPENINGS IN CENTRAL ENDWALL SECTION NOT SHOWN)
SCALE: 1/2" = 1'-0"

NOTES

1. REINFORCING STEEL WILL BE PAID FOR UNDER "DEFORMED STEEL BARS GALVANIZED."
2. CONCRETE COMPRESSIVE STRENGTH - 4,000 PSI AT 28 DAYS. CAST-IN-PLACE CULVERT OUTLET ENDWALL CONCRETE FOOTING AND WALLS TO BE PAID FOR UNDER "ABUTMENT AND WALL CONCRETE".
3. SEE SUBSET 03 FOR LOCATION OF CULVERT OUTLET ENDWALL.
4. GRANULAR FILL WILL BE PAID FOR UNDER "GRANULAR FILL".
5. PERVIOUS STRUCTURE BACKFILL WILL BE PAID FOR UNDER "PERVIOUS STRUCTURE BACKFILL".
6. DAMPROOFING WILL BE PAID FOR UNDER "DAMPPOOFING".
7. STRUCTURE EXCAVATION WILL BE PAID FOR UNDER "STRUCTURE EXCAVATION - EARTH (EXCLUDING COFFERDAM AND DEWATERING)".
8. PORTIONS OF COFFERDAM TO REMAIN SHALL BE CUT 2'-0" OR MORE BELOW FINISHED GRADE AND WILL BE PAID FOR UNDER "COFFERDAM MATERIAL LEFT IN PLACE". NO COFFERDAM MATERIAL TO BE LEFT IN PLACE WITHIN THE LIMITS OF THE ORDINARY HIGH WATER (OHW). REFER TO 03 HIGHWAY SUBSET FOR FULL LIMITS OF COFFERDAM AND DEWATERING AND CONSTRUCTION STAGING SEQUENCE.

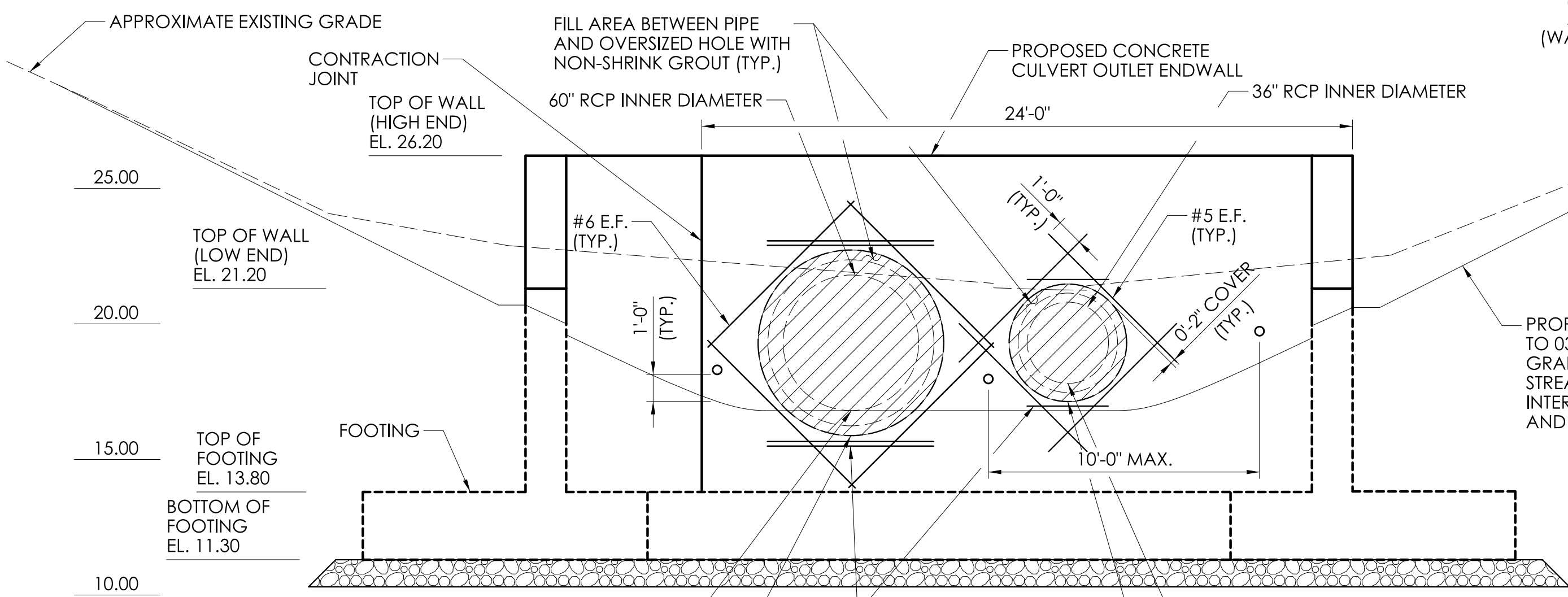


VERTICAL STEM JOINT DETAILS

SCALE: 3/4" = 1'-0"

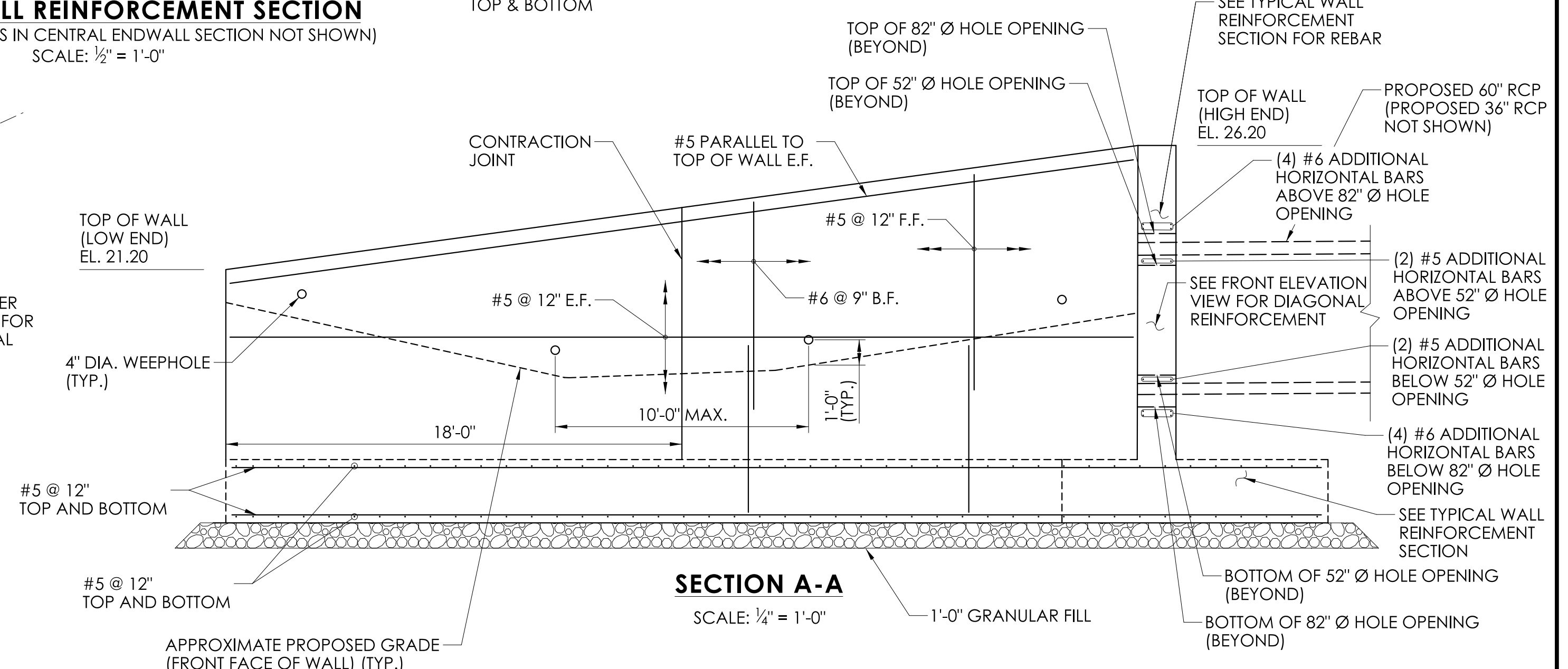
JOINT NOTES

1. JOINT SEAL SHALL BE INCLUDED IN THE ITEM "ABUTMENT AND WALL CONCRETE".
2. JOINT SEAL TO EXTEND FROM TOP OF FOOTING TO TOP STEM.
3. NO REINFORCEMENT SHALL PASS THROUGH CONTRACTION JOINTS. REINFORCEMENT SHALL PASS THROUGH CONSTRUCTION JOINTS.



FRONT ELEVATION VIEW

SCALE: 1/4" = 1'-0"



SECTION A-A

SCALE: 1/4" = 1'-0"

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL
WSP USA INC.
500 WINDING BROOK DR
GLASTONBURY, CT 06033

SCALE AS NOTED



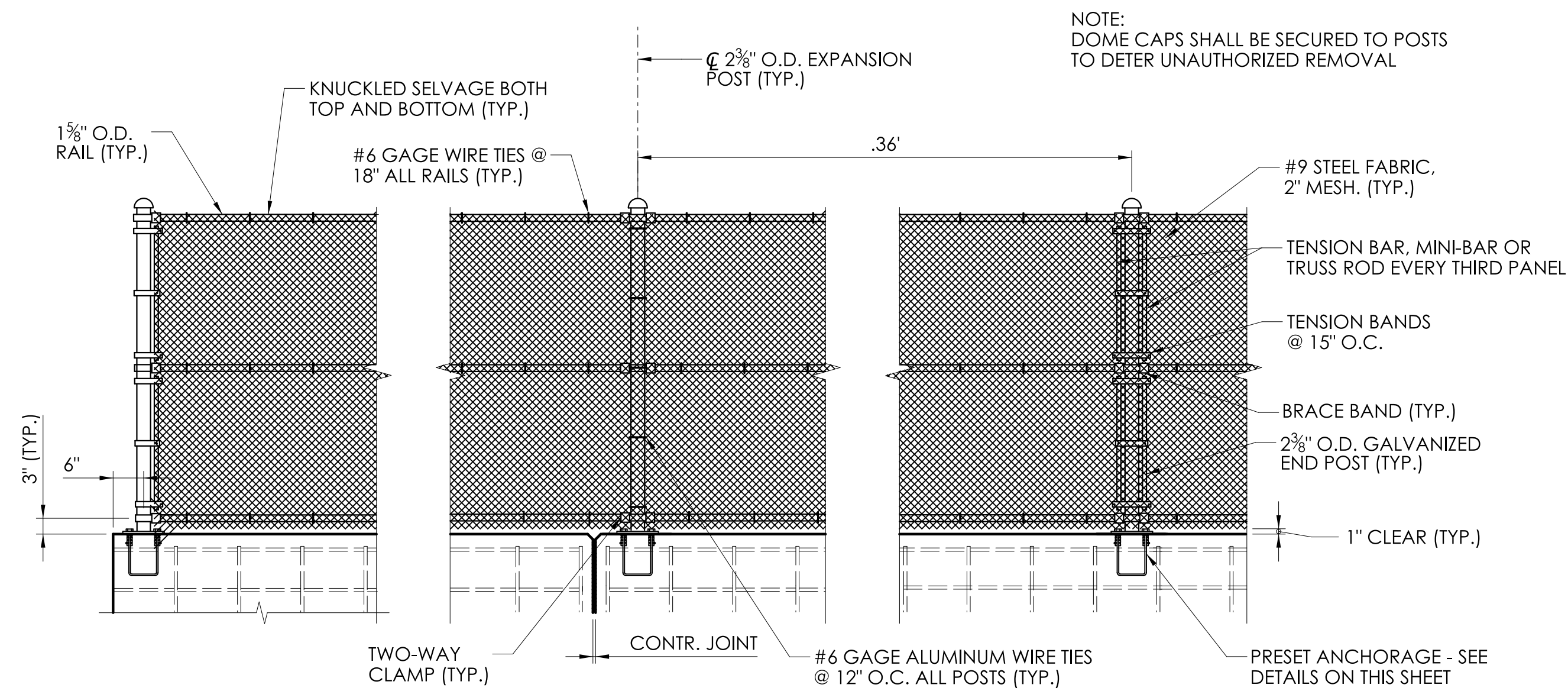
PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

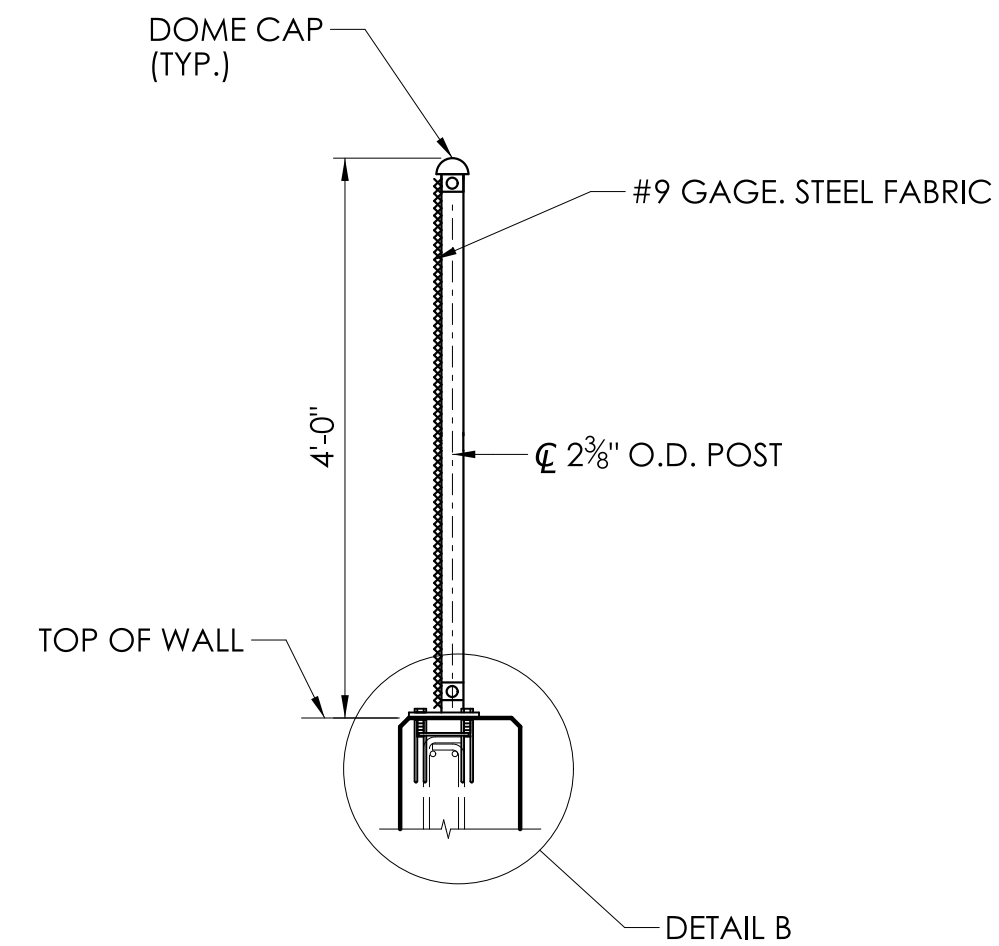
DRAWING TITLE:
CULVERT OUTLET ENDWALL DETAILS

PROJECT NO.:
0053-0189

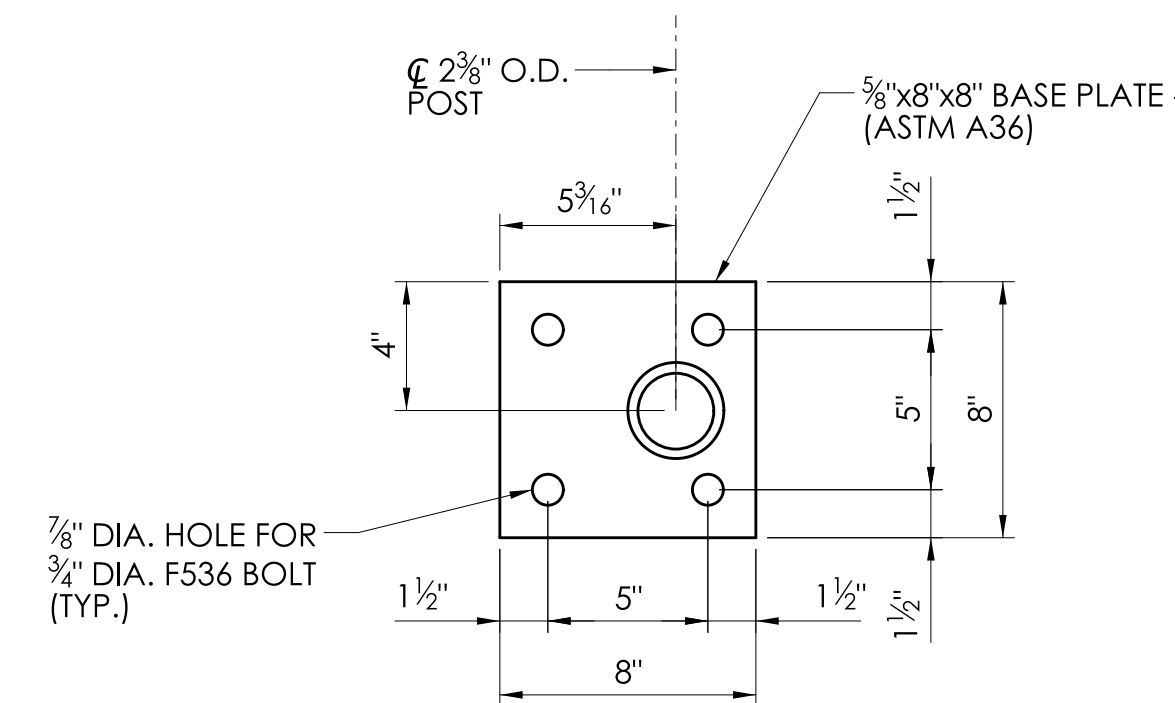
DRAWING NO.:
STR-20
SHEET NO.:
04.20



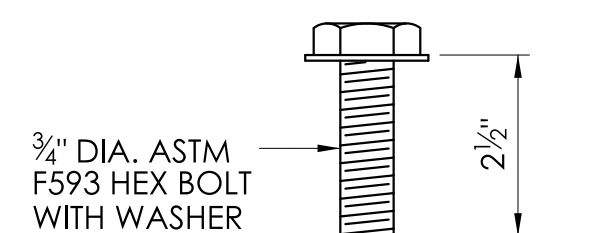
ELEVATION - 4' POLYVINYL CHLORIDE CHAIN LINK FENCE
NOT TO SCALE



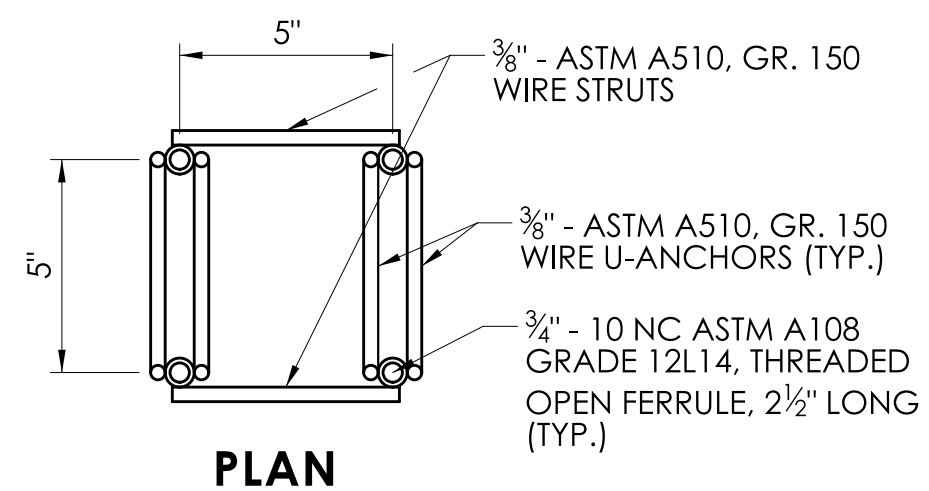
SECTION A-A
NOT TO SCALE



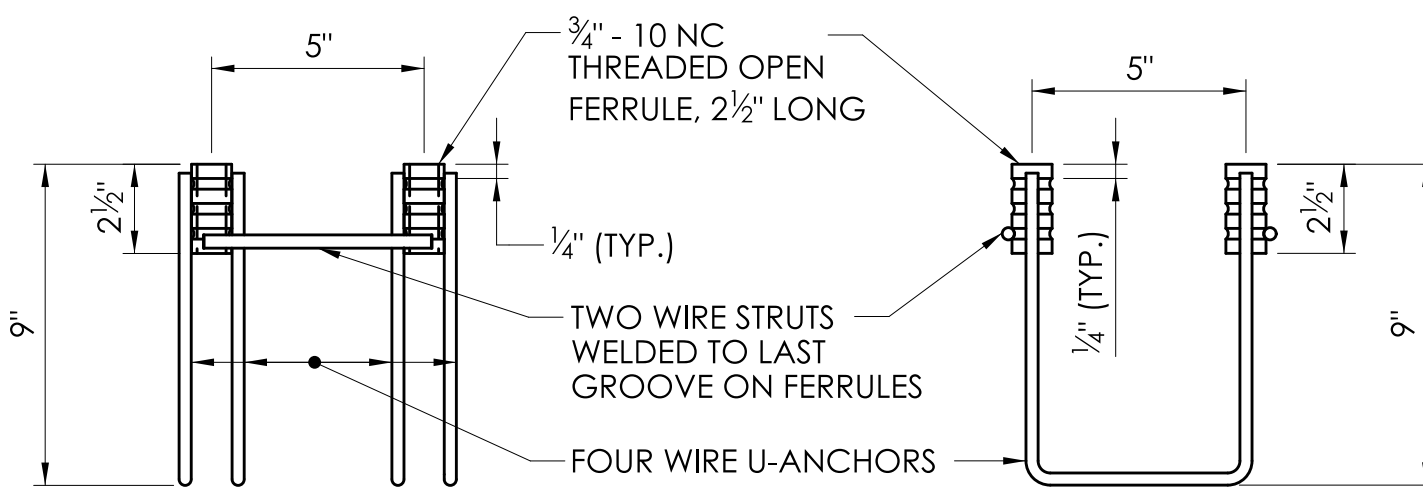
BASE PLATE DETAIL
NOT TO SCALE



BOLT FOR PRESET ANCHORAGE
NOT TO SCALE



PLAN

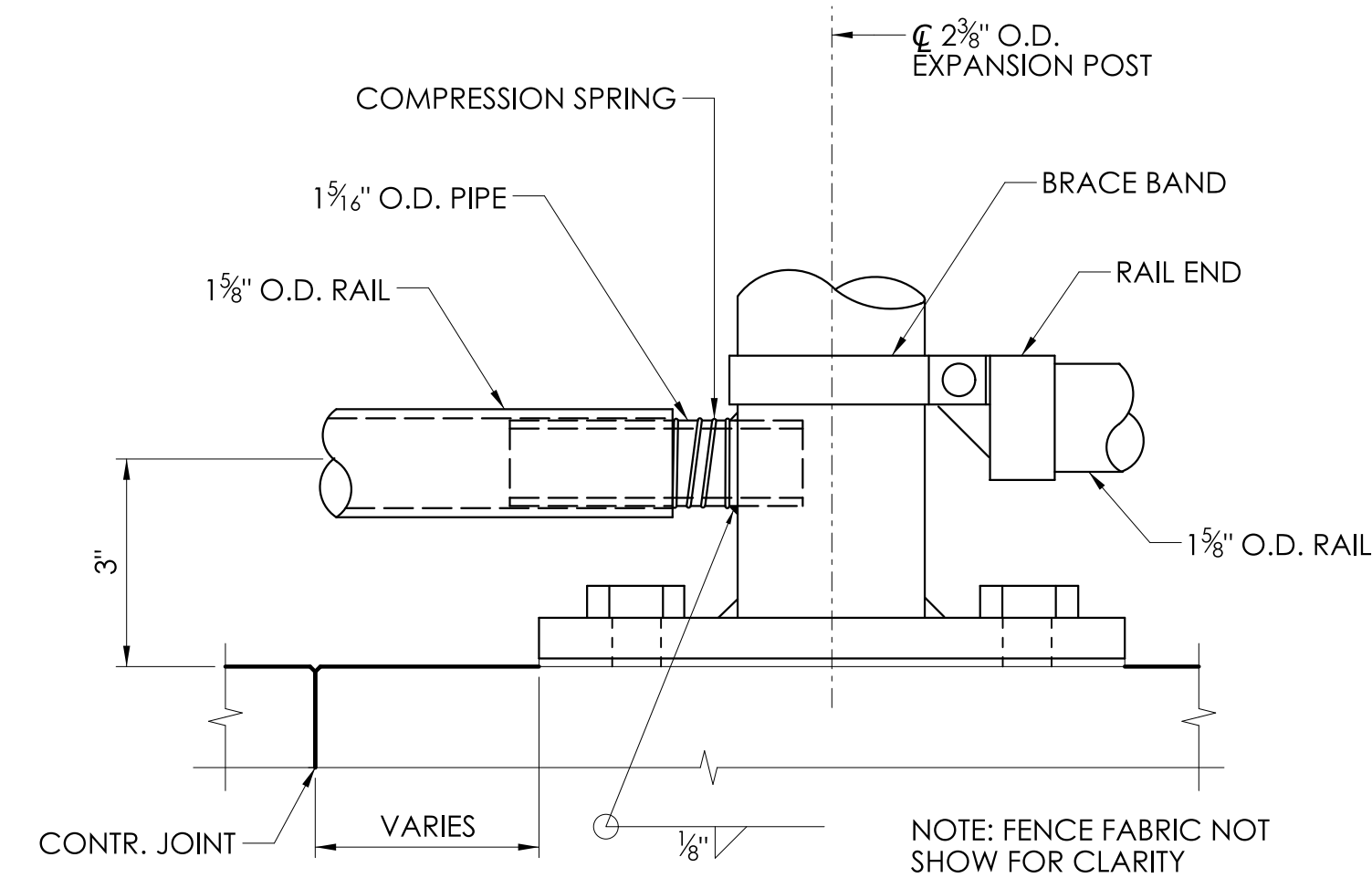


SIDE VIEW

FRONT VIEW

PRESET ANCHORAGE DETAILS

NOTE: PRESET ANCHORAGE ASSEMBLIES SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION



EXPANSION SLEEVE DETAIL

NOT TO SCALE

NOTE: EXPANSION SLEEVES ARE REQUIRED FOR ALL RAILS AT ONE SIDE OF EACH EXPANSION POST. AN EXPANSION POST IS REQUIRED ON ONE SIDE OF EACH BRIDGE EXPANSION JOINT. FOR JOINT MOVEMENT LARGER THAN 1 1/2", EXPANSION OF THE FENCE SHOULD BE ACCOMMODATED BY A DIFFERENT DETAIL.

ANGLE TABLE	
VERTICAL POST	SHIM WITH NEOPRENE SHIMS AS REQUIRED
GRADE	TOP OF PARAPET
ANGLE	
GRADE	ANGLE
0% TO 1%	0°
1% TO 3%	1° -08'
3% TO 5%	2° -17'
5% TO 7%	3° -26'
7% TO 9%	4° -34'

NOTES

1. ALL POSTS SHALL BE INSTALLED PLUMB.
2. ALL RAILS SHALL BE PARALLEL TO THE TOP OF THE WALL.
3. ALL FENCING COMPONENTS SHALL BE POLYVINYL COATED (BLACK).
4. ALL STRUCTURAL STEEL PLATES SHALL BE ASTM A36. BOLTS FOR PRESET ANCHORAGE SHALL CONFORM TO ASTM F593. FLAT WASHERS SHALL CONFORM TO ASTM A167.
5. MOLDED PADS SHALL BE MANUFACTURED FROM NEW UNVULCANIZED ELASTOMER AND UNUSED SYNTHETIC FIBERS.
6. FOR ADDITIONAL INFORMATION, SEE SPECIAL PROVISION "4' POLYVINYL CHLORIDE CHAIN LINK FENCE".

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

 WSP USA INC.
 500 WINDING BROOK DR.
 GLASTONBURY, CT 06033
 DESIGNER/DRAFTER: CMC/TEG CHECKED BY: CYL

SCALE AS NOTED

CONNECTICUT DEPARTMENT OF TRANSPORTATION

PROJECT TITLE:
REMOVAL OF BR. NOS. 00388 & 00389, DECK REPLACEMENT ON BR. NO. 00870, AND MODIFICATIONS TO ROUTE 17 & NEW LONDON TURNPIKE

TOWN(S):
GLASTONBURY

DRAWING TITLE:
4' POLYVINYL CHLORIDE CHAIN LINK FENCE

PROJECT NO.:
0053-0189
 DRAWING NO.:
STR-21
 SHEET NO.:
04.21