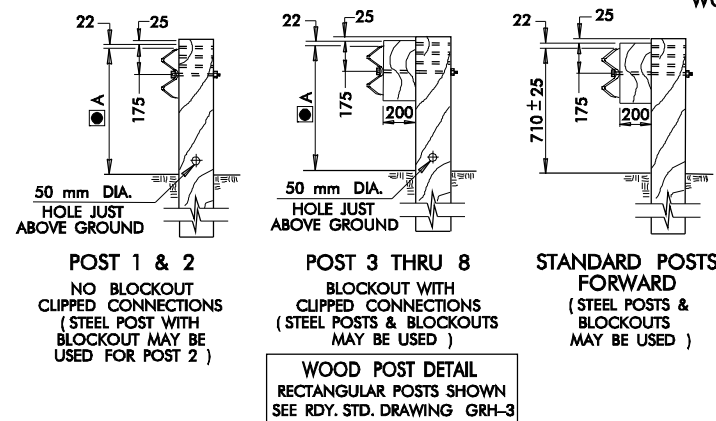
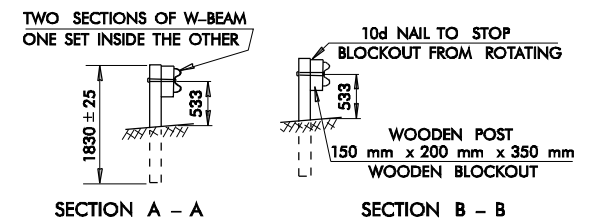
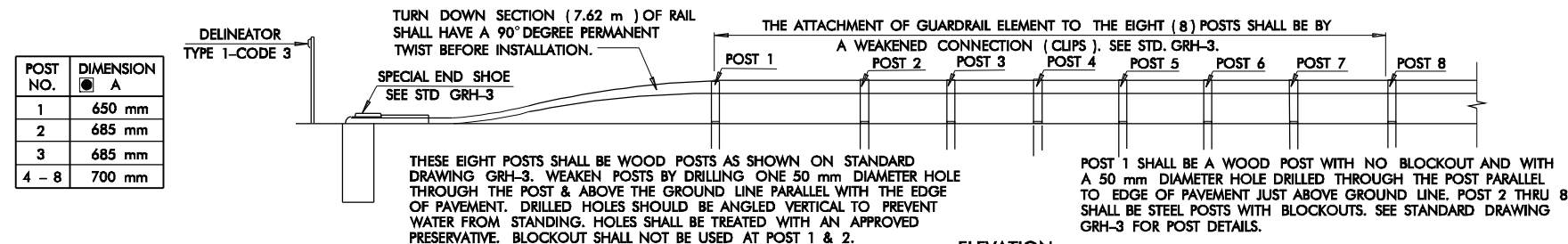


DETAIL OF GUARDRAIL POST IN SHOULDER BASE WIDENING

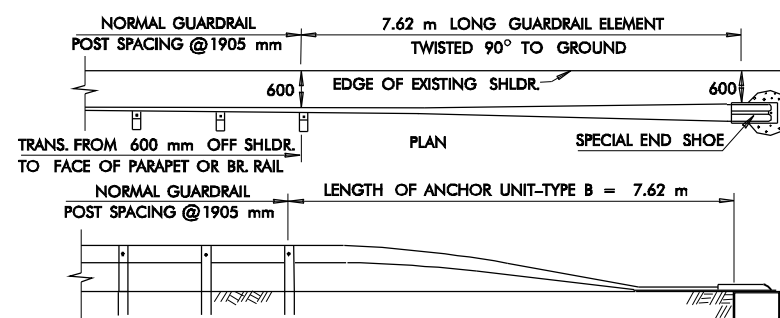
★ SEE 1999 STD SPECIFICATIONS-SEC 405, ASPH. SURFACE COURSE (HOT MDX-COLD LAID)

★★ MEASURE DIRECTLY BELOW RAIL, GUARDRAIL TO BE INSTALLED THIS DIMENSION +25 mm. WHEN INSTALLING GUARDRAIL IN AN AREA WITH NO SHOULDER WIDENING, THE RAIL HEIGHT SHALL BE MEASURED AS FOLLOWS:
FOR NEGATIVE GRADE SHOULDERS, MEASURE TO A LINE FROM THE SHOULDER ON THE SAME SLOPE AS THE SHOULDER.
FOR POSITIVE GRADE & LEVEL SHOULDERS, MEASURE FROM A LINE LEVEL WITH THE EDGE OF SHOULDER.

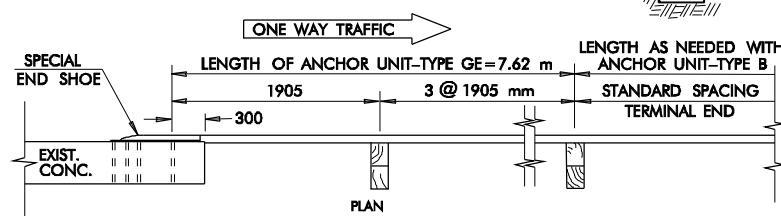
NOTE: TYPICAL BASE WIDENING PLACED BY SURFACING CONTRACTOR. FOR THICKNESS AND SLOPE SEE SURFACING PLANS.



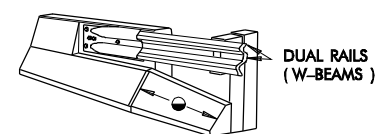
ANCHOR UNIT – TYPE A – APPROACH END



ELEVATION -TRAILING END
ANCHOR UNIT - TYPE B

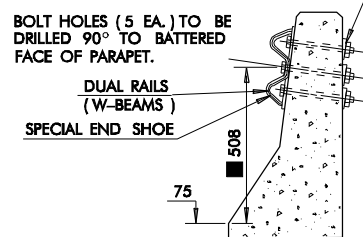


ANCHOR UNIT – TYPE GE
ONLY TO BE USED AT EXITING ENDS OF ONE WAY BRIDGES

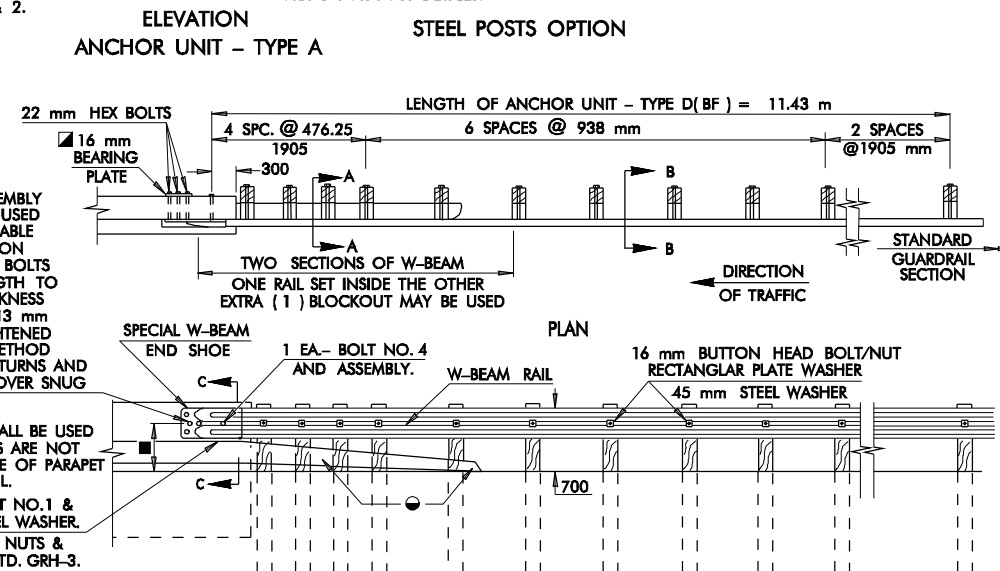


ANCHOR UNIT TYPE D(BF)
SLOPED FACE PARAPET (NOTCHED)

TYPICAL 28 mm x 57 mm x (4 mm to 11 mm)
TAPERED WASHERS SHALL BE USED
TO OBTAIN FULL BEARING PRESSURE. /

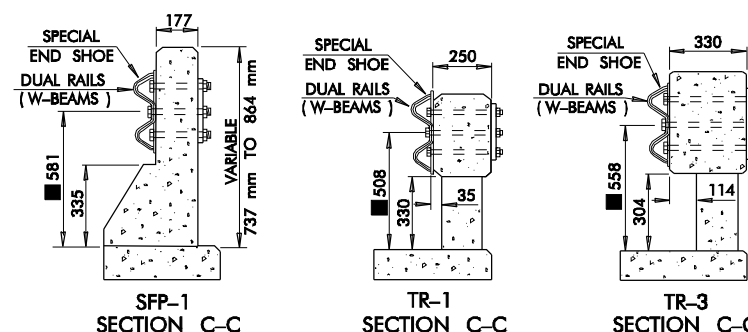


SECTION THRU WING PARAPET
FOR RETROFIT ANCHOR UNITS
TYPES D(BF), G, GE



ELEVATION
ANCHOR UNIT - TYPE D(BF)

- ANCHOR UNIT TYPE D(BF) SHALL BE USED ON SLOPED FACE PARAPET W/BLOCKOUT FOR SPECIAL END SHOE (NOTCHED) OR RETROFIT, AND WITH BRIDGE TRAFFIC RAILS TYPES TR-1 & TR-3. ADJUST RAIL HEIGHT FOR SMOOTH TRANSITION FROM SPECIAL END SHOE TO FIRST SPLICE CONNECTION (3810 mm).
- SPLICE CONNECTION BOLTS/NUTS FOR TYPE A & D(BF) ANCHOR UNITS SHALL BE TORQUED TO A MINIMUM OF 100 N.m
- CURB (TAPERING SECTION SHOWN HERE) TO BE USED ONLY WITH SLOPED FACE PARAPET (NOTCHED).



GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 1999 METRIC STANDARD SPECIFICATIONS.
2. THE BRIDGE CONTRACTOR SHALL PROVIDE HOLES FOR THE CONNECTION OF W-BEAM TERMINAL CONNECTOR (SPECIAL END SHOE) TO BRIDGE RAIL AND SLOPED FACE PARAPET. RETROFIT CONNECTIONS FOR GUARDRAIL (SPECIAL END SHOE) SHALL BE FIELD DRILLED BY THE SURFACING CONTRACTOR.
3. GUARDRAIL COMPONENTS SHALL MEET THE APPLICABLE STANDARDS OF "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE" PREPARED AND APPROVED BY THE AASHTO-ARTBA-AGC JOINT COMMITTEE, TECHNICAL BULLETIN NO. 268 B.
4. STEEL POST AND BLOCKOUT MAY BE USED IN LIEU OF WOOD POST AND BLOCKOUT FOR ANCHOR UNIT TYPE D(BF).
5. POST SPACING AND FACE OF RAIL ALIGNMENT REMAINS THE SAME.

Basis of Payment

ITEM NO.	ITEM	UNIT
623.06(F)	GUARDRAIL ANCHOR UNIT (TYPE ▲)	EACH

▲ TYPE OF GUARDRAIL ANCHOR UNIT TO BE SPECIFIED.

APPROVED BY ROADWAY ENGINEER

DATE _____

OKLAHOMA DEPT. OF TRANSPORTATION
ROADWAY STANDARD (METRIC)

GUARDRAIL ANCHOR UNIT

1999 SPECIFICATIONS

GRAU1-1	01M
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ALL DIMENSIONS ON THIS SHEET IN MILLIMETERS UNLESS OTHERWISE NOTED.

R-132M