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SURVEYED BY _____
SUPERVISED BY _____
DESIGNED BY _____

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

BOARD	DATE	REVISION	BY	DATE	REVISION

GR-3

NOTES:

- FOR ARRANGEMENTS OF SPRING CABLE END ASSEMBLIES (COMPENSATING DEVICES) AND TURNBUCKLE CABLE END ASSEMBLIES, THE FOLLOWING CRITERIA SHALL APPLY:
 - LENGTH OF CABLE RUNS:
 - TO 500'-USE COMPENSATING DEVICE ON EACH END OF EACH INDIVIDUAL CABLE.
 - OVER 500' TO 2000'-USE COMPENSATING DEVICE ON EACH END OF EACH INDIVIDUAL CABLE.
 - OVER 2000'-START NEW STRETCH BY INTERLACING AT LAST PARALLEL POST. SEE TYP. INSTALLATION.
 - FITTINGS: ALL FITTINGS SHALL BE SO DESIGNED AND BE OF SUCH SECTION AS TO DEVELOP THE FULL STRENGTH OF A SINGLE CABLE OR CABLE ASSEMBLIES, AS THE CASE MAY BE.
 - SINGLE CABLE ANCHOR ASSEMBLY.....25,000 LBS. MIN. TENSILE STRENGTH.....
 - THREE CABLE ANCHOR ASSEMBLY.....100,000 LBS. MIN. TENSILE STRENGTH.....
 - ALL FITTINGS SHALL BE HOT DIPPED GALVANIZED.
 - THE DYNAMIC DEFLECTION FOR STANDARD GR-3 IS 11 FEET.
- THE GUARDRAIL AND MEDIAN BARRIER COMPONENTS DEPICTED A.R.T.B.A. TECHNICAL BULLETIN NUMBER 2688 MAY BE SUBSTITUTED IF INTERCHANGEABLE WITH THE STANDARDS FOR GUARDRAIL (GR) OR MEDIAN BARRIER (MB) AND APPROVED BY THE ENGINEER.
- FOR ROCK INSTALLATION, 8"x24"x1/4" PLATE SHALL BE ELIMINATED, DRILL OR EXCAVATE HOLE FOR POST AND BACKFILL WITH CRUSHER RUN AGGREGATE TO LEVEL OF ROCK.
- 3/4" ANSIB18.2.2 HEX. BACKING NUT OR APPROVED SHOULDER MUST EQUAL BEARING AREA OF 3/4" STANDARD NUT.
- * THE GUARDRAIL AND MEDIAN BARRIER COMPONENTS DEPICTED IN AASHTO AGC-A.R.T.B.A. "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" MAY BE SUBSTITUTED IF INTERCHANGEABLE WITH THE STANDARDS FOR GUARDRAIL (GR) OR MEDIAN BARRIER (MB) AND APPROVED BY THE ENGINEER.
- ** WHEN BURYING GR-3 CABLE GUARDRAIL IN THE BACKSLOPE, THE CONCRETE ANCHOR ASSEMBLY MUST BE PLACED AT A HEIGHT ON THE BACKSLOPE TO MAINTAIN THE 27" MIN./28" MAX. CABLE HEIGHT AT THE ANCHORAGE.

★ USE 15-1 FLARES ON BOTH TYPES OF RAIL FOR DESIGN SPEED OF 70 MPH OR 13-1 FOR DESIGN SPEED OF 60 MPH OR LESS.

METHOD OF TRANSITION FROM CABLE GUARDRAIL TO W-BEAM GUARDRAIL AT BRIDGE APPROACHES

RECOVERABLE AREA WIDTH	70 MPH D.S.				
	LT. OR RT. OF C	A	B	C	D E
24'	12'	27'	26'	375'	150'
24'	6'	27'	26'	465'	150'
21'	12'	24'	23'	330'	150'
21'	6'	24'	23'	420'	150'

RADIUS TERMINAL SECTION DETAIL

FOR DETAILS OF TERMINAL CONNECTOR SEE SHEET 501.02
DRILL 3/4" DIA. HOLE IN CENTER

* TERMINAL CONNECTOR
* 1" x 1/4" SLOTS FOR SPLICE BOLTS

45°
11" R
1'-6"
12 1/4"

SHEET 1 OF 3

SPECIFICATION REFERENCE
221
505

CABLE GUARDRAIL
VIRGINIA DEPARTMENT OF TRANSPORTATION

Rev. 7/03
501.06

REV. 7/03
SPECIAL DESIGN SECTION
DRAWING NO. A-133

DATE	PROJECT	FILE NO.	SHEET NO.