⁵⁄₁₆" POST BOLT AND NUT, ASTM F 568, CLASS 4.6. 2⅜" LONG FULLY THREADED DOUBLE NUTS, TWO SQ. WASHERS AND ONE ROUND WASHER. NUTS SHALL BE PUT ON FINGER TIGHT. ENGAGE TOP AND BOTTOM EDGES OF SPLICE PLATE WITH THE POST AND THEN TIGHTENED AT LEAST ONE FULL TURN WITH A WRENCH, THEN SECURE WITH SECOND NUT.

⅜" TOP OF RAIL TO TOP OF POST

B

3¼" 3" 3¼"

6½"
6½"
19⅜"
5'-5"
4⅝"
2'-0" SOIL PLATE
4"

GROUND LEVEL

TYPICAL SECTION

32"
25⅞"

12 GAUGE W-BEAM RAIL ELEMENT, 12'-6" LENGTH.

BACKUP PLATE

B

S3 x 5.7 POST @ 12'-6" C.C.

GROUND LEVEL

RAIL SUPPORT BOLTS ½" x 1½" LONG ASTM F 568, CLASS 4.6 BOLT W/ TWO ASTM A563 HEX NUTS

ELEVATION

2 SQUARE WASHERS

S3 x 5.7 POST FLANGE

ROUND WASHER

⁵⁄₁₆" ASTM F568 CLASS 4.6 BOLT, 2⅜" LONG

W-BEAM

DOUBLE NUTS ASTM F568, CLASS 4.6

12 GAGE W-BEAM BACKUP PLATE SEE NOTE 3

SECTION B-B

TYPICAL INSTALLATION

12'-6"
6" 6"
END OF W-BEAM
2" TYP.
4¼" 4¼"
BACKUP PLATE

6⅛"
12¼"

¹⁵⁄₁₆" x 1³⁄₁₆" SLOTTED HOLES FOR SPLICE BOLTS, SEE DETAIL A.

¾"x 2½" SLOTTED HOLES FOR POST BOLTS, SEE TYPICAL INSTALLATION AT POST DETAIL.

W-BEAM RAIL ELEMENT AT MID-SPAN SPLICE

S3 x 5.7

SOIL PLATE 8"x 24"x ¼"

PLAN

TRAFFIC DIRECTION

2⅜"
1³⁄₁₆"
⅝"
6½"
6½"
3"

⅜"
⅝"
65"

¼" 1⅝"
¼" 1⅝"

8"
24"

SOIL PLATE MAY BE CUT ALONG THESE LINES FOR DRIVING.

4"

¼" 2-11
¼" 2-11

¼" THICK SOIL PLATE

ELEVATION   **SIDE**

WEAK POST S3 x 5.7

GENERAL NOTES:

1. DURING ERECTION, USE SUPPORT BOLTS TO SUPPORT THE RAIL ELEMENT UNTIL THE ⁵⁄₁₆" POST BOLTS ARE PROPERLY TORQUED. LEAVE SUPPORT BOLTS IN PLACE AFTER CONSTRUCTION.

2. ATTACH W-BEAM RAIL TO EACH POST. SPLICE ONLY AT MID-SPAN AND LAP IN THE DIRECTION OF TRAFFIC.

3. USE 12" BACKUP PLATES FOR THE W-BEAM RAIL AT ALL POSTS WITH THE SAME SECTION AS THE W-BEAM RAIL.

⅝" x ⅞" OVAL SHOULDER
⁵⁄₁₆"
1¼"
¼"
1¼"
⅝"

SPLICE BOLT

RECESS 2/32" DEEP x 1"
⅝"
⅝"
1¼"

NUT

1¾"
1¾"
1¾"
⅜"
⅛" THICK

SQUARE WASHER

DETAIL A   **DETAIL B**

WEAK POST VERTICAL TRANSITION — 25:1 STANDARD POST TRANSITION — 6'-3" POST SPACING TYPICAL (✱✱ SEE NOTE)

12'-6" | 12'-6" | 12'-6" | 12'-6" | 6'-3" | 6'-3"

GUARDRAIL POST

MODIFIED WOOD OFFSET BLOCK
(FIELD CONFIRM PROPOSED OFFSET
BLOCK DIMENSION AND CUT AS NECESSARY
OR AS DIRECTED BY THE ENGINEER)

WEAK POST
12'-6" POST SPACING (TYP.)

2 SPACES @ 12'-6"
WITH 4⅞" RAIL DROP

12'-6" | 12'-6" | 6'-3" | 6'-3"

25⅞"

WEAK POST
(S3x5.7)

GROUND LEVEL

21"

W6x8.5 x 6'-0" STRONG POST-TYPICAL

WEAK POST TO STRONG POST TRANSITION

NOTES:

DOUBLE FACE WEAKPOST GUARDRAIL TRANSITIONS TO SINGLE FACE STRONG POST GUARDRAIL AT BRIDGE PIERS AND SIGN SUPPORT.

✱✱ WHEN TRANSITIONING TO GUARDRAIL ANCHOR UNITS (SEE STD. 862.03) AT BRIDGE PIERS AND SIGN SUPPORTS, CONTINUE 25:1
GUARDRAIL TAPER UNTIL GUARDRAIL CONNECTS WITH GUARDRAIL ANCHOR UNIT OR AS DIRECTED BY THE ENGINEER. USE
STANDARD GUARDRAIL POST SPACING (6'-3") BEYOND TRANSITION WHEN CONNECTING TO EXISTING GUARDRAIL.

SEE STANDARD DRAWING 862.02 FOR STANDARD W6x8.5 x 6'-0" STRONG POST AND OFFSET BLOCK DIMENSIONS.

SEE SECTION B-B FOR
TYPICAL INSTALLATION

TRAFFIC FLOW

S3x5.7

'W' BEAM
GUARDRAIL

TRAFFIC FLOW

PLAN

WEAK POST GUARDRAIL

THRIE BEAM

FRONT PLATE

FRONT VIEW

1'-8"
1'-3"
2"
3"
1½"
2'-0⅞"
1'-9⅞"
1½"
3"
16"
1"
7 STUDS

1" HOLES FOR ⅞" DIA. BOLTS (TYP.)

SIDE VIEW

⅝" THICK PLATE
¼" CONTINUOUS WELD (TYPICAL)
¼" CONTINUOUS WELD (TYPICAL)
1" X 1" X 16" BAR
6⅞"
1¼"
7-1¼" X ⅞" DIA. THREADED STUDS (QTY. 7)
⅞" DIA. STUD BOLTS TO BE FURNISHED W/NUT AND STD. WASHER

BACK PLATE

1'-8"
1'-3"
2"
3"
1½"
2'-0⅞"
1'-9⅞"
1½"
⅝" THICK PLATE
1" HOLES FOR ⅞" DIA. BOLTS (TYP.)

W BEAM

FRONT PLATE

FRONT VIEW

1'-8"
1'-3"
2"
3"
4"
4"
1½"
1'-7"
1'-2"
3½"
3½"
3½"
3½"
3"
16"
1"
3 STUDS

1" HOLES FOR ⅞" DIA. BOLTS (TYP.)

3-1¼" X ⅞" DIA. THREADED STUDS (QTY. 3)

SIDE VIEW

⅝" THICK PLATE
¼" CONTINUOUS WELD (TYPICAL)
¼" CONTINUOUS WELD (TYPICAL)
1" X 1" X 16" BAR
1"
1¼"
⅞" DIA. STUD BOLTS TO BE FURNISHED W/NUT AND STD. WASHER

BACK PLATE

1'-8"
1'-3"
2"
3"
1½"
1'-7"
1'-2"
3½"
⅝" THICK PLATE
1" HOLES FOR ⅞" DIA. BOLTS (TYP.)