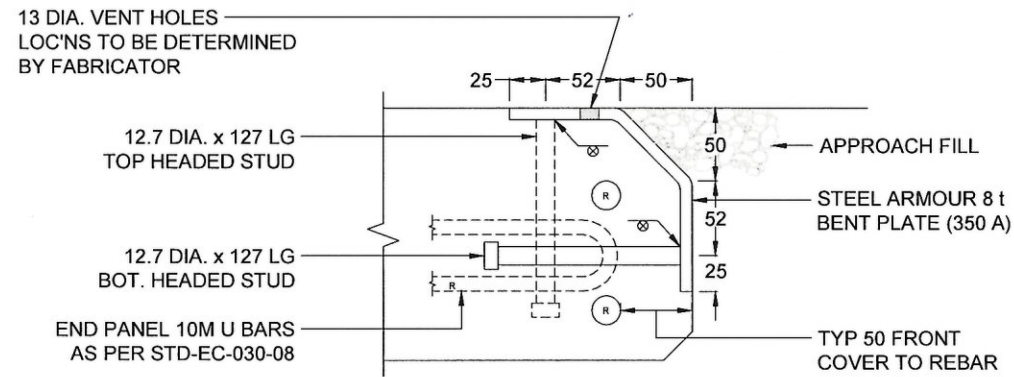
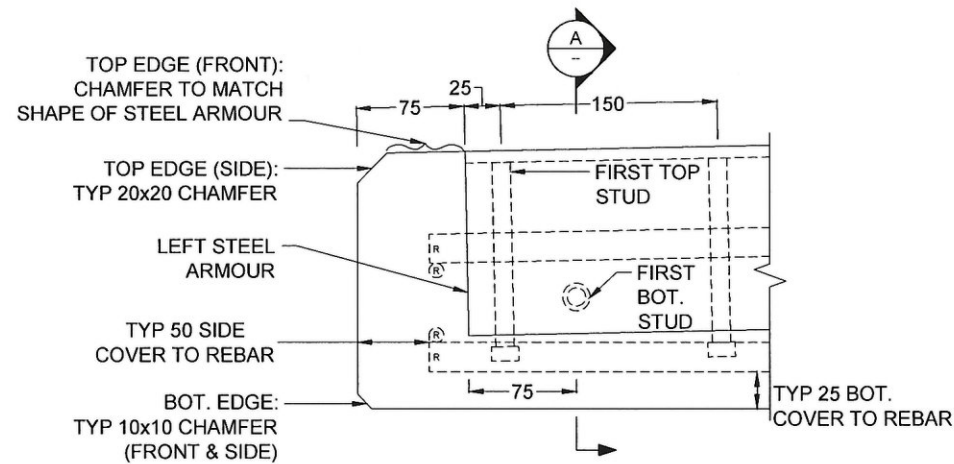


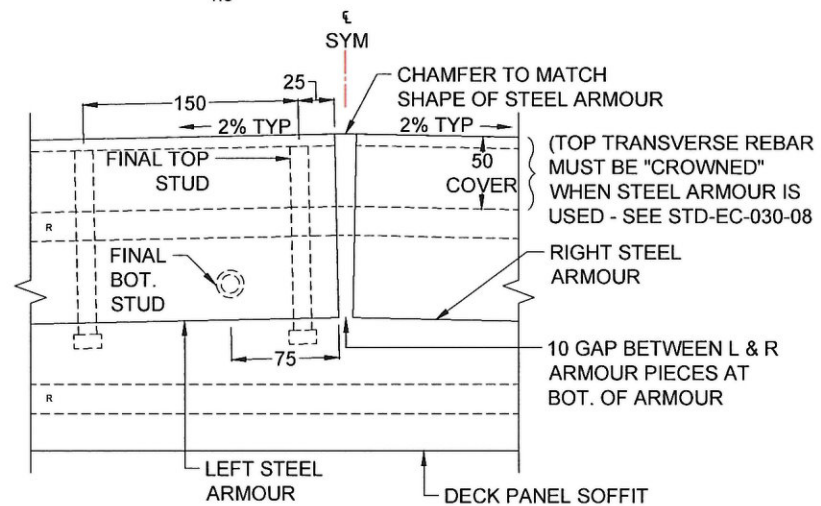
SECTION A - 90° ANGLE SHAPE OPTION  
1:5



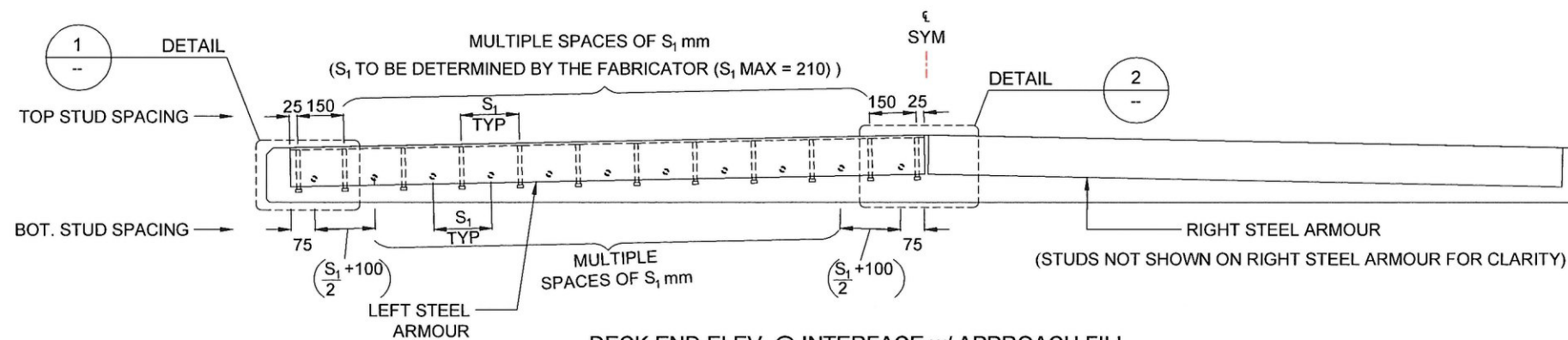
SECTION A - BENT PLATE SHAPE OPTION  
1:5



DETAIL 1  
1:5



DETAIL 2  
1:5  
(STUDS NOT SHOWN ON RIGHT STEEL ARMOUR FOR CLARITY)



DECK END ELEV. @ INTERFACE w/ APPROACH FILL  
1:20

**NOTES**

**GENERAL**

- THIS DRAWING DEPICTS STEEL ARMOUR, INCLUDING HEADED STUD ANCHORAGE, INTENDED TO BE CAST INTO STANDARD MINISTRY OF FORESTS, LANDS, NATURAL RESOURCE OPERATIONS AND RURAL DEVELOPMENT (MINISTRY) PRECAST CONCRETE DECK PANELS LOCATED AT THE ENDS OF STEEL GIRDER BRIDGES.
- THIS ARMOUR IS INTENDED TO ASSIST IN PROTECTING END DECK PANEL CONCRETE FROM MINOR SPALLING/CHIPPING AT THE TOP EDGE OF THE END PANEL AT THE APPROACH FILL INTERFACE.
- STEEL ARMOURING IS NOT MANDATORY. END DECK PANELS SHALL ONLY BE ARMoured WHEN SPECIFIED BY THE MINISTRY ENGINEER RESPONSIBLE FOR A PARTICULAR BRIDGE PROJECT.
- ARMOUR SHAPE OPTION TO BE SPECIFIED BY THE MINISTRY ENGINEER.
- REINFORCEMENT NOTED ON THIS DRAWING WITH AN "R" DEPICTS SOME, BUT NOT ALL, TYPICAL LOCATIONS OF DECK PANEL REBAR. THIS REBAR HAS BEEN SHOWN FOR INFORMATION PURPOSES ONLY TO ASSIST IN VISUALIZING THE INTENDED LOCATION OF HEADED STUDS. DETAILED DESIGN OF DECK PANEL REINFORCEMENT IS THE RESPONSIBILITY OF OTHERS.
- THIS DRAWING IS TO BE USED TOGETHER WITH THE MINISTRY STANDARD DRAWING SET STD-EC-030-01 TO 09 "STANDARD STEEL GIRDER BRIDGE WITH COMPOSITE DECK" OR STD-EC-040-01 TO 08 "STANDARD STEEL GIRDER BRIDGE WITH NON-COMPOSITE DECK."
- ARMOUR OPTION TYPE, ARMOUR PIECE LENGTHS, VENT HOLE LOCATIONS, AND  $S_1$  VALUES FOR SPECIFIC DECK PANEL SHALL BE SPECIFIED ON THE FABRICATOR'S ENGINEERED DRAWINGS AND/OR SHOP DRAWINGS.
- BCL-625 DECK EXAMPLE SHOWN (STEEL ARMOUR IDENTICAL FOR L100, L150 & L165 DECKS)
- ALL DIMENSIONS IN mm U.N.O.

**DESIGN**

- THIS DESIGN IS BASED ON A CONSENSUS OF ENGINEERS EXPERIENCED IN BC FOREST SERVICE ROAD (FSR) ENGINEERING. IT IS NOT INTENDED TO MEET THE REQUIREMENTS FOR ARMOUR AND ANCHORAGE DESCRIBED IN THE CANADIAN HIGHWAY BRIDGE DESIGN CODE (CSA S6) SECTION 11 "JOINTS AND BEARINGS."
- APPROACH FILL ROAD SURFACE IS ASSUMED TO BE MAINTAINED TO HAVE AN ELEVATION DIFFERENCE OF < 50 mm COMPARED TO THE BRIDGE DECK SURFACE AT THE DECK PANEL INTERFACE.

**MATERIALS & FABRICATION**

- STEEL ANGLE AND STEEL BENT PLATE: CSA-G40.21M, 350A, OR EQUIVALENT. 350W MAY BE USED IN PLACE OF 350A IF THE ARMOUR IS GALVANIZED AFTER FABRICATION.
- HEADED STUDS: CSA W59 APPENDIX H FOR TYPE A AND B STUDS, & ASTM A108 GRADE 1015, 1018, OR 1020.
- ALL MATERIALS AND FABRICATION TO BE IN ACCORDANCE WITH THE PERTINENT NOTES PROVIDED IN STD-EC-030-01 TO 09 OR STD-EC-040-01 TO 08 UNLESS OTHERWISE SPECIFIED ON THIS DRAWING.
- FABRICATOR SHALL TAKE APPROPRIATE MEASURES (SUCH AS HAND-PACKING) TO ENSURE NO CONCRETE VOIDS EXIST UNDERNEATH THE ARMOUR, AND SHALL INSPECT FOR VOIDS BY HAMMER SOUNDING. IF VOIDS ARE PRESENT THEY SHALL BE REPAIRED AT THE FABRICATOR'S EXPENSE PRIOR TO SHIPPING DECK PANELS TO THE MINISTRY.

**ASSUME NOT TO SCALE**



SCALE	AS SHOWN	Engineered	M.P.	Date	May 2019
		Checked	G.M.	Date	May 2019
		Approved	B.C.	Date	May 2019
		Drawn	N.H.	Date	May 2019
REV	DATE	DESCRIPTION	INITIALS		
REVISIONS					



**STANDARD BRIDGE DRAWING**

**STEEL ARMOUR FOR DECK ENDS**

DRAWN:	NICOLE HARVEY	CHECKED:	GLENN MOORE
ENGINEERED:	MIKE PENNER	APPROVED:	BRIAN CHOW CHIEF ENGINEER
FILE NUMBER:	FOR-11300-05/DECK ARMOUR	DRAWING NUMBER:	STD-EC-031-01