

DRAWING LIST

DRAWING NUMBER	REVISION	DRAWING DESCRIPTION	DATE
20212554-09-3-100	1	DRAWING LIST & COVER SHEET	2022APR20
20212554-09-3-101	1	GENERAL NOTES	2022APR20
20212554-09-3-102	1	STRUCTURAL DETAILS - SHEET 1	2022APR20
20212554-09-3-103	1	STRUCTURAL DETAILS - SHEET 2	2022APR20
20212554-09-3-104	1	STRUCTURAL DETAILS - SHEET 3	2022APR20

MAGNUM FABRICATORS LTD.

60' x 16' - BCL-625

ALL STEEL PORTABLE BRIDGES

PLOT DATE: 4/19/2022 2:11:48 PM
 SAVE DATE: 4/13/2022 1:08:30 PM SAVED BY: MOROJ
 DWG PATH: q:\2021\2554-09\magnum\20212554-09-3-100.dwg

SIR2022-01

SIR2022-02

RECORD

THESE DRAWINGS RECORD ALL SIGNIFICANT DESIGN CHANGES AS PROVIDED TO ME BY THE CONTRACTOR AND REVIEWED BY THE FIELD INSPECTOR AND THE DESIGN AS REPRESENTED BY THESE RECORD DRAWINGS SUBSTANTIALLY CONFORMS WITH THE DESIGN INTENT AND SOUND ENGINEERING PRACTICE.

JULIEN HENLEY, P.ENG. 2022APR20
 ENGINEER OF RECORD DATE

REV	DATE	DESIGN	DRAWN	DESCRIPTION
1	2022APR20	I.SOLTANI	J. MORO	RECORD DRAWINGS
0	2022JAN20	I.SOLTANI	D.KHARAZMI	ISSUED FOR CONSTRUCTION

DRAWING	REVISION	SHEET
20212554-09-3-100	1	



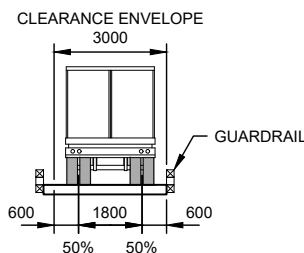
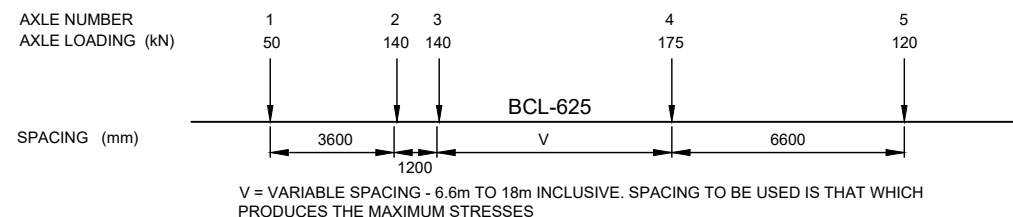
GENERAL

- FOR INSTALLATION BY OTHERS; NO RESPONSIBILITY CAN BE ACCEPTED FOR WORK BY OTHERS.
- DEFINITIONS
 - FLNRORD REFERS TO THE MINISTRY OF FORESTS, LANDS, NATURAL RESOURCE OPERATIONS & RURAL DEVELOPMENT, BRITISH COLUMBIA.
 - SS REFERS TO "2020 BC MOTI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION".
- DESIGN STANDARDS AND SPECIFICATIONS
 - CSA S6-14 CANADIAN HIGHWAY BRIDGE DESIGN CODE (CHBDC) (MODIFIED).
 - BC MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE BRIDGE STANDARDS AND PROCEDURES MANUAL (BSM).
 - FLNRORD STANDARD DRAWINGS STD-E-090-01 TO 02.
- THESE DRAWINGS APPLY TO THE BRIDGE BEARING THE SERIAL NUMBER SIR2022-01 & SIR2022-02 AND APPLY ONLY TO THESE STRUCTURES. DESIGN AND FABRICATION OF ADDITIONAL BRIDGES BASED ON THIS DESIGN IS PROHIBITED WITHOUT THE EXPRESS PERMISSION FROM ASSOCIATED ENGINEERING. ASSOCIATED ENGINEERING ACCEPTS NO LIABILITY FOR PROHIBITED APPLICATION OF THE CONTENT OF THESE DRAWINGS.
- FABRICATION AND CONSTRUCTION TO PROJECT SPECIFICATIONS.
- THIS ASSIGNMENT ONLY COVERS THE DETAILED DESIGN OF BRIDGE COMPONENTS SHOWN IN THE DRAWINGS.
- ANY DESIGN CHANGES PROPOSED DURING CONSTRUCTION SHALL REQUIRE PRIOR WRITTEN APPROVAL FROM ASSOCIATED ENGINEERING (B.C.) LTD.
- DRAWINGS SEALED FOR SELFWEIGHT AND SPECIFIED LOADS ONLY.
- BRIDGE SUBSTRUCTURE INCLUDING BEARINGS AND EARTH RETENTION TO BE DESIGNED BY OTHERS.

BRIDGE DESIGN

- LOADING: BCL-625 (63,710 KG G.V.W.) IN ACCORDANCE WITH BSM.

DESIGN TRUCK:



- FATIGUE: TO CAN/CSA-S6-14 (TRUCK CENTRED IN ROADWAY, 50:50 LOAD DISTRIBUTION) 500,000 CYCLES. DYNAMIC LOAD ALLOWANCE INCLUDED.
- MAXIMUM LIVE LOAD DEFLECTION: SPAN/350 (TRUCK CENTRED IN ROADWAY, 50:50 LOAD DISTRIBUTION, INCLUDES DYNAMIC LOAD ALLOWANCE.)
- BRIDGE BARRIER: PERFORMANCE LEVEL TL-2

FABRICATION

- NAME PLATE: ALL BRIDGES SHALL HAVE THEIR STRUCTURE NUMBER, DATE OF FABRICATION, LOAD RATING WEIGHT, MANUFACTURERS NAME AND "MOTI" PERMANENTLY MARKED ON AT LEAST ONE SIDE OF THE STRUCTURE (MIN. HEIGHT OF LETTERING 50 mm).
- STEEL FABRICATION IN ACCORDANCE WITH SS 421.
- STEEL: CSA G40.21M GRADE 350AT CAT 3 (STEEL PLATE)
GRADE 350A (ROLLED SECTIONS)
- BOLTS: ASTM F3125 GRADE A325 TYPE 3 (THREADS SHALL BE EXCLUDED FROM SHEAR PLANE)
- ROUND BAR: ASTM A36
- WELDING:
 - ALL WELDS TO BE COMPLETED IN ACCORDANCE WITH CSA W59.
 - ALL BUTT WELDS TO BE INSPECTED BY ULTRASONIC EXAMINATION IN ACCORDANCE WITH CSA W59.
 - WELD METAL SHALL MEET THE CVN TOUGHNESS REQUIREMENTS OF CAN/CSA-S6-14 FOR A MINIMUM SERVICE TEMPERATURE OF < -40 °C.
 - TERMINATE FILLET WELDS 10mm FROM THE CORNERS OF STIFFENERS AND GUSSETS AND TABS.
- WEARING SURFACE: SURFACE PREPARATION SANDBLAST TO SSPC-SP6, COATING AMERLOCK 400 (OR EQUIVALENT EPOXY COATING APPROVED BY ENGINEER) C/W 16 GRIT SAND TO PROVIDE ANTI-SKID WEARING SURFACE, IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.

GUARDRAIL & POSTS

- HSS SHALL CONFORM TO CSA G40.21 -04 GRADE 350W OR ASTM A500 GRADE C.
- STEEL SURFACE PREPARATION: BLAST CLEAN TO SSPC SP-6.
- PAINT: AS PER THE FLRORD CURRENT STEEL GUARDRAIL COMPONENT PAINT STANDARD.

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ASSOCIATED ENGINEERING (B.C.) LTD.
PERMIT NUMBER: 1000163
Engineers & Geoscientists BC

RECORD

THESE DRAWINGS RECORD ALL SIGNIFICANT DESIGN CHANGES AS PROVIDED TO ME BY THE CONTRACTOR AND REVIEWED BY THE FIELD INSPECTOR AND THE DESIGN AS REPRESENTED BY THESE RECORD DRAWINGS SUBSTANTIALLY CONFORMS WITH THE DESIGN INTENT AND SOUND ENGINEERING PRACTICE.

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ALL STEEL PORTABLE BRIDGES

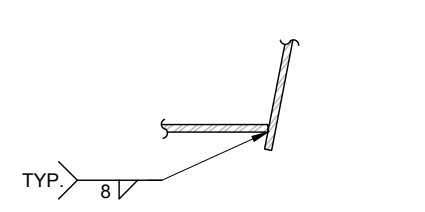
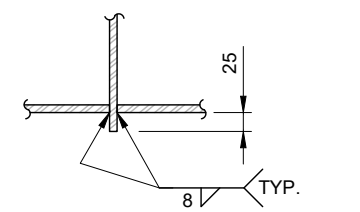
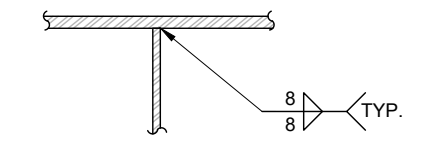
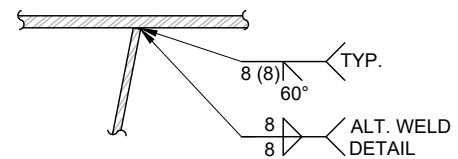
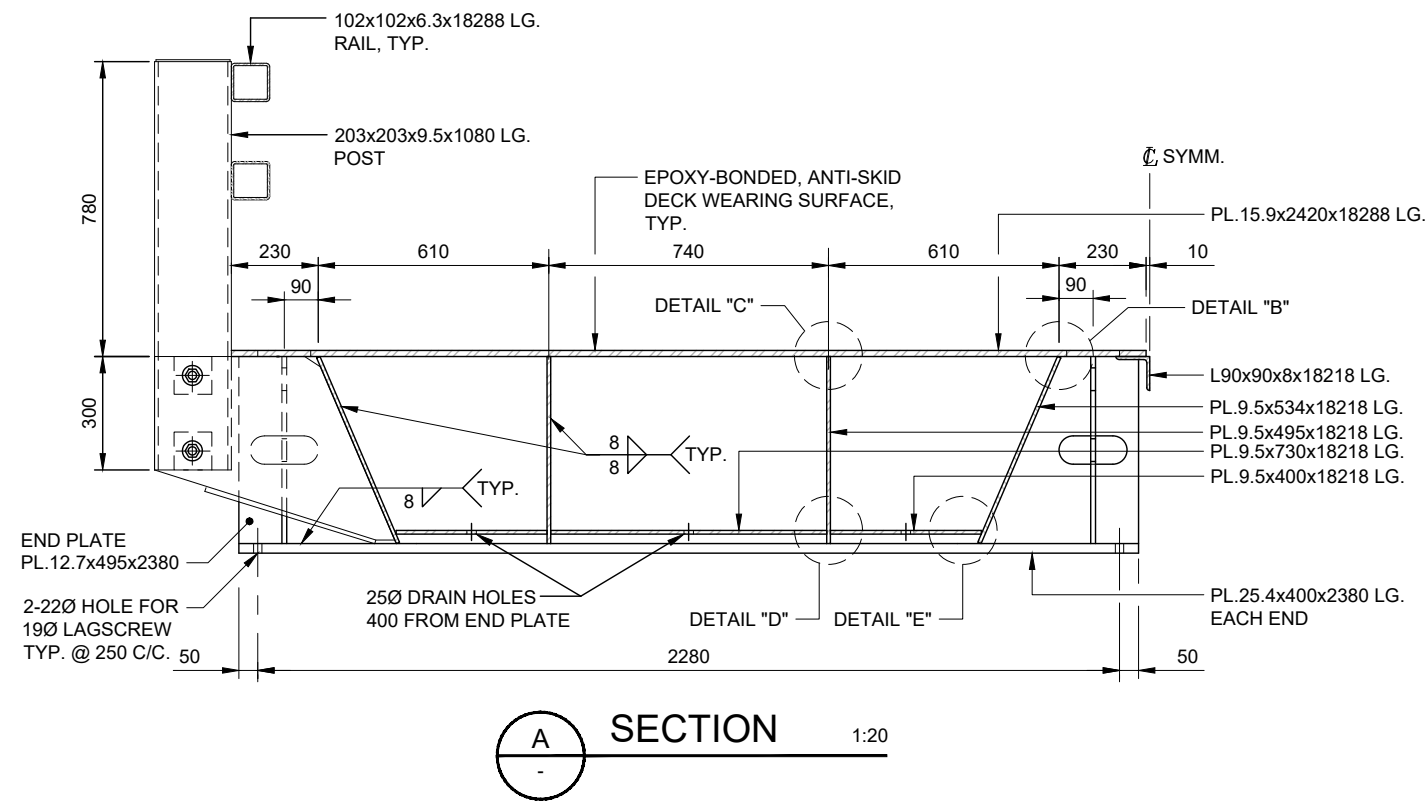
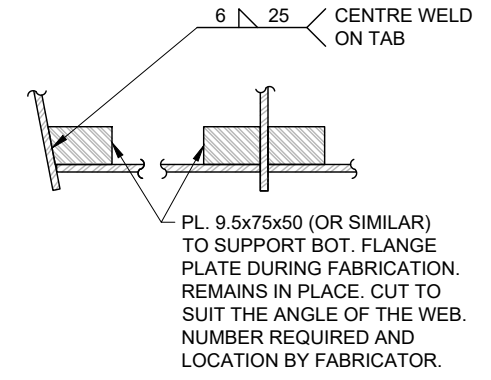
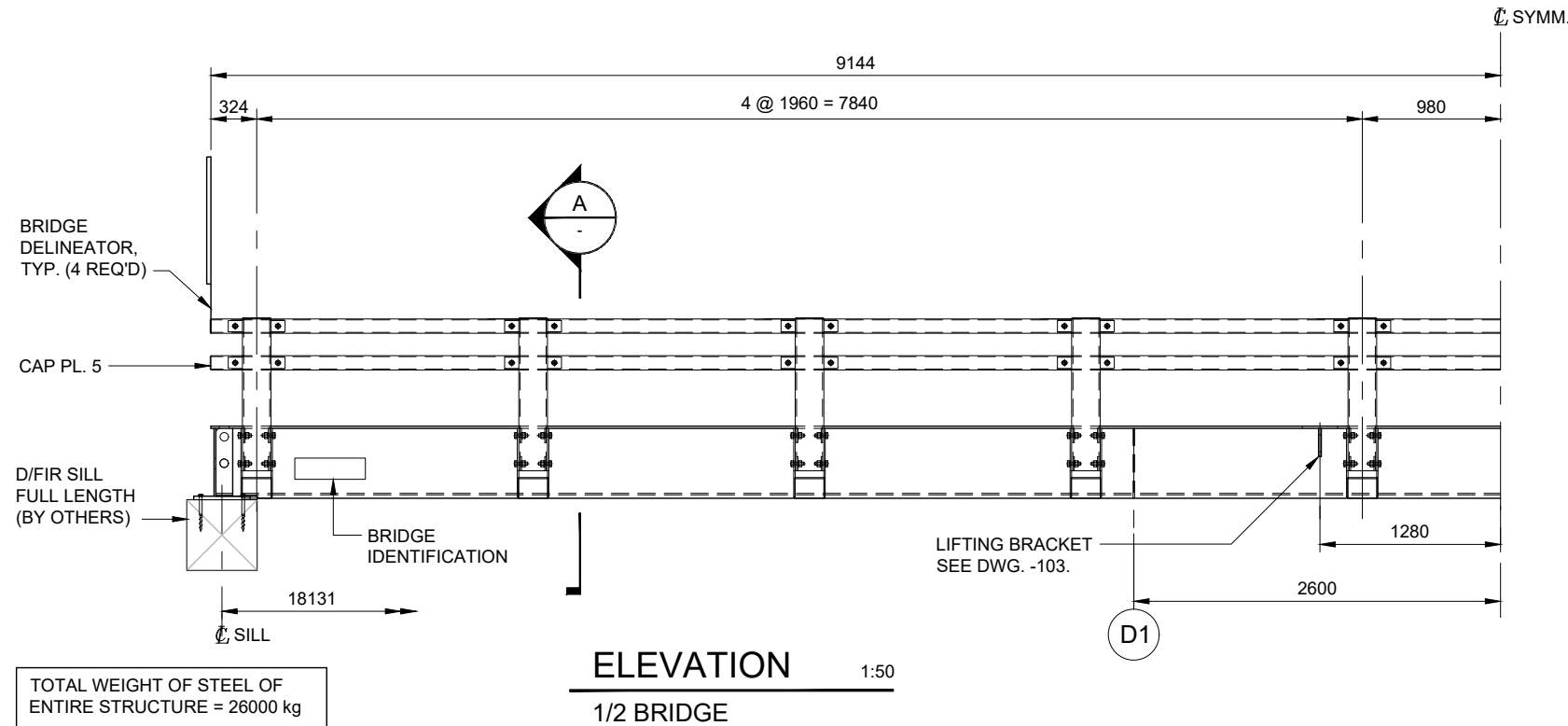
20212554-09

SCALE: N/A

STRUCTURAL

GENERAL NOTES

DRAWING	REVISION	SHEET
20212554-09-3-101	1	



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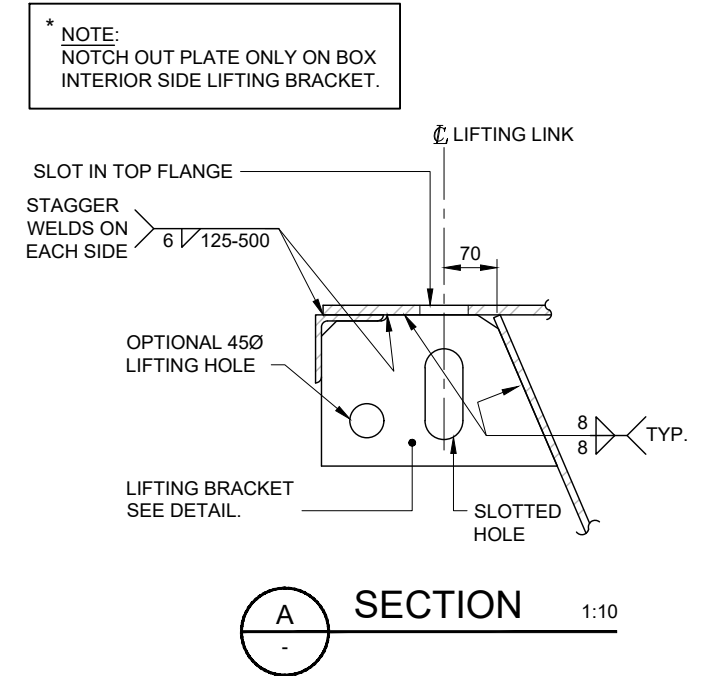
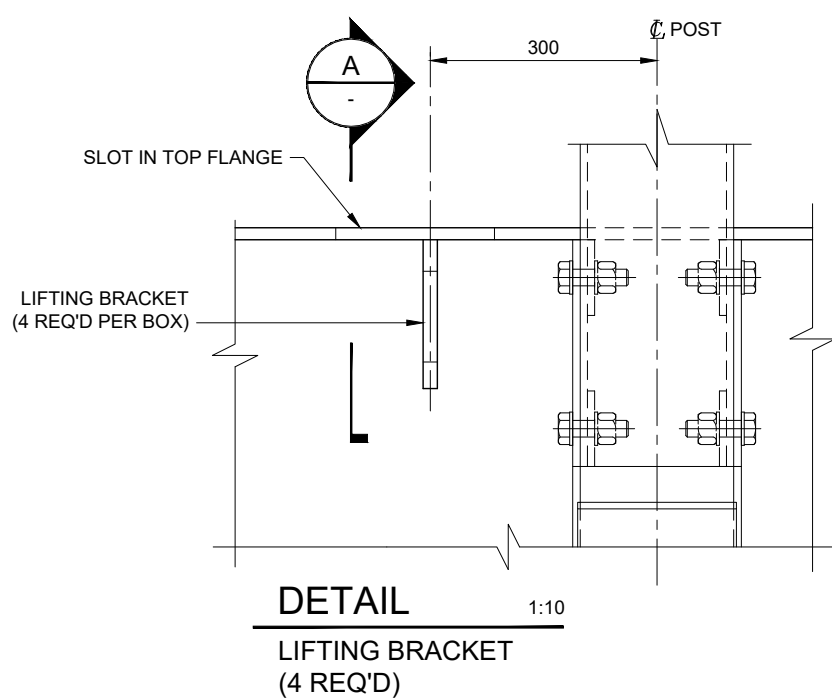
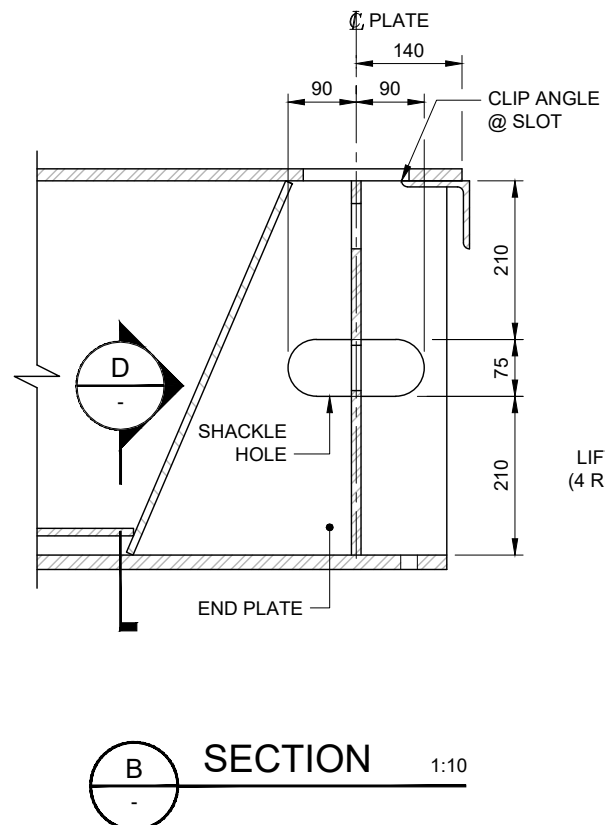
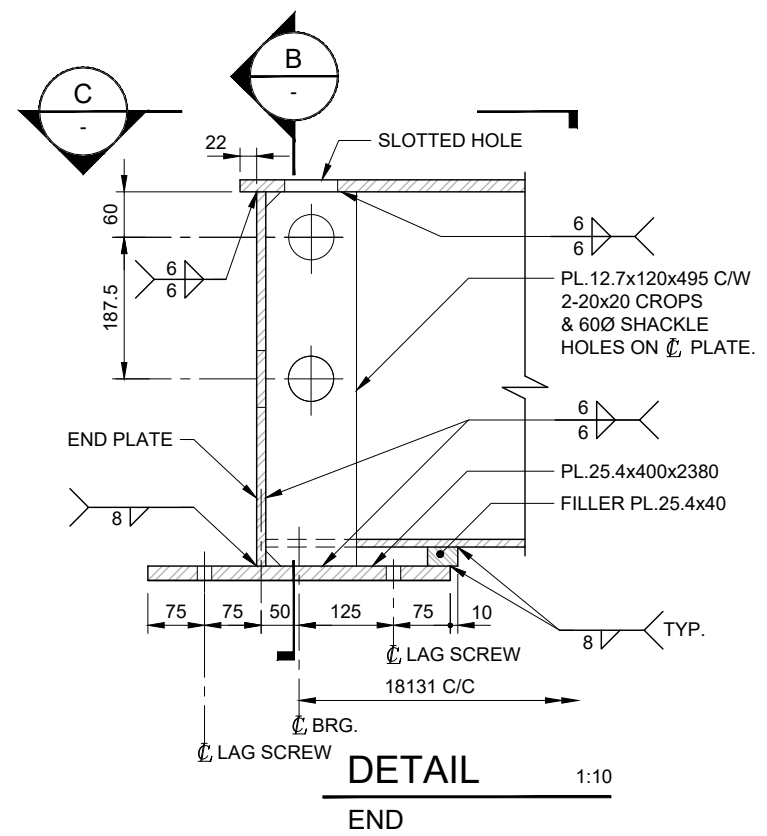
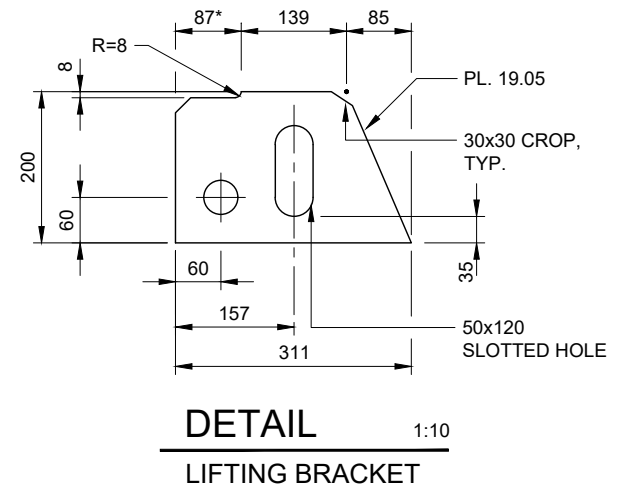
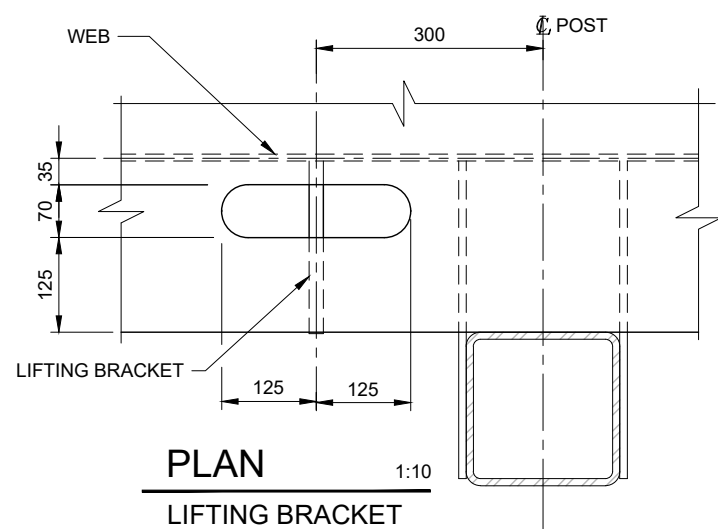
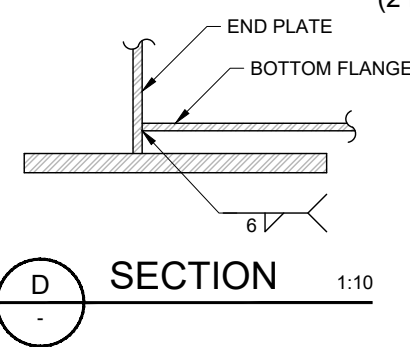
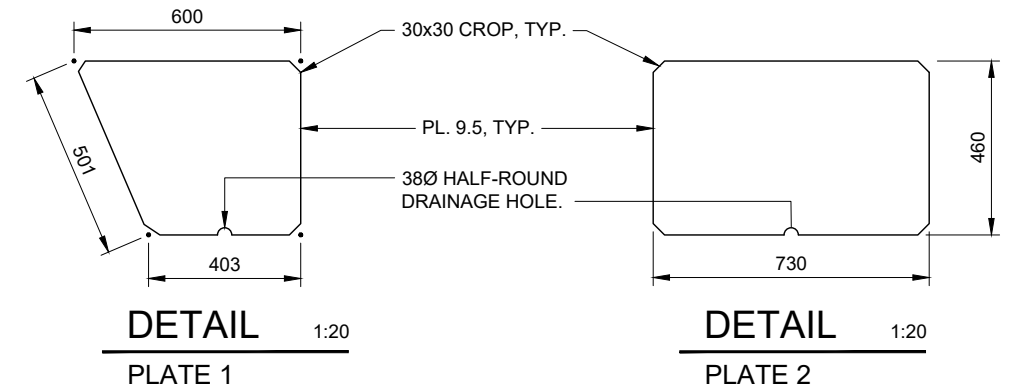
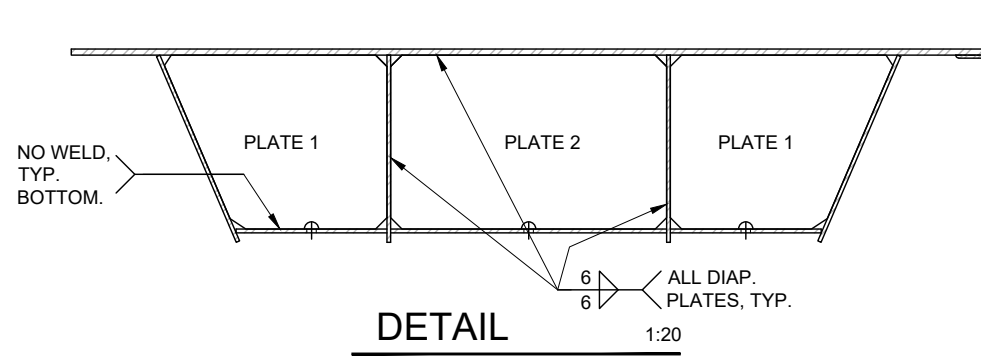
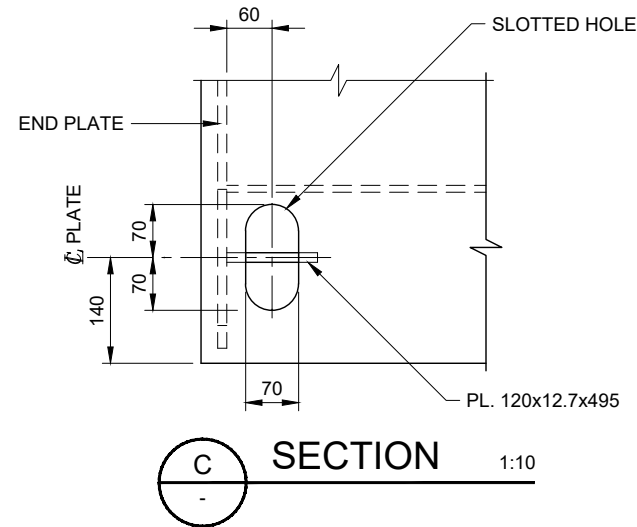
60' x 16' - BCL-625
ALL STEEL PORTABLE BRIDGES

20212554-09

SCALE: AS SHOWN

STRUCTURAL
STRUCTURAL DETAILS - SHEET 1

DRAWING	REVISION	SHEET
20212554-09-3-102	1	



* NOTE:
NOTCH OUT PLATE ONLY ON BOX
INTERIOR SIDE LIFTING BRACKET.

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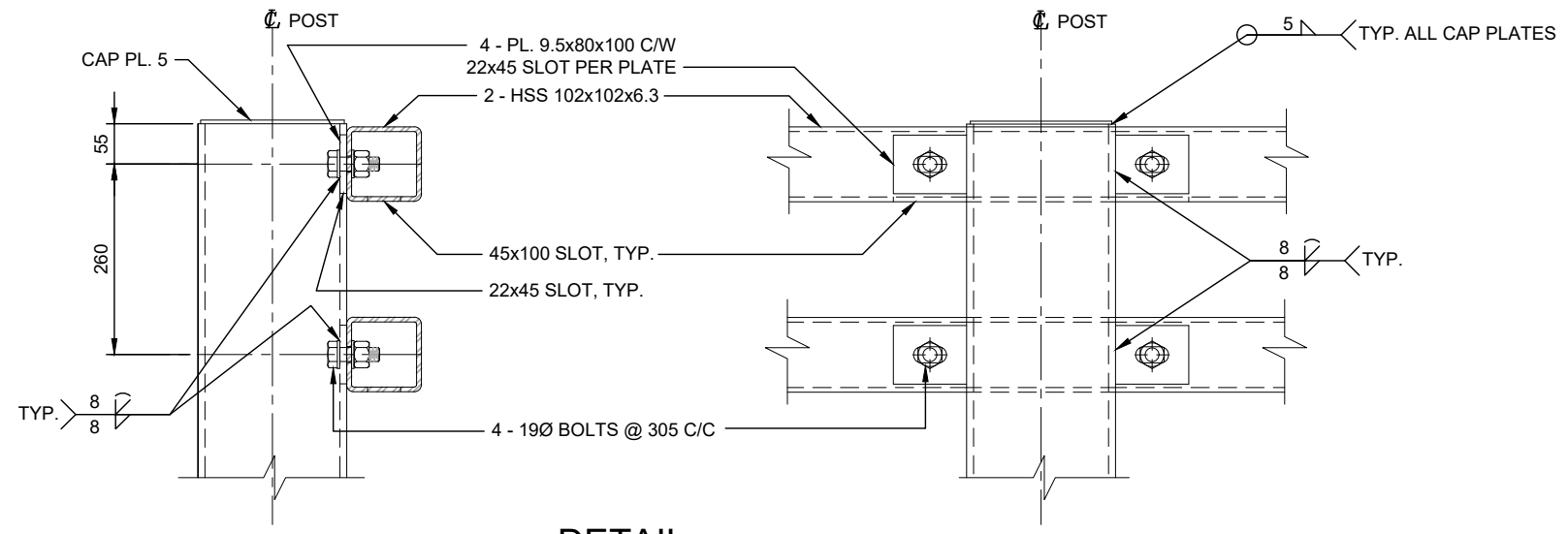
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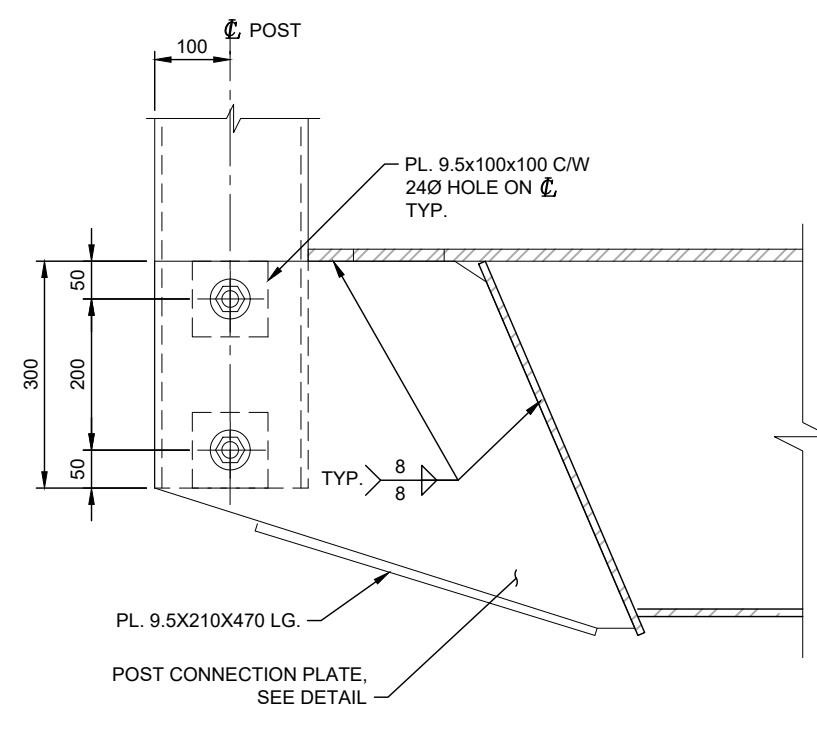
SCALE: AS SHOWN

STRUCTURAL
STRUCTURAL DETAILS - SHEET 2

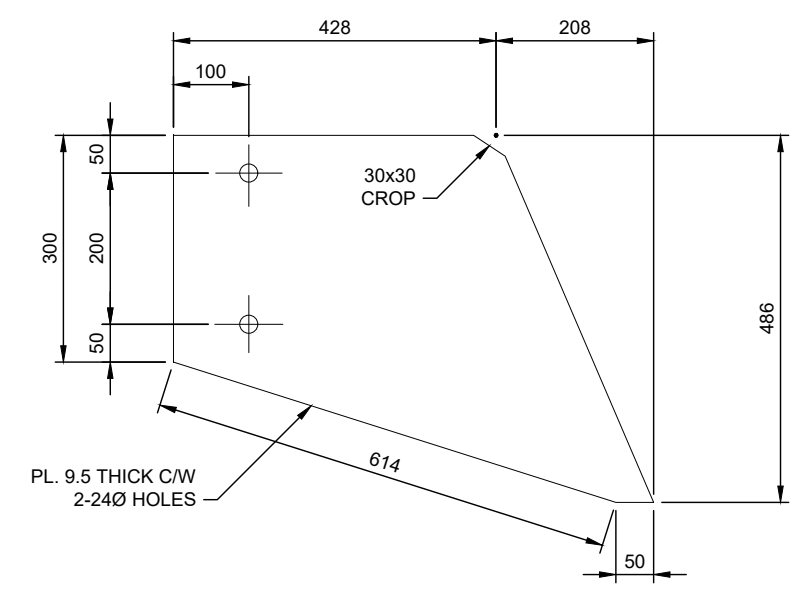
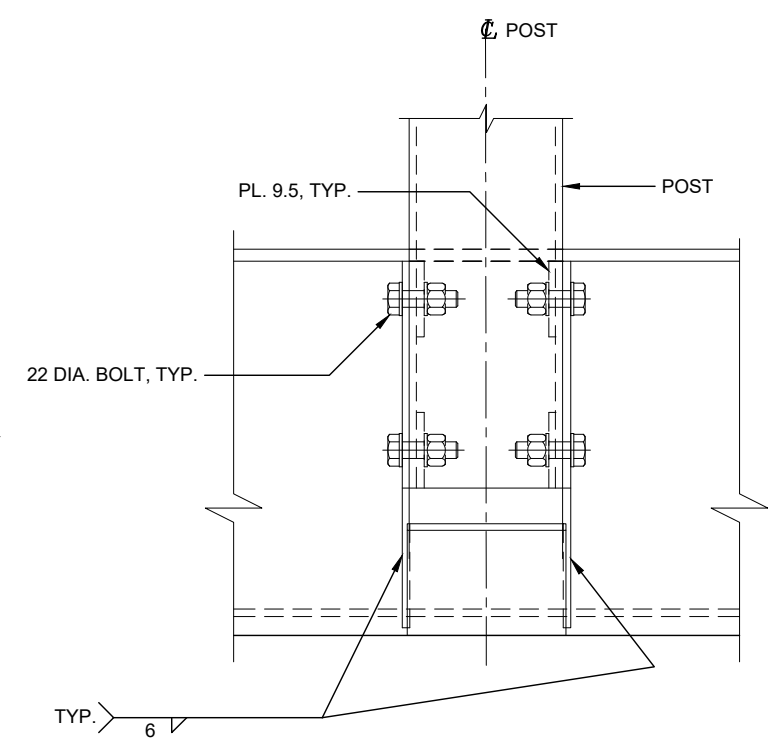
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20212554-09-3-103	1	



DETAIL 1:10
RAIL



DETAIL 1:10
POST CONNECTION



DETAIL 1:10
POST CONNECTION PLATE

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STRUCTURAL
 STRUCTURAL DETAILS - SHEET 3

DRAWING	REVISION	SHEET
20212554-09-3-104	1	