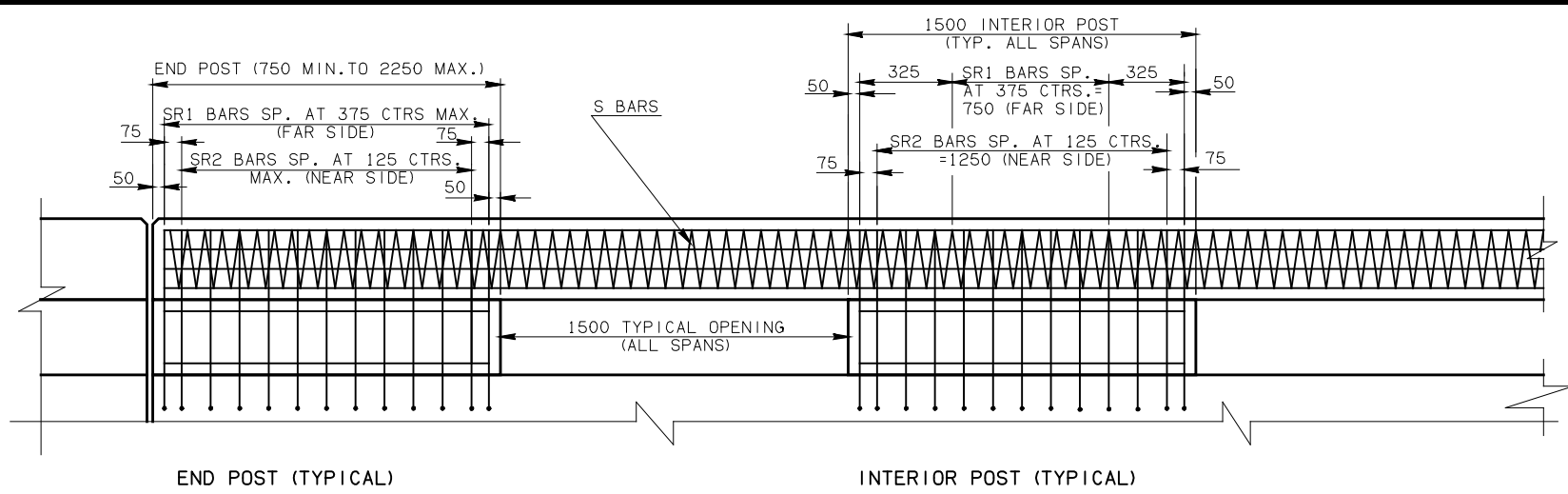
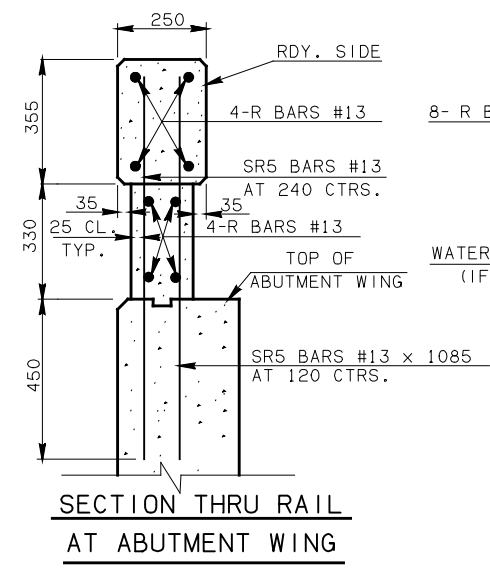


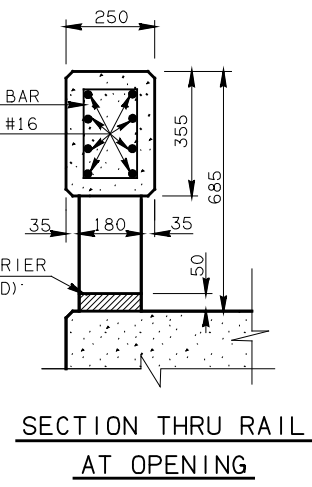
REV. NO.	DESCRIPTION	REVISIONS	DATE



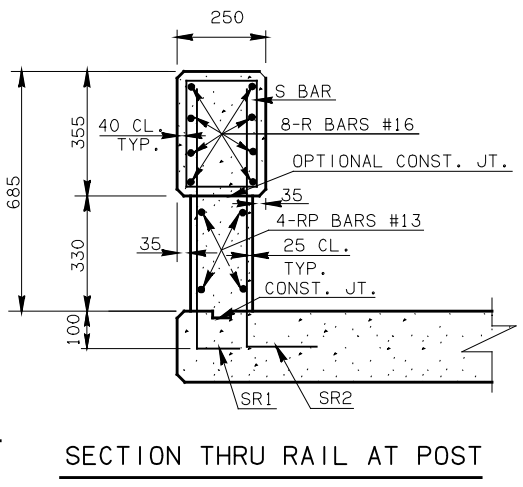
TRAFFIC RAIL REINFORCING
(SECTION TAKEN AT ROADWAY FACE OF RAIL)



SECTION THRU RAIL AT ABUTMENT WING



SECTION THRU RAIL AT OPENING



SECTION THRU RAIL AT POST

BRIDGE CONCRETE TRAFFIC RAIL

CONCRETE: ALL CONCRETE IN RAIL AND POSTS SHALL BE CLASS AA. ALL EXPOSED EDGES SHALL HAVE A 20 mm CHAMFER. ALL SURFACES OF RAIL SHALL BE FINISHED IN ACCORDANCE WITH SECTION 509.04(g) OF THE STD. SPECIFICATIONS.

REINFORCING STEEL: ALL BAR BEND DIMENSIONS SHOWN ARE OUT TO OUT. ALL REINFORCING STEEL IN CONCRETE RAIL, EXCEPT SPIRAL BARS, SHALL BE GRADE 420.

S BARS (SPIRAL BARS): SPIRAL BARS SHALL CONFORM TO ASTM A-82. IF TWO OR MORE S BARS ARE USED IN A CONTINUOUS RAIL SECTION, THEY SHALL BE BUTTED WITHIN THE CENTER 900 mm OF A RAIL POST.

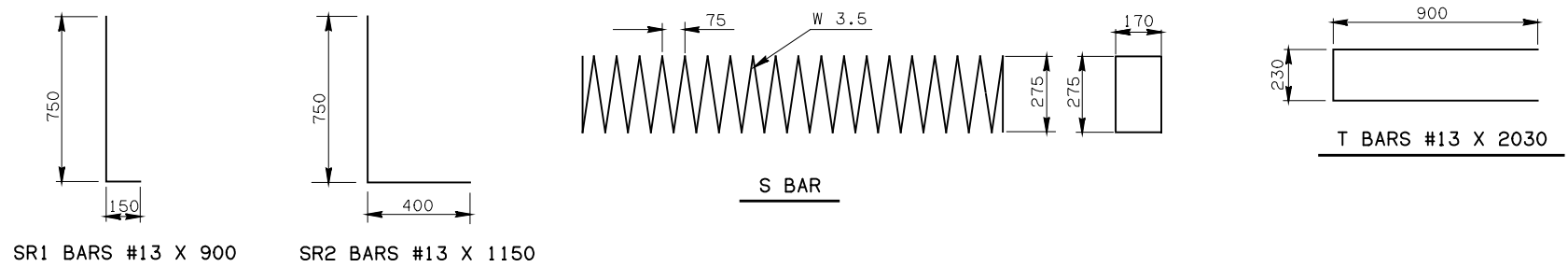
SR BARS (VERTICAL POST BARS): ALL SR BARS SHALL BE IN PLACE AND TIED BEFORE THE BRIDGE DECK IS POURED. SR BARS SHALL BE EPOXY COATED IF EPOXY COATED REINFORCING IS CALLED FOR IN THE BRIDGE DECK. THE WEIGHT OF SR BARS SHALL BE MEASURED AND PAID FOR AS "REINFORCING STEEL" OR "EPOXY COATED REINFORCING STEEL".

WATER BARRIER: WATER BARRIERS AS SHOWN SHALL BE PROVIDED AT OPENINGS DRAINING ONTO UNDERCROSSING ROADWAYS AND SIDEWALKS. THE WATER BARRIER SHALL BE PLACED AT LOCATIONS NOTED ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER. THE BARRIER SHALL BE CAST IN PLACE WITH THE CONCRETE RAIL POSTS.

CONCRETE RAIL CONSTRUCTION: RAILING SHALL BE CONSTRUCTED WITHIN THE GUIDELINES AS SHOWN IN PLACEMENT DETAIL. OPENINGS SHALL BE MADE WITH THE POST END FACES PERPENDICULAR TO THE ROADWAY PROFILE GRADE. FOR RAILS ON HORIZONTAL CURVE, THE RAIL SHALL BE CONSTRUCTED TO THE REQUIRED RADIUS.

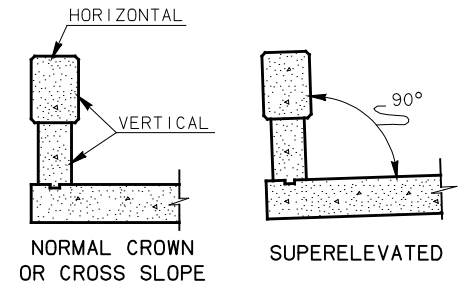
RAIL JOINTS: A CONSTRUCTION JOINT IN THE CONCRETE TRAFFIC RAIL SHALL BE PLACED AT EACH ABUTMENT AND PIER. AT EXPANSION JOINTS, THE OPENING BETWEEN THE ENDS OF RAILING SHALL CORRESPOND TO THE OPENING OF THE JOINT. THE OPENING BETWEEN THE END POSTS AT THE EXPANSION JOINTS SHALL BE AS SHOWN ON THE PLANS WITH A MAXIMUM AND MINIMUM DIMENSION AS SHOWN ON THIS SHEET. AT ALL OTHER PIER AND ABUTMENT LOCATIONS, A CONSTRUCTION JOINT WITH 5 mm PERFORMED EXPANSION JOINT FILLER SEC. 701.08(b) SHALL BE PLACED BETWEEN THE ENDS OF THE POSTS AND RAILING.

GUARDRAIL CONNECTION HOLES: THE BRIDGE CONTRACTOR SHALL PROVIDE HOLES AS SHOWN FOR CONNECTIONS OF W BEAM TERMINAL CONNECTOR (SPECIAL END SHOE) AT LOCATIONS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. HOLES MAY BE EITHER FORMED OR DRILLED.



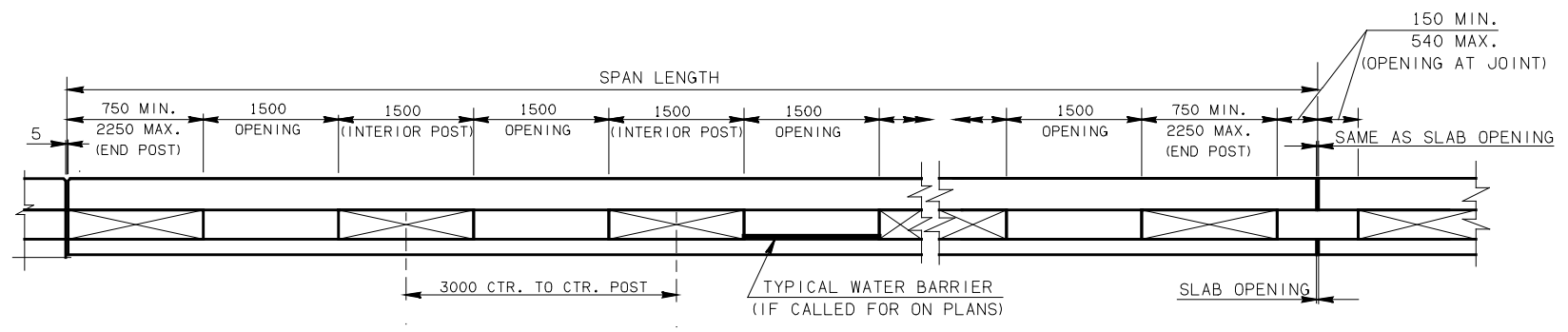
SR1 BARS #13 X 900 **SR2 BARS #13 X 1150**

T BARS #13 X 2030



NOTE: WHERE ROADWAY SURFACE TRANSITIONS FROM NORMAL CROWN SLOPE TO FULL SUPERELEVATION, THE ANGLE FORMED BY THE FACE OF THE RAILING AND THE ROADWAY SHALL VARY UNIFORMLY BETWEEN THE LIMITS SHOWN ABOVE.

RAILING PLACEMENT DETAILS

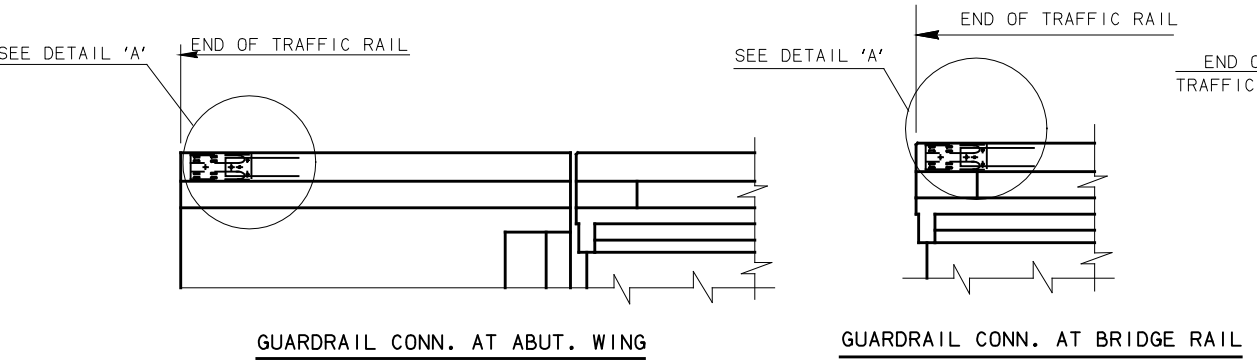


AT FIXED PIERS & ABUTMENTS

AT SLAB EXPANSION JOINTS

NOTE: THE TRAFFIC RAIL POST OPENING AT THE JOINT SHALL BE AS SHOWN ON THE PLANS.

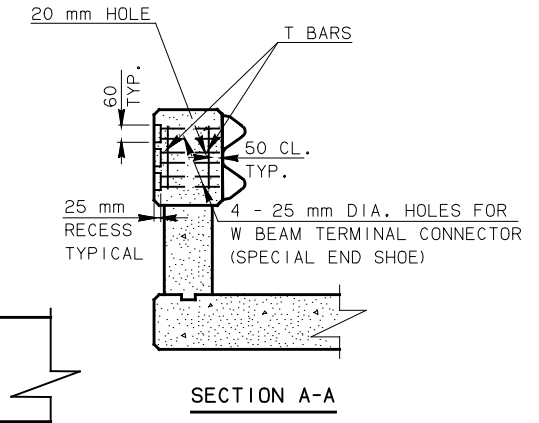
ROADWAY ELEVATION OF RAIL



GUARDRAIL CONN. AT ABUT. WING

GUARDRAIL CONN. AT BRIDGE RAIL

NOTE: HOLES IN END OF RAIL FOR CONNECTION OF GUARDRAIL TERMINAL CONNECTOR (SPECIAL END SHOE) SHALL BE FORMED OR DRILLED BY THE BRIDGE CONTRACTOR.



SECTION A-A

*** NOTE:** COST OF T BARS INCLUDED IN THE PRICE BID FOR "CONCRETE RAIL"

BASIS OF PAYMENT: CONCRETE TRAFFIC RAIL FOR BRIDGES WITH NO TRAFFIC RAIL ON ABUTMENT WINGS WILL BE MEASURED FOR PAYMENT BY THE METER FROM END TO END OF BRIDGE ON EACH SIDE OF BRIDGE, WITH NO DEDUCTION FOR EXPANSION JOINT GAPS. CONCRETE TRAFFIC RAIL FOR BRIDGES WITH RAILING ON THE ABUTMENT WINGS WILL BE MEASURED FOR PAYMENT BY THE METER FROM END OF ABUTMENT WING TO END OF ABUTMENT WING ON EACH SIDE OF BRIDGE, WITH NO DEDUCTION FOR EXPANSION JOINT GAPS. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR:

504(E) CONCRETE RAIL METER

WHICH PRICE SHALL INCLUDE ALL COST OF CLASS AA CONCRETE, FINISH, REINFORCING STEEL (EXCEPT SR BARS), WATER BARRIER, GUARDRAIL CONNECTION HOLES, JOINTS, TOOLS, FORMS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN AND SPECIFIED.

APPROVED BY BRIDGE ENGINEER DATE

OKLAHOMA DEPT. OF TRANSPORTATION
BRIDGE STANDARD (METRIC)

CONCRETE TRAFFIC RAIL