

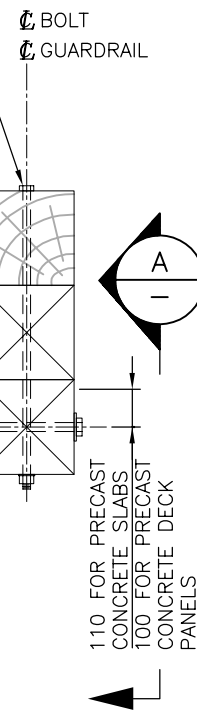
2 - 19 DIA. GALV. TIMBER BOLTS (c/w ECONO DOME HEAD) AND MALLEABLE IRON WASHERS TOP AND BOTTOM (MINIMUM 75 DIAMETER)

OPTIONAL 150 x 150 GRADING STRIP CONNECTED TO RISER WITH 2 - 13 DIA. x 175 LG. LAG SCREWS/ RISER, WHERE SPECIFIED.

OPTIONAL 25 PACKING AT RISER, WHERE SPECIFIED.

OPTIONAL 150 GRAVEL SURFACE, WHERE SPECIFIED.

CONCRETE SLAB GIRDER



110 FOR PRECAST CONCRETE SLABS
100 FOR PRECAST CONCRETE DECK PANELS

250 x 250 TIMBER GUARDRAIL FULL LENGTH

250 x 250 x 600 RISER BLOCK

250 x 250 x 800 BRACKET

3-25 DIA. A307 GRADE B ANCHOR BOLTS c/w 75 DIA. MALLEABLE IRON WASHERS, GALV.

3048 MAX. FOR DECK PANELS & SLAB GIRDERS

RISER

CURB JOINT ON CL. RISER TYP.

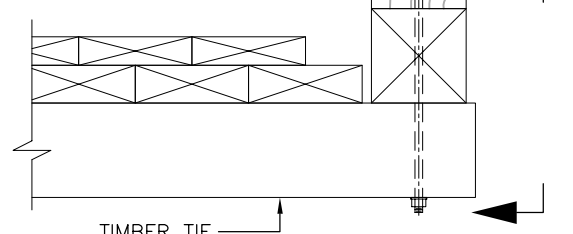
TIMBER GUARDRAIL DETAIL FOR CONCRETE SLAB GIRDER/DECK PANEL

1:20

SECTION A

1:20

2 - 19 DIA. TIMBER BOLTS (c/w ECONO DOME HEAD) AND MALLEABLE IRON WASHERS TOP AND BOTTOM, GALV. (MINIMUM 75 DIAMETER)



TIMBER GUARDRAIL DETAIL FOR TIMBER DECK

1:20

250 x 250 TIMBER GUARDRAIL FULL LENGTH

250 x 250 x 800 RISER BLOCK @ 2440 O.C. MAX.

SECTION C

1:20

NOTES:

GENERAL

- GUARDRAILS HAVE BEEN DESIGNED TO MEET THE CRITERIA FOR CONTAINMENT LEVEL CL-1 AS DEFINED BY THE MINISTRY. GUARDRAILS HAVE NOT BEEN DESIGNED TO CONTAIN ERRANT VEHICLES.
- MAXIMUM POST SPACING AS SHOWN ON DRAWING.
- FOR GUARDRAIL ANCHOR DETAILS, SEE MINISTRY STANDARD DRAWINGS:
STD-EC-030-09 - COMPOSITE PRECAST DECK PANEL
STD-EC-040-08 - NON-COMPOSITE PRECAST DECK PANEL-DETAILS
STD-EC-070-03 - PRECAST CONCRETE SLAB DETAILS (SHEET 1)

MATERIALS

- TIMBER: ALLOWABLE WOOD SPECIES, LUMBER GRADES, GRADING CRITERIA AS PER MINISTRY: BRIDGE TIMBER AND LUMBER MATERIAL STANDARD:
- STEEL: POSTS
- TO CSA G40.21M, PLATE TO CSA G40.21M
- GRADE 350W (COATED) - GRADE 350W (COATED)
- GRADE 350A (UNCOATED) - GRADE 350A (UNCOATED)
- GRADE 350A (UNCOATED) - GRADE 350A (UNCOATED)
- OR TO ASTM
- A500 GRADE C (COATED)
- A847 (UNCOATED)
- STEEL FABRICATION: WELDING:
- SHOP WELDING IN ACCORDANCE WITH CSA W59 FABRICATOR TO BE CERTIFIED FOR DIVISION 1, 2 OR 3 IN ACCORDANCE WITH CSA W47.1.
- FIELD WELDING BY COMPANY CERTIFIED TO CSA W47.1, DIVISIONS 1, 2 OR 3.
- MIN. 6mm FILLET WELD UNLESS OTHERWISE NOTED.
GUARDRAIL BRACKETS AND POST COATING TO BE EITHER:
- GALVANIZED TO CSA G164 AS NOTED ON DRAWINGS. MINIMUM 610 g/m²; OR
- PAINTED IN ACCORDANCE WITH MINISTRY STEEL GUARDRAIL COMPONENT PAINT STANDARD.
GALVANIZING WHERE SPECIFIED, TO CSA G164, MINIMUM 610 g/m².
- HARDWARE:
- ALL HARDWARE (BOLTS, NUTS, WASHERS) TO BE GALVANIZED TO CSA G164, MINIMUM 610 g/m².
- BOLTS:
- ASTM A307 GRADE B GALVANIZED
- TIMBER BOLTS c/w ECONO HEAD AND MALLEABLE IRON WASHERS TOP AND BOTTOM.

ASSUME NOT TO SCALE
ORIGINAL SIGNED AND SEALED

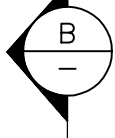
STEEL POST W150x22 @ 1905 C/C (MAX.)

GALV. W BEAM STEEL GUARDRAIL TO BC MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE STANDARD DWG. SP312-6

STEEL BRACKET

16 DIA. A307 GRADE B HEX BOLT c/w NUT & WASHER, GALV.

LESSER OF SLAB/DECK PANEL DEPTH OR 250



PL. 19x250
PL. 19x250x680 c/w 1-30 DIA. HOLE & 2-30x75 SLOTTED HOLES

1905 MAX C/C

SYMM./ POST

19 DIA. THRU HOLE (DECK SIDE OF POST FLANGE)

110 FOR PRECAST CONCRETE SLABS
100 FOR PRECAST CONCRETE DECK PANELS

3 - 25 DIA. A307 GRADE B ANCHOR BOLTS c/w WASHERS, GALV.

W-BEAM GUARDRAIL DETAIL FOR CONCRETE SLAB GIRDER/DECK PANEL

1:20

SECTION B

1:20

| SCALE AS SHOWN | | Designed J.H. | Date 2012/03/30 |
|----------------|-----------|-----------------------------------------------|-----------------|
| | | Checked D.L.H. | Date 2012/03/30 |
| | | Drawn W.R. | Date 2012/03/30 |
| Rev | Date | DESCRIPTION | Init |
| 1 | JUNE 2014 | REVISED MAXIMUM CURB SPACING FOR SLAB GIRDERS | |
| REVISIONS | | | |

MINISTRY OF FORESTS, LANDS & NATURAL RESOURCE OPERATIONS
The Best Place on Earth

STANDARD BRIDGE DRAWING

STANDARD BRIDGE GUARDRAIL
CL - 1

ORIGINAL SIGNED and SEALED BY:
JULIEN HENLEY

APPROVED BY:
MOF ENGINEER

DESIGN ENGINEER
JULIEN HENLEY

MOF ENGINEER

DATE

DRAWING No.

FILE No.

DRAWING No.

STD-EC-010-01