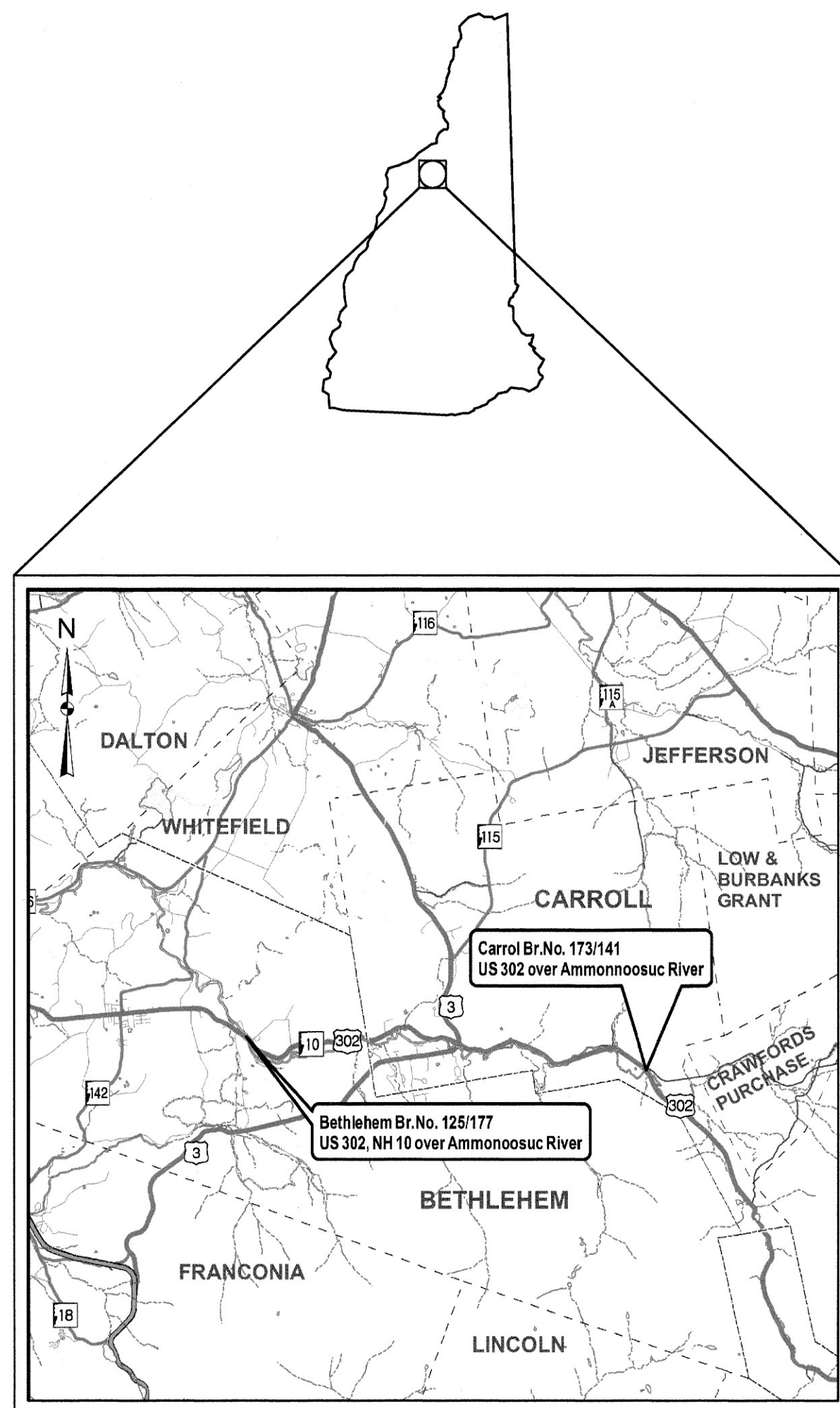


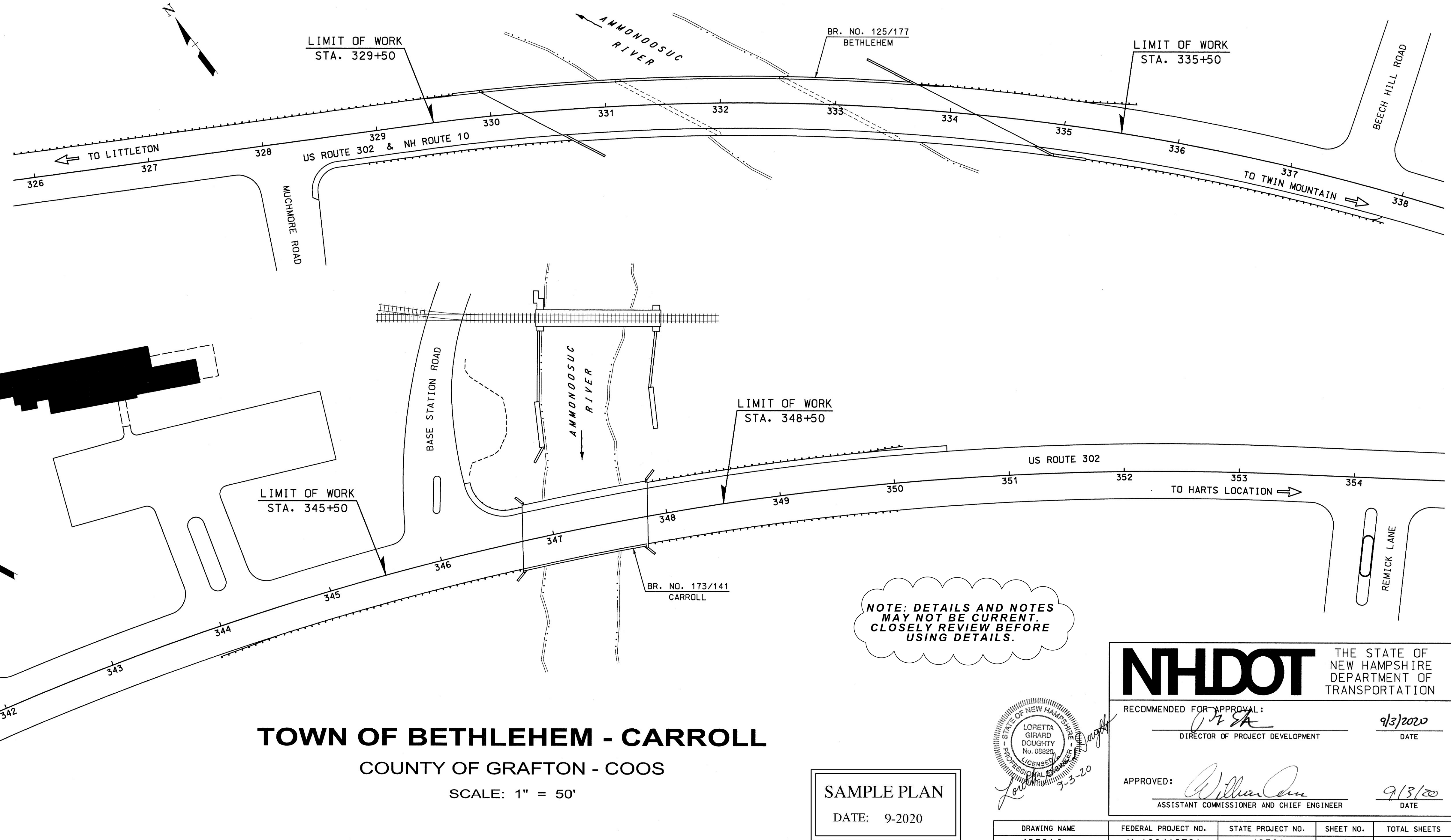
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS
FEDERAL AID PROJECT

X-A004(878)
N.H. PROJECT NO. 42501
U.S. ROUTE 302 & N.H. ROUTE 10

DESIGN DATA	BR 125/177	BR 173/141
	AVERAGE DAILY TRAFFIC 2021	3,900
AVERAGE DAILY TRAFFIC 2041	4,700	5,200
PERCENT OF TRUCKS	7%	7%
DESIGN SPEED	-	-
LENGTH OF PROJECT	600'	300'



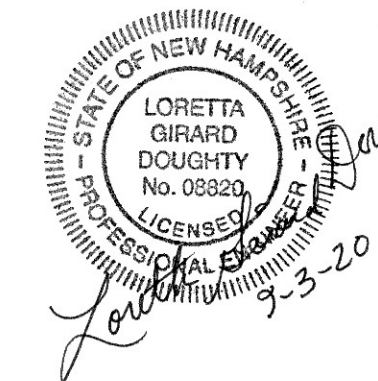
LOCATION MAP



TOWN OF BETHLEHEM - CARROLL
COUNTY OF GRAFTON - COOS

SCALE: 1" = 50'

SAMPLE PLAN
DATE: 9-2020



NHDOT THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL:
[Signature] 9/3/2020
DIRECTOR OF PROJECT DEVELOPMENT DATE

APPROVED: *[Signature]* 9/3/20
ASSISTANT COMMISSIONER AND CHIEF ENGINEER DATE

DRAWING NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42501-fsc	X-A004(878)	42501	1	38

DRAWN BY PJP/MGW DATE 4/2019
CHECKED BY XX DATE XX

GENERAL NOTES

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE PAGE
2	INDEX, GENERAL NOTES & ROADWAY QUANTITIES
3-4	STANDARD SYMBOLS
5-32	BRIDGE PLANS (BR. #125/177 & #173/141)
33-38	PORTABLE CONCRETE BARRIER (BRIDGE) PLANS

- ① FOR STANDARD PLANS, SEE DEPARTMENT OF TRANSPORTATION WEBSITE AT: WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/STANDARDPLANS/INDEX.HTM.
- ② HIGH TENSION OVERHEAD TRANSMISSION LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATIONS AND RUNNING ALONG THE ROAD THROUGHOUT THE PROJECT EVEN ON REGULAR POLES. THE CONTRACTOR IS ADVISED THAT EXTREME CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES AND PILE DRIVING EQUIPMENT.
- ③ MODIFY SUPERELEVATION ON EXISTING CURVES BY THE USE OF A LEVELING COURSE TO THE RATES INDICATED ON THE PLANS OR AS ORDERED.
- ④ EXISTING DELINEATORS AND WITNESS MARKERS THAT ARE REMOVED AND DETERMINED BY THE ENGINEER TO BE IN ACCEPTABLE CONDITION SHALL BE RESET (SUBSIDIARY). ADDITIONAL DELINEATORS AND WITNESS MARKERS ORDERED WILL BE PAID UNDER THE APPROPRIATE ITEMS OF THE CONTRACT.
- ⑤ NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
- ⑥ PERFORM ALL WORK WITHIN THE EXISTING RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.
- ⑦ REMOVE UNPROTECTED PROJECT MARKERS (SUBSIDIARY).
- ⑧ SURVEY DATA FOR THIS PROJECT WAS COLLECTED BY SDR AND THE FIELD NOTES CAN BE FOUND IN THE FIELD BOOK(S) ----- . COORDINATES ARE NEW HAMPSHIRE STATE PLANE COORDINATES OF NAD83, ---- ADJUSTMENT AND THE BEARINGS ARE GRID. ELEVATIONS ARE REFERENCED TO ---- ----.
- ⑨ QUANTITIES FOR EMBANKMENT AND EXCAVATION FOR SLOPE ROUNDINGS AS SHOWN ON THE TYPICALS HAVE NOT BEEN CALCULATED AND ARE NOT INCLUDED IN THE QUANTITY SUMMARIES, AND ARE CONSIDERED SUBSIDIARY TO THE APPROPRIATE 203 ITEMS.

THE FOLLOWING GENERAL NOTES WILL BE USED ON THIS PROJECT:											
①	②	○	④	⑤	⑥	⑦	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○

**NOTE: DETAILS AND NOTES
MAY NOT BE CURRENT.
CLOSELY REVIEW BEFORE
USING DETAILS.**

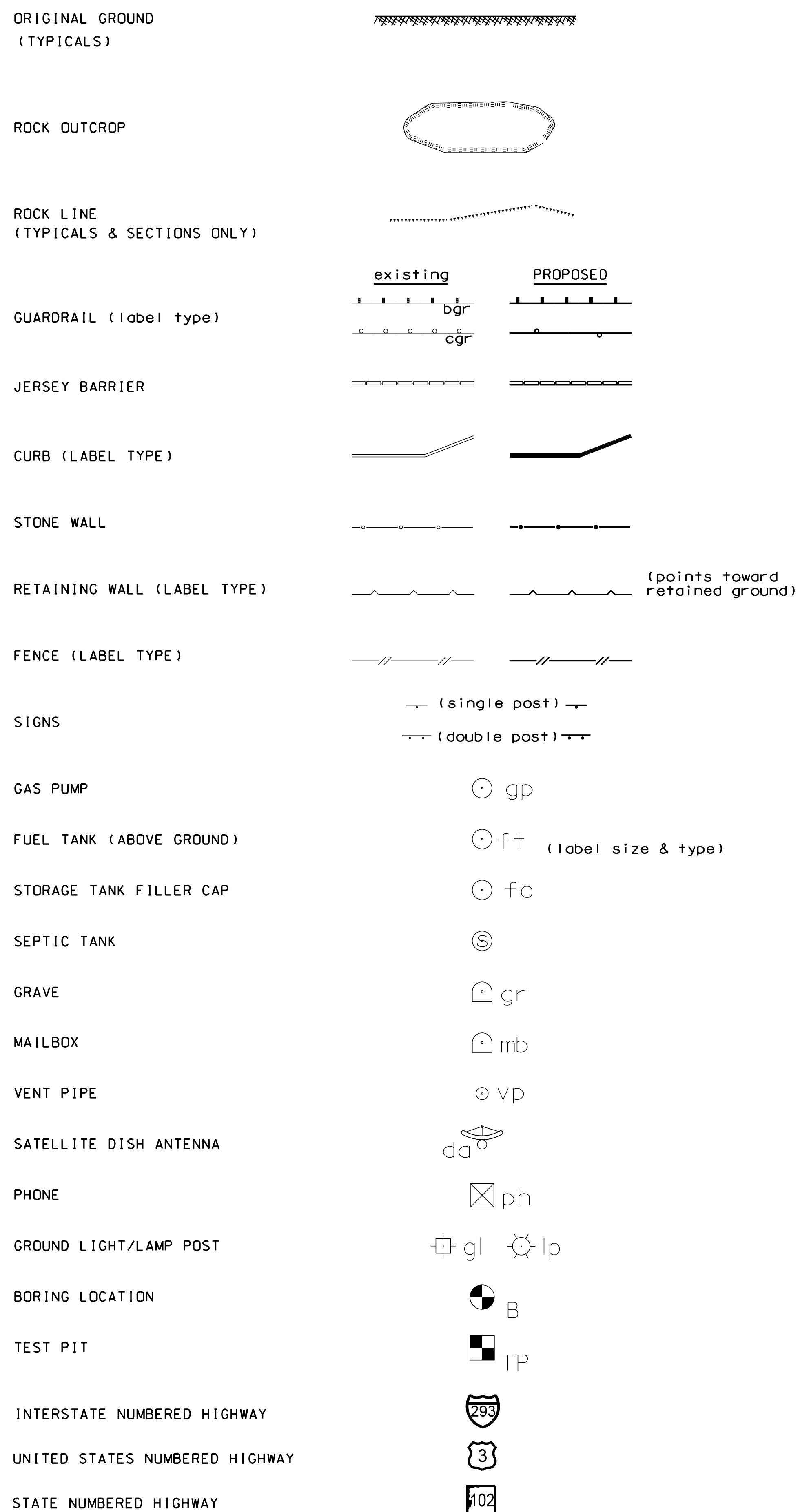
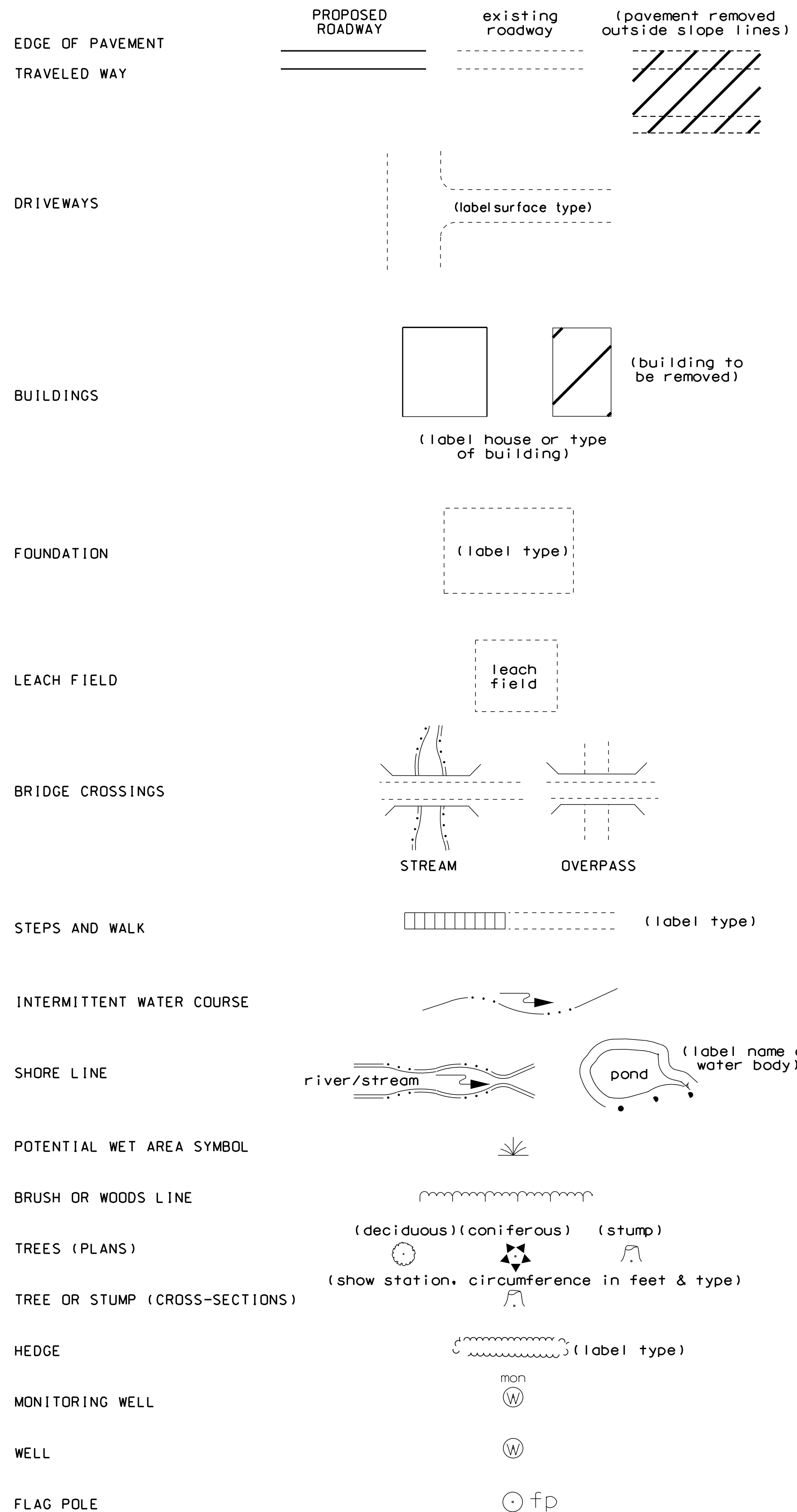
FILE NO. 136-4-1

SAMPLE PLAN
 DATE: 9-2020

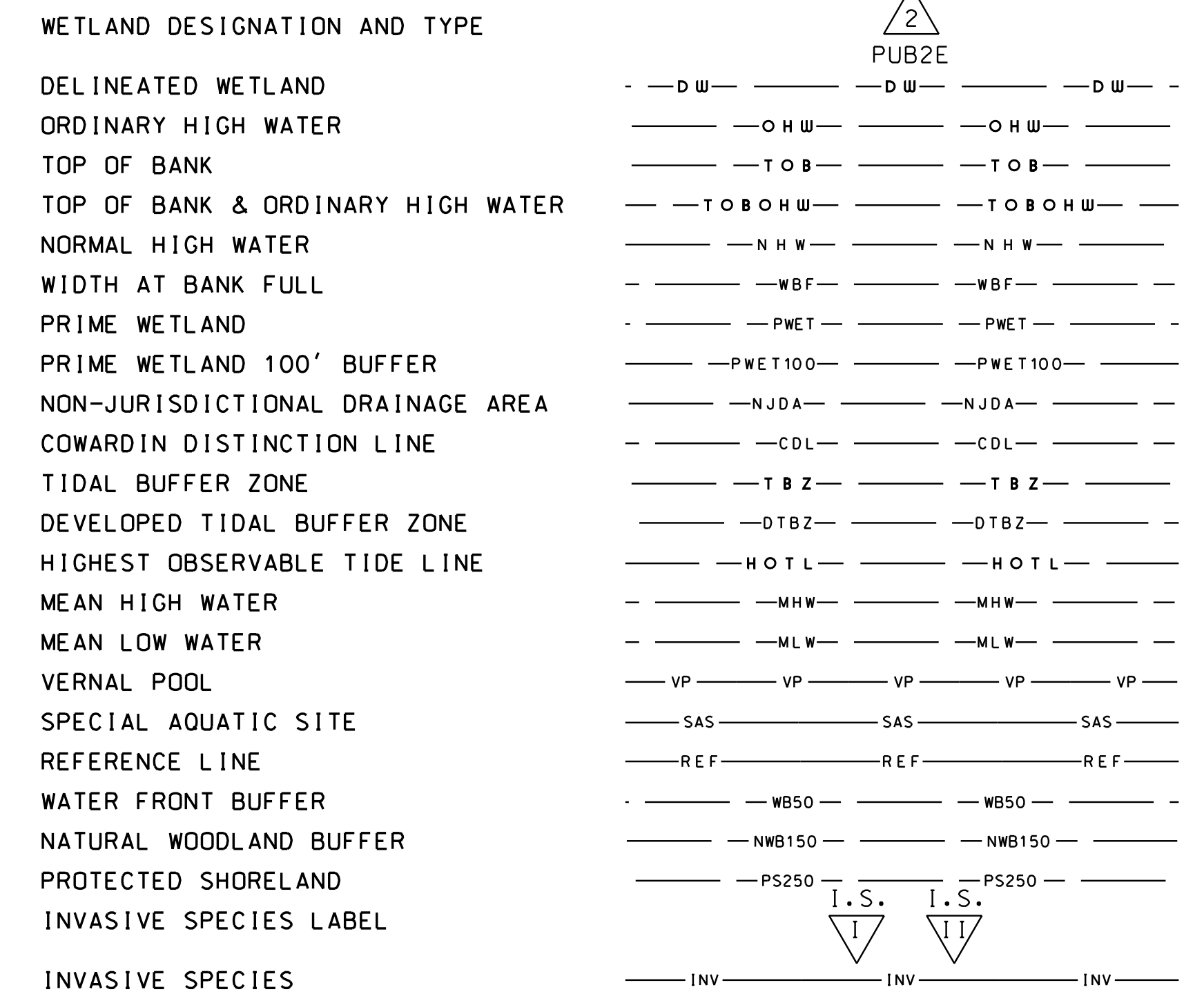
STATE OF NEW HAMPSHIRE
 DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN
**INDEX OF SHEETS, GENERAL
 NOTES & ROADWAY QUANTITIES**

SUBDIRECTORY	REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Prj/CutSheet	9-1-2016	index_sheet	42501	2	38

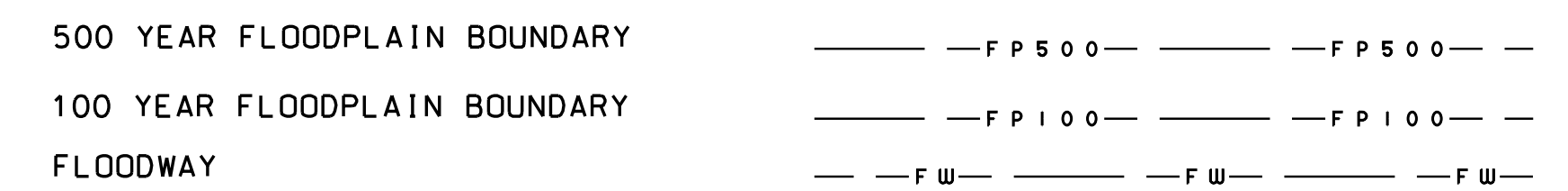
GENERAL



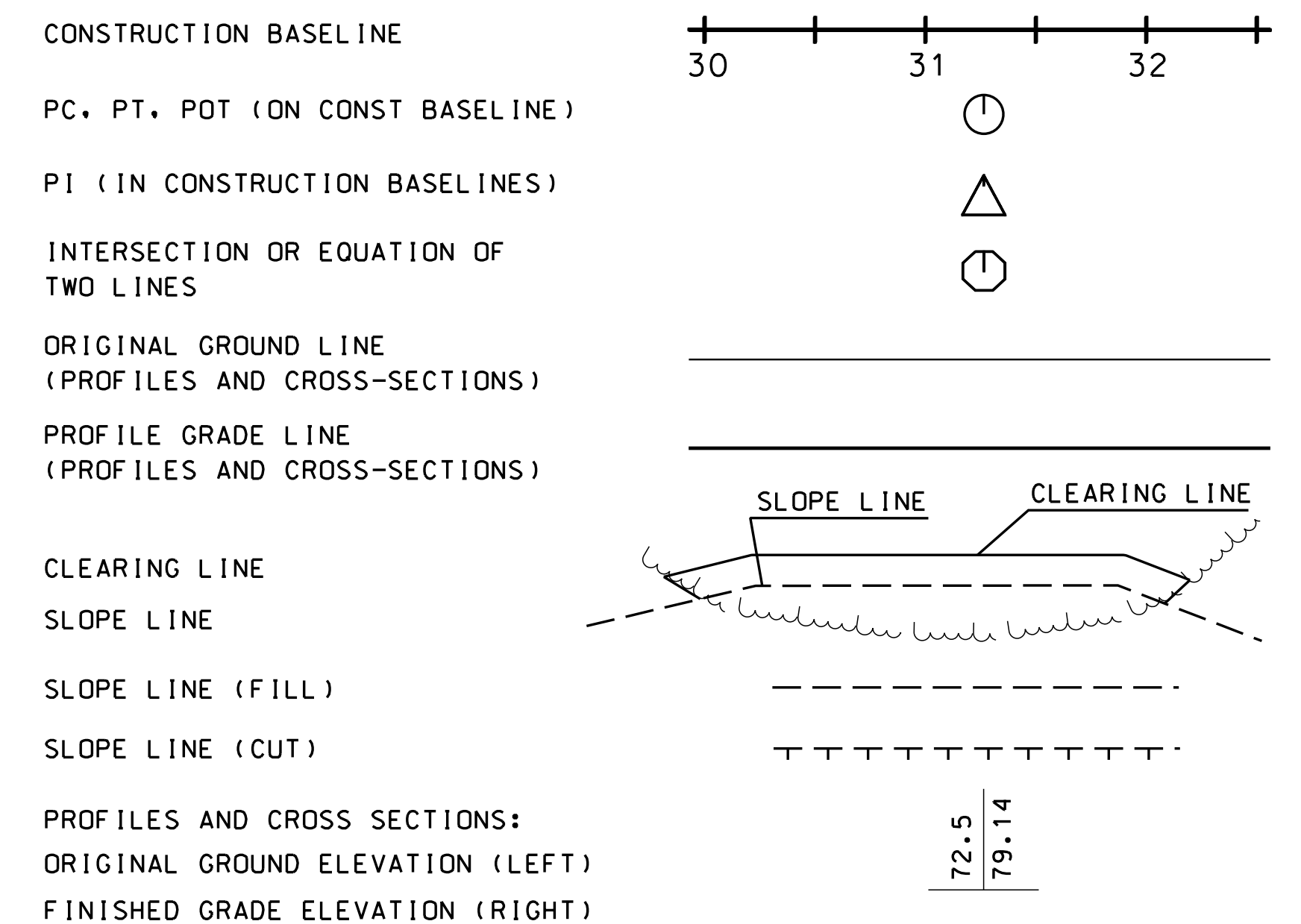
SHORELAND - WETLAND



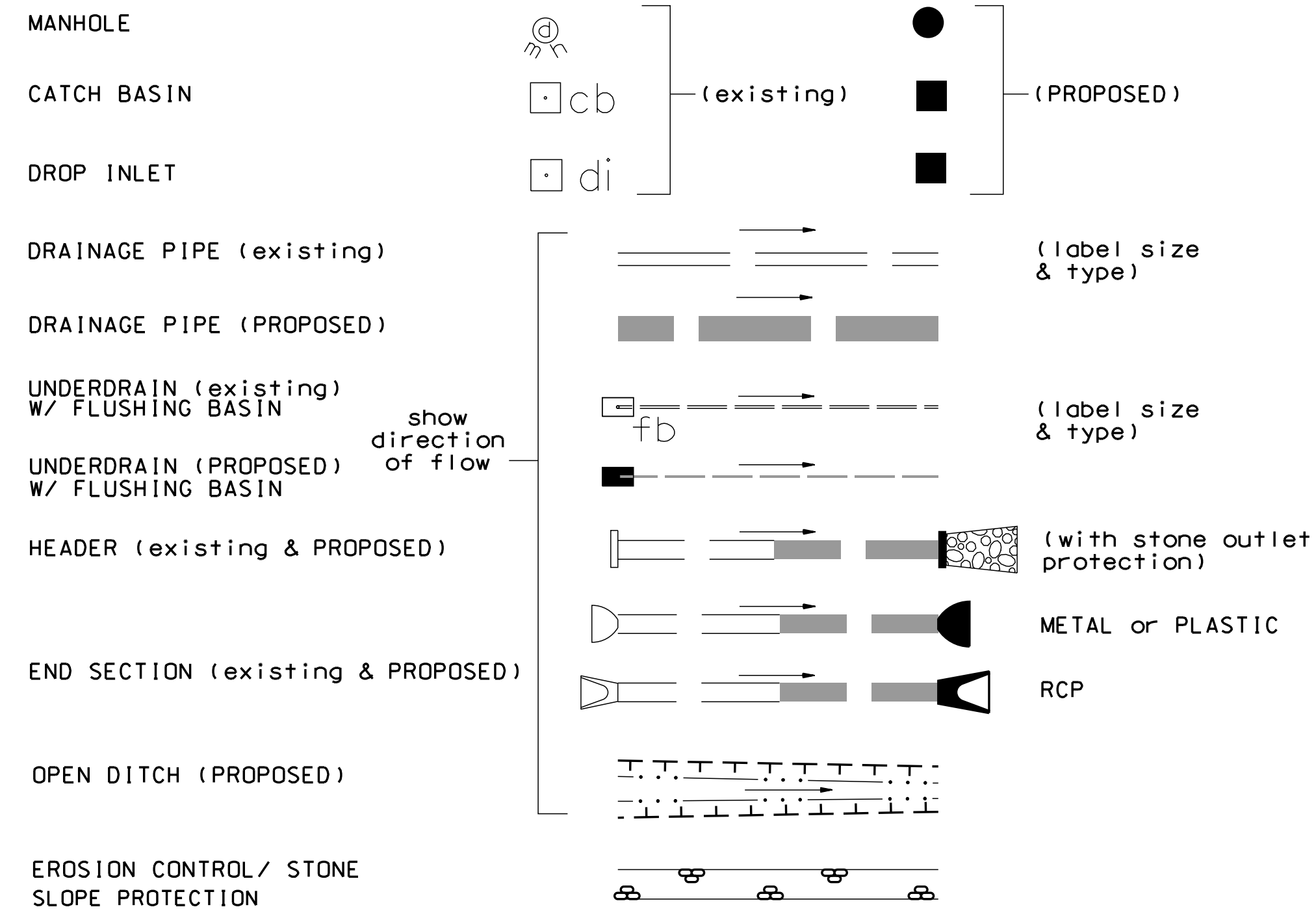
FLOODPLAIN / FLOODWAY



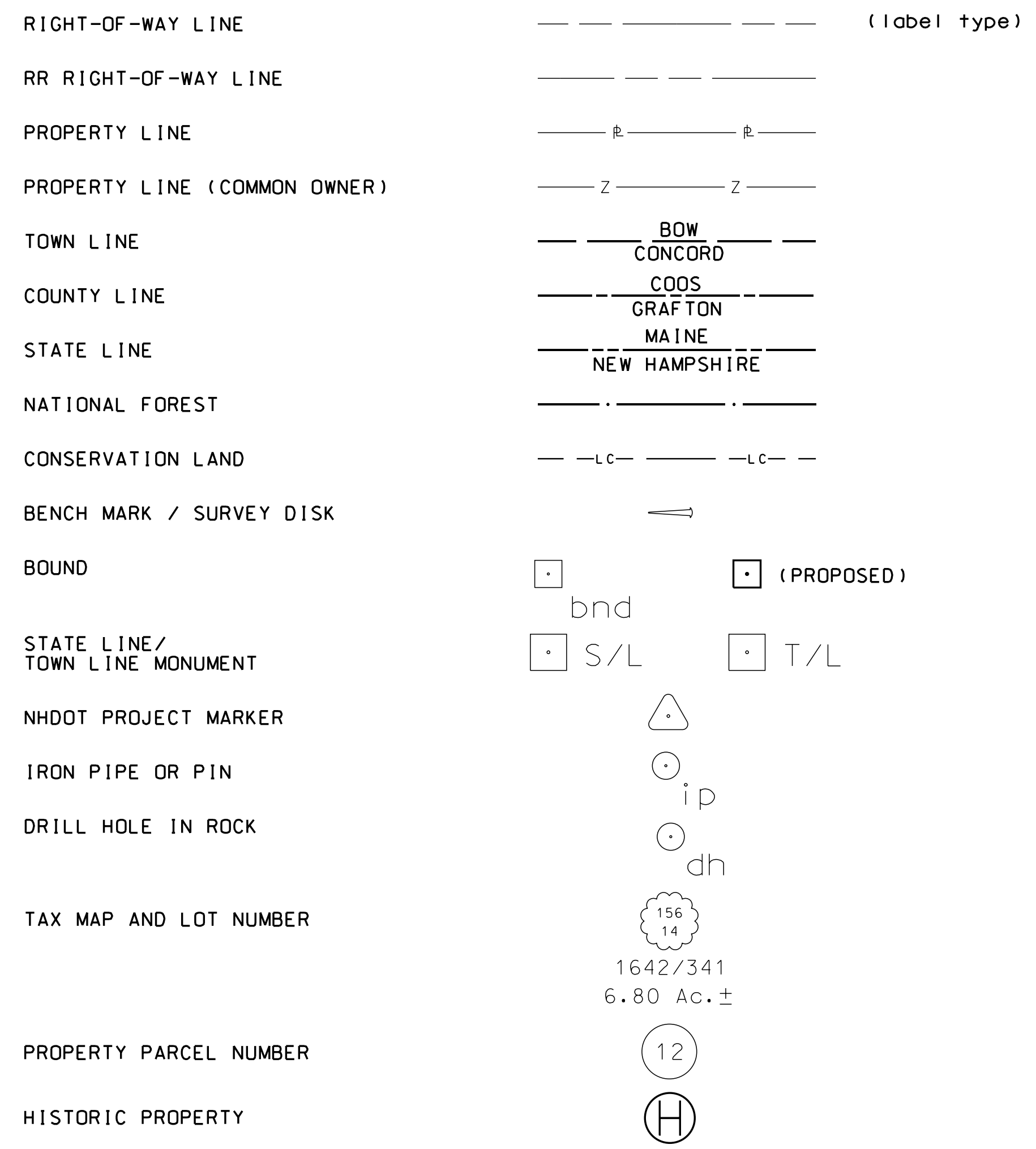
ENGINEERING



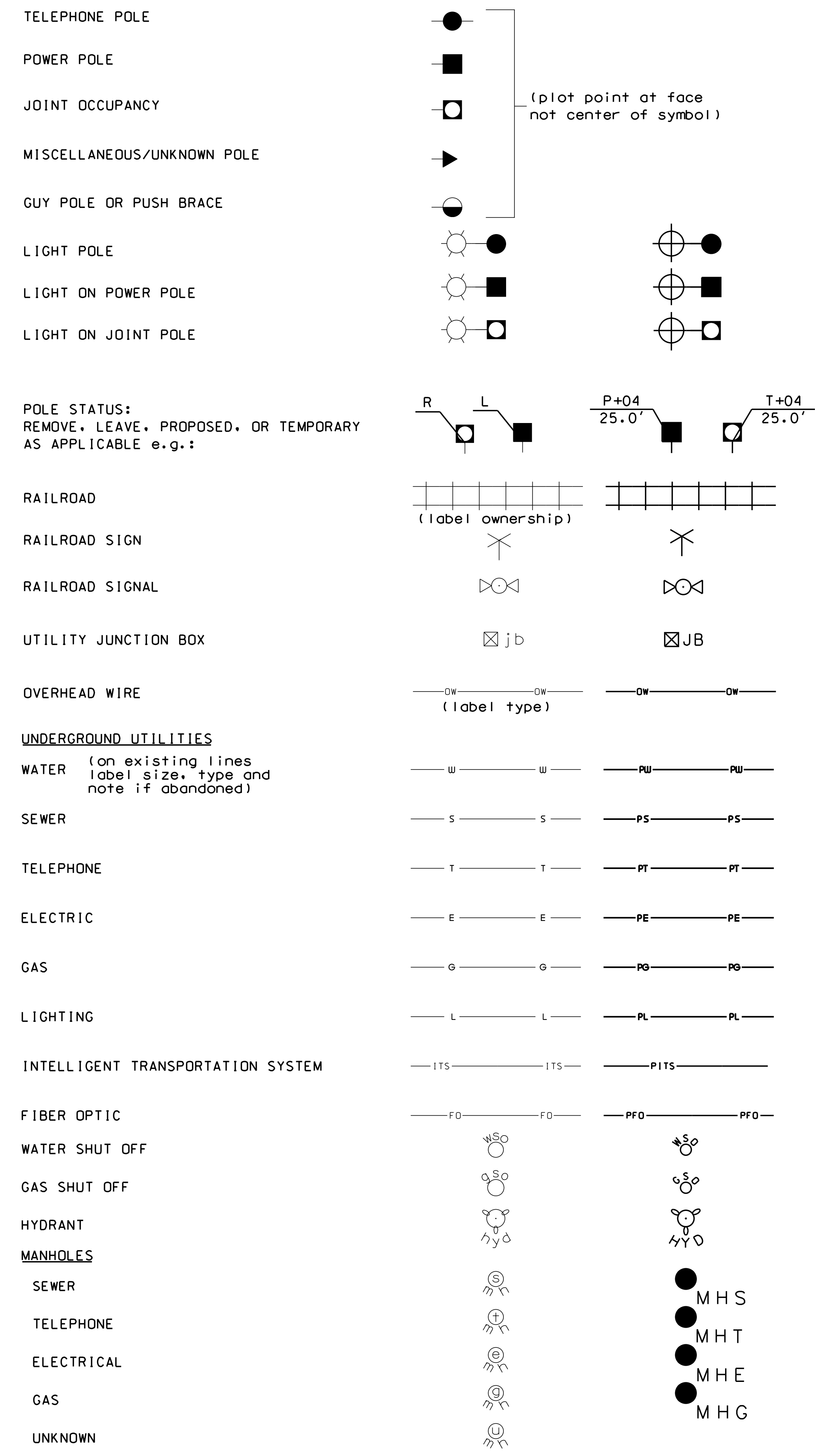
DRAINAGE



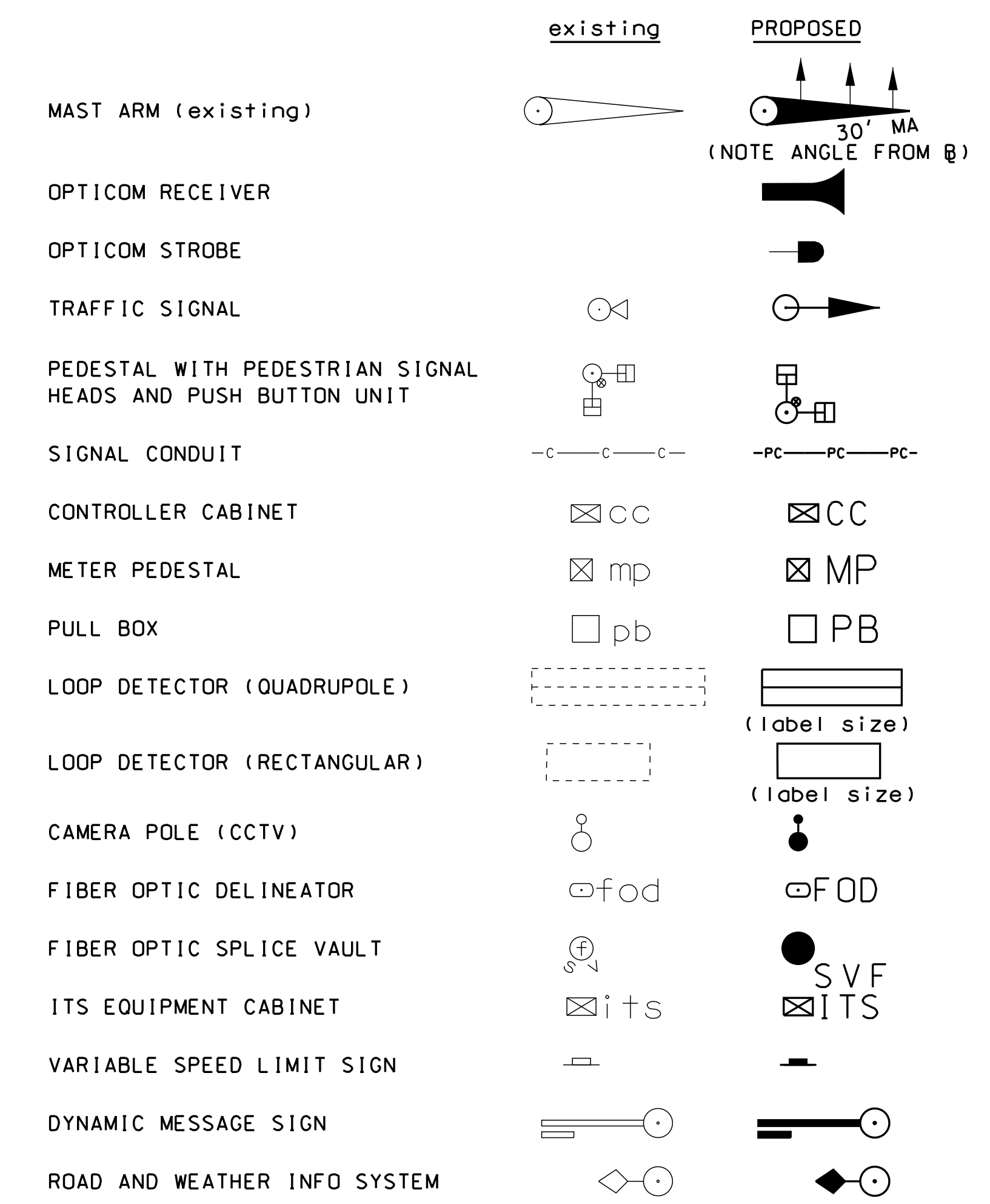
BOUNDARIES / RIGHT-OF-WAY



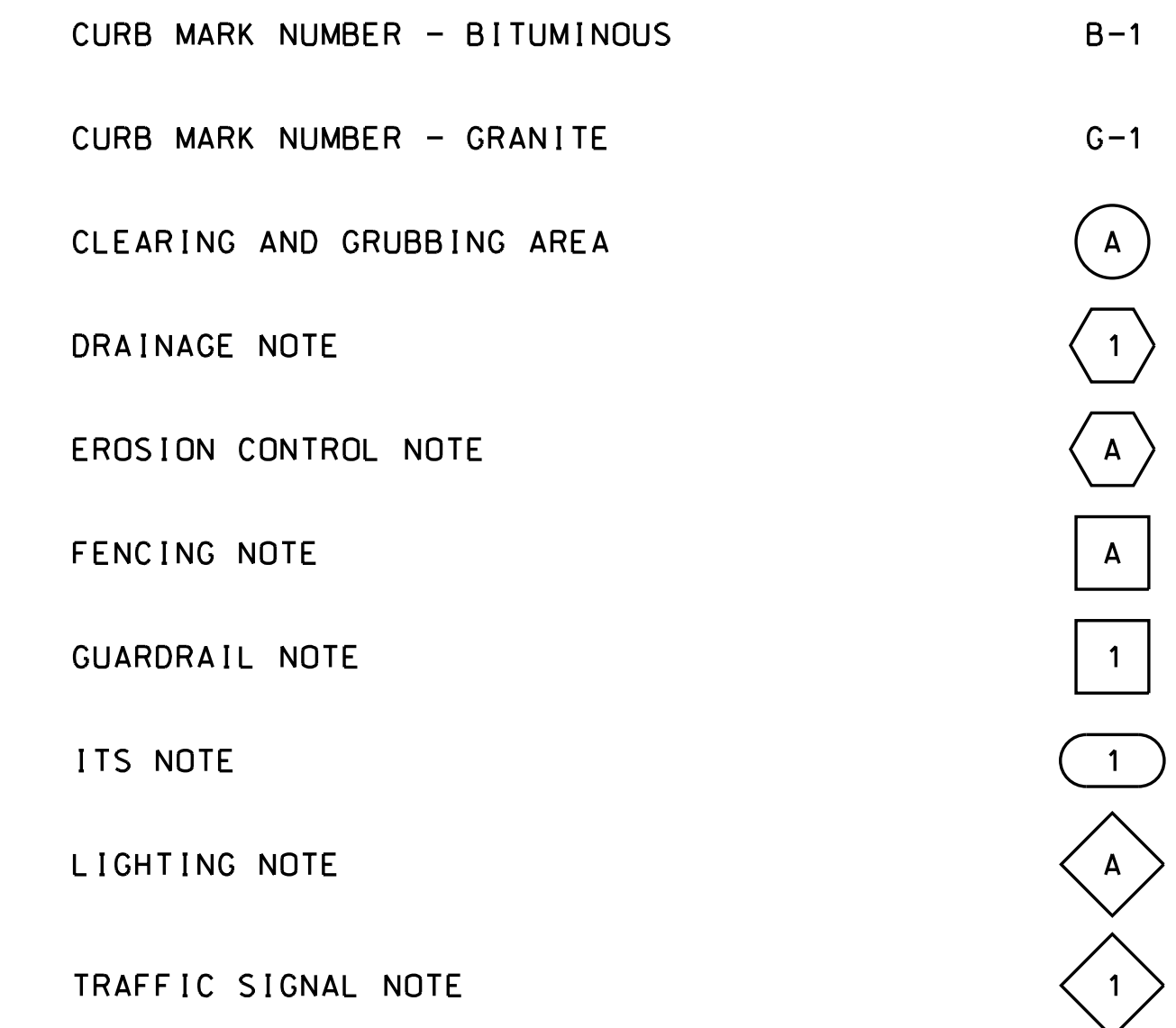
UTILITIES



TRAFFIC SIGNALS / ITS



CONSTRUCTION NOTES



REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	stdsymb1_2	42501	4	38

SCOPE OF WORK

- BRIDGE NO. 125/177 (BETHLEHEM)**
 - REMOVE AND REPLACE DECK PAVEMENT AND MEMBRANE
 - PARTIAL AND FULL DEPTH DECK REPAIRS
 - REMOVE MODULAR EXPANSION JOINT (ABUTMENT A)
 - INSTALL FINGER EXPANSION JOINT (ABUTMENT A)
 - REMOVE & REPLACE STRIP SEAL EXPANSION JOINT (ABUTMENT B)
 - REPAIR SUBSTRUCTURE CONCRETE
- BRIDGE NO. 173/141 (CARROLL)**
 - REMOVE AND REPLACE DECK PAVEMENT AND MEMBRANE
 - PARTIAL AND FULL DEPTH DECK REPAIRS
 - REMOVE STRIP SEAL EXPANSION JOINT (ABUTMENT B)
 - INSTALL COMPRESSION SEAL EXPANSION JOINT (ABUTMENT B)
 - INSTALL ASPHALTIC PLUG JOINT (ABUTMENT A)
 - REPAIR SUBSTRUCTURE CONCRETE

MATERIALS AND SPECIFICATIONS

- SPECIFICATIONS: AASHTO 2017, LRFD BRIDGE DESIGN SPECIFICATIONS
WELDING PER AASHTO/AWS D1.5-02 & NHDOT 2016 STANDARD
SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, AS AMENDED
- REINFORCING STEEL: AASHTO M31 (ASTM A615) GRADE 60 (DECK REPLACEMENT REINF.)
AASHTO M31 (ASTM A615) GRADE 60 EPOXY COATED (DECK AND
BACKWALL BLOCKOUT REINF.)
- CONCRETE: PARTIAL DEPTH DECK REPAIRS = 4000 psi
ITEM 520.01, CONCRETE CLASS AA
FULL DEPTH DECK REPAIRS = 4000 psi
ITEM 520.02013, CONCRETE CLASS AA, ABOVE FOOTINGS (FULL DECK REPAIR)
END OF DECK RECONSTRUCTION, STUB WALLS, AND BACKWALL = 4000 psi
ITEM 520.0201, CONCRETE CLASS AA, ABOVE FOOTINGS
ABUTMENT AND WINGWALL REPAIR = 4000 psi
ITEM 520.02012, CONCRETE CLASS AA, ABOVE FOOTINGS (ABUT/WALL/PIER REPAIR)

TO THE CONTRACTOR

THE CONTRACTOR SHOULD BE AWARE THAT EXISTING STRUCTURE DIMENSIONS AND ELEVATIONS SHOWN ON THESE PLANS WERE TAKEN FROM ORIGINAL BRIDGE PLANS AND DO NOT NECESSARILY REPRESENT "AS BUILT" DIMENSIONS AND ELEVATIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS OF THE EXISTING STRUCTURES AND BE PREPARED TO MAKE ANY ADJUSTMENTS REQUIRED TO PROPERLY REHABILITATE THE BRIDGE. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER, OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ADVANCING THE WORK. THE EXISTING PLANS MAY BE VIEWED DURING THE BIDDING PERIOD. THE FILE NUMBERS FOR THESE BRIDGES ARE FOUND IN THE GENERAL CONSTRUCTION NOTES, NOTE 1 THIS SHEET.

REMOVAL NOTES

- THE CONTRACTOR SHALL SUBMIT, FOR DOCUMENTATION IN ACCORDANCE WITH SECTION 105.02, A DETAILED OUTLINE OR PLAN OF THE PROPOSED METHOD FOR ITEM 502.10X PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK.
- REMOVAL OF EXISTING BRIDGE STRUCTURE, ITEM 502.10X, EXCEPT AS OTHERWISE SHOWN IN THE PLANS, SHALL INCLUDE:
 - REMOVAL OF EXISTING JOINT, TOP OF BACKWALL, AND END OF DECK AS REQUIRED.
 - REMOVAL OF EXISTING GRANITE CURB AS REQUIRED.
 - REMOVAL OF EXISTING EPOXY COATING.
 - REMOVAL OF EXISTING BRIDGE RAIL POSTS AT EXPANSION JOINTS.
- EXISTING DECK PAVEMENT AND MEMBRANE SHALL BE REMOVED UNDER ITEM 511.00XX, CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F).

GENERAL CONSTRUCTION NOTES

- EXISTING BRIDGE PLANS ARE AVAILABLE ON-LINE IN THE BID PACKAGE ON THE INVITATION TO BID WEBSITE, DURING THE BIDDING PERIOD. FILE NUMBERS FOR EACH BRIDGE ARE LISTED AS FOLLOWS:
BETHLEHEM BR NO 125/177 FILE 4-14-2-3
(WORK WAS ALSO PERFORMED BY BRIDGE MAINTENANCE IN 2011)
CARROLL BR NO 173/141 FILE 5-1-3-1
- PORTABLE CONCRETE BARRIER OR CHANNELIZING DEVICES SHALL BE IN PLACE BEFORE REMOVAL OPERATIONS BEGIN FOR EACH CONSTRUCTION PHASE. SEE DETOUR PLANS FOR LAYOUT OF PROPOSED PHASED CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO INSURE THAT DEBRIS DOES NOT FALL INTO THE WATERWAY BELOW EXISTING STRUCTURES. ALL COST TO BE PAID UNDER ITEM 502.10X AND SHALL INCLUDE THE ERECTION, MAINTENANCE, AND REMOVAL OF TEMPORARY STRUCTURES OR OTHER SUCH METHODS AS APPROVED.
- NO SCAFFOLDS SHALL BE ERECTED OR OPERATIONS CONDUCTED IN THE ROADWAY RIGHT OF WAY, UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
- DURING ALL REMOVAL AND REPAIR OPERATIONS EXTREME CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING DECK REINFORCEMENT. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE BUREAU OF BRIDGE DESIGN AND REPAIRED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.
- DURING END OF DECK CONCRETE REMOVAL OPERATIONS, EXTREME CARE SHALL BE TAKEN NOT TO DAMAGE TOP FLANGES OF EXISTING GIRDERS. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE BUREAU OF BRIDGE DESIGN AND REPAIRED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.
- TO ACCOMPLISH THE PROPOSED EXPANSION JOINT REPAIRS, THE EXISTING DECK AND BACKWALL SHALL BE REMOVED TO LIMITS SHOWN IN THE PLANS UNDER ITEM 502.10X, REMOVAL OF EXISTING BRIDGE STRUCTURE. ALL EXPOSED CONCRETE SURFACES OF THE DECK AND BACKWALL SHALL BE SAWCUT 1" DEEP TO PROVIDE CLEAN REMOVAL LINES (ALL COSTS INCLUDED IN ITEM 502.10X, REMOVAL OF EXISTING BRIDGE STRUCTURE). PRIOR TO PLACING NEW CONCRETE, THE REMOVAL SURFACES SHALL BE BLAST CLEANED AND SATURATED SURFACE DRY (ALL COSTS INCLUDED IN ITEM 520.0201).

- AFTER REMOVAL OF EXISTING PAVEMENT AND MEMBRANE, AS REQUIRED IN THE SCOPE OF WORK, THE EXISTING CONCRETE BRIDGE DECKS SHALL BE "SOUNDED" TO DETERMINE AREAS REQUIRING PARTIAL AND FULL DEPTH DECK REPAIRS. ALL COSTS TO BE INCLUDED IN ITEM 511.02 OR ITEM 511.03.
- DETERIORATED AREAS OF DECK SHALL BE PATCHED WITH CONCRETE CLASS AA. PRIOR TO PLACING NEW CONCRETE, THE PREPARED AREAS SHALL BE BLAST CLEANED AND SATURATED SURFACE DRY (ALL COSTS SUBSIDIARY TO ITEM 520.01 OR 520.02013).
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4", UNLESS OTHERWISE NOTED.
- ITEM 538.6, BARRIER MEMBRANE, HEAT WELDED - MACHINE METHOD (F) SHALL BE OVERLAPPED PER MANUFACTURER'S REQUIREMENTS AT PHASED CONSTRUCTION JOINTS. AT DECK ENDS, WHERE THE MEMBRANE WILL NOT OVERLAP NEW OR EXISTING MEMBRANE, A SEALANT/REPAIR MASTIC COMPATIBLE WITH ITEM 538.6 SHALL BRIDGE ANY GAP BETWEEN THE EXISTING MEMBRANE AND NEW MEMBRANE OR BETWEEN THE NEW MEMBRANE AND THE END DECK WHEN THERE IS NO EXISTING MEMBRANE. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 538.6.
- PROFILE ADJUSTMENTS IN THE VICINITY OF THE REHABILITATED BRIDGES SHALL BE MADE AS REQUIRED OR AS DIRECTED TO ACCOUNT FOR VARIATIONS IN THE BRIDGE DECK CROSS SLOPES. ALL COSTS SHALL BE SUBSIDIARY TO THE APPROPRIATE ITEMS.
- REMOVE ANY EXISTING LOOSE OR FLAKING EPOXY COATING FROM THE BACKWALL AND SEATS AS DIRECTED. COSTS PAID UNDER ITEM 502.10X.
- EXISTING BRIDGE DECK COPINGS, WINGS, BACKWALLS, BRIDGE SEATS, AND ABUTMENT FACES SHALL BE WASHED, SUBSIDIARY TO ITEM 534.3. IN SUCH A MANNER THAT OVERSPRAY INTO SURFACE WATERS IS KEPT TO A MINIMUM. IF THE WATER BEADS, NO COATING NEEDS TO BE APPLIED. IF THE WATER DOES NOT BEAD, COAT THE SURFACE WITH ITEM 534.3, WATER REPELLENT (SILANE-SILOXANE). APPLICATION RATE = 150 SF/GAL.
- EXCEPT AS SHOWN IN PLANS, WHERE THE EXISTING GRANITE CURB HAS SEPARATED OR BEEN DISPLACED FROM THE CONCRETE BRUSH CURB, THE GRANITE CURB SHALL BE REMOVED AND RESET AS DIRECTED BY THE ENGINEER. ALL COSTS INCLUDED IN ITEM 609.55, RESET GRANITE CURB (BRIDGE).
- PROVIDE ITEMS 403.16 AND 403.26, AS REQUIRED, ALONG LONGITUDINAL JOINTS BETWEEN PAVEMENT PASSES FOR EACH PAVEMENT COURSE, ALONG BRIDGE CURBS, AND ALONG EXPANSION JOINT ARMORING.
- APPLY ITEM 410.22, ASPHALT EMULSION FOR TACK COAT, TO BOTH EXISTING AND PROPOSED BRIDGE AND ROADWAY PAVEMENT COURSES PRIOR TO PLACING THE NEXT COURSE.
- ITEM 403.12, HOT BITUMINOUS PAVEMENT, HAND METHOD, SHALL BE PLACED TO FINISHED GRADE AS REQUIRED FOR PHASING IN PLACE OF TEMPORARY PAVEMENT ON BRIDGES WHERE HAND METHOD IS REQUIRED.
- ITEM 563.8, RESETTING BRIDGE RAIL, SHALL BE PAID AS 1 LF/POST.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MAKE A RECORD OF THE EXISTING PAINT PAVEMENT MARKINGS. UPON COMPLETION OF THE BRIDGE WORK, THE PAVEMENT MARKINGS SHALL BE REPLACED IN KIND WITH ITEM 632.0104, RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE.
- NO STRUCTURAL REPAIRS ARE ANTICIPATED. STRUCTURAL STEEL SHALL BE INSPECTED FOR STRUCTURAL DEFICIENCIES (e.g. SIGNIFICANT STEEL LOSS, CRACKS, MISSING BOLTS, ETC.) JOINTLY BY THE CONTRACT ADMINISTRATOR AND CONTRACTOR. ANY REPAIRS REQUIRED BY THE DEPARTMENT SHALL BE PERFORMED BY THE CONTRACTOR AND PAID UNDER ITEM 1002.1, REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES.
- EXISTING ABUTMENTS AND WINGWALLS SHALL BE JOINTLY INSPECTED BY THE CONTRACT ADMINISTRATOR AND CONTRACTOR AND ALL DETERIORATED CONCRETE SHALL BE REMOVED. ALL INSPECTION, AND REMOVAL, SHALL BE AS SPECIFIED IN SECTION 512 AND SUBSIDIARY TO ITEM 512.02012. PRIOR TO PLACING NEW CONCRETE, THE REMOVAL SURFACES SHALL BE BLAST CLEANED AND SATURATED SURFACE DRY (ALL COSTS INCLUDED IN ITEM 512.02012).
- SEAL 1/2" CORK JOINT BETWEEN EXISTING WINGWALLS AND PROPOSED CONCRETE WITH ITEM 562.1, SILICONE JOINT SEALANT (F), AS SHOWN ON PLANS OR AS DIRECTED.
- SEAL 1/2" MORTAR JOINT BETWEEN EXISTING GRANITE CURB AND PROPOSED CONCRETE WITH ITEM 562.1, SILICONE JOINT SEALANT (F), AS SHOWN ON PLANS OR AS DIRECTED.
- PRIOR TO RESETTING EXISTING ALUMINUM BRIDGE RAIL POST, INSTALL ITEM 563.073, ALUMINUM POST ASSEMBLY FOR F RAIL (3-BAR). REINSTALLING EXISTING ANCHOR ASSEMBLY SHALL NOT BE ALLOWED.
- ALL RECONSTRUCTION EXP. JT. BLOCKOUTS (DECK AND BACKWALL) SHALL HAVE EPOXY COATED REINF. AND CAN BE TIED TO THE EXISTING BLACK REINFORCING BARS. ANY REPLACEMENT BARS IN THE DECK (PARTIAL FOR FULL-DEPTH) SHALL BE BLACK REINFORCING BARS.
- DISTRIBUTED AND DISCRETE ANODES SHALL BE PLACED IN LOCATIONS AS SHOWN ON THE PLANS. THE ANODES SHALL BE ONLY TIED TO THE EXISTING BLACK REINFORCING, AS NOTED IN THE SPECIAL PROVISION. FOR FULL-DEPTH DECK REPAIRS, THE ANODES ARE TIED TO BOTH TOP AND BOTTOM REINFORCING MATS. ALL COSTS SHALL BE INCLUDED IN ITEMS 540.511 AND 540.512.

REINFORCING NOTES

- UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET - STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A615), GRADE 60.
- FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE, SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
- EXISTING REINFORCING STEEL THAT IS TO REMAIN IN PLACE WITHIN THE RECONSTRUCTED AREAS SHALL BE CUT AS REQUIRED TO PROVIDE 2 1/2" MINIMUM CLEAR COVER FROM THE PROPOSED CONCRETE SURFACES, EXCEPT AS OTHERWISE NOTED. ALL COSTS INCLUDED IN ITEM 502.10X. ALL NEW REINFORCING BARS SHALL HAVE A MINIMUM CLEAR COVER OF 2 1/2" FROM PROPOSED CONCRETE SURFACES UNLESS OTHERWISE NOTED.
- UNLESS OTHERWISE NOTED, HOLES DRILLED INTO EXISTING CONCRETE SHALL BE DRILLED 1/2" DIAMETER LARGER THAN THE BAR DIAMETER AND GROUTED WITH HIGH STRENGTH, NON-SHRINK CEMENTITIOUS GROUT. ALL COSTS FOR DRILLING AND GROUTING SHALL BE PAID FOR UNDER ITEM 520.0201.
- ANY EXISTING REBAR THAT IS EXPOSED SHALL BE CLEANED OF ALL FOREIGN MATERIAL, SUBSIDIARY TO ITEM 511.
- REINFORCING LEGEND: SP = SPACE, SPL = SPLICE, FS = FAR SIDE, NS = NEAR SIDE, BOT = BOTTOM, ALT = ALTERNATING, E = EPOXY COATED, MC = MECHANICAL CONNECTOR.

SUMMARY OF BRIDGE QUANTITIES					
ITEM NO.	ITEM DESCRIPTION	BETHLEHEM BR NO 125/177 US RTE 302 & N.H RTE 10 over AMMONOOSUC RIVER		CARROLL BR NO 173/141 US RTE 302 over AMMONOOSUC RIVER	
		QUANTITY	UNIT	QUANTITY	UNIT
304.301	CRUSHED GRAVEL	74	13	87	CY
403.11043	HBP - 1/2" WEARING, MACHINE METHOD	199	82	181	TON
403.12	HOT BITUMINOUS PAVEMENT, HAND METHOD	15	4	19	TON
403.16	PAVEMENT JOINT ADHESIVE	2284	744	3028	LF
403.21053	HBP - 3/8", MACHINE METHOD (1" BRIDGE BASE)	106	32	138	TON
403.26	PAVEMENT JOINT ADHESIVE (BRIDGE BASE)	1350	366	1716	LF
410.22	ASPHALT EMULSION FOR TACK COAT	186	77	263	GAL
417.	COLD PLANING BITUMINOUS SURFACES	484	396	880	SY
502.101	REMOVAL OF EXISTING BRIDGE STRUCTURE	1	-	1	U
502.102	REMOVAL OF EXISTING BRIDGE STRUCTURE	-	1	1	U
504.1	COMMON BRIDGE EXCAVATION (F)	84	16	100	CY
511.0001	CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F)	1846	-	1846	SY
511.0002	CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F)	-	560	560	SY
511.02	PREPARATION FOR PARTIAL DEPTH CONCRETE BRIDGE DECK REPAIRS	110	33	143	SY
511.03	PREPARATION FOR FULL DEPTH CONCRETE BRIDGE DECK REPAIRS	22	7	29	SY
512.0201	PREPARATION FOR CONCRETE REPAIRS, CLASS II	3	-	3	SY
512.0202	PREPARATION FOR CONCRETE REPAIRS, CLASS II	-	1	1	SY
520.01	CONCRETE CLASS AA	14	5	19	CY
520.0201	CONCRETE CLASS AA, ABOVE FOOTINGS	17	10	27	CY
520.02012	CONCRETE CLASS AA, ABOVE FOOTINGS (ABUT/WALL/PIER REPAIR)	1	1	2	CY
520.02013	CONCRETE CLASS AA, ABOVE FOOTINGS (FULL DECK REPAIR)	6	2	8	CY
534.3	WATER REPELLENT (SILANE-SILOXANE)	39	20	59	GAL
538.2	BARRIER MEMBRANE, PEEL AND STICK - VERTICAL SURFACES (F)	104	20	124	SY
538.6	BARRIER MEMBRANE, HEAT WELDED - MACHINE METHOD (F)	1846	560	2406	SY
540.511	GALVANIC CORROSION PROTECTION SYSTEM (DISTRIBUTED ANODES)	235	57	292	LF
540.512	GALVANIC CORROSION PROTECTION SYSTEM (DISCRETE ANODES)	593	176	769	EA
544.2	REINFORCING STEEL, EPOXY COATED (F)	9232	763	9995	LB
544.21	REINFORCING STEEL, EPOXY COATED, MECHANICAL CONNECTORS (F)	364	41	405	LB
559.41	ASPHALTIC PLUG FOR CRACK CONTROL (F)	-	49	49	LF
560.1001	PREFABRICATED COMPRESSION SEAL EXPANSION JOINT (F)	-	57	57	LF
561.1001	PREFABRICATED STRIP SEAL EXPANSION JOINT (F)	140	-	140	LF
561.3001	PREFABRICATED FINGER EXPANSION JOINT (F)	96	-	96	LF
562.1	SILICONE JOINT SEALANT (F)	446	2	448	LF
563.073	ALUMINUM POST ASSEMBLY FOR RAIL F (3-BAR)	6	1	7	EA
563.8	RESETTING BRIDGE RAIL	6	1	7	LF
606.417	PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL	390	410	800	LF
606.41741	PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL (BRIDGE)	400	110	510	LF
606.9523	TEMP. IMPACT ATTENUATION DEVICE (NON-REDIRECTIVE), TEST LEVEL 3	2	2	4	U
608.12	2" BITUMINOUS SIDEWALK (F)	6.5	2	8.5	SY
609.5	RESET GRANITE CURB	40	8	48	LF
609.55	RESET GRANITE CURB (BRIDGE)	32	8	40	LF
616.161	TRAFFIC SIGNALS (TEMPORARY)	4	-	4	U
616.162	TRAFFIC SIGNALS (TEMPORARY)	-	4	4	U
618.61	UNIFORMED OFFICERS WITH VEHICLE	*	*	*	\$
618.7	FLAGGERS	50	50	100	HR
619.1	MAINTENANCE OF TRAFFIC	0.5	0.5	1.0	U
619.25	PORTABLE CHANGEABLE MESSAGE SIGN	2	2	4	U
628.2	SAWED BITUMINOUS PAVEMENT	395	145	540	LF
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	3968	1464	5432	LF
632.1104	PREFORMED RETROREFLECTIVE TAPE, TYPE 1 (REMOVABLE), 4" LINE	2656	1352	4008	LF
632.1118	PREFORMED RETROREFLECTIVE TAPE, TYPE 1 (REMOVABLE), 18" LINE	45	45	90	LF
632.1304	BLACKOUT PAVEMENT MARKING TAPE, TYPE 1 (REMOVABLE), 4" LINE	972	989	1961	LF
645.512	COMPOST SOCK FOR PERIMETER BERM	250	250	500	LF
670.104	TEMPORARY PORTABLE LIGHTING	2	2	4	U
692.	MOBILIZATION	0.7	0.3	1.0	U
698.13	FIELD OFFICE TYPE C	4	4	8	MON
699.	MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL	*	*	*	\$
1002.1	REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES	*	*	*	\$
1010.15	FUEL ADJUSTMENT	*	*	*	\$

* NOT A BID ITEM

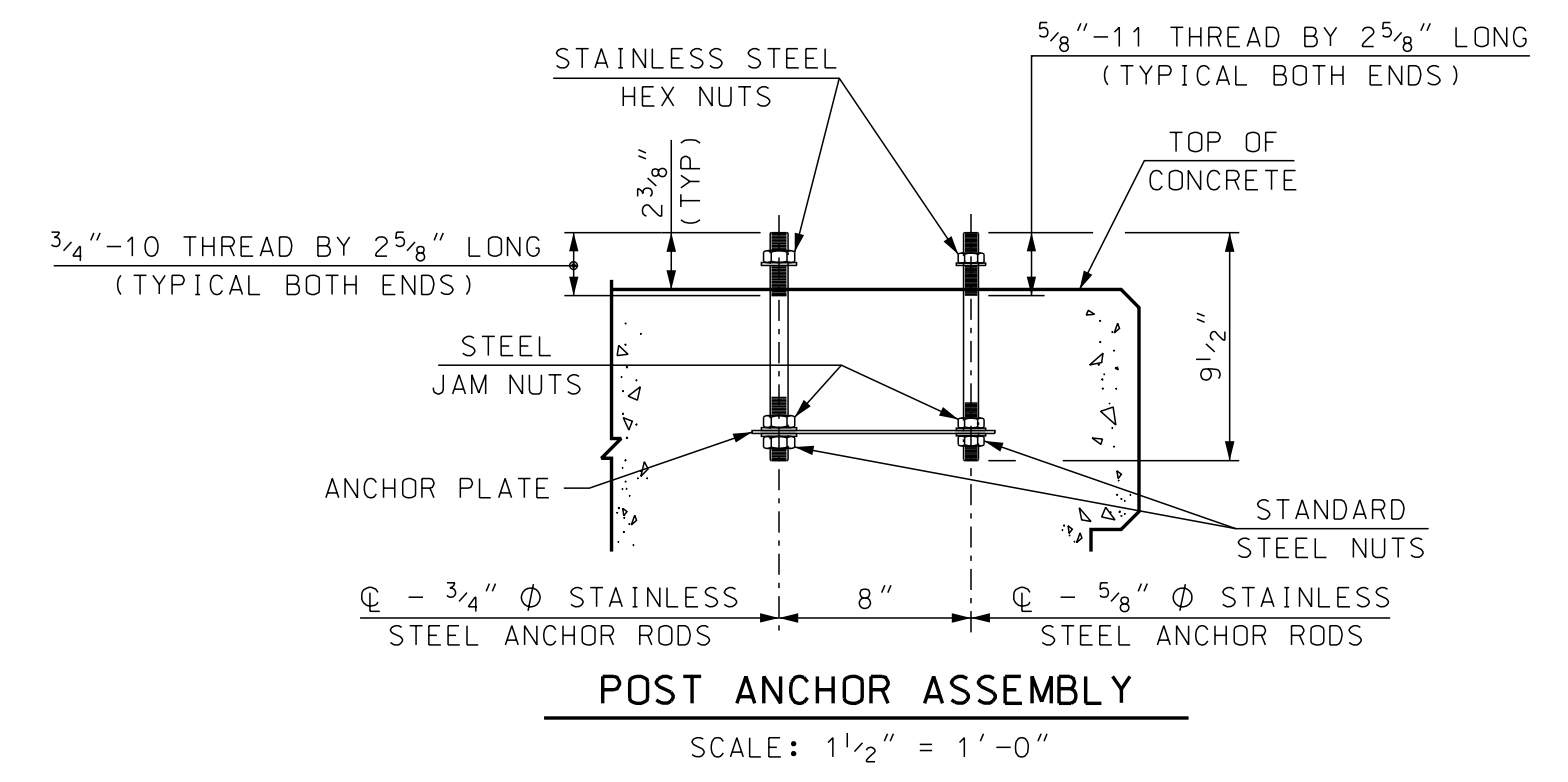
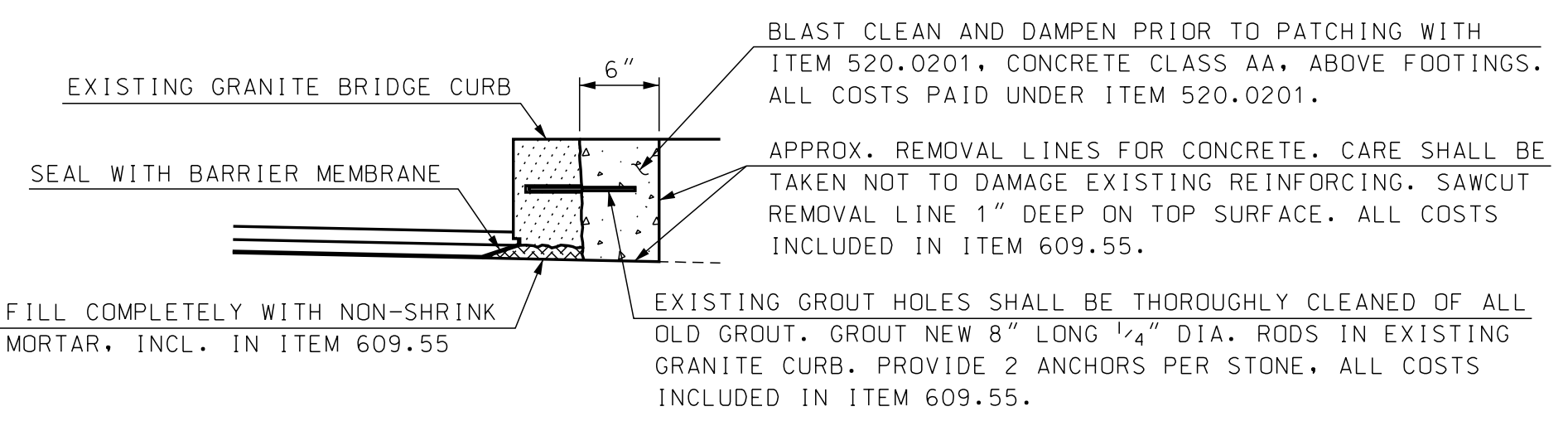
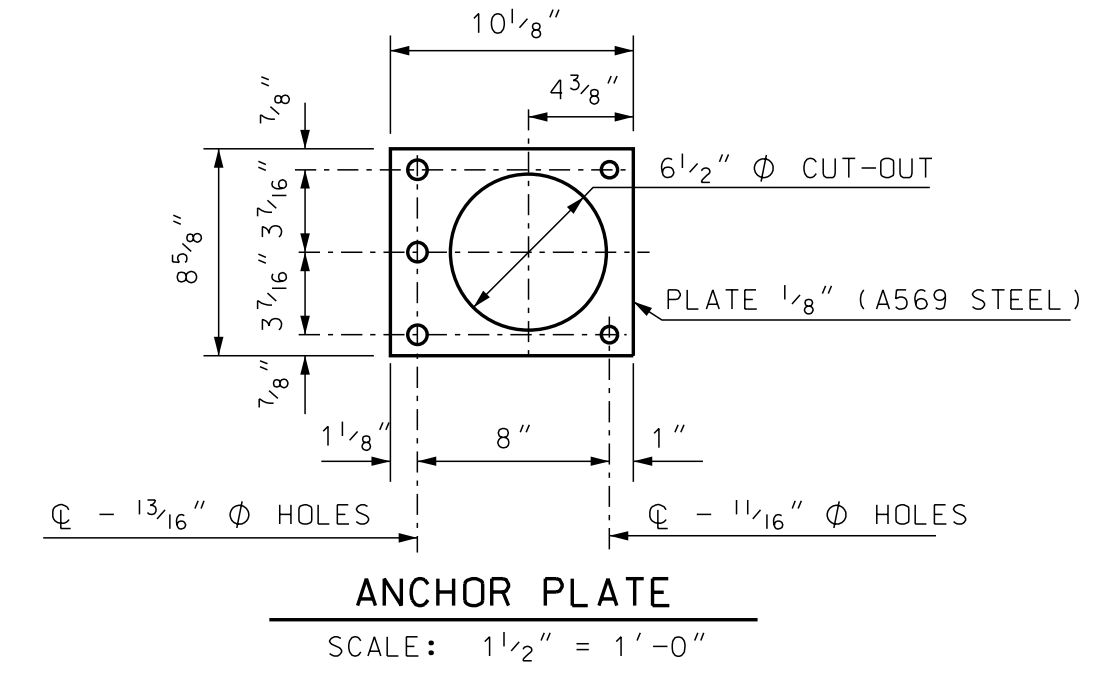
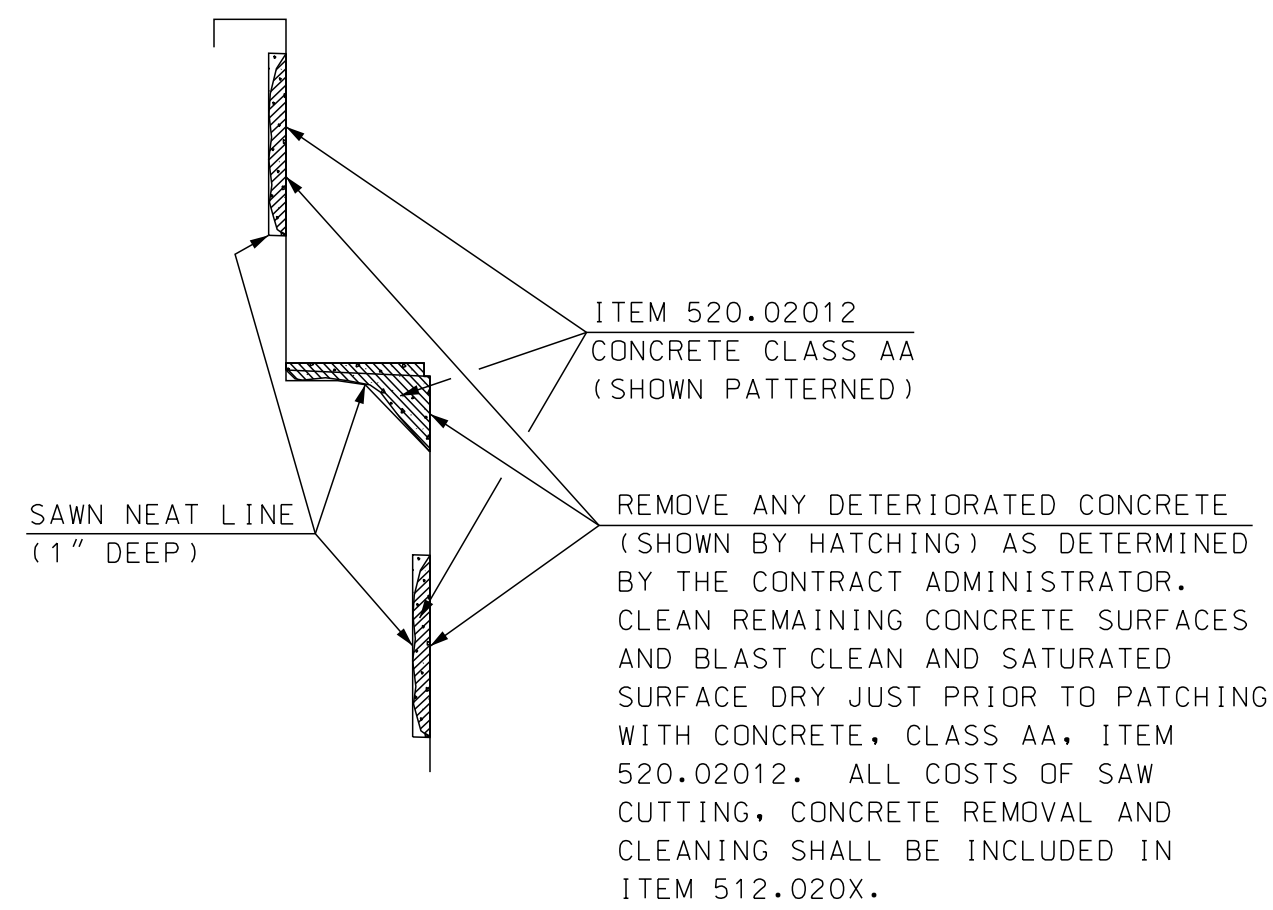
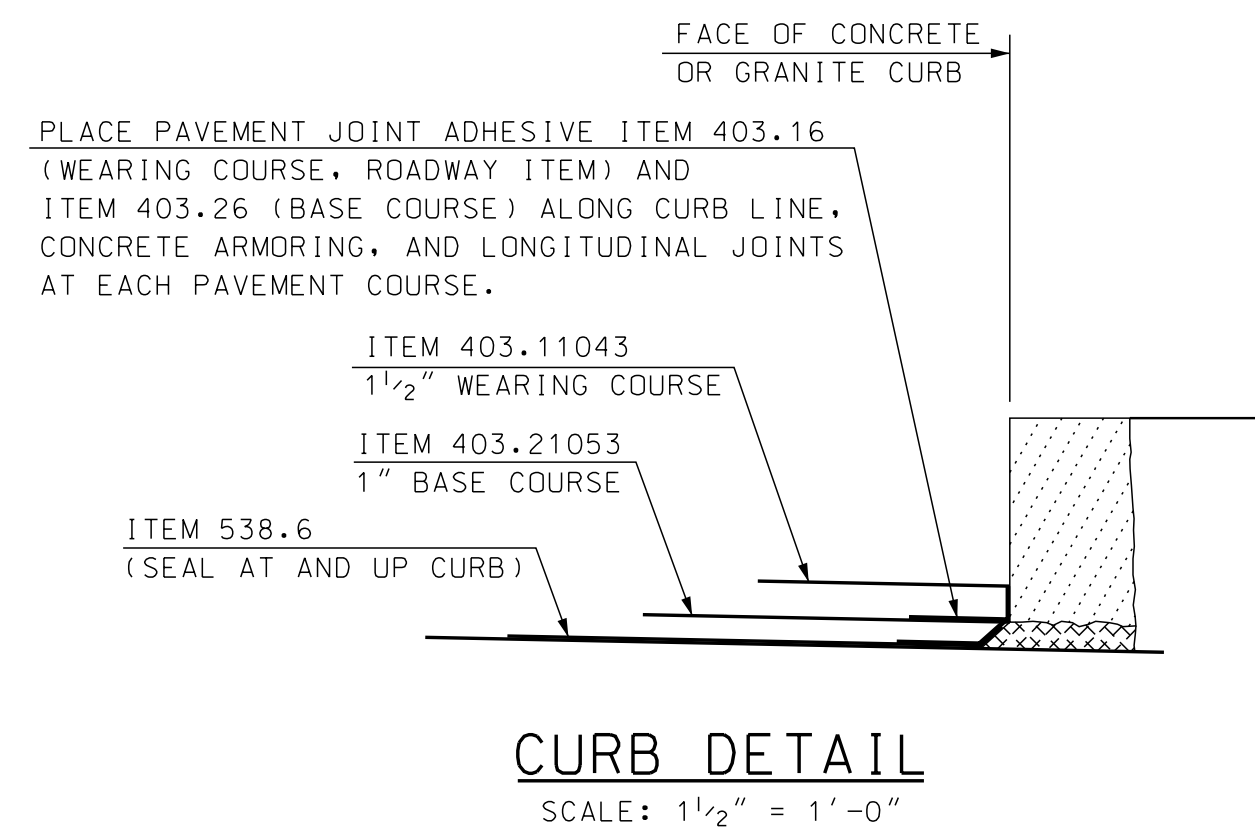
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

- PLACE REINFORCING STEEL TO AVOID RAIL POST ANCHOR ASSEMBLIES, ANCHOR BOLTS, AND EXPANSION JOINT ASSEMBLIES.
- REINFORCING BAR MARKS APPENDED WITH AN (E), INDICATE EPOXY COATED BARS.

SAMPLE PLAN
DATE: 9-2020

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/MISC	42501_BR NOTES	----

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM - CARROLL	BRIDGE NO.	125/177, 173/141	STATE PROJECT	42501
LOCATION	U.S. ROUTE 302 & N.H. ROUTE 10 over AMMONOOSUC RIVER				
BRIDGE CONSTRUCTION NOTES					BRIDGE SHEET
					1 OF 34
					FILE NUMBER
					136-4-1
			FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
			-----	5	38



NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

ALUMINUM RAIL ASSEMBLY NOTES

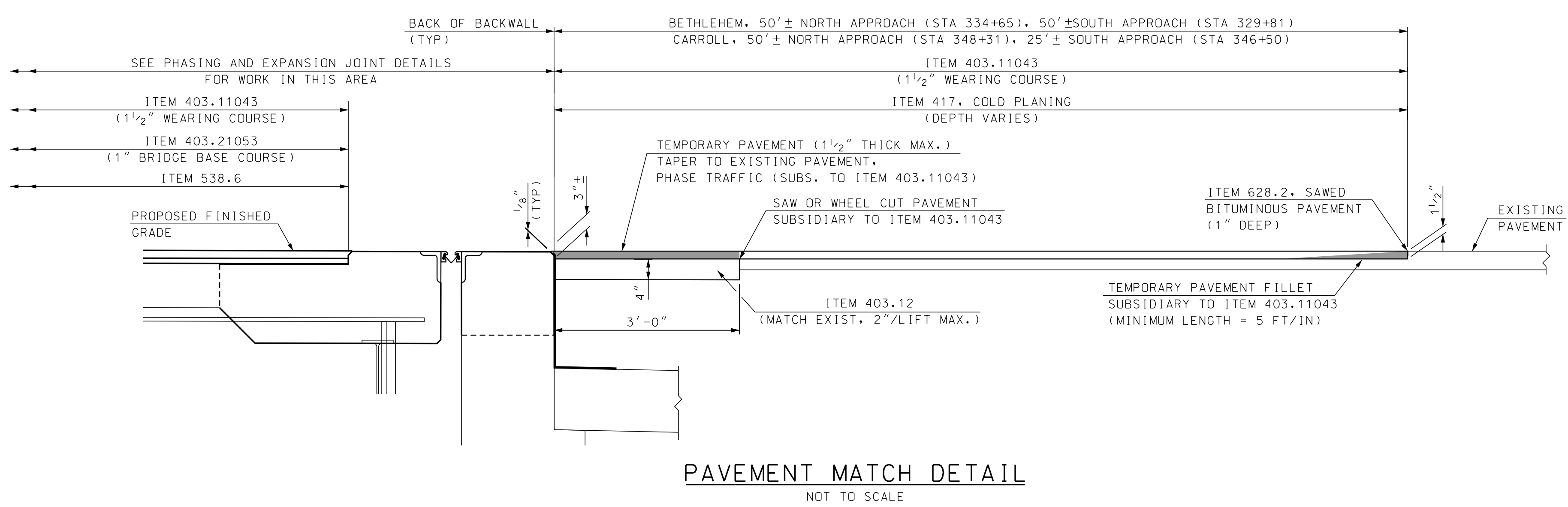
- ITEM 563.073, ALUMINUM POST ASSEMBLY FOR RAIL F (3-BAR), SHALL INCLUDE ANCHOR PLATES, ANCHOR RODS, PREFORMED PADS, RAIL ASSEMBLY BOLTS, NUTS WASHERS, STUDS, ALL APPURTENANCES.
- BOLT HOLES SHALL BE DRILLED OR PUNCHED.
- THREADS FOR ANCHOR RODS MAY BE ROLLED OR CUT. IF CUT THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, ROD DIAMETER SHALL NOT BE LESS THAN ROOT DIAMETER OF THREADS.

MATERIAL NOTES

- STAINLESS STEEL ANCHOR RODS, HEX HEAD BOLTS AND HEX NUTS (TYPE 302) SHALL BE ASTM A276, TYPE 430 MOD OR TYPE 304 MOD, (100,000 PSI AND 15% ELONGATION).
- STEEL EMBEDDED JAM AND HEX NUTS SHALL BE ASTM A563 GRADE A OR BETTER.
- ALUMINUM WASHERS SHALL BE ASTM B209, ALLOY 2024-T3 ALCLAD.
- PREFORMED ELASTOMERIC BEARING PAD SHALL MEET REQUIREMENTS OF AASHTO M251.

ANCHOR ASSEMBLY NOTES

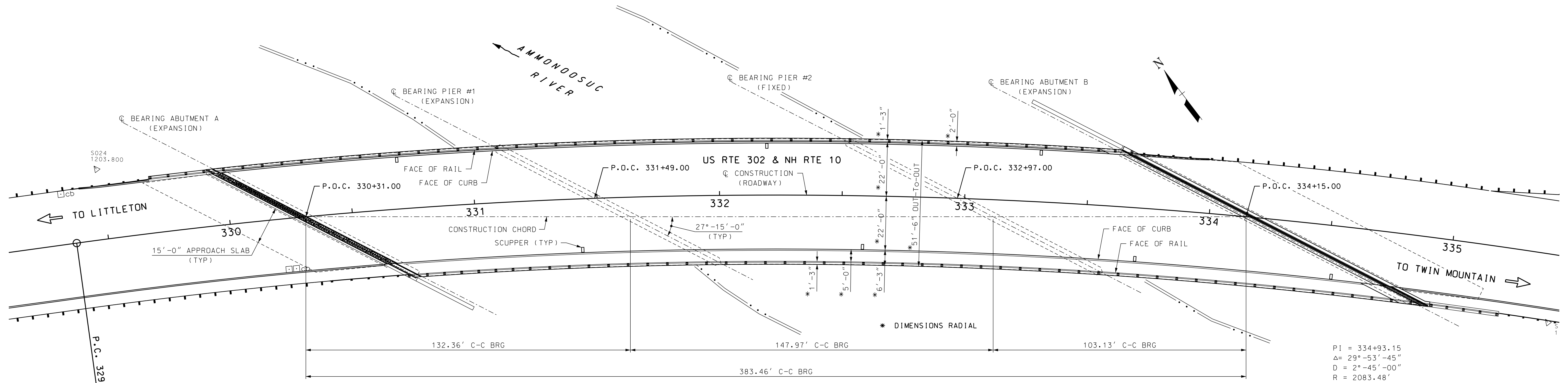
- 3/4" AND 5/8" AMERICAN STANDARD FINISHED HEXAGON STEEL NUTS ON BOTTOM OF ANCHOR ASSEMBLY, 3/4" AND 5/8" AMERICAN STANDARD FINISHED HEXAGON STEEL JAM NUTS ON TOP OF ANCHOR PLATE.
- 3/4" AND 5/8" STAINLESS STEEL HEXAGON NUTS ON THE TOP ENDS OF BOLTS WITH CLASS 2B THREADS. 13/16" I.D., 2" O.D., 1/8" THICK ALUMINUM WASHERS UNDER NUTS ON TOP. ALL NUTS SHALL COMPLY WITH AMERICAN HEXAGON ANSI SPEC. B18.2. STAINLESS STEEL HEXAGON NUTS SHALL HAVE FULL THREADS.



SAMPLE PLAN
DATE: 9-2020

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/MISC	42501_BR NOTES	----

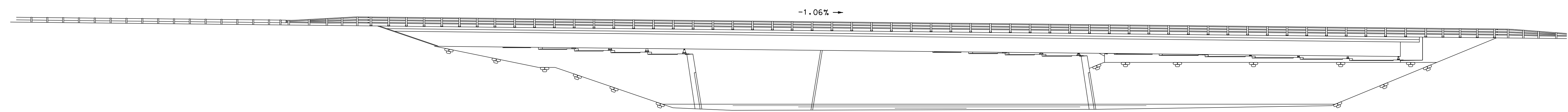
STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM - CARROLL	BRIDGE NO.	125/177, 173/141	STATE PROJECT	42501
LOCATION	U.S. ROUTE 302 & N.H. ROUTE 10 over AMMONOOSUC RIVER				
DETAILS					BRIDGE SHEET
					2 OF 34
DESIGNED	JEH	6/20	CHECKED	ABH	7/20
DRAWN	SMG	6/20	CHECKED	ABH	7/20
QUANTITIES	JEH	8/20	CHECKED	PML	8/20
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
REV. DATE		-----		6	38



PI = 334+93.15
 $\Delta = 29^\circ - 53' - 45''$
 $D = 2^\circ - 45' - 00''$
 $R = 2083.48'$
 $T = 556.24'$
 $L = 1087.12'$

PLAN

NOTE: DETAILS AND NOTES
 MAY NOT BE CURRENT.
 CLOSELY REVIEW BEFORE
 USING DETAILS.

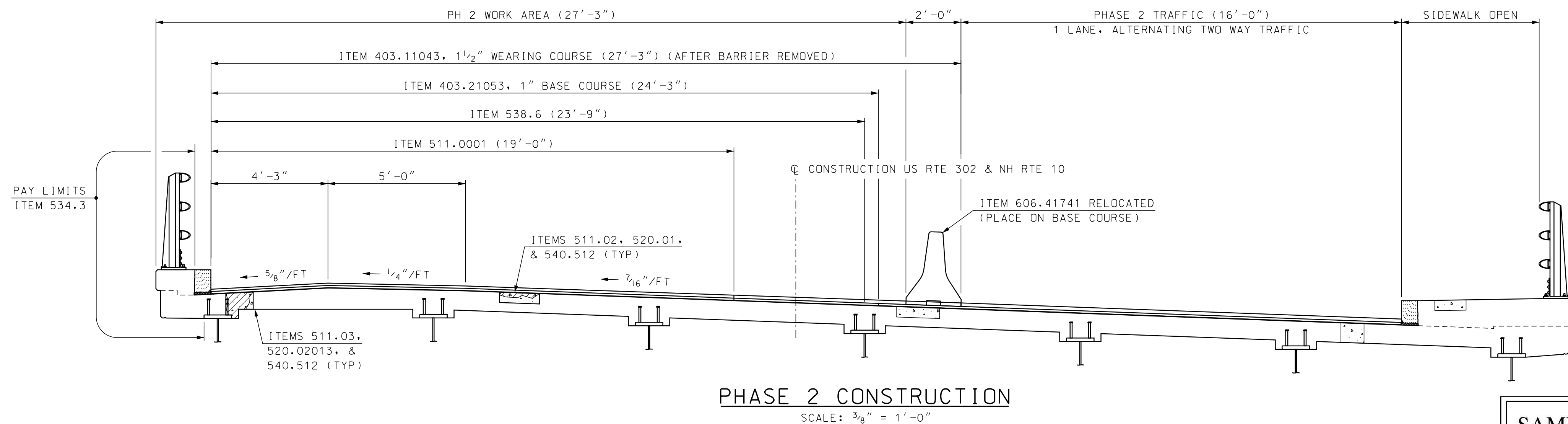
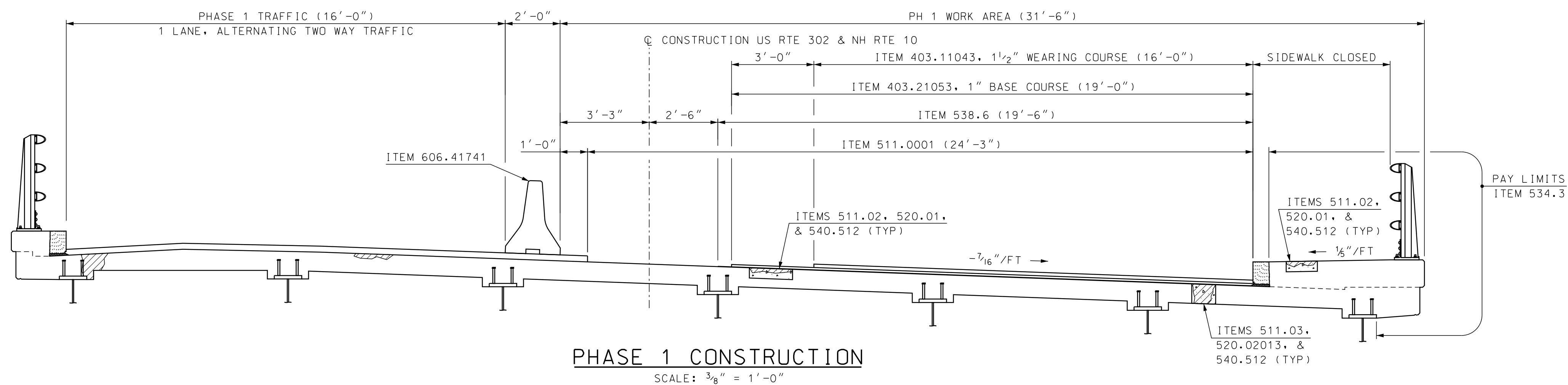
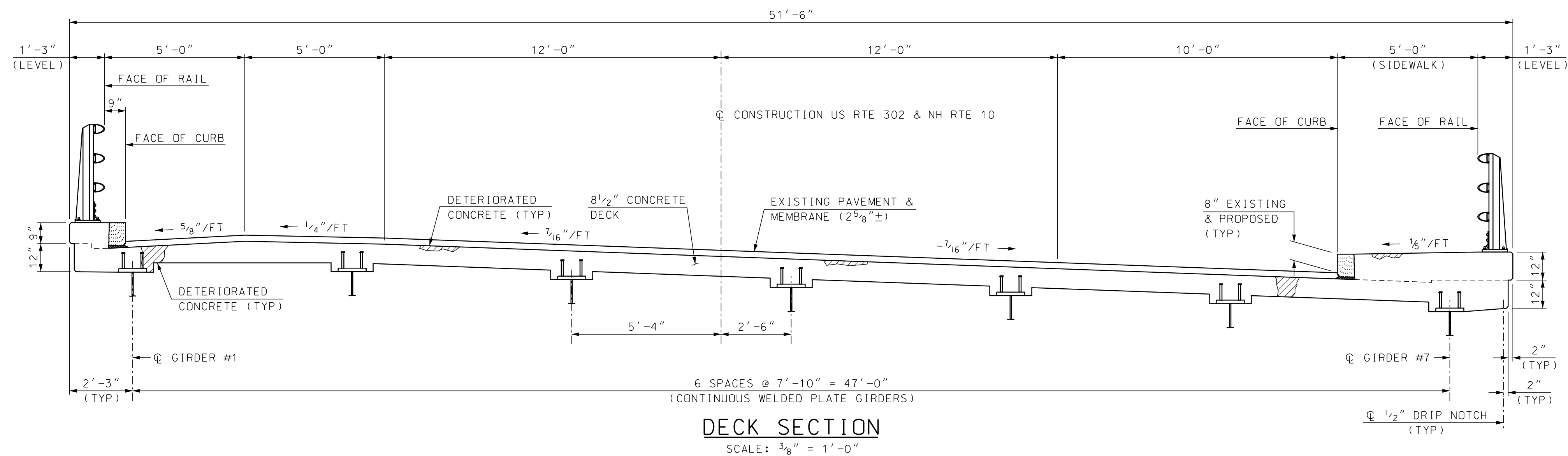


ELEVATION

SAMPLE PLAN
 DATE: 9-2020

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	42501_GENPLN-BETH	1" = 20'

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501
LOCATION U.S. ROUTE 302 & N.H. ROUTE 10 over AMMONOOSUC RIVER					
GENERAL PLAN AND ELEVATION BR NO 125/177					
DESIGNED	NHDOT	BY	DATE	CHECKED	JEH
DRAWN	PJP	3/19		CHECKED	ABH
QUANTITIES	JEH	8/20		CHECKED	PML
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	
REV. DATE		-----		7	
BRIDGE SHEET					3 OF 34
FILE NUMBER					136-4-1
TOTAL SHEETS					38



NOTE

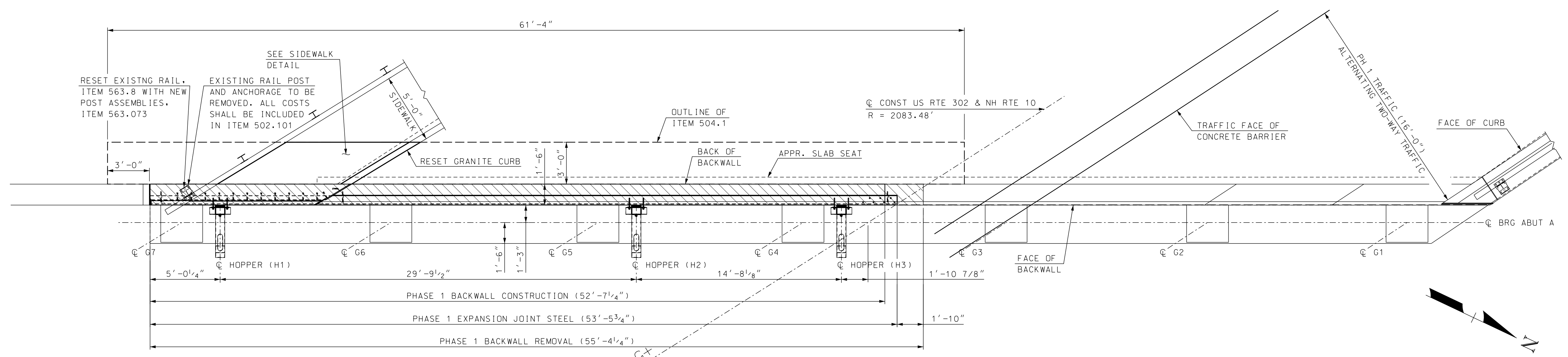
1. ALL HORIZONTAL DIMENSIONS ARE RADIAL.

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

SAMPLE PLAN
DATE: 9-2020

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	42501_DKSECT-BETH	AS NOTED

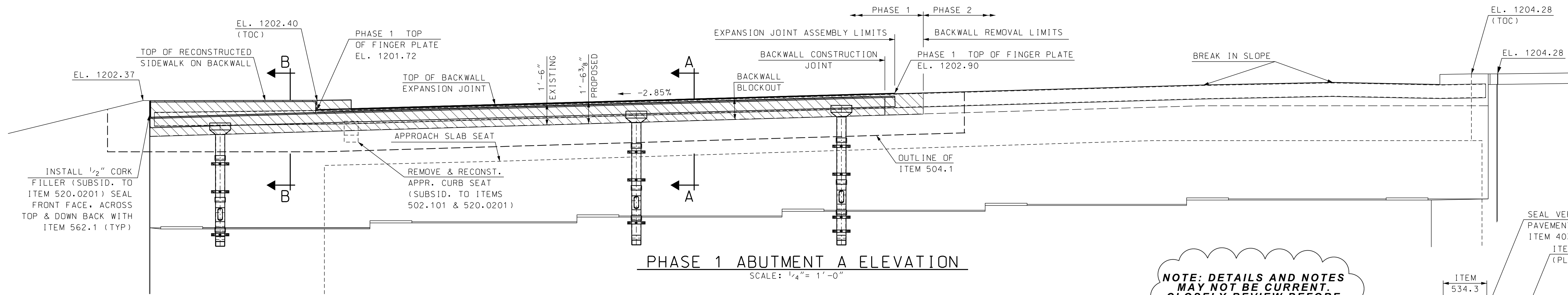
STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501
LOCATION U.S. ROUTE 302 & N.H. ROUTE 10 over AMMONOOSUC RIVER					
DECK SECTIONS & DETAILS BR NO 125/177					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					4 OF 34
DESIGNED	NHDOT	BY	DATE	CHECKED	JEH 7/20
DRAWN	PJP	4/19	CHECKED	ABH	7/20
QUANTITIES	JEH	8/20	CHECKED	PML	8/20
ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.	TOTAL SHEETS
REV. DATE	-----			8	38



PHASE 1 ABUTMENT A PLAN
SCALE: 1/4" = 1'-0"

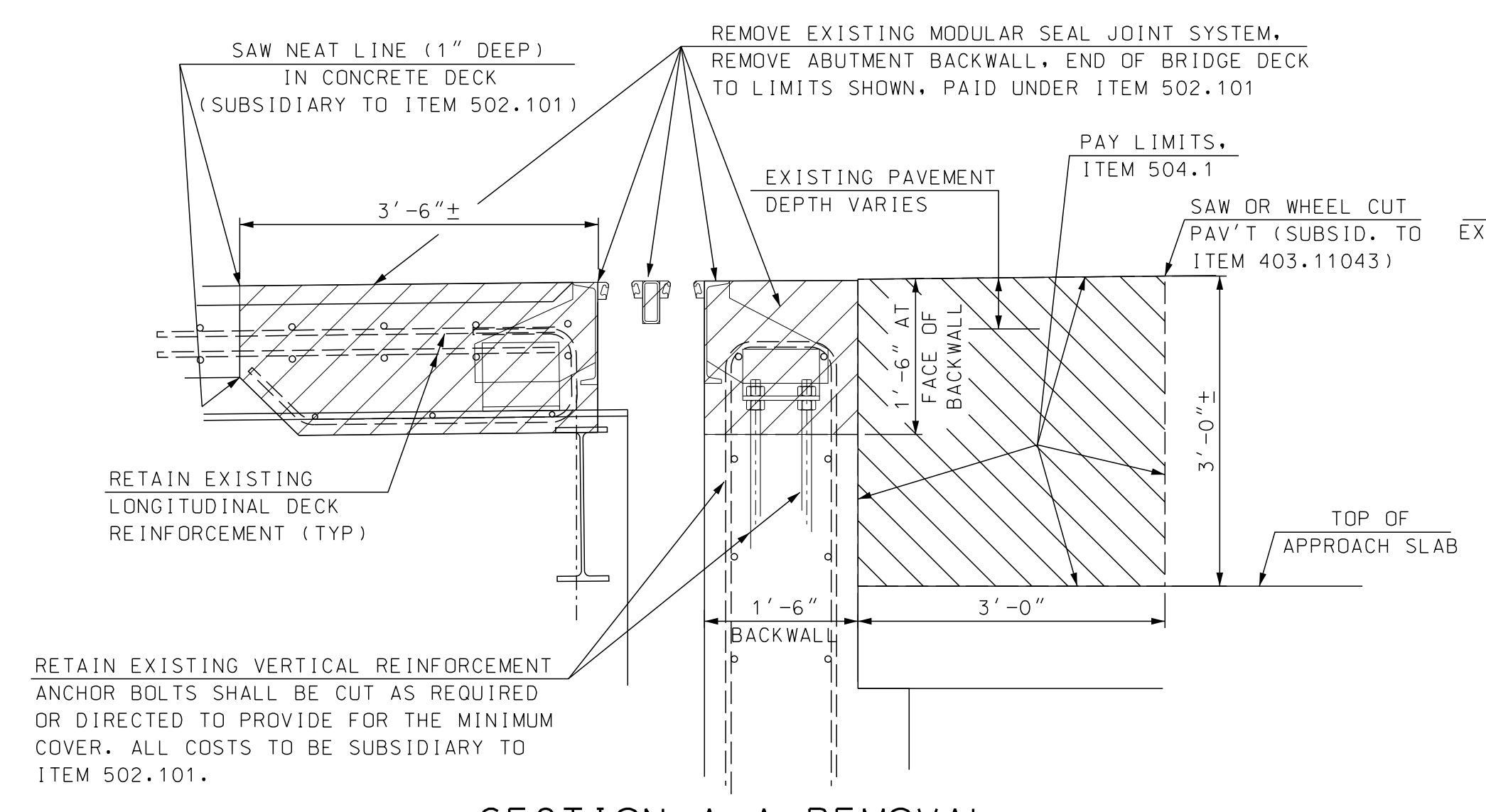
LIMIT OF REMOVAL
 LIMIT OF PROPOSED CONCRETE

- NOTES:
- SEE REMOVAL SECTION A-A AND RECONSTRUCTED SECTION A-A ON THIS SHEET FOR FURTHER DETAILS.
 - ALL DIMENSIONS ARE MEASURED HORIZONTALLY ALONG FACE OF BACKWALL.
 - ALL ELEVATIONS AT FACE OF BACKWALL ARE 3/8" HIGHER THAN EXISTING 1982 PLANS (1/2" RAISE FROM MAINTENANCE WORK & 1/8" REDUCTION AT EXPANSION JOINT).

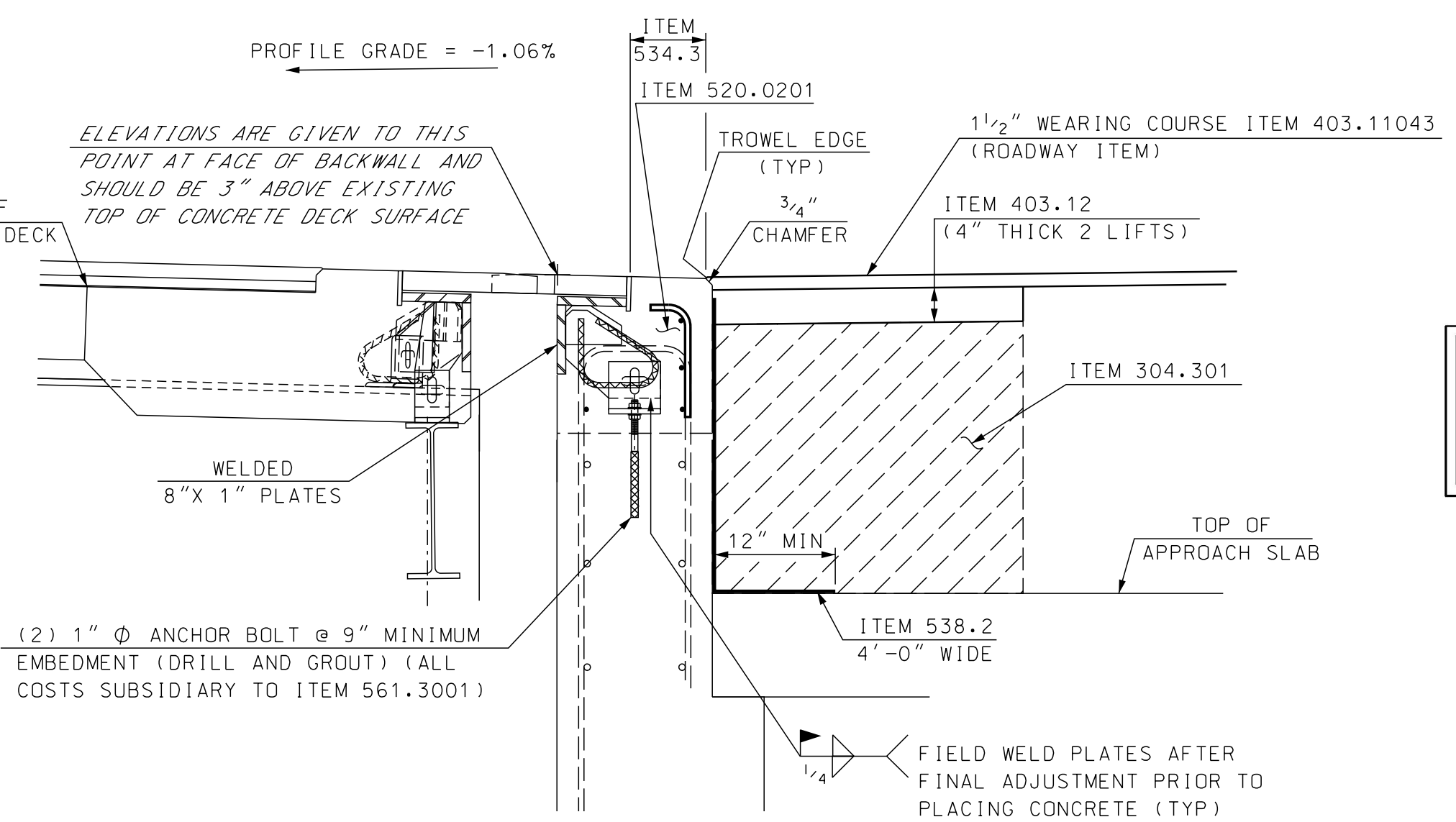


PHASE 1 ABUTMENT A ELEVATION
SCALE: 1/4" = 1'-0"

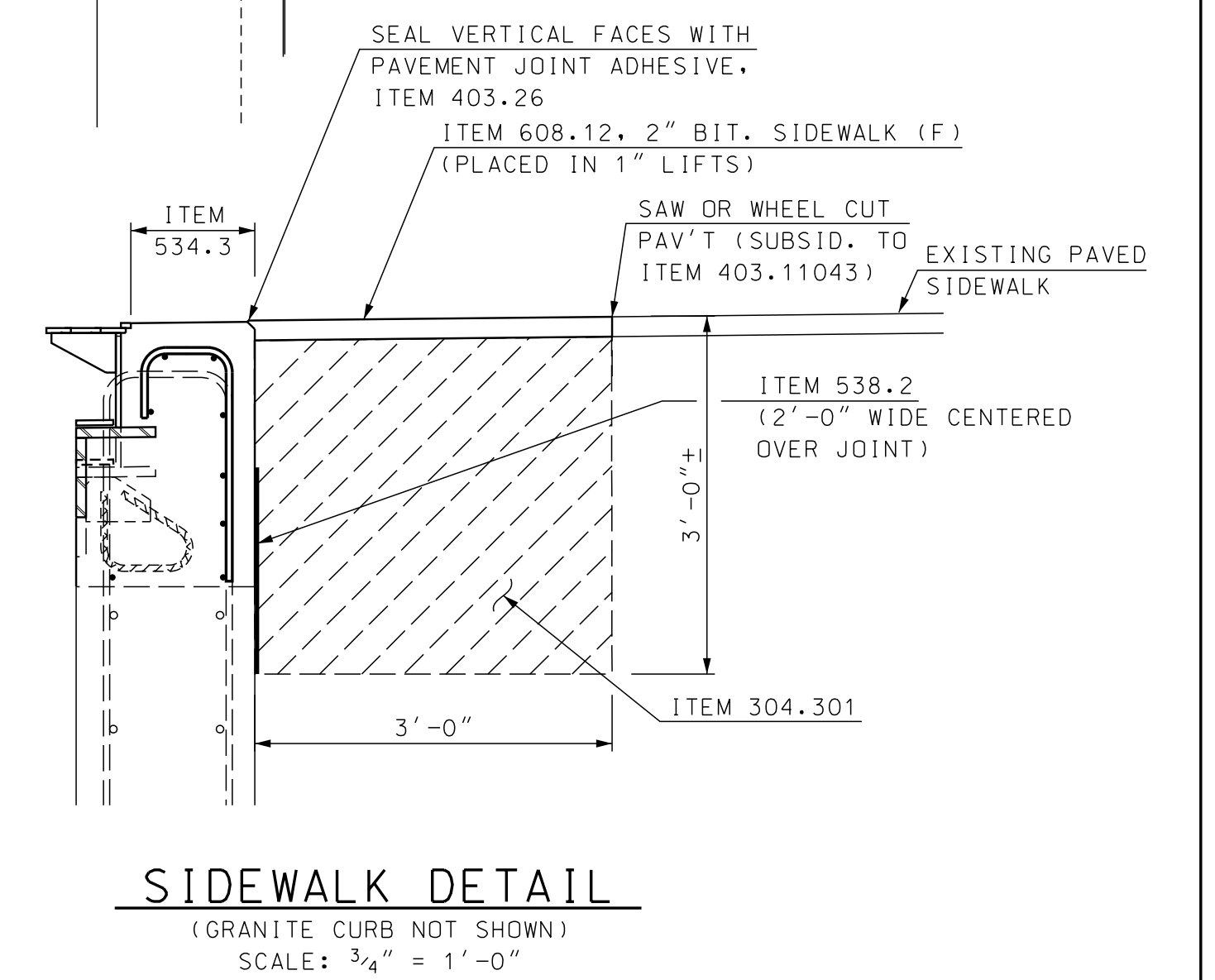
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



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



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

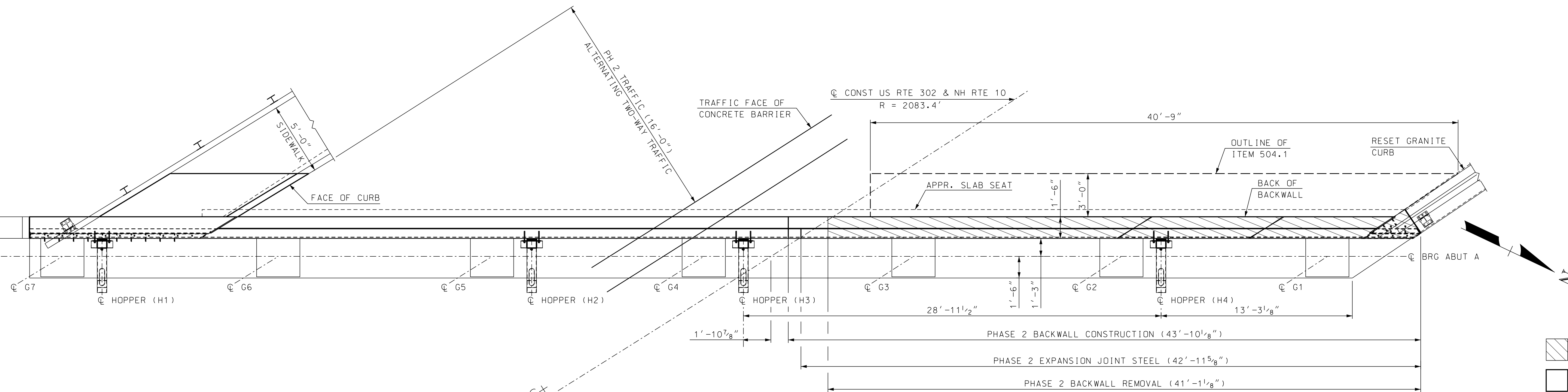


SIDEWALK DETAIL
(GRANITE CURB NOT SHOWN)
SCALE: 3/4" = 1'-0"

SAMPLE PLAN
DATE: 9-2020

STATE OF NEW HAMPSHIRE										
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN										
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501					
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER									
PHASE 1 ABUTMENT A MASONRY BR NO 125/177					BRIDGE SHEET					
REVISIONS AFTER PROPOSAL					BY	DATE	BY	DATE	5 OF 34	
					DESIGNED	JEH	3/20	CHECKED	ABH	7/20
					DRAWN	GMC	3/20	CHECKED	ABH	7/20
					QUANTITIES	JEH	8/20	CHECKED	PML	8/20
					ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.	TOTAL SHEETS
					REV. DATE	-----			9	38

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	42501 ABUT-A	AS NOTED



ALL DIMENSIONS GIVEN ARE HORIZONTAL ALONG FACE OF BACKWALL

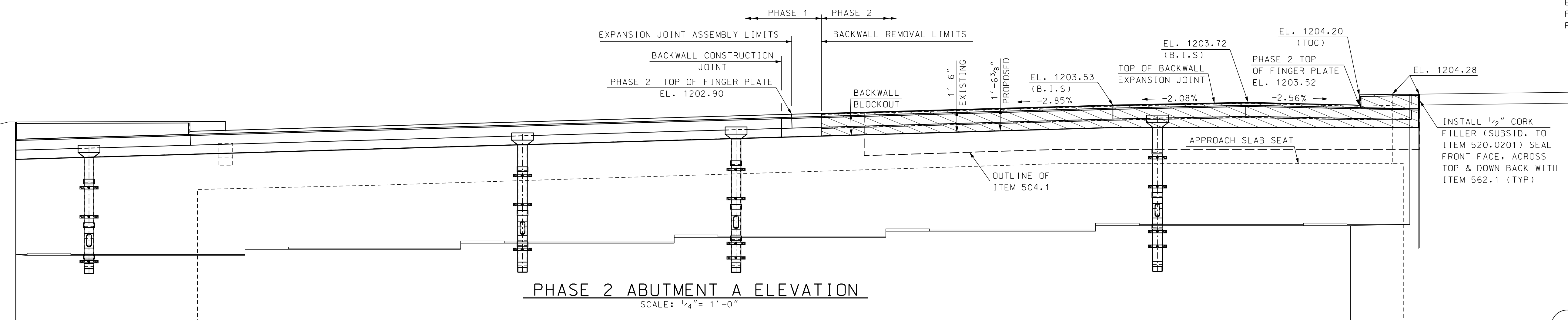
PHASE 2 ABUTMENT A PLAN

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

- LIMIT OF REMOVAL
- LIMIT OF PROPOSED CONCRETE

NOTES:

1. SEE REMOVAL SECTION A-A AND RECONSTRUCTED SECTION A-A ON BR SHT 5 FOR FURTHER DETAILS.
2. ALL DIMENSIONS ARE MEASURED HORIZONTALLY ALONG FACE OF BACKWALL.
3. ALL ELEVATIONS AT FACE OF BACKWALL ARE 3/8" HIGHER THAN EXISTING 1982 PLANS (1/2" RAISE FROM MAINTENANCE WORK & 1/8" REDUCTION AT EXPANSION JOINT).

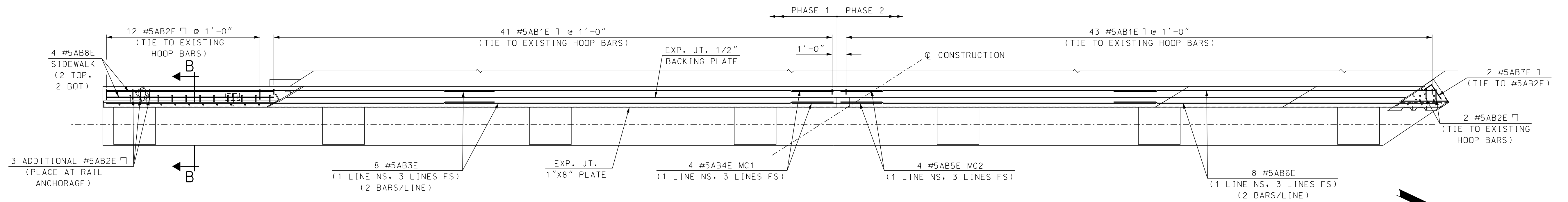


NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

SAMPLE PLAN
DATE: 9-2020

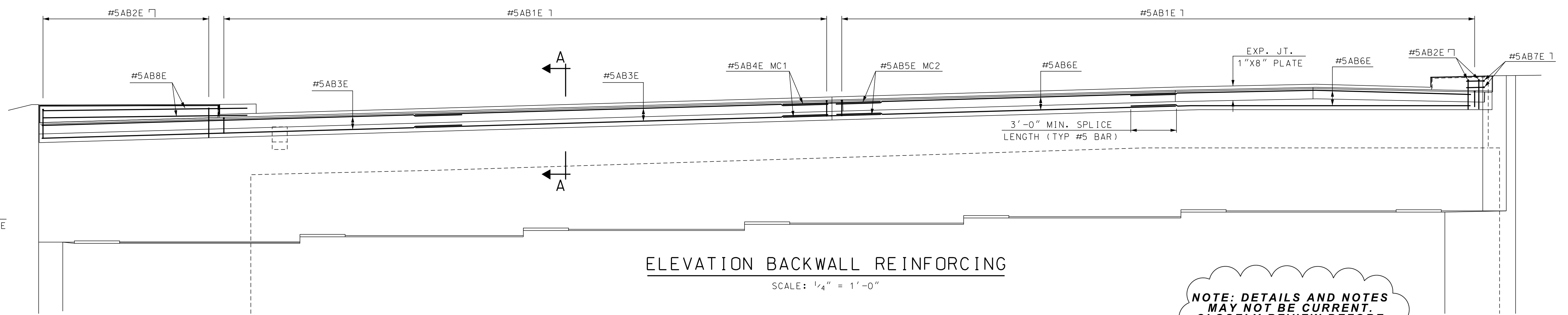
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	42501 ABUT-A	AS NOTED

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501
LOCATION US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER					
PHASE 2 ABUTMENT A MASONRY BR NO 125/177					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					6 OF 34
DESIGNED	JEH	DATE	3/20	CHECKED	ABH 7/20
DRAWN	GMC	DATE	3/20	CHECKED	ABH 7/20
QUANTITIES	JEH	DATE	8/20	CHECKED	PML 8/20
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	10
REV. DATE					38



PLAN BACKWALL REINFORCING

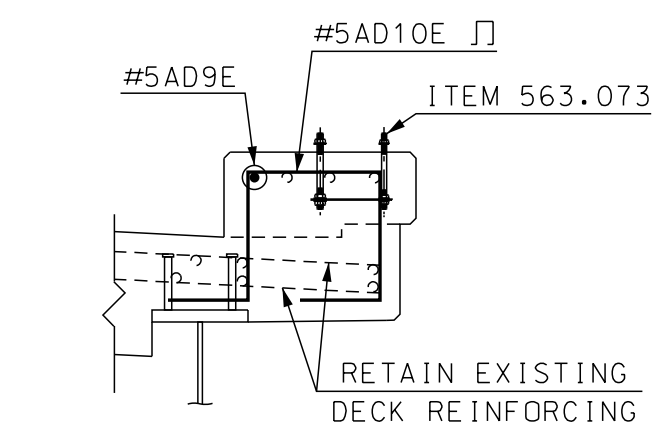
SCALE: 1/4" = 1'-0"



ELEVATION BACKWALL REINFORCING

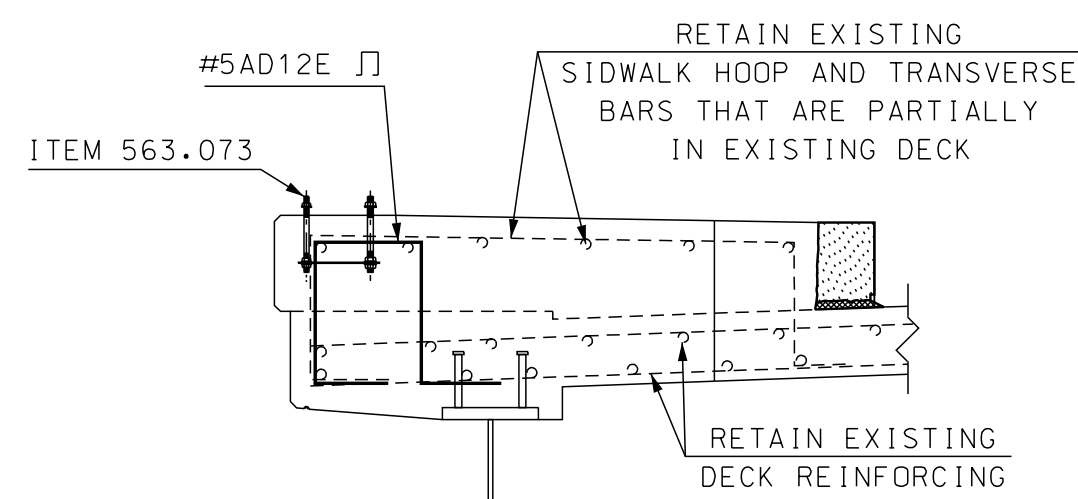
SCALE: 1/4" = 1'-0"

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



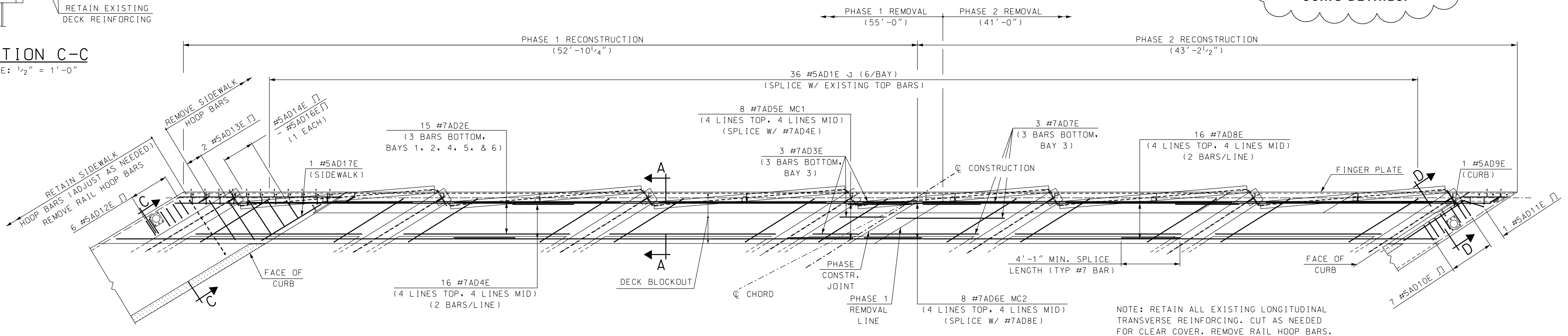
SECTION D-D

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



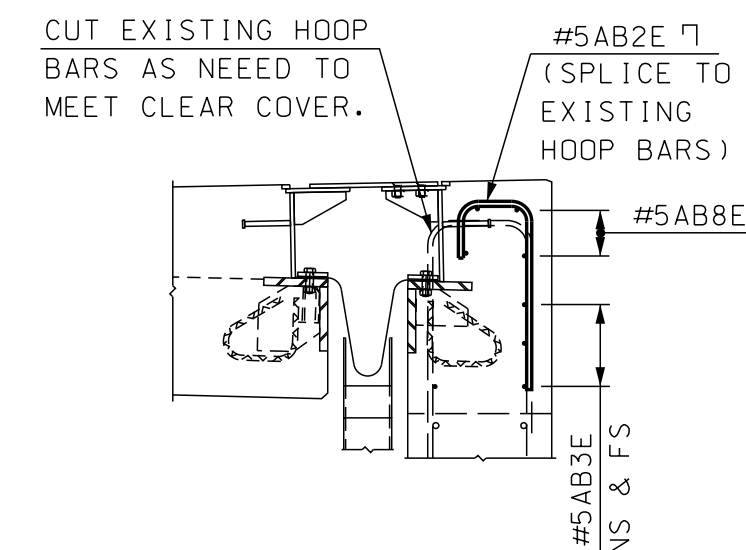
SECTION C-C

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



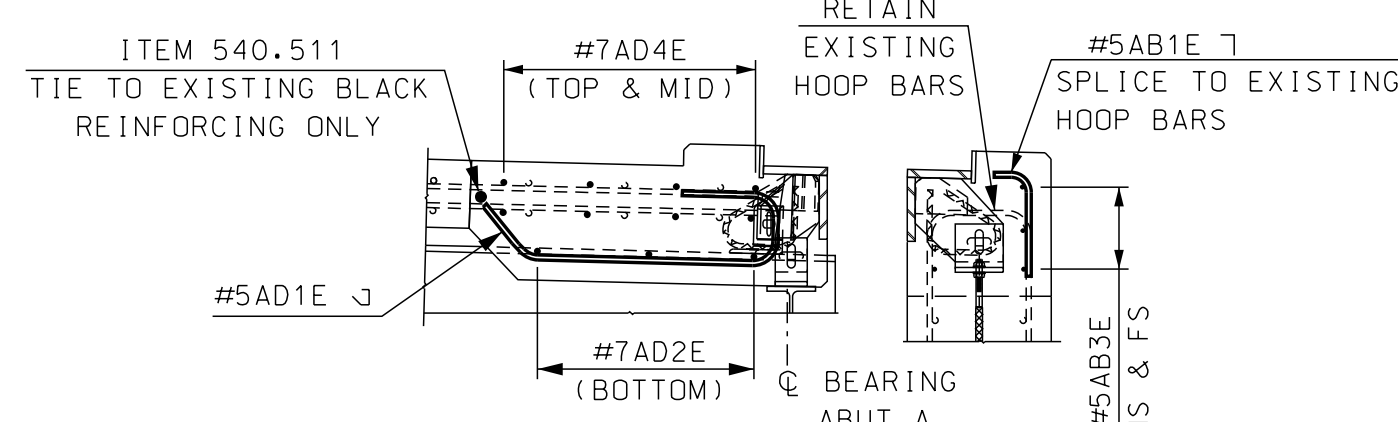
PLAN END DECK REINFORCING

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



SECTION B-B

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



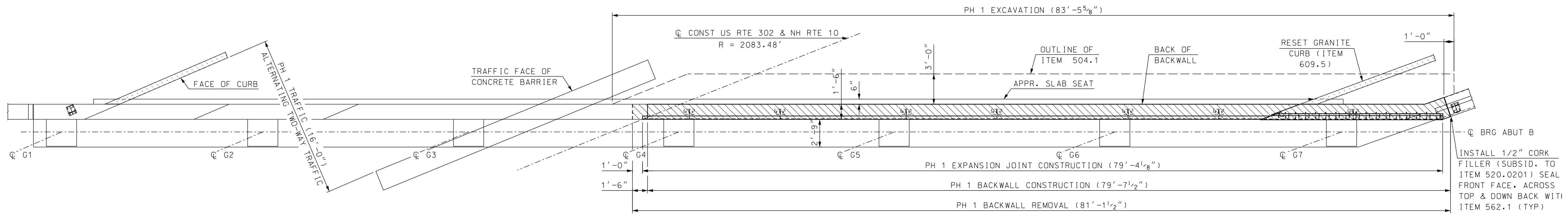
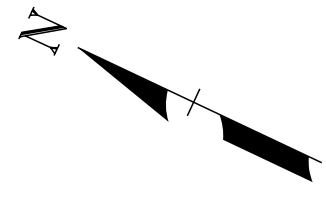
SECTION A-A

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

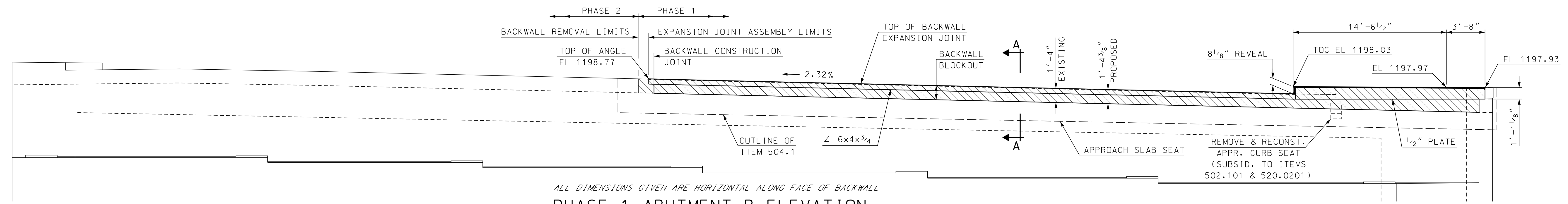
SAMPLE PLAN
DATE: 9-2020

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501				
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER								
ABUT A & DECK END REINFORCING BR NO 125/177					BRIDGE SHEET				
					7 OF 34				
DESIGNED	ABH	8/20	CHECKED	JEH	8/20	FILE NUMBER			
DRAWN	ABH	8/20	CHECKED	JEH	8/20	136-4-1			
QUANTITIES	ABH	8/20	CHECKED	JEH	8/20				
ISSUE DATE			FEDERAL PROJECT NO.			SHEET NO.			
REV. DATE					11	TOTAL SHEETS			
						38			

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	125-177 Abut A Rein	AS NOTED

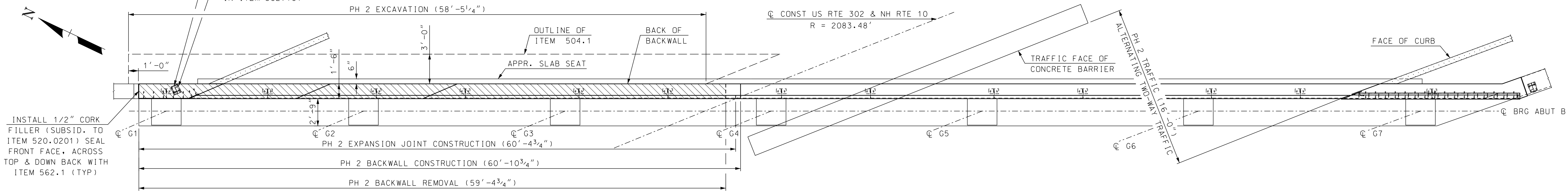


ALL DIMENSIONS GIVEN ARE HORIZONTAL ALONG FACE OF BACKWALL
PHASE 1 ABUTMENT B PLAN
 SCALE: 3/16" = 1'-0"

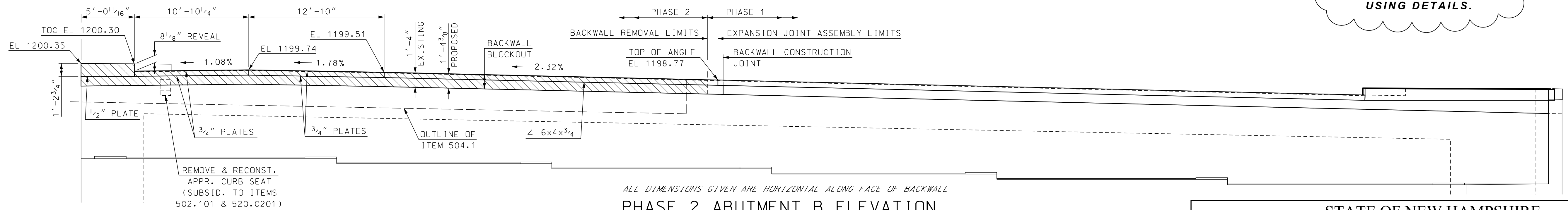


ALL DIMENSIONS GIVEN ARE HORIZONTAL ALONG FACE OF BACKWALL
PHASE 1 ABUTMENT B ELEVATION
 SCALE: 3/16" = 1'-0"

RESET EXISTING RAIL, ITEM 563.8 WITH NEW POST ASSEMBLIES, ITEM 563.073
 EXISTING RAIL POST AND ANCHORAGE TO BE REMOVED. ALL COSTS SHALL BE INCLUDED IN ITEM 502.101

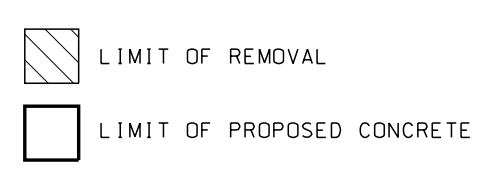


ALL DIMENSIONS GIVEN ARE HORIZONTAL ALONG FACE OF BACKWALL
PHASE 2 ABUTMENT B PLAN
 SCALE: 3/16" = 1'-0"



ALL DIMENSIONS GIVEN ARE HORIZONTAL ALONG FACE OF BACKWALL
PHASE 2 ABUTMENT B ELEVATION
 SCALE: 3/16" = 1'-0"

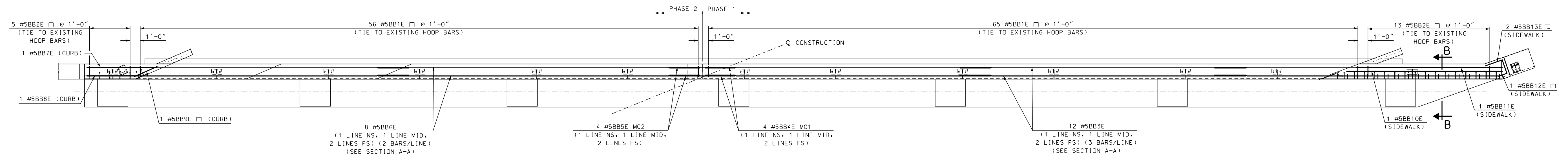
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



- NOTES:
- SEE REMOVAL SECTION A-A AND RECONSTRUCTED SECTION A-A ON BRIDGE SHEET 16 FOR FURTHER DETAILS.
 - ALL DIMENSIONS ARE GIVEN ALONG FACE OF BACKWALL.
 - ALL ELEVATIONS AT FACE OF BACKWALL ARE 3/8" HIGHER THAN EXISTING 1982 PLANS (1/2" RAISE FROM MAINTENANCE WORK & 1/8" REDUCTION AT EXPANSION JOINT).

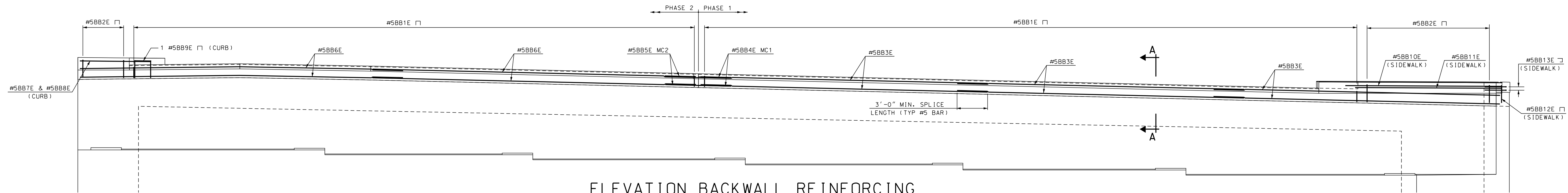
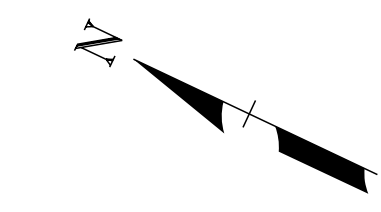
SAMPLE PLAN
 DATE: 9-2020

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501				
LOCATION US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER									
ABUTMENT B BR NO 125/177									
BRIDGE SHEET		8 OF 34							
FILE NUMBER		136-4-1							
TOTAL SHEETS		38							
REVISIONS AFTER PROPOSAL		BY		DATE		BY		DATE	
		DESIGNED		JEH 3/20		CHECKED		ABH 7/20	
		DRAWN		SMG/GMC 3/20		CHECKED		ABH 7/20	
		QUANTITIES		JEH 8/20		CHECKED		PML 8/20	
ISSUE DATE		FEDERAL PROJECT NO.				SHEET NO.		TOTAL SHEETS	
REV. DATE		-----				12		38	
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE							
BRC/BETHLEHEM	125-177 Abut B	AS NOTED							



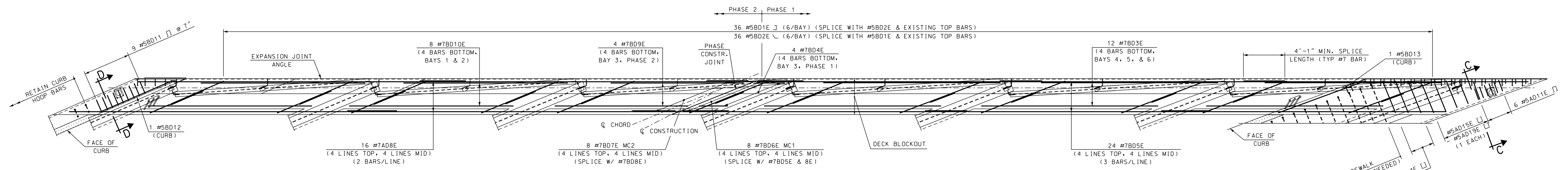
PLAN BACKWALL REINFORCING

SCALE: 3/16" = 1'-0"



ELEVATION BACKWALL REINFORCING

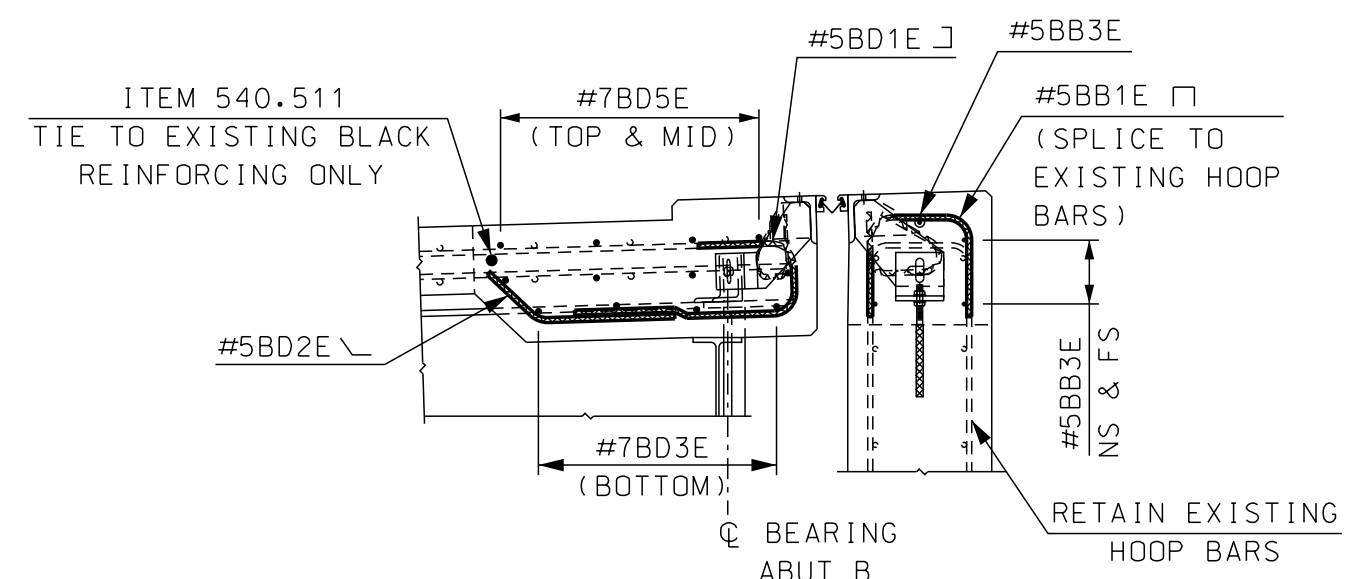
SCALE: 3/16" = 1'-0"



PLAN DECK END REINFORCING

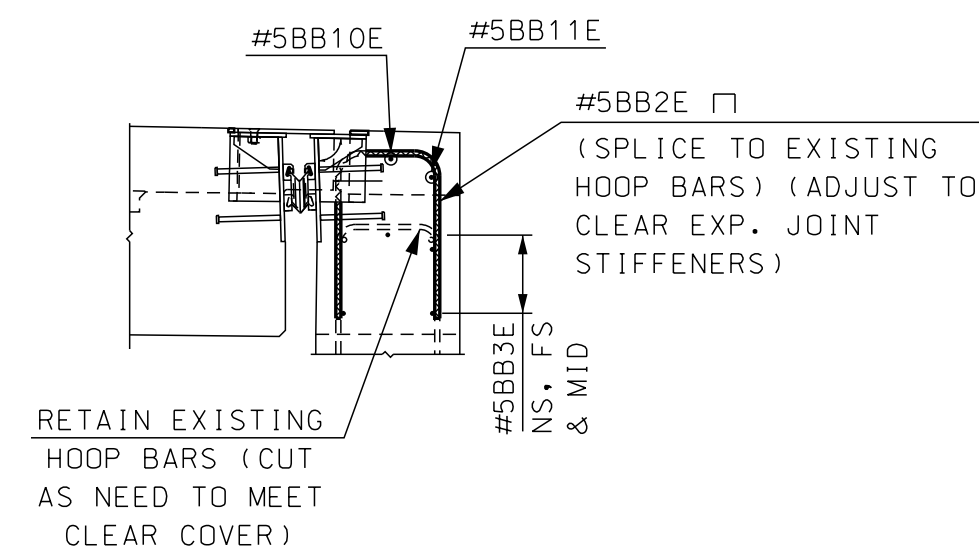
SCALE: 3/16" = 1'-0"

NOTE: RETAIN ALL EXISTING TRANSVERSE AND LONGITUDINAL REINFORCING. CUT AS NEEDED FOR CLEAR COVER. REMOVE RAIL HOOP BARS.



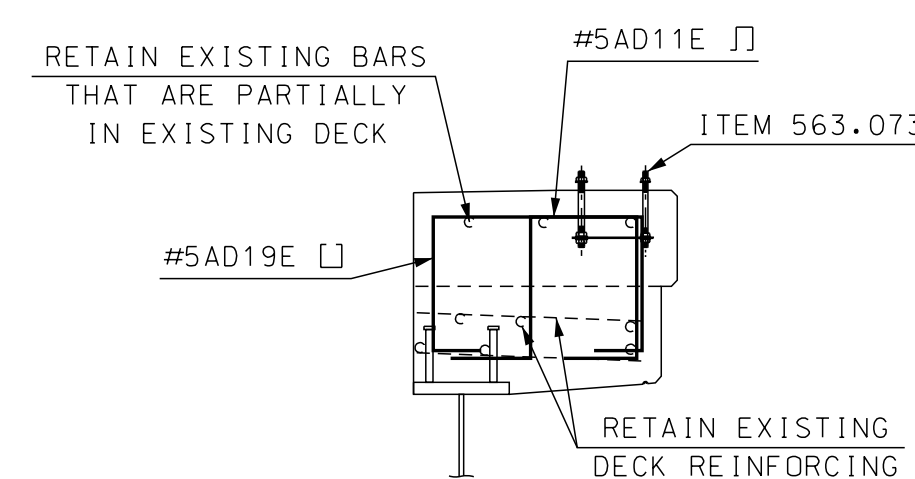
SECTION A-A

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



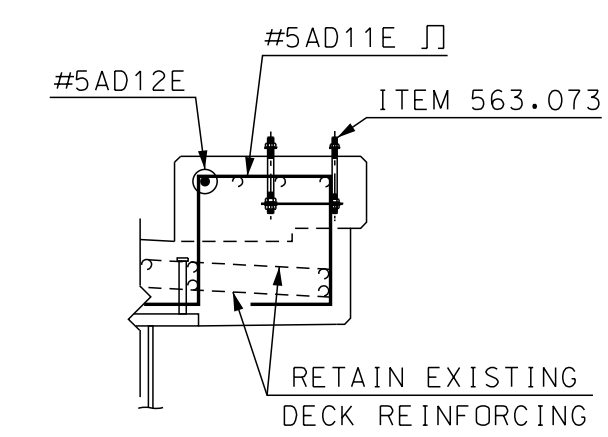
SECTION B-B

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



SECTION C-C

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



SECTION D-D

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

SAMPLE PLAN
DATE: 9-2020

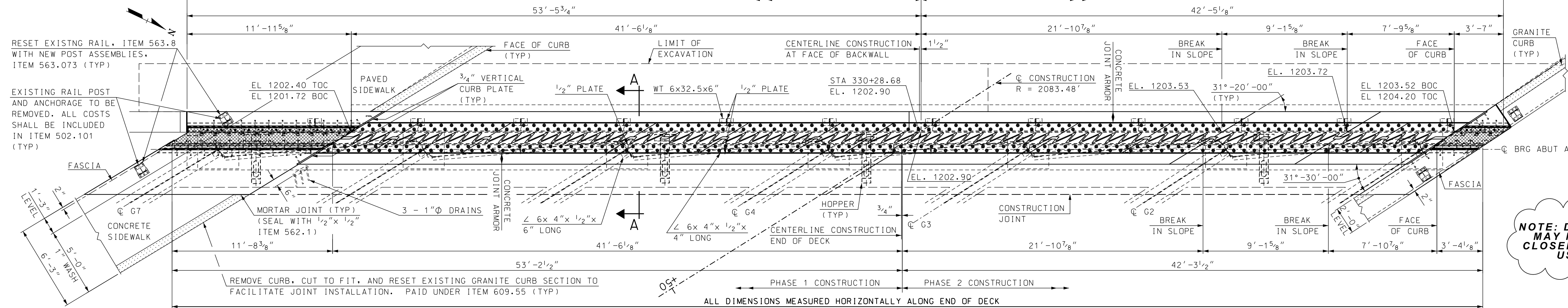
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501				
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER								
ABUT B & DECK END REINFORCING BR NO 125/177					BRIDGE SHEET				
REVISIONS AFTER PROPOSAL					9 OF 34				
DESIGNED	ABH	8/20	CHECKED	JEH	8/20	FILE NUMBER			
DRAWN	ABH	8/20	CHECKED	JEH	8/20	136-4-1			
QUANTITIES	ABH	8/20	CHECKED	JEH	8/0	TOTAL SHEETS			
ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.		13			
REV. DATE	-----			13		38			

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	125-177 Abut B Rein	AS NOTED

ALL DIMENSIONS MEASURED HORIZONTALLY ALONG FACE OF BACKWALL

PHASE 1 CONSTRUCTION PHASE 2 CONSTRUCTION

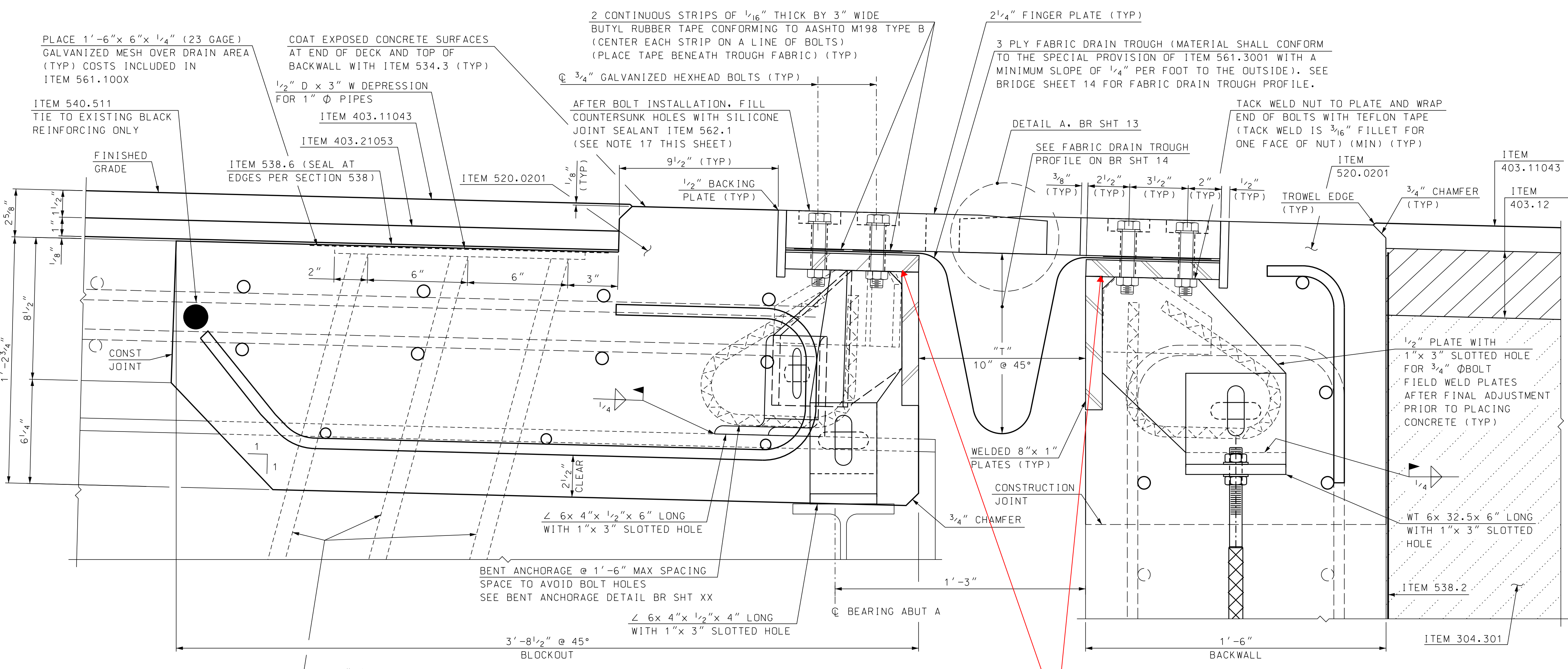


NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

PLAN - ABUTMENT A FINGER JOINT

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

PROFILE GRADE (LOOKING UPSTATION) -1.06% SLOPE PERPENDICULAR TO BACKWALL IN TRAVEL WAY -2.51%

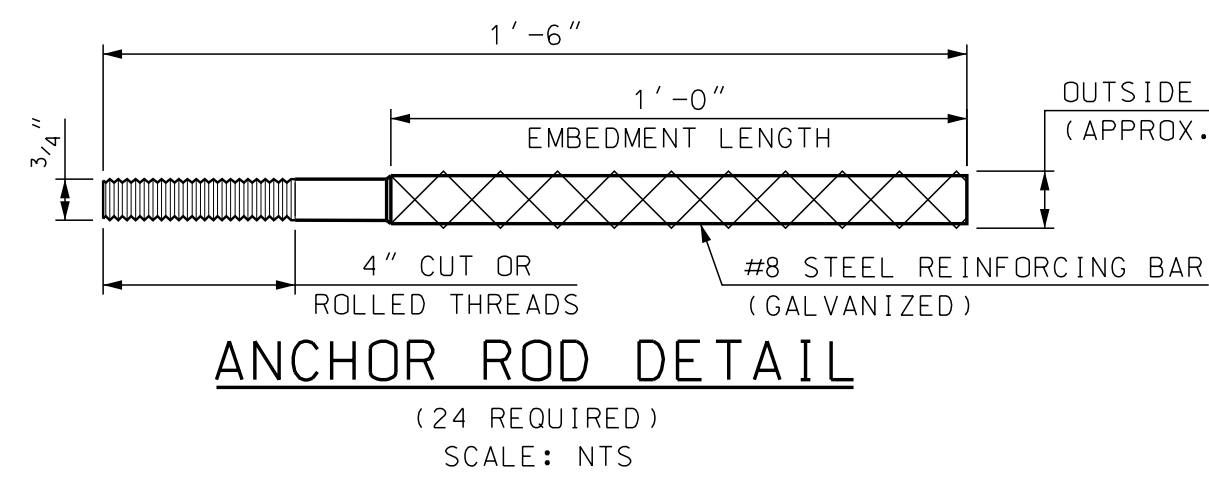


SECTION A-A

SCALE: 3" = 1'-0"

EXPANSION JOINT NOTES

- EXPANSION JOINT STEEL SHALL BE AASHTO M223 (ASTM A572) GR 50. MINOR STEEL PLATES MAY CONFORM TO AASHTO M183 (ASTM A36). ALL STEEL SHALL BE GALVANIZED. THE ENTIRE ASSEMBLY SHALL BE PAID AS ITEM 561.3001, PREFABRICATED FINGER EXPANSION JOINT (F).
- BOLTS IN THE CURBS OR SIDEWALKS SHALL BE STAINLESS STEEL COUNTERSUNK HEAD BOLTS WITH SOCKET HEAD AND SHALL CONFORM TO ASTM A276, TYPE 304. BOLTS IN THE ROADWAY SHALL BE GALVANIZED HIGH-STRENGTH BOLTS AND SHALL CONFORM TO ASTM A325. ANCHOR RODS SHALL BE GALVANIZED AND CONFORM TO ASTM A307.
- SPLICES FOR EXPANSION JOINT STEEL SHALL DEVELOP FULL STRENGTH.
- THE EXPANSION JOINT SHALL BE PRESET TO THE TEMPERATURE ANTICIPATED AT THE TIME OF INSTALLATION. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE ENGINEER (SEE TEMPERATURE TABLE ON THIS SHEET). THE MAXIMUM MOVEMENT IS 3/4" INCHES.
- PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.
- JOINT SUPPORT PLATES SHALL BE SHOP WELDED TO THE EXPANSION JOINT STEEL AND SHALL BE VERTICAL AFTER THE JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE.
- FASCIA AND CURB PLATES SHALL BE SHOP WELDED AND SHALL BE VERTICAL AFTER THE JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE.
- IMMEDIATELY AFTER THE JOINT HAS BEEN SECURED TO THE STRUCTURAL STEEL AND BACKWALL, REMOVE SHIPPING DEVICES. WELDING OF SHIPPING DEVICES TO FINGER PLATE SHALL NOT BE ALLOWED.
- THE FINGER PLATES SHALL BE CUT FROM ONE CONTINUOUS 2'-0" WIDE x 2 1/4" THICK PLATE AS SHOWN ON THE FINGER CUTTING DETAIL, AND FURNISHED IN 9 DIFFERENT LENGTHS.
- THE HOPPERS AND DOWNSPOUTS SHALL BE A36 STEEL AND GALVANIZED IN ACCORDANCE WITH SECTION 550. PAYMENT FOR HOPPERS, BLOCKING PADS AND ALL ATTACHMENTS WILL BE SUBSIDIARY TO ITEM 561.3001.
- ELEVATIONS SHOWN AT TOP OF FINGER PLATES ARE 1/8" LOWER THAN THE PROPOSED FINISHED ROADWAY GRADE.
- SEE BRIDGE SHEET 14 FOR HOPPER DETAILS.
- THE FABRIC TROUGH SHALL BE PREFORMED FABRIC MATERIAL AND SHALL BE CUT DURING SHOP PRE-ASSEMBLY. THE TROUGH MAY BE SUPPLIED IN 8 LENGTHS WITH 1'-0" OVERLAP AS REQUIRED. SEE BRIDGE SHEET 14 FOR FABRIC TROUGH SPLICE DETAIL.
- TRIM EXCESS FABRIC BEHIND CURB PLATES.
- RUBBER BLOCKS USED BETWEEN ABUTMENT CONCRETE AND DOWNSPOUTS SHALL BE MOLDED TO A THICKNESS OF 2" AND CUT BY THE FABRICATOR TO LENGTHS AND WIDTHS SPECIFIED IN THE PLANS. RUBBER BLOCKS SHALL BE OZONE, WATER, AND TEMPERATURE RESISTANT, AND BONDED TO THE FACE OF ABUTMENT WITH A COMPATIBLE ADHESIVE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE EXPANSION JOINT ASSEMBLY SHALL BE INSTALLED ONLY AFTER THE APPROACH FILLS HAVE BEEN CONSTRUCTED TO THE BOTTOM OF THE APPROACH SLAB.
- AFTER BOLT INSTALLATION, FILL COUNTERSUNK HOLES WITH ITEM 562.1, SILICONE JOINT SEALANT (F) (APPROX. 1 LF/HOLE).



TEMPERATURE ADJUSTMENT TABLE	
TEMPERATURE	"T"
15°F	10 1/4"
30°F	10 1/8"
45°F	10"
60°F	9 3/16"
75°F	9 1/16"
90°F	9 1/2"

TEMPERATURE ADJUSTMENT NOTES

- "T" DIMENSIONS ARE PERPENDICULAR TO FACE OF BACKWALL.
- VALUES IN THE TEMPERATURE ADJUSTMENT TABLE ARE FOR SETTING THE EXPANSION JOINT ASSEMBLY IMMEDIATELY PRIOR TO POURING THE DECK BLOCKOUT.

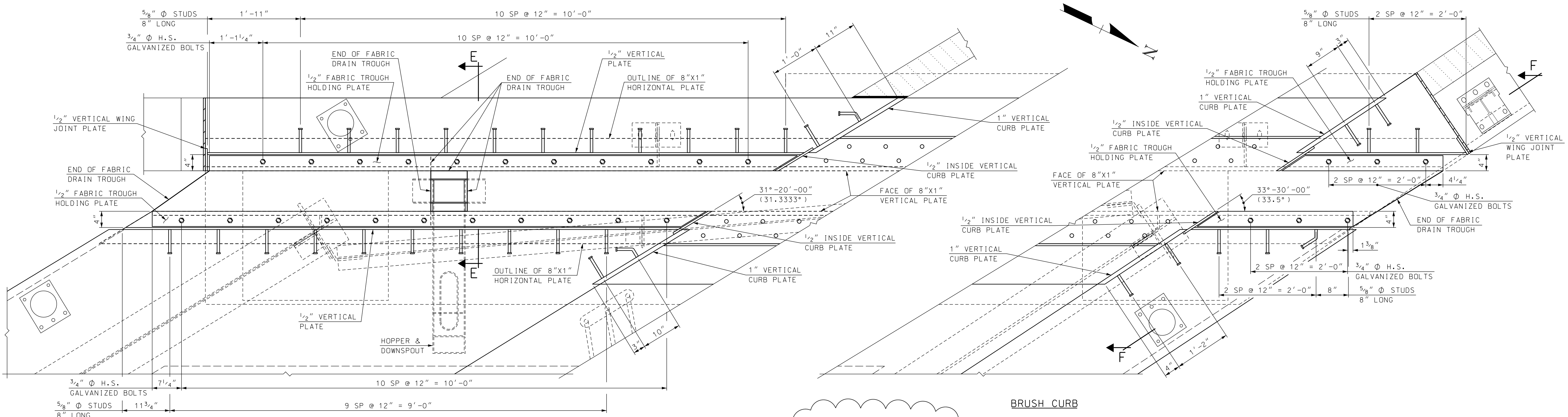
NOTE: PROPOSED EXPANSION JOINT AND CONCRETE ARMORING TO BE SET TO ACCOMMODATE 3/8" CHANGE IN FINISHED GRADE.

REVISIONS 12/30/20

SAMPLE PLAN
DATE: 9-2020

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501				
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER								
ABUT A FINGER EXP JT BR NO 125/177 (1 OF 5)									
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	BY	DATE	BRIDGE SHEET		
		DESIGNED	JEH 3/20	CHECKED	ABH 7/20		10 OF 34		
		DRAWN	GMC/SMG 3/20	CHECKED	ABH 7/20		FILE NUMBER		
		QUANTITIES	JMH 8/20	CHECKED	PML 8/20		136-4-1		
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS			
REV. DATE		-----		14		38			

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	42501 ABUT-AFingerJt	AS NOTED

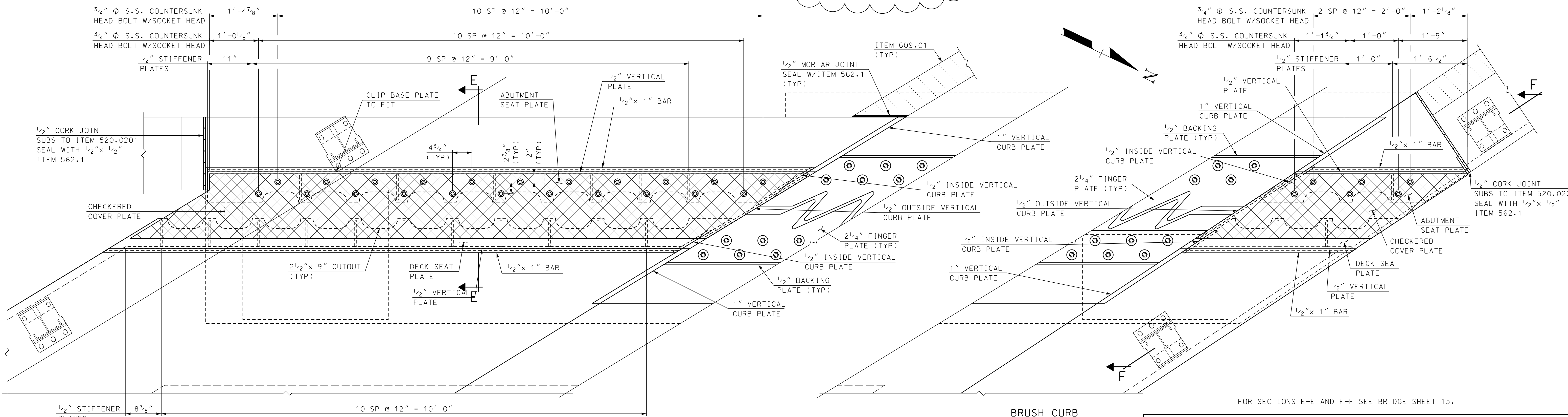


SIDEWALK

LOWER ASSEMBLY
SCALE: 1" = 1'-0"

BRUSH CURB

NOTE: DETAILS AND NOTES
MAY NOT BE CURRENT.
CLOSELY REVIEW BEFORE
USING DETAILS.



SIDEWALK

UPPER ASSEMBLY
SCALE: 1" = 1'-0"

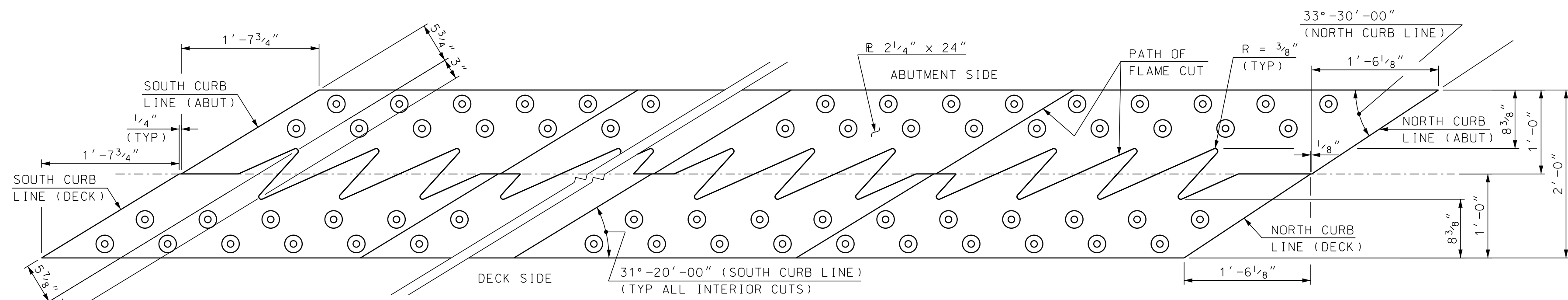
BRUSH CURB

FOR SECTIONS E-E AND F-F SEE BRIDGE SHEET 13.

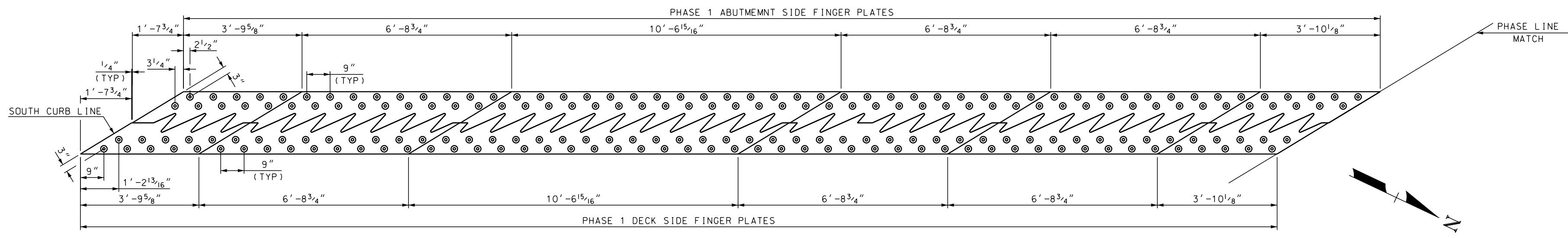
SAMPLE PLAN
DATE: 9-2020

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501
LOCATION US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER					
ABUT A FINGER EXP JT BR NO 125/177 (3 OF 5)					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					12 OF 34
DESIGNED	JEH	DATE	3/20	CHECKED	ABH 7/20
DRAWN	GMC/SMG	DATE	3/20	CHECKED	ABH 7/20
QUANTITIES	JEH	DATE	8/20	CHECKED	PML 8/20
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	16
REV. DATE					38

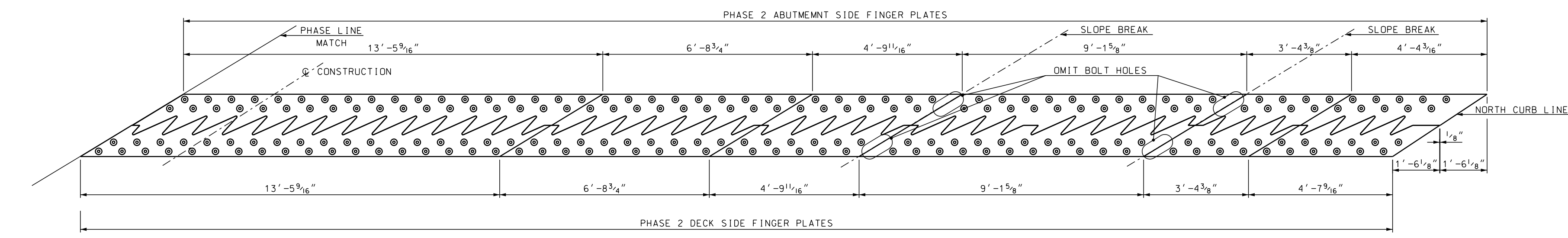
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	42501 ABUT-AFingerJt	AS NOTED



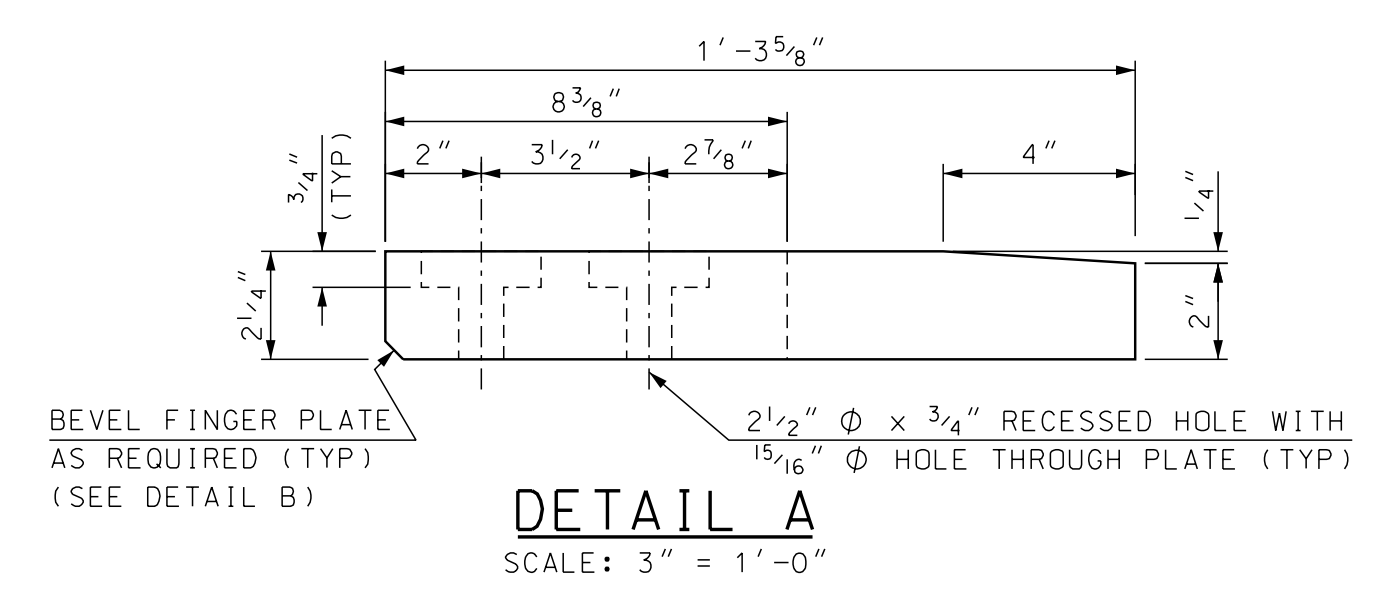
FINGER CUTTING DETAIL
SCALE: 1" = 1'-0"



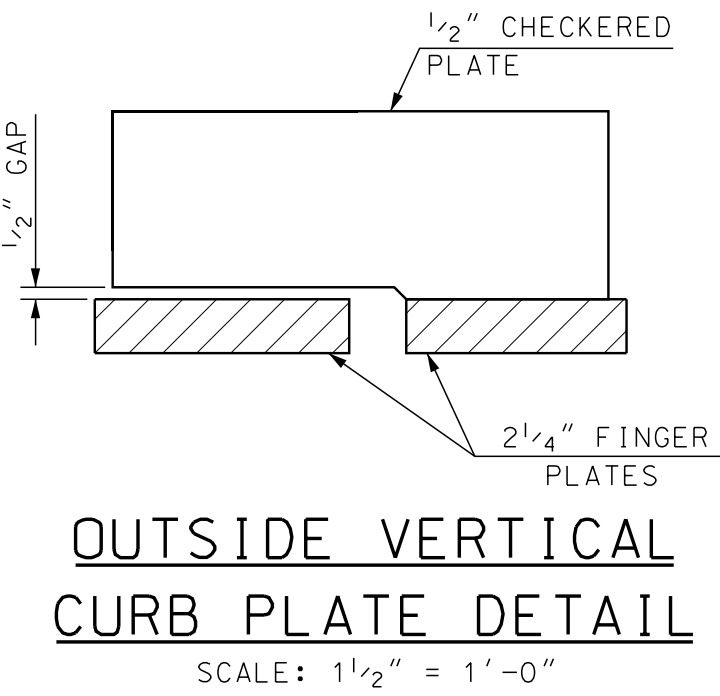
FINGER PLATE PLAN
SCALE: 1/2" = 1'-0"



FINGER PLATE PLAN
SCALE: 1/2" = 1'-0"

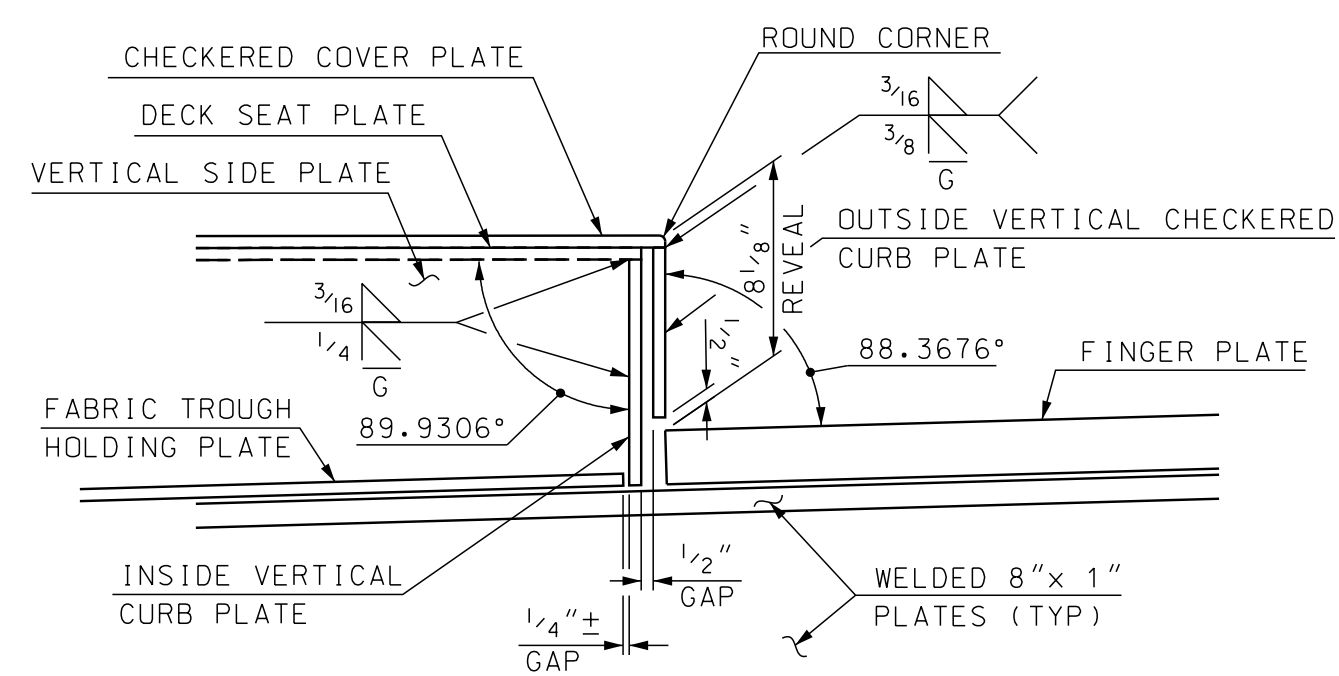


DETAIL A
SCALE: 3" = 1'-0"

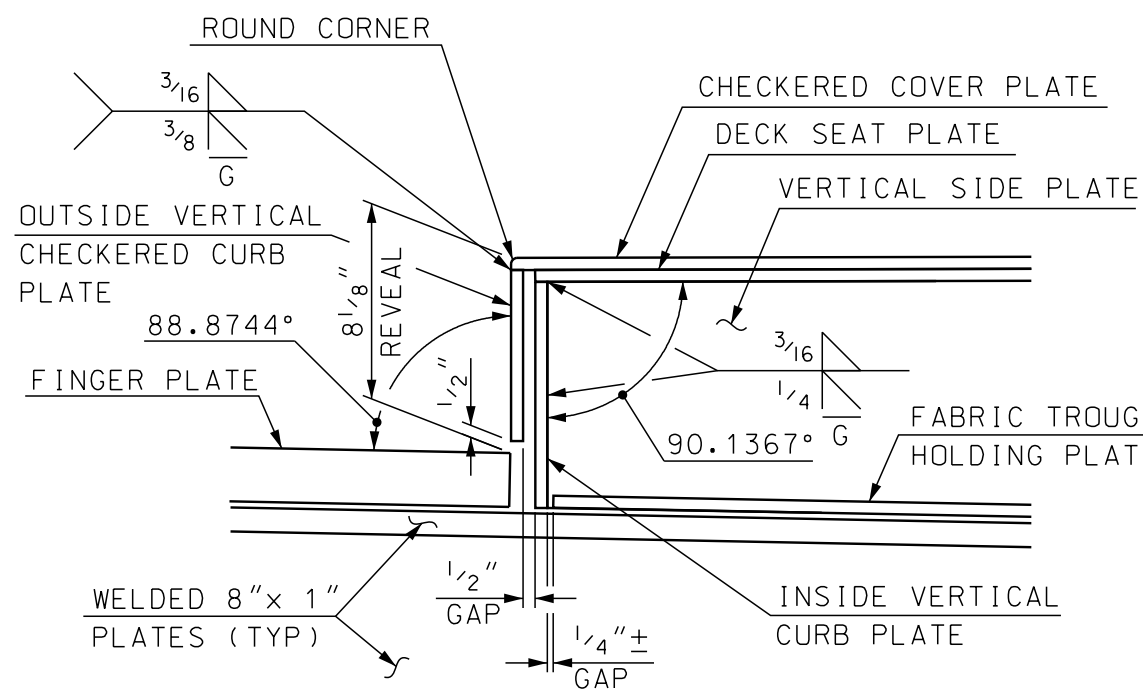


OUTSIDE VERTICAL CURB PLATE DETAIL
SCALE: 1 1/2" = 1'-0"

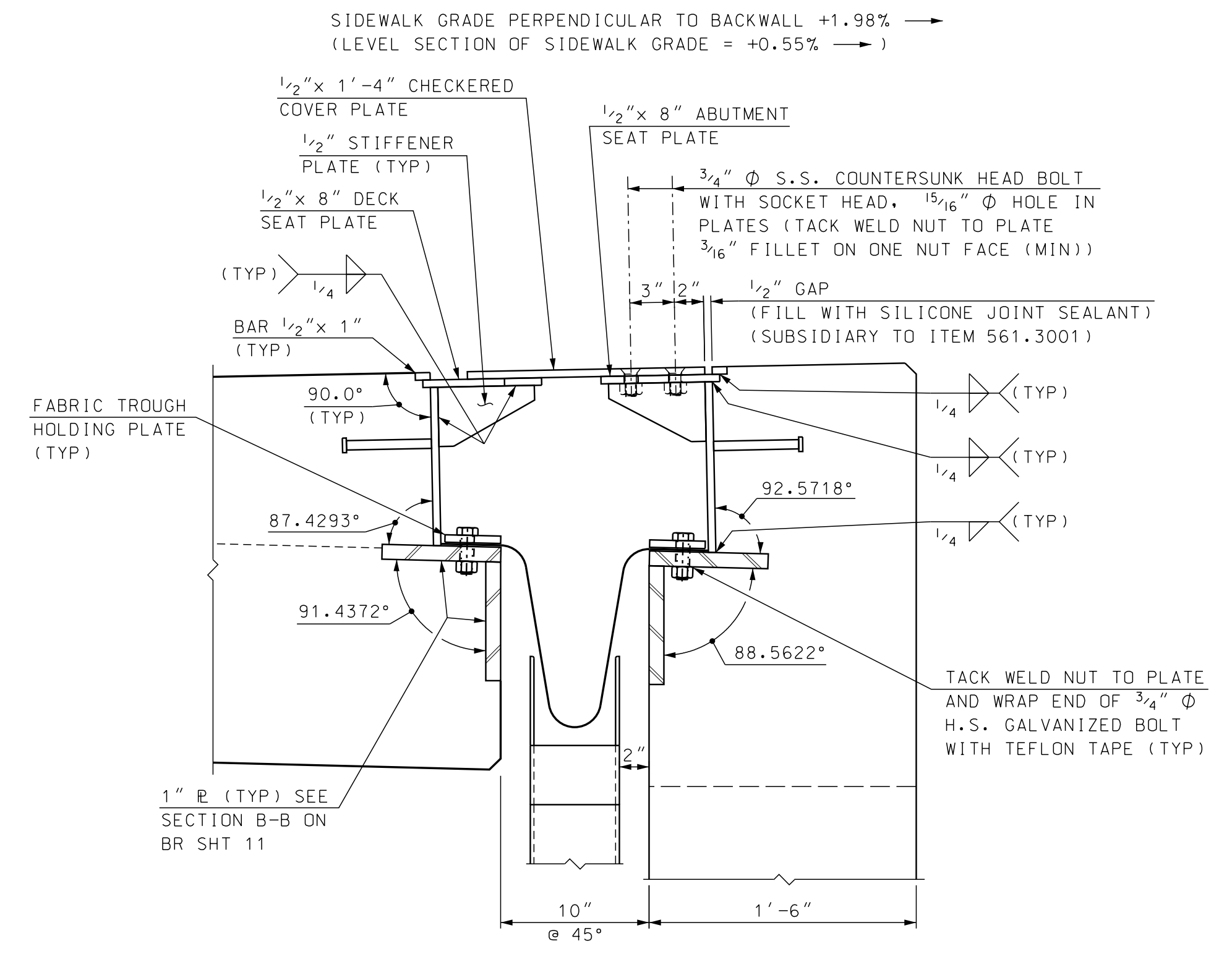
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



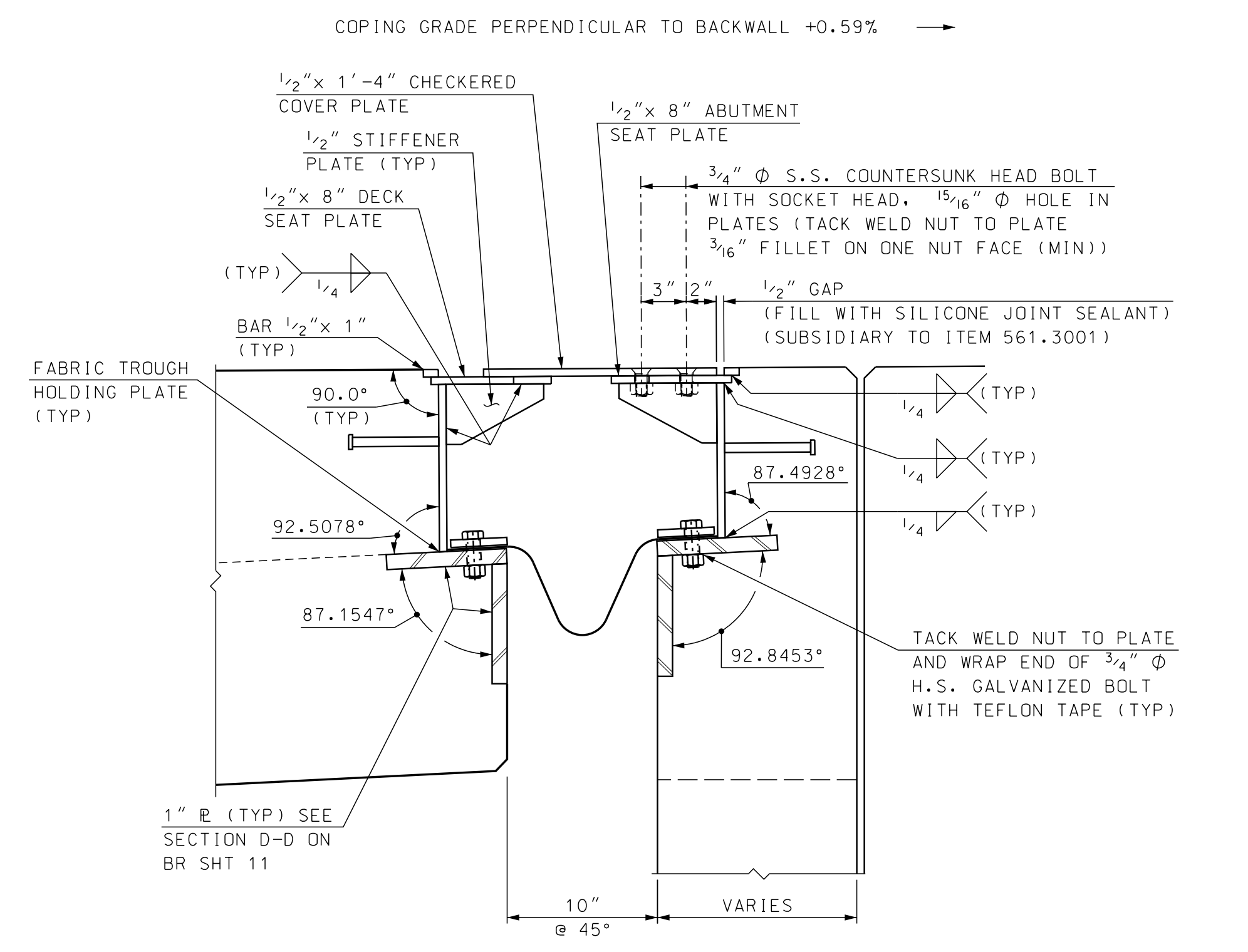
SIDEWALK CURB DETAIL
SCALE: 1 1/2" = 1'-0"



COPING CURB DETAIL
SCALE: 1 1/2" = 1'-0"



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



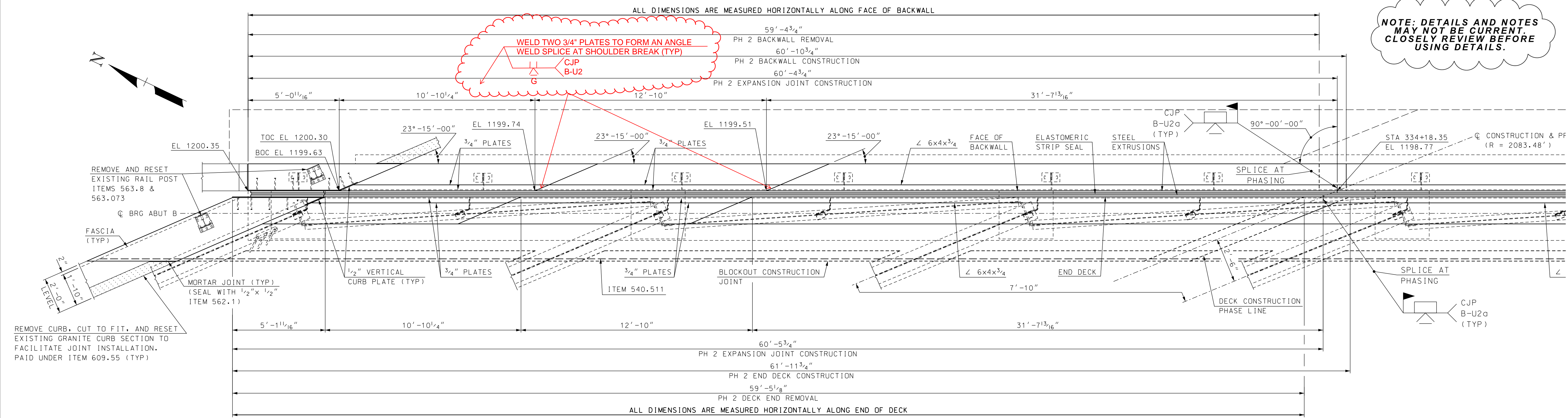
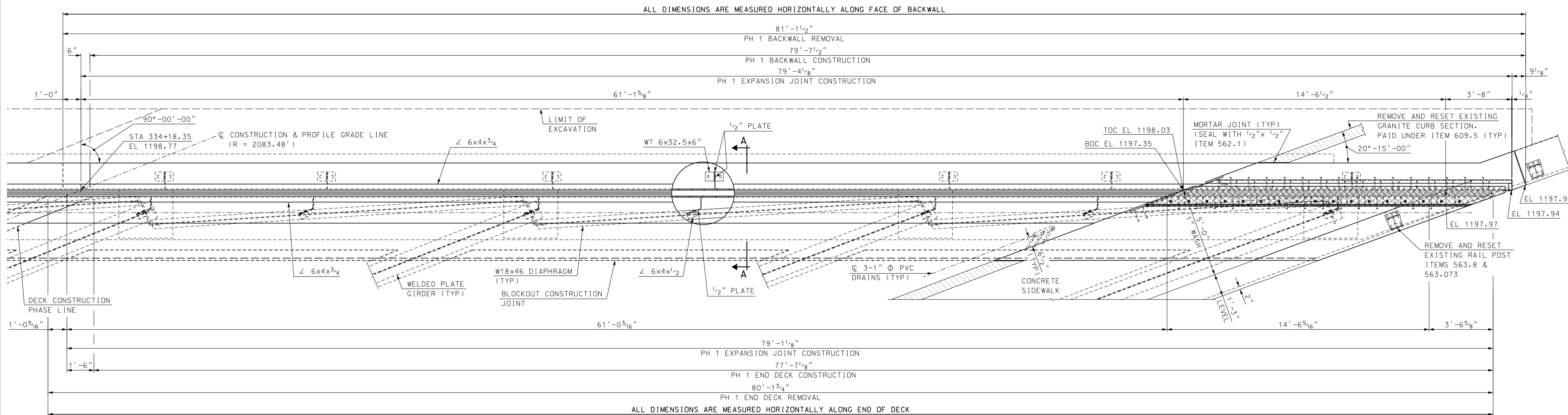
SECTION F-F
SCALE: 1 1/2" = 1'-0"

FOR LOCATIONS OF SECTIONS E-E AND F-F SEE BRIDGE SHEET 12.

SAMPLE PLAN
DATE: 9-2020

STATE OF NEW HAMPSHIRE												
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN												
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501							
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER											
ABUT A FINGER EXP JT BR NO 125/177 (4 OF 5)										BRIDGE SHEET	13 OF 34	
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	ABH	7/20						
		DESIGNED	JEH	3/20	CHECKED	ABH	7/20					
		DRAWN	GMC/SMG	3/20	CHECKED	ABH	7/20					
		QUANTITIES	JEH	8/20	CHECKED	PML	8/20					
ISSUE DATE		FEDERAL PROJECT NO.				SHEET NO.	17	TOTAL SHEETS				
REV. DATE								38				

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	42501 ABUT-AFingerJt	AS NOTED



NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

ELEVATIONS SHOWN ARE FROM EXISTING PLANS AND SHOULD BE FIELD VERIFIED.

PLAN VIEW
SCALE: 3/8" = 1'-0"

NOTE:
ALL ELEVATIONS AT THE FACE OF BACKWALL ARE 3/8" HIGHER THAN EXISTING 1982 PLANS (1/2" RAISE FROM MAINTENANCE WORK, 1/8" REDUCTION AT EXPANSION JOINT).

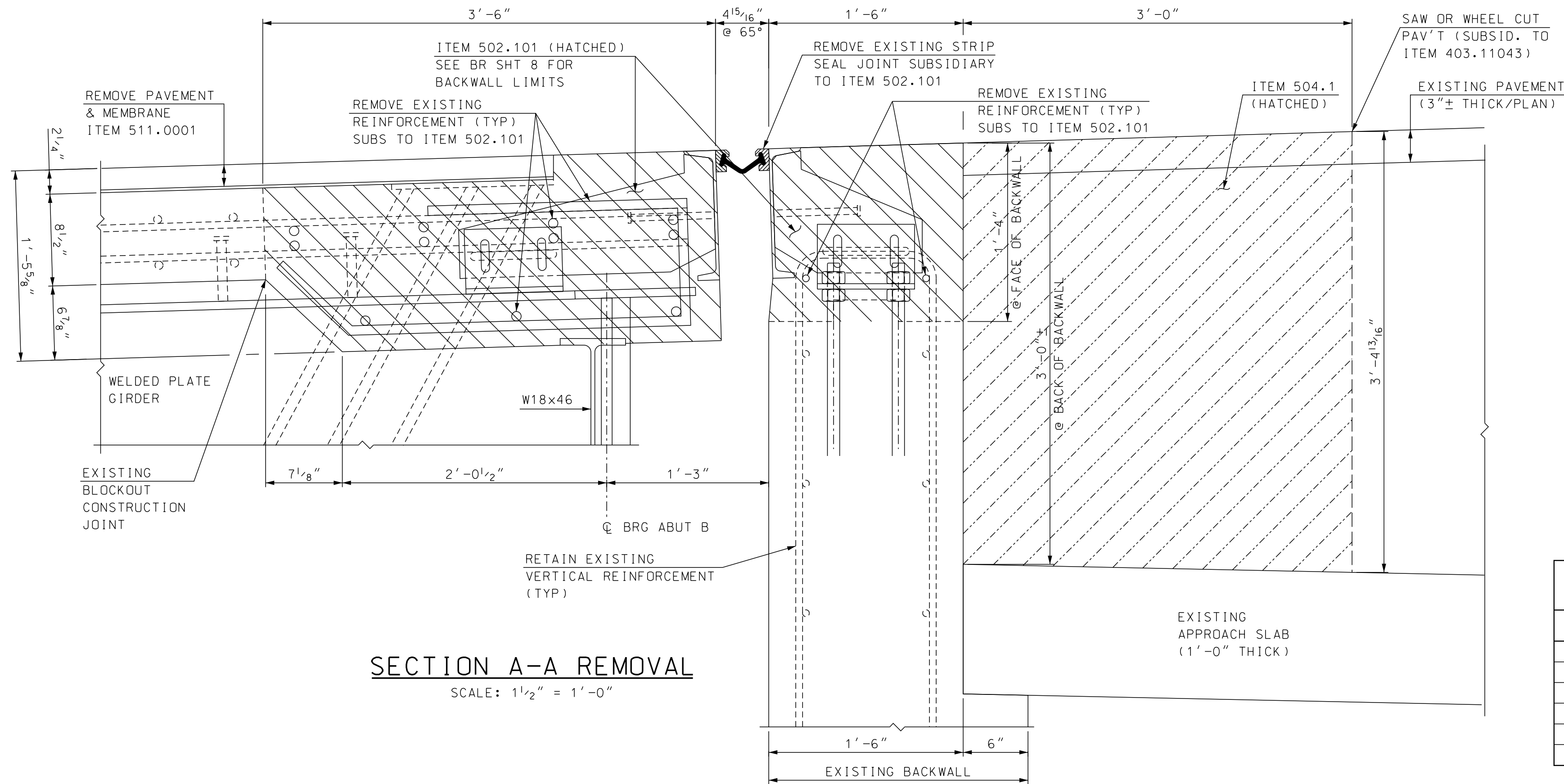
FOR SECTION A-A SEE BRIDGE SHEET 16.

REVISIONS 12/30/20

SAMPLE PLAN
DATE: 9-2020

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN BETHLEHEM		BRIDGE NO. 125/177		STATE PROJECT 42501					
LOCATION US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER									
ABUT B STRIP SEAL EXP JT BR NO 125/177(1 OF 4)								BRIDGE SHEET	
REVISIONS AFTER PROPOSAL								15 OF 34	
		DESIGNED	JEH	2/20	CHECKED	ABH	7/20	FILE NUMBER	
		DRAWN	SMG/GMC	2/20	CHECKED	ABH	7/20	136-4-1	
		QUANTITIES	JEH	8/20	CHECKED	PML	8/20	TOTAL SHEETS	
		ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.		19	
		REV. DATE	-----			19		38	

PROFILE GRADE (LOOKING UPSTATION) -1.06% →
 GRADE PERPENDICULAR TO BACKWALL +2.94% →



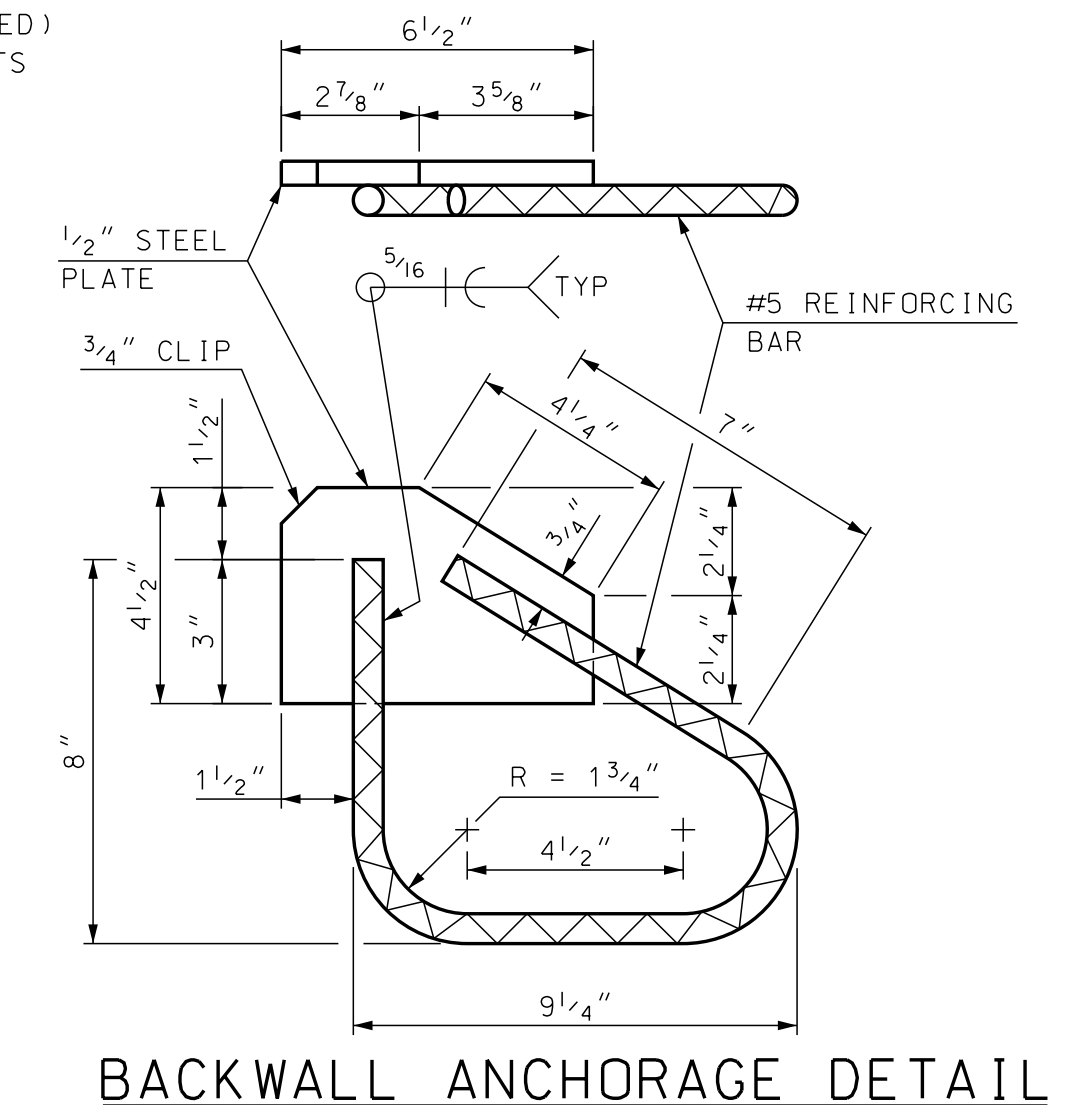
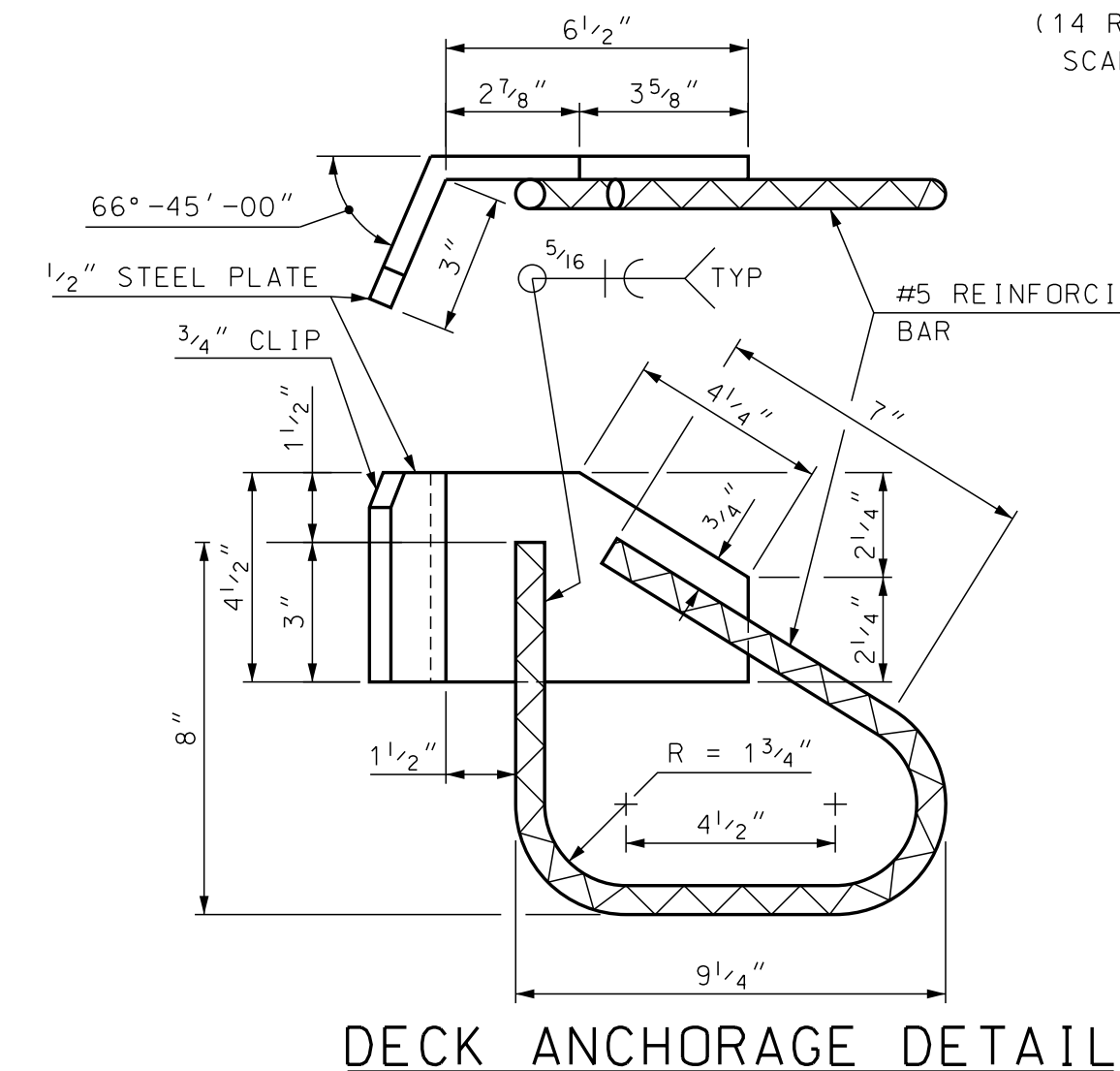
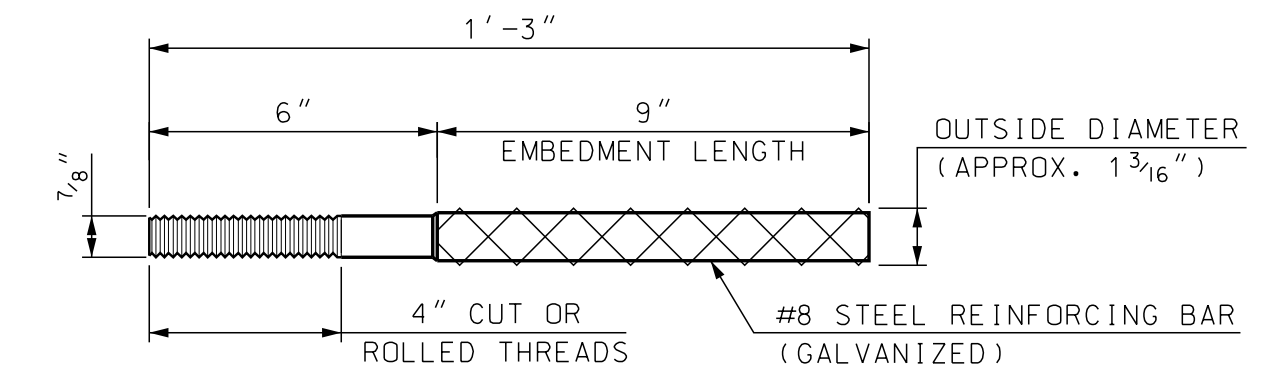
**NOTE: DETAILS AND NOTES
 MAY NOT BE CURRENT.
 CLOSELY REVIEW BEFORE
 USING DETAILS.**

TEMPERATURE ADJUSTMENT TABLE	
TEMPERATURE	"T"
20°F	1 11/16"
35°F	1 5/8"
50°F	1 9/16"
65°F	1 1/2"
80°F	1 7/16"
95°F	1 3/8"

- ### EXPANSION JOINT NOTES
- (1) ALL EXPANSION JOINT STEEL, INCLUDING ANCHORS, SHALL BE GALVANIZED. STEEL ANGLES SHALL BE ASTM A572 GRADE 50. MINOR STEEL PLATES MAY CONFORM TO ASTM A36. THE ENTIRE ASSEMBLY, INCLUDING STRIP SEAL, SHALL BE PAID FOR AS ITEM 561.1001, PREFABRICATED STRIP SEAL EXPANSION JOINT (F).
 - (2) SPLICES FOR STEEL ANGLES SHALL DEVELOP FULL STRENGTH.
 - (3) EXPANSION JOINT OPENING SHALL BE ADJUSTED TO TEMPERATURE ANTICIPATED JUST PRIOR TO POURING DECK BLOCKOUT. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE CONTRACT ADMINISTRATOR. SEE TEMPERATURE ADJUSTMENT TABLE & NOTES.
 - (4) STRIP SEAL SHALL BE FURNISHED IN ONE CONTINUOUS LENGTH. NO SPLICES WILL BE ALLOWED. SEAL SHALL BE INSTALLED IN THE FIELD BY THE CONTRACTOR. IN ACCORDANCE WITH THE MANUFACTURER OF THE SEAL, USING AN APPROVED TOOL THAT WILL NOT DAMAGE THE SEAL.
 - (5) JOINT SUPPORT PLATES AND CURB PLATES SHALL BE SHOP WELDED TO EXPANSION JOINT STEEL AND SHALL BE NORMAL TO GRADE AFTER JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE. STEEL ANGLES AND EXTRUSIONS SHALL BE ASSEMBLED WITH A CONSTANT JOINT OPENING TO ENSURE PROPER PERFORMANCE AND WATER TIGHTNESS.
 - (6) IMMEDIATELY AFTER THE JOINT HAS BEEN SECURED TO THE STRUCTURAL STEEL AND BACKWALL, REMOVE SHIPPING DEVICES AND GRIND SMOOTH ANY WELDS ON EXPOSED SURFACES. REPAIR ANY DAMAGE TO GALVANIZED SURFACES IN ACCORDANCE WITH SECTION 550.
 - (7) PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.
 - (8) THE STRIP SEAL HAS BEEN DESIGNED FOR A TOTAL FACTORED MOVEMENT OF 1.21 INCHES. DESIGN INCLUDES MOVEMENT DUE TO TEMPERATURE, SKEW, SHRINKAGE AND MINIMUM INSTALLATION WIDTH. THE CONTRACTOR SHALL USE AN SE-400 SEAL BY WATSON BOWMAN OR A2R-400 BY D.S. BROWN.
 - (9) ELEVATIONS SHOWN AT TOP OF ANGLES ARE 1/8" LOWER THAN PROPOSED FINISHED ROADWAY GRADE.
 - (10) NO "LOW PROFILE" STEEL EXTRUSIONS SHALL BE ALLOWED. SEE OPL FOR APPROVED PRODUCTS.
 - (11) PRIOR TO INSTALLING THE SEAL, ALL TEMPORARY FORM WORK SHALL BE REMOVED. STEEL ANGLES AND EXTRUSIONS SHALL BE MAINTAINED FREE FROM DIRT, WATER, AND ANY OTHER LOOSE DEBRIS, WITH THE USE OF COMPRESSED AIR, TO ENSURE PROPER FIT OF THE SEAL. CARE SHALL BE TAKEN NOT TO DAMAGE GALVANIZED SURFACES.

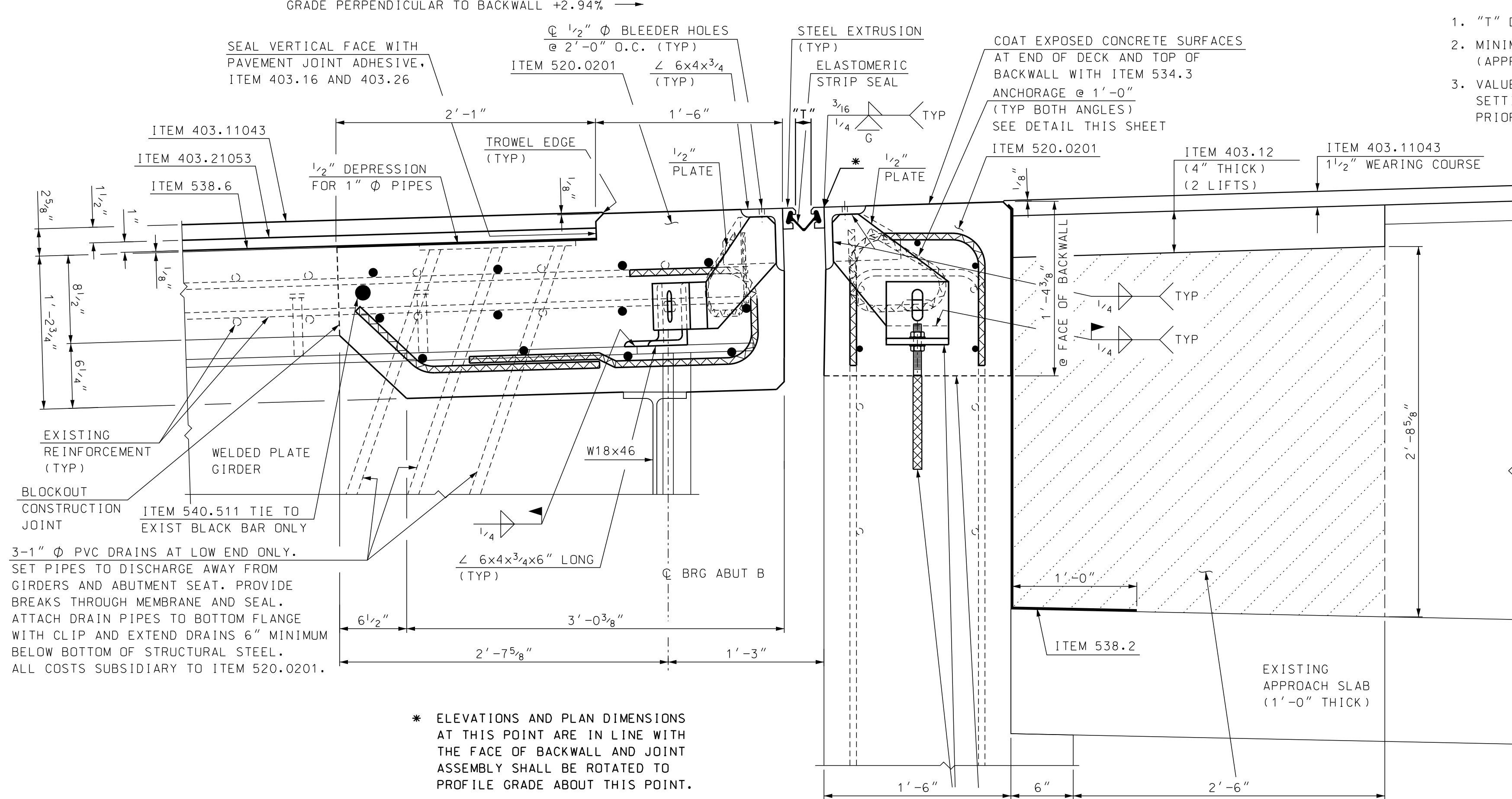
TEMPERATURE ADJUSTMENT NOTES

1. "T" DIMENSIONS ARE PERPENDICULAR TO FACE OF BACKWALL.
2. MINIMUM "T" WIDTH FOR SEAL INSTALLATION = 1 1/2" (APPROXIMATELY 65°F OR LESS).
3. VALUES IN THE TEMPERATURE ADJUSTMENT TABLE ARE FOR SETTING THE EXPANSION JOINT ASSEMBLY IMMEDIATELY PRIOR TO POURING THE DECK BLOCKOUT.



FOR LOCATION OF SECTION A-A SEE BRIDGE SHEET 15.

PROFILE GRADE (LOOKING UPSTATION) -1.06% →
 GRADE PERPENDICULAR TO BACKWALL +2.94% →



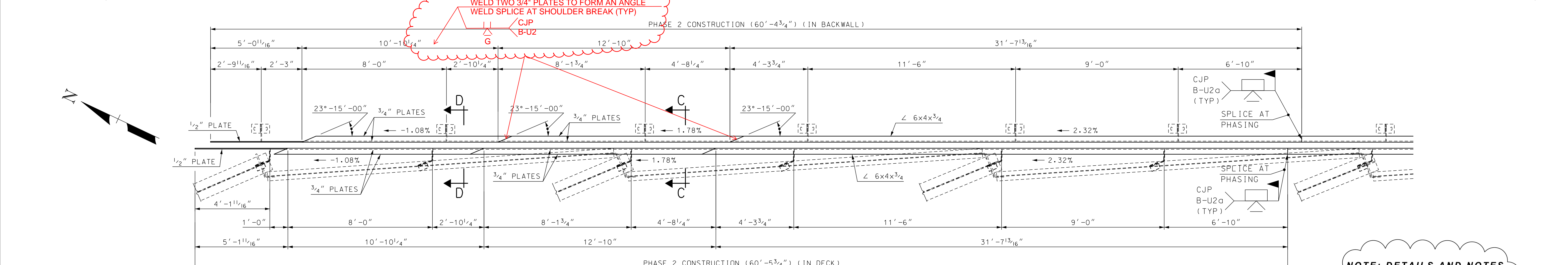
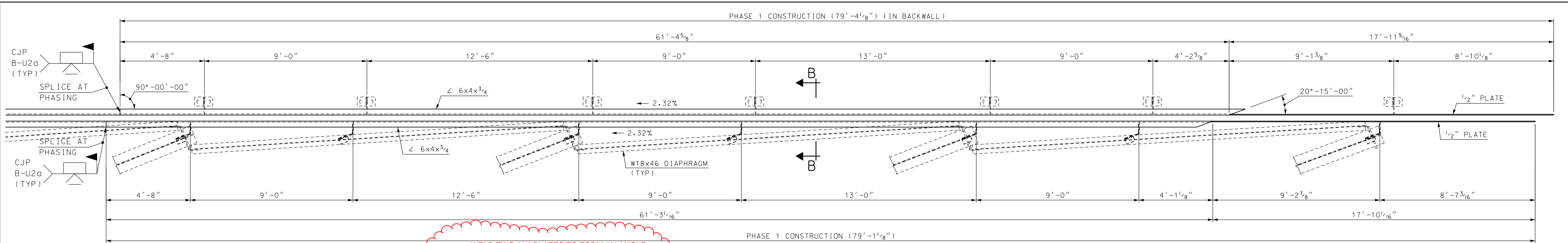
* ELEVATIONS AND PLAN DIMENSIONS AT THIS POINT ARE IN LINE WITH THE FACE OF BACKWALL AND JOINT ASSEMBLY SHALL BE ROTATED TO PROFILE GRADE ABOUT THIS POINT.

CONSTRUCTION JOINT
 ITEM 304.301, CONSTRUCTED IN 8" MAX LAYERS
 WT 6x32.5x6" LONG WITH 1"x3" SLOTTED HOLE FOR 3/4" Ø ADJUSTING BOLT. TWO 1 1/8"x2" SLOTTED HOLES FOR TWO 1" Ø ANCHOR BOLTS (4" MIN THREAD) (DRILL AND GROUT) (9" MIN EMBEDMENT) (COST INCLUDED IN ITEM 561.1001)

SAMPLE PLAN
 DATE: 9-2020

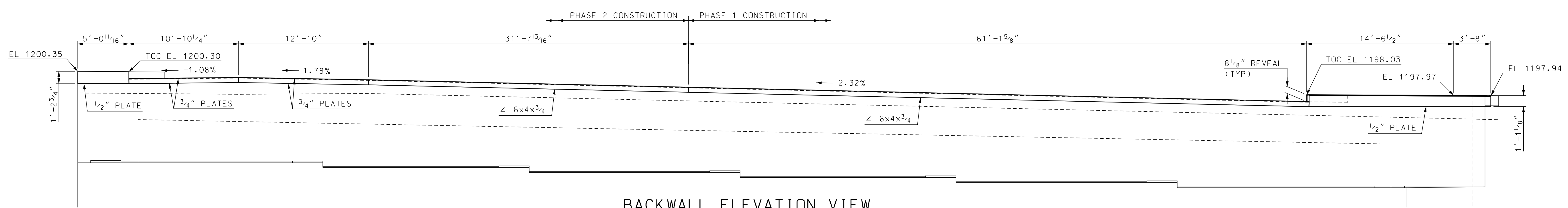
STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER				
ABUT B STRIP SEAL EXP JT BR NO 125/177 (2 OF 4)					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					16 OF 34
DESIGNED	JEH	2/20	CHECKED	ABH	7/20
DRAWN	SMG/GMC	2/20	CHECKED	ABH	7/20
QUANTITIES	JEH	8/20	CHECKED	PML	8/20
ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.	TOTAL SHEETS
REV. DATE	-----			20	38

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	125-177 exp jt B	AS NOTED

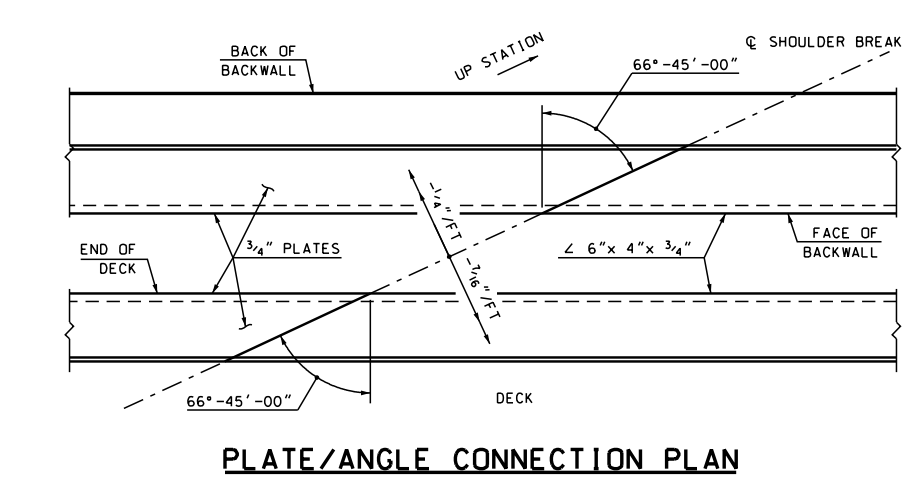
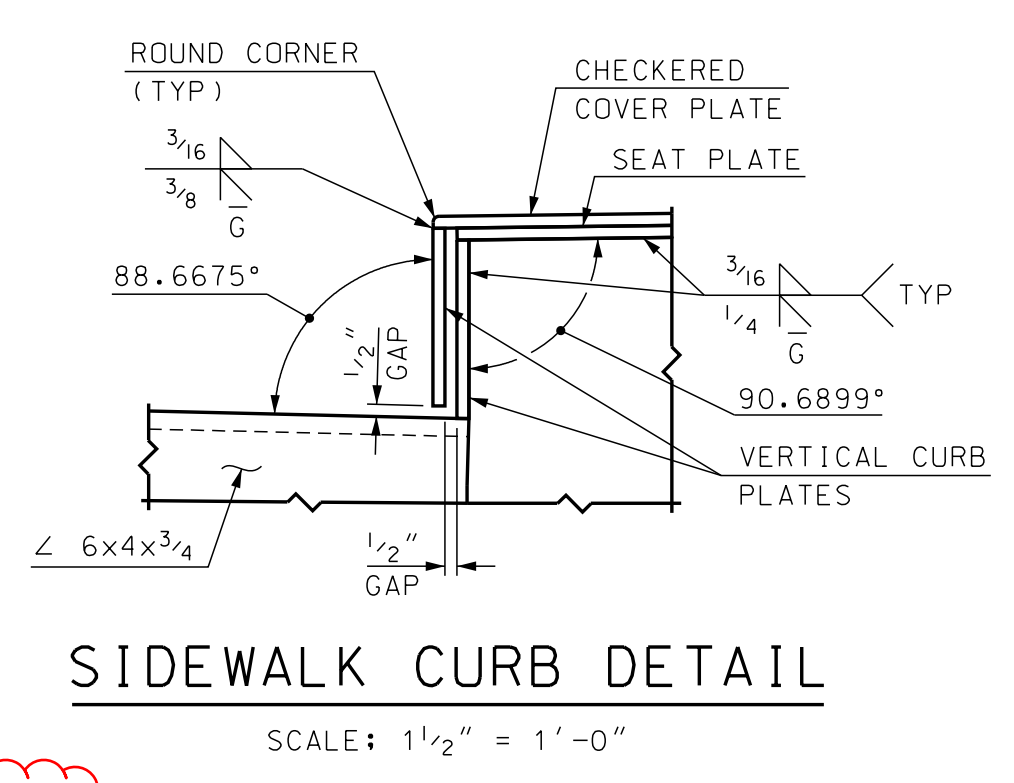
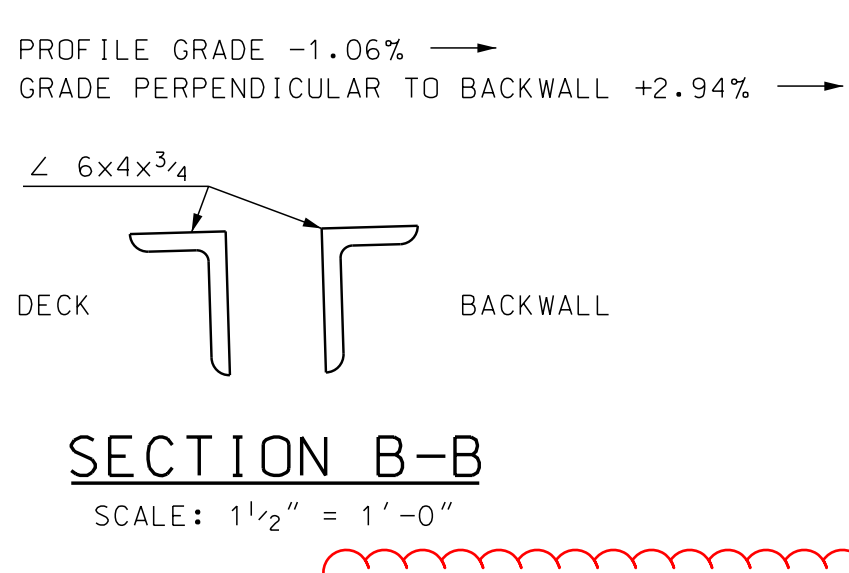
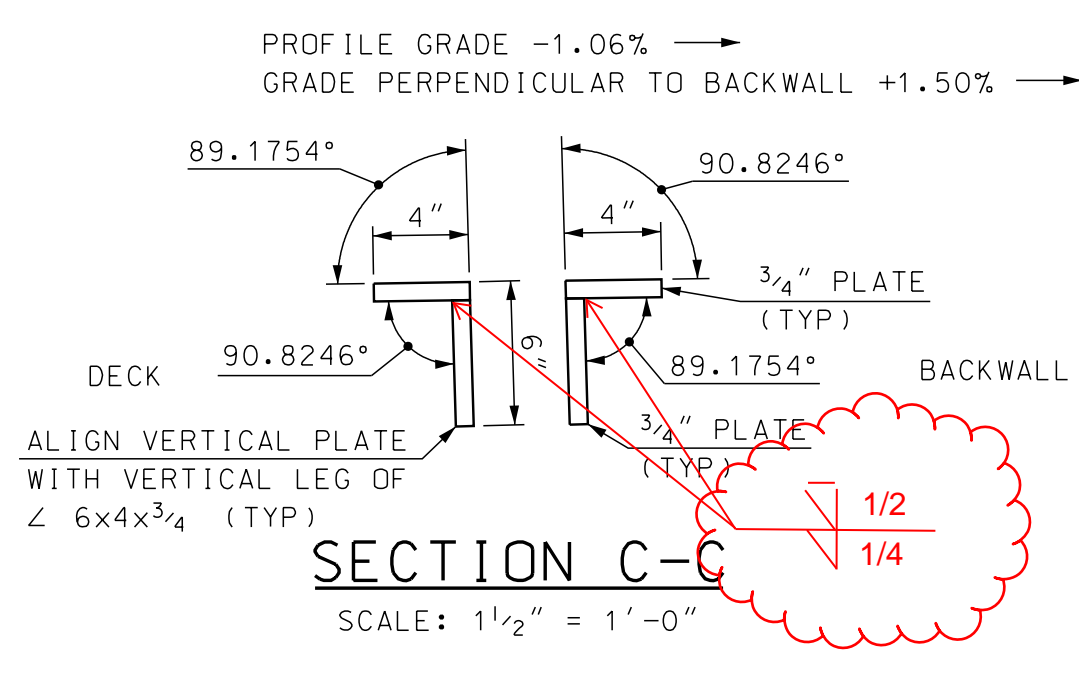
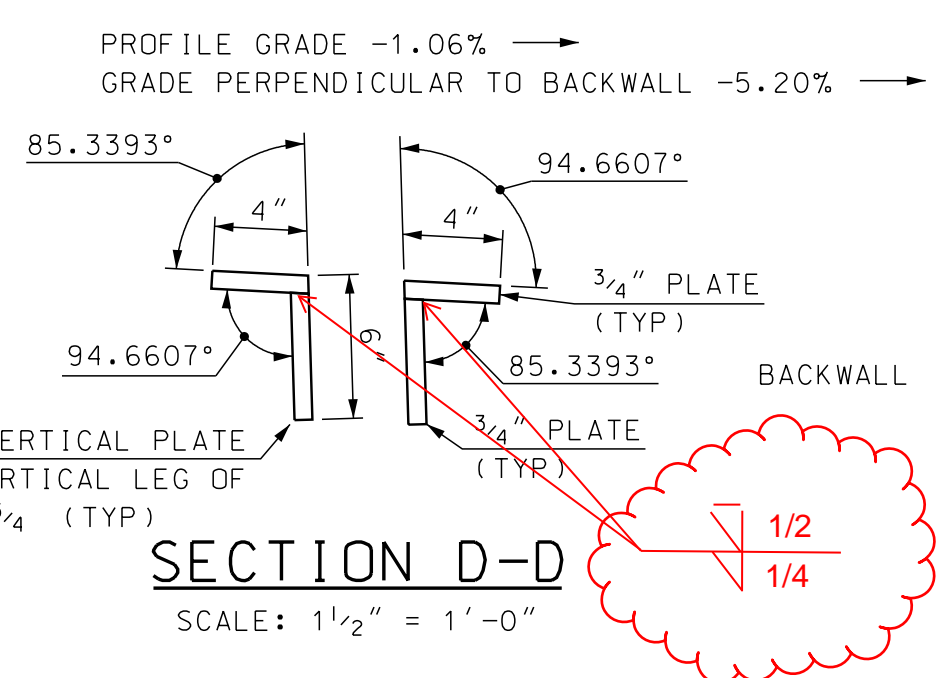


SUPPORT AND PLATE LAYOUT
SCALE: 3/8" = 1'-0"

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



BACKWALL ELEVATION VIEW
SCALE: 3/16" = 1'-0"

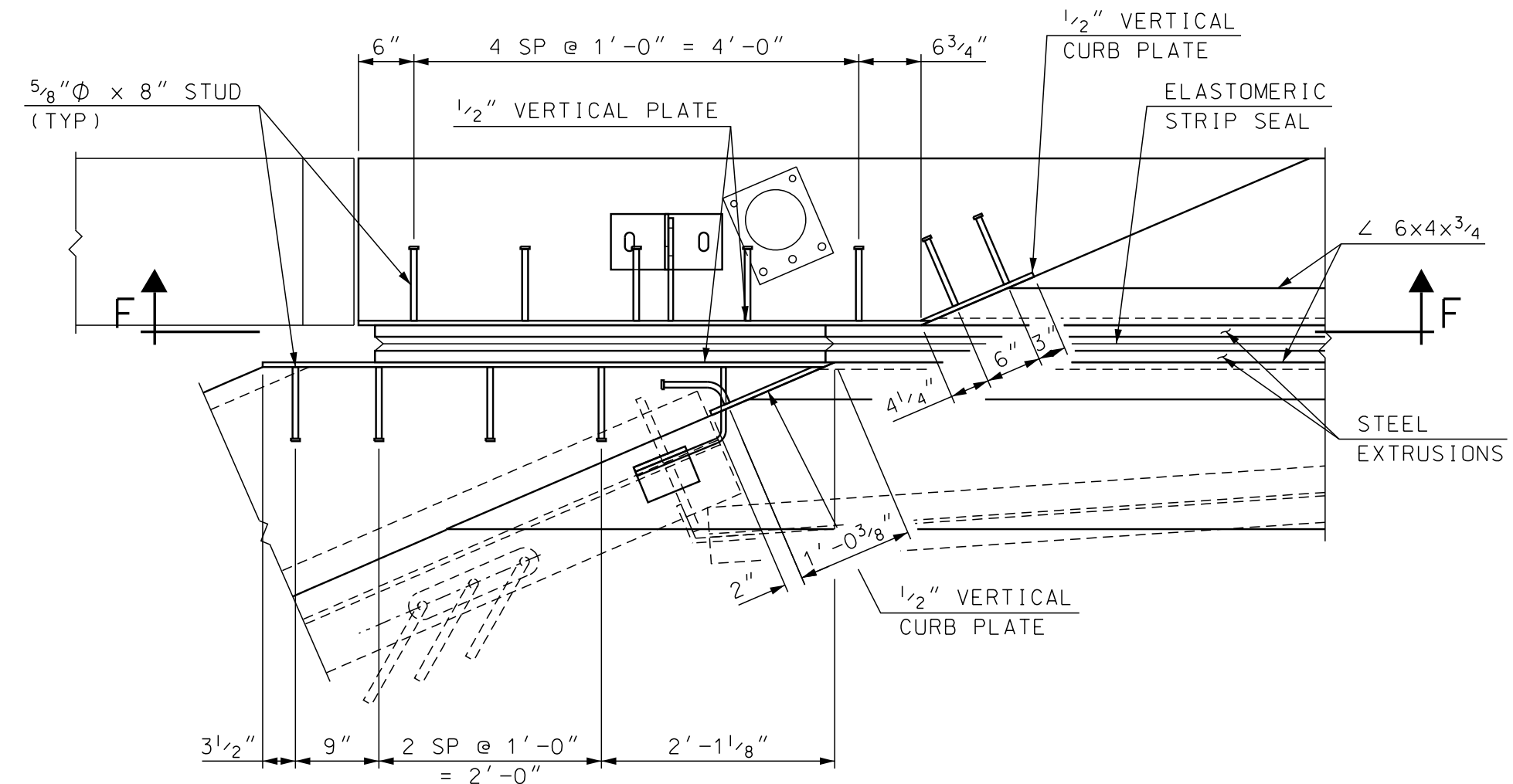


SAMPLE PLAN
DATE: 9-2020

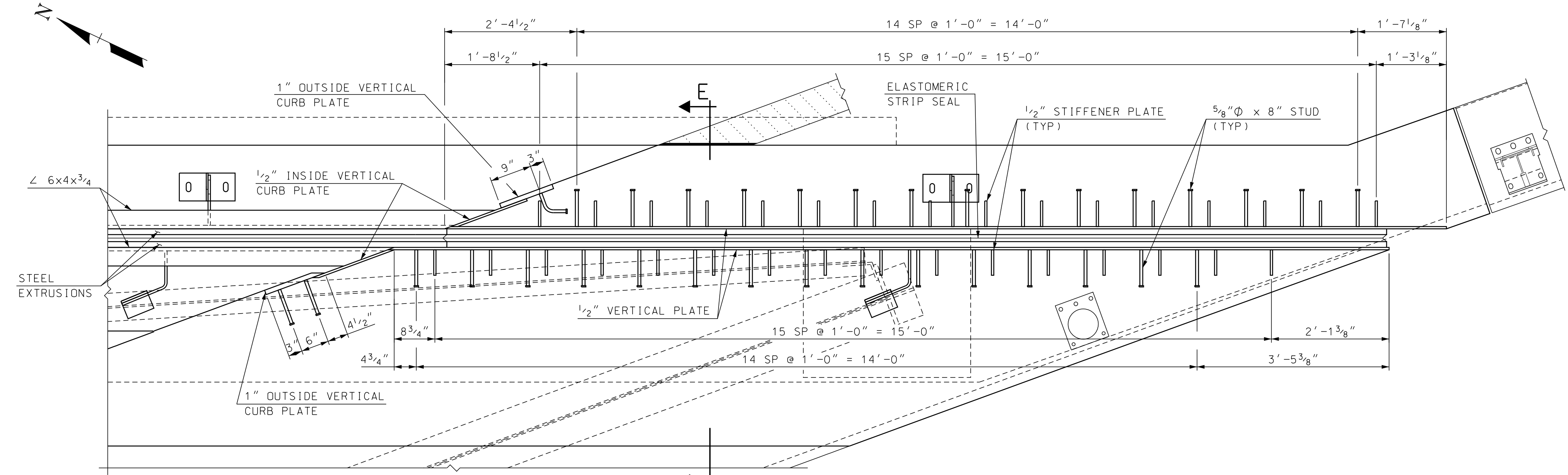
REVISIONS 12/30/20

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501				
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER								
ABUT B STRIP SEAL EXP JT BR NO 125/177 (3 OF 4)					BRIDGE SHEET	17 OF 34			
DESIGNED		JEH	2/20	CHECKED	ABH	7/20	FILE NUMBER		
DRAWN		SMG/GMC	2/20	CHECKED	ABH	7/20	136-4-1		
QUANTITIES		JEH	8/20	CHECKED	PML	8/20	TOTAL SHEETS		
ISSUE DATE	FEDERAL PROJECT NO.				SHEET NO.	21			
REV. DATE					21		38		

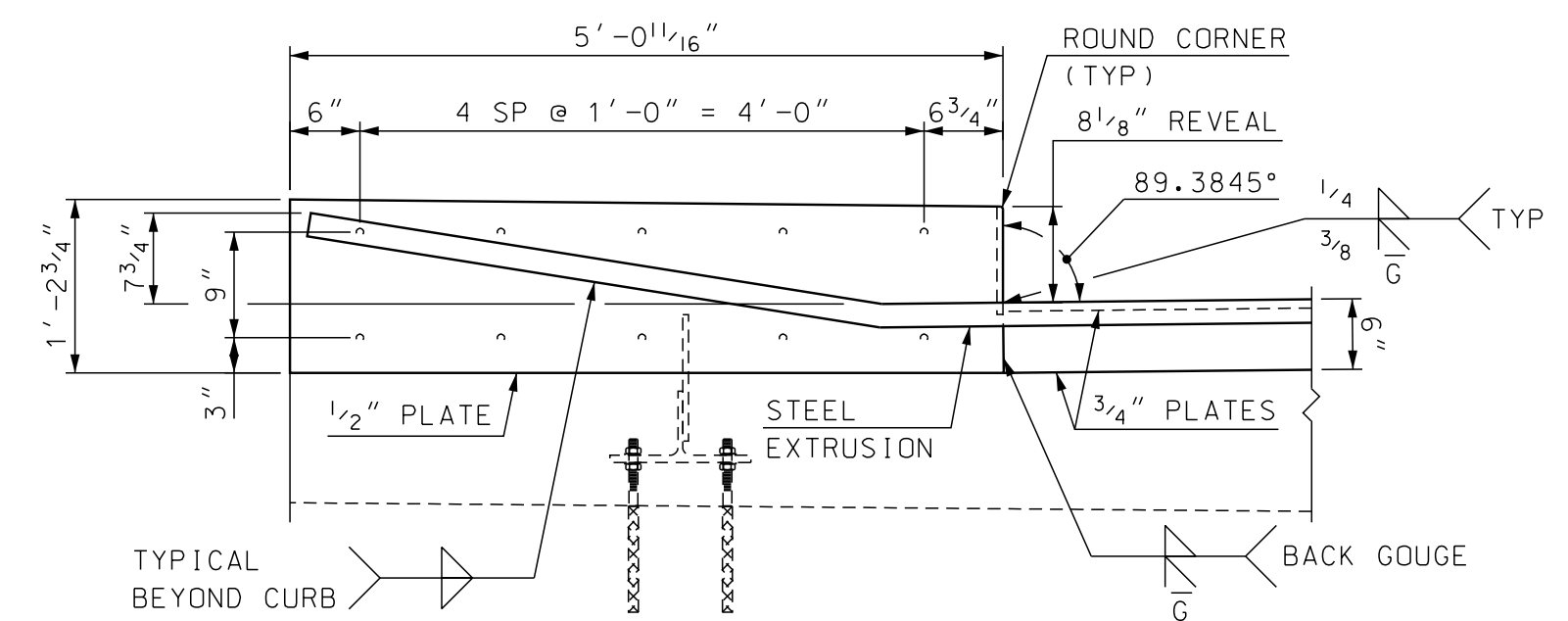
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	125-177 exp jt B	AS NOTED



STUD LAYOUT COPING
SCALE: 3/4" = 1'-0"

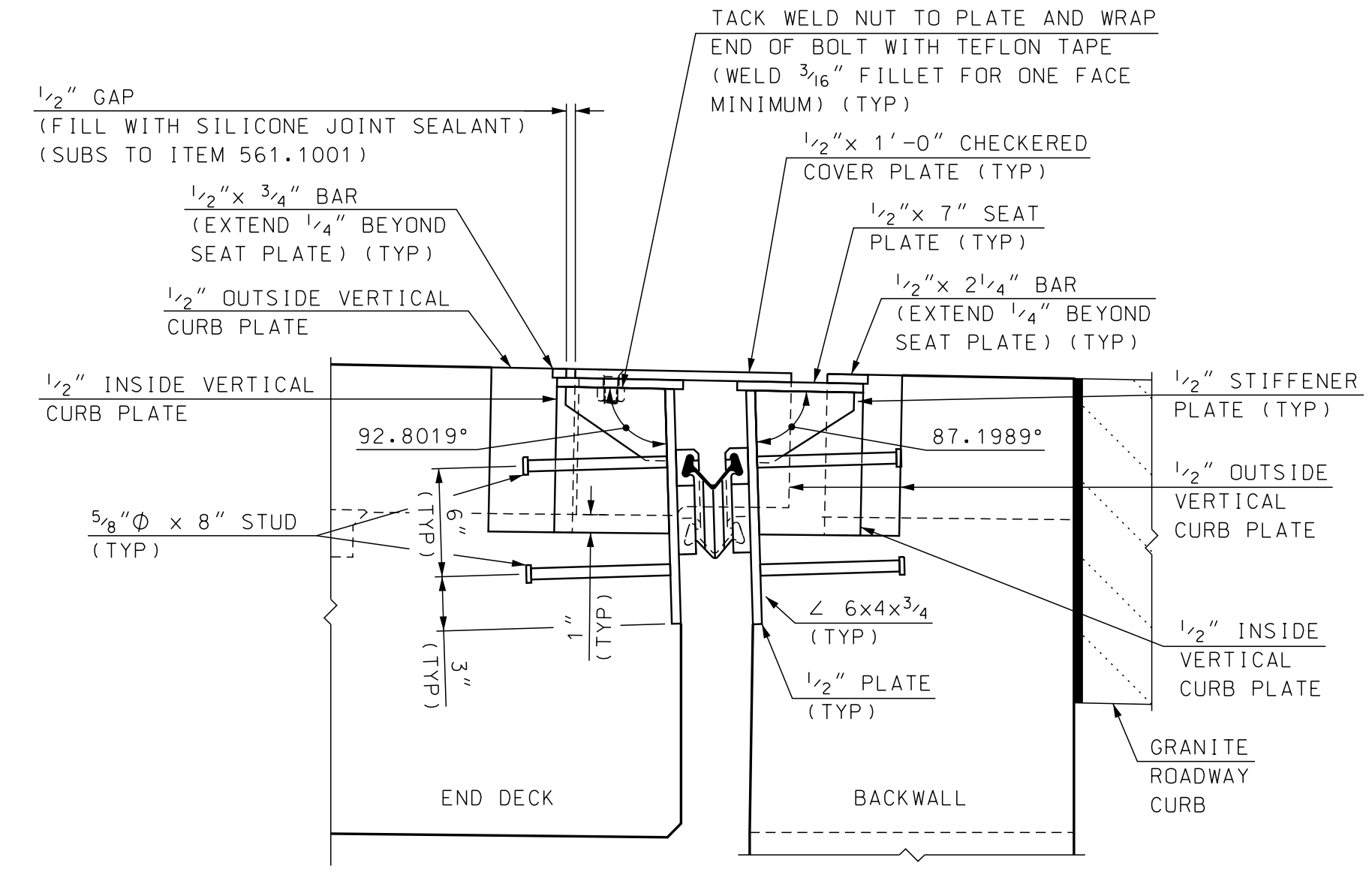


LOWER ASSEMBLY
SCALE: 3/4" = 1'-0"

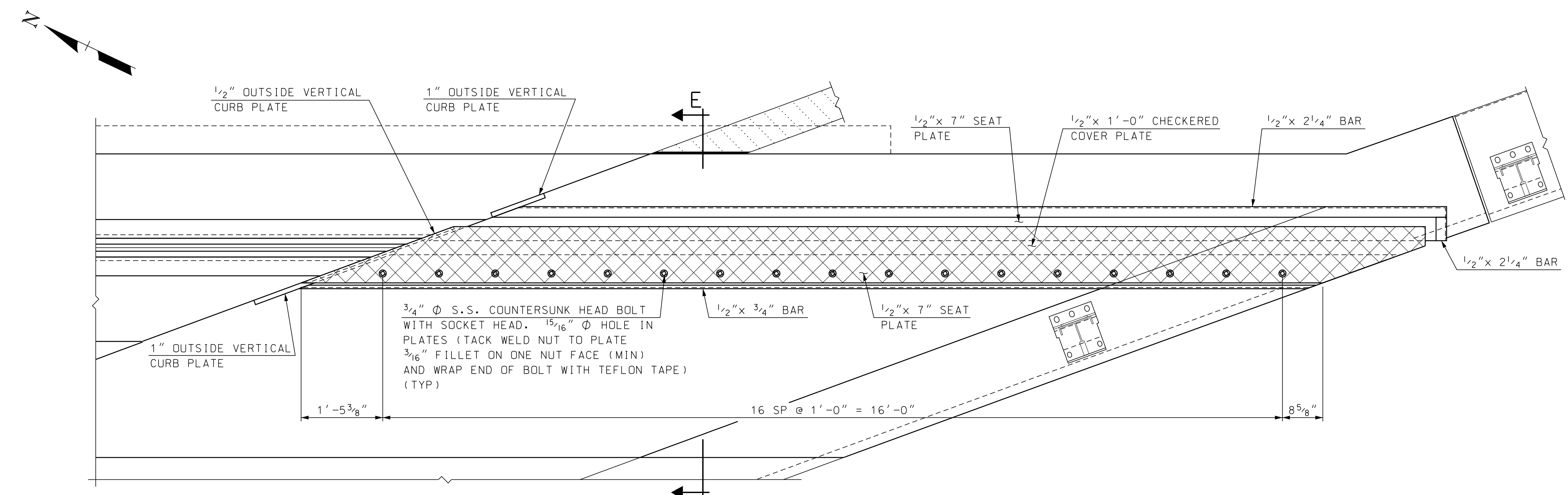


SECTION F-F
SCALE: 3/4" = 1'-0"

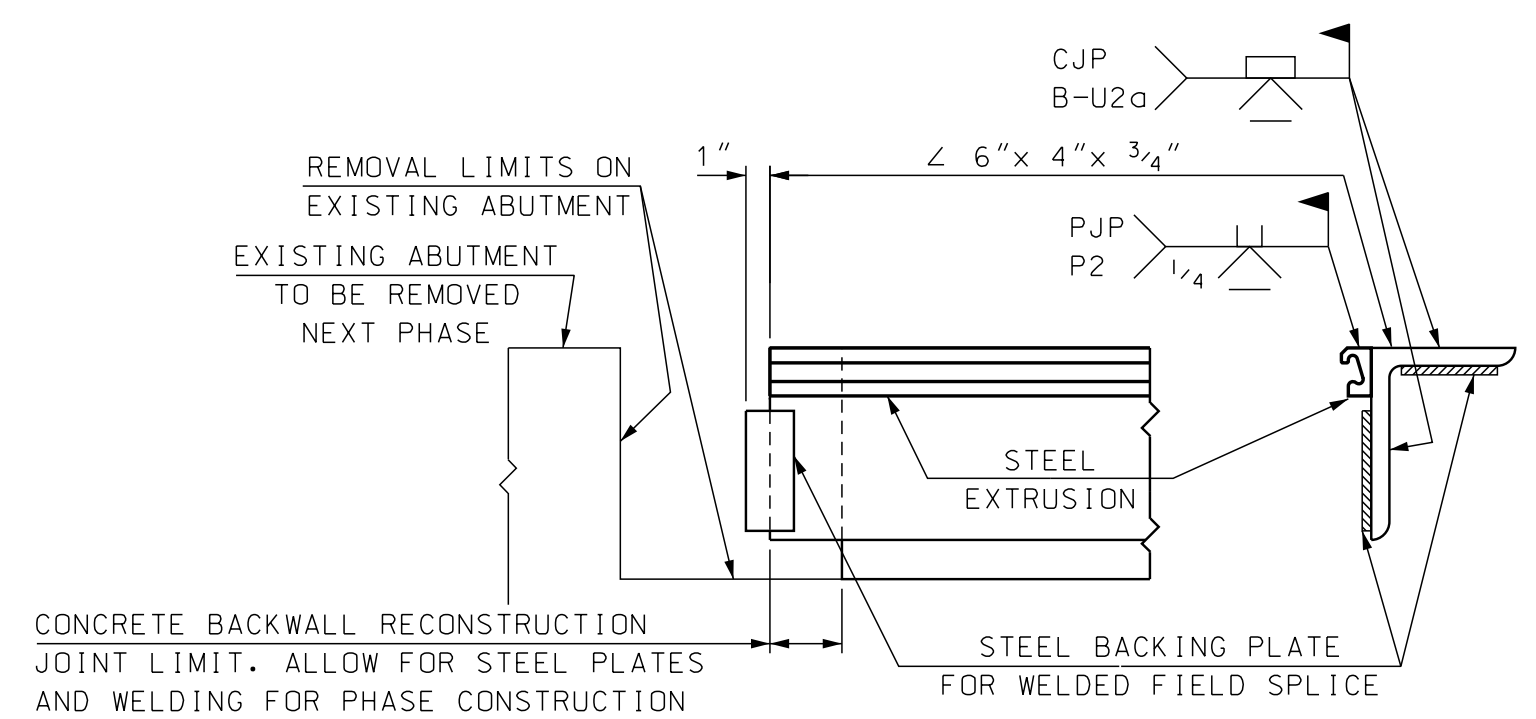
PROFILE GRADE -1.06% →
SIDEWALK GRADE (SHOWN) PERPENDICULAR TO BACKWALL -1.95% →
LEVEL AREA GRADE PERPENDICULAR TO BACKWALL -0.40% →



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



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



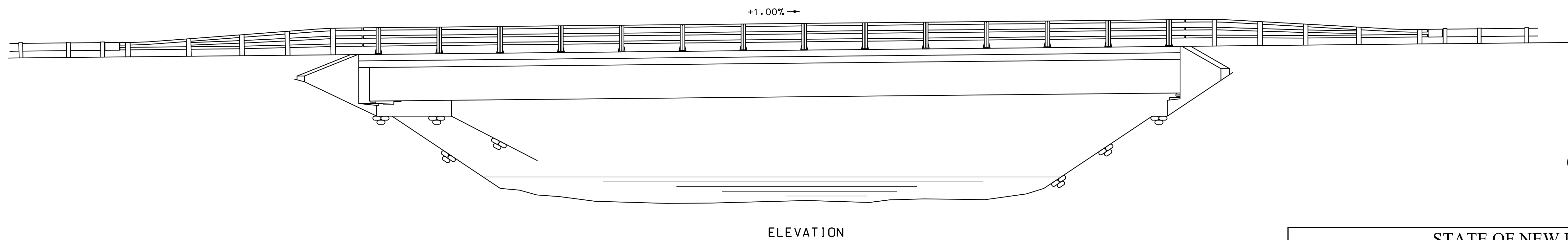
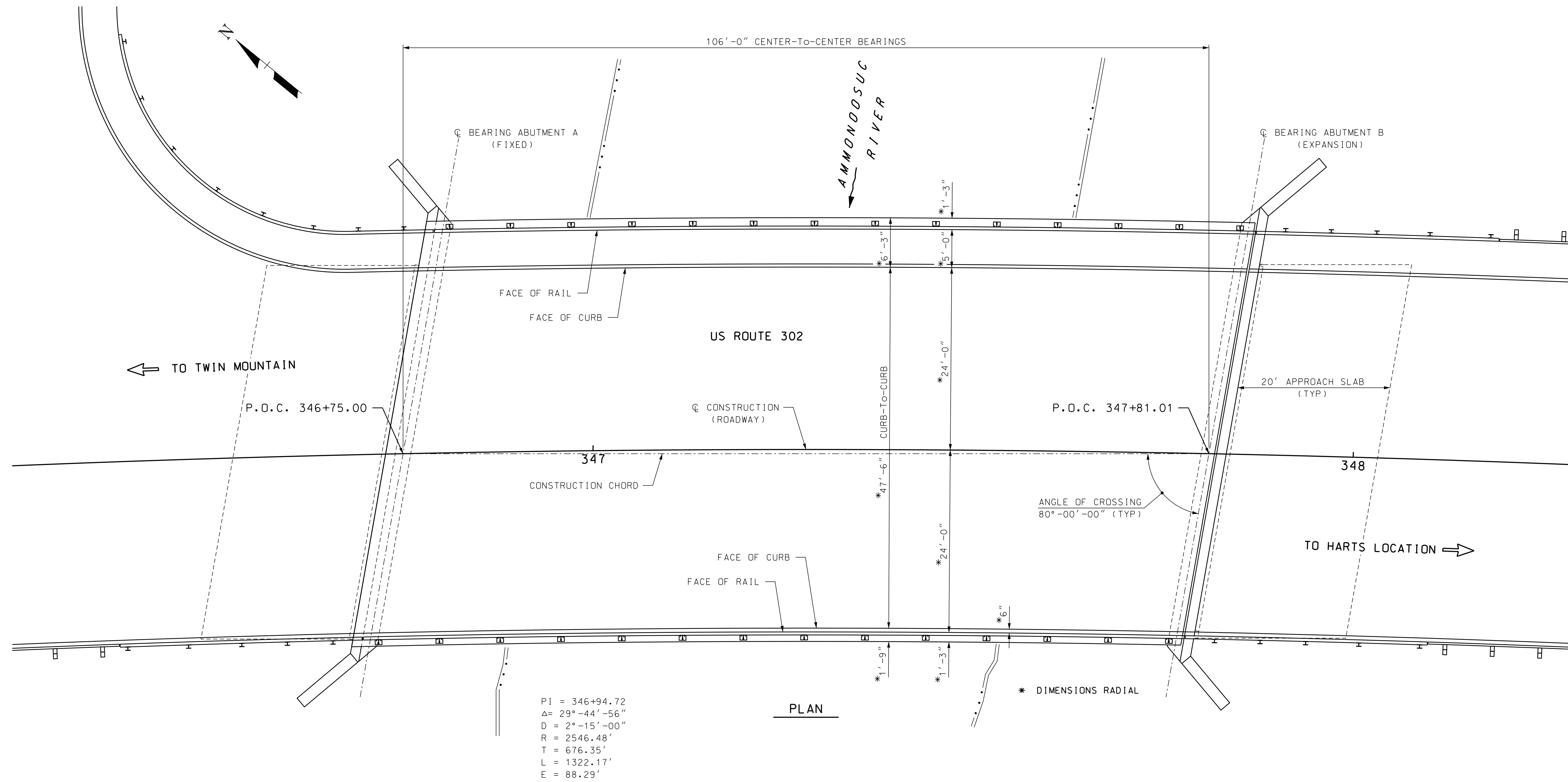
**PHASE CONSTRUCTION
FIELD WELD SPLICE DETAILS**
NOT TO SCALE

SAMPLE PLAN
DATE: 9-2020

**NOTE: DETAILS AND NOTES
MAY NOT BE CURRENT.
CLOSELY REVIEW BEFORE
USING DETAILS.**

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM	BRIDGE NO.	125/177	STATE PROJECT	42501				
LOCATION	US ROUTE 302 & NH ROUTE 10 over AMMONOOSUC RIVER								
ABUT B STRIP SEAL EXP JT BR NO 125/177 (4 OF 4)								BRIDGE SHEET	18 OF 34
DESIGNED	JEH	2/20	CHECKED	ABH	7/20	FILE NUMBER			
DRAWN	SMG/GMC	2/20	CHECKED	ABH	7/20	136-4-1			
QUANTITIES	JEH	8/20	CHECKED	PML	8/20				
ISSUE DATE			FEDERAL PROJECT NO.			SHEET NO.	TOTAL SHEETS		
REV. DATE					22	38			

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/BETHLEHEM	125-177 exp jt B	AS NOTED

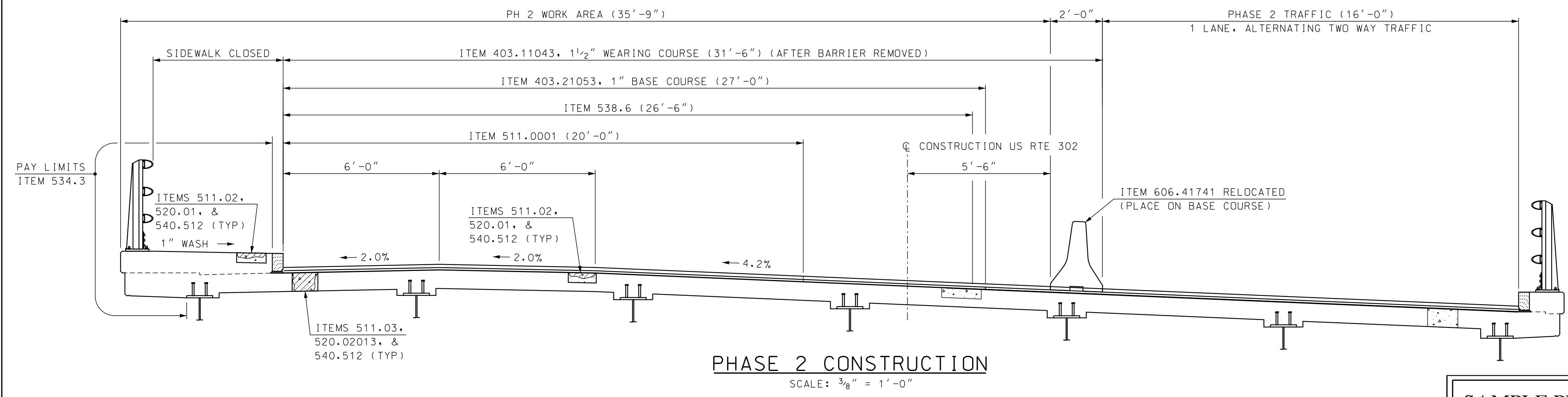
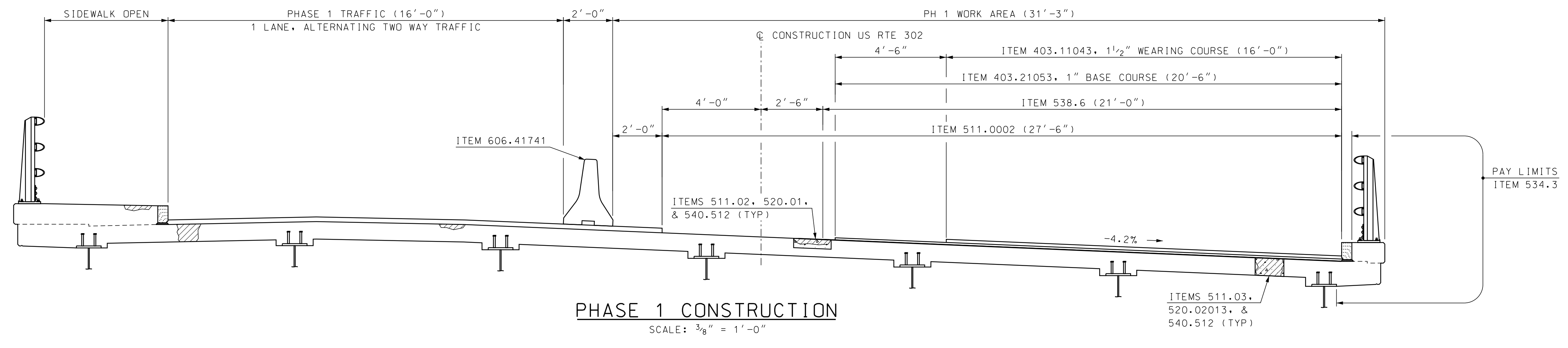
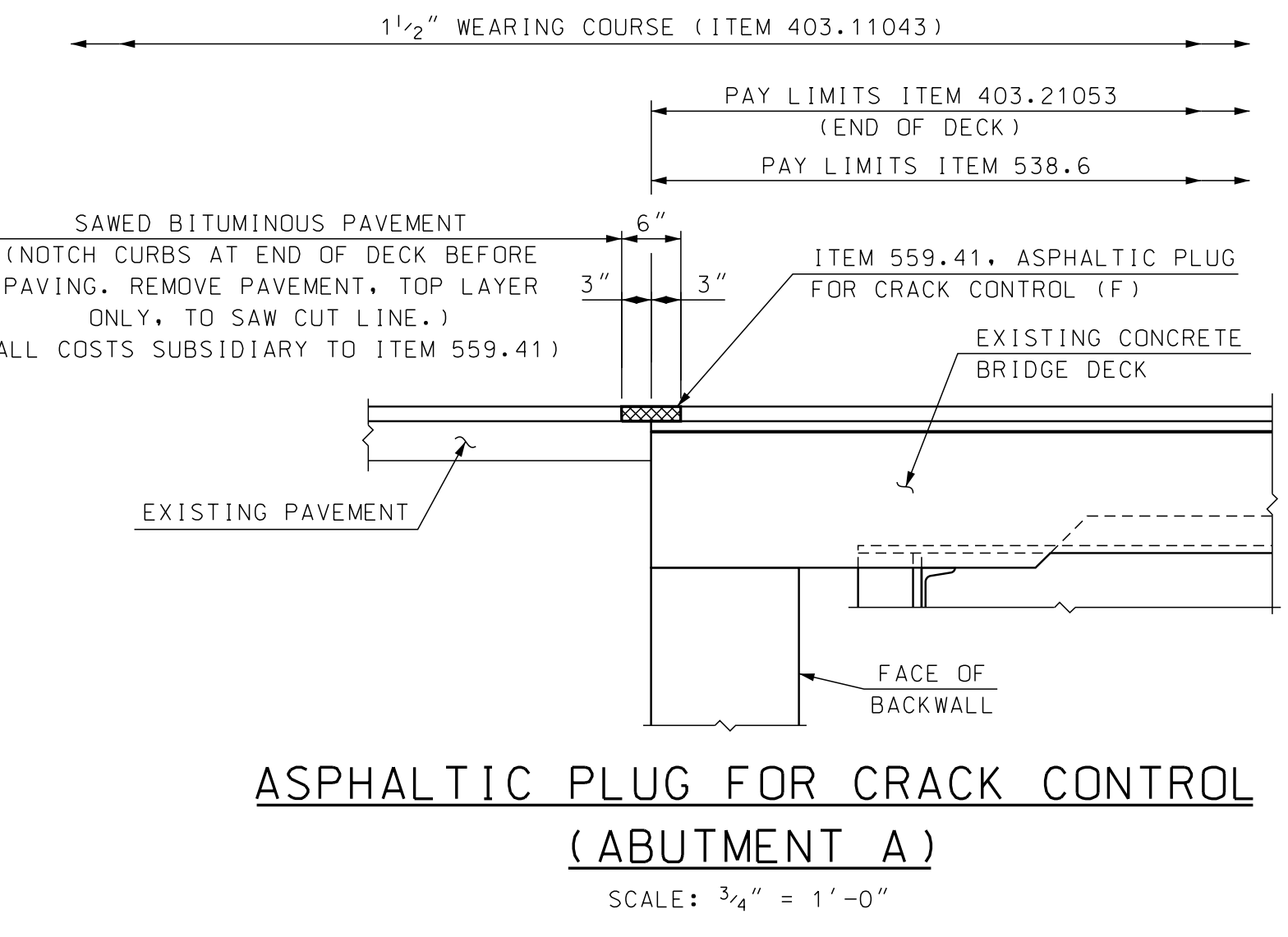
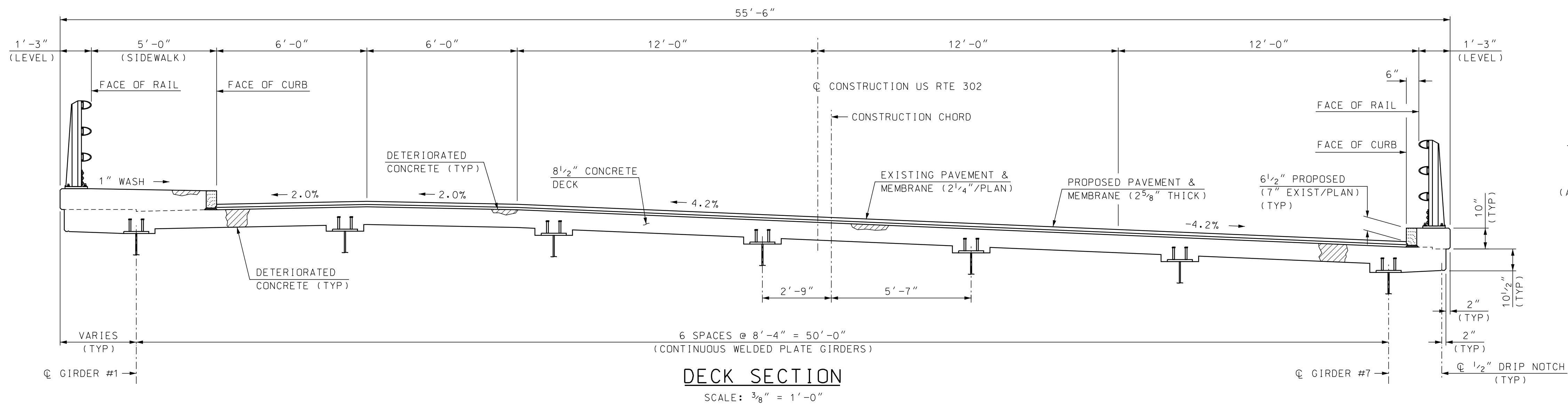


**NOTE: DETAILS AND NOTES
 MAY NOT BE CURRENT.
 CLOSELY REVIEW BEFORE
 USING DETAILS.**

SAMPLE PLAN
 DATE: 9-2020

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/CARROLL	42501_GENPLN-CARR	1/8" = 1'-0"

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501
LOCATION U.S. ROUTE 302 over AMMONOOSUC RIVER					
GENERAL PLAN AND ELEVATION BR NO 173/141					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					20 OF 34
DESIGNED	NHDOT	BY	DATE	CHECKED	ABH 8/20
DRAWN	PJP	3/19		CHECKED	ABH 8/20
QUANTITIES	JEH	8/20		CHECKED	PML 8/20
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
REV. DATE		-----		24	38



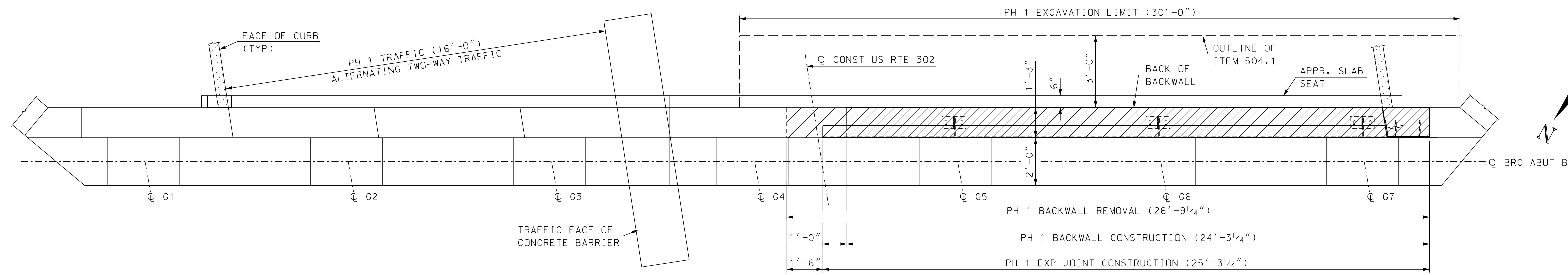
NOTE
1. ALL HORIZONTAL DISTANCES ARE RADIAL EXCEPT FOR GIRDER SPACING.

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

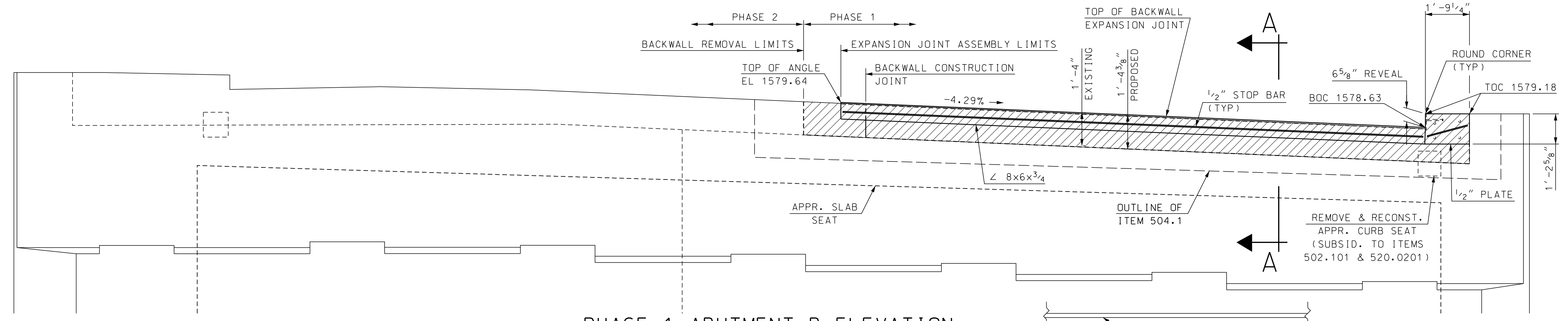
SAMPLE PLAN
DATE: 9-2020

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/CARROLL	42501_DKSECT-CARR	AS NOTED

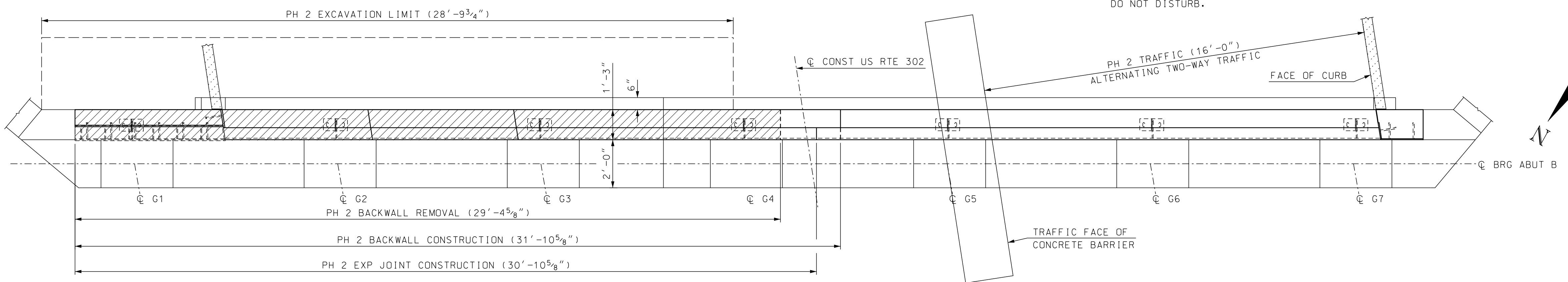
STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501
LOCATION U.S. ROUTE 302 over AMMONOOSUC RIVER					
DECK SECTIONS & DETAILS BR NO 173/141				BRIDGE SHEET	21 OF 34
DESIGNED	JEH	CHECKED	ABH	DATE	7/20
DRAWN	PJP	CHECKED	ABH	DATE	7/20
QUANTITIES	JEH	CHECKED	PML	DATE	8/20
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	25
REV. DATE				TOTAL SHEETS	38



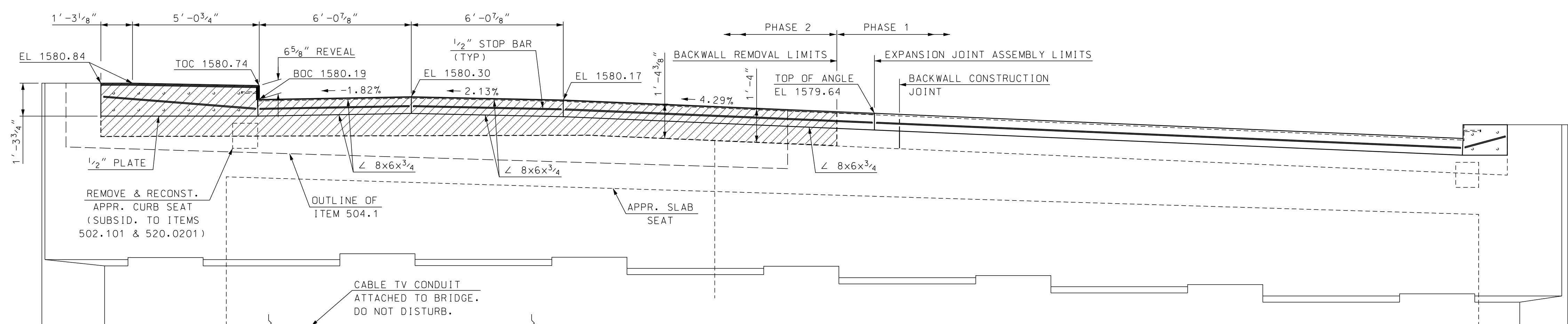
PHASE 1 ABUTMENT B PLAN
SCALE: 3/8" = 1'-0"



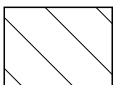

PHASE 1 ABUTMENT B ELEVATION
SCALE: 3/8" = 1'-0"



PHASE 2 ABUTMENT B PLAN
SCALE: 3/8" = 1'-0"



PHASE 2 ABUTMENT B ELEVATION
SCALE: 3/8" = 1'-0"

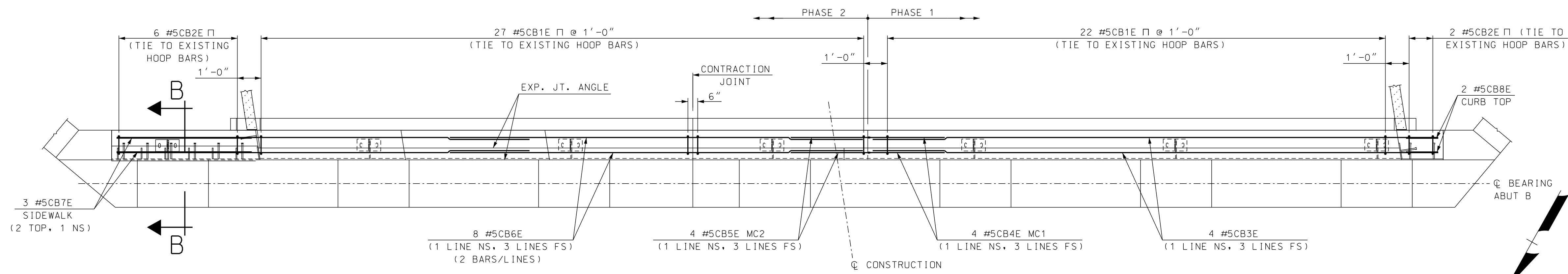
 LIMIT OF REMOVAL
 LIMIT OF PROPOSED CONCRETE

- NOTES:
- SEE REMOVAL SECTION A-A AND RECONSTRUCTED SECTION A-A ON BR SHT 25 FOR FURTHER DETAILS.
 - ALL DIMENSIONS ARE MEASURED HORIZONTALLY ALONG FACE OF BACKWALL.
 - ALL ELEVATIONS AT FACE OF BACKWALL ARE 3/8" HIGHER THAN EXISTING 1986 PLANS (1/2" RAISE FROM MAINTENANCE WORK & 1/8" REDUCTION AT EXPANSION JOINT).

SAMPLE PLAN
DATE: 9-2020

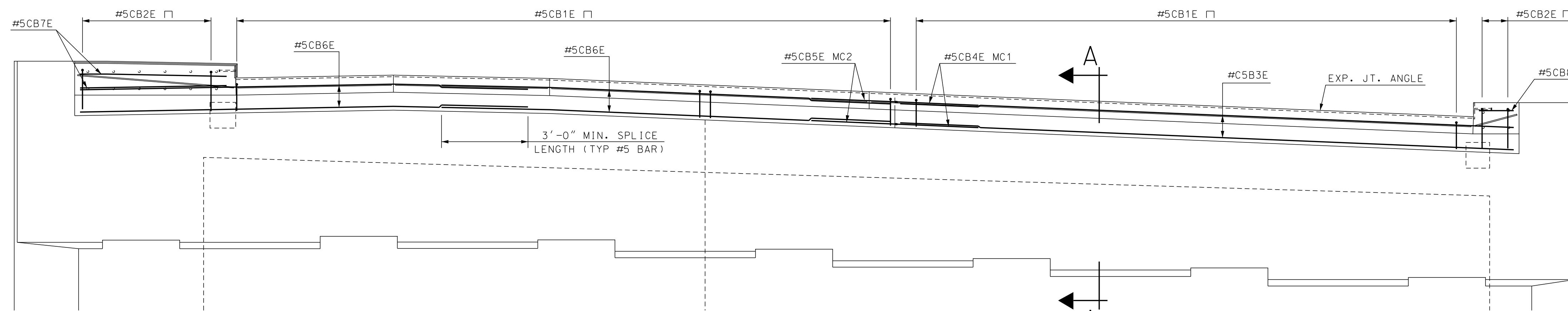
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501
LOCATION US ROUTE 302 over AMMONOOSUC RIVER					
ABUTMENT B MASONRY BR NO 173/141					BRIDGE SHEET
					22 OF 34
REVISIONS AFTER PROPOSAL					FILE NUMBER
					136-4-1
DESIGNED	JEH	8/20	CHECKED	ABH	8/20
DRAWN	SMG	6/20	CHECKED	ABH	8/20
QUANTITIES	JEH	8/20	CHECKED	PML	8/20
ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.	TOTAL SHEETS
REV. DATE	-----			26	38
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE			
BRC/CARROLL	42501_ABUT B-CARR	AS NOTED			



PLAN BACKWALL REINFORCING

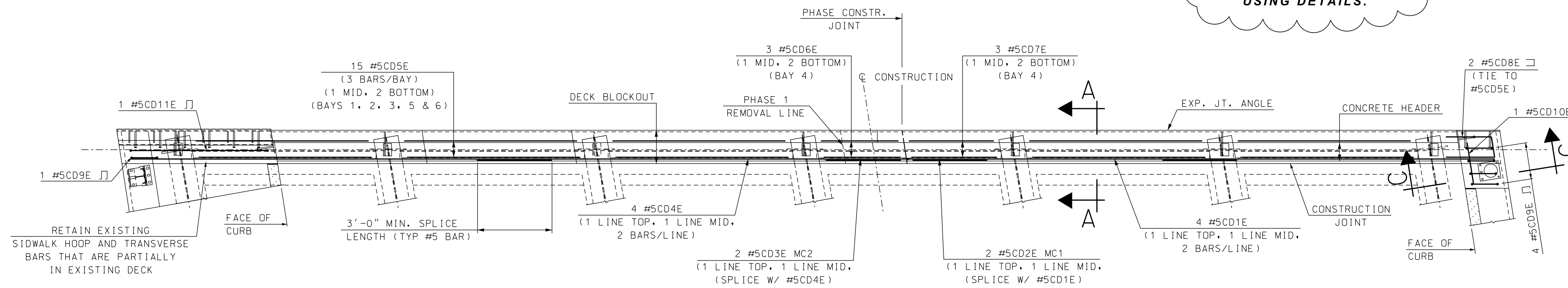
SCALE: 3/8" = 1'-0"



ELEVATION BACKWALL REINFORCING

SCALE: 3/8" = 1'-0"

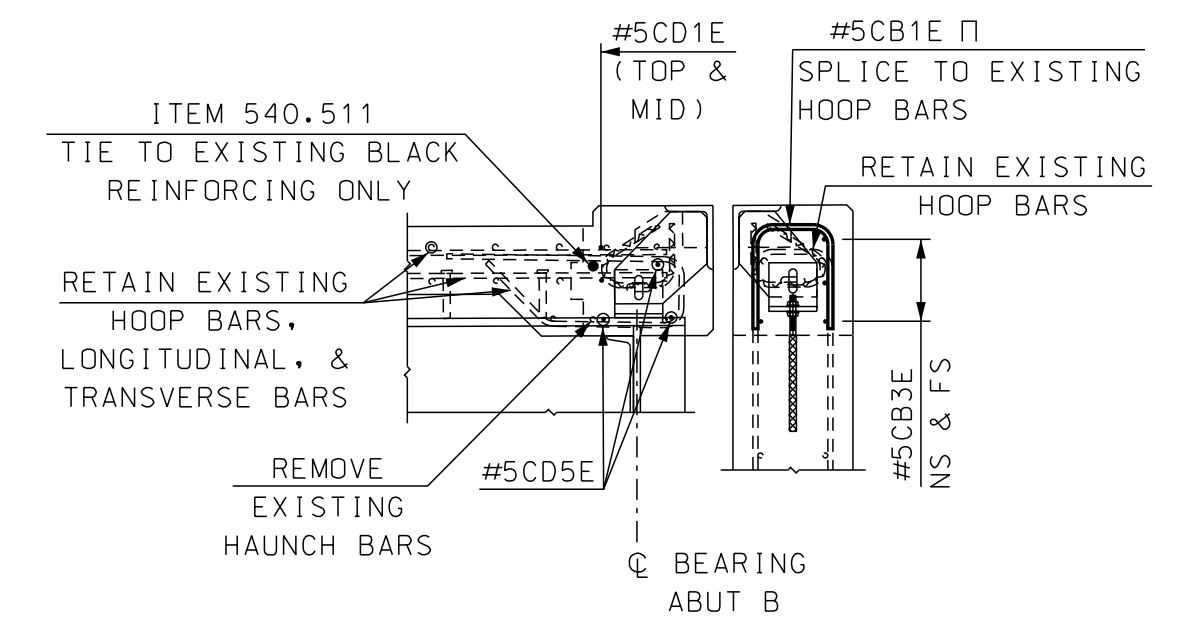
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



PLAN END DECK REINFORCING

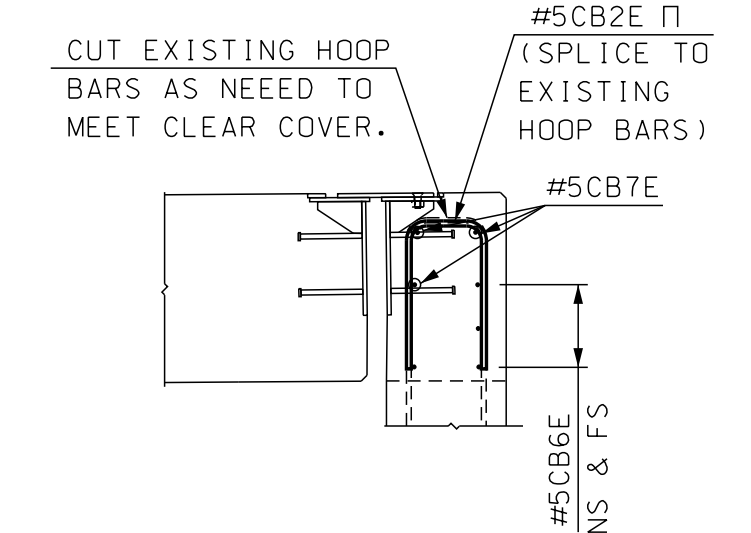
SCALE: 3/8" = 1'-0"

NOTE: RETAIN ALL EXISTING LONGITUDINAL, TRANSVERSE, AND HAUNCH HOOP REINFORCING. CUT AS NEEDED FOR CLEAR COVER. REMOVE EXISTING RAIL HOOP BARS.



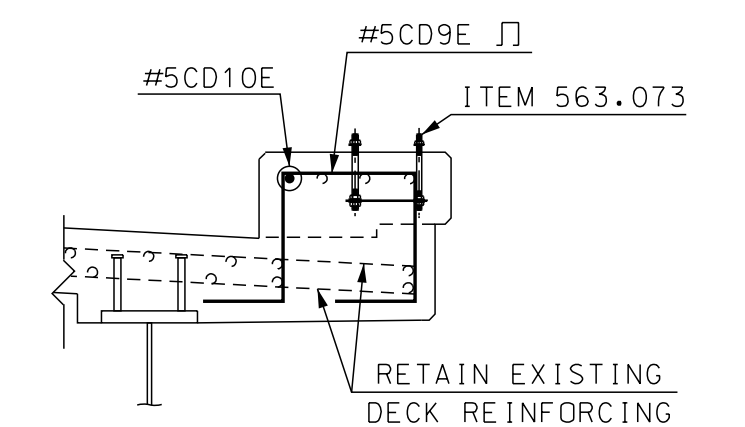
SECTION A-A

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



SECTION B-B

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



SECTION C-C

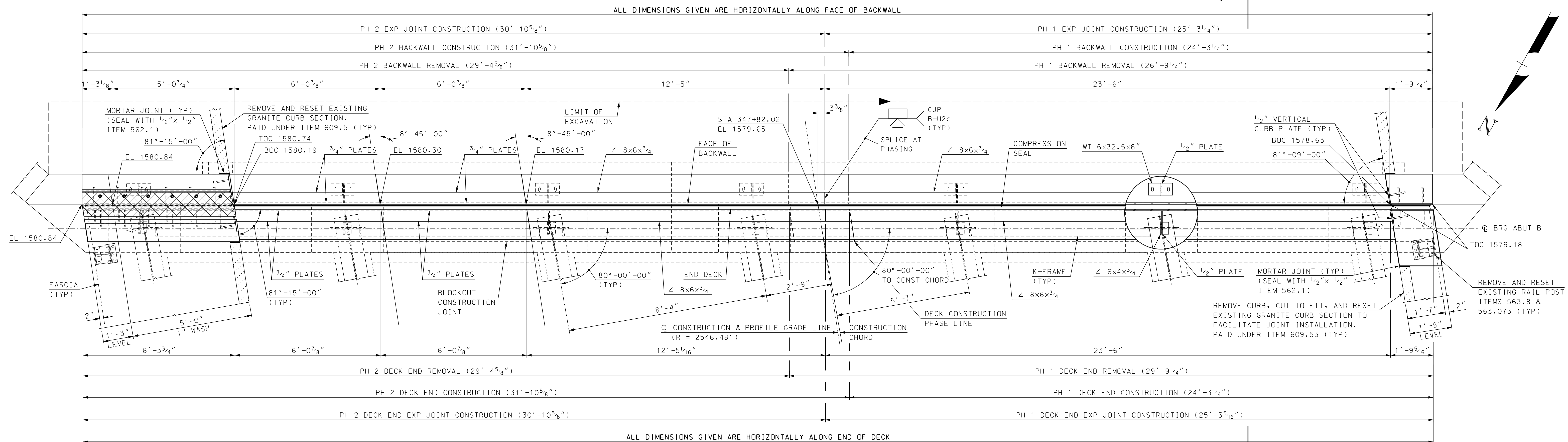
SCALE: 1/2" = 1'-0"

SAMPLE PLAN

DATE: 9-2020

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501				
LOCATION US ROUTE 302 over AMMONOOSUC RIVER									
ABUT B & END DECK REINFORCING BR NO 173/141					BRIDGE SHEET				
REVISIONS AFTER PROPOSAL					23 OF 34				
DESIGNED	ABH	8/20	CHECKED	JEH	8/20	FILE NUMBER			
DRAWN	ABH	8/20	CHECKED	JEH	8/20	136-4-1			
QUANTITIES	ABH	8/20	CHECKED	JEH	8/20	TOTAL SHEETS			
ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.		27			
REV. DATE	-----			27		38			

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/CARROLL	173-141 Abut B Rein	AS NOTED



PLAN

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

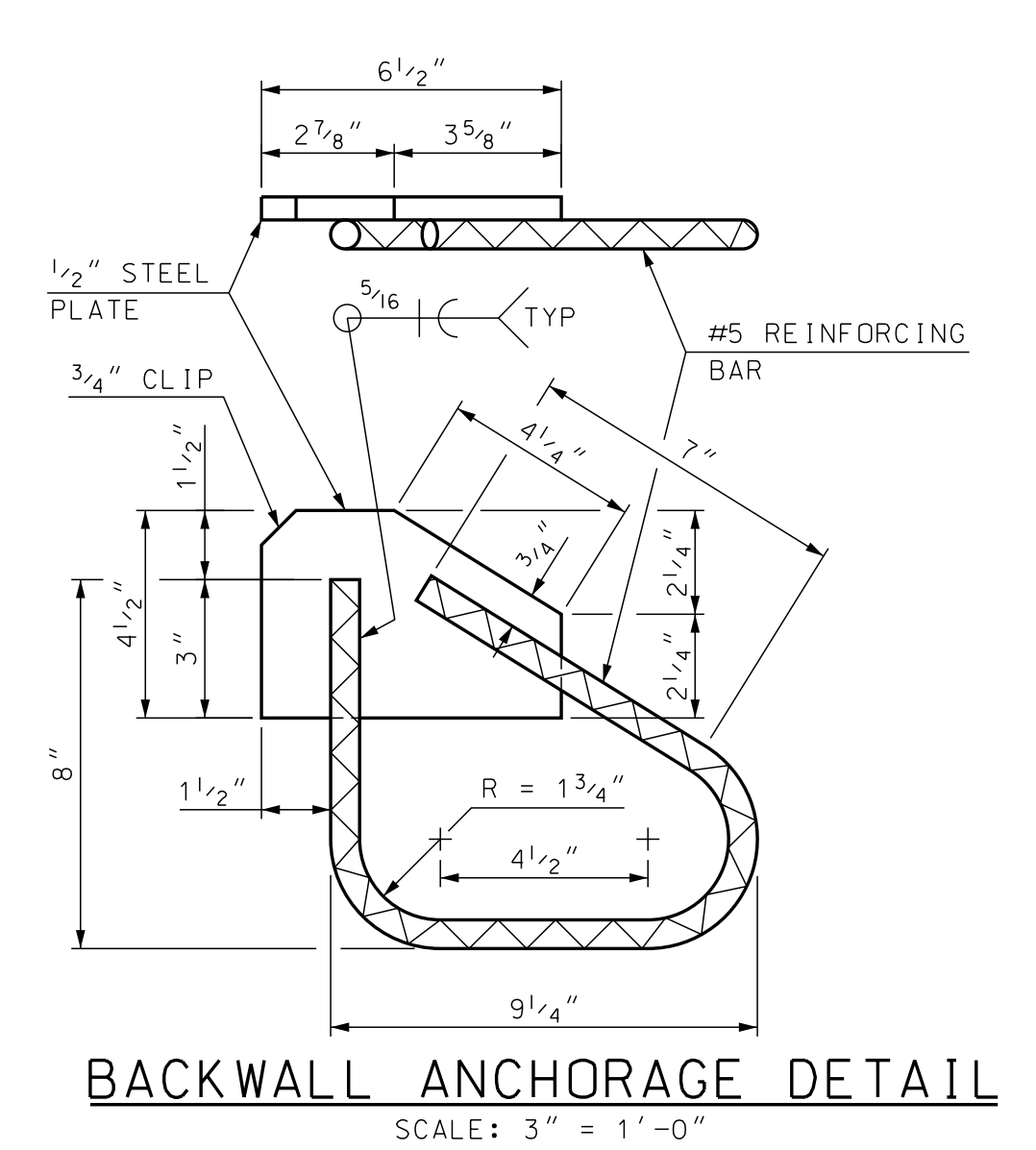
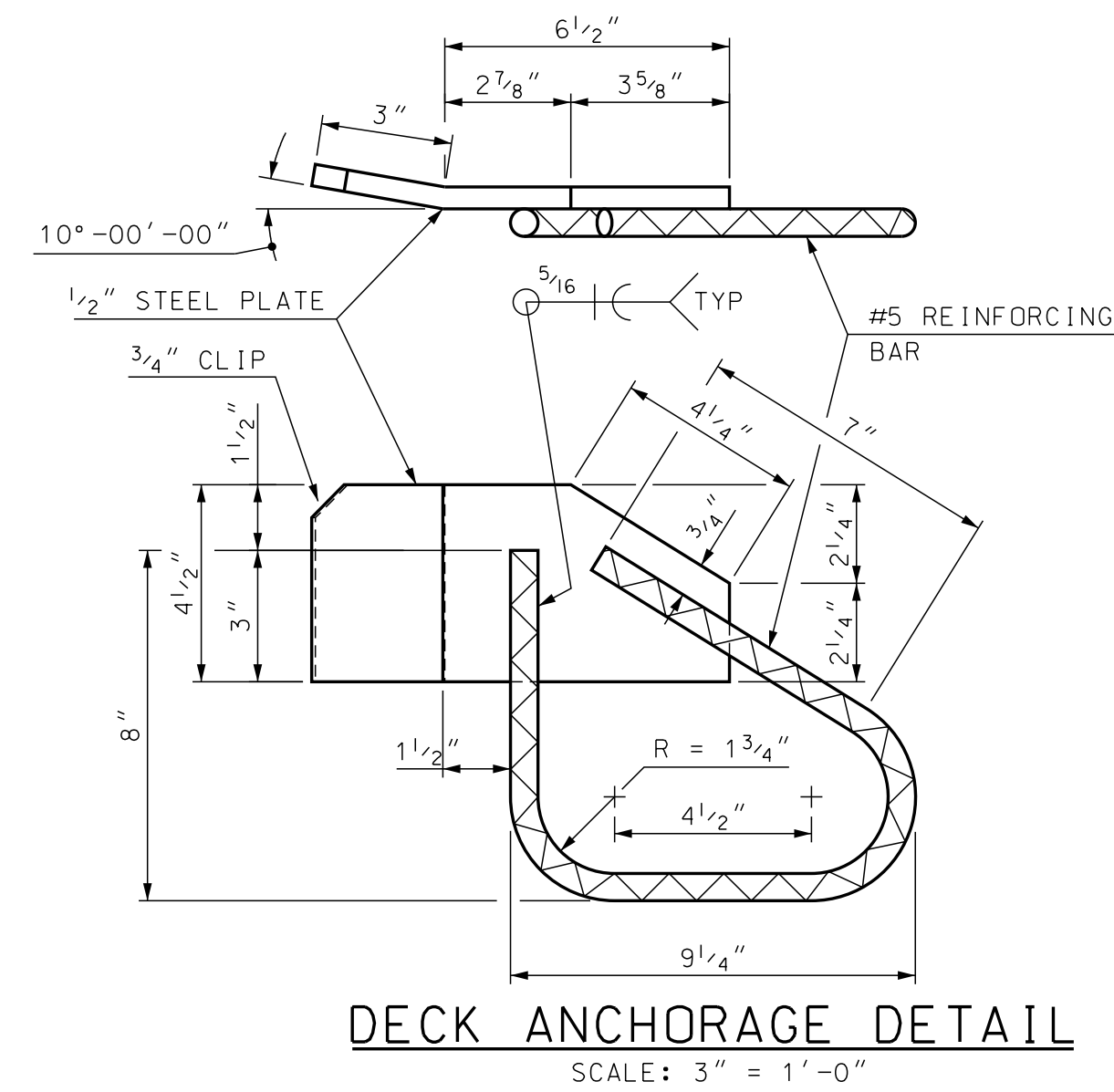
NOTES:

- FOR SECTION A-A, SEE BR SHT 25 FOR FURTHER DETAILS.
- ALL DIMENSIONS ALONG ABUTMENT ARE MEASURED HORIZONTALLY ALONG FACE OF BACKWALL.
- ALL ELEVATIONS AT FACE OF BACKWALL ARE 3/8" HIGHER THAN EXISTING 1986 PLANS (1/2" RAISE FROM MAINTENANCE WORK & 1/8" REDUCTION AT EXPANSION JOINT).

EXPANSION JOINT NOTES

- ALL EXPANSION JOINT STEEL, INCLUDING ANCHORS, SHALL BE GALVANIZED. STEEL ANGLES SHALL BE ASTM A572 GRADE 50. MINOR STEEL PLATES MAY CONFORM TO ASTM A36. THE ENTIRE ASSEMBLY, INCLUDING COMPRESSION SEAL, SHALL BE PAID FOR AS ITEM 560.1001, PREFABRICATED COMPRESSION SEAL EXPANSION JOINT (F).
- SPLICES FOR STEEL ANGLES SHALL DEVELOP FULL STRENGTH.
- EXPANSION JOINT OPENING SHALL BE ADJUSTED TO TEMPERATURE ANTICIPATED JUST PRIOR TO POURING DECK BLOCKOUT. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE CONTRACT ADMINISTRATOR. SEE TEMPERATURE ADJUSTMENT TABLE & NOTES.
- THE COMPRESSION SEAL SHALL BE FURNISHED IN ONE CONTINUOUS LENGTH. NO SPLICES WILL BE ALLOWED. SEAL SHALL BE INSTALLED IN THE FIELD BY THE CONTRACTOR, IN ACCORDANCE WITH THE MANUFACTURER OF THE SEAL, USING AN APPROVED TOOL THAT WILL NOT DAMAGE THE SEAL.
- JOINT SUPPORT PLATES AND CURB PLATES SHALL BE SHOP WELDED TO EXPANSION JOINT STEEL AND SHALL BE NORMAL TO GRADE AFTER JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE. STEEL ANGLES SHALL BE ASSEMBLED WITH A CONSTANT JOINT OPENING TO ENSURE PROPER PERFORMANCE AND WATER TIGHTNESS.
- THE EXPANSION JOINT ASSEMBLY SHALL BE INSTALLED ONLY AFTER BOTH ABUTMENTS HAVE BEEN BACKFILLED TO WITHIN 3'-0" OF FINISHED GRADE.
- IMMEDIATELY AFTER THE JOINT HAS BEEN SECURED TO THE STRUCTURAL STEEL AND BACKWALL, REMOVE SHIPPING DEVICES AND GRIND SMOOTH ANY WELDS ON EXPOSED SURFACES. REPAIR ANY DAMAGE TO GALVANIZED SURFACES IN ACCORDANCE WITH SECTION 550.
- PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.
- THE COMPRESSION SEAL HAS BEEN DESIGNED FOR A TOTAL FACTORED MOVEMENT OF 1.24 INCHES. DESIGN INCLUDES MOVEMENT DUE TO TEMPERATURE, SKEW, SHRINKAGE AND MINIMUM INSTALLATION WIDTH. THE CONTRACTOR SHALL USE A WA-400 SEAL BY WATSON BOWMAN OR CV-4000 BY D.S. BROWN, AS NOTED IN THE OPL.
- ELEVATIONS SHOWN AT TOP OF ANGLES ARE 1/8" LOWER THAN PROPOSED FINISHED ROADWAY GRADE.
- PRIOR TO INSTALLING THE SEAL, ALL TEMPORARY FORM WORK SHALL BE REMOVED. STEEL ANGLES AND STOP BARS SHALL BE MAINTAINED FREE FROM DIRT, WATER AND ANY OTHER LOOSE DEBRIS, WITH THE USE OF COMPRESSED AIR, TO ENSURE PROPER FIT OF THE SEAL. CARE SHALL BE TAKEN NOT TO DAMAGE GALVANIZED SURFACES.
- A TEMPORARY SEAL(S) SHALL BE INSTALLED PRIOR TO THE START OF THE WINTER MAINTENANCE PERIOD FOR ALL JOINT ASSEMBLIES OR PORTIONS THEREOF THAT WILL BE IN PLACE THROUGHOUT THE WINTER. ALL TEMPORARY SEALS SHALL BE REMOVED AND JOINT OPENINGS AND SUBSTRUCTURE SHALL BE CLEANED PRIOR TO INSTALLING THE FINAL SEAL. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 560.1001.

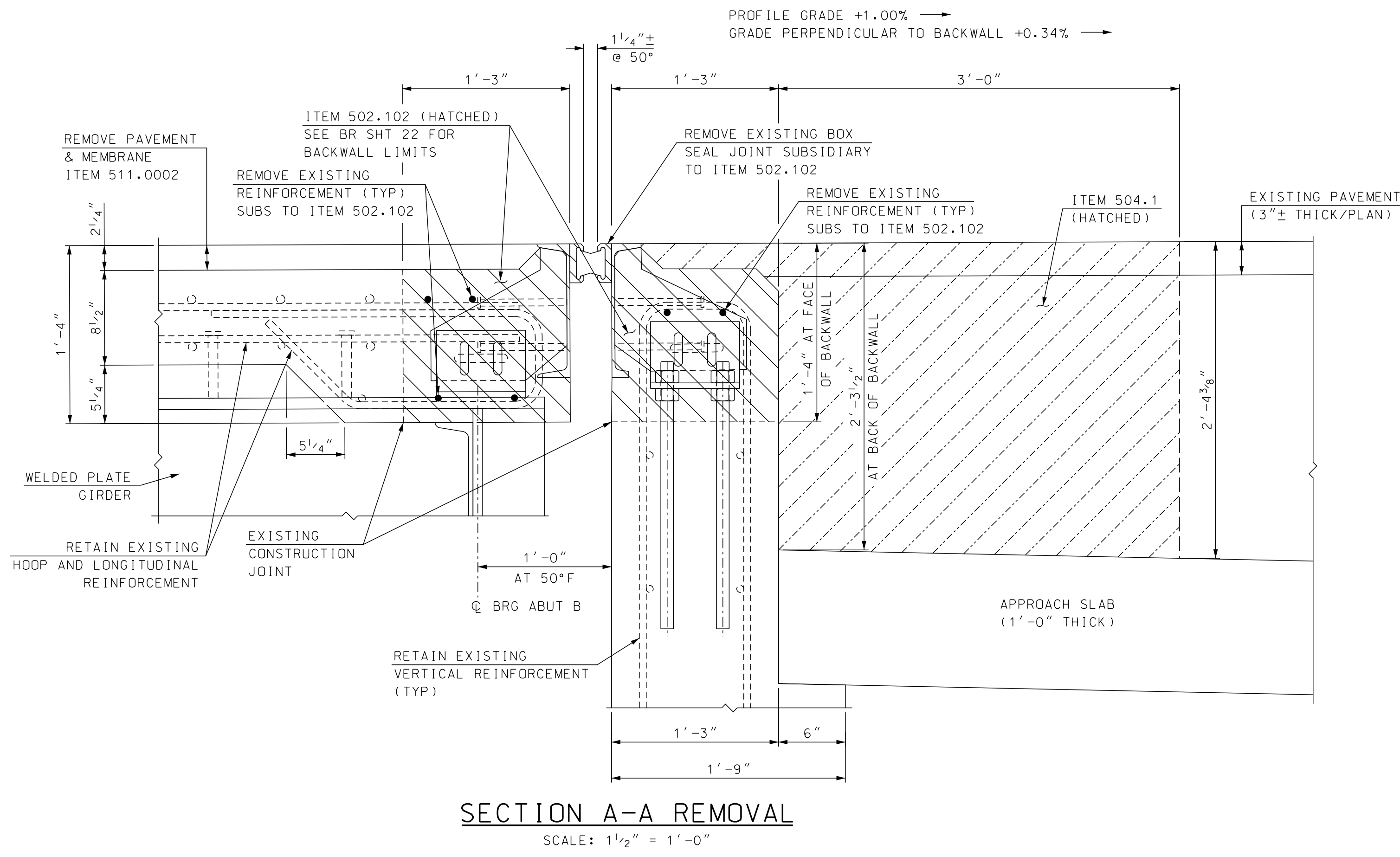
NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



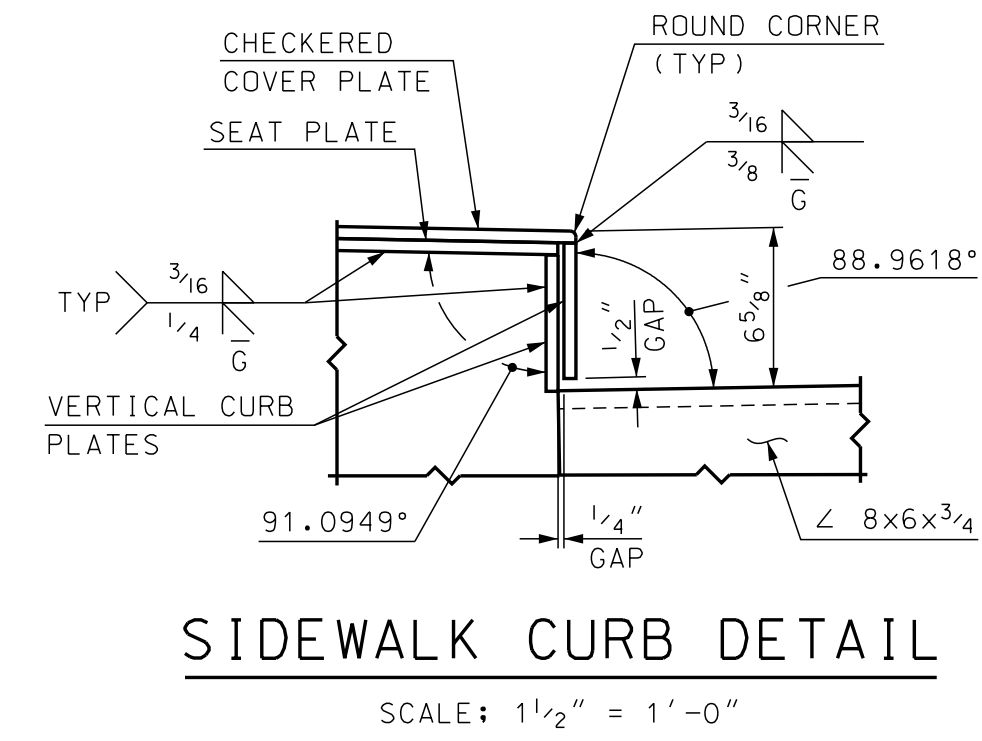
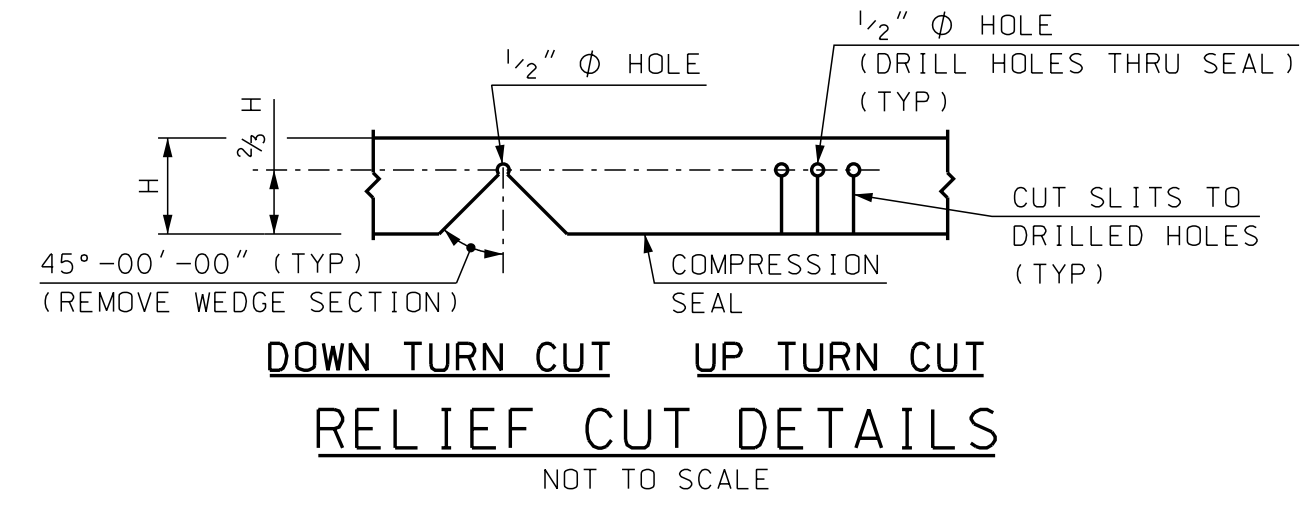
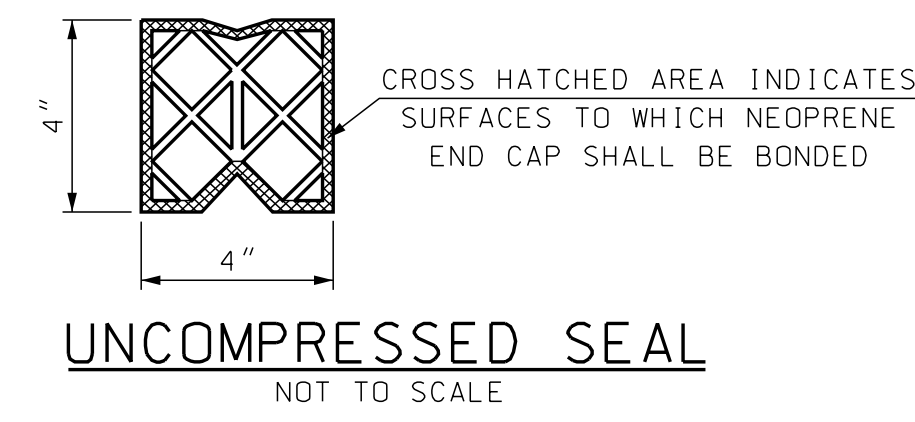
SAMPLE PLAN
DATE: 9-2020

STATE OF NEW HAMPSHIRE											
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN											
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501						
LOCATION US ROUTE 302 over AMMONOOSUC RIVER											
ABUT B COMP SEAL EXP JT BR NO 173/141 (1 of 4)										BRIDGE SHEET	
REVISIONS AFTER PROPOSAL										24 OF 34	
DESIGNED	JEH	8/20	CHECKED	ABH	7/20	FILE NUMBER					
DRAWN	SMG	3/20	CHECKED	ABH	7/20	136-4-1					
QUANTITIES	JEH	8/20	CHECKED	PML	8/20						
ISSUE DATE	FEDERAL PROJECT NO.			SHEET NO.		TOTAL SHEETS					
REV. DATE	-----			28		38					

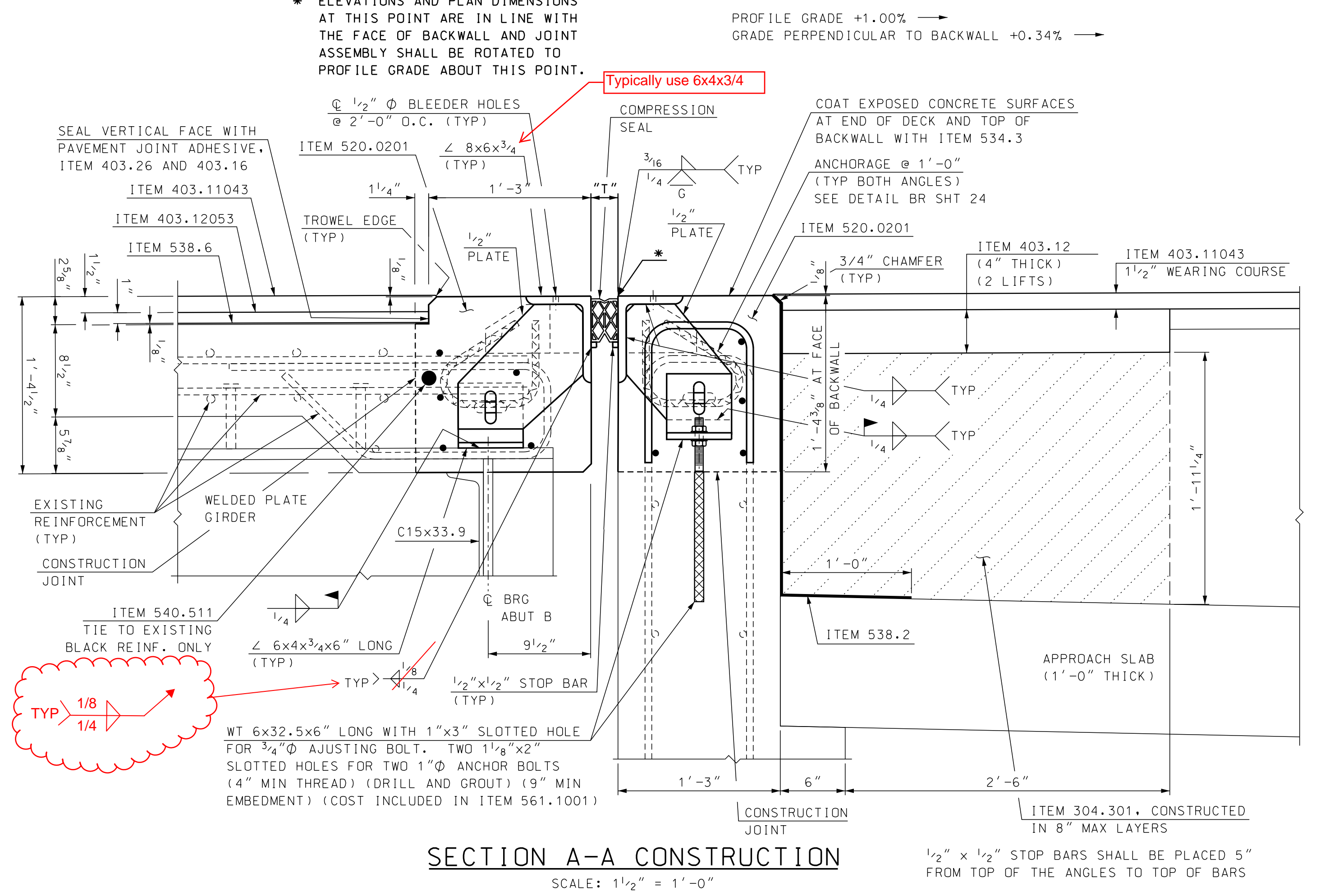
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/CARROLL	173-141 Comp jt	AS NOTED



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

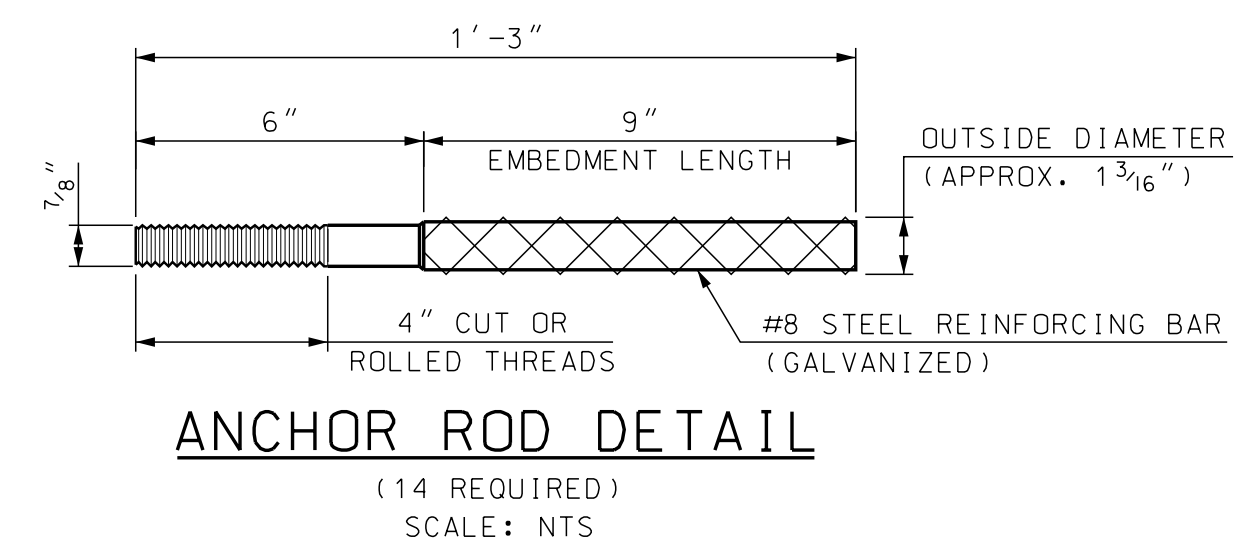


* ELEVATIONS AND PLAN DIMENSIONS AT THIS POINT ARE IN LINE WITH THE FACE OF BACKWALL AND JOINT ASSEMBLY SHALL BE ROTATED TO PROFILE GRADE ABOUT THIS POINT.



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

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



ANCHOR ROD DETAIL
(14 REQUIRED)
SCALE: NTS

REVISIONS 12/30/20

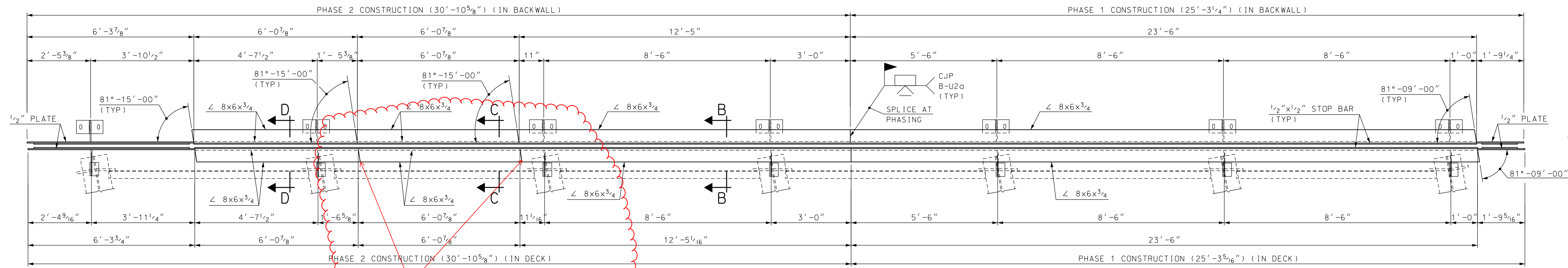
SAMPLE PLAN
DATE: 9-2020

TEMPERATURE	"T"
20°F	2 7/8"
35°F	2 3/4"
50°F	2 5/8"
65°F	2 1/2"
80°F	2 3/8"
95°F	2 1/4"

- TEMPERATURE ADJUSTMENT NOTES**
- "T" DIMENSIONS ARE PERPENDICULAR TO FACE OF BACKWALL.
 - MINIMUM "T" WIDTH FOR SEAL INSTALLATION = 2 1/2" (APPROXIMATELY 65°F OR LESS).
 - VALUES IN THE TEMPERATURE ADJUSTMENT TABLE ARE FOR SETTING THE EXPANSION JOINT ASSEMBLY IMMEDIATELY PRIOR TO POURING THE DECK BLOCKOUT.

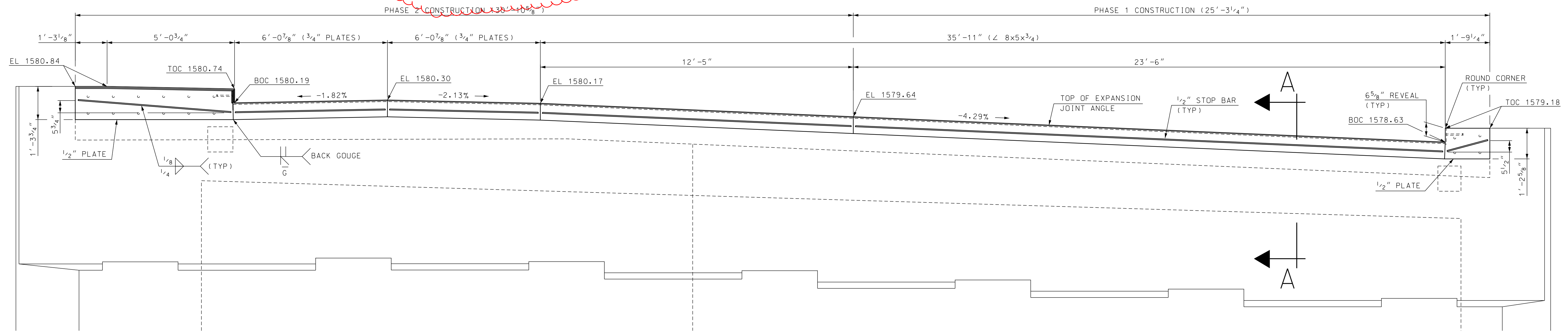
STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501				
LOCATION US ROUTE 302 over AMMONOOSUC RIVER						ABUT B COMP SEAL EXP JT BR NO173/141 (2 of 4)		BRIDGE SHEET	
REVISIONS AFTER PROPOSAL						BY	DATE	BY	DATE
DESIGNED						JEH	3/20	CHECKED	ABH
DRAWN						SMG	3/20	CHECKED	ABH
QUANTITIES						JEH	8/20	CHECKED	PML
ISSUE DATE						FEDERAL PROJECT NO.		SHEET NO.	
REV. DATE						-----		29	
SUBDIRECTORY						SHEET SCALE		TOTAL SHEETS	
BRC/CARROLL						173-141 Comp jt		AS NOTED	

FOR LOCATION OF SECTION A-A SEE BRIDGE SHEET 24.



SUPPORT AND PLATE LAYOUT

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

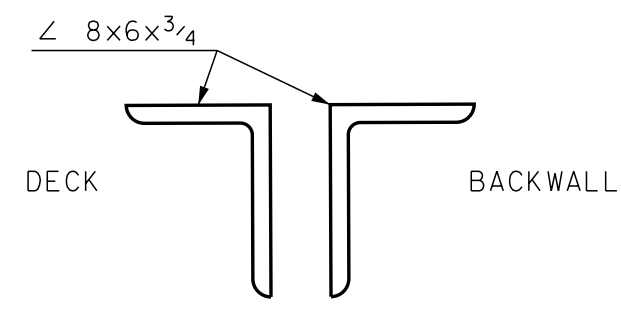


BACKWALL ELEVATION VIEW

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

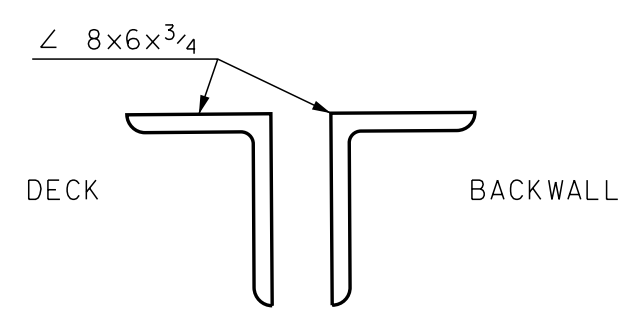
PROFILE GRADE +1.00% →
GRADE PERPENDICULAR TO BACKWALL +0.34% →

PROFILE GRADE +1.00% →
GRADE PERPENDICULAR TO BACKWALL +0.68% →



SECTION B-B

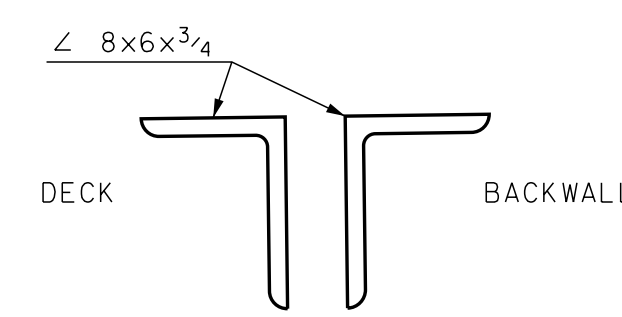
SCALE: 1 1/2" = 1'-0"



SECTION C-C

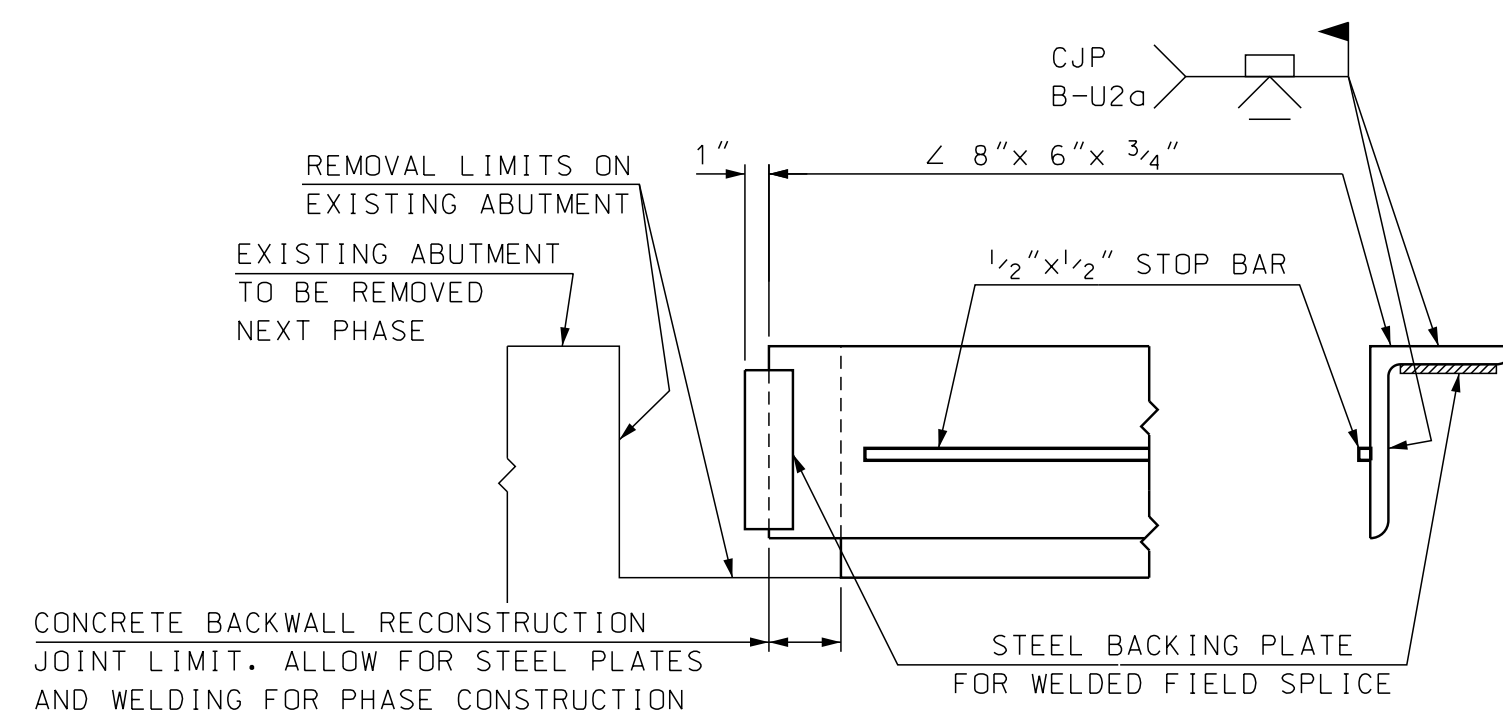
SCALE: 1 1/2" = 1'-0"

PROFILE GRADE +1.00% →
GRADE PERPENDICULAR TO BACKWALL +1.29% →



SECTION D-D

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



PHASE CONSTRUCTION FIELD WELD SPlice DETAILS

NOT TO SCALE

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

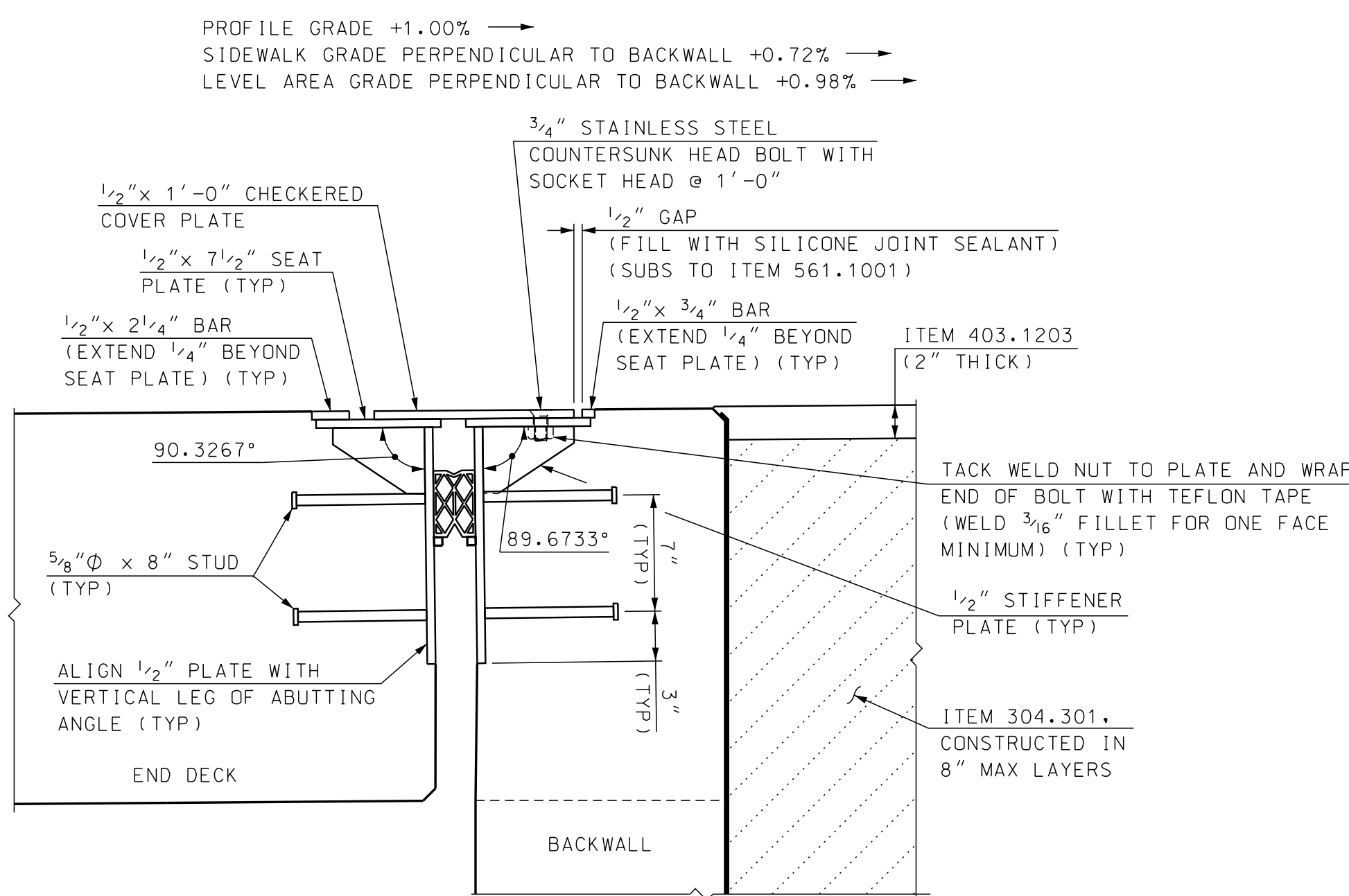
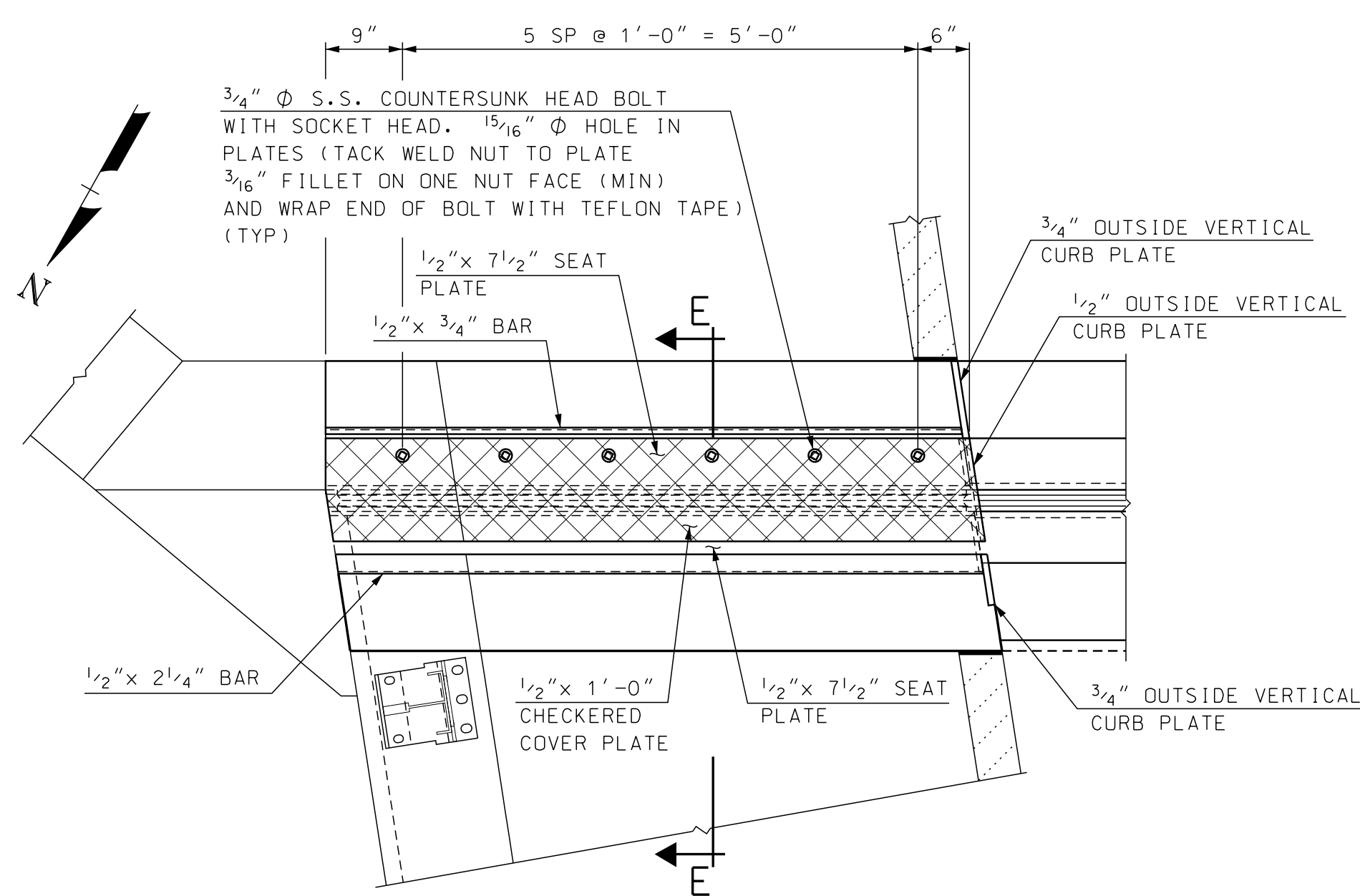
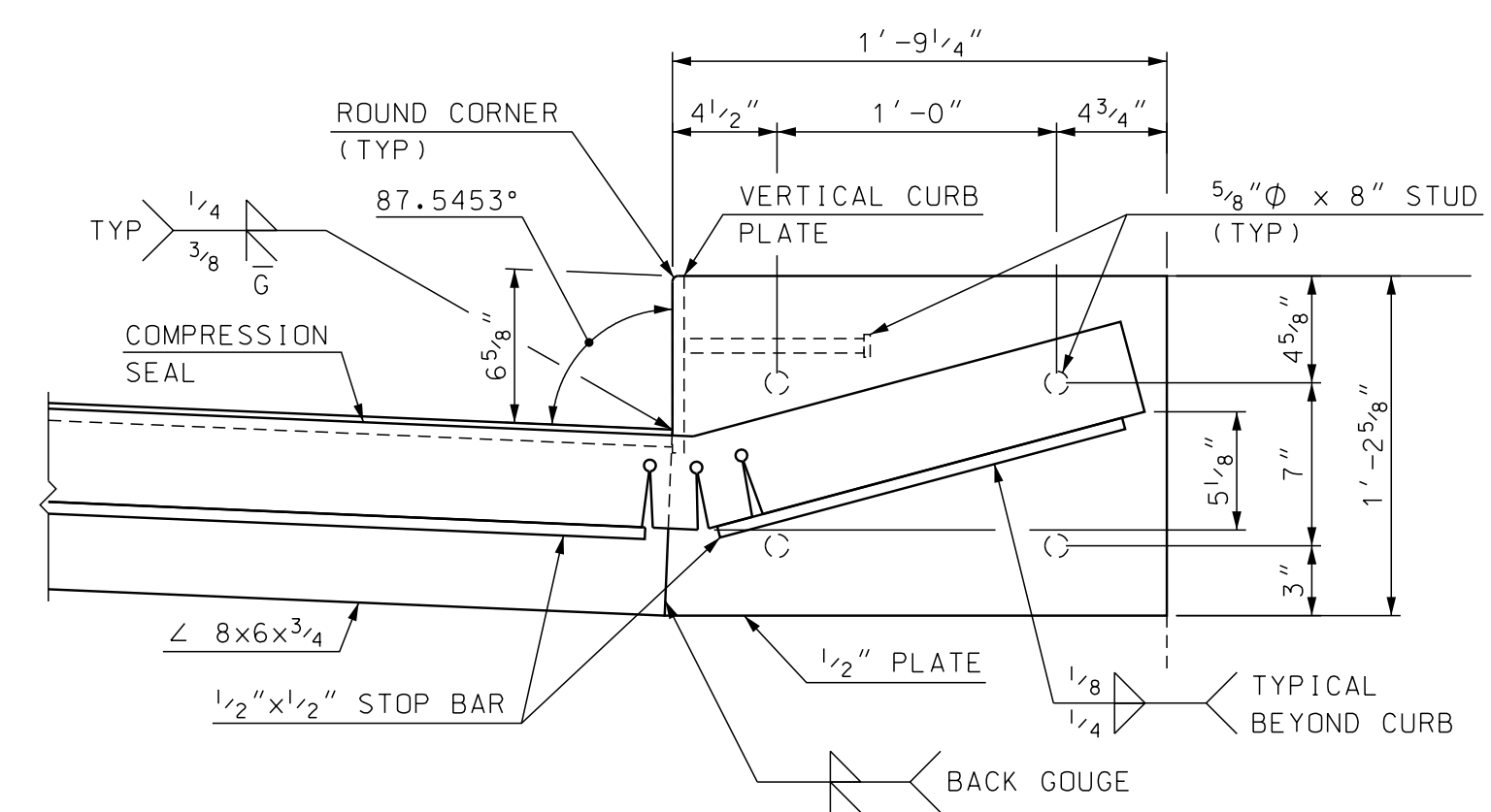
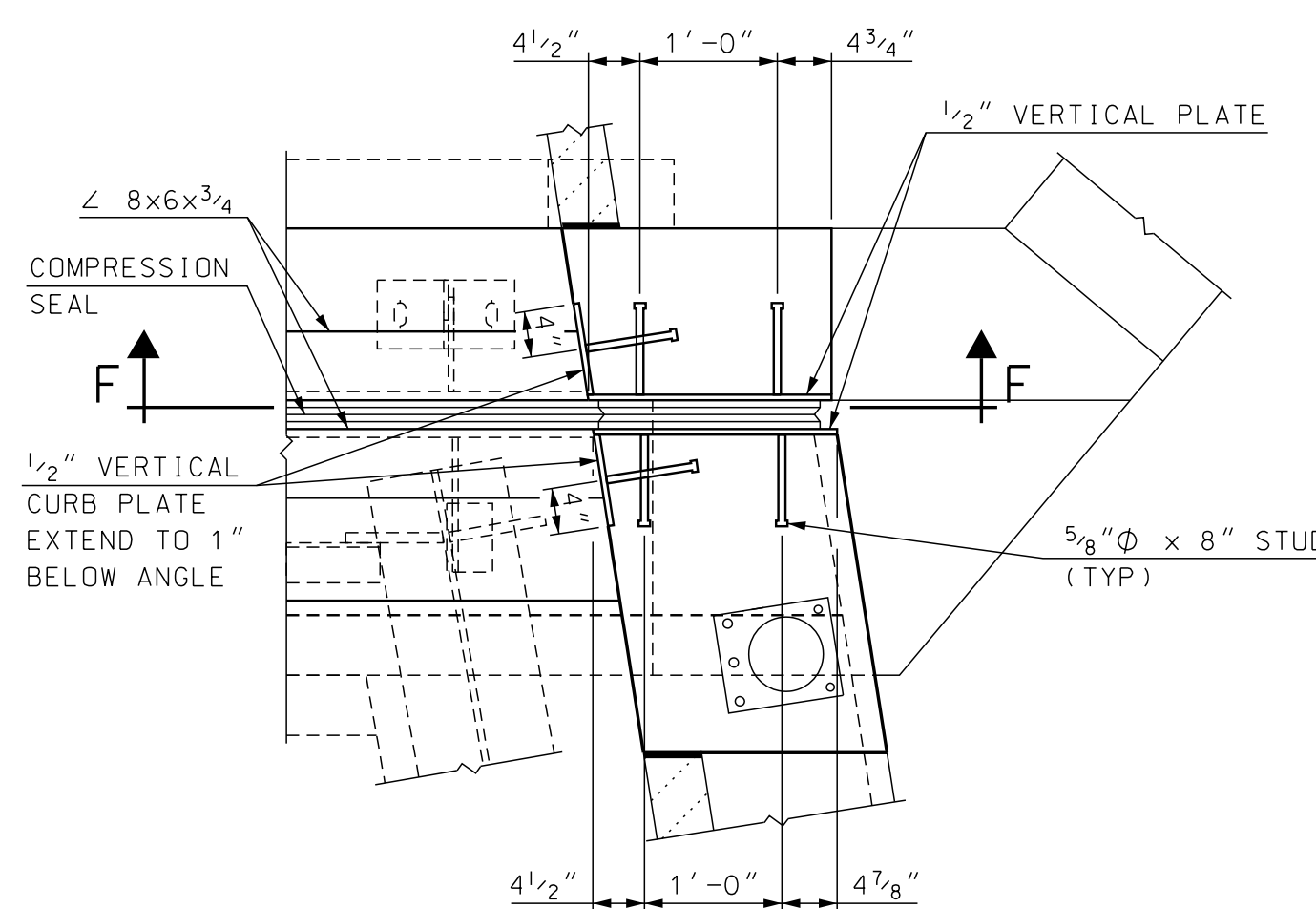
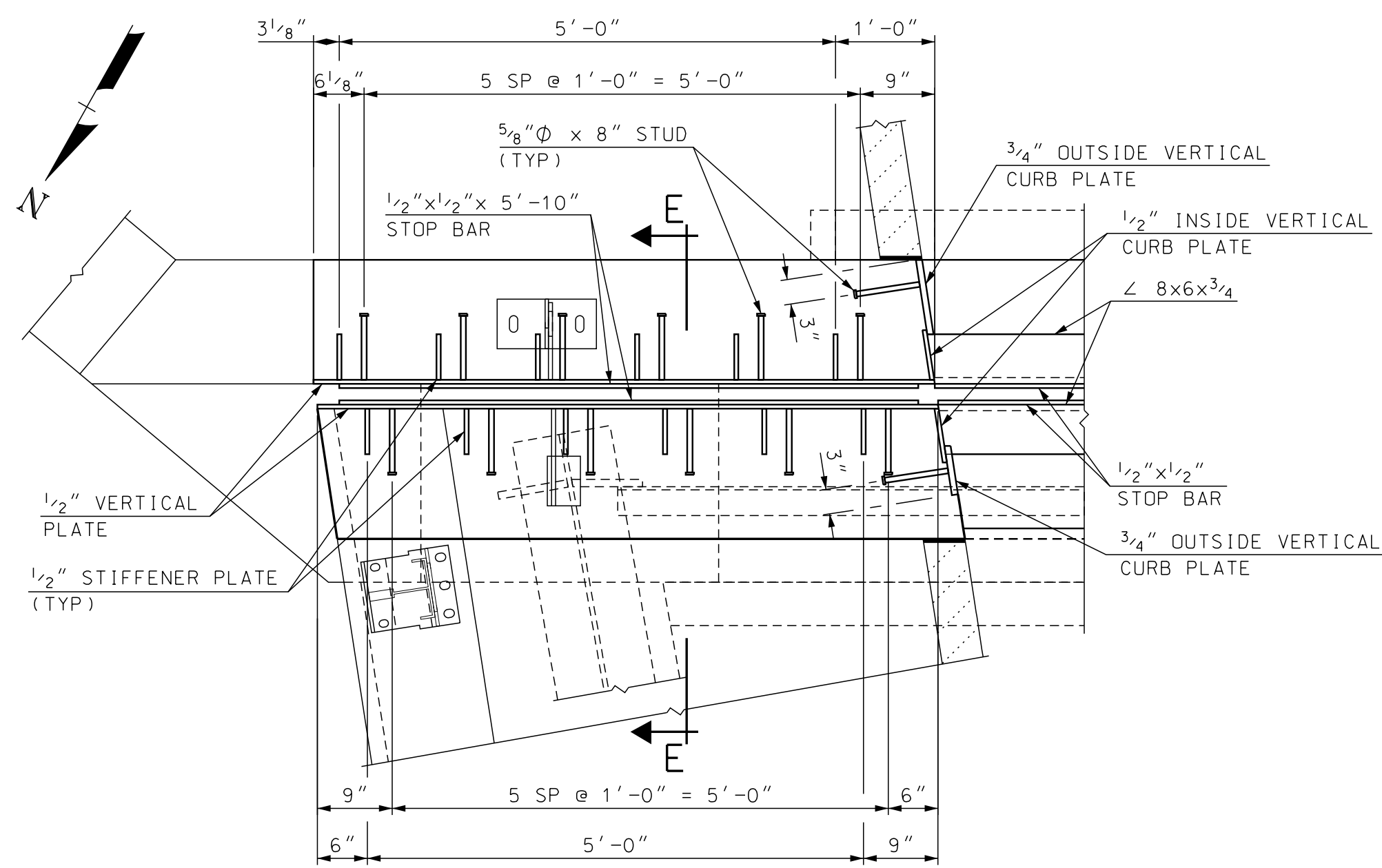
- NOTES:
- FOR SECTION A-A, SEE BR SHT 25 FOR FURTHER DETAILS.
 - ALL DIMENSIONS ALONG ABUTMENT ARE MEASURED HORIZONTALLY ALONG FACE OF BACKWALL.
 - ALL ELEVATIONS AT FACE OF BACKWALL ARE 3/8" HIGHER THAN EXISTING 1986 PLANS (1/2" RAISE FROM MAINTENANCE WORK & 1/8" REDUCTION AT EXPANSION JOINT).

REVISIONS 12/30/20

SAMPLE PLAN
DATE: 9-2020

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/CARROLL	173-141 Comp jt	AS NOTED

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501
LOCATION US ROUTE 302 over AMMONOOSUC RIVER					
ABUT B COMP SEAL EXP JT BR NO 173/141 (3 of 4)					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					26 OF 34
DESIGNED	JEH	3/20	CHECKED	ABH	7/20
DRAWN	SMG	3/20	CHECKED	ABH	7/20
QUANTITIES	JEH	8/20	CHECKED	PML	8/20
ISSUE DATE			FEDERAL PROJECT NO.		SHEET NO.
REV. DATE					30
					38

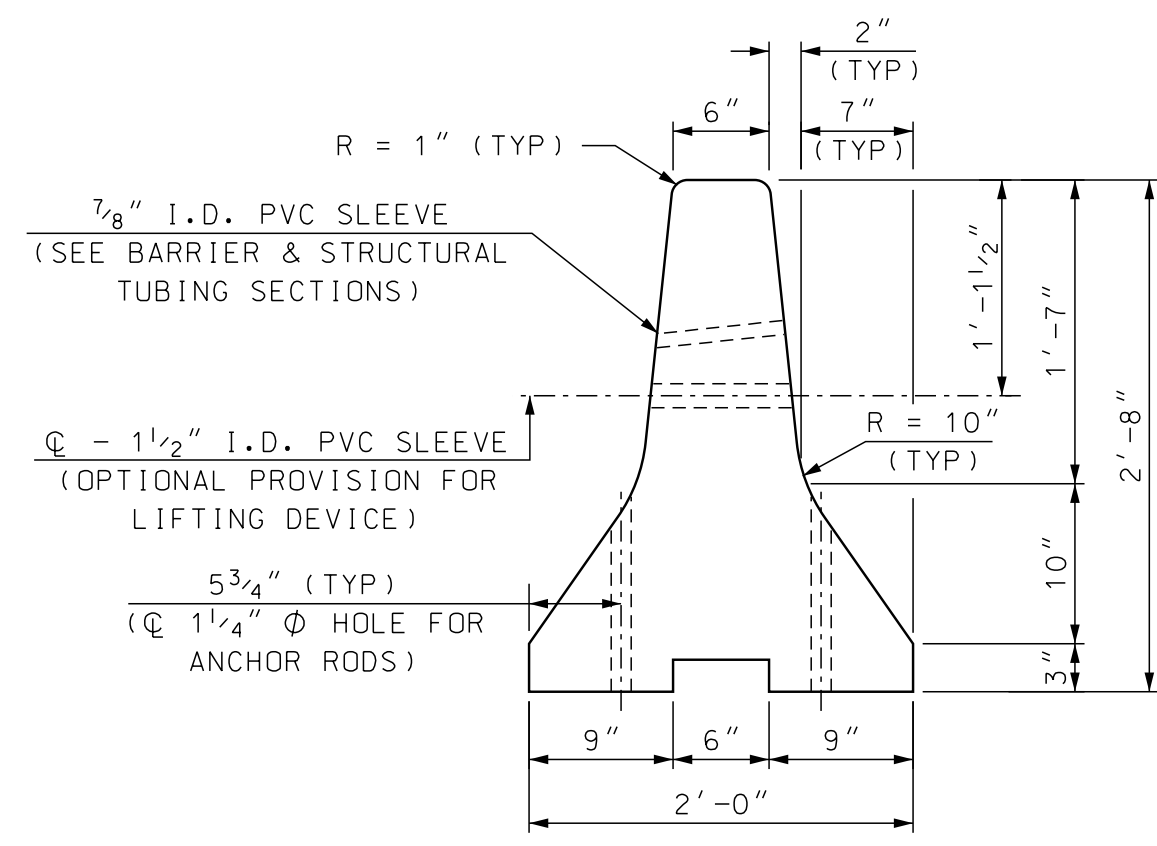


NOTE: DETAILS AND NOTES
MAY NOT BE CURRENT.
CLOSELY REVIEW BEFORE
USING DETAILS.

SAMPLE PLAN
DATE: 9-2020

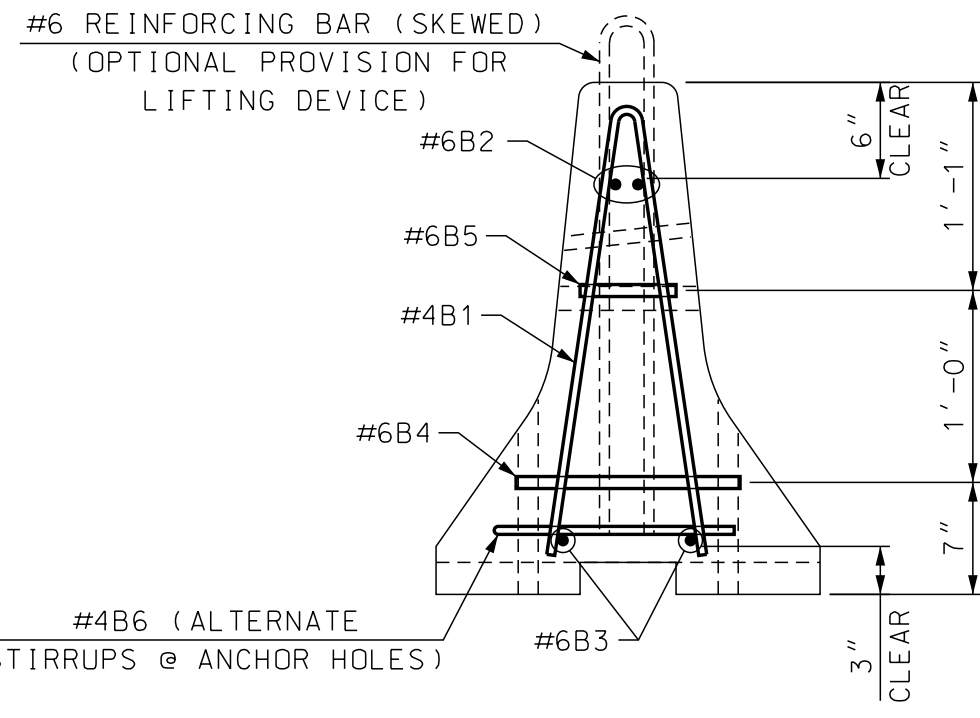
STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	CARROLL	BRIDGE NO.	173/141	STATE PROJECT	42501				
LOCATION US ROUTE 302 over AMMONOOSUC RIVER						BRIDGE SHEET			
ABUT B COMP SEAL EXP JT BR NO 173/141 (4 of 4)						27 OF 34			
DESIGNED		JEH	3/20	CHECKED		ABH	7/20	FILE NUMBER	
DRAWN		SMG	3/20	CHECKED		ABH	7/20	136-4-1	
QUANTITIES		JEH	8/20	CHECKED		PML	8/20	TOTAL SHEETS	
ISSUE DATE		FEDERAL PROJECT NO.				SHEET NO.	31	38	
REV. DATE		-----							

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/CARROLL	173-141 Comp jt	AS NOTED



TYPICAL SECTION

SCALE: 1" = 1'-0"



TYPICAL SECTION

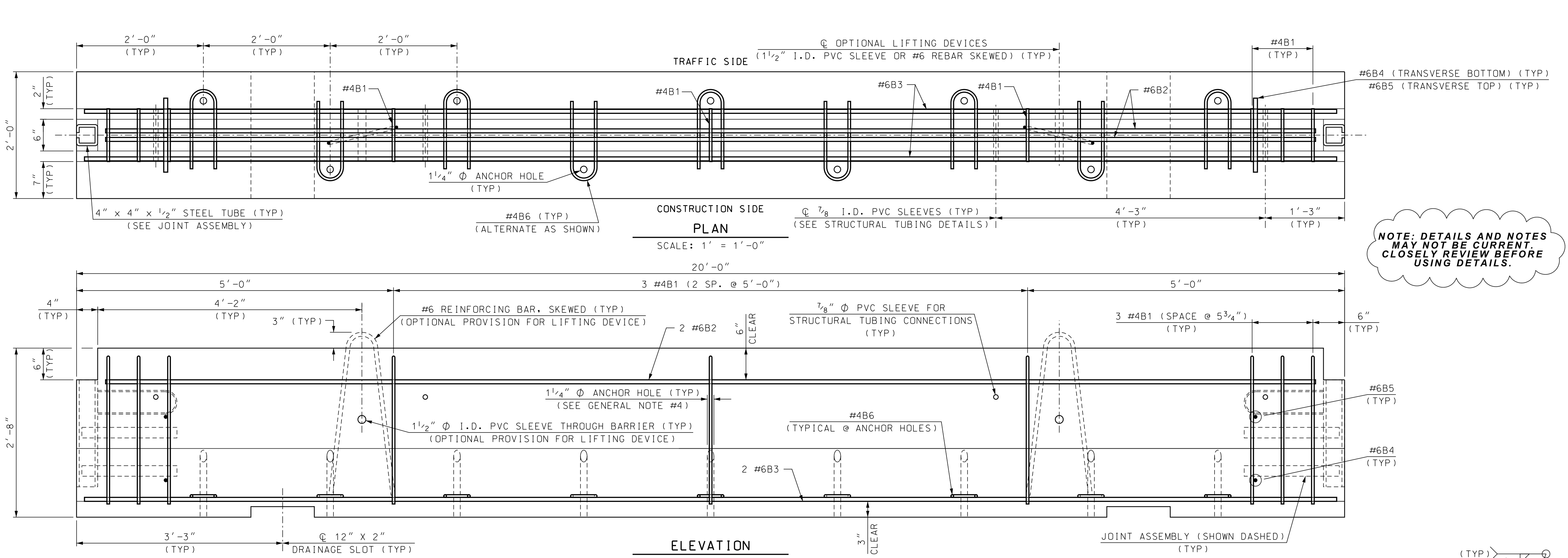
SCALE: 1" = 1'-0"

GENERAL NOTES

- PORTABLE CONCRETE BARRIER SHALL BE FURNISHED BY THE CONTRACTOR AND PAID FOR AS ITEM 606.41741 PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL (BRIDGE). CONCRETE BARRIER AND ALL ATTACHMENTS SHALL BE FABRICATED IN ACCORDANCE WITH SPECIAL PROVISIONS. ALL BARRIER UNITS FOR BRACED SYSTEMS SHALL BE 20' LONG.
- PORTABLE CONCRETE BARRIER DETAILS, AS SHOWN IN THESE PLANS, ARE IN COMPLIANCE WITH REQUIREMENTS PER UPDATED NCHRP REPORT 350 FOR TEST NO. 3-11 (MASH TEST LEVEL 3), CRASH TESTED BY MIDWEST ROADSIDE SAFETY; NY BOX BEAM STIFFENING OF UNANCHORED TCB, MARCH 2008, AND ACCEPTED PER FHWA LETTER B-239 (11/1/2012). THE BARRIER SYSTEM HAS BEEN CRASH TESTED WITH A 27.6" DYNAMIC DEFLECTION WHICH WILL ALLOW BRACED BARRIER TO BE PLACED A MINIMUM 12" FROM THE EDGE OF BRIDGE DECK.
- A MINIMUM OF TWO BARRIER UNITS, WITH BRACED JOINTS ARE REQUIRED TO BE PLACED BEYOND BOTH ENDS OF THE BRIDGE WORK AREA. FOR SPEEDS GREATER THAN 45 MPH. FOR SPEEDS ≤ 45 MPH, A MINIMUM OF ONE BRACED BARRIER IS REQUIRED TO BE FULLY SET BEYOND EACH END OF BRIDGE WORK AREA.
- THE LAST CONCRETE BARRIER UNIT, AT EACH END OF BRACED BARRIER LAYOUT, SHALL BE ANCHORED A MINIMUM 18" BELOW THE ROADWAY SURFACE. REQUIRED 1" Ø ANCHOR RODS (A36 STEEL) SHALL BE INSTALLED WITH 5 ANCHORS ON THE TRAFFIC SIDE OF BARRIER AND 4 ON THE CONSTRUCTION SIDE. IF THE END(S) OF THE BRACED CONCRETE BARRIER SYSTEM EXTENDS 50' OR MORE BEYOND LIMITS OF BRIDGE WORK THE LAST BARRIER UNIT DOES NOT REQUIRE ANCHORAGE.
- PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL (BRIDGE), ITEM 606.41741, MAY BE INSTALLED WITH A 230' MINIMUM RADIUS. GAPS CREATED BETWEEN STRUCTURAL TUBES AND CONCRETE BARRIER, DURING A RADIAL LAYOUT, SHALL BE SHIMMED WITH 8" x 8" x 1/2" PLATES & FENDER WASHERS TO FIRMLY ATTACH STRUCTURAL TUBING TO BARRIER.
- THE CONTRACTOR SHALL FURNISH AND INSTALL APPROVED RETROREFLECTIVE DELINEATORS AT 25-FOOT INTERVALS ALONG TOP AND/OR ONE FOOT DOWN THE SIDE OF PORTABLE CONCRETE BARRIER, SUBSIDIARY TO ITEM 606.41741 (SEE STANDARD NO. DL-1 OF NHDOT STANDARD PLANS FOR ROAD CONSTRUCTION). THE COLOR OF DELINEATORS SHALL, IN ALL INSTANCES, CONFORM TO THE COLOR OF EDGE LINE MARKINGS. DELINEATORS SUPPLEMENT, BUT DO NOT REPLACE, THE NEED FOR RETROREFLECTIVE SOLID EDGE LINE MARKINGS.

MATERIAL NOTES

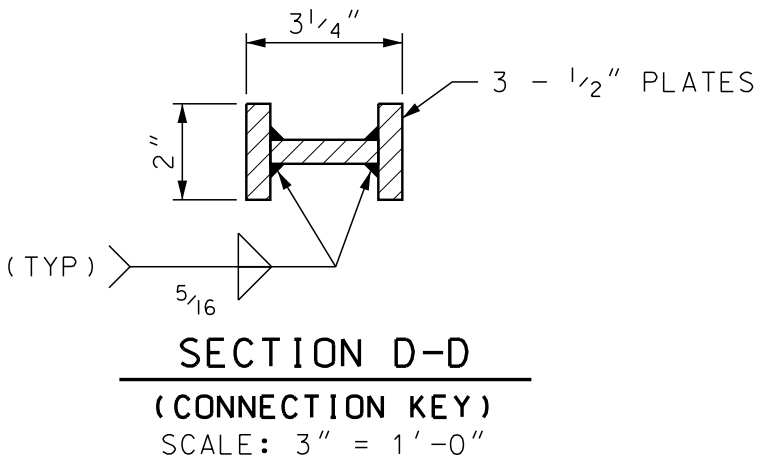
- BARRIERS SHALL BE LIGHT COLORED CLASS AA CONCRETE, WITH MINIMUM COMPRESSIVE STRENGTH OF 4000 psi, AND SHALL HAVE A SMOOTH UNIFORM SURFACE FREE OF DEFECTS AND IRREGULARITIES. CASTING DATE SHALL BE SHOWN ON BARRIER. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4", UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60. ALL REINFORCEMENT SHALL HAVE 1/2" MINIMUM CLEAR COVER, UNLESS OTHERWISE NOTED.
- STRUCTURAL STEEL, EXCEPT THE STEEL TUBES, SHALL BE ASTM A36 OR A572. ALL STEEL SHALL BE FABRICATED IN ACCORDANCE WITH SECTION 550.
- STEEL TUBES, 6" x 6" x 3/16" & 4" x 4" x 1/2", SHALL BE ASTM A 500 GRADE B OR C. ALL TUBES SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 550.
- ALL STEEL FOR CONNECTION KEY AND TRANSITION KEY ASSEMBLIES SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 550.
- A MINIMUM OF 2 LIFTING DEVICES, EACH WITH THE CAPACITY TO LIFT A MASS OF 6 TONS (MINIMUM), SHALL BE INSTALLED TO EACH BARRIER UNIT. TWENTY FOOT LONG CONCRETE BARRIER UNITS ARE APPROXIMATELY 400 LBS./FT.
- DELINEATORS SHALL BE ATTACHED TO BARRIER USING AN APPROVED ADHESIVE MATERIAL OR AS SHOWN ON THIS SHEET.



ELEVATION

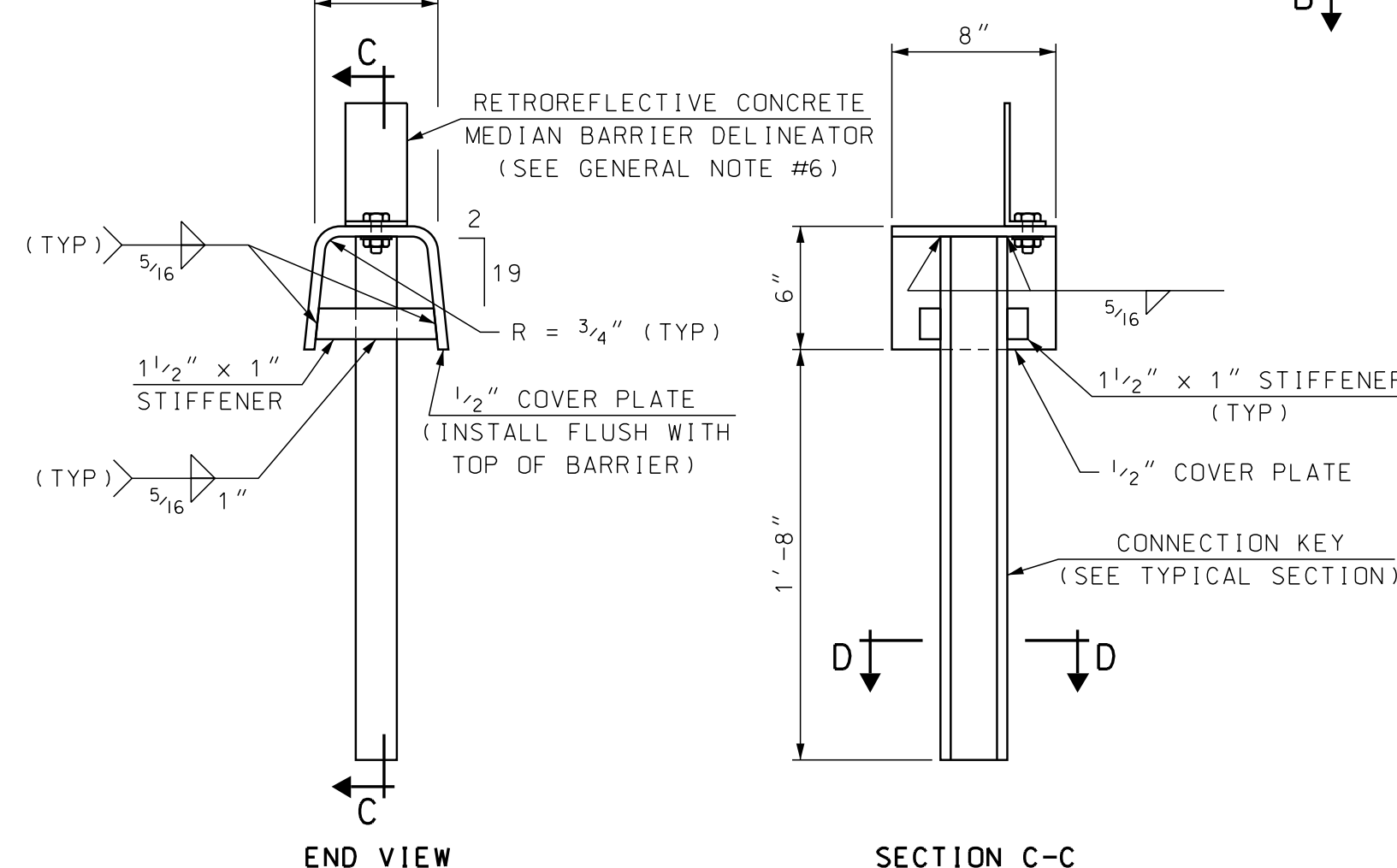
SCALE: 1" = 1'-0"

NO MODIFICATIONS SHALL BE MADE TO THIS SHEET



SECTION D-D (CONNECTION KEY)

SCALE: 3" = 1'-0"

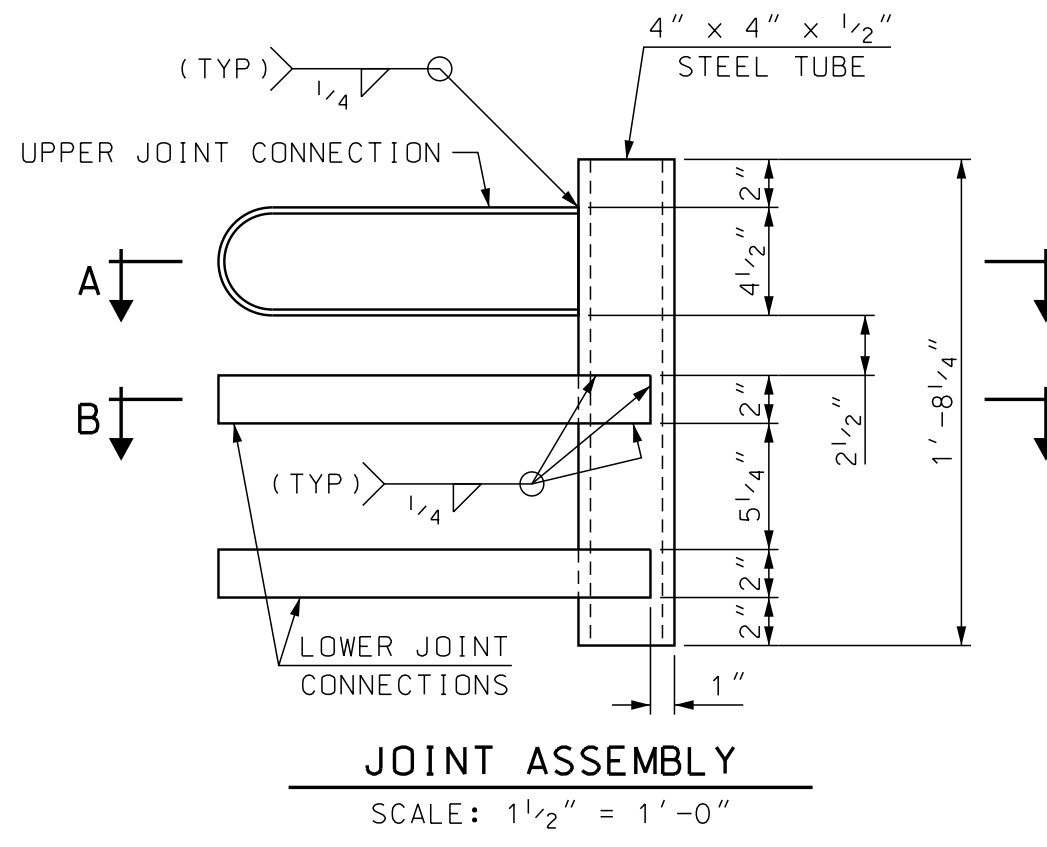


END VIEW

SECTION C-C

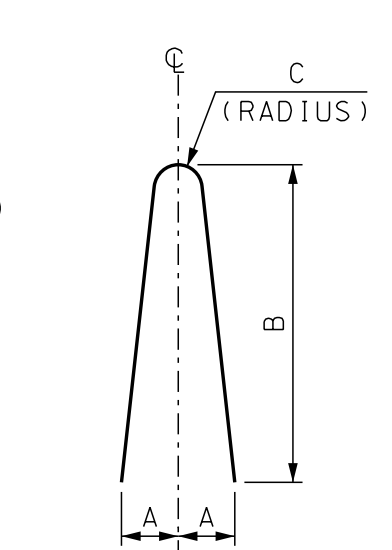
CONNECTION KEY ASSEMBLY DETAILS

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



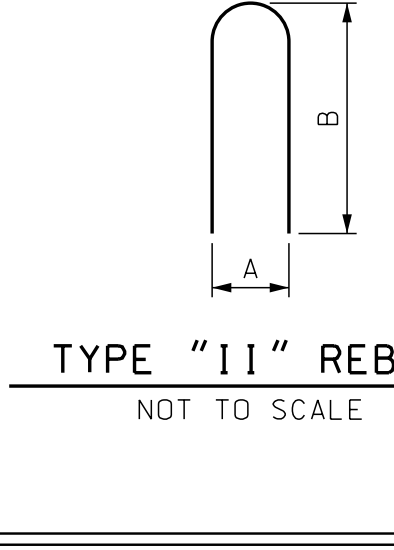
JOINT ASSEMBLY

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



TYPE "I" REBAR

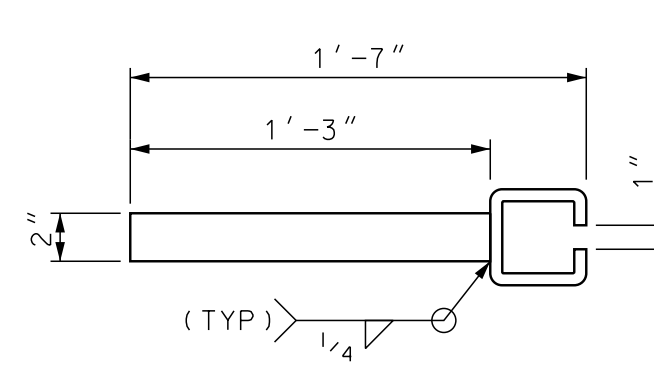
NOT TO SCALE



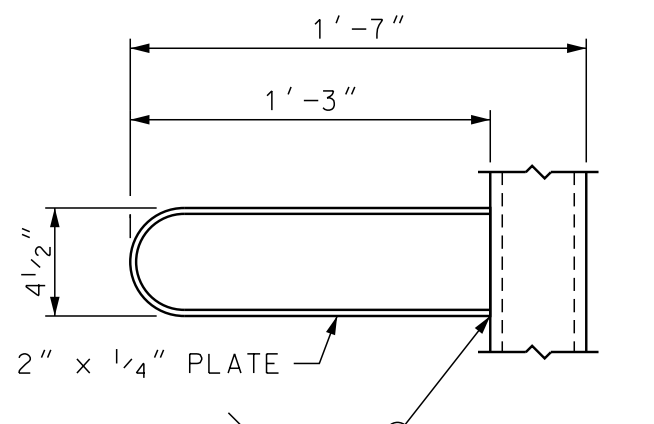
TYPE "II" REBAR

NOT TO SCALE

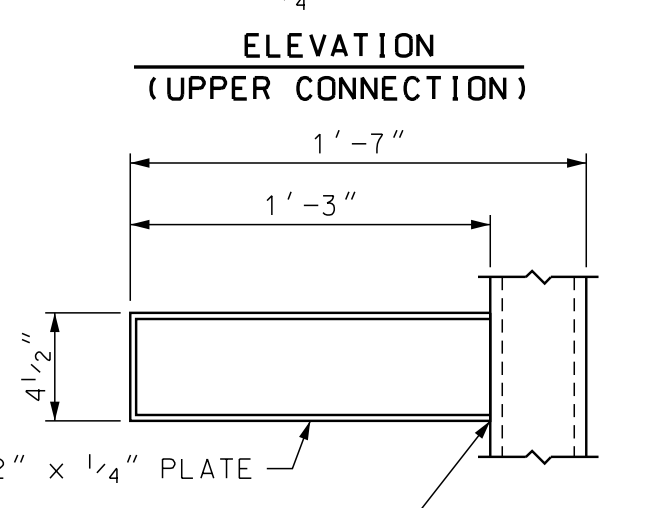
ONLY FOR USE WITH HIGHWAY STANDARD PLAN GR-23, PCB NCHRP 350 SEE NOTICE TO CONTRACTORS "SUNSETTING OF NON-MASH PCB ON THE NHS"



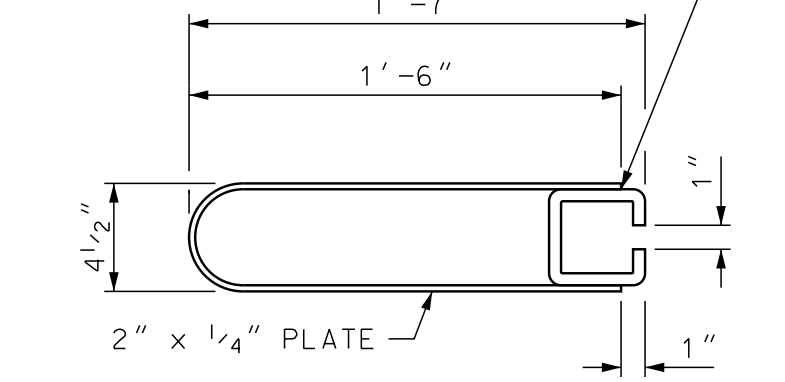
SECTION A-A (UPPER CONNECTION)



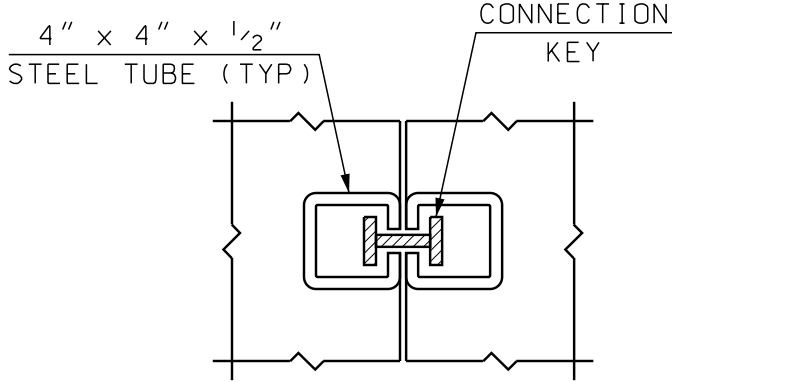
SECTION B-B (LOWER CONNECTION)



ELEVATION (UPPER CONNECTION - ALTERNATE)



SECTION B-B (LOWER CONNECTIONS - ALTERNATE)



CONNECTION JOINT DETAIL

NOT TO SCALE

JOINT CONNECTION DETAILS

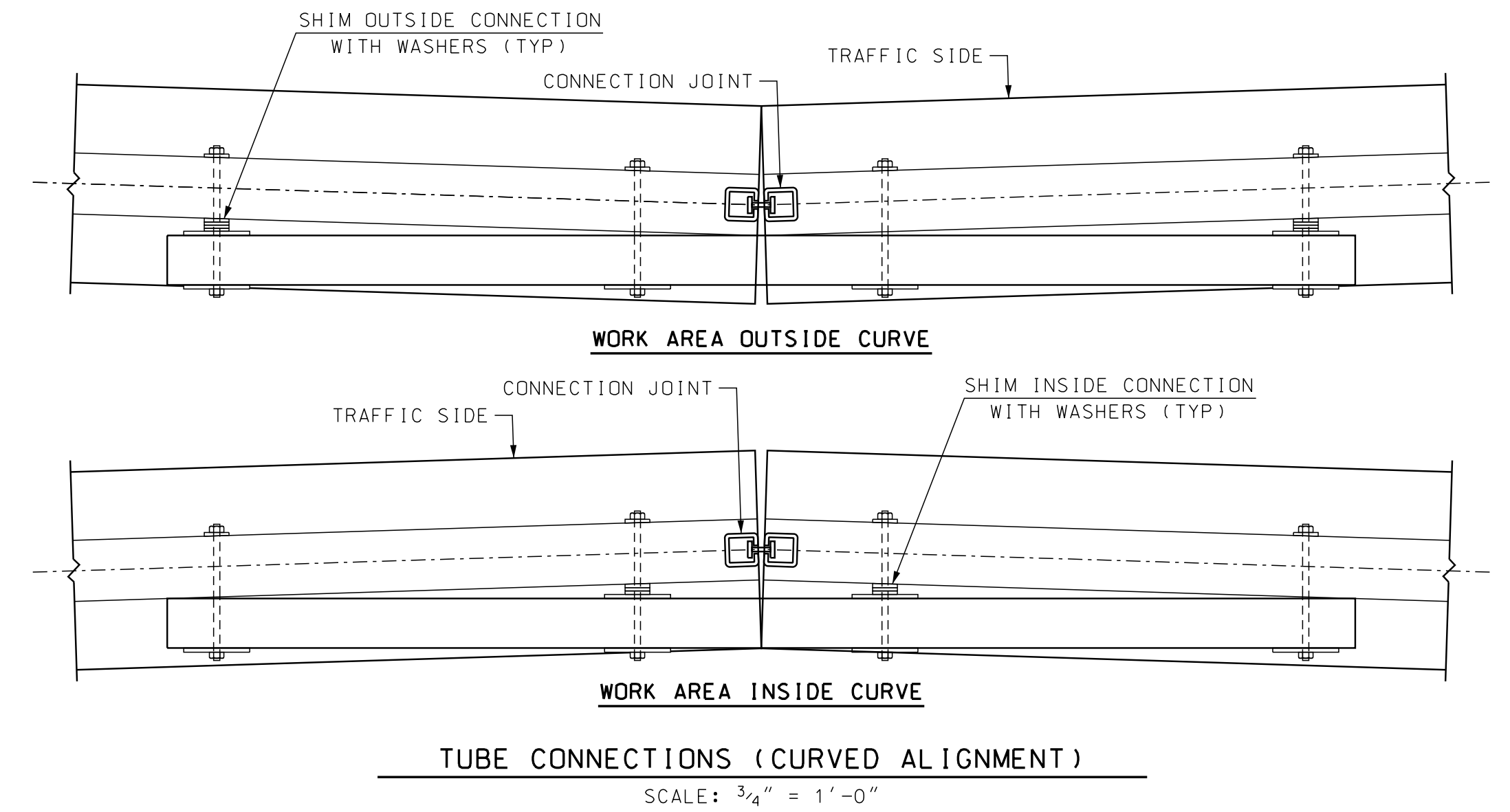
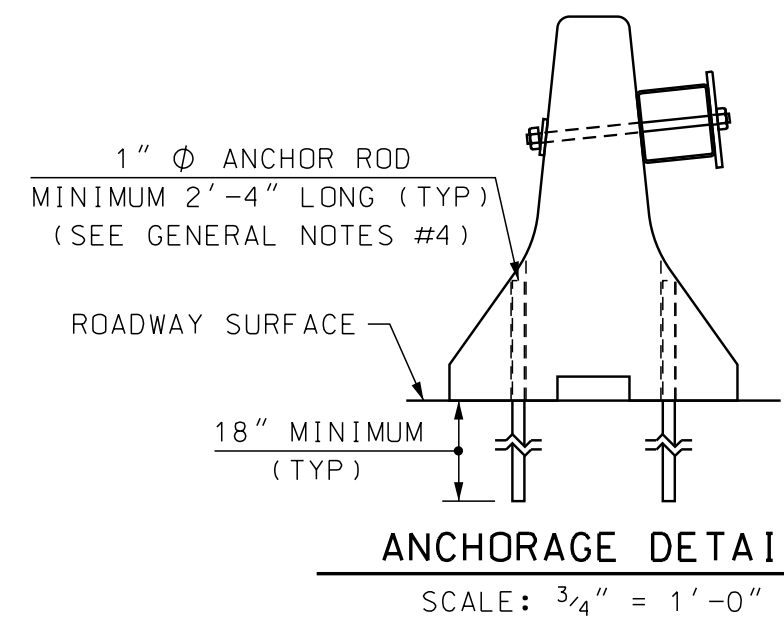
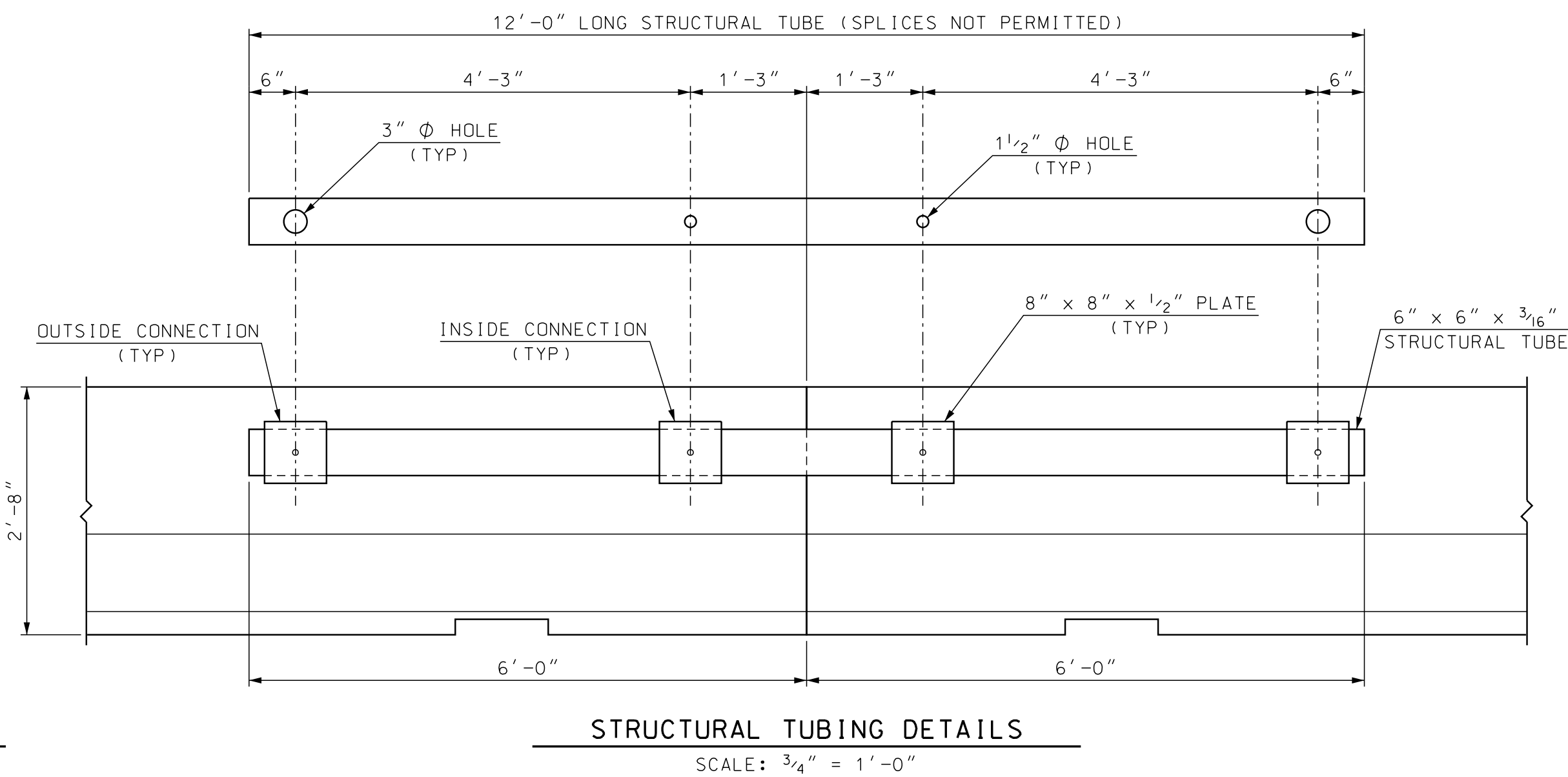
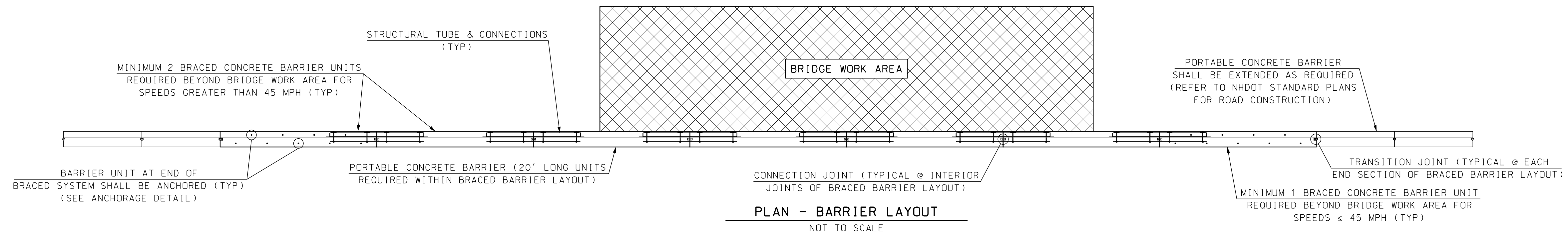
SCALE: 1 1/2" = 1'-0" (EXCEPT AS NOTED)

REINFORCING SCHEDULE (PER 20' BARRIER UNIT)								
MARK	SIZE	LENGTH	# PIECES	TYPE	A	B	C	LOCATION
B1	#4	4'-10"	9	I	5"	2'-4"	1"	STIRRUPS
B2	#6	19'-1"	2	---				LONGITUDINAL (TOP)
B3	#6	19'-9"	2	---				LONGITUDINAL (BOTTOM)
B4	#6	1'-2"	2	---				TRANSVERSE (BOTTOM)
B5	#6	6"	2	---				TRANSVERSE (TOP)
B6	#4	2'-9"	9	II	5"	1'-3"		STIRRUPS

SAMPLE PLAN
DATE: 9-2020

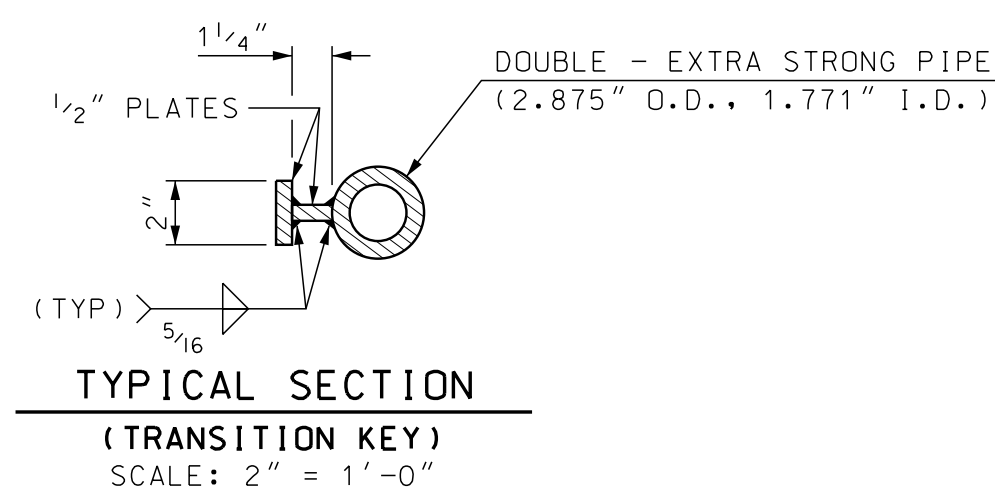
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/MISC	PCB-BRACED	AS NOTED

STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM - CARROLL	BRIDGE NO.		STATE PROJECT	42501				
LOCATION	PORTABLE CONCRETE BARRIER - BRACED (1 OF 2)					BRIDGE SHEET			
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	DATE	FILE NUMBER			
						136-4-1			
ISSUE DATE	8/15/12	FEDERAL PROJECT NO.		SHEET NO.	33	TOTAL SHEETS	38		
REV. DATE	6/1/20								

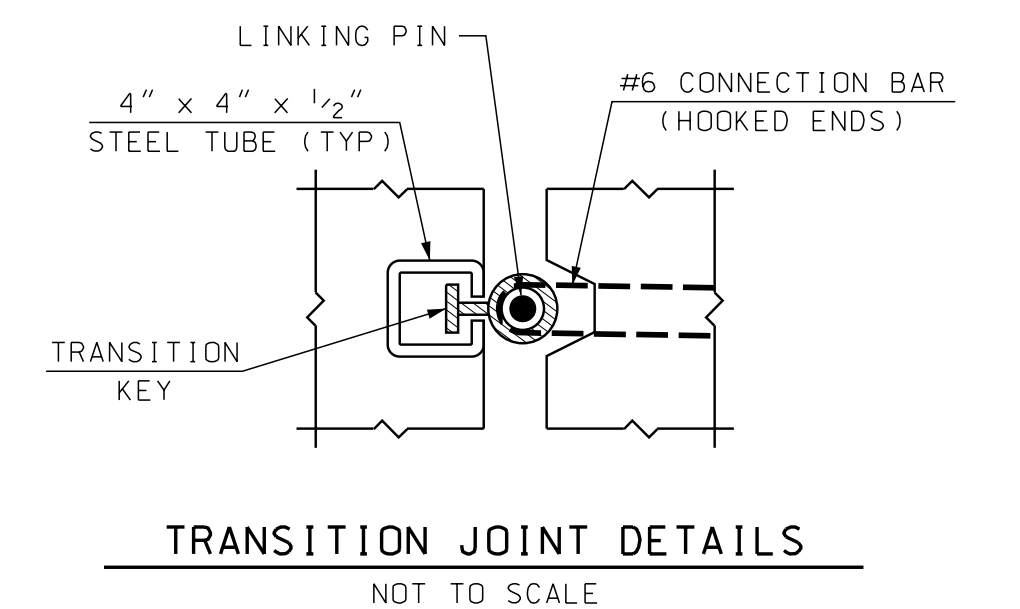
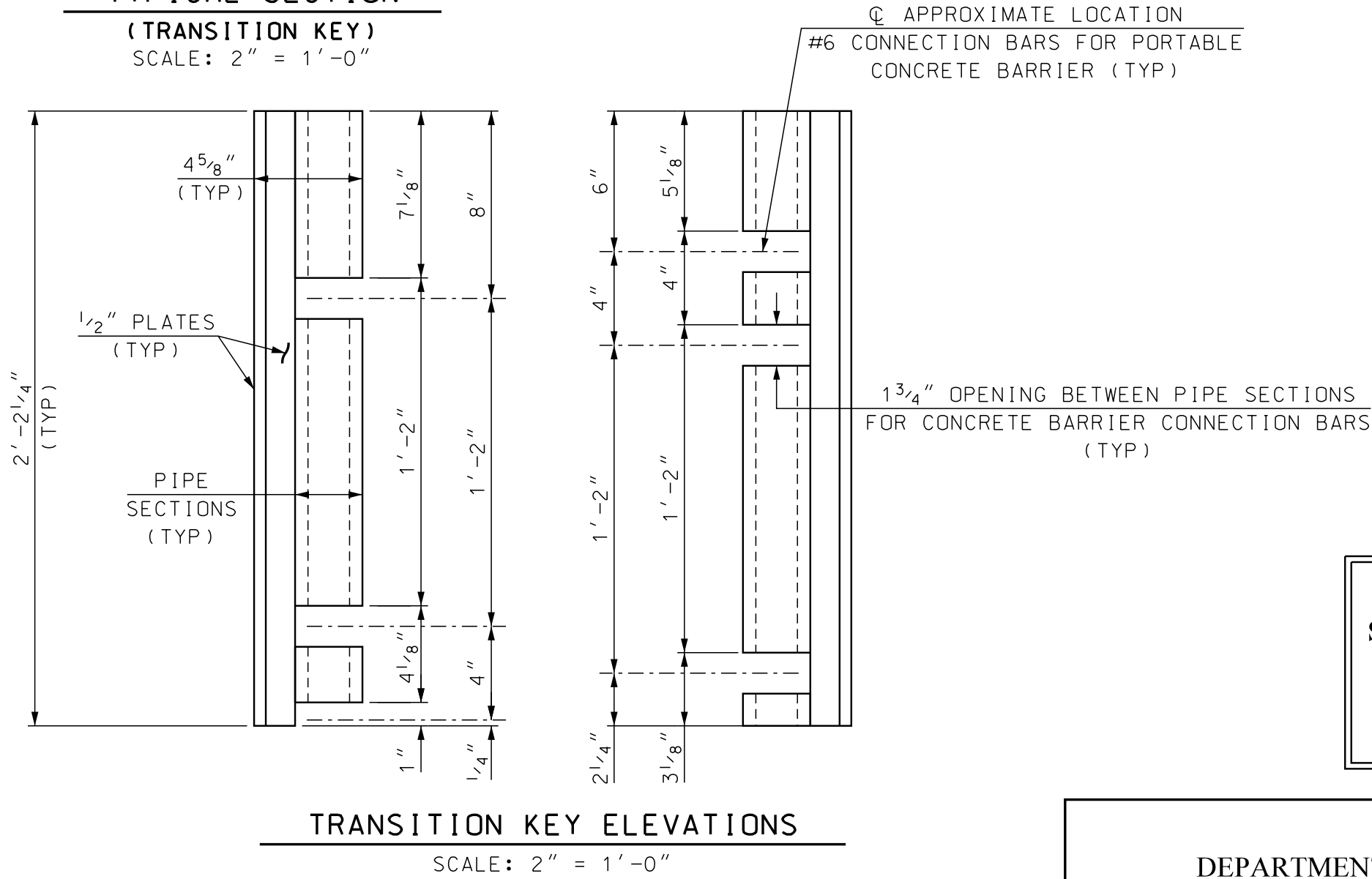
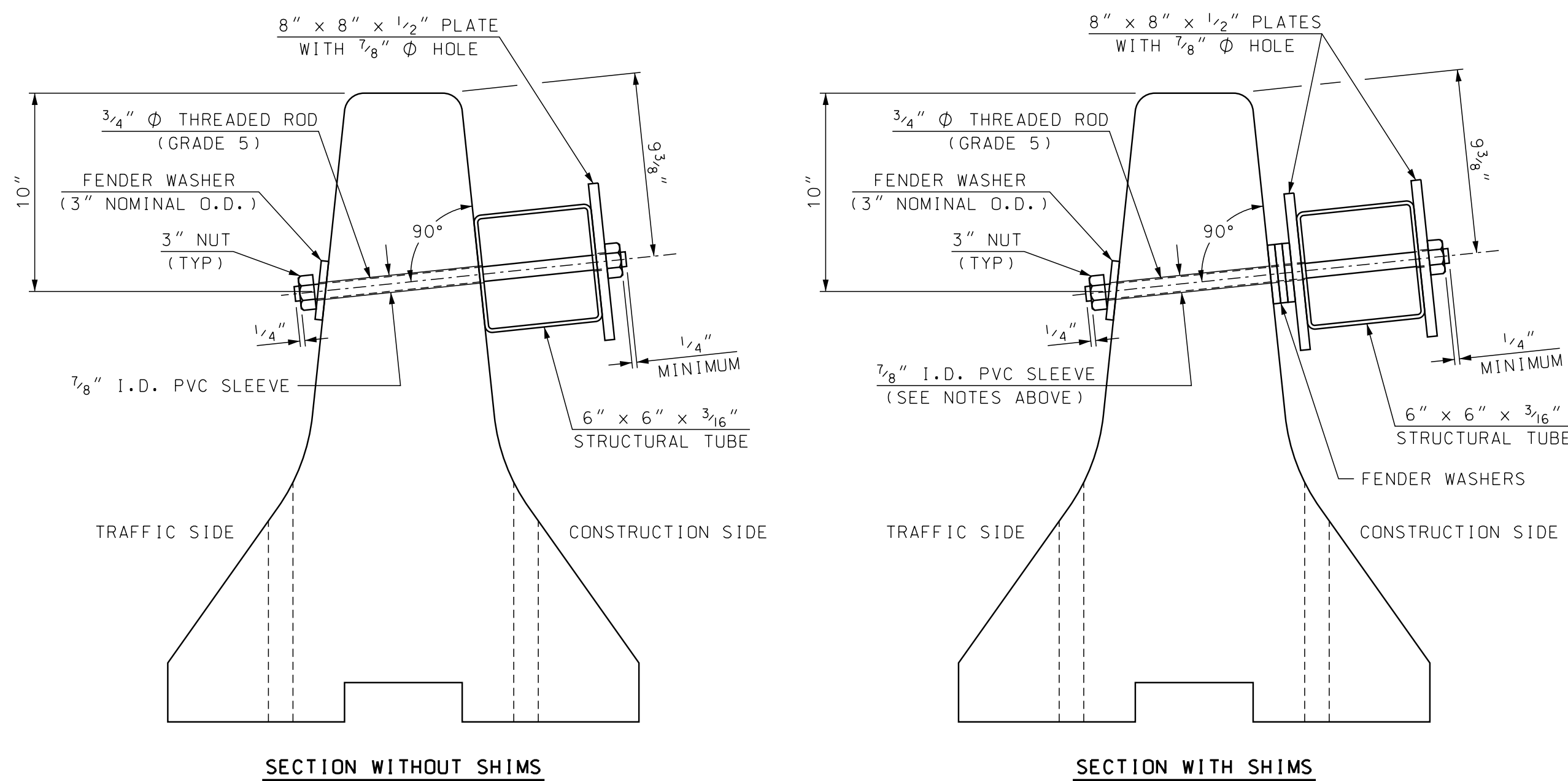


PVC SLEEVE OPENINGS SHALL BE MODIFIED/DRILLED AS REQUIRED TO PROPERLY ALIGN STRUCTURAL TUBE BRACING UNITS FOR CURVED ALIGNMENTS

THE PRESENCE OF NORMAL HOLES WHICH HAVE BEEN MODIFIED/DRILLED WILL NOT AFFECT THE REUSE OF CONCRETE BARRIER UNITS



NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.



ONLY FOR USE WITH HIGHWAY STANDARD PLAN GR-23, PCB NCHRP 350

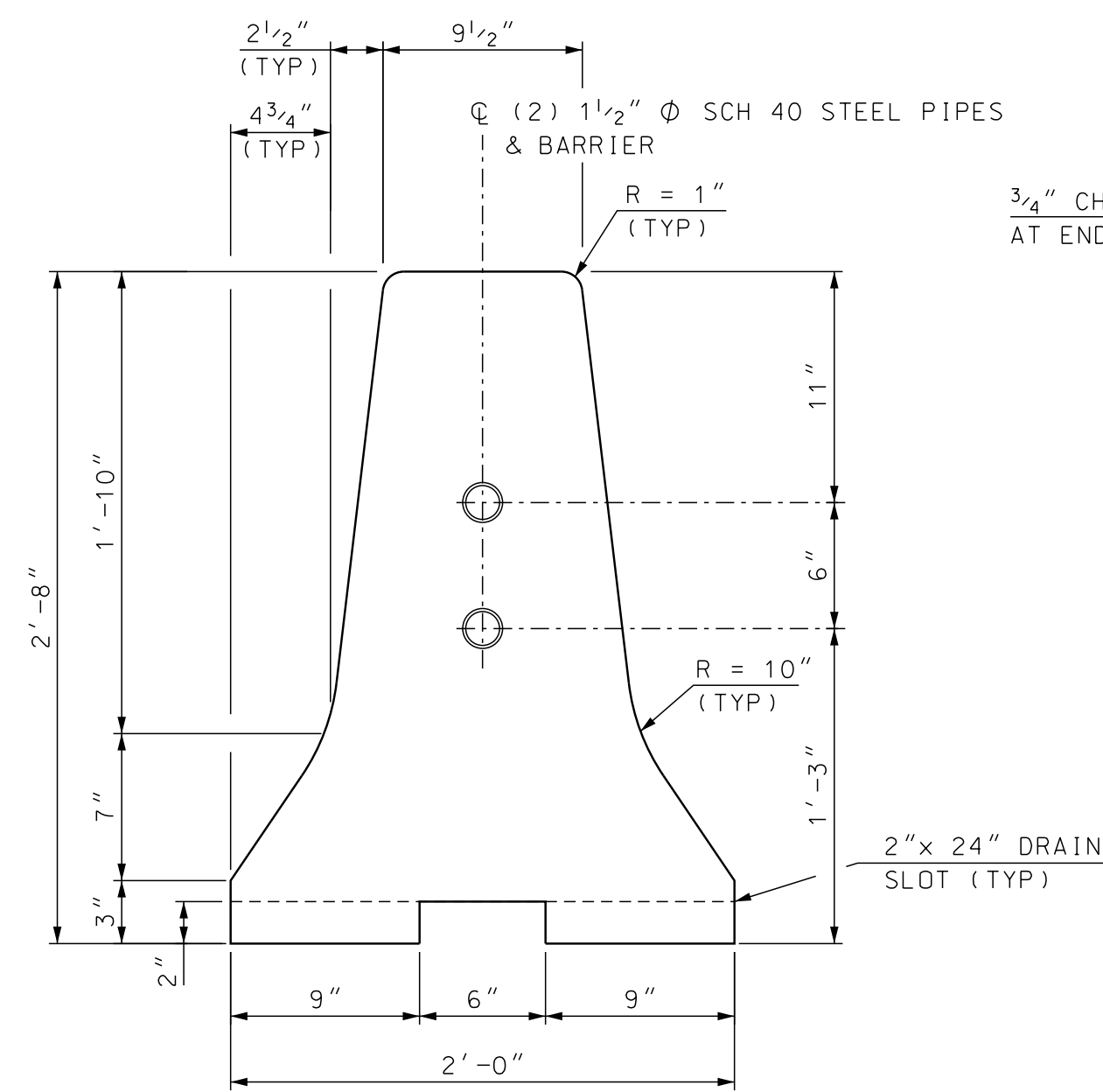
SEE NOTICE TO CONTRACTORS "SUNSETTING OF NON-MASH PCB ON THE NHS"

NO MODIFICATIONS SHALL BE MADE TO THIS SHEET

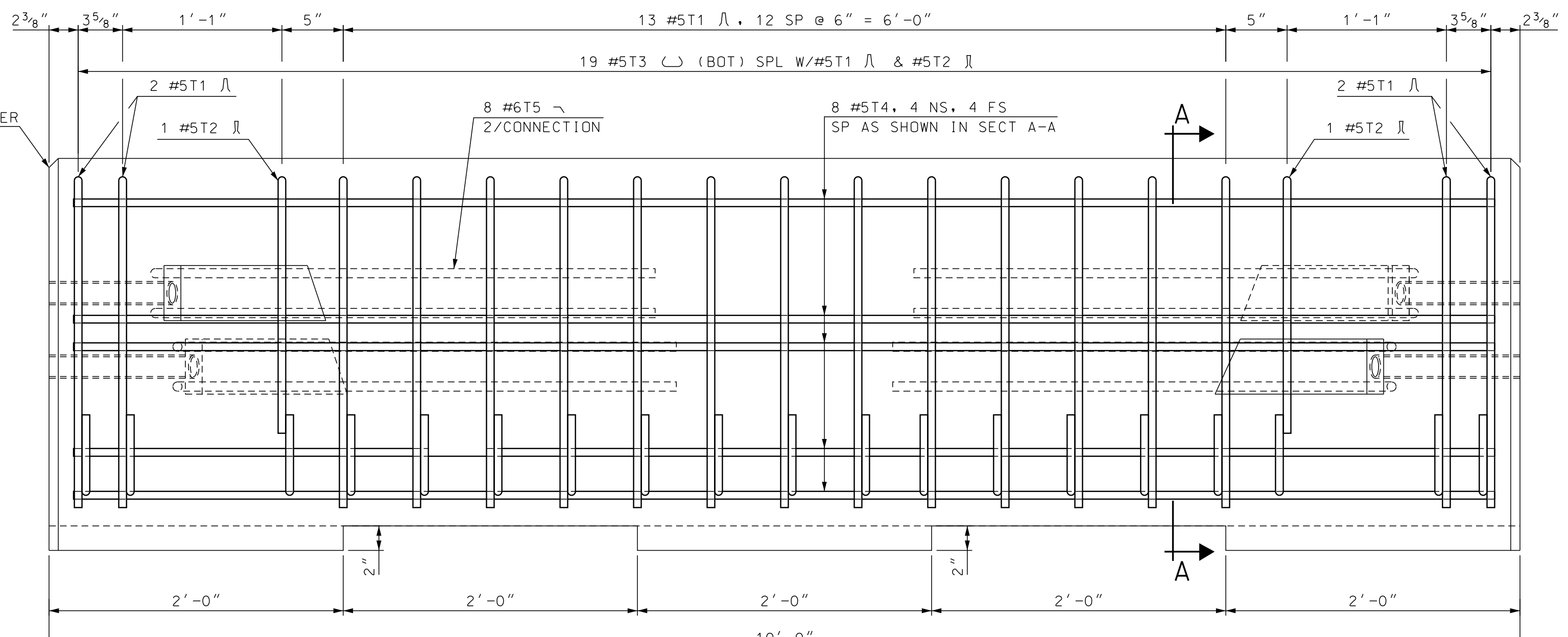
SAMPLE PLAN

DATE: 9-2020

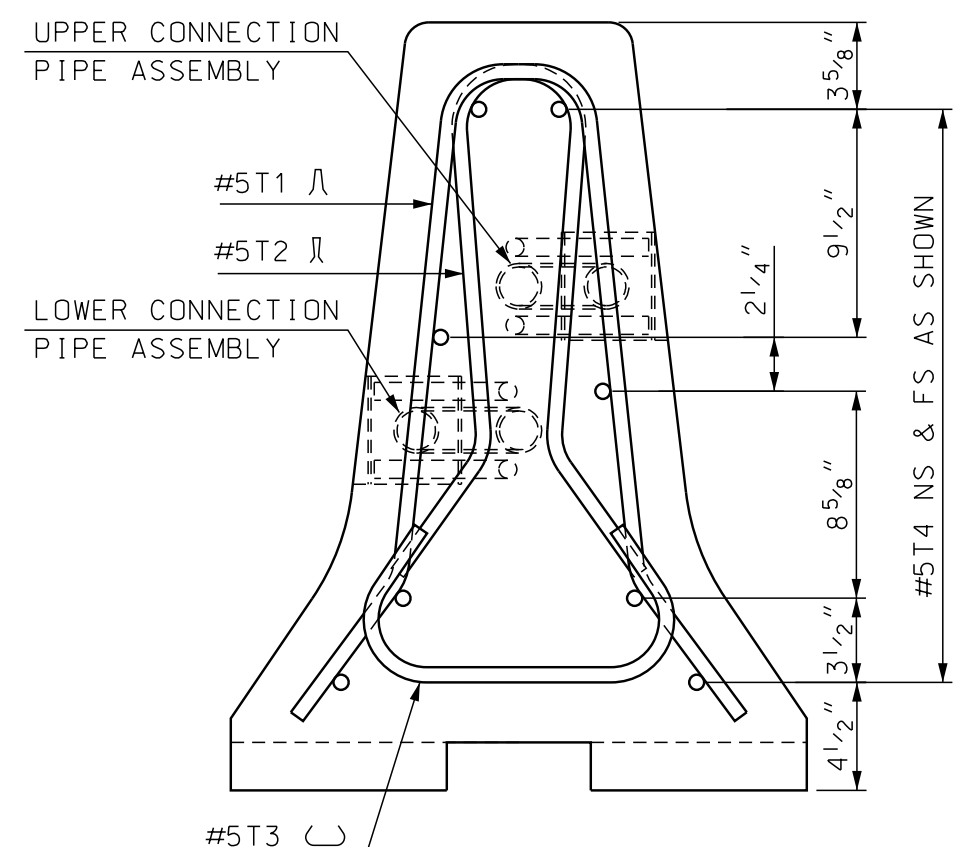
STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	BETHLEHEM - CARROLL	BRIDGE NO.		STATE PROJECT	42501				
LOCATION									
PORTABLE CONCRETE BARRIER - BRACED (2 OF 2)									
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	ABH	BY	DATE	FILE NUMBER	BRIDGE SHEET
		DESIGNED	NHDOT 7/12	CHECKED	ABH		8/12		30 OF 34
		DRAWN	PJP 8/12	CHECKED	ABH		8/12		136-4-1
		QUANTITIES	JEH 8/20	CHECKED	PML		8/20		
		ISSUE DATE	8/15/12	FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS	
		REV. DATE	6/1/20			34		38	



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



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



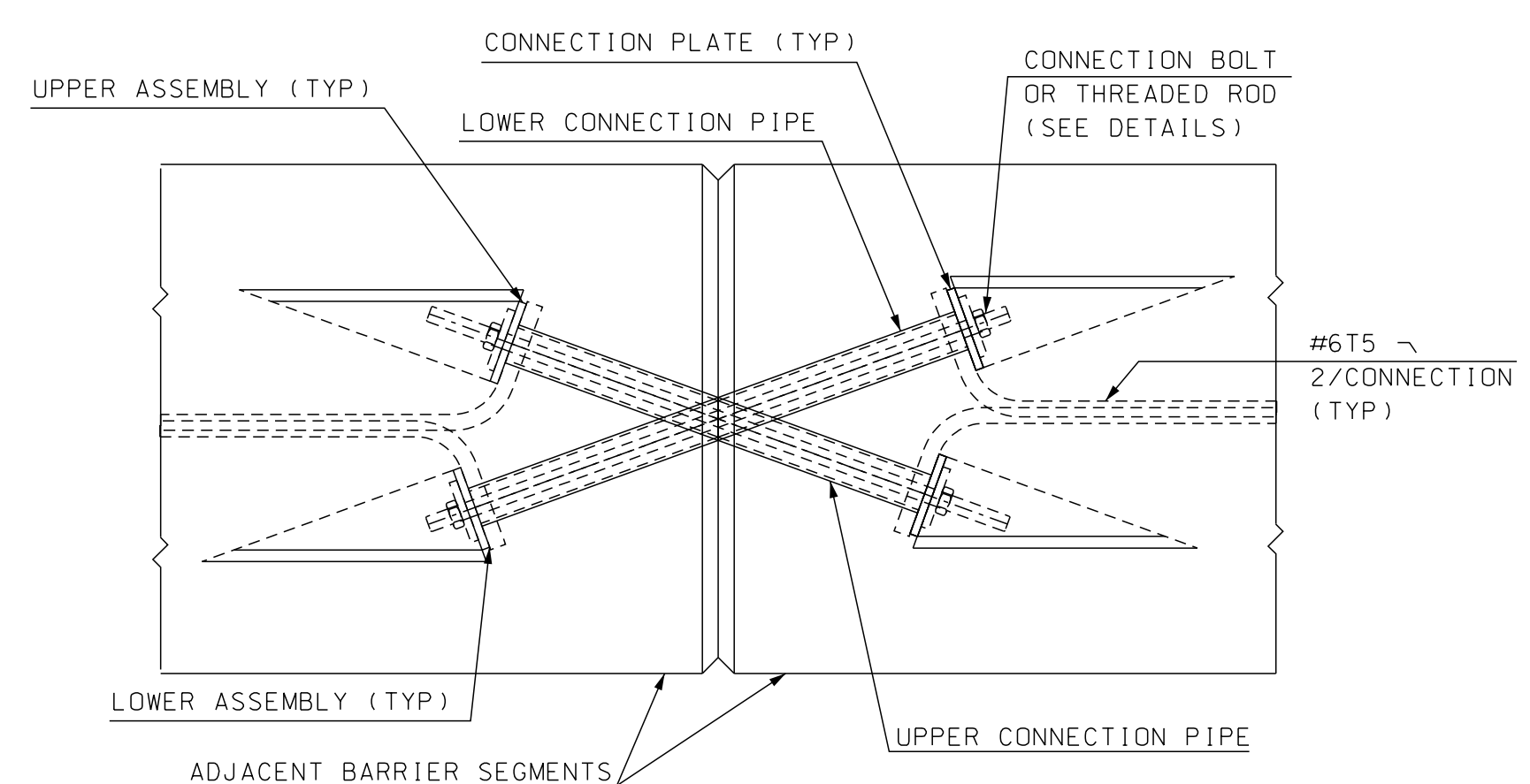
SECTION A-A
SCALE: 1 1/2" = 1'-0"

**NOTE: DETAILS AND NOTES
MAY NOT BE CURRENT.
CLOSELY REVIEW BEFORE
USING DETAILS.**

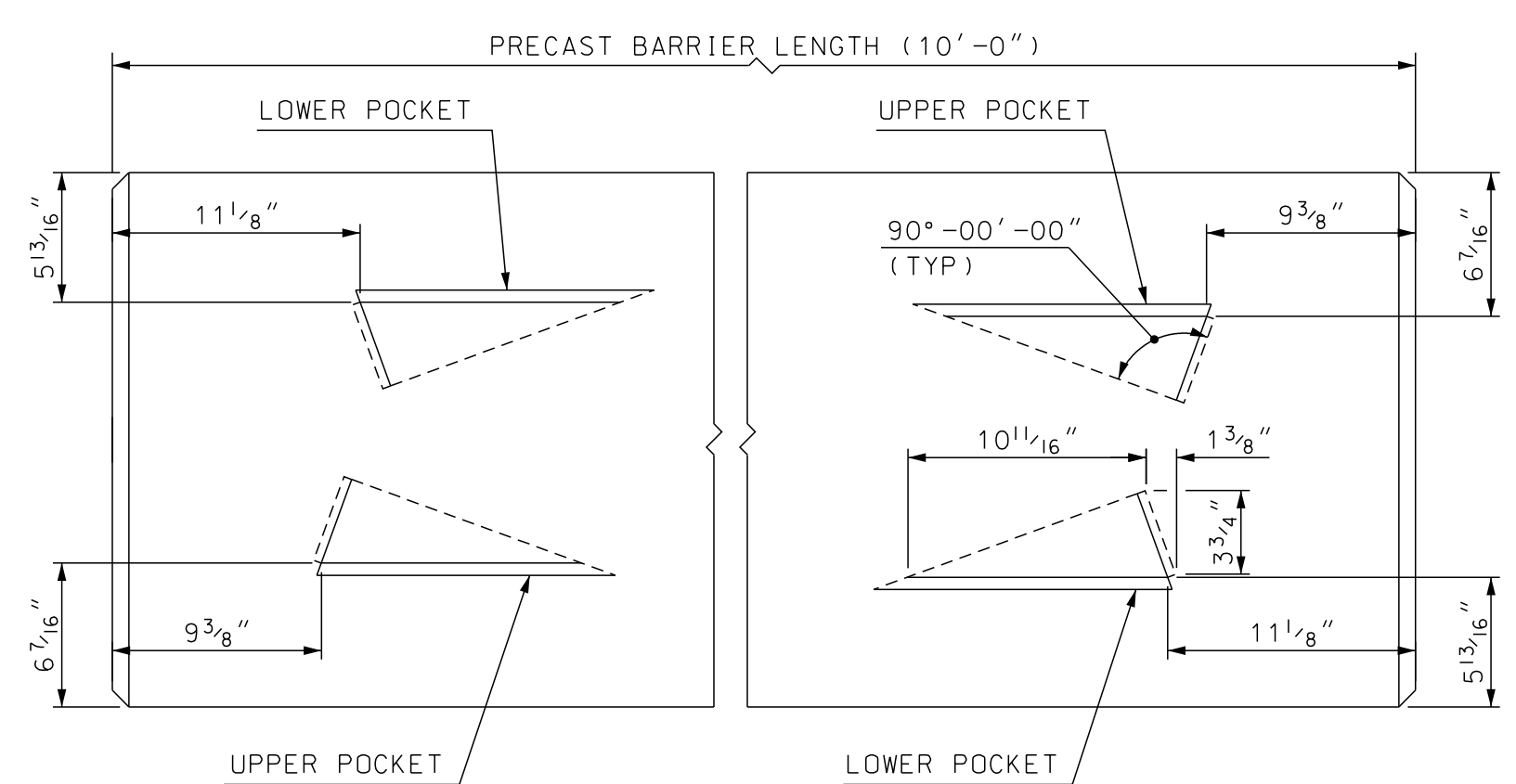
GENERAL NOTES:

- PORTABLE CONCRETE BARRIER SHALL BE FURNISHED BY THE CONTRACTOR AND PAID FOR AS ITEM 606.41741, PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL (BRIDGE). CONCRETE BARRIER AND ALL ATTACHMENTS SHALL BE FABRICATED IN ACCORDANCE WITH SPECIAL PROVISIONS. ALL BARRIER UNITS SHALL BE 10' LONG.
- PORTABLE CONCRETE BARRIER DETAILS, AS SHOWN ON THESE PLANS, ARE IN COMPLIANCE WITH REQUIREMENTS PER UPDATED NCHRP REPORT 350 FOR TEST NO 3-11 (MASH TEST LEVEL 3), CRASH TESTED BY TEXAS A&M UNIVERSITY SYSTEM, MAY 2005, AND ACCEPTED PER REPORT FHWA/TX-05/0-4692-1.
- THE BARRIER HAS BEEN CRASH TESTED WITH A 27" DYNAMIC DEFLECTION WHICH WILL ALLOW THE BARRIER TO BE PLACED A MINIMUM 12" FROM THE EDGE OF THE DECK.
- USAGE OF THE TEXAS X-BOLT BARRIER REQUIRES A MINIMUM OF 100 LINEAR FEET (10 - 10' UNITS). THE X-BOLT BARRIER SHALL EXTEND A MINIMUM OF 50' BEYOND THE BRIDGE AT EACH END, PARALLEL TO THE ROADWAY CENTERLINE. THE ENDS OF THE BARRIER SHALL CONNECT TO THE TRANSITION UNIT AND THEN TO NHDOT PCB FLARED OUT THE REQUIRED CLEAR ZONE AS SHOWN ON SHEET 2 OF 3.
- THE CONNECTION BOLTS AT THE BARRIER JOINTS SHALL BE TIGHTENED TO THE "TURN OF THE NUT" METHOD IN ACCORDANCE WITH SECTION 550.3.11.6.4 OF NHDOT STANDARD SPECIFICATIONS. AFTER INSTALLATION, ALL X-BOLT JOINTS SHALL BE CHECKED BY THE CONTRACT ADMINISTRATOR CONFIRMING THEY MEET THE TIGHTENED REQUIREMENT.
- THE TEXAS X-BOLT BARRIER MAY BE INSTALLED WITH A 125' MINIMUM RADIUS OF CURVATURE AND A RELATIVE ANGLE OF 4 DEGREES BETWEEN THE 10' UNITS.
- THE CONTRACTOR SHALL FURNISH AND INSTALL APPROVED RETROREFLECTIVE DELINEATORS AT 25-FOOT INTERVALS ALONG TOP AND/OR ONE FOOT DOWN THE SIDE OF PORTABLE CONCRETE BARRIER, SUBSIDIARY TO ITEM 606.41741 (SEE STANDARD NO. DL-1 OF NHDOT STANDARD PLANS FOR ROAD CONSTRUCTION). THE COLOR OF THE DELINEATORS SHALL, IN ALL INSTANCES, CONFORM TO THE COLOR OF THE EDGE LINE MARKINGS. DELINEATOR SUPPLEMENT, BUT DO NOT REPLACE, THE NEED FOR RETROREFLECTIVE SOLID EDGE LINE MARKINGS.

NOTE: CONNECTION HARDWARE SHALL NOT EXTEND BEYOND THE CONCRETE FACE OF BARRIER



TYPE X JOINT CONNECTION DETAILS
SCALE: 1 1/2" = 1'-0"



TOP VIEW CONNECTION POCKETS
SCALE: 1 1/2" = 1'-0"

SAMPLE PLAN
DATE: 9-2020

**NO MODIFICATIONS
SHOULD BE MADE TO
THIS SHEET**

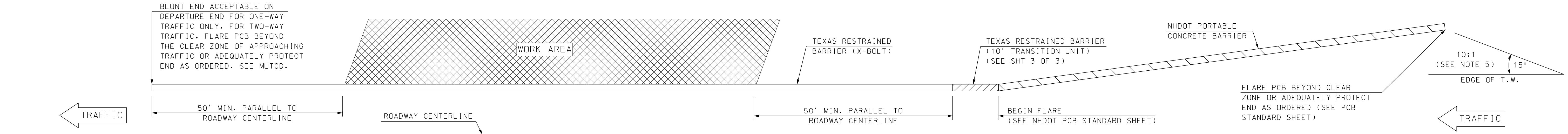
**ONLY FOR USE WITH HIGHWAY
STANDARD PLAN GR-23, PCB NCHRP 350**
SEE NOTICE TO CONTRACTORS "SUNSETTING
OF NON-MASH PCB ON THE NHS"

BARRIER WEIGHT APPROX. 2.38 TONS

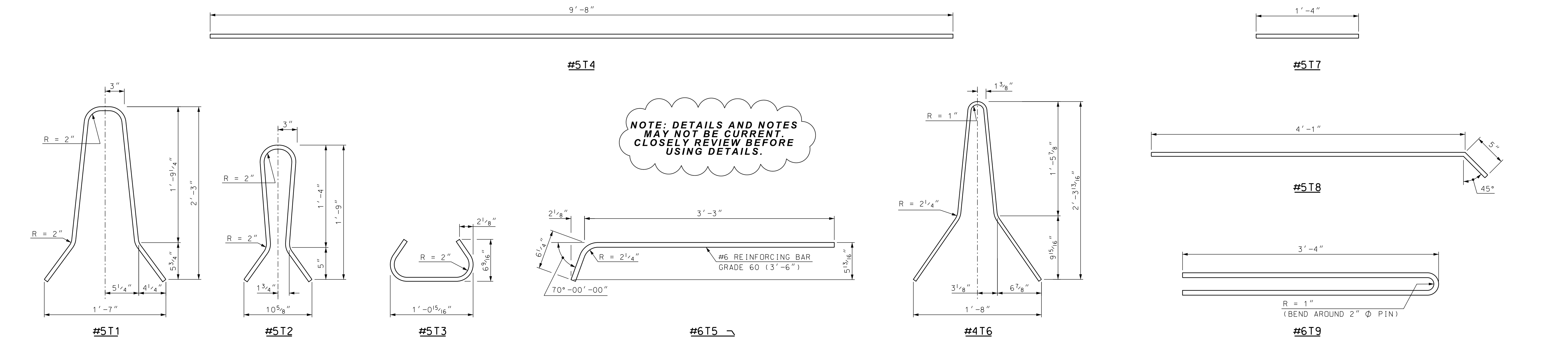
STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM - CARROLL	BRIDGE NO.		STATE PROJECT	42501
TEXAS RESTRAINED BARRIER (X-BOLT) (1 OF 3)					
REVISIONS AFTER PROPOSAL	BY	DATE	BY	DATE	BRIDGE SHEET
	DESIGNED	TXDOT 12/10	CHECKED	NHDOT 4/18	31 OF 34
	DRAWN	GMC 1/18	CHECKED	NHDOT 4/18	FILE NUMBER
	QUANTITIES	JEH 8/20	CHECKED	PML 8/20	136-4-1
ISSUE DATE	5/15/18	FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
REV. DATE	6/1/20			35	38

SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/MISC	X-Bolt Barrier	AS NOTED

BLUNT END ACCEPTABLE ON DEPARTURE END FOR ONE-WAY TRAFFIC ONLY. FOR TWO-WAY TRAFFIC, FLARE PCB BEYOND THE CLEAR ZONE OF APPROACHING TRAFFIC OR ADEQUATELY PROTECT END AS ORDERED. SEE MUTCD.

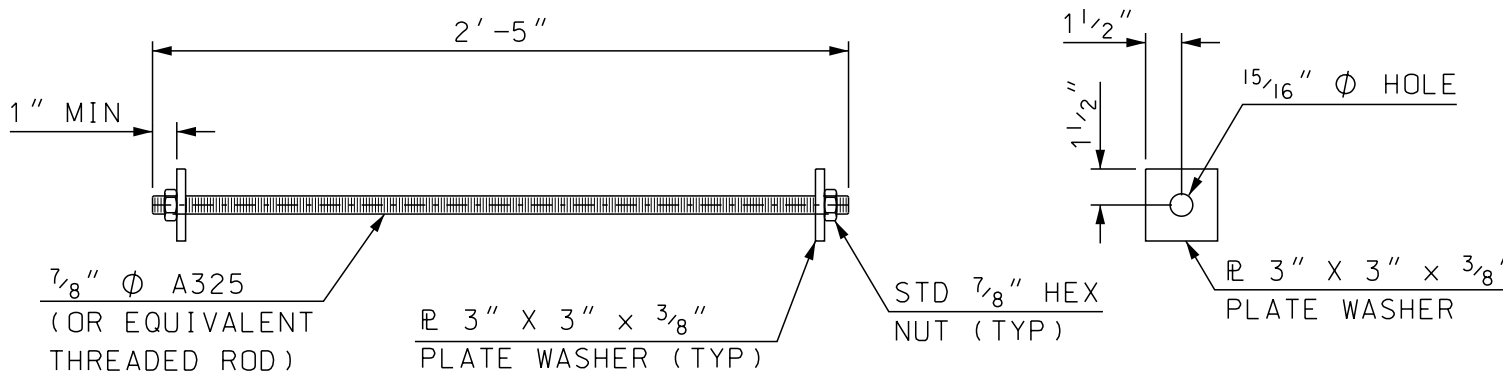


PLAN - BARRIER LAYOUT
(NTS)

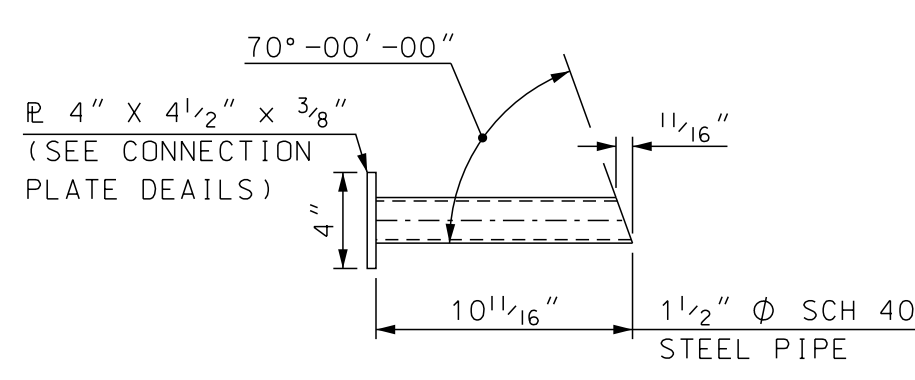


NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

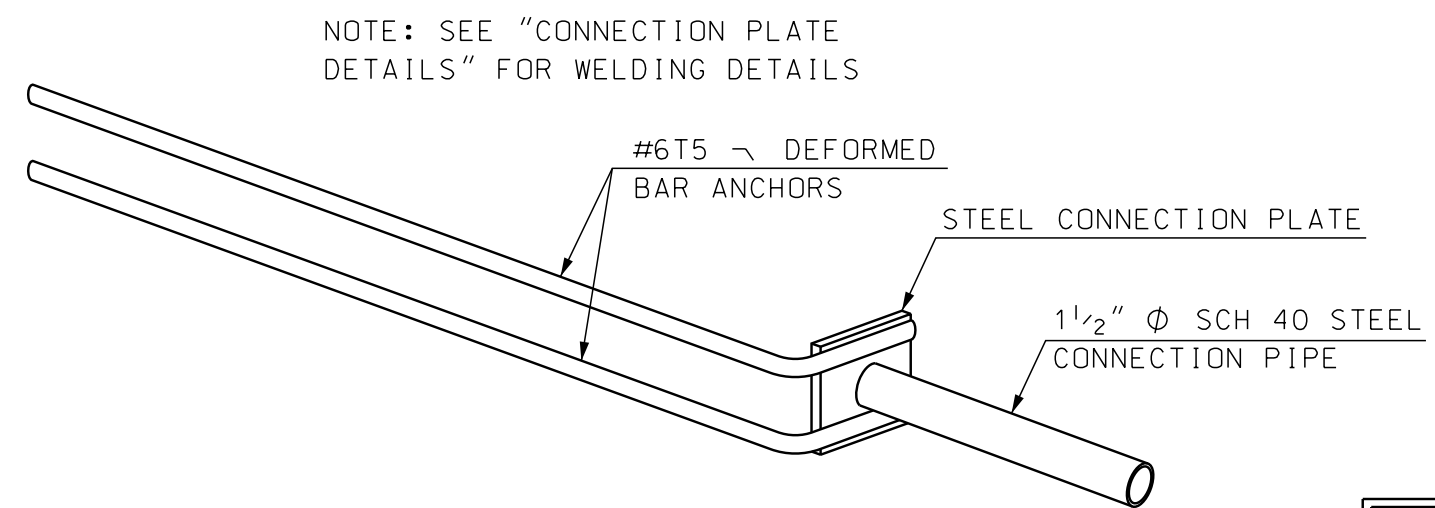
BENDING SCHEDULE
SCALE: 1 1/2" = 1'-0"



CONNECTION BOLT OR THREADED ROD DETAILS
SCALE: 1 1/2" = 1'-0"



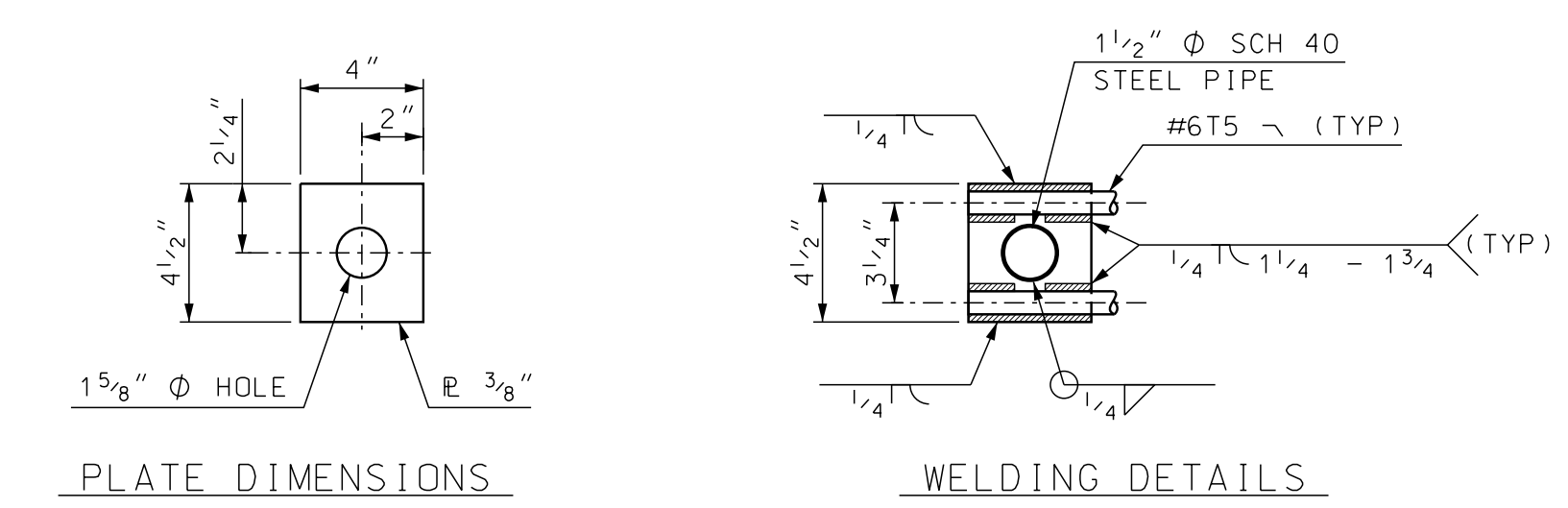
UPPER CONNECTION PIPE DETAIL
SCALE: 1 1/2" = 1'-0"



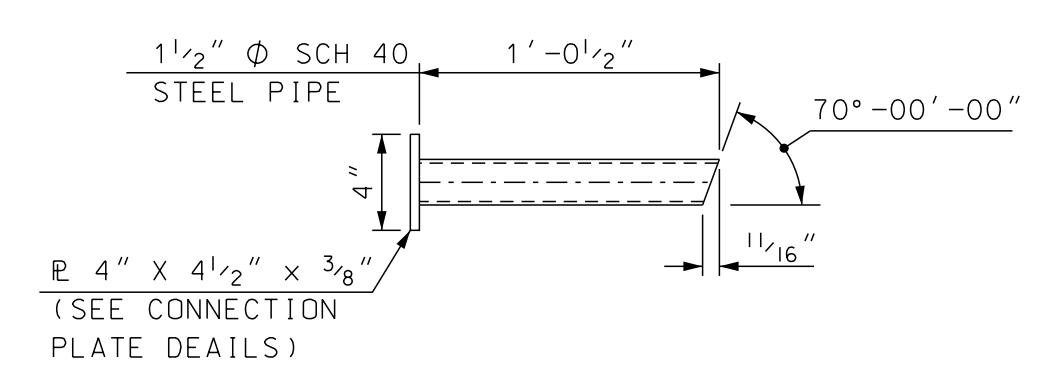
ISOMETRIC VIEW OF TYPICAL WELD ASSEMBLY
SCALE: N.T.S.

REBAR SCHEDULE TEXAS X-BOLT (10' BARRIER)			
MK	QTY	LENGTH	
T1	#5	17	5'-2"
T2	#5	2	4'-0"
T3	#5	19	2'-1"
T4	#5	8	9'-8"
T5	#6	8	3'-9"

REBAR SCHEDULE TRANSITION (10' BARRIER)			
MK	QTY	LENGTH	
T1	#5	9	5'-2"
T2	#5	1	4'-0"
T3	#5	10	2'-1"
T4	#5	8	9'-8"
T5	#6	4	3'-9"
T6	#4	4	5'-2"
T7	#5	4	1'-4"
T8	#5	2	4'-6"
T9	#6	3	6'-10"



CONNECTION PLATE DETAILS
SCALE: 2" = 1'-0"



LOWER CONNECTION PIPE DETAIL
SCALE: 1 1/2" = 1'-0"

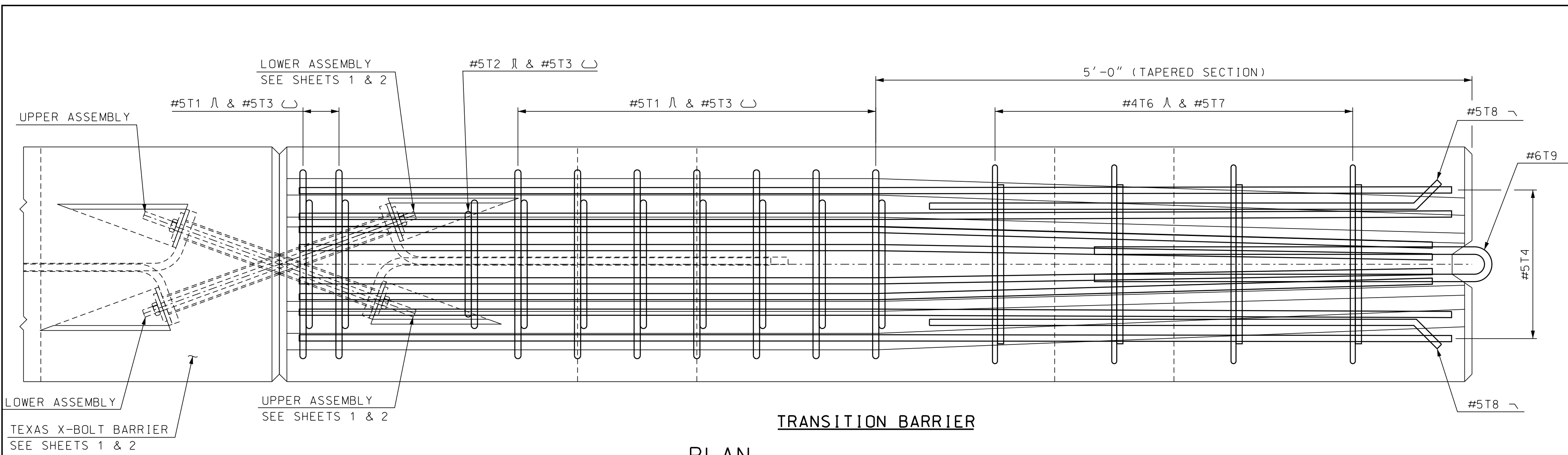
SAMPLE PLAN
DATE: 9-2020

NO MODIFICATIONS SHOULD BE MADE TO THIS SHEET

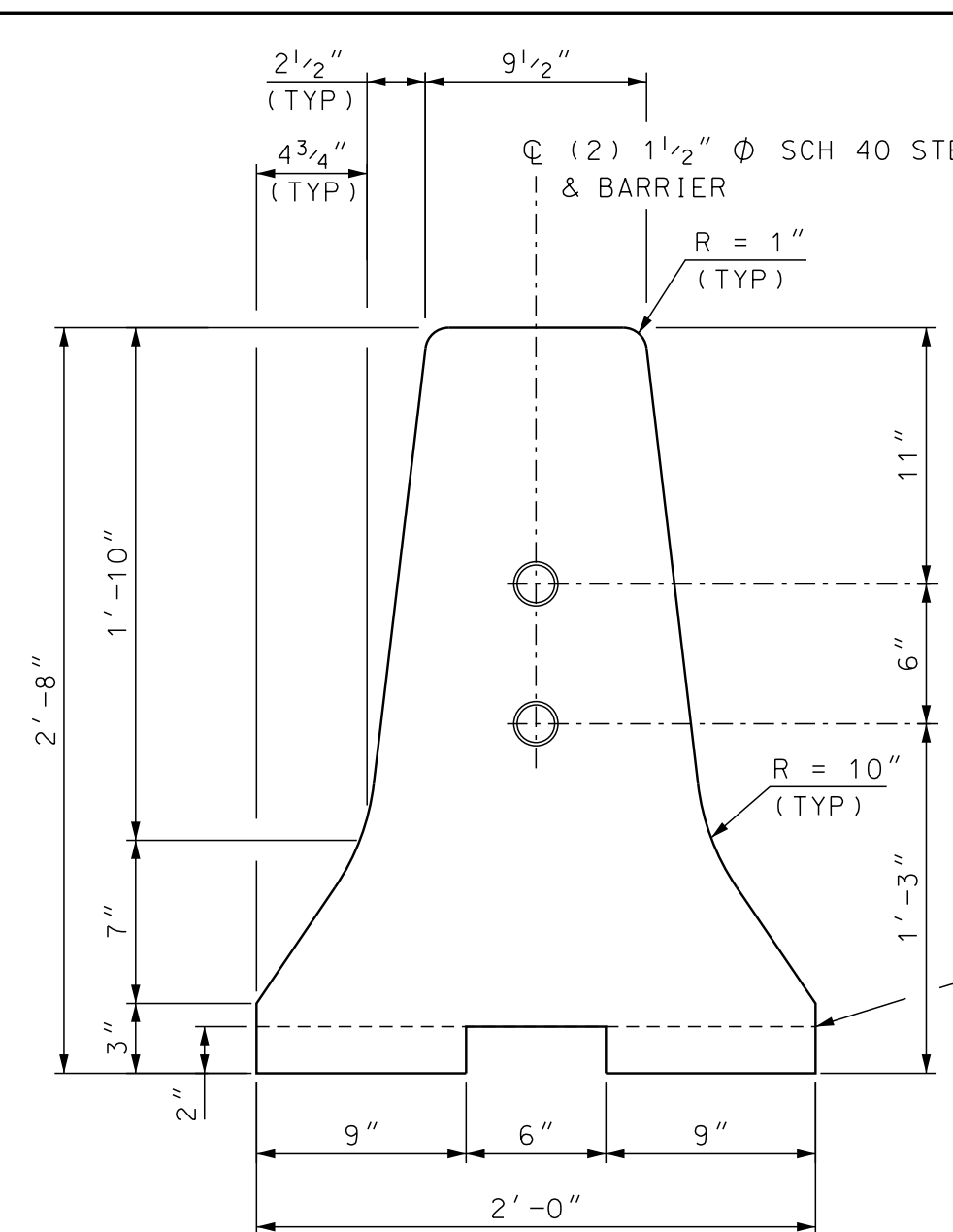
ONLY FOR USE WITH HIGHWAY STANDARD PLAN GR-23, PCB NCHRP 350
SEE NOTICE TO CONTRACTORS "SUNSETTING OF NON-MASH PCB ON THE NHS"

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN BETHLEHEM - CARROLL			BRIDGE NO.			STATE PROJECT 42501			BRIDGE SHEET
LOCATION TEXAS RESTRAINED BARRIER (X-BOLT) (2 OF 3)									
DESIGNED TXDOT		DATE 12/10		CHECKED NHDOT		DATE 4/18		32 OF 34	
DRAWN GMC		DATE 1/18		CHECKED NHDOT		DATE 4/18		FILE NUMBER	
QUANTITIES JEH		DATE 8/20		CHECKED PML		DATE 8/20		136-4-1	
ISSUE DATE 5/15/18		FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS			
REV. DATE 6/1/20		-----		36		38			

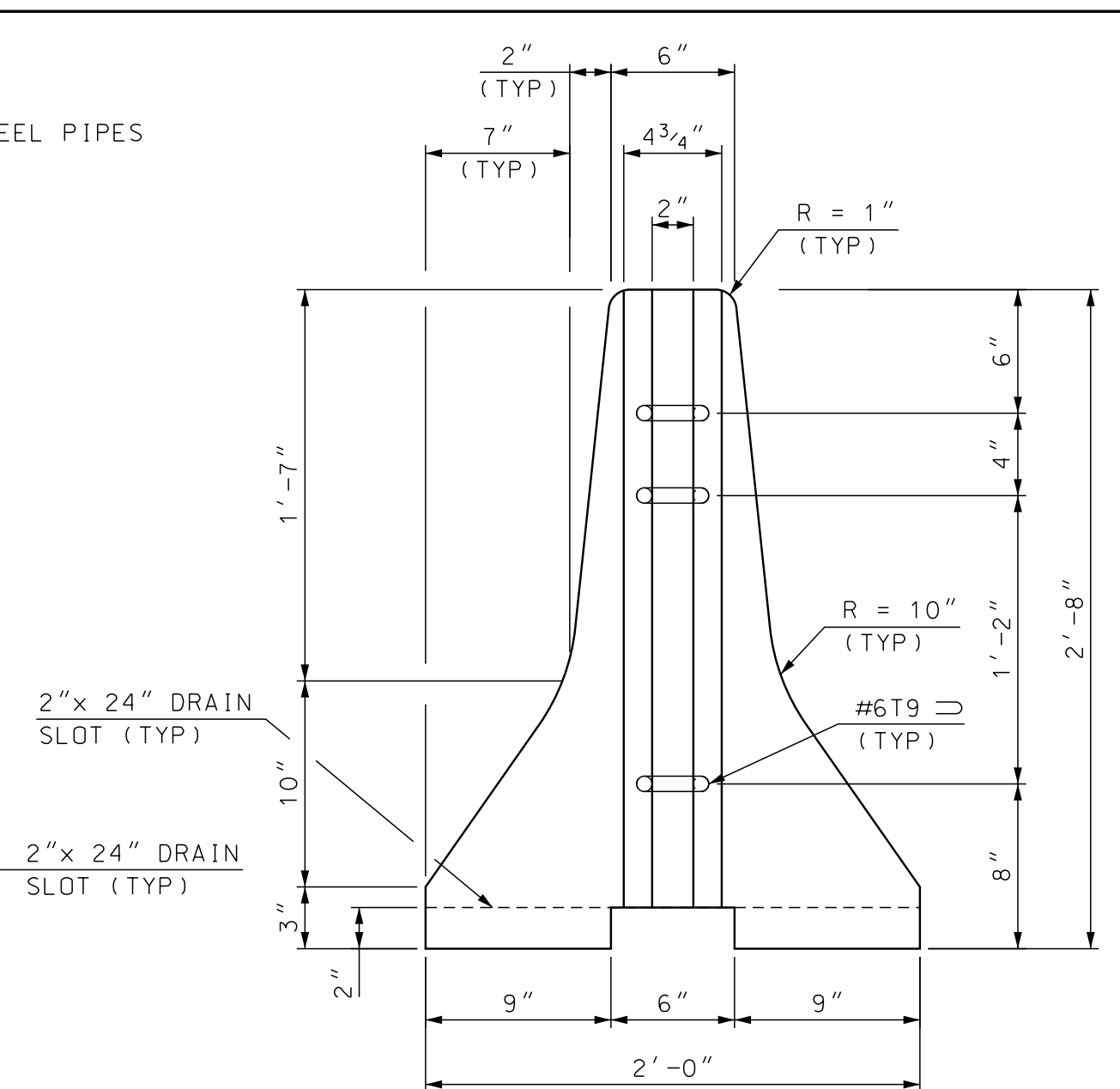
SUBDIRECTORY	DGN LOCATOR	SHEET SCALE
BRC/MISC	X-Bolt Barrier	AS NOTED



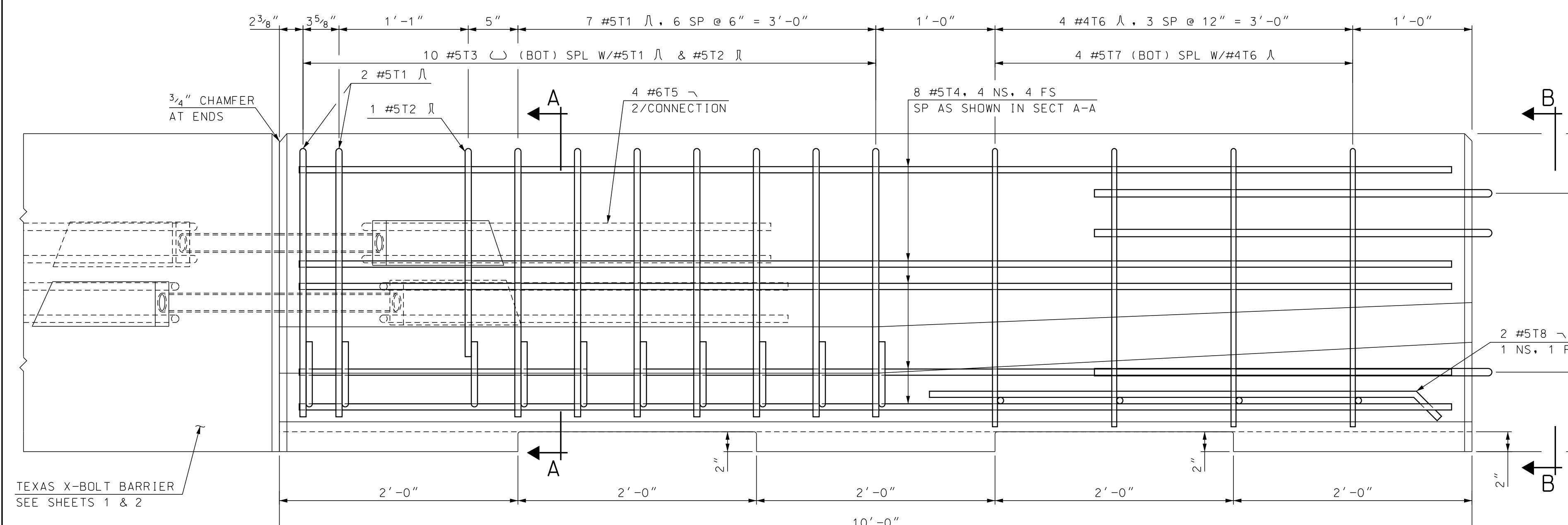
PLAN
SCALE: 1 1/2" = 1'-0"



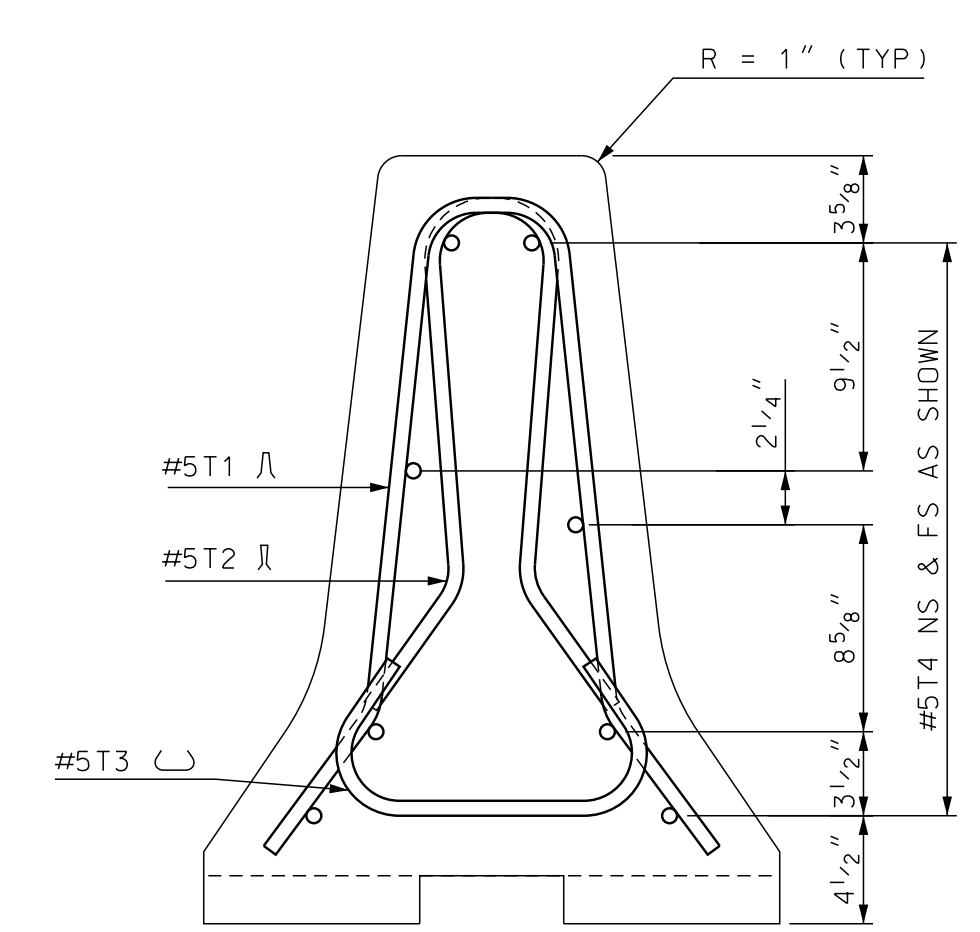
END VIEW SECTION A-A
SCALE: 1 1/2" = 1'-0"



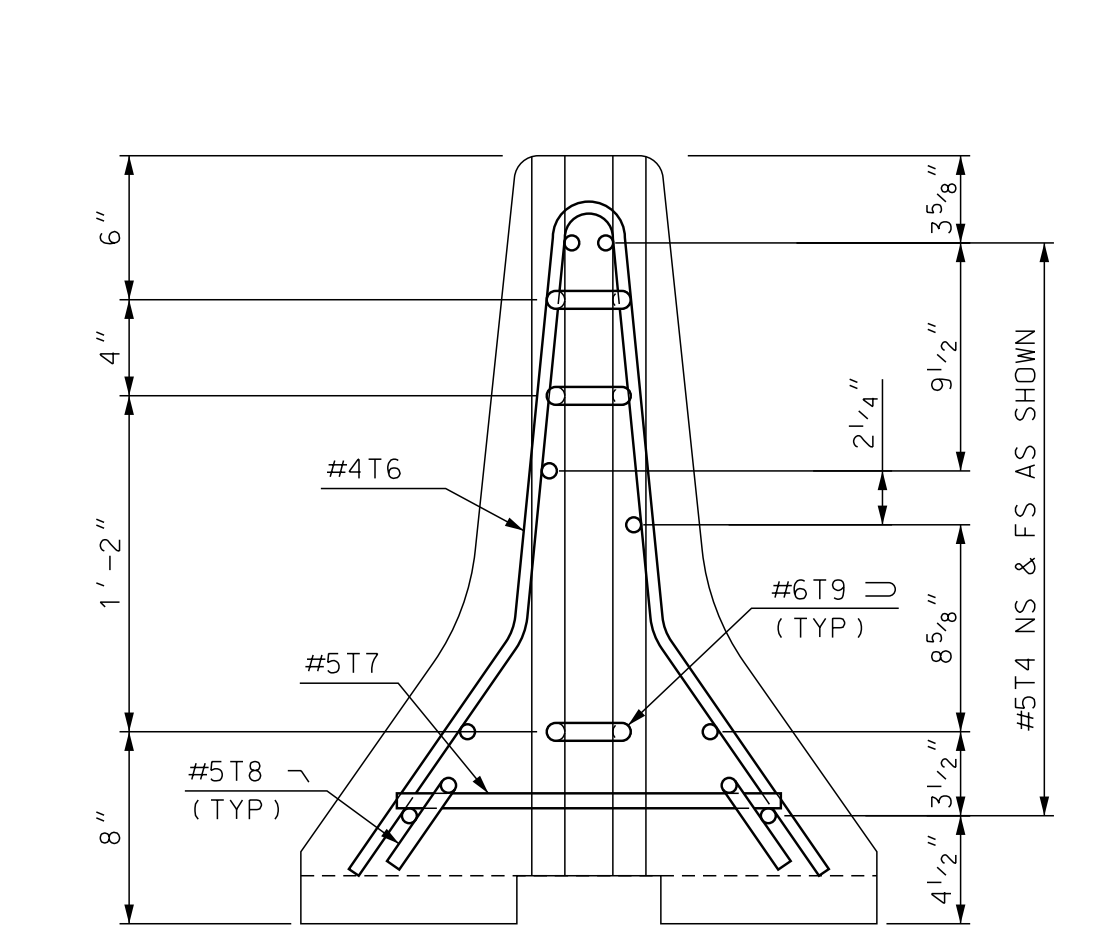
VIEW B-B
SCALE: 1 1/2" = 1'-0"



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



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



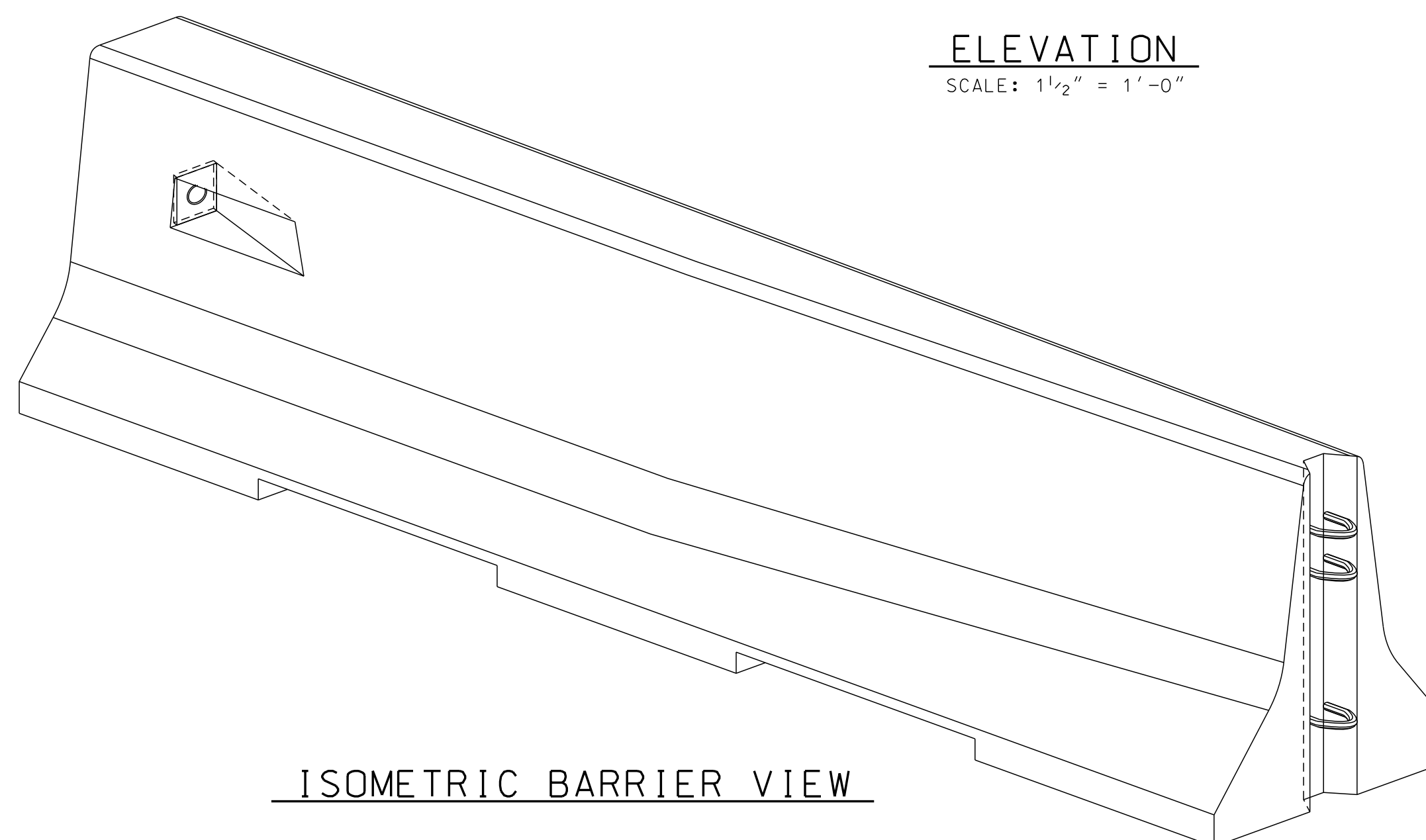
VIEW B-B
SCALE: 1 1/2" = 1'-0"

NOTE: DETAILS AND NOTES MAY NOT BE CURRENT. CLOSELY REVIEW BEFORE USING DETAILS.

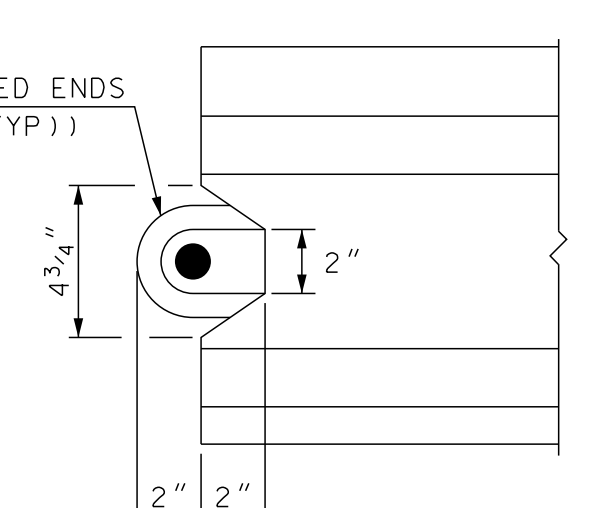
NO MODIFICATIONS SHOULD BE MADE TO THIS SHEET

NOTES

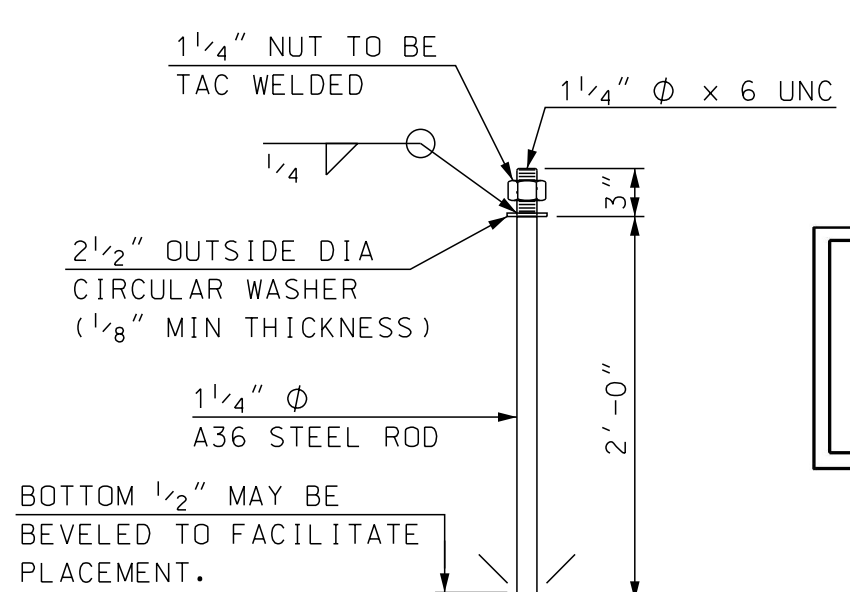
1. TEXAS RESTRAINED BARRIER (TRANSITION UNIT) SHALL BE PAID FOR UNDER ITEM 606.41741, PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL (BRIDGE).
2. SEE SHEET 1 OF 3 FOR NOTES AND SHEET 2 OF 3 FOR REBAR SCHEDULE.



ISOMETRIC BARRIER VIEW



END NOTCH DETAIL (AT VIEW B-B)
SCALE: 2" = 1'-0"



CONNECTOR PIN ASSEMBLY
SCALE: 1" = 1'-0"

BARRIER WEIGHT APPROX. 2.28 TONS

SAMPLE PLAN
DATE: 9-2020

ONLY FOR USE WITH HIGHWAY STANDARD PLAN GR-23, PCB NCHRP 350
SEE NOTICE TO CONTRACTORS "SUNSETTING OF NON-MASH PCB ON THE NHS"

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	BETHLEHEM - CARROLL	BRIDGE NO.		STATE PROJECT	42501
TEXAS RESTRAINED BARRIER (X-BOLT) (3 OF 3)					
DESIGNED	TXDOT	12/10	CHECKED	NHDOT	4/18
DRAWN	GMC	1/18	CHECKED	NHDOT	4/18
QUANTITIES	JEH	8/20	CHECKED	PML	8/20
ISSUE DATE	5/15/18	FEDERAL PROJECT NO.		SHEET NO.	37
REV. DATE	6/1/20			TOTAL SHEETS	38

125/177 BACKWALL @ ABUT A BRIDGE SHEET 7 OF 34

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O	Coating
AB1E	#5	1.46	84	N8		1.08	0.38										EPOXY
AB2E	#5	3.33	17	17		0.58	0.75	2.00									EPOXY
AB3E	#5	27.83	8	—													EPOXY
AB4EMC	#5	3.25	4	C1	3.25												EPOXY
AB5EMC	#5	3.25	4	C2	3.25												EPOXY
AB6E	#5	22.83	8	—													EPOXY
AB7E	#5	1.88	2	N8		1.25	0.63										EPOXY
AB8E	#5	13.58	4	—													EPOXY

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	TOTAL
544	REINFORCING STEEL	0	0	0	0	0	0	0	0	0	0	0	0
544.11	MECH. CONNECTOR	0	0	0	0	0	0	0	0	0	0	0	0
544.2	EPOXY COATED	0	0	670	0	0	0	0	0	0	0	0	670
544.21	EPOXY MECH. CON.	0	0	27	0	0	0	0	0	0	0	0	27

125/177 DECK END @ ABUT A BRIDGE SHEET 7 OF 34

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O	Coating
AD1E	#7	5.04	36	N2		1.00	0.75	2.58	0.71				0.50		0.50		EPOXY
AD2E	#7	12.00	15	—													EPOXY
AD3E	#7	3.33	3	—													EPOXY
AD4E	#7	29.75	16	—													EPOXY
AD5EMC	#7	4.75	8	C1	4.75												EPOXY
AD6EMC	#7	4.75	8	C2	4.75												EPOXY
AD7E	#7	7.83	3	—													EPOXY
AD8E	#7	22.75	16	—													EPOXY
AD9E	#7	5.25	1	—													EPOXY
AD10E	#7	5.67	7	S5	0.83	1.33	1.33	1.33					0.83				EPOXY
AD11E	#7	5.92	1	S5	0.83	1.33	1.58	1.33					0.83				EPOXY
AD12E	#7	6.17	6	S5	0.83	1.58	1.33	1.58					0.83				EPOXY
AD13E	#7	7.42	2	S5	0.00	1.58	3.42	1.58					0.83				EPOXY
AD14E	#7	6.92	1	S5	0.00	1.58	2.92	1.58					0.83				EPOXY
AD15E	#7	6.17	1	S5	0.00	1.58	2.17	1.58					0.83				EPOXY
AD16E	#7	6.33	1	S5	0.83	1.58	1.50	1.58					0.83				EPOXY
AD17E	#7	5.00	1	—													EPOXY

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	TOTAL
544	REINFORCING STEEL	0	0	0	0	0	0	0	0	0	0	0	0
544.11	MECH. CONNECTOR	0	0	0	0	0	0	0	0	0	0	0	0
544.2	EPOXY COATED	0	0	0	0	2774	0	0	0	0	0	0	2774
544.21	EPOXY MECH. CON.	0	0	0	0	155	0	0	0	0	0	0	155

125/177 BACKWALL @ ABUT B BRIDGE SHEET 9 OF 34

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O	Coating
BB1E	#5	3.08	121	17		1.00	1.08	1.00									EPOXY
BB2E	#5	4.58	18	17		1.75	1.08	1.75									EPOXY
BB3E	#5	29.33	12	—													EPOXY
BB4EMC	#5	3.25	4	C1	3.25												EPOXY
BB5EMC	#5	3.25	4	C2	3.25												EPOXY
BB6E	#5	31.75	8	—													EPOXY
BB7E	#5	6.92	1	—													EPOXY
BB8E	#5	5.00	1	—													EPOXY
BB9E	#5	5.75	1	17		1.67	2.42	1.67									EPOXY
BB10E	#5	15.33	1	—													EPOXY
BB11E	#5	14.42	1	—													EPOXY
BB12E	#5	4.67	1	17		1.67	1.33	1.67									EPOXY
BB13E	#5	4.00	2	17		0.83	1.33	1.83									EPOXY

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	TOTAL
544	REINFORCING STEEL	0	0	0	0	0	0	0	0	0	0	0	0
544.11	MECH. CONNECTOR	0	0	0	0	0	0	0	0	0	0	0	0
544.2	EPOXY COATED	0	0	1170	0	0	0	0	0	0	0	0	1170
544.21	EPOXY MECH. CON.	0	0	27	0	0	0	0	0	0	0	0	27

125/177 DECK END @ ABUT B BRIDGE SHEET 9 OF 34

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O	Coating
BD1E	#7	7.50	36	17		1.00	0.75	5.75									EPOXY
BD2E	#7	6.46	36	N7			0.71	5.75					0.50		0.50		EPOXY
BD3E	#7	17.50	12	—													EPOXY
BD4E	#7	2.92	4	—													EPOXY
BD5E	#7	28.17	24	—													EPOXY
BD6EMC	#7	4.75	8	C1	4.75												EPOXY
BD7EMC	#7	4.75	8	C2	4.75												EPOXY
BD8E	#7	32.42	16	—													EPOXY
BD9E	#7	13.17	4	—													EPOXY
BD10E	#7	16.25	8	—													EPOXY
BD11E	#7	5.67	15	S5	0.83	1.33	1.33	1.33					0.83				EPOXY
BD12E	#7	7.58	1	—													EPOXY
BD13E	#7	9.25	1	—													EPOXY
BD14E	#7	7.50	3	S6	0.50	1.58	3.33	1.58					0.50				EPOXY
BD15E	#7	7.08	1	S6	0.50	1.58	2.92	1.58					0.50				EPOXY
BD16E	#7	7.00	1	S6	0.50	1.58	2.83	1.58					0.50				EPOXY
BD17E	#7	6.92	1	S6	0.50	1.58	2.75	1.58					0.50				EPOXY
BD18E	#7	6.50	1	S6	0.50	1.58	2.33	1.58					0.50				EPOXY
BD19E	#7	6.00	1	S6	0.50	1.58	1.83	1.58					0.50				EPOXY

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	TOTAL
544	REINFORCING STEEL	0	0	0	0	0	0	0	0	0	0	0	0
544.11	MECH. CONNECTOR	0	0	0	0	0	0	0	0	0	0	0	0
544.2	EPOXY COATED	0	0	0	0	4618	0	0	0	0	0	0	4618
544.21	EPOXY MECH. CON.	0	0	0	0	155	0	0	0	0	0	0	155

173/141 BACKWALL @ ABUT B BRIDGE SHEET 23 OF 34

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O	Coating
CB1E	#5	3.00	49	17		1.08	0.83	1.08									EPOXY
CB2E	#5	4.00	8	17		1.58	0.83	1.58									EPOXY
CB3E	#5	23.83	4	—													EPOXY
CB4EMC	#5	3.25	4	C1	3.25												EPOXY
CB5EMC	#5	3.25	4	C2	3.25												EPOXY
CB6E	#5	17.50	8	—													EPOXY
CB7E	#5	5.67	3	—													EPOXY
CB8E	#5	1.33	2	—													EPOXY

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	TOTAL
544	REINFORCING STEEL	0	0	0	0	0	0	0	0	0	0	0	0
544.11	MECH. CONNECTOR	0	0	0	0	0	0	0	0	0	0	0	0
544.2	EPOXY COATED	0	0	453	0	0	0	0	0	0	0	0	453
544.21	EPOXY MECH. CON.	0	0	27	0	0	0	0	0	0	0	0	27

173/141 DECK END @ ABUT B BRIDGE SHEET 23 OF 34

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O	Coating
CD1E	#5	13.50	4	—													EPOXY
CD2EMC	#5	3.25	2	C1	3.25												EPOXY
CD3EMC	#5	3.25	2	C2	3.25												EPOXY
CD4E	#5	17.17	4	—													EPOXY
CD5E	#5	7.00	15	—													EPOXY
CD6E	#5	3.17	3	—													EPOXY
CD7E	#5	3.42	3	—													EPOXY
CD8E	#5	4.67	2	17		1.83	0.83	2.00									EPOXY
CD9E	#5	5.58	5	S5	0.83	1.25	1.42	1.25					0.83				EPOXY
CD10E	#5	1.67	1	—													EPOXY
CD11E	#5	9.75	1	S5	0.83	1.25	5.58	1.25					0.83				EPOXY

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6</
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