

TYPICAL LAYOUT FOR ASYMMETRICAL BULLNOSE FOR SYSTEM WIDTHS GREATER THAN 24'

~ NOTES ~

BEYOND POST 12. EITHER MODIFIED THRIE-BEAM (BULLNOSE) OR W-BEAM GUARDRAIL MAY BE CONSTRUCTED. BOTH OPTIONS ARE PAID PER LINEAR FOOT. INDICATE THE SELECTED TYPE IN THE ROADWAY PLANS.

FOR WIDER MEDIANS. TAPER THE OPPOSING TRAFFIC SIDE BEFORE TAPERING THE APPROACH TRAFFIC SIDE. AS SHOWN.

EXTEND THE RAIL BEYOND POST 12 AT A TAPER RATE OF 15:1 OR FLATTER ON THE APPROACH SIDE. AND UP TO A MAXIMUM TAPER RATE OF 26:5 ON THE OPPOSING TRAFFIC SIDE, AS NEEDED. THE LENGTH OF EXTENSION WILL VARY BASED ON MEDIAN WIDTH OR WORKING WIDTH REQUIREMENTS.

SEE SHEET 5 FOR MEDIAN GRADING.

MODIFIED THRIE-BEAM (BULLNOSE) MINIMUM WORKING WIDTH 4' - 6". GUARDRAIL-STEEL W BEAM-S FACE MINIMUM WORKING WIDTH 5' - 0".

GRADING INSIDE W-BEAM GUARDRAIL OR MODIFIED THRIE-BEAM (BULLNOSE) GUARDRAIL BEYOND POST 12 MAY BE ADJUSTED FOR DRAINAGE, PROVIDED THERE IS A MINIMUM OF 2' OF FILL BEHIND THE POSTS TO ENSURE ADEQUATE SUPPORT FOR THE SYSTEM.

U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

NOSE CABLE WITH SWAGGED END BUTTONS.

NOSE CABLE ANCHOR BRACKET (BACKSIDE OF SPLICE).

THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

BEND THE RAIL IN THE FIELD AS NEEDED TO MAKE CONNECTIONS. THE MAXIMUM DEFLECTION ANGLE IS 4.7° (3.63° SHOWN).

212 IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER. BACKFILL WITH CUTTING SPOILS, PLACING GRANULAR MATERIAL, OR SMALL ROCK (#9 OR #57 STONE) IN THE BOTTOM 2 1/2" FOR DRAINAGE. THE REMOVAL OF ROCK AND BACKFILL MATERIAL IS INCIDENTAL.

213 SEE SHEET 6 FOR DETAILS ON THE INSTALLATION OF DELINEATOR REFLECTORS.

GUARDRAIL CONNECTOR TO BRIDGE END. FOR NEW CONSTRUCTION USE BHS-013 OR BHS-014. FOR MAINTENANCE ONLY RBC-004, RBC-005, RBC-006.

BID ITEM AND UNIT TO BID

THRIE-BEAM BULLNOSE TERMINAL

EACH

BID ITEMS AS APPLICABLE

MODIFIED THRIE-BEAM (BULLNOSE) GUARDRAIL-STEEL W BEAM-S FACE THRIE BEAM TO W BEAM CONNECTOR THRIE-BEAM GUARDRAIL TRANSITION TL-3 **EACH** THRIE-BEAM GUARDRAIL TRANSITION TL-2 **EACH**

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COMMONWEALTH OF KENTUCKY TEAM KENTUCKY DEPARTMENT OF HIGHWAYS

PARTS E1 THROUGH E4 ARE THRIE-BEAM RAILS.

BULLNOSE TERMINAL LAYOUT

POST 1 TO POST 7 IS 3'-1\(^y\)"

SEE SHEET 9 FOR DETAILS.



DIMENSIONS ARE MEASURED FROM THE CENTER OF SLOTTED THRIE-BEAM RAIL E1 TO THE CENTER OF EACH GUARDRAIL POST.

ON THE PLAN SHEETS, THE DESIGNER MUST DOCUMENT THE APPROXIMATE

SAW, DRILL, OR PUNCH THE RAIL AS REQUIRED. DO NOT TORCH-CUT.

REPAIR GALVANIZED COATINGS IN ACCORDANCE WITH ASTM A780

(THIS IS INCIDENTAL). SPACING BETWEEN INDIVIDUAL POSTS FROM

SLOTTED THRIE-BEAM RAIL (POST 1B TO POST 1A)

A TANGENT OPTION ON THE OPPOSING SIDE.

SLOTTED THRIE-BEAM RAIL (POST 5 TO POST 8)

UNBENT STANDARD THRIE-BEAM RAIL (POST 8 TO POST 12, AND BEYOND POST 12 WHEN MODIFIED THRIE-BEAM (BULLNOSE) USED)

SLOTTED THRIE-BEAM RAIL (POST 1 TO POST 5) WITH A RADIAL OPTION ON THE APPROACH SIDE AND

STATION AND OFFSET, OR APPROXIMATE COORDINATES FOR THE CENTER OF POSTS 5A AND 5B. THESE VALUES ARE INTENDED TO SERVE AS GUIDANCE

FOR CONSTRUCTION LAYOUT AND SHOULD ALLOW FOR TYPICAL CONSTRUCTION TOLERANCES. REFER TO SHEET 3 FOR INSTALLATION DETAILS AND

STEEL THRIE-BEAM BULLNOSE TERMINAL

SHEET 002: ASYMMETRICAL BULLNOSE

STANDARD DRAWING NUMBER **RBE-210**