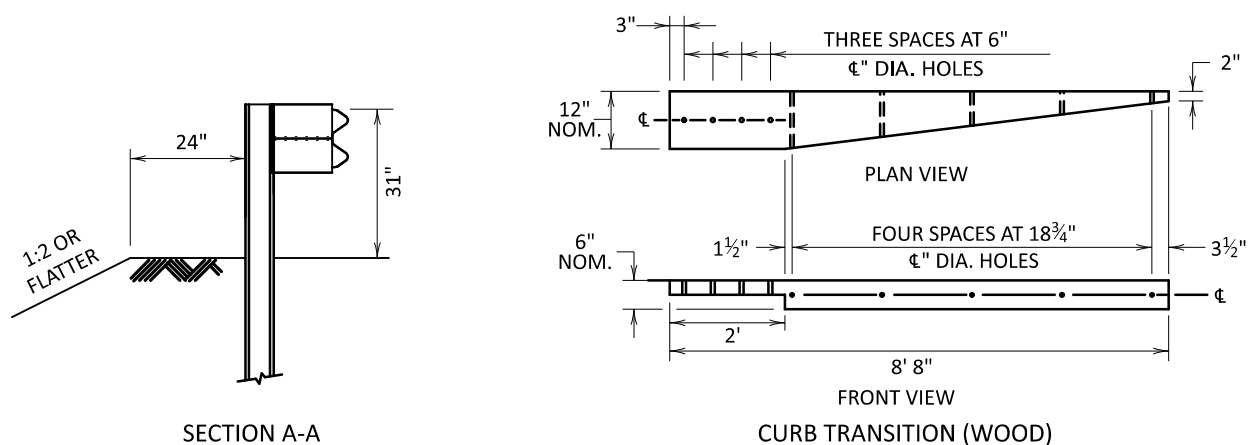


ANCHORAGE PLATE HARDWARE:
 -FIVE 5/8" DIA. HEAVY HEX HEAD BOLTS (HEAD FACING TRAFFIC) (ASTM F3125 GR. A325, OR A449). FIELD VERIFY BOLT AND THREAD LENGTH TO PROVIDE A TIGHT CONNECTION. LEAVE 1" OF BOLT LENGTH PAST NUT, TRIM AS REQUIRED.
 -1 3/4" O.D. WASHER UNDER EACH HEX BOLT HEAD AND NUT.
 -FIVE 5/8" DIA. HEAVY HEX NUTS (ASTM A194 GR. 2H OR A563DH).
 -ALL HARDWARE GALVANIZED PER ASTM A153 AND A780.

NOTES:

- MATERIAL FOR POSTS 1-6, CURB TRANSITION, AND BLOCKOUT IS SAWN LUMBER PER SPEC. 3426, WOOD PRESERVATIVE PER SPEC. 3491.
- DIMENSIONS FOR WOOD POSTS AND WOOD CURB ARE GIVEN AS NOMINAL DIMENSIONS. ACTUAL DIMENSIONS MAY BE A MAXIMUM OF 1/2" LESS THAN THE STATED NOMINAL DIMENSIONS DEPENDING ON THE MATERIAL SURFACING. DIMENSIONS FOR BLOCKOUTS ARE ACTUAL DIMENSIONS.
- GUARDRAIL STEEL POSTS, SEE STANDARD PLATE 8361. POST 7 IS W6 X 9 MnDOT TYPE B, POSTS 8-9 ARE W6 X 9 MnDOT TYPE A.
- GUARDRAIL BEAM AND HARDWARE PER AASHTO SPEC. M 180.
- GUARDRAIL POSTS 1-7 REQUIRE TWO GUARDRAIL POST BOLTS. GUARDRAIL POSTS 8-9 REQUIRE ONE GUARDRAIL POST BOLT.
- FOR CURB TRANSITION PROVIDE 5/8" DIA. BOLTS (LENGTH VARIES), NUTS, AND WASHERS IN ACCORDANCE WITH SPEC. 3391. GALVANIZE PER SPEC. 3392. BOLT HEAD FACES TRAFFIC.
- ① W-BEAM TO THRIE-BEAM TRANSITION GUARDRAIL, SEE STANDARD PLATE 8356.
- ② THRIE BEAM ANCHORAGE PLATE, SEE STANDARD PLATE 8350.

TRANSITION POST/BLOCK SIZING		
POST	POST SIZE	BLOCKOUT SIZE
1-2	78" - 8" x 8" TIMBER	8" x 12" x 20"
3-6	72" - 8" x 8" TIMBER	8" x 12" x 20"
7-8	72" - W6 x 9 STEEL	6" x 12" x 19"
9	72" - W6 x 9 STEEL	6" x 12" x 14 1/4"



LEAD EXPERT OFFICE
 NANCY YOO
 DESIGN SUPPORT DIRECTOR
 OFFICE OF PROJECT MANAGEMENT & TECHNICAL SUPPORT

GUARDRAIL TRANSITION TO GLULAM
 TIMBER BRIDGE RAIL

APPROVED: 03-26-2021
 REVISED:

THOMAS STYRBICKI
 STATE DESIGN ENGINEER

STANDARD PLAN
 5-297.608

1 OF 1



STANDARD PLAN

STATE PROJ. NO.
 TRUNK HWY.
 SHEET NO.
 TOTAL SHEETS