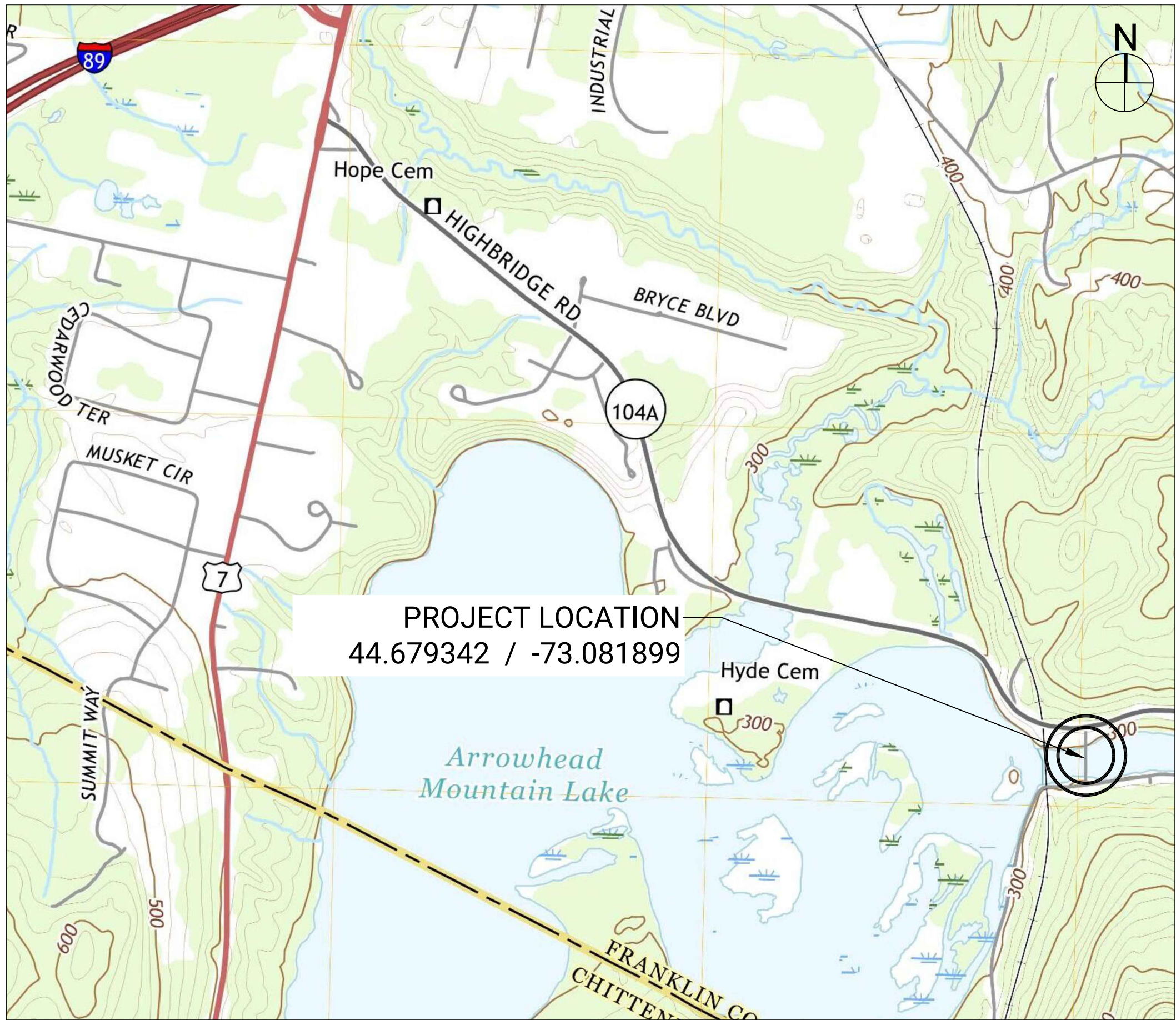


ARROW HEAD LAKE ROAD BRIDGE 10 REPAIRS

HIGHWAY SUPERVISOR
TODD CADIEUX

TOWN ADMINISTRATOR
CHERYL LETOURNEAU

SELECTBOARD
CARL ROSENQUIST, CHAIR
BRIAN DUNSMORE
PAUL JANSEN
KRISTINA SENNA
DEVON THOMAS



Sheet List Table	
Sheet	Sheet Title
G-1.0	TITLE PAGE
C-1.0	SITE PLAN
C-2.0	DETAILS AND SECTIONS
SD-516.11A	VTRANS STRUCTURAL DETAILS
SD-516.11B	VTRANS STRUCTURAL DETAILS

TOWN OF GEORGIA, VERMONT
JULY 2024

 **EAST**
ENGINEERING
CIVIL INFRASTRUCTURE

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OWNER:
**TOWN OF
GEORGIA**
47 TOWN COMMON ROAD NO
ST. ALBANS VT 05478

802-524-3524

PROJECT:
**BRIDGE 10
REPAIRS**

ISSUED FOR:
BID & CONSTRUCTION

ISSUED DATE:
2024-07-23

PROJ. #: 080-04

REVISIONS		
#	BY:	DATE:

TITLE SHEET

DRAWING NO:

G-1.0

GENERAL NOTES

- TO CLARIFY THE PLANS, ALL EXISTING SITE FEATURES ARE SHOWN IN lowercase LETTERS AND ALL PROPOSED IMPROVEMENTS ARE SHOWN IN CAPITAL LETTERS.
- THIS PLAN SHOWS APPROXIMATE SITE FEATURES, UTILITIES, TAX MAP BOUNDARY LINES, BUILDINGS, AND OTHER SITE FEATURES BASED ON INFORMATION FROM THE VERMONT GEODATA PORTAL, OWNER, AND UTILITY COMPANIES. THIS IS NOT A BOUNDARY SURVEY.
- TECHNICAL SPECIFICATIONS ACCOMPANY THE PLANS AND ARE ESSENTIAL FOR CONSTRUCTION. UNLESS OTHERWISE NOTED, THE VERMONT AGENCY OF TRANSPORTATION (VTRANS) 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION SHALL BE FOLLOWED. CONTRACTOR FIELD PERSONNEL SHALL HAVE THE PLANS, SPECIFICATIONS, AND BID DOCUMENTS IN THE FIELD DURING CONSTRUCTION.

CONSTRUCTION NOTES

- ALL SITE SAFETY, SECURITY, MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL OSHA/VOSHA RULES AND REGULATIONS SHALL BE ADHERED TO AT ALL TIMES. AT THE END OF EACH WORKING DAY, CONTRACTOR SHALL SECURE ALL EQUIPMENT, MATERIALS, AND FACILITIES. ALL OPEN EXCAVATIONS SHALL BE BARRICADED, FENCED, PLATED, COVERED OR TEMPORARILY BACKFILLED.
- ALL APPLICABLE PERMITTING CONDITIONS AND REGULATIONS SHALL BE MAINTAINED BY THE CONTRACTOR.
- NO WORK OUTSIDE OF THE TOWN RIGHT-OF-WAY, OR TOWN OBTAINED EASEMENTS, UNLESS WRITTEN PERMISSION FROM THE LANDOWNER IS OBTAINED.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. ONE LANE DURING WORKING HOURS, TWO LANES RESTORED AT THE END OF EACH DAY.
- ALL DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS OR BETTER.

EROSION PREVENTION & SEDIMENT CONTROL NOTES (EPSC)

- THE PROJECT IS NOT REQUIRED TO OBTAINED COVERAGE UNDER THE STATE OF VERMONT, AGENCY OF NATURAL RESOURCES, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, CONSTRUCTION GENERAL PERMIT (3-9020) FOR STORMWATER GENERATED FROM THE PROJECT. HOWEVER, BEST MANAGEMENT PRACTICES FOR EROSION PREVENTION AND SEDIMENT CONTROL SHALL BE MAINTAINED REGARDLESS.
- DISTURBED AREAS NOT UNDER ACTIVE CONSTRUCTION SHALL BE STABILIZED WITHIN 7 DAYS.
- IF TURBID WATER IS FOUND TO BE LEAVING THE PROJECT AREA, THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL DEVICES TO LIMIT THE DISCHARGE. DISCHARGES SHALL BE REPORTED TO THE ENGINEER WITHIN 24 HOURS.
- EPSC MEASURES SHALL BE REMOVED FROM THE PROJECT ONCE ALL AREAS ARE STABILIZED AND GREEN AREAS HAVE OBTAINED 75% VEGETATED COVER.
- BYPASS PUMPING AND DEWATERING SHALL BE DISCHARGED TO UPLAND AREAS INTO AN APPROVED EROSION PREVENTION DEVICE, UNLESS WATER IS CLEAR AND FREE OF TURBIDITY.
- SLOPES STEEPER THAN 2:1 SHALL HAVE STONE ARMORING. SLOPES BETWEEN 2:1 AND 3:1 SHALL HAVE ROLLED EROSION MATTING. SLOPES LESS THAN 3:1 SHALL HAVE SEED AND MULCH.

EXISTING LEGEND :

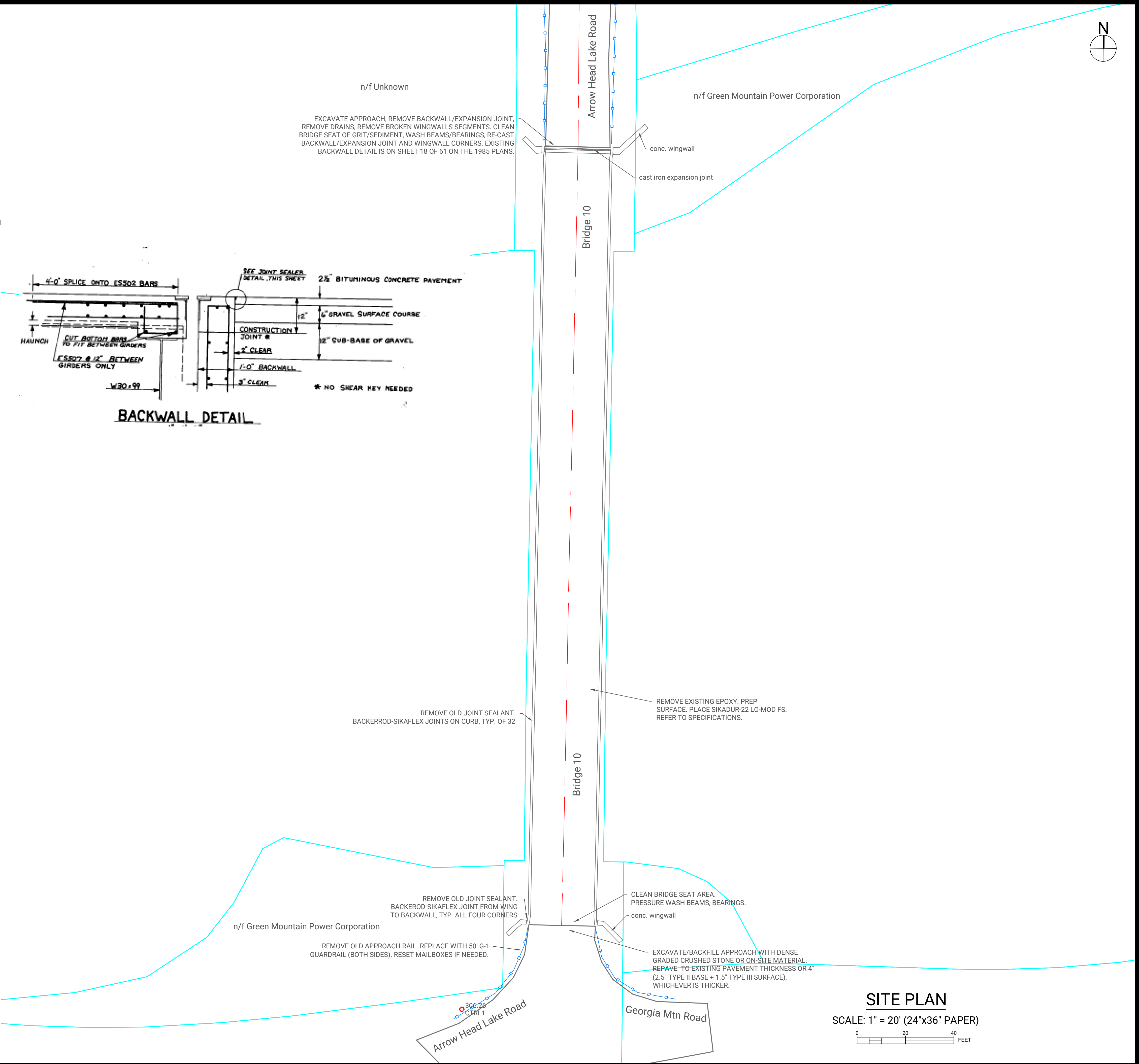
- tel underground telecom
- ohw overhead wires
- w water
- ww sewer
- gas gas
- utility pole
- fence/guardrail
- wetland area
- trees/vegetation
- road right-of-way / tax map
- elevation contour
- edge of water
- ACOE ohw
- easement

PROPOSED LEGEND :

- DETOUR
- PROPOSED CONTOUR
- STONE ARMORING
- CONCRETE
- CULVERT/BRIDGE
- SIGN/TYPE
- SPOT ELEVATION
- ACOE INCIDENTAL IMPACT
- ACOE TEMPORARY IMPACT
- ACOE PERMANENT IMPACT

ABBREVIATIONS:

- | | |
|--------|---------------------------------------|
| HDPE | HIGH DENSITY POLYETHYLENE |
| CONC | CONCRETE |
| DI | DUCTILE IRON |
| PVC | POLYVINYL CHLORIDE |
| CMP | CORRUGATED METAL PIPE |
| VTRANS | VERMONT AGENCY OF TRANSPORTATION |
| MUTCD | MANUAL ON UN. TRAFFIC CONTROL DEVICES |
| TYP | TYPICAL |
| TEMP | TEMPORARY |
| MIN | MINIMUM |
| MAX | MAXIMUM |
| TBR | TO BE REMOVED |
| TBA | TO BE ABANDONED |
| APPROX | APPROXIMATE |
| EL | ELEVATION |
| ROW | RIGHT-OF-WAY |
| CTRL | CONTROL POINT |
| NTS | NOT TO SCALE |
| N/F | NOW OR FORMERLY |



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47 TOWN COMMON ROAD NO
ST. ALBANS VT 05478

PROJECT:
BRIDGE 10
REPAIRS

ISSUED FOR:
BID & CONSTRUCTION

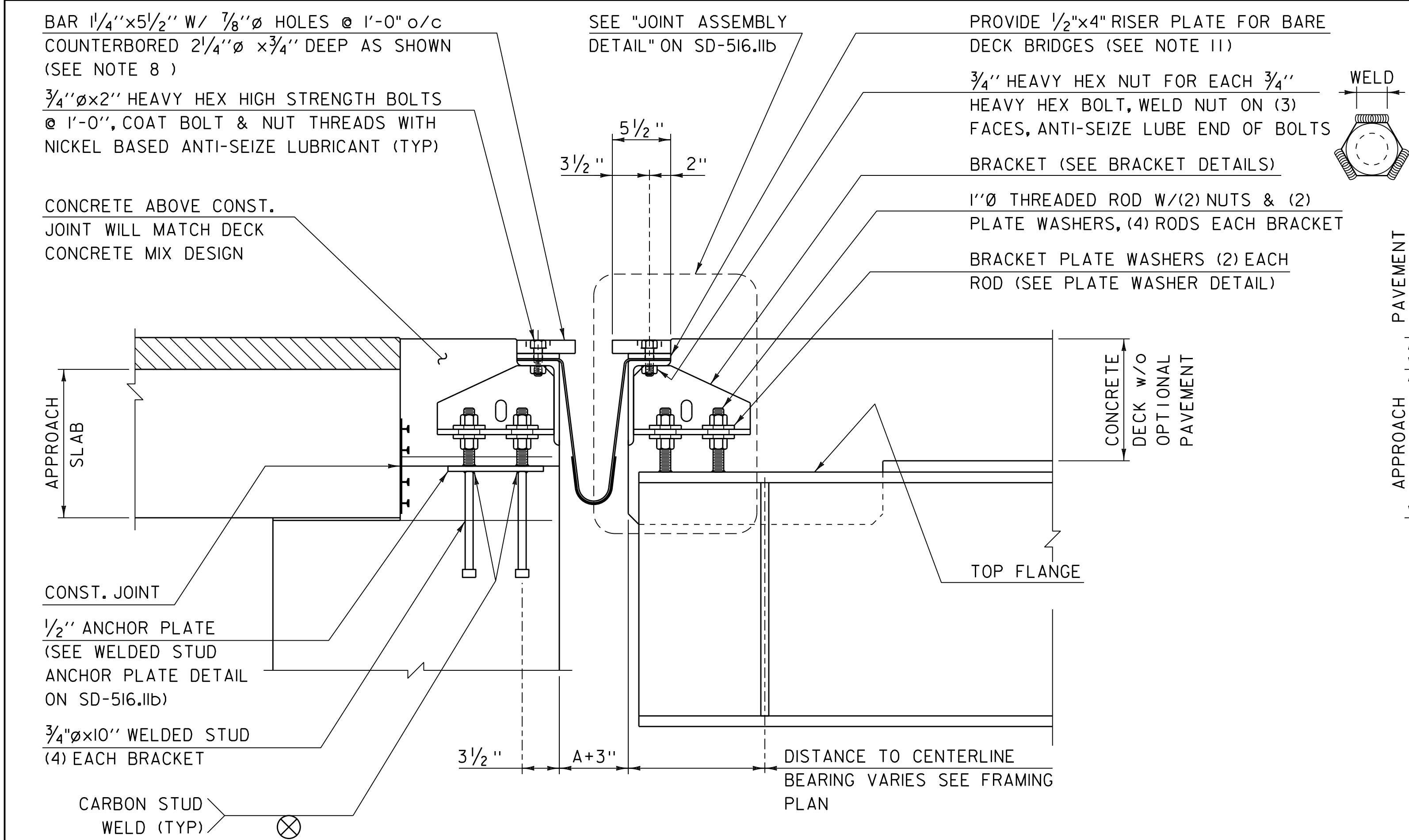
ISSUED DATE:
2024-07-23

PROJ. #: 080-04

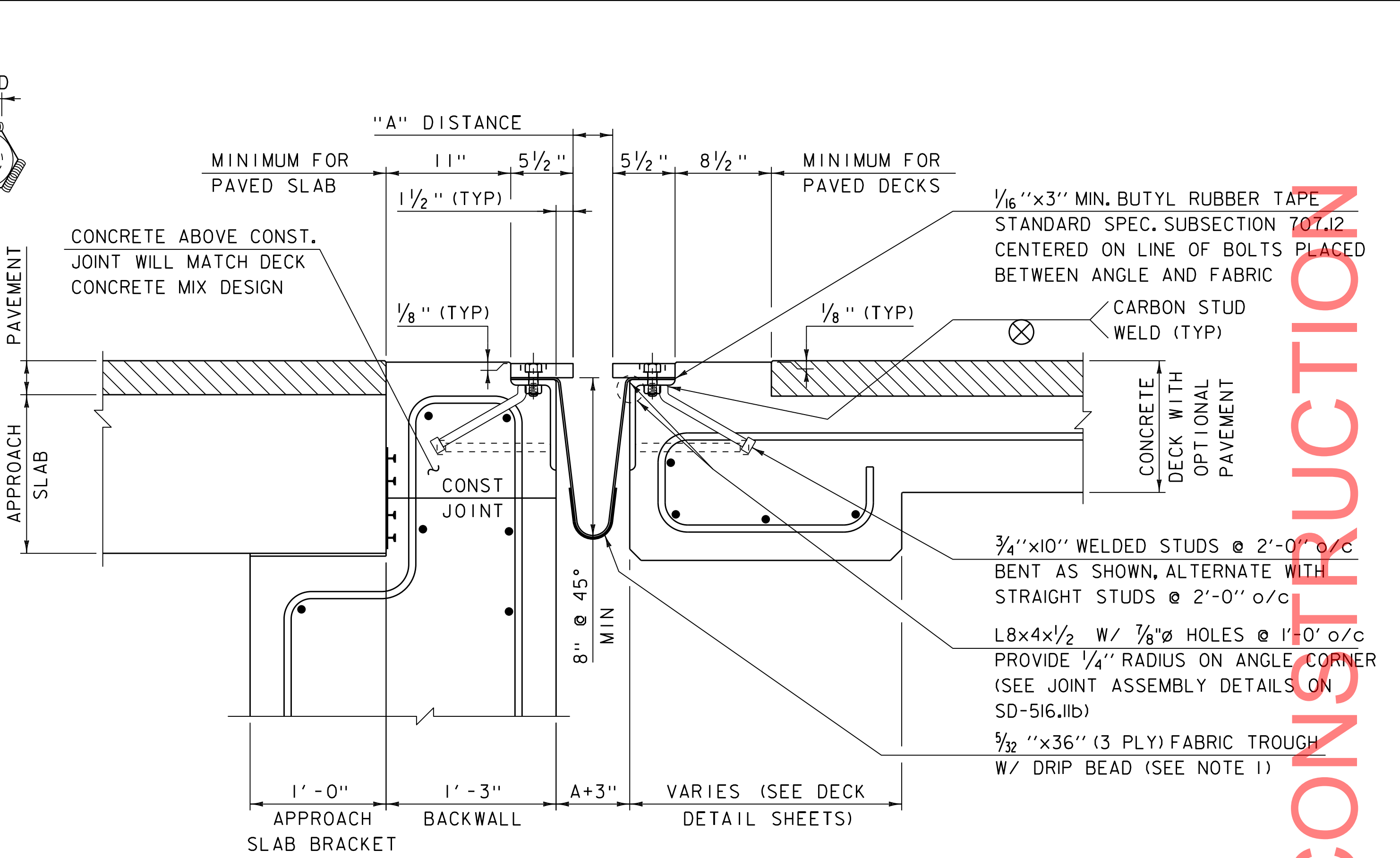
REVISIONS		
#	BY:	DATE:

SITE PLAN

DRAWING NO:
C-1.0



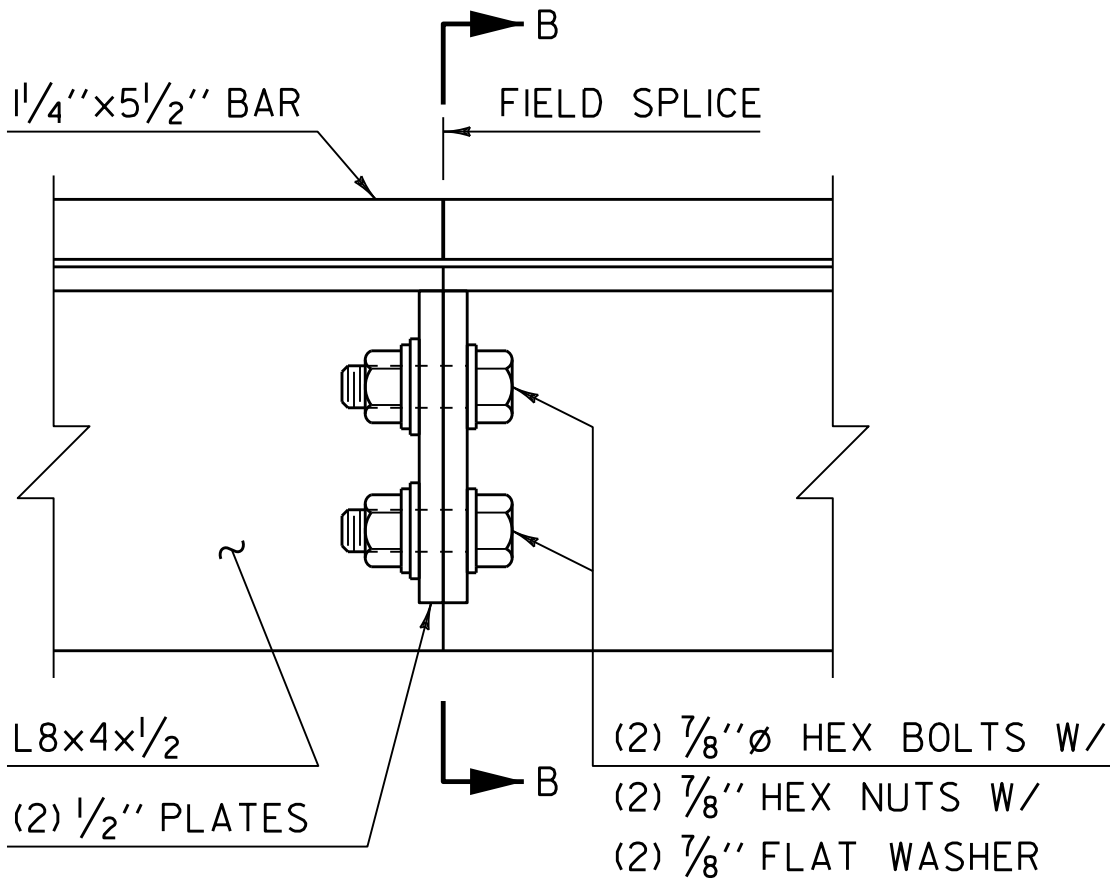
TYPICAL SECTION AT GIRDERS
SCALE 1 1/2" = 1'-0"



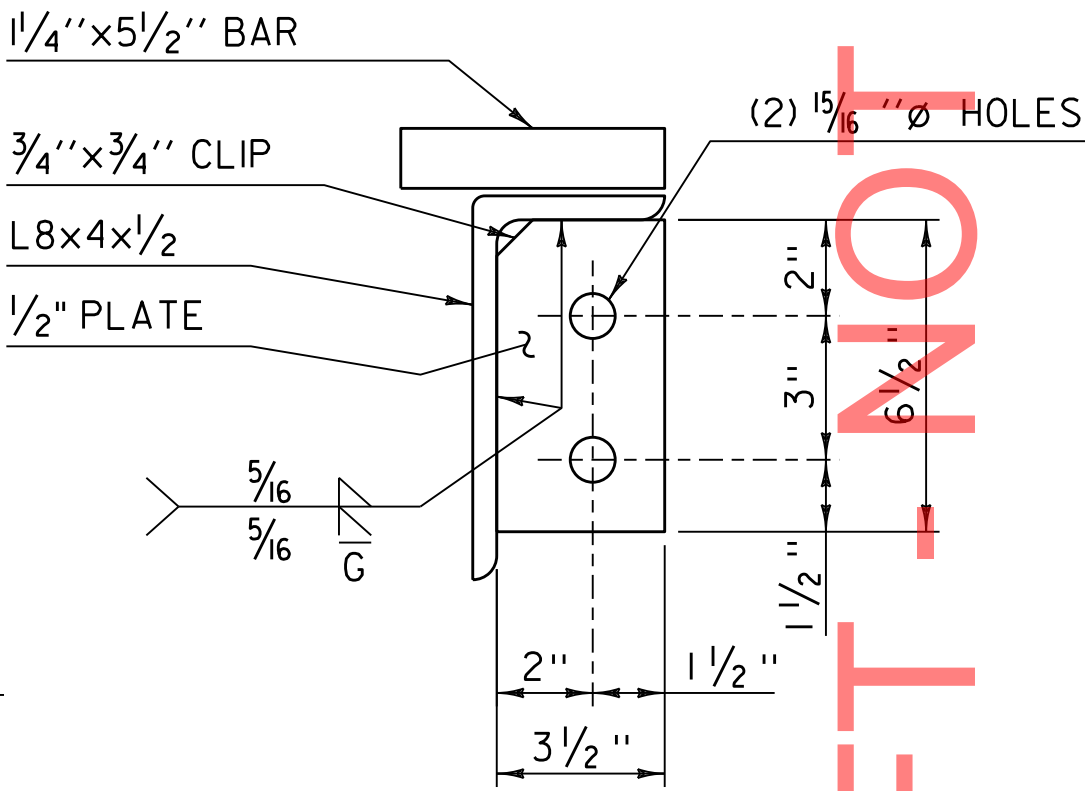
TYPICAL SECTION BETWEEN GIRDERS
SCALE 1 1/2" = 1'-0"

NOTES FOR ITEM 516.11 "BRIDGE EXPANSION JOINT, VERMONT"

- FABRIC TROUGH SHALL BE THOROUGHLY CLEANED AND FLUSHED AFTER PAVING OPERATION. A DRIP BEAD OF 1/4"x7" STRIP OF PREFORMED FABRIC MATERIAL SHALL BE CEMENTED TO THE BOTTOM OF THE FABRIC TROUGH USING AN ADHESIVE APPROVED BY THE MANUFACTURER. THE DRIP BEAD SHALL BE APPLIED 1" FROM THE DOWNSPOUT END OF THE TROUGH. PREFORMED FABRIC MATERIAL SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT.
- THE EXPANSION DEVICE SHALL BE COVERED TO PROTECT THE FINISH DURING PLACING OF BRIDGE DECK CONCRETE.
- SEE "JOINT GAP DIMENSION TABLE" FOR DISTANCE "A" VALUES IN TEMPERATURE RANGE PROVIDED.
- JOINT BRACKET LENGTH "X" VARIES DEPENDENT ON THE BRIDGE SKEW ANGLE. THE BRACKET MUST BE LOCATED SUCH THAT THE THREADED RODS ARE NOT LESS THAN 1 1/2" FROM GIRDERS END OR FLANGE SIDES.
- ALL STEEL COMPONENTS SHALL BE GALVANIZED AND MEET THE REQUIREMENTS OF SUBSECTION 516.02. PRIOR TO GALVANIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC., SHALL BE GROUND TO A MINIMUM 1/16" INCH RADIUS. THREADED RODS SHALL CONFORM TO THE REQUIREMENTS OF 714.04.
- THE 4"x8"x1/2" ANGLES MAY BE FURNISHED AS ONE CONTINUOUS PIECE OR SPLICED AS SHOWN IN THE FIELD SPLICE DETAIL WHEN SPECIFIED. THE 1/4"x5 1/2" BARS EACH SIDE OF THE JOINT SHALL BE PROVIDED IN TWO EQUAL LENGTHS.
- PROJECTING THREADS OF THE 3/4" Ø/BOLTS IN THE JOINT SHALL BE GREASED BY THE CONTRACTOR PRIOR TO PLACING ADJACENT CONCRETE. THIS WILL FACILITATE BOLT REMOVAL IF REQUIRED IN THE FUTURE.
- FILL COUNTERBORED HOLES WITH HOT POURED JOINT SEALER (STD. SPEC. 707.04) AFTER BOLT INSTALLATION. PAYMENT FOR THE WORK SHALL BE INCIDENTAL TO ITEM 516.11 "BRIDGE EXPANSION JOINT, VERMONT".
- THE EXPANSION JOINT, INCLUDING THE FABRIC TROUGH, SHALL BE SHOP ASSEMBLED AND SHIPPED AS ONE UNIT. IF THE EXPANSION JOINT HAS A FIELD SPLICE SPECIFIED, THE FABRIC TROUGH SHALL BE SHIPPED WITH ONE UNIT AND ASSEMBLED WITH THE SECOND UNIT PRIOR TO CONCRETE PLACEMENT.
- TEMPORARY SHIPPING ATTACHMENTS SHALL BE ATTACHED BY BOLTING; WELDING WILL NOT BE PERMITTED.
- BARE DECK "RISER PLATE" AS SHOWN IN "TYPICAL SECTION AT GIRDERS" DRAWING SHALL BE INCLUDED ON BRIDGES WITH BARE CONCRETE DECK SPECIFIED. RISER PLATES SHALL BE INCLUDED FOR BOTH SIDES AND MATCH THE LENGTHS OF THE 1/4"x5 1/2" BARS. THE RISER PLATE CAN BE REMOVED IF THE DECK IS MILLED IN THE FUTURE.



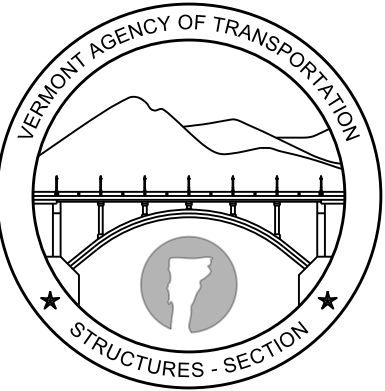
FIELD SPLICE DETAIL
SPLICE ONLY WHEN SPECIFIED ON PLANS.



SECTION "B-B"

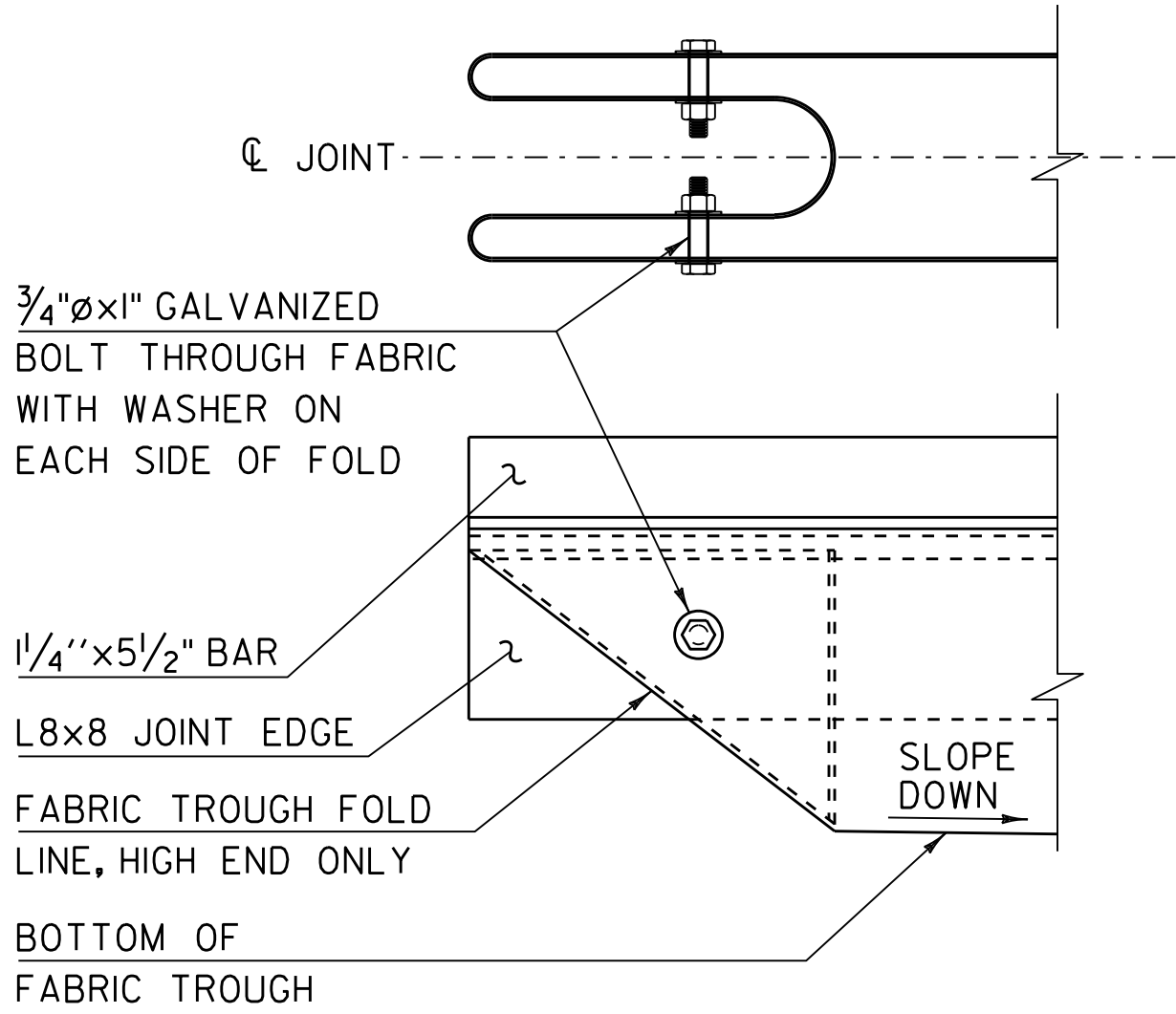
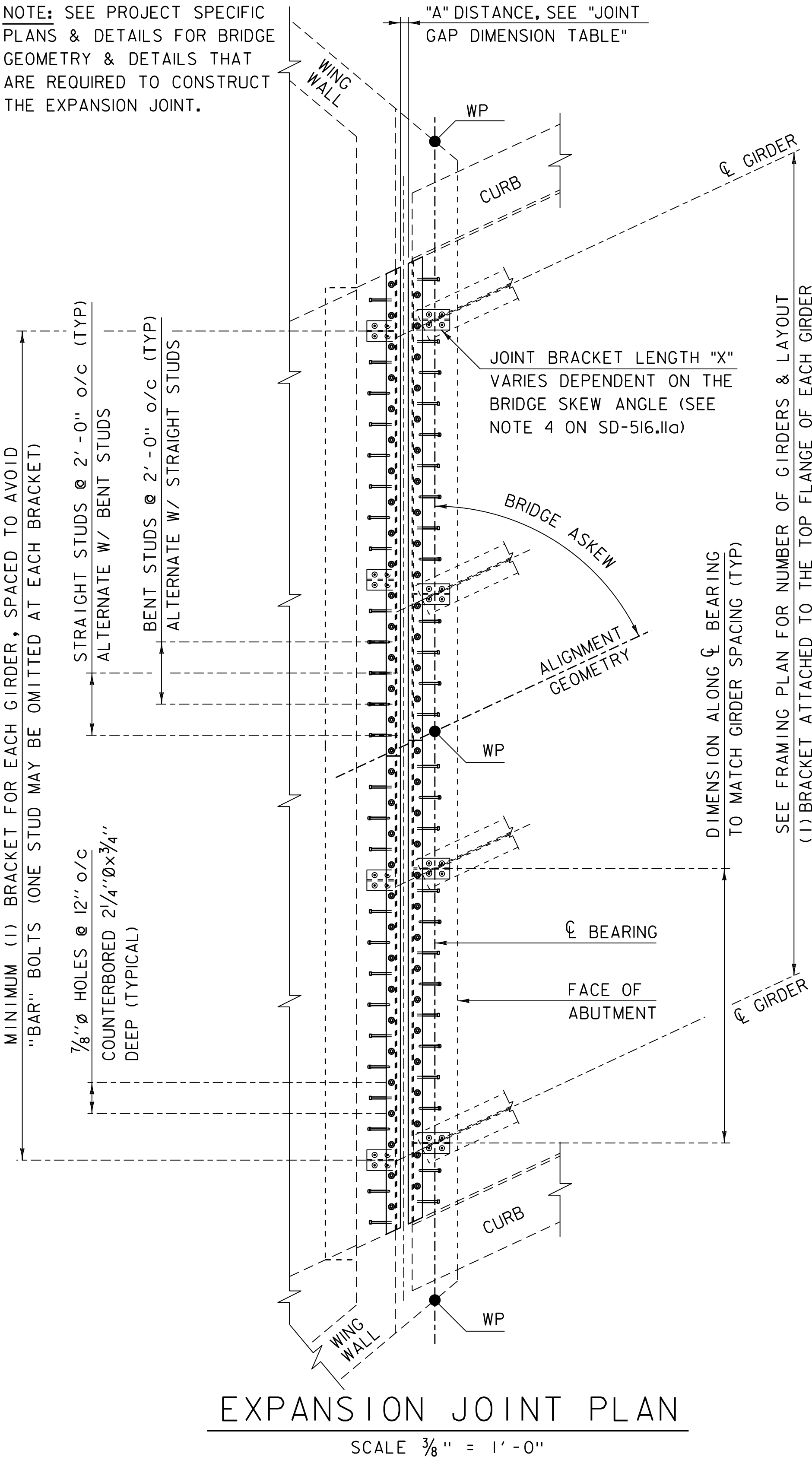
REVISIONS	
FEBRUARY 24, 2011	APPROVED FOR USE BY VAOT STRUCTURES SECTION
MARCH 23, 2023	UPDATED MATERIALS AND WELDING REQUIREMENTS

BRIDGE EXPANSION JOINT,
VERMONT



STRUCTURES
DETAIL
SD-516.11a

NOTE: SEE PROJECT SPECIFIC PLANS & DETAILS FOR BRIDGE GEOMETRY & DETAILS THAT ARE REQUIRED TO CONSTRUCT THE EXPANSION JOINT.



FOLDED TROUGH END DETAIL

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

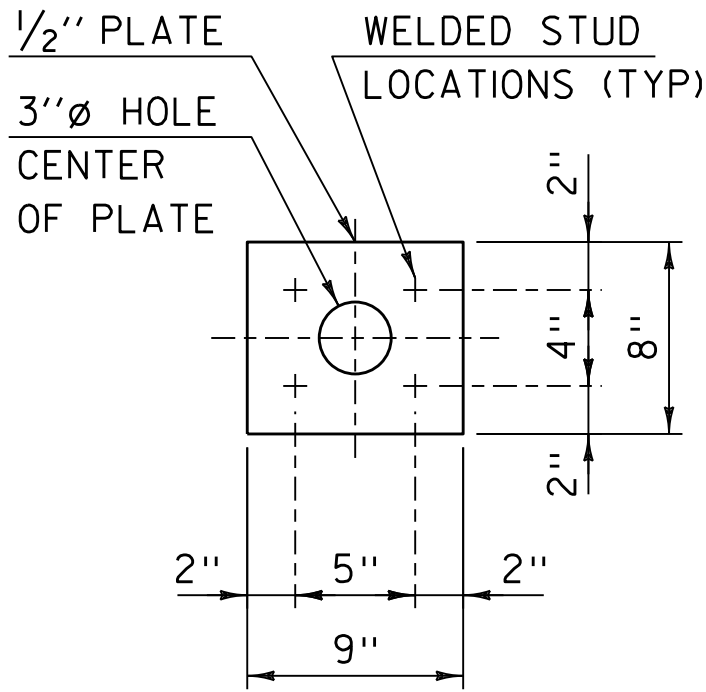
1. TROUGH SHALL BE FOLDED AT HIGH ENDS. TROUGH SHALL SLOPE AT MIN 2% DOWN TOWARD THE NEAREST DRAINAGE SPOUT HOPPER LOCATION.
2. BOLTS, NUTS AND WASHERS FOR FOLD SHALL MEET REQUIREMENTS OF SUBSECTION 714.04 AND SHALL BE GALVANIZED.

JOINT GAP DIMENSION TABLE						
"A" Distance (in)						
Temp (°F)	Expansion Length (ft)					
	100 - 120	>120 - 140	>140 - 160	>160 - 180	>180 - 200	
0	1 5/8	1 13/16	1 7/8	1 15/16	2 1/8	
15	1 1/2	1 5/8	1 11/16	1 3/4	1 7/8	
30	1 5/16	1 1/2	1 1/2	1 1/2	1 5/8	
45	1 3/16	1 5/16	1 5/16	1 5/16	1 7/16	
60	1 1/16	1 1/8	1 1/8	1 1/16	1 3/16	
75	15/16	1	15/16	7/8	15/16	
90	3/4	13/16	3/4	11/16	11/16	
105	5/8	11/16	9/16	7/16	1/2	

- 1) Expansion Length: Length of span, from Expansion Joint to nearest Fixed Bearing.
- 2) "A" Distance: measured distance during joint placement.
- 3) Temp: Approximate temperature of steel during joint placement.

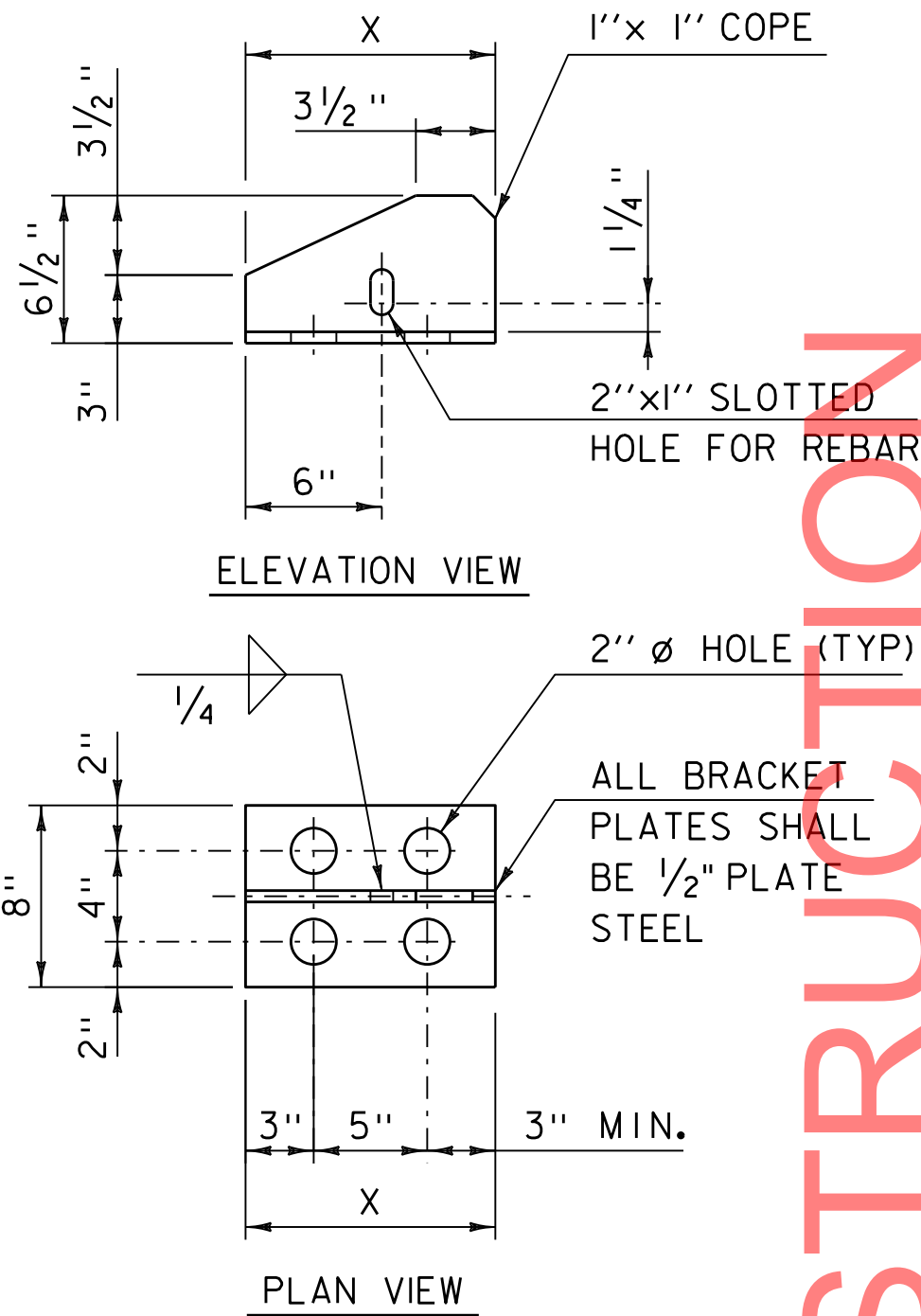
PLATE WASHER DETAIL

SCALE 3" = 1'-0"



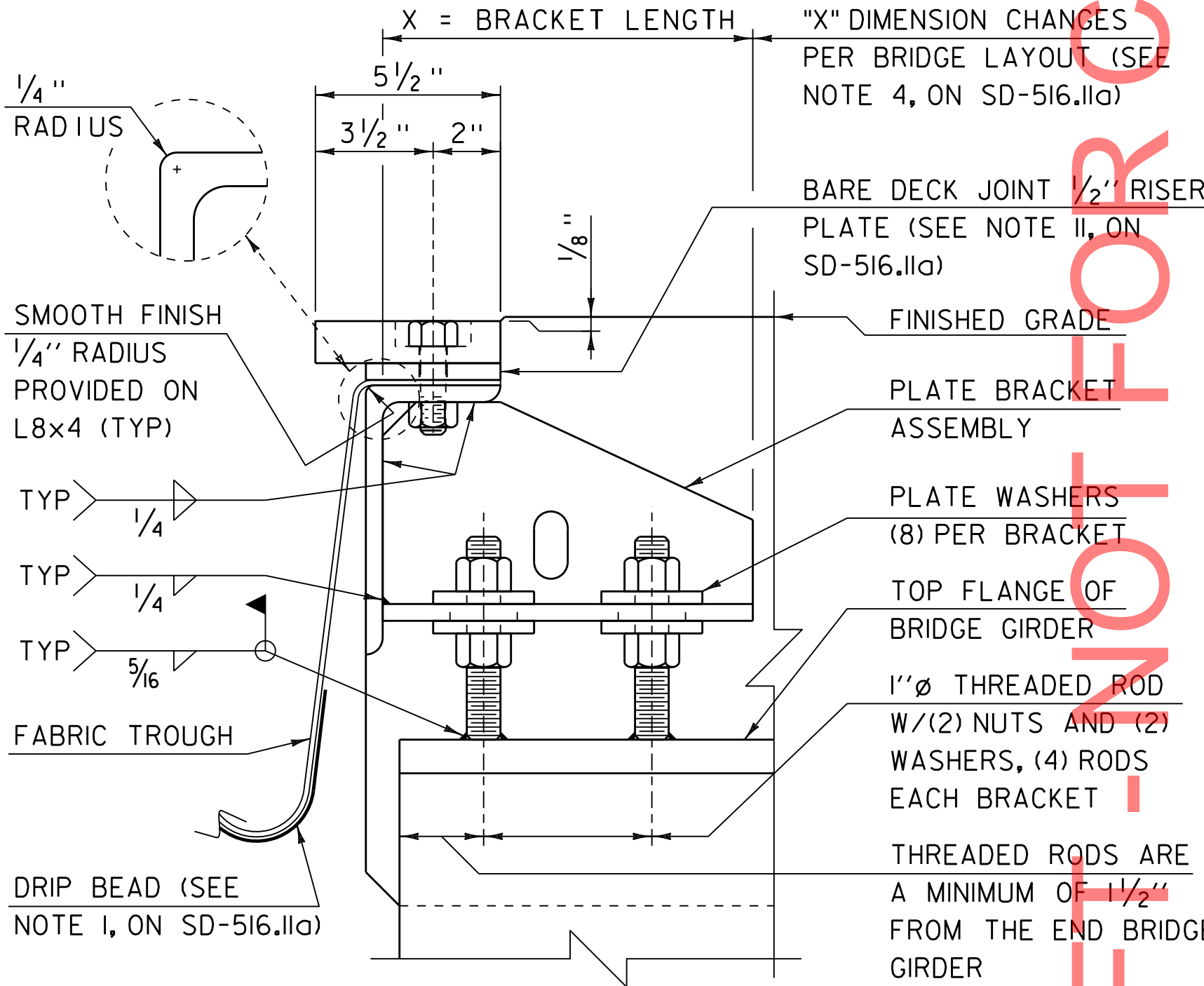
WELDED STUD ANCHOR PLATE DETAIL

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



BRACKET DETAILS

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

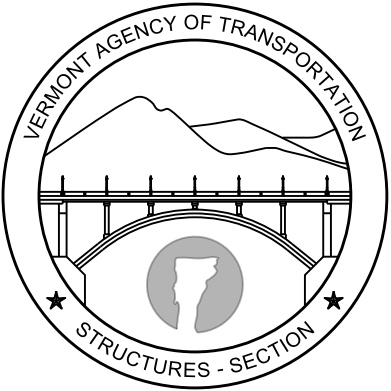


JOINT ASSEMBLY DETAIL

SCALE 3" = 1'-0"

REVISIONS	
FEBRUARY 24, 2011	APPROVED FOR USE BY VAOT STRUCTURES SECTION
MARCH 23, 2023	UPDATED MATERIALS AND WELDING REQUIREMENTS

BRIDGE EXPANSION JOINT, VERMONT



STRUCTURES DETAIL SD-516.11b