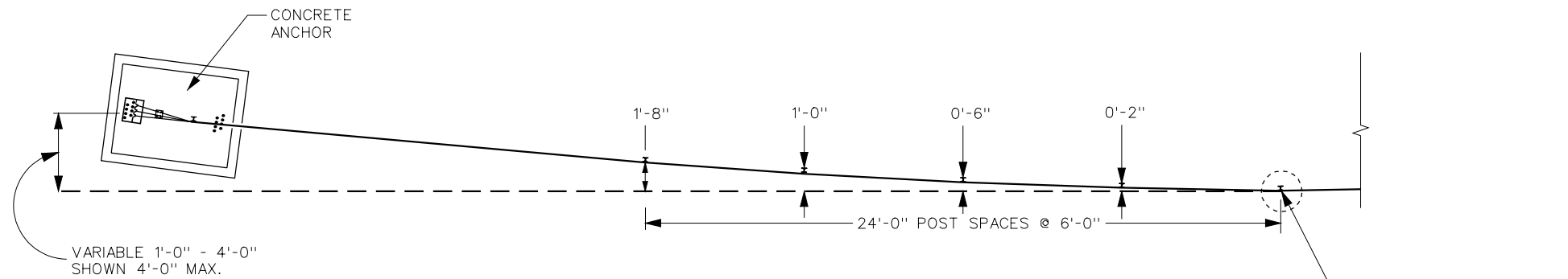
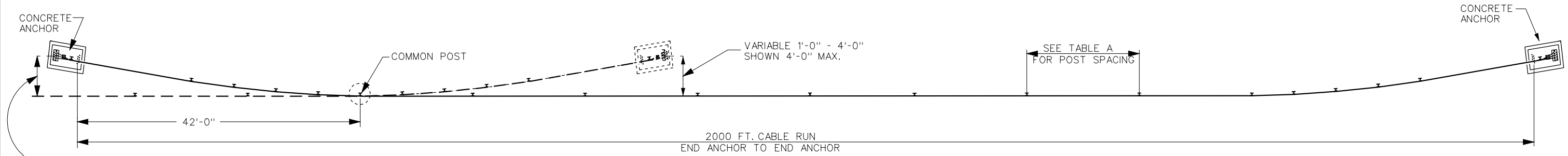


ELEVATION ANCHOR SECTION



PLAN ANCHOR SECTION



PLAN TYPICAL LAYOUT

NOTES:

1. STAGGER SPRING CABLE END ASSEMBLIES FOR CLEARANCE BETWEEN UNITS. INSTALLATION OF CABLE END ASSEMBLIES SHALL BE AS FOLLOWS:  
LENGTH OF CABLE RUNS:  
UP TO 500' - USE THE SPRING CABLE END ASSEMBLY ON ONE END, AND TURNBUCKLE ONLY ON THE OTHER END OF EACH CABLE.  
OVER 500' TO 2000' - USE THE SPRING CABLE END ASSEMBLY ON EACH END OF EACH CABLE.
2. WHEN INSTALLED IN FRONT OF SLOPES STEEPER THAN 6:1 THE DISTANCE BETWEEN POSTS AND SLOPE BREAK POINT SHALL BE A 12 INCH MIN.
3. ALL CABLES WILL BE ATTACHED TO EACH POST WITH HOOK BOLTS, ONE HOOK BOLT PER CABLE. IN THE CASE WHERE THE COMMON POST IS USED, EACH CABLE IS TO BE ATTACHED TO THE POST, THREE ON THE FRONT AND THREE ON THE BACK.
4. WHERE BARRIER IS PARALLEL TO THE EDGE OF THE TRAVEL WAY, EVERY SIXTH POST SHALL HAVE A REFLECTOR. REFLECTORS SHALL BE YELLOW.
5. ONLY ONE SPLICE PER CABLE IS ALLOWED BETWEEN END ANCHOR ASSEMBLIES. CABLE SPLICES SHALL BE STAGGERED A MINIMUM OF 20 FT. FROM SPLICES ON ADJACENT CABLES. CABLE SPLICES SHALL BE CAREFULLY ASSEMBLED IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS.
6. THE CONCRETE ANCHOR MAY BE PRECAST OR CAST IN PLACE. THE CONCRETE ANCHOR SHALL BE SET INTO AN EXCAVATION AS DETAILED ON THE STANDARD PLANS. THE BOTTOM OF THE ANCHOR SHALL HAVE A FULL AND EVEN BEARING ON THE SURFACE UNDER IT. AFTER THE CONCRETE ANCHOR IS IN PLACE, THE EXCAVATION SHALL BE BACK FILLED IN ACCORDANCE WITH SECTION 205.03. WHEN THE ANCHOR IS SET INTO A SLOPE, THE TOP OF THE ANCHOR SHALL BE CONSTRUCTED SO THAT A 6:1 SLOPE IS CREATED FROM SIDE TO SIDE SO THE ANCHOR WILL RESEMBLE THE NATURAL SLOPE OF THE GROUND, PRIOR TO PRECASTING THE ANCHORS, THE CONTRACTOR MUST OBTAIN THE TOTAL OF LEFT-SLOPING OR RIGHT-SLOPING ANCHORS AS DETERMINED BY THE ENGINEER. CONCRETE SHALL BE CLASS 3000.
7. ANCHOR IS RECOMMENDED TO BE PLACED AT 1'-0" OFFSET WHEN POSSIBLE; HOWEVER, IT MAY BE OFFSET A MAXIMUM OF 4'-0".
8. WHEN CALCULATING LENGTH OF NEED FOR CABLE BARRIER, THE LENGTH OF NEED GOES THRU THE 1ST LINE POST.
9. THE PAY ITEM SHALL BE:  
MEDIAN CABLE BARRIER\_\_\_\_\_LF  
CABLE BARRIER END ANCHOR\_\_\_\_\_EA

TABLE A		
DEGREE OF CURVE	CURVE RADIUS	POST SPACING*
—	TANGENT SECTION	16'
< 8°	700' OR GREATER	16'
8° TO < 36°	699' TO 220'	12'
36° TO < 52°	219' TO 110'	6'
≥ 52°	LESS THAN 110'	USE NOT RECOMMENDED

\*SEE STANDARD DRAWING NO. 805-30 I RELATIVE TO DISTANCE OF CABLE TO EDGE OF TRAVELWAY. USE SMALLEST POST SPACING APPLICABLE TO THE CABLE BARRIER GEOMETRY.

REVISIONS		
DATE	REV. BY	DESCRIPTION
10-21-03	WKR	ADDED NOTE 7
12-01-03	WJZ	CHANGED 42'-0" DIMENSION
12-12-03	WKR	REVISED ANCHOR OFFSET WIDTH
12-15-03	WKR	BIDIRECTIONAL FOOTING SHOWN
05-19-04	CRA	REVISED TABLE A

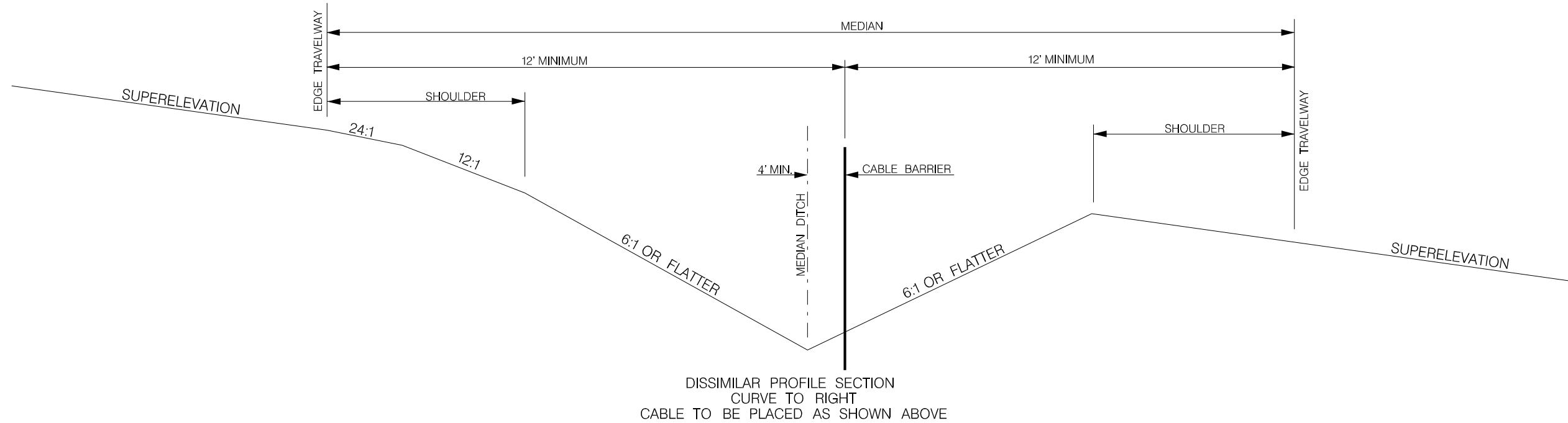
**SCDOT**  
South Carolina Department of Transportation  
**STANDARD DRAWING**  
DRAWING NO. 805-30

CABLE BARRIER

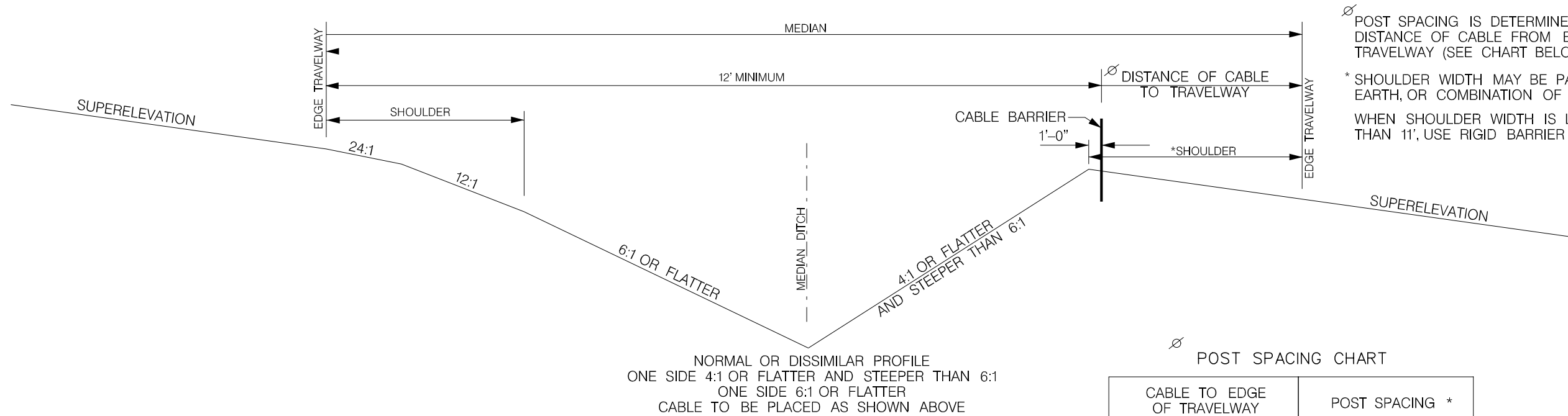
EFFECTIVE LETTING DATE: JULY, 2004

# SUPERELEVATED SECTIONS

GENERAL FOR ALL APPLICATIONS:  
 1. DITCH MAY OR MAY NOT BE IN CENTER OF MEDIAN.  
 2. DITCH MAY VARY IN ELEVATION TO DRAIN.



2A



3

∅ POST SPACING IS DETERMINED BY DISTANCE OF CABLE FROM EDGE OF TRAVELWAY (SEE CHART BELOW)  
 \* SHOULDER WIDTH MAY BE PAVED, EARTH, OR COMBINATION OF BOTH WHEN SHOULDER WIDTH IS LESS THAN 11', USE RIGID BARRIER

∅ POST SPACING CHART

CABLE TO EDGE OF TRAVELWAY	POST SPACING *
≥ 12'	16'
11'	12'
10'	10'

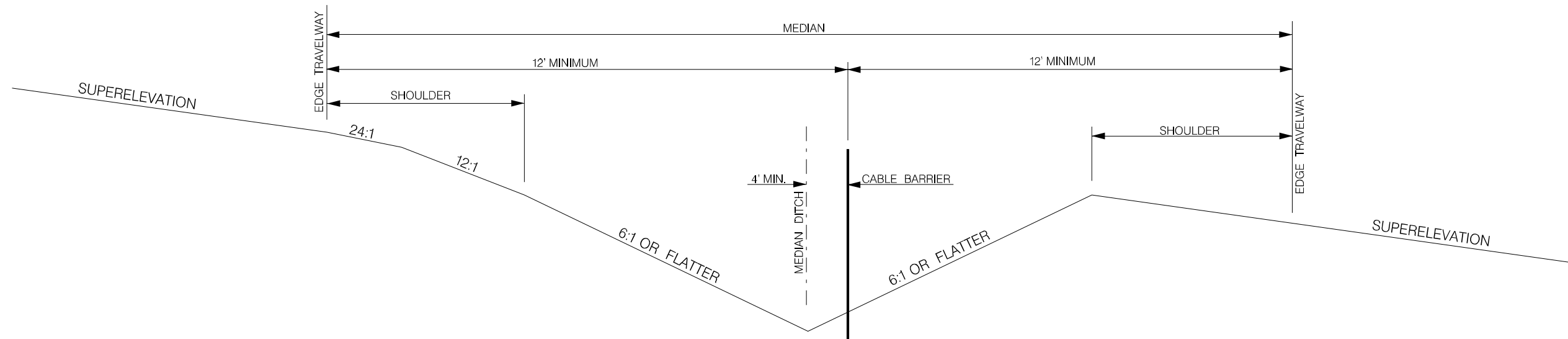
\*SEE STANDARD DRAWING NO. 805-30 FOR POST SPACING RELATIVE TO CURVATURE. USE SMALLEST POST SPACING APPLICABLE TO THE CABLE BARRIER GEOMETRY.

REVISIONS		
DATE	REV. BY	DESCRIPTION
03-09-04	CRA	DRAWN BY CRA
05-14-04	CRA	ADDED POST SPACING CHART
01-14-05	CMH	REVISED NOTES

**SCDOT**  
 South Carolina Department of Transportation  
**STANDARD DRAWING**  
 DRAWING NO. 805-30 I  
 MEDIAN CABLE BARRIER  
 TYPICAL SECTIONS  
 (SHEET 4 of 5)  
 EFFECTIVE LETTING DATE MAY, 2005

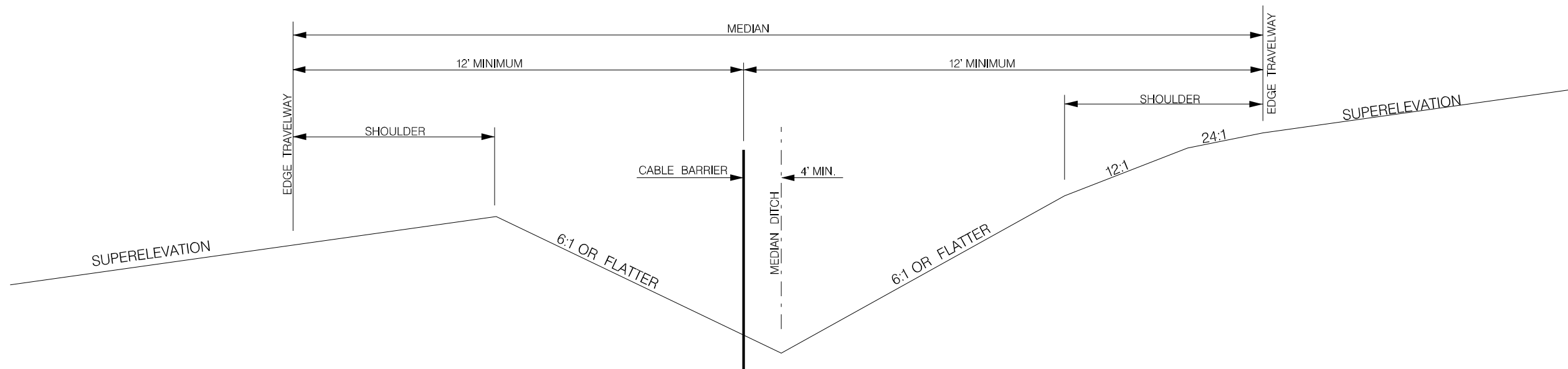
# SUPERELEVATED SECTIONS

GENERAL FOR ALL APPLICATIONS:  
 1. DITCH MAY OR MAY NOT BE IN CENTER OF MEDIAN.  
 2. DITCH MAY VARY IN ELEVATION TO DRAIN.



NORMAL SECTION  
 6:1 OR FLATTER MEDIAN SLOPES  
 CABLE IS PLACED ON THE SIDE OF THE MEDIAN DITCH  
 THAT IS ON THE OUTSIDE OF THE CURVE IN THE  
 DIRECTION OF TRAVEL

1



DISSIMILAR PROFILE SECTION  
 CURVE TO LEFT  
 CABLE TO BE PLACED AS SHOWN ABOVE

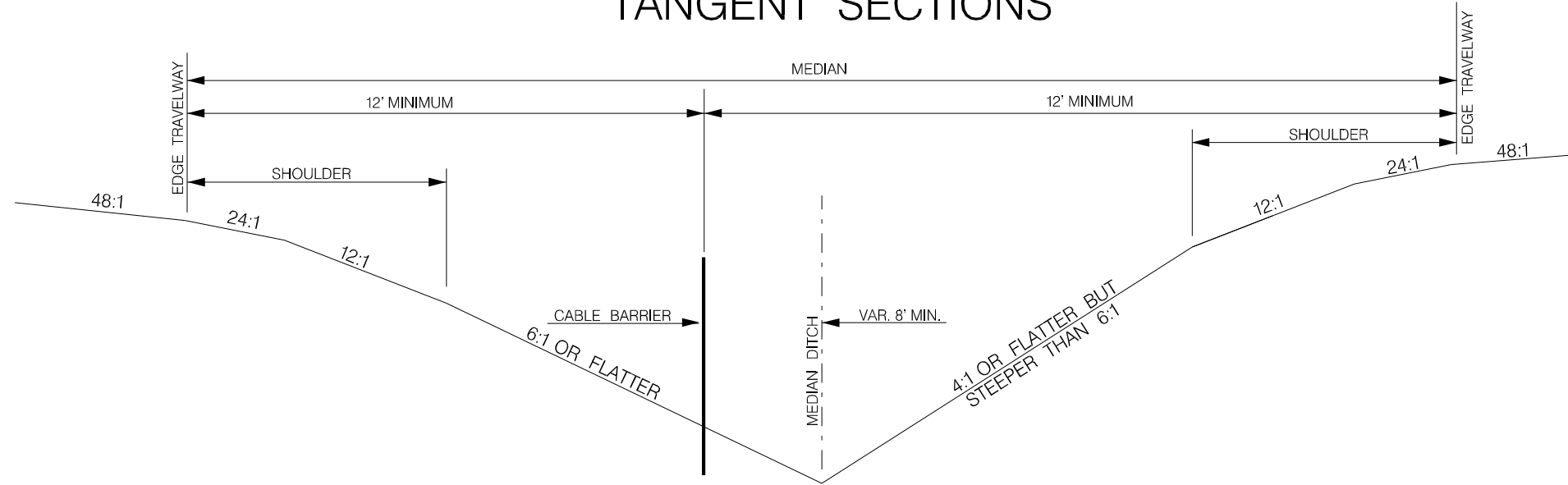
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REVISIONS		
DATE	REV. BY	DESCRIPTION
03-09-04	CRA	DRAWN BY CRA
01-14-05	CMH	REVISED NOTES

**SCDOT**  
 South Carolina Department of Transportation  
**STANDARD DRAWING**  
 DRAWING NO. 805-30H  
 MEDIAN CABLE BARRIER  
 TYPICAL SECTIONS  
 (SHEET 3 of 5)  
 EFFECTIVE LETTING DATE | MAY, 2005

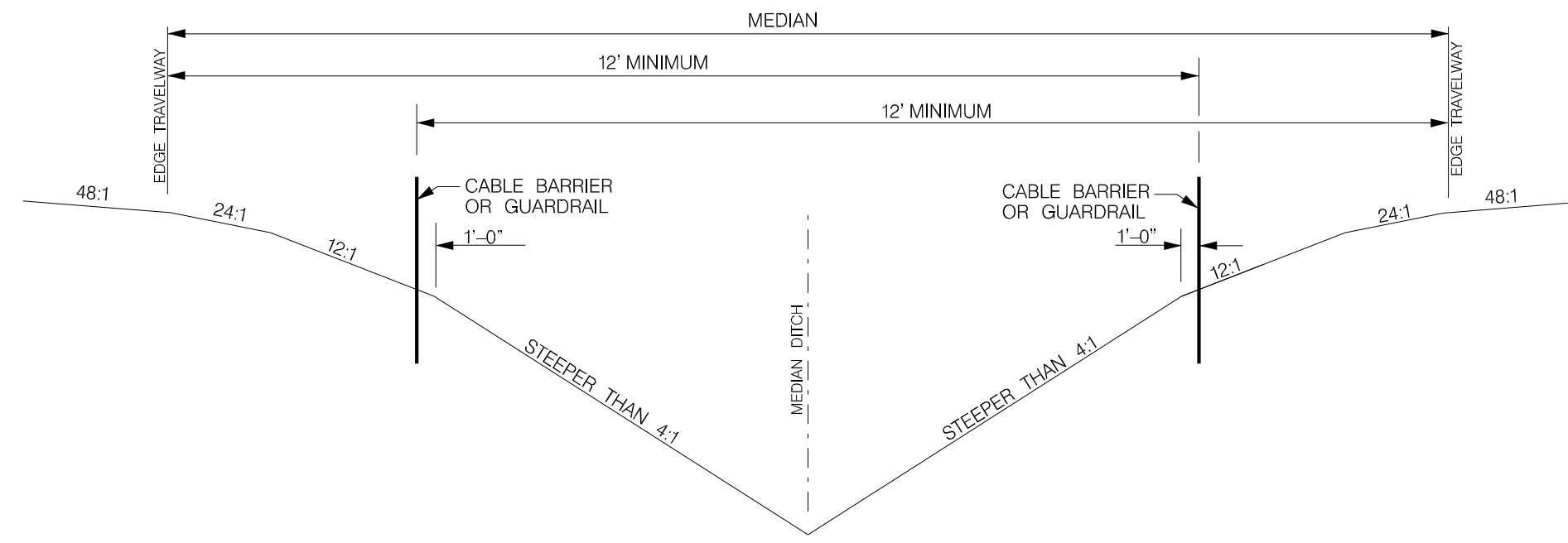
GENERAL FOR ALL APPLICATIONS:  
 1. DITCH MAY OR MAY NOT BE IN CENTER OF MEDIAN.  
 2. DITCH MAY VARY IN ELEVATION TO DRAIN.

# TANGENT SECTIONS



NORMAL OR DISSIMILAR PROFILE TANGENT SECTION  
 ONE SIDE 4:1 OR FLATTER BUT STEEPER THAN 6:1  
 ONE SIDE 6:1 OR FLATTER  
 CABLE MAY BE PLACE ON HIGH OR LOW SIDE OF MEDIAN BUT ALWAYS  
 ON 6:1 SLOPE

3



NORMAL OR DISSIMILAR PROFILE TANGENT SECTION  
 ONE OR BOTH MEDIAN SLOPES STEEPER THAN 4:1  
 OR BOTH SLOPES ARE 4:1 OR FLATTER BUT STEEPER THAN 6:1  
 CABLE BARRIER OR GUARDRAIL TO BE PLACED ON BOTH SHOULDERS  
 AS SHOWN ABOVE

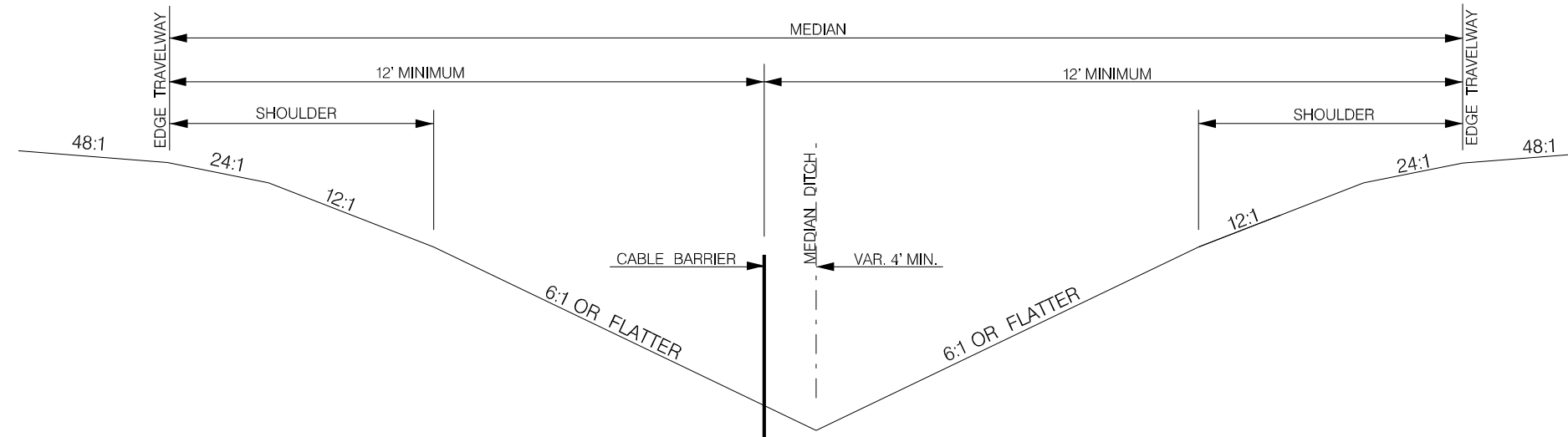
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REVISIONS		
DATE	REV. BY	DESCRIPTION
03-09-04	CRA	DRAWN BY CRA
01-14-05	CMH	REVISED NOTES

**SCDOT**  
 South Carolina Department of Transportation  
**STANDARD DRAWING**  
 DRAWING NO. 805-30G  
 MEDIAN CABLE BARRIER  
 TYPICAL SECTIONS  
 (SHEET 2 of 5)  
 EFFECTIVE LETTING DATE | MAY, 2005

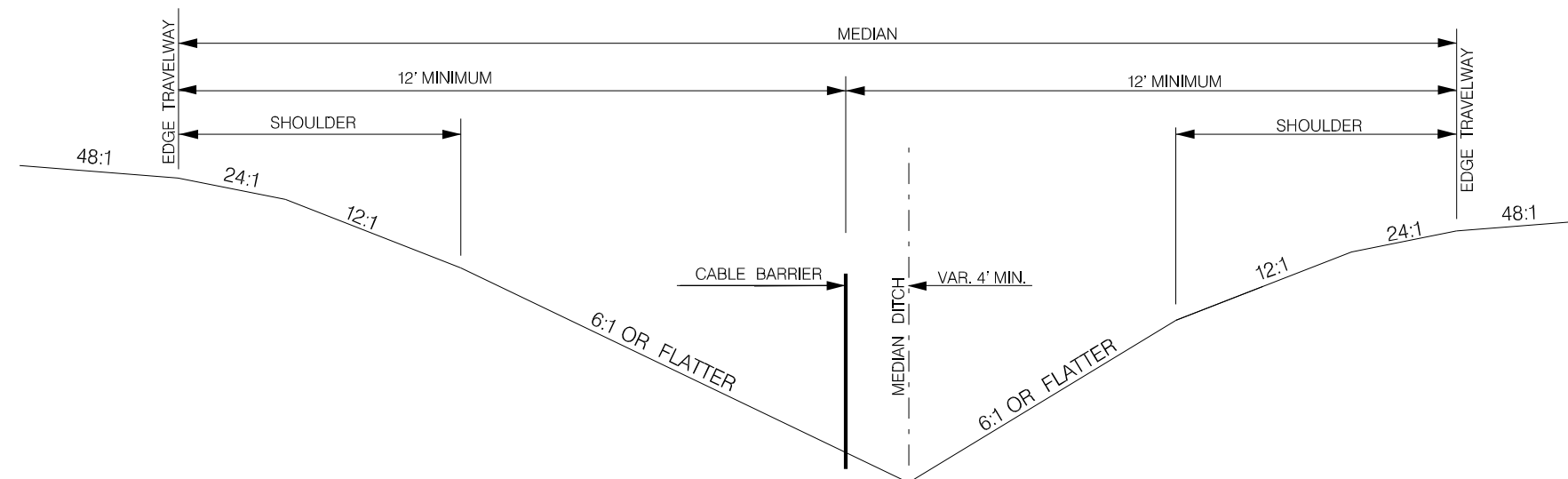
1. DITCH MAY OR MAY NOT BE IN CENTER OF MEDIAN.
2. DITCH MAY VARY IN ELEVATION TO DRAIN.

# TANGENT SECTIONS



NORMAL TANGENT SECTION  
CABLE MAY BE PLACED ON EITHER SIDE OF MEDIAN CENTERLINE

1



DISSIMILAR PROFILE TANGENT SECTION  
CABLE TO BE PLACED ON HIGH SIDE

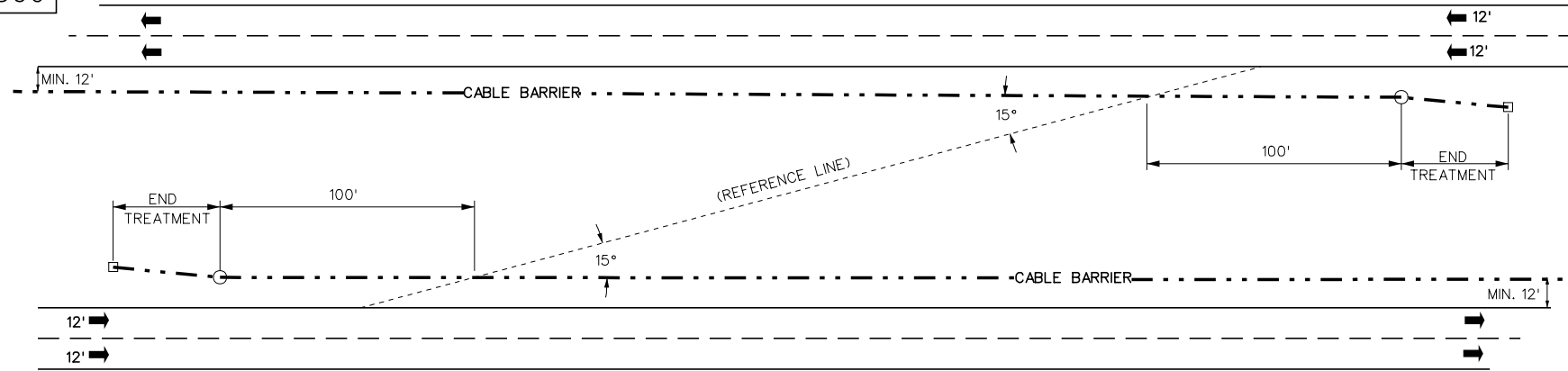
2

REVISIONS		
DATE	REV. BY	DESCRIPTION
03-09-04	CRA	DRAWN BY CRA
01-13-05	CMH	REVISED NOTES

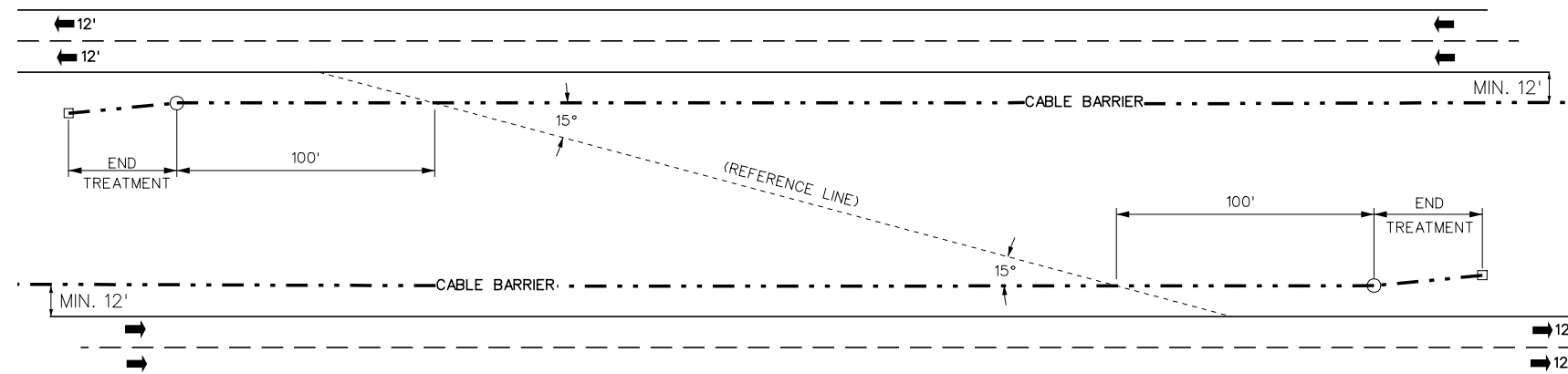
**SCDOT**  
South Carolina Department of Transportation  
**STANDARD DRAWING**

DRAWING NO. 805-30F  
MEDIAN CABLE BARRIER  
TYPICAL SECTIONS  
(SHEET 1 of 5)

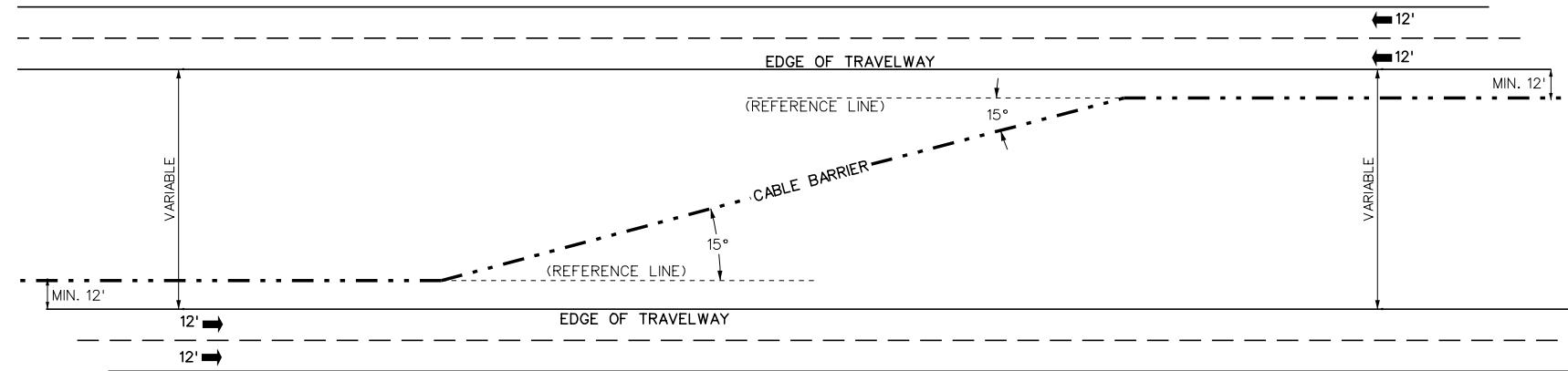
EFFECTIVE LETTING DATE      MAY, 2005



PREFERRED DESIGN FOR ENDING CABLE BARRIER  
PLAN VIEW  
①A



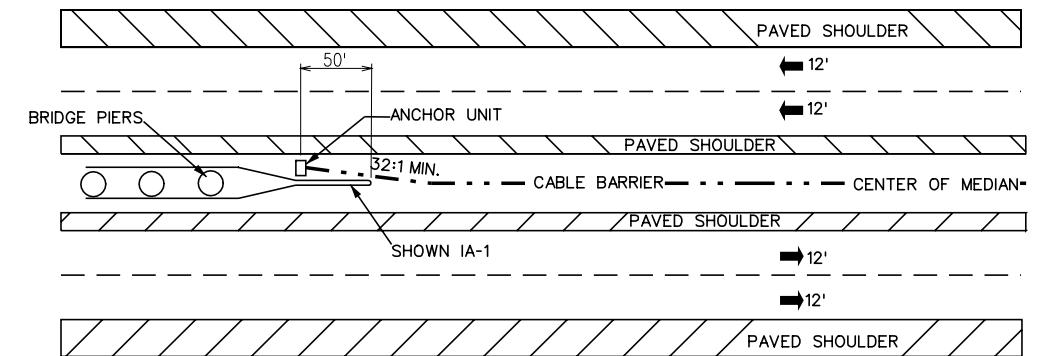
PREFERRED DESIGN FOR ENDING CABLE BARRIER  
PLAN VIEW  
①B



CABLE BARRIER PLACEMENT  
WHEN NECESSARY TO CROSS MEDIAN  
PLAN VIEW  
②

NOTES:

1. PREFERRED DESIGN FOR ENDING CABLE BARRIER SHOULD FOLLOW DRAWINGS 1A & 1B. LENGTH OF NEED IS CALCULATED AS SHOWN.
2. WHEN IT IS ABSOLUTELY NECESSARY FOR THE CABLE BARRIER TO BE INSTALLED CROSSING THE MEDIAN, THE PLACEMENT SHOULD BE WITH THE FLOW OF TRAFFIC, AS SHOWN ON DRAWING 2.
3. WHEN ORIENTATION OF TRAFFIC IS REVERSED FROM DRAWING 2, DRAWING 1A MUST BE USED.
4. SEE STANDARD DRAWING NO. 805-30 FOR DETAILED INSTALLATION OF CABLE BARRIER.
5. THE END ANCHOR SHALL BE NO CLOSER THAN 10' FROM BRIDGE PIERS.
6. GUARDRAIL AT BRIDGE PIERS MAY BE ANY DEPARTMENT APPROVED END TREATMENT. CABLE BARRIER END ANCHOR TO BE PLACED ONLY AS SHOWN IN DETAIL.



CABLE BARRIER AT BRIDGE PIERS  
PROTECTED BY GUARDRAIL  
(SEE NOTES 5 & 6)

NOT TO SCALE

REVISIONS		
DATE	REV. BY	DESCRIPTION
01-14-05	CMH	DRAWN

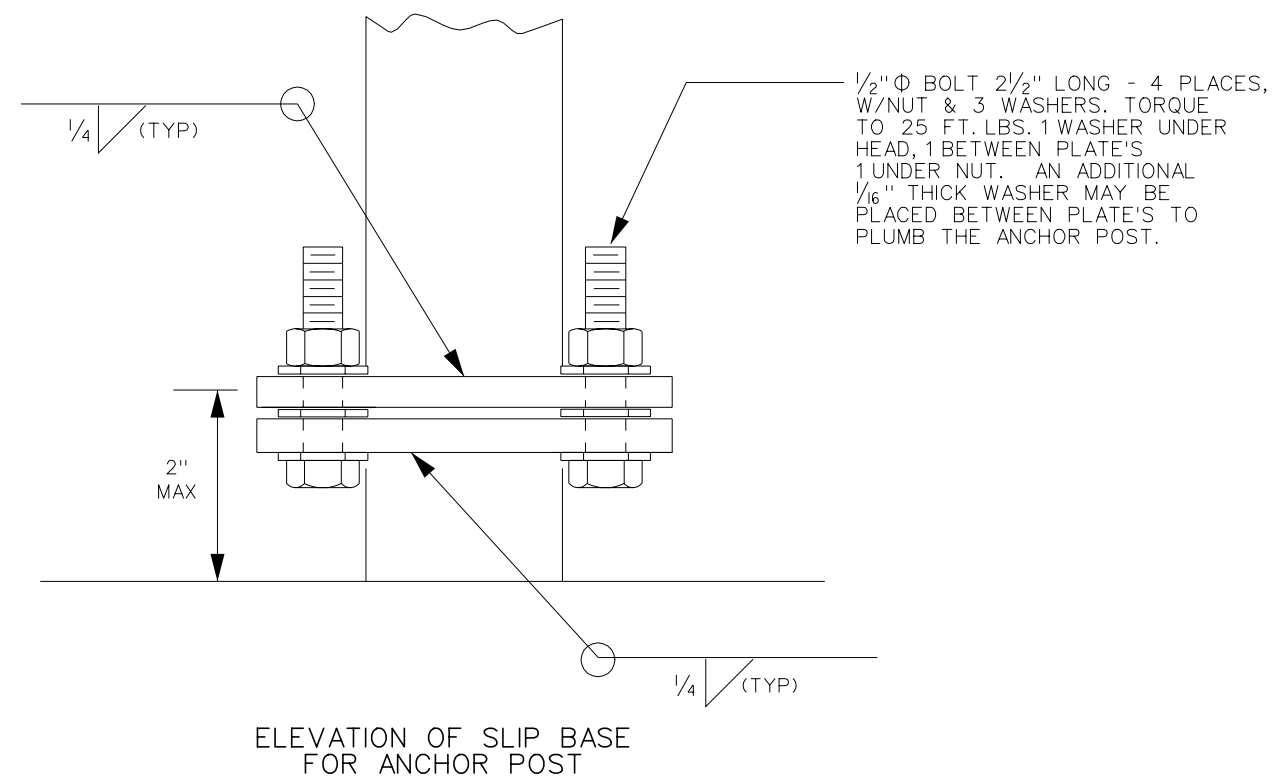
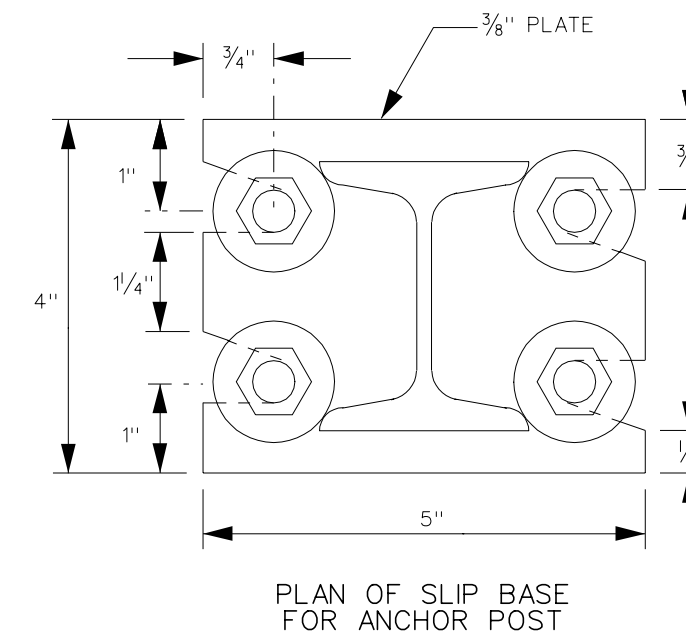
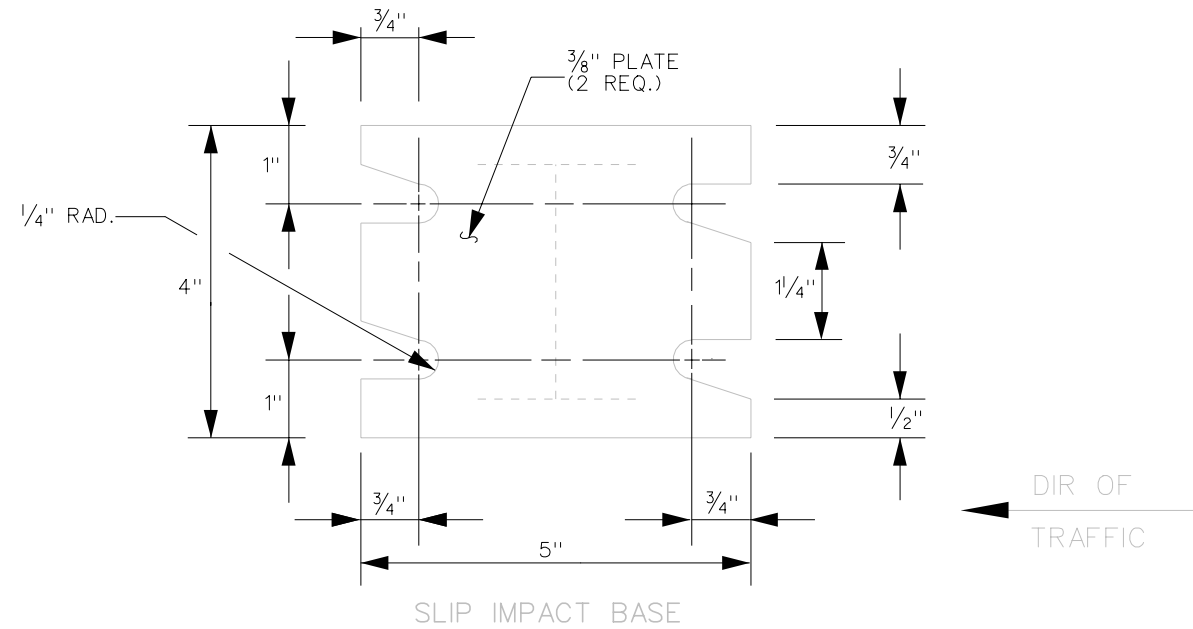
**SCDOT**  
South Carolina Department of Transportation  
**STANDARD DRAWING**  
DRAWING NO. 805-30E

MEDIAN CABLE  
BARRIER PLACEMENT

EFFECTIVE LETTING DATE      MAY, 2005

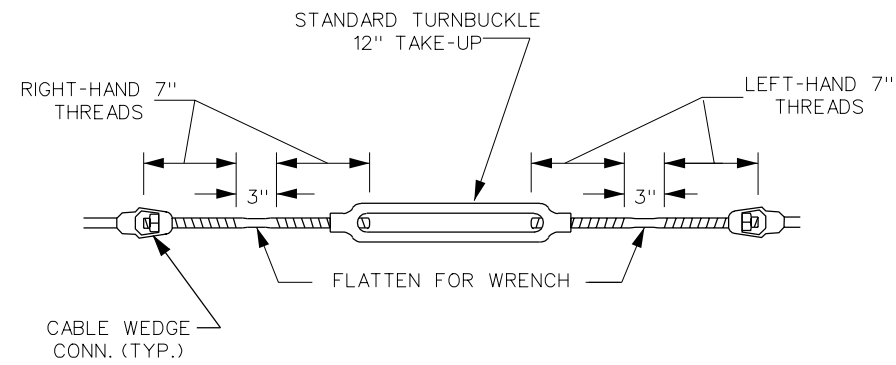
NOTES:

1. STEEL POSTS, BLOCKS, AND BASE PLATES, WHERE USED, SHALL CONFORM TO AASHTO M 270 GRADE 36, AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111. WELDING AND REPAIR WELDING FOR ALL STEEL FABRICATION SHALL COMPLY WITH THE LATEST EDITION OF THE ANSI / AASHTO / AWS D1.5 BRIDGE WELDING CODE. ALL FABRICATION SHALL BE COMPLETED PRIOR TO GALVANIZING.
2. MALLEABLE IRON FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 47. CAST STEEL FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 103, GRADE 70-36, UNLESS OTHERWISE DESIGNATED IN THE PLANS OR IN THE SPECIAL PROVISIONS.
3. SLIP BASE BOLTS SHALL BE MANUFACTURED ACCORDING TO ASTM A 307, GRADE A AND GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

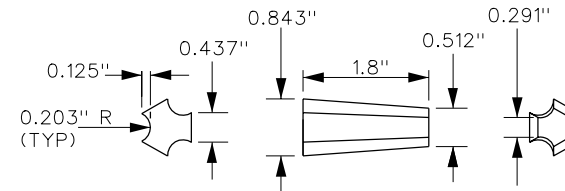


REVISIONS		
DATE	REV. BY	DESCRIPTION
10-17-2001	DESIGN GP	NEW DRAWING
12-14-2001	WJZ	REVISED DRAWING
12-14-2001	WJZ	ADDED TO STANDARD DRAWINGS
09-17-2003	WJZ	UPDATE-NO CHANGES TO DWG.

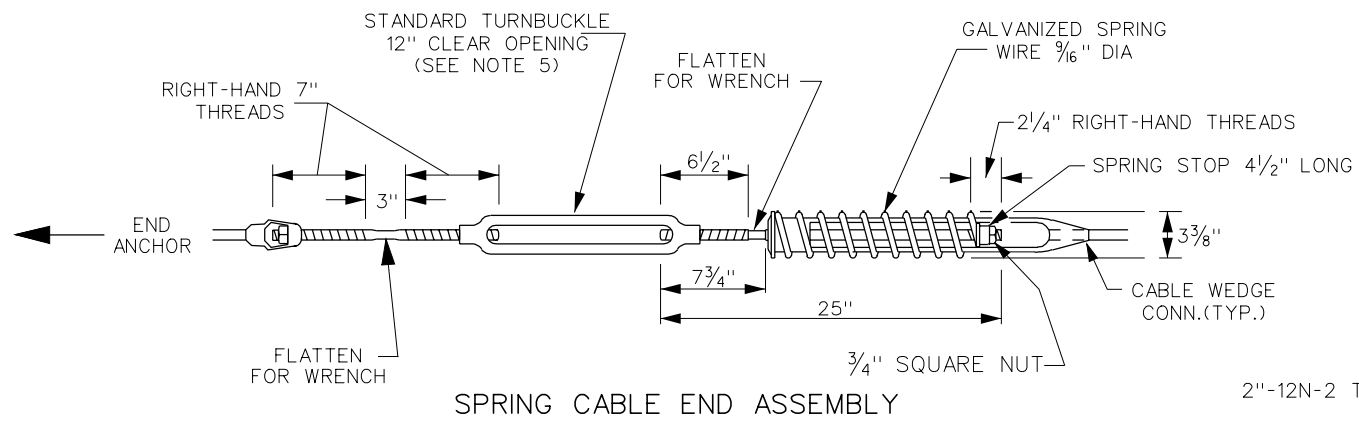
**SCDOT**  
 South Carolina Department of Transportation  
**STANDARD DRAWING**  
 DRAWING NO. 805-30D  
 CABLE BARRIER HARDWARE  
 SHEET 3 OF 3  
 EFFECTIVE LETTING DATE | JUNE, 2002



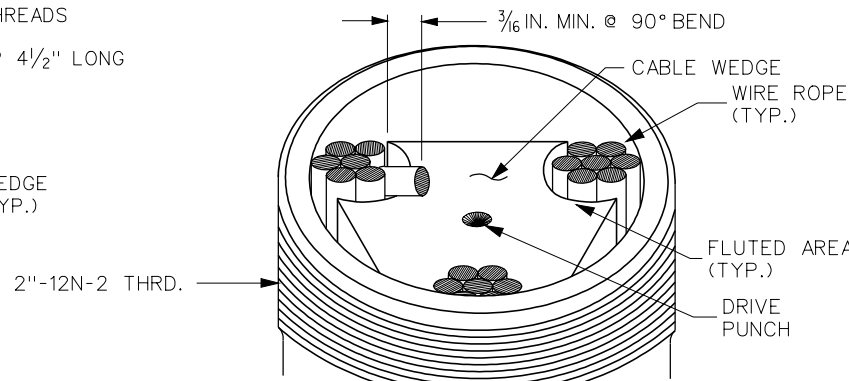
TURNBUCKLE ASSEMBLY



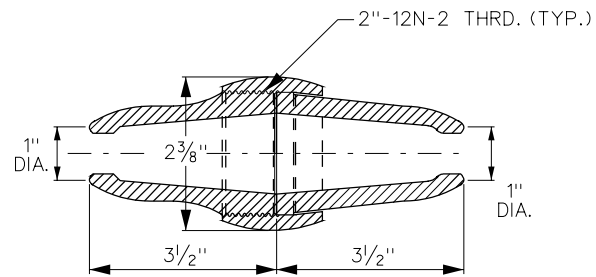
CABLE WEDGE  
USE WITH ALL CABLE FITTINGS



SPRING CABLE END ASSEMBLY



ISOMETRIC VIEW  
WIRE BEND DETAIL



CABLE SPLICE  
USE WITH WEDGE

NOTES:

1. AT ALL LOCATIONS WHERE THE CABLE IS CONNECTED TO A CABLE SOCKET WITH A WEDGE TYPE CONNECTION, ONE WIRE OF THE WIRE ROPE SHALL BE CRIMPED OVER THE BASE OF THE WEDGE TO HOLD IT FIRMLY IN PLACE.
2. THE CABLE WEDGE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 47 FOR MALLEABLE IRON CASTINGS. THE WEDGE SHALL NOT BE ZINC-COATED.
3. CAST STEEL COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 103 GRADE 70-40 CLASS 1. ALL THREADED PARTS SHALL CONFORM TO ANSI B18.13 FOR 3/4 IN. THREADS. ALL PARTS SHALL BE HOT-DIP ZINC COATED ACCORDING TO AASHTO M 232 OR AASHTO M 298.
4. CABLE (WIRE ROPE) SHALL CONFORM TO THE MATERIAL REQUIREMENTS OF AASHTO M 30 TYPE I CLASS A COATING FOR 3/4 IN. ROPE. ALL CONNECTING HARDWARE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 269. THE ROPE, WITH CONNECTING HARDWARE ATTACHED, SHALL DEVELOP THE FULL 25,000 LBS. STRENGTH OF A SINGLE CABLE.
5. THE CONTRACTOR SHALL INSTALL AND TENSION THE CABLE BARRIER AS FOLLOWS. PROPERLY SEAT THE SPRING COMPENSATION DEVICE AND THEN PERMANENTLY MARK THE UNLOADED POSITION. COMPLETE ASSEMBLY OF THE CABLE BARRIER AND SET THE COMPENSATING DEVICES TO A SPRING COMPRESSION OF 3 1/2 INCHES. LEAVE THE SPRINGS AT THIS SETTING FOR AT LEAST 2 WEEKS THEN SET THEM TO THE PROPER SETTING ACCORDING TO THE FOLLOWING CHART FOR THE AMBIENT TEMPERATURE.

TEMPERATURE (FAHRENHEIT)	SPRING COMPRESSION FROM UNLOADED POSITION IN EACH SPRING
110° - 120°	1"
100° - 109°	1 1/4"
90° - 99°	1 1/2"
80° - 89°	1 3/4"
70° - 79°	2"
60° - 69°	2 1/4"
50° - 59°	2 1/2"
40° - 49°	2 3/4"
30° - 39°	3"
20° - 29°	3 1/4"
10° - 19°	3 1/2"
0° - 9°	3 3/4"
-10° - -1°	4"
-20° - -11°	4 1/4"

6. ALL FITTINGS SHALL BE DESIGNED TO DEVELOP 25,000 LBS. TENSILE STRENGTH. WEDGE TYPE CABLE SOCKET FITTINGS SHALL BE OF THE OPEN-END TYPE AND SHALL PERMIT VISUAL INSPECTION OF THE CABLE END AND WEDGE AFTER INSTALLATION.

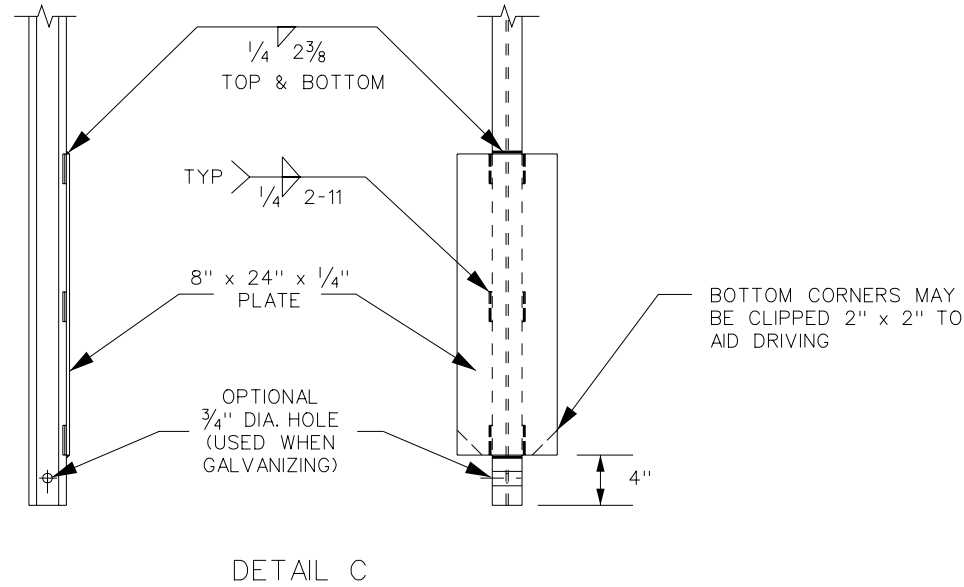
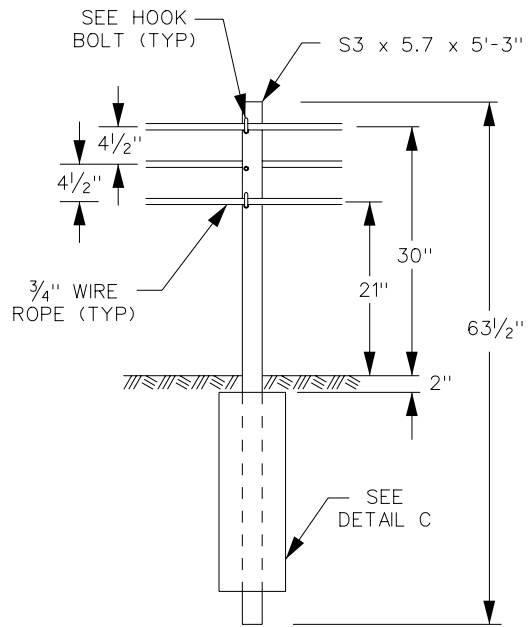
REVISIONS		
DATE	REV. BY	DESCRIPTION
10-17-2001	DESIGN GP	NEW DRAWING
12-14-2001	WJZ	REVISED DRAWINGS
12-14-2001	WJZ	ADDED TO STANDARD DRAWINGS
09-17-2003	WJZ	UPDATE-NO CHANGES TO DWG.

**SCDOT**  
South Carolina Department of Transportation  
**STANDARD DRAWING**  
DRAWING NO. 805-30C

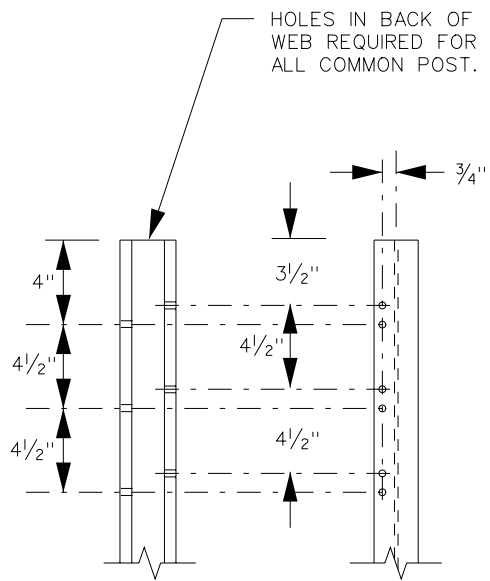
CABLE BARRIER HARDWARE  
SHEET 2 OF 3

EFFECTIVE LETTING DATE      JUNE, 2002

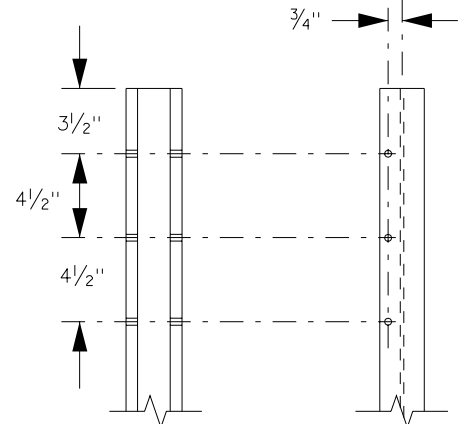




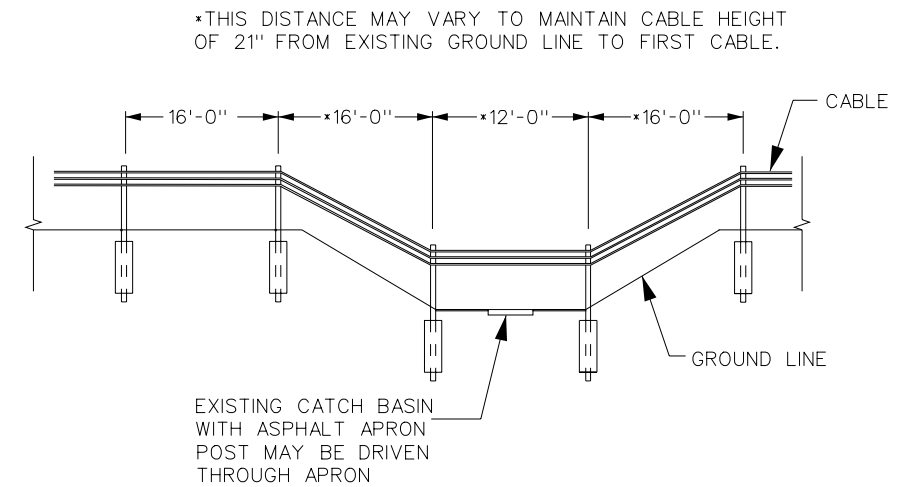
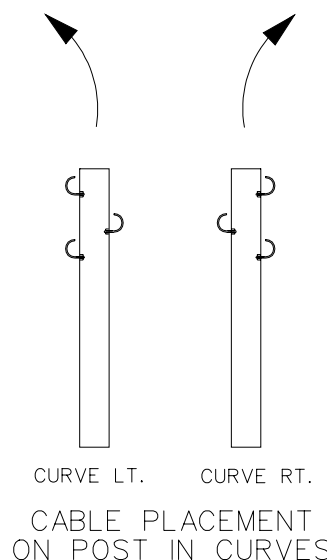
- NOTES:
1. HOOK BOLTS SHALL CONFORM TO THE DIMENSIONS AND TOLERANCE GIVEN IN IFI 136 FOR ROUND BENT HOOKED BOLTS, BOLTS AND HOOKED ANCHOR STUDS.
  2. BOLTS, NUTS, WASHERS, PLATES, RODS, AND OTHER HARDWARE, UNLESS OTHERWISE SPECIFIED, SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
  3. HOOK BOLTS SHALL DEVELOP AN ULTIMATE PULL-OPEN STRENGTH OF FROM 500 LBS. TO 1000 LBS. APPLIED IN THE DIRECTION NORMAL TO THE LONGITUDINAL AXIS OF THE POST.
  4. IN CURVES THE DOUBLE FACE CABLE BARRIER SHALL BE PLACED ON THE INSIDE OF CURVE IN DIRECTION OF TRAFFIC.
  5. CABLE HEIGHT TO FIRST CABLE SHALL ALWAYS BE 21" ABOVE GROUND LINE, 25 1/2" ABOVE GROUND TO SECOND CABLE, AND 30" ABOVE GROUND TO THE THIRD (TOP) CABLE.



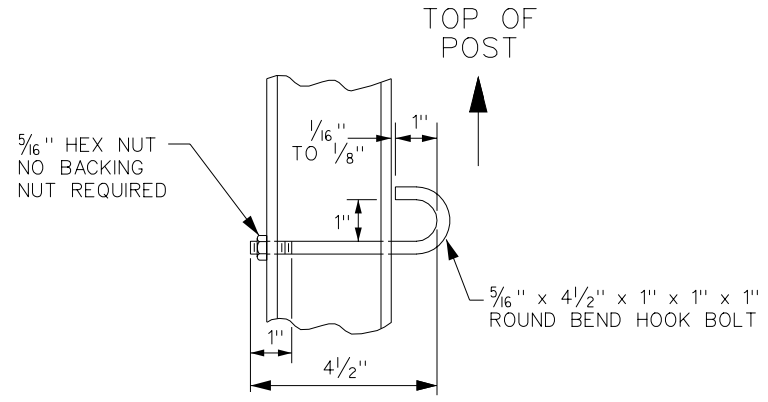
DETAIL A



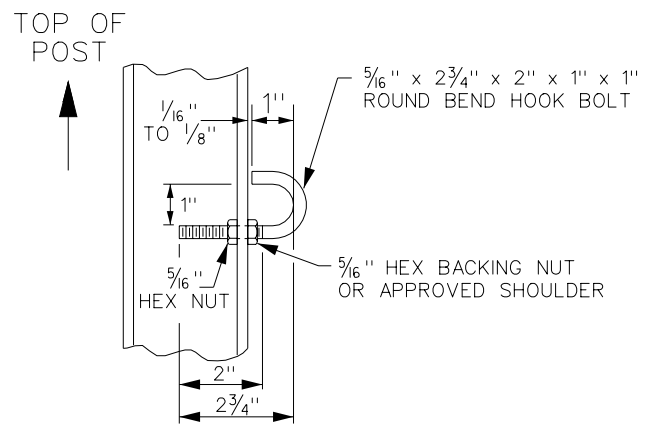
DETAIL B



ELEVATION OF POST SPACING AT A CATCH BASIN



ALTERNATE HOOK BOLT



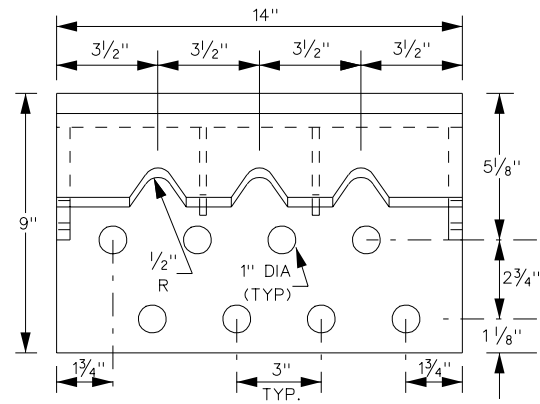
HOOK BOLT

REVISIONS		
DATE	REV. BY	DESCRIPTION
01-16-2002	WJZ	REVISED DRAWING
01-16-2002	WJZ	ADDED TO STANDARD DRAWINGS
9-12-2002	WJZ	HOOK BOLTS REDRAWN
9-18-2003	WJZ	UPDATE-NO CHANGES TO DWG.
12-31-03	WKR	ADDED NOTE 5

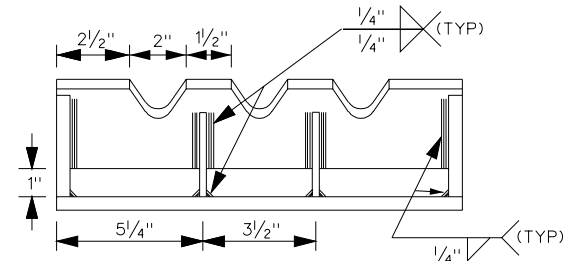
  
 South Carolina Department of Transportation  
**STANDARD DRAWING**  
 DRAWING NO. 805-30B  
 CABLE BARRIER HARDWARE  
 SHEET 1 OF 3  
 EFFECTIVE LETTING DATE MAY, 2004

std805\_30a

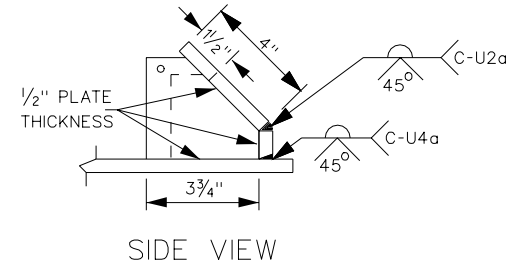
ANCHOR BRACKET



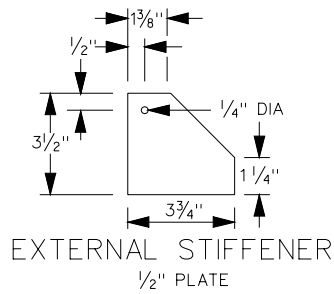
PLAN



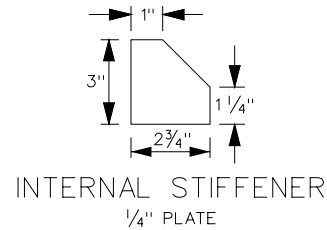
ELEVATION



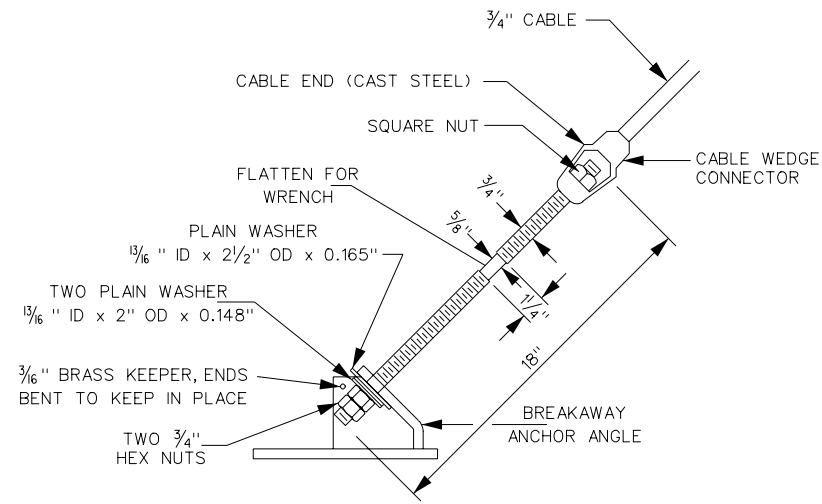
SIDE VIEW



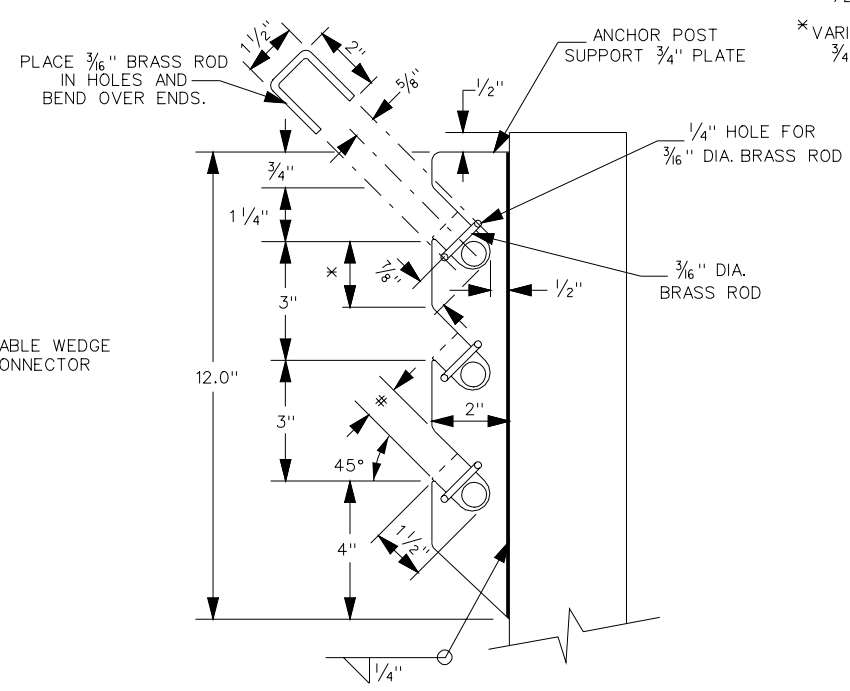
EXTERNAL STIFFENER  
1/2" PLATE



INTERNAL STIFFENER  
1/4" PLATE



CABLE END ASSEMBLY TO  
ANCHOR BRACKET ANGLE DETAIL  
BRASS KEEPER ROD MUST BE  
INSTALLED PRIOR TO  
TENSIONING CABLE



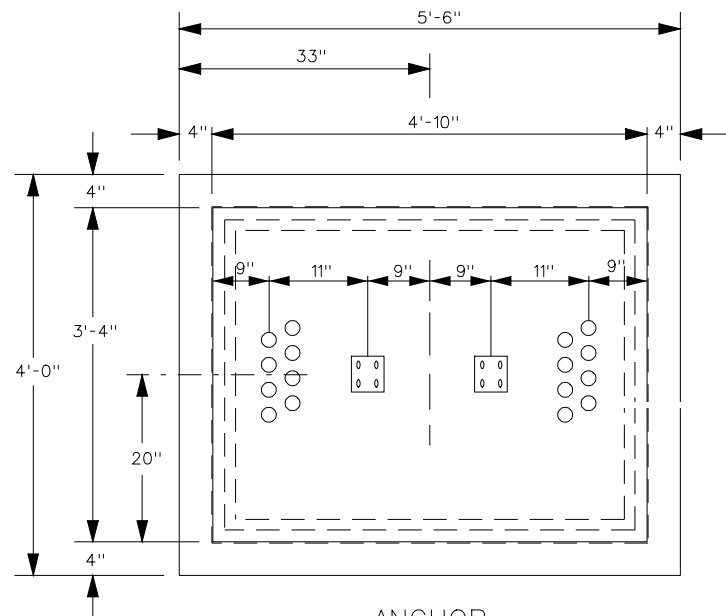
SIDE VIEW OF  
ANCHOR POST

\* VARIABLE FROM  
1/2" TO 1 3/4"

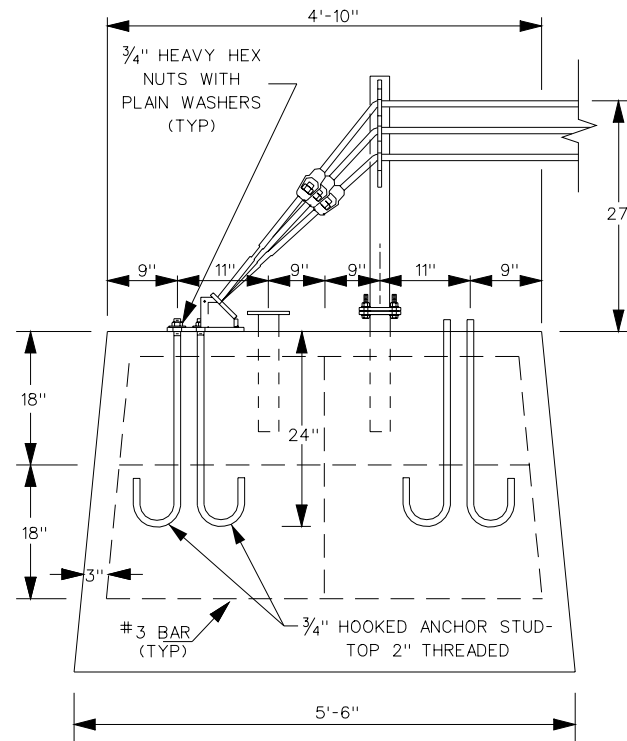
\* VARIABLE FROM  
3/4" TO 7/8"

NOTES:

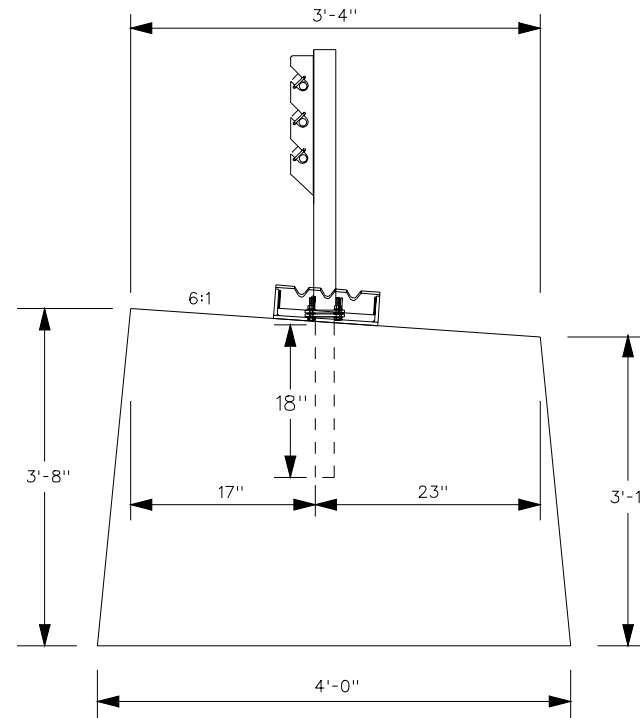
1. THE CABLE GUARDRAIL ANCHOR BRACKET SHALL BE MANUFACTURED FROM AASHTO M 270 GRADE 36 STEEL PLATE AND ZINC-COATED ACCORDING TO AASHTO M 111 NO PUNCHING, DRILLING OR CUTTING IS PERMITTED AFTER THE BRACKET IS ZINC-COATED.
2. HOOKED ANCHOR STUDS SHALL CONFORM TO AASHTO M 314, GRADE 36. HEAVY HEX NUTS SHALL CONFORM TO AASHTO M 291 FOR CLASS 105 AND SHALL CONFORM TO THE GEOMETRY DEFINED IN ANSI B.18.2.4.6. NUTS SHALL HAVE ANSI B1.13 CLASS 6H THREADS. ZINC COATING SHALL MEET AASHTO M 232 CLASS C OR AASHTO M 298 FOR CLASS 50. TORQUE HEAVY HEX NUTS TO 25 FT.-LBS.



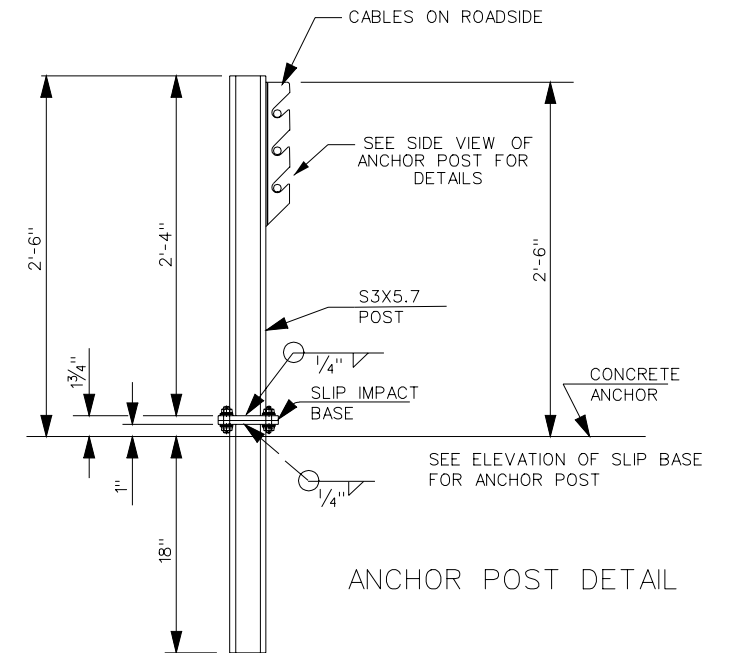
ANCHOR  
FOOTING PLAN



ANCHOR  
FOOTING ELEVATION



SIDE ELEVATION



ANCHOR POST DETAIL

REVISIONS		
DATE	REV. BY	DESCRIPTION
10-17-2001	DESIGN GP	NEW DRAWING
6-12-2002	WJZ	ADD WELDING FEATURES
9-16-02	C.I.F.S.	REV. BRACKET VIEWS/DIMENSIONS
9-18-03	WJZ	UPDATE-NO CHANGES TO DWG.
12-15-03	WKR	BIDIRECTIONAL FOOTING SHOWN

**SCDOT**  
South Carolina Department of Transportation  
**STANDARD DRAWING**  
DRAWING NO. 805-30A

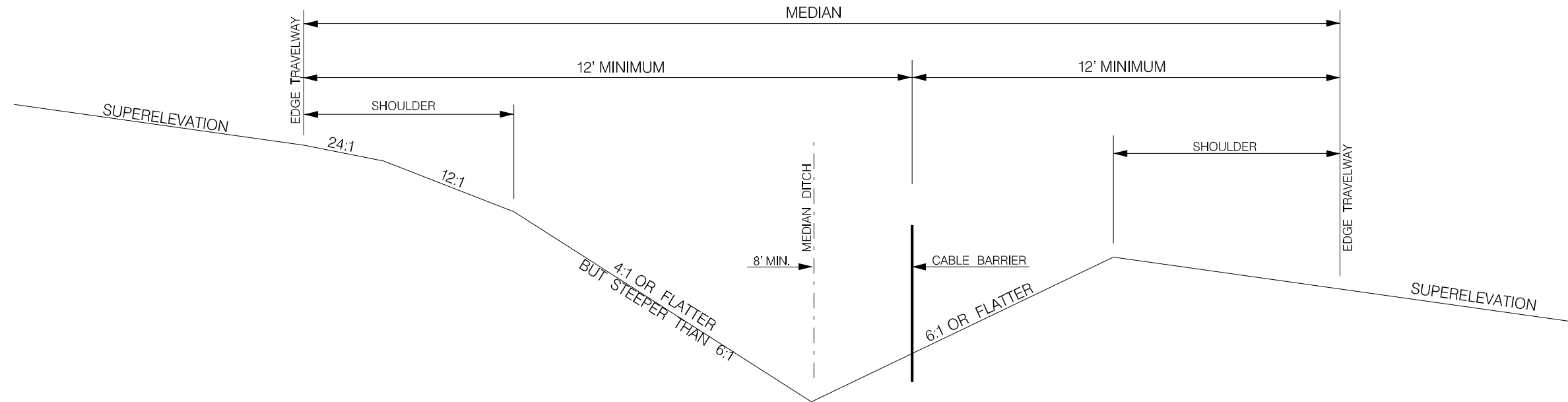
CABLE BARRIER END ANCHOR

EFFECTIVE LETTING DATE MAY, 2004

# SUPERELEVATED SECTIONS

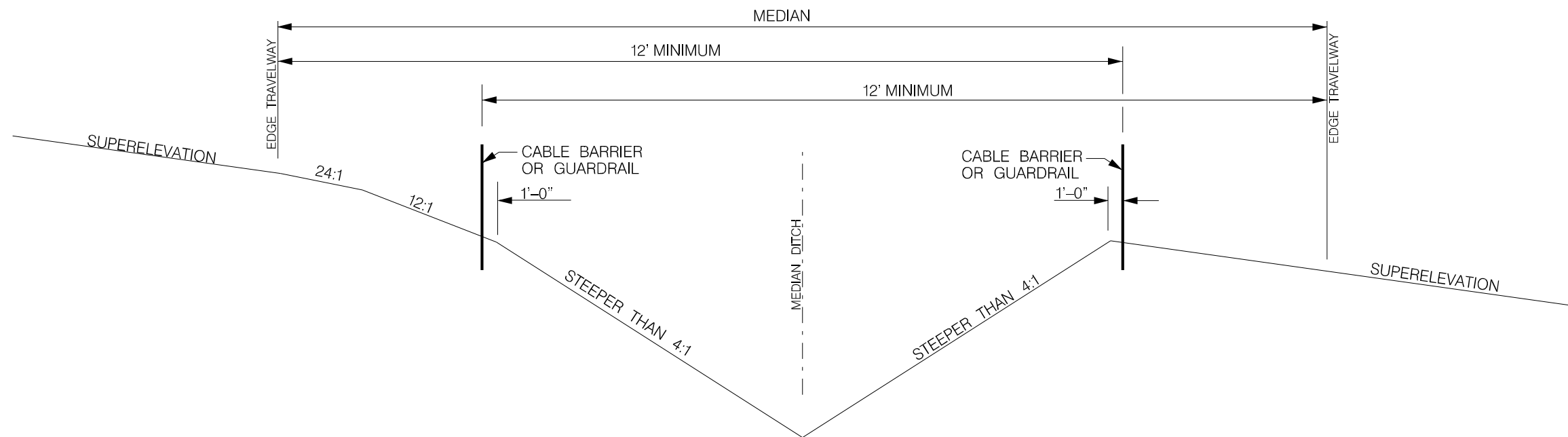
GENERAL FOR ALL APPLICATIONS:

1. DITCH MAY OR MAY NOT BE IN CENTER OF MEDIAN.
2. DITCH MAY VARY IN ELEVATION TO DRAIN.



NORMAL OR DISSIMILAR PROFILE  
 CABLE TO BE PLACED AS SHOWN ON SIDE OF MEDIAN  
 DITCH THAT IS ON THE OUTSIDE OF CURVE IN THE  
 DIRECTION OF TRAVEL

3A



NORMAL OR DISSIMILAR PROFILE SECTION  
 ONE OR BOTH SLOPES STEEPER THAN 4:1  
 OR BOTH SLOPES ARE 4:1 OR FLATTER BUT STEEPER THAN 6:1  
 CABLE BARRIER TO BE PLACED ON BOTH SHOULDERS

4

REVISIONS		
DATE	REV. BY	DESCRIPTION
03-09-04	CRA	DRAWN BY CRA
01-14-05	CMH	REVISED NOTES

**SCDOT**  
 South Carolina Department of Transportation  
**STANDARD DRAWING**  
 DRAWING NO. 805-30J  
 MEDIAN CABLE BARRIER  
 TYPICAL SECTIONS  
 (SHEET 5 of 5)  
 EFFECTIVE LETTING DATE | MAY, 2005