DETAIL OF TREATMENT AT MEDIAN HAZARDS

OFFSET GUARDRAIL TO EITHER SIDE OF MEDIAN.
USE 6'-0" MIN. OFFSET FOR MEDIAN 60' AND OVER.
USE 4'-0" MIN. OFFSET FOR MEDIAN LESS THAN 60'.

SINGLE FACED PRECAST CONCRETE BARRIER SEE DETAIL 857001

LIMITS OF -L2-
MEDIAN WIDTH -L2- DIMENSION
30' 80.0'
36' 60.0'
40' & ABOVE 40.0'

NOTE: POSTS WILL ONLY BE PLACED IN ONE OF THE TWO OPENINGS AT EACH MEDIAN HAZARD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

DETAIL 'A'

INSTALL DOUBLE FACE GUARDRAIL INTERMEDIATE POSTS WITHOUT CABLE. PLACE REFLECTORS ON ALTERNATING SIDES OF SUCCESSIVE POST.
DETAIL OF CABLE GUIDERAIL AT DUAL LANE BRIDGES

DIMENSIONS FOR LENGTH OF GUARDRAIL APPROACHING DUAL LANE BRIDGES

<table>
<thead>
<tr>
<th>MEDIAN WIDTH</th>
<th>-L-1-</th>
<th>-L-1-</th>
<th>-L-2-</th>
<th>-L-2-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70 MPH</td>
<td>60 MPH</td>
<td>50 MPH</td>
<td>70 MPH</td>
</tr>
<tr>
<td>46' &amp; ABOVE</td>
<td>300.0'</td>
<td>250.0'</td>
<td>150.0'</td>
<td>212.5'</td>
</tr>
</tbody>
</table>

NOTES: *BASED ON "X" OF 12' 
USE FLARE RATE AS THE CONTROL IF THE "X" DISTANCE IS NOT OBTAINED. ("X" IS BASED ON SHOULDER WIDTHS IN THE HIGHWAY DESIGN BRANCH MANUAL, PART 1, 1-48, FIA).

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.

THE DESIGN LAYOUT FOR LENGTHS SHOWN ON THIS STANDARD ARE MINIMUM DESIGN LENGTHS.

SEE STANDARD 862.01 SHEET 1 FOR SECTIONS XX, YY
SEE STD. 862.03 FOR STRUCTURE ANCHOR UNITS
PLAN VIEW

GENERAL NOTES:
1. FALSE SUMP DETAIL IS APPLICABLE TO ALL MEDIANS WIDTHS.
2. DO NOT TRANSITION GUIDERAIL FOR SUPERELEVATION WHEN THE RATE IS 2 PERCENT OR LESS.
3. DO NOT INSTALL GUIDERAIL ON SLOPES STEEPER THAN 6:1.

SECTION A-A

SECTION B-B

46' MEDIAN GUIDERAIL TRANSITIONS WITH SUPERELEVATION AND/OR FALSE SUMPS
TYPICAL SECTION
(DEFLECTION AREA ON MEDIAN SLOPES)

DOUBLE FACE GUIDERAIL APPLICATION

TYPICAL SECTION
(DEFLECTION AREA ON SHOULDER ONLY)

TYPICAL SECTION
(DEFLECTION AREA ON SHOULDER AND DITCH SLOPE)

SINGLE FACE GUIDERAIL APPLICATION

*OFFSET GUIDERAIL TO EITHER SIDE OF MEDIAN %. USE 8'-0" MIN. OFFSET FOR MEDIANS 60' AND OVER. USE 4'-0" MIN. OFFSET FOR MEDIANS LESS THAN 60'.
DOUBLE FACE GUIDERAIL POST

HOLE PLACEMENT DETAIL

INTERMEDIATE POST

HOOK BOLTS
(SEE DETAIL)

3\(^{\circ}\) DIA. HOLES FOR HOOK BOLTS

3\(^{\circ}\) DIA. HOLE DELIN. MOUNTING
(SEE REFLECTOR MOUNT DETAIL)

FRONT

SIDE

DELINERATOR

14\(\frac{1}{8}\) 25\(^{\circ}\)

GROUND LINE

14\(\frac{1}{8}\) 25\(^{\circ}\)

24"

70"

30"

LAP CABLE WIRE OVER TOP AND BOTTOM HOOK BOLT

THE CENTER POST IN THE INTERMEDIATE ANCHORAGE SECTION WILL HAVE CABLE WIRE ON BOTH SIDES OF THE MIDDLE STRAND REQUIRING THE USE OF TWO 1\(\frac{3}{4}\)" HOOK BOLTS FOR THIS APPLICATION.

DOUBLE FACE GUIDERAIL

INTERMEDIATE POST

DETAIL "A" CENTER POST

INTERMEDIATE ANCHORAGE SECTION

HOOK BOLT HOLE

3"

1\(\frac{3}{8}\)" 1\(\frac{3}{8}\)"

APPROVED TAMPER-PROOF LOCK NUT.

SPACE OR APPROVED SHOULDER BOLT (GALV. STEEL OR ALUMINUM)

3" DIAMETER BUTTON

INTERMEDIATE POST

HOOK BOLT HOLES

\(\frac{3}{8}\)" DIA. A.S.H. HEX BACKING NUT OR APPROVED SHOULDER. APPROVED SHOULDER MUST EQUAL BEARING AREA OF \(\frac{3}{8}\)" STD. NUT.

25\(^{\circ}\) TO CENTER OF REFLECTOR

\(\frac{3}{8}\)" DIA.

3" DIAMETER BUTTON REFLECTOR

HOOK BOLT (ALTERNATES)

\(\frac{3}{8}\)" TO \(\frac{3}{8}\)"

1"

1"

1"

1"

3\(\frac{3}{8}\)"

13\(\frac{1}{8}\)"
SINGLE FACE GUIDERAIL POST

HOLE PLACEMENT DETAIL

3" DIAMETER HOLE FOR HOOK BOLTS

3½" DIA. HOLE DELIN. MOUNTING
(SEE REFLECTOR MOUNT DETAIL)

FRONT

SIDE

SINGLE FACE GUIDERAIL
INTERMEDIATE POST

1¼" X 8" X 24" G

GROUND LINE

1¼" 2½³

24"

30"

3½"

3½"

3½"

5½" DIA. A.S.H. HEX BACKING NUT OR APPROVED SHOULDER. APPROVED SHOULDER MUST EQUAL BEARING AREA OF 5½" STD. NUT.

HOOK BOLT HOLE

3"

1½"

1½"

2½³

APPROVED TAMPER-PROOF LOCK NUT.

SPACER OR APPROVED SHOULDER BOLT (GALV. STEEL OR ALUMINUM)

3" DIAMETER BUTTON

INTERMEDIATE POST

HOOK BOLT HOLES

2½³ TO CENTER OF REFLECTOR

5½" DIA. BUTTON REFLECTOR

REFLECTOR MOUNT DETAIL

PLAN VIEW

REFLECTOR MOUNT DETAIL

ELEVATION VIEW

HOOK BOLT (ALTERNATES)
NOTE: SUBMIT ALTERNATE METHODS OF FABRICATING ANCHOR ANGLES FOR APPROVAL.

BREAKAWAY ANCHOR ANGLE
ANCHOR UNIT DETAIL
TOP VIEW LEFT HAND
(REINFORCEMENT NOT SHOWN)

NOTE: USE ONE OR TWO PIECE ANCHOR. DIMENSIONS OF TWO PIECE ANCHOR ARE SHOWN ON DRAWING. DIMENSIONS OF ONE PIECE ANCHOR ARE 5'-0" LONG BY 3'-0" WIDE BY 3'-4" HIGH.

ANCHOR UNIT DETAIL
LEFT HAND
(REINFORCEMENT NOT SHOWN)

NOTE: SET THE CONCRETE ANCHOR INTO THE EXCAVATION AS DETAILED. THE BOTTOM OF THE ANCHOR MUST HAVE A FULL AND EVEN BEARING ON THE SURFACE UNDER IT SO THAT IF THE CONTRACTOR ELECTS TO PLACE THE ANCHOR IN TWO SECTIONS, THERE WILL BE LITTLE OR NO DIFFERENTIAL SETTLEMENT. IF THE CONTRACTOR ELECTS TO PLACE THE ANCHOR IN TWO SECTIONS, PLACE THE TOPS OF BOTH SECTIONS ON THE SAME PLANE. AFTER THE ANCHOR IS IN PLACE, BACKFILL THE EXCAVATION.
1. PROVIDE ALL S3x5.7 ROLLED STEEL SECTIONS IN ACCORDANCE WITH ASTM A-6. USE POSTS, PLATES AND ANCHOR ANGLES CONFORMING TO THE REQUIREMENTS OF SECTION 862 OF THE STANDARD SPECIFICATIONS. WHERE THE RAIL IS PARALLEL TO THE EDGE OF THE TRAVEL LANE, REFLECTORIZE EVERY 6th POST (96') (SEE STANDARD 1261.02 FOR DELINEATORS). FOR DOUBLE FACE GUIDERAIL, PLACE DELINEATOR VISIBLE ON EVERY 6th POST TO TRAFFIC IN EITHER DIRECTION. DO NOT REFLECTORIZE POSTS IN THE TYPICAL INTERMEDIATE ANCHORAGE SECTION, TYPICAL APPROACH OR TERMINAL SECTIONS.

2. PROVIDE ROUND 3/4" DIAMETER Zinc COATED CABLE WIRE CONSTRUCTED OF THREE STRANDS (7 WIRES PER STRAND) HAVING A MINIMUM TENSILE STRENGTH OF 25000 LBS. IN ACCORDANCE WITH AASHTO M-30 TYPE I CABLE, CLASS 'A' COATING.

3. PROVIDE MATERIALS INDICATED AS 'CAST STEEL' WHICH CONFORM TO AASHTO M103.

4. PROVIDE INSTALLED HOOK BOLTS WHICH DEVELOP AN ULTIMATE PULL OPEN STRENGTH OF 500 LBS TO 1000 LBS. APPLIED IN A DIRECTION NORMAL TO THE LONGITUDINAL AXIS OF THE POST.


6. CRIMP ONE WIRE OF THE WIRE ROPE OVER THE BASE OF THE WEDGE TO HOLD IT FIRMLY IN PLACE AT ALL LOCATIONS WHERE THE CABLE IS CONNECTED TO A CABLE SPLICE CONNECTION.

7. DESIGNS FOR A COMBINATION OR SINGLE UNIT COMPENSATING DEVICE AND TURNBUCKLE ASSEMBLY MAY BE SUBMITTED FOR APPROVAL. COMPENSATING DEVICES MUST HAVE A SPRING RATE OF 450 LBS. PLUS OR MINUS 50 LBS. PER INCH WITH A MINIMUM TOTAL 'THROW' OF 6".

8. APPLY THE FOLLOWING CRITERIA FOR ARRANGEMENT OF SPRING CABLE END ASSEMBLIES (COMPENSATING DEVICES) AND TURNBUCKLE CABLE END ASSEMBLIES:

   LENGTH OF CABLE RUNS:

   TO 1000' - USE COMPENSATING DEVICE ON ONE END AND TURNBUCKLE ON THE OTHER END OF EACH INDIVIDUAL CABLE.

   1000' TO 2000' - USE COMPENSATING DEVICE ON EACH END OF EACH CABLE.

   OVER 2000' - START NEW STRETCH BY INTERLACING AT LAST PARALLEL POST (TYPICAL LAYOUT).

   PRIOR TO FINAL ACCEPTANCE BY THE STATE, USE THE FOLLOWING VALUES TO TIGHTEN THE TURNBUCKLES BASED ON THE TEMPERATURE AT THE TIME OF ADJUSTMENT.

### TABLE "A"

<table>
<thead>
<tr>
<th>PAVEMENT CURVATURE</th>
<th>POST SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot; OR LESS</td>
<td>16'</td>
</tr>
<tr>
<td>MORE THAN 8&quot; TO 13&quot;</td>
<td>12'</td>
</tr>
<tr>
<td>(440 FT. RAD.)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TEMPERATURE (FAHRENHEIT)</th>
<th>SPRING COMPRESSION FROM UNLOADED POSITION IN EACH SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>110° - 120°</td>
<td>1&quot;</td>
</tr>
<tr>
<td>100° - 109°</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>90° - 99°</td>
<td>1 3/4&quot;</td>
</tr>
<tr>
<td>80° - 89°</td>
<td>2&quot;</td>
</tr>
<tr>
<td>70° - 79°</td>
<td>2 1/4&quot;</td>
</tr>
<tr>
<td>60° - 69°</td>
<td>2 3/4&quot;</td>
</tr>
<tr>
<td>50° - 59°</td>
<td>3&quot;</td>
</tr>
<tr>
<td>40° - 49°</td>
<td>3 1/4&quot;</td>
</tr>
<tr>
<td>30° - 29°</td>
<td>3 1/2&quot;</td>
</tr>
<tr>
<td>20° - 19°</td>
<td>4&quot;</td>
</tr>
<tr>
<td>10° - 9°</td>
<td>4 1/2&quot;</td>
</tr>
<tr>
<td>0° - 9°</td>
<td>4 1/2&quot;</td>
</tr>
<tr>
<td>-10° - -1°</td>
<td>4 1/2&quot;</td>
</tr>
<tr>
<td>-20° - -11°</td>
<td>4 1/2&quot;</td>
</tr>
</tbody>
</table>