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18	CD-159-6 CONSTRUCTION SIGNS	60A	CD-607-4 BARRIER CURB	88	CD-611-1 CRASH CUSHION COMPRESSIVE BARRIER SUMMARY TABLE
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23	CD-202-1 SOIL REUSE	63	CD-609-2 BEAM GUIDE RAIL, DUAL FACED (MASH TL-3)	93	CD-612-5 STEEL U-POST SIGN SUPPORTS
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25	CD-401-1 MILLING	65	CD-609-4 BEAM GUIDE RAIL ANCHORAGE (MASH TL-3)	95	CD-612-7 BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS
26	CD-401-2 LONGITUDINAL JOINTS IN HMA	66	CD-609-5 FLARED GUIDE RAIL TERMINAL AND TANGENT GUIDE RAIL TERMINAL (MASH TL-3)	96	CD-612-8 BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS
27	CD-405-1 CONCRETE PAVEMENT TRANSVERSE JOINTS			97	CD-612-9 BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS
28	CD-405-2 CONCRETE PAVEMENT LONGITUDINAL JOINTS	67	CD-609-6 CONTROLLED RELEASE TERMINAL	98	CD-612-10 BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS
29	CD-405-3 CONCRETE PAVEMENT JOINTS NON-SKEWED LOAD TRANSFER ASSEMBLIES	68	CD-609-7 MEDIAN GUIDE RAIL TREATMENTS	99	CD-807-1 TOPSOIL STABILIZATION
30	CD-451-1 SLAB STABILIZATION	68A	CD-609-7A MEDIAN GUIDE RAIL TREATMENTS	100	CD-811-1 PLANTING
31	CD-452-1 PARTIAL DEPTH CONCRETE PAVEMENT REPAIR	68B	CD-609-7B MEDIAN GUIDE RAIL TREATMENTS	101	CD-811-2 PLANTING
32	CD-453-1 FULL DEPTH CONCRETE PAVEMENT REPAIR	69	CD-609-8 BEAM GUIDE RAIL TREATMENTS		
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40	CD-602-3 INLETS, TYPE B1, B2, & B, B1, & B2 MODIFIED	76	CD-609-15 BEAM GUIDE RAIL ATTACHMENTS		
41	CD-602-4 INLETS, TYPE E, E1, E2, & ES	76A	CD-609-15A BEAM GUIDE RAIL ATTACHMENTS		

ABBREVIATIONS

CD = ROADWAY
 TCD = TRAFFIC CONTROL DETAILS
 BCD = BRIDGE CONSTRUCTION DETAILS

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BCD-01-REVISED
 BCD-02-REVISED
 BCD-03-ORIGINAL SHEET

INDEX FOR STANDARD ROADWAY CONSTRUCTION DETAILS

INDEX SHEET 1

DESCRIPTION	CD	DESCRIPTION	CD	DESCRIPTION	CD
BEAM GUIDE RAIL (BGR)		BEAM GUIDE RAIL ATTACHMENTS		CONSTRUCTION SIGNS	
BEAM GUIDE RAIL	CD-609-1.1	BEAM GUIDE RAIL ATTACHMENT TO SIDEWALK	CD-609-11.1	CONSTRUCTION SIGNS	CD-159-6.1
BEAM GUIDE RAIL, DUAL FACED (MASH TL-3)	CD-609-2.1	BEAM GUIDE RAIL ATTACHMENT TO EXISTING BALUSTRADE	CD-609-12.1	CONSTRUCTION SIGNS	CD-159-7.1
RUB RAIL	CD-609-3.1	BEAM GUIDE RAIL ATTACHMENTS	CD-609-13.1	INTERSTATE CONSTRUCTION IDENTIFICATION SIGN	CD-159-8
MODIFIED THRIE BEAM GUIDE RAIL	CD-609-18.1	GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-3 F SHAPE BARRIER PARAPET (NO ROADWAY CURBING ON APPROACH)	CD-609-14.1	CONSTRUCTION IDENTIFICATION SIGN	CD-159-9
MODIFIED THRIE BEAM GUIDE RAIL, DUAL FACED (NCHRP 350 TL-4)	CD-609-19.1				
THRIE BEAM GUIDE RAIL TRANSITIONS	CD-609-20.1	GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-3 F SHAPE BARRIER PARAPET (WITH ROADWAY CURBING ON APPROACH)	CD-609-15.1		
		GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-2 F SHAPE BARRIER PARAPET (NO ROADWAY CURBING ON APPROACH)	CD-609-15A.1	CRASH CUSHIONS	
BEAM GUIDE RAIL TREATMENTS		GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-2 F SHAPE BARRIER PARAPET (WITH ROADWAY CURBING ON APPROACH)	CD-609-15B.1	TEMPORARY CRASH CUSHIONS COMPRESSIVE BARRIER SUMMARY TABLE	CD-159-10.1
MEDIAN GUIDE RAIL TREATMENTS	CD-609-7			CRASH CUSHIONS COMPRESSIVE BARRIER SUMMARY TABLE	CD-611-11.1
TELESCOPING GUIDE RAIL END TERMINAL	CD-609-7.1	GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-2 F SHAPE BARRIER PARAPET (WITH ROADWAY CURBING ON APPROACH)	CD-609-16.1		
DUAL FACED MEDIAN GUIDE RAIL AND TANGENT OR FLARED TERMINAL	CD-609-7.2	GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-3 SIDEWALK WITH ONE RAIL STEEL BRIDGE RAILING PARAPET	CD-609-16A.1	CULVERTS	
MEDIAN GUIDE RAIL TREATMENTS	CD-609-7A			CONCRETE CULVERT	CD-602-11.1
TELESCOPING GUIDE RAIL END TERMINAL CONNECTION TO DUAL FACED MODIFIED THRIE BEAM GUIDE RAIL	CD-609-7A.1	GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-2 SIDEWALK WITH ONE RAIL STEEL BRIDGE RAILING PARAPET	CD-609-16A.1	CONSTRUCTION JOINT OF CULVERT	CD-602-11.2
MEDIAN GUIDE RAIL TREATMENT AT ADJACENT BRIDGES	CD-609-7A.2	GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-3 SIDEWALK WITH 4 BAR OPEN STEEL BRIDGE RAILING PARAPET	CD-609-17.1		
OVERLAPPING DUAL FACED MEDIAN BEAM GUIDE RAIL	CD-609-7B.1			CURBS	
BEAM GUIDE RAIL TREATMENTS	CD-609-8	GUIDE RAIL ATTACHMENT - NEW CONSTRUCTION - MASH TL-2 SIDEWALK WITH 4 BAR OPEN STEEL BRIDGE RAILING PARAPET	CD-609-17A.1	CONCRETE AND GRANITE CURB	CD-607-1
CLEARANCE FROM FACE OF RAIL TO OBSTRUCTION	CD-609-8.1			GENERAL NOTES APPLYING TO ALL TYPES OF DOWELLED CURBS	CD-607-1.1
ADDITIONAL LENGTH BEAM GUIDE RAIL POSTS	CD-609-8.2	GUIDE RAIL ATTACHMENT - MASH TL-3 - EXISTING NJ BARRIER PARAPET (NO ROADWAY CURBING ON APPROACH)	CD-609-17B.1	9" x ___" CONCRETE VERTICAL CURB, DOWELLED	CD-607-1.2
GUIDE RAIL POST INSTALLATION IN ROCK	CD-609-8.3			12" x 3" CONCRETE SLOPING CURB, DOWELLED	CD-607-1.3
VERTICAL TRANSITION TO EXISTING 27¼" HIGH GUIDE RAIL	CD-609-8.4	GUIDE RAIL ATTACHMENT - MASH TL-3 - EXISTING NJ BARRIER PARAPET (WITH ROADWAY CURBING ON APPROACH)	CD-609-17C.1	CONCRETE VERTICAL CURB MONOLITHIC WITH CONCRETE BASE COURSE	CD-607-1.4
BEAM GUIDE RAIL TREATMENTS	CD-609-8A			12" x 13" CONCRETE SLOPING CURB	CD-607-1.5
18'-9" OR 25'-0" UNSUPPORTED SPAN	CD-609-8A.1	GUIDE RAIL ATTACHMENT - MASH TL-2 - EXISTING NJ BARRIER PARAPET (NO ROADWAY CURBING ON APPROACH)	CD-609-17D.1	CONCRETE VERTICAL CURB	CD-607-1.6
12'-6" UNSUPPORTED SPAN	CD-609-8A.2			CONCRETE VERTICAL CURB MONOLITHIC WITH CONCRETE PAVEMENT	CD-607-1.7
RAIL HEIGHT DETERMINATION	CD-609-8A.3	GUIDE RAIL ATTACHMENT - MASH TL-2 - EXISTING NJ BARRIER PARAPET (WITH ROADWAY CURBING ON APPROACH)	CD-609-17E.1	NEW OR RESET GRANITE CURB	CD-607-1.8
				LIP CURB FOR BEAM GUIDE RAIL ATTACHMENTS	CD-607-1.9
BEAM GUIDE RAIL TERMINALS				CURB TRANSITIONS	CD-607-2
BEAM GUIDE RAIL ANCHORAGE (MASH TL-3)	CD-609-4.1	CONCRETE PAVEMENT REHABILITATION		METHOD OF TRANSITIONING CURB AT A FLARED OR TANGENT GUIDE RAIL TERMINAL	CD-607-2.1
FLARED GUIDE RAIL TERMINAL AND TANGENT GUIDE RAIL TERMINAL (MASH TL-3)	CD-609-5.1	SLAB STABILIZATION	CD-451-1.1	CURB TREATMENT AT BERM SECTION AND ALL CURB ENDS	CD-607-2.2
CONTROLLED RELEASE TERMINAL	CD-609-6	PARTIAL DEPTH CONCRETE PAVEMENT REPAIR	CD-452-1.1	APPROACH CURBED GORE AREA TREATMENT	CD-607-2.3
CONTROLLED RELEASE TERMINAL	CD-609-6.1	FULL DEPTH CONCRETE PAVEMENT REPAIR	CD-453-1.1	METHOD OF DEPRESSING CURB AT DRIVEWAYS	CD-607-2.4
CONTROLLED RELEASE TERMINAL ANCHORAGE	CD-609-6.2	FULL DEPTH CONCRETE PAVEMENT REPAIR	CD-453-2	LINEAR CURB TRANSITION	CD-607-2.5
GENERAL NOTES	CD-609-6.3	REINFORCEMENT STEEL FOR FULL DEPTH CONCRETE PAVEMENT REPAIR, CLASS ___	CD-453-2.1	METHOD OF TRANSITIONING CURB AT A BEAM GUIDE RAIL ANCHORAGE	CD-607-2.6
BURIED GUIDE RAIL TERMINAL	CD-609-9.1	FULL DEPTH CONCRETE PAVEMENT REPAIR, HMA	CD-453-2.2	BARRIER CURB	CD-607-3
GRADING AND ROADSIDE RECOVERY AREA AT FLARED AND TANGENT GUIDE RAIL TERMINALS	CD-609-10	RETROFIT DOWEL BARS	CD-454-1	24" x ___" CONCRETE BARRIER CURB, DOWELLED	CD-607-3.1
GRADING TREATMENT AT FLARED AND TANGENT GUIDE RAIL TERMINALS	CD-609-10.1	RETROFIT DOWEL BARS AT EXISTING JOINT	CD-454-1.1	24" x 41" CONCRETE BARRIER CURB	CD-607-3.2
RECOVERY AREA AT FLARED AND TANGENT GUIDE RAIL TERMINALS	CD-609-10.2	RETROFIT DOWEL BARS AT PAVEMENT CRACK	CD-454-1.2	MASH TL-3 NJ BARRIER CURB	CD-607-3.3
				MASH TL-5 F SHAPE BARRIER CURB	CD-607-4.1
				BARRIER CURB	CD-607-5
				24½" x ___" F SHAPE CONCRETE BARRIER CURB, DOWELLED	CD-607-5.1
				24½" x 51" F SHAPE CONCRETE BARRIER CURB	CD-607-5.2
				OPENINGS TO BE CONSTRUCTED IN F SHAPE BARRIER CURB	CD-607-5.3
				BARRIER CURB	CD-607-6
				BARRIER CURB TAPERED END	CD-607-6.1
				MASH TL-3 NJ BARRIER CURB	CD-607-6.2

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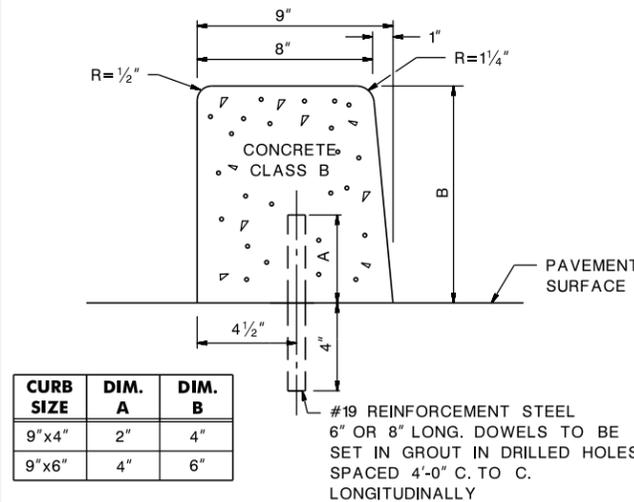
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BDC7D-10-REVISED
BDC7D-02-REVISED
BDC7D-01-ORIGINAL SHEET

GENERAL NOTES APPLYING TO ALL TYPES OF DOWELLED CURBS

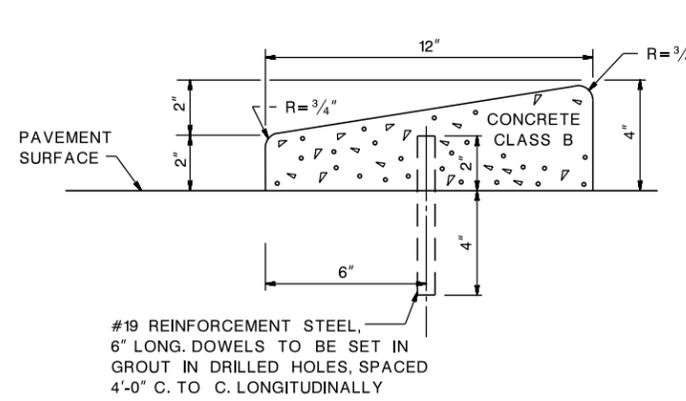
- CONSTRUCT THE TRANSVERSE JOINTS AS SPECIFIED FOR THE CURB, EXCEPT THAT THE THICKNESS OF THE JOINT FILLER IN THE CURB TO BE AS FOLLOWS:
 - 1/2 INCH FOR INTERMEDIATE JOINTS AND JOINTS OVER DEFINITE CRACKS.
 - 1/2 INCH OVER PAVEMENT JOINTS WHERE SLAB LENGTH IS 50 FEET OR LESS.
 - 1 INCH OVER PAVEMENT JOINTS WHERE SLAB LENGTH IS MORE THAN 50 FEET VARIABLE IN MULTIPLES OF 1/2 INCH BUT NOT LESS THAN THE EXISTING WIDTH OF THE TRANSVERSE JOINTS IN BRIDGES AND THE JOINTS BETWEEN THE APPROACH SLABS AND BRIDGES.
- FOR THICKNESS OF 1 INCH OR MORE, LAYERS OF 1/2 INCH MATERIAL MAY BE GLUED OR OTHERWISE FASTENED TOGETHER BY A MEANS SATISFACTORY TO THE RE. WHERE THE REQUIRED JOINT OPENING EXCEEDS 1 INCH, THE CONTRACTOR MAY CONSTRUCT OPEN JOINTS, IF DESIRED.
- WHERE DOWELLED CURB IS TO BE CONSTRUCTED ACROSS A LONGITUDINAL JOINT IN THE EXISTING PAVEMENT, THE DOWELS IN THE SHORTER PORTION OF THE CURB PANEL ARE TO BE OMITTED AND THE CURB IN THE PORTION OF THE PANEL TO BE CONSTRUCTED WITH 45# SMOOTH ROLL ROOFING BETWEEN IT AND THE EXISTING PAVEMENT.



CURB SIZE	DIM. A	DIM. B
9"x4"	2"	4"
9"x6"	4"	6"

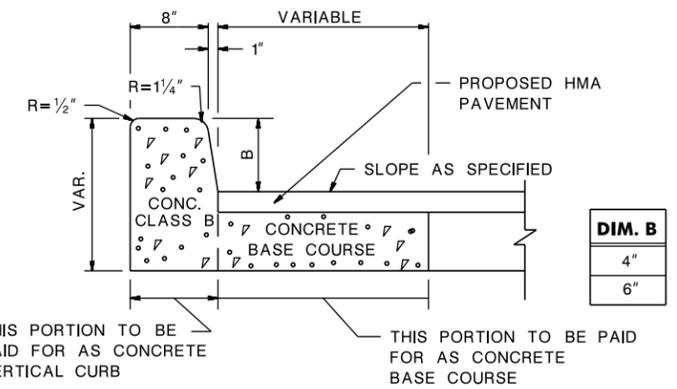
9" x 4" CONCRETE VERTICAL CURB, DOWELLED

CD-607-1.2



12" x 3" CONCRETE SLOPING CURB, DOWELLED

CD-607-1.3

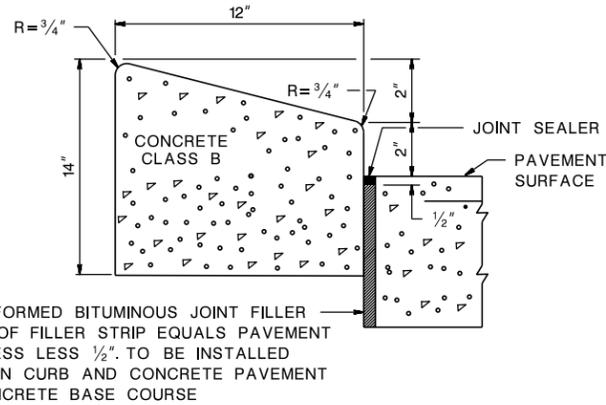


NOTES:
EXPANSION JOINTS 1/2 INCH WIDE IN THE CURB, AND EXPANSION JOINT ASSEMBLY IN THE MONOLITHIC PAVEMENT STRIP TO BE DIRECTLY OPPOSITE EVERY TRANSVERSE JOINT IN THE CENTRAL PAVEMENT STRIPS. JOINT MATERIAL IN THE CURB TO BE AS SPECIFIED FOR CONCRETE VERTICAL CURB. THE TRANSVERSE EXPANSION JOINT MATERIAL NOT TO EXTEND THROUGH THE CURB.

CONCRETE VERTICAL CURB MONOLITHIC WITH CONCRETE BASE COURSE

CD-607-1.4

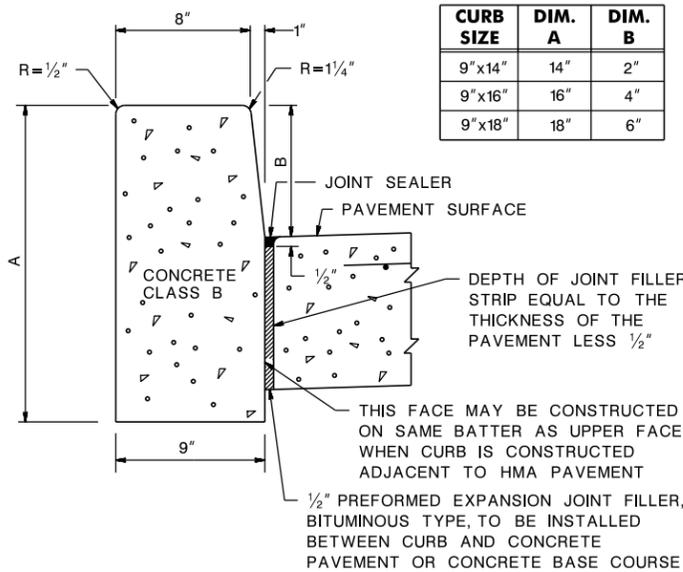
CD-607-1.1



1/2" PREFORMED BITUMINOUS JOINT FILLER
DEPTH OF FILLER STRIP EQUALS PAVEMENT THICKNESS LESS 1/2". TO BE INSTALLED BETWEEN CURB AND CONCRETE PAVEMENT OR CONCRETE BASE COURSE

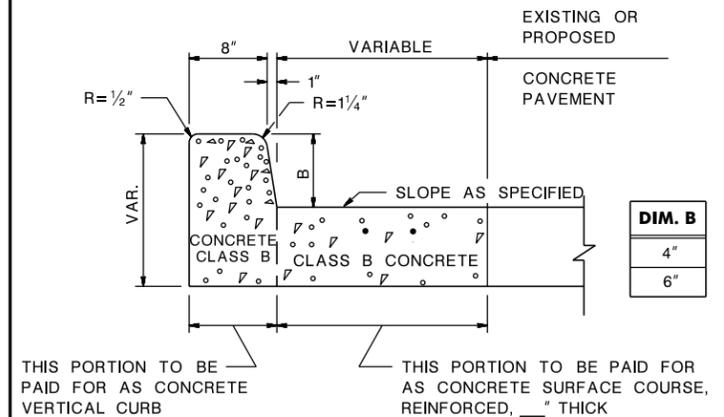
12" x 13" CONCRETE SLOPING CURB

CD-607-1.5



CURB SIZE	DIM. A	DIM. B
9"x14"	14"	2"
9"x16"	16"	4"
9"x18"	18"	6"

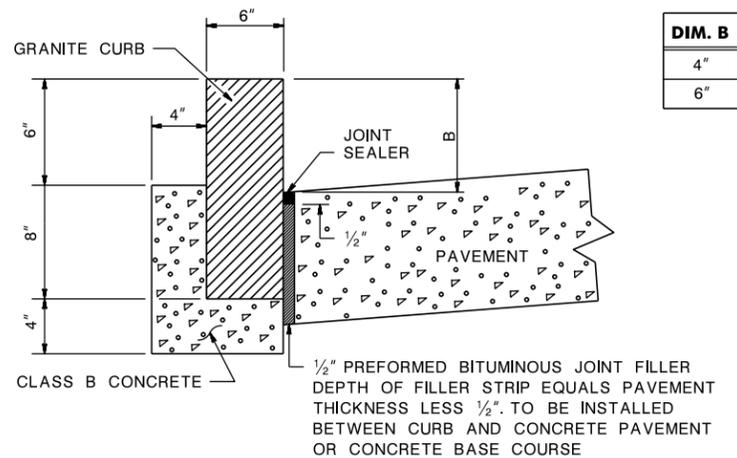
THIS FACE MAY BE CONSTRUCTED ON SAME BATTER AS UPPER FACE WHEN CURB IS CONSTRUCTED ADJACENT TO HMA PAVEMENT
1/2" PREFORMED EXPANSION JOINT FILLER, BITUMINOUS TYPE, TO BE INSTALLED BETWEEN CURB AND CONCRETE PAVEMENT OR CONCRETE BASE COURSE



THIS PORTION TO BE PAID FOR AS CONCRETE VERTICAL CURB
THIS PORTION TO BE PAID FOR AS CONCRETE SURFACE COURSE, REINFORCED, 1/2" THICK
NOTES:
EXPANSION JOINTS 1/2 INCH WIDE IN THE CURB, AND EXPANSION JOINT ASSEMBLY IN THE MONOLITHIC PAVEMENT STRIP TO BE DIRECTLY OPPOSITE EVERY TRANSVERSE JOINT IN THE CENTRAL PAVEMENT STRIPS. JOINT MATERIAL IN THE CURB TO BE AS SPECIFIED FOR CONCRETE VERTICAL CURB. THE TRANSVERSE EXPANSION JOINT MATERIAL NOT TO EXTEND THROUGH THE CURB.

CONCRETE VERTICAL CURB MONOLITHIC WITH CONCRETE PAVEMENT

CD-607-1.7



DIM. B
4"
6"

NOTE:
FOUNDATION TO BE INSTALLED THE ENTIRE LENGTH OF THE GRANITE CURB.

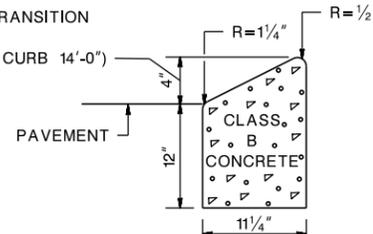
NEW OR RESET GRANITE CURB

CD-607-1.8

NOTES:

- PAYMENT FOR LIP CURB WILL BE MADE UNDER 9" x 16" CONCRETE VERTICAL CURB.
- SEE BRIDGE ATTACHMENT DETAILS ON SHEETS CD-609-14 THRU CD-609-17E.

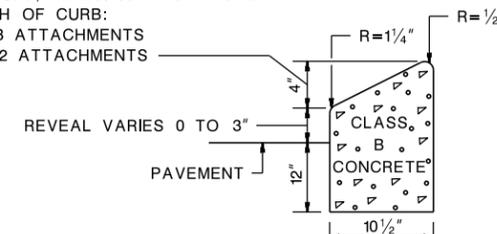
AT END OF CURB, TRANSITION TO 0" OVER 3'-4" (TOTAL LENGTH OF CURB 14'-0")



TYPE B ATTACHMENT

LIP CURB FOR BEAM GUIDE RAIL ATTACHMENTS

AT END OF CURB, TRANSITION TO 0" OVER 3'-4"
TOTAL LENGTH OF CURB:
17'-0" FOR TL-3 ATTACHMENTS
24'-6" FOR TL-2 ATTACHMENTS



TYPE A ATTACHMENT

CD-607-1.9

CONCRETE AND GRANITE CURB

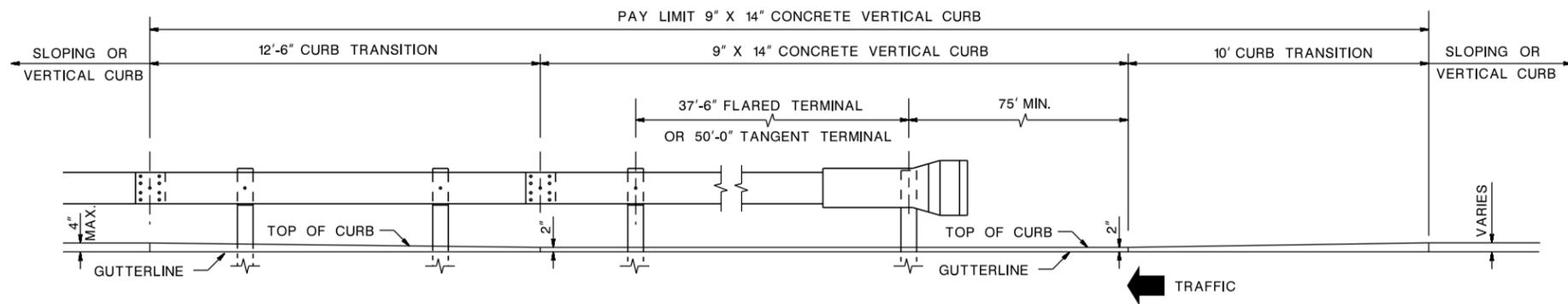
N.T.S.

NOTE:
REINFORCEMENT STEEL IS IN METRIC UNITS.
HMA = HOT MIX ASPHALT

CD-607-1

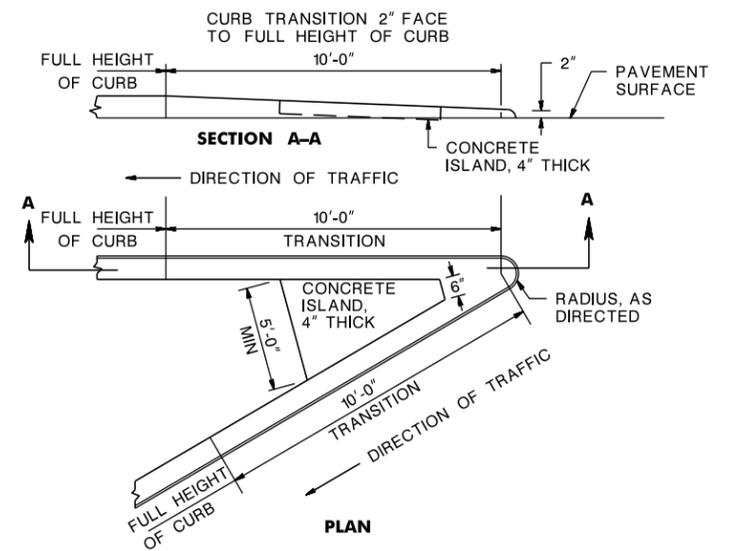
NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS



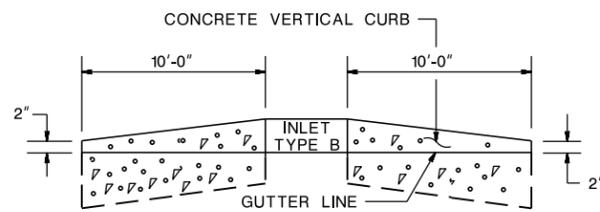
METHOD OF TRANSITIONING CURB AT A FLARED OR TANGENT GUIDE RAIL TERMINAL

CD-607-2.1



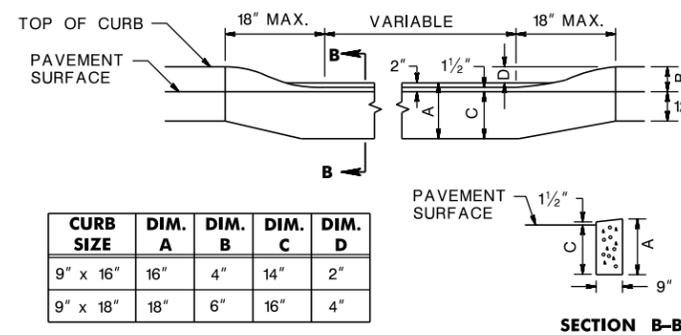
APPROACH CURBED GORE AREA TREATMENT

CD-607-2.3



CURB TREATMENT AT BERM SECTION AND ALL CURB ENDS

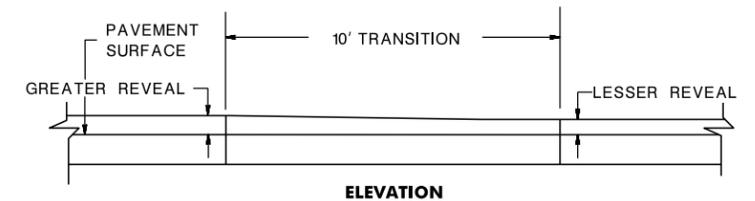
CD-607-2.2



METHOD OF DEPRESSING CURB AT DRIVEWAYS

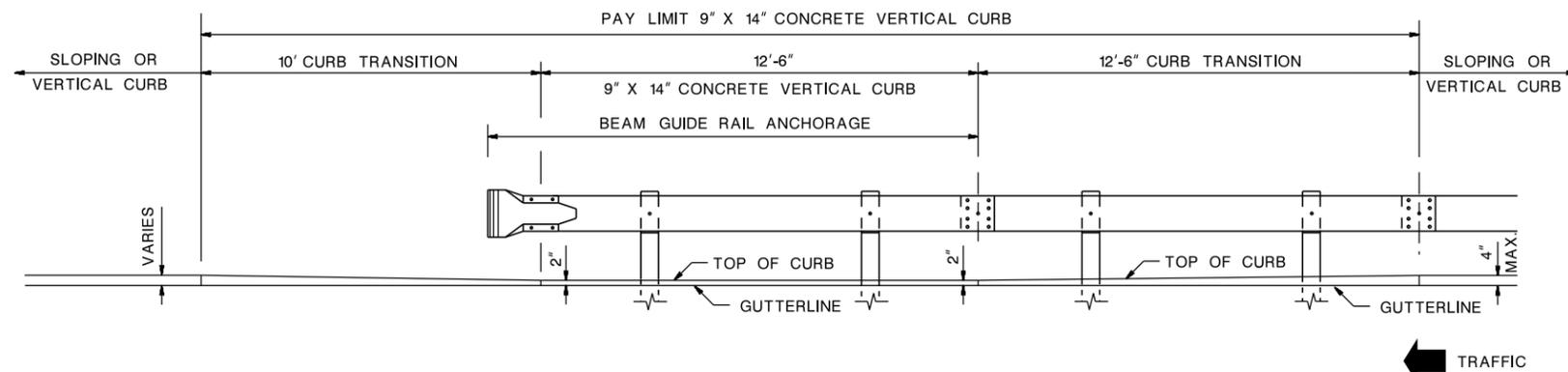
CD-607-2.4

CURB SIZE	DIM. A	DIM. B	DIM. C	DIM. D
9" x 16"	16"	4"	14"	2"
9" x 18"	18"	6"	16"	4"



LINEAR CURB TRANSITION

CD-607-2.5



METHOD OF TRANSITIONING CURB AT A BEAM GUIDE RAIL ANCHORAGE

CD-607-2.6

CURB TRANSITIONS

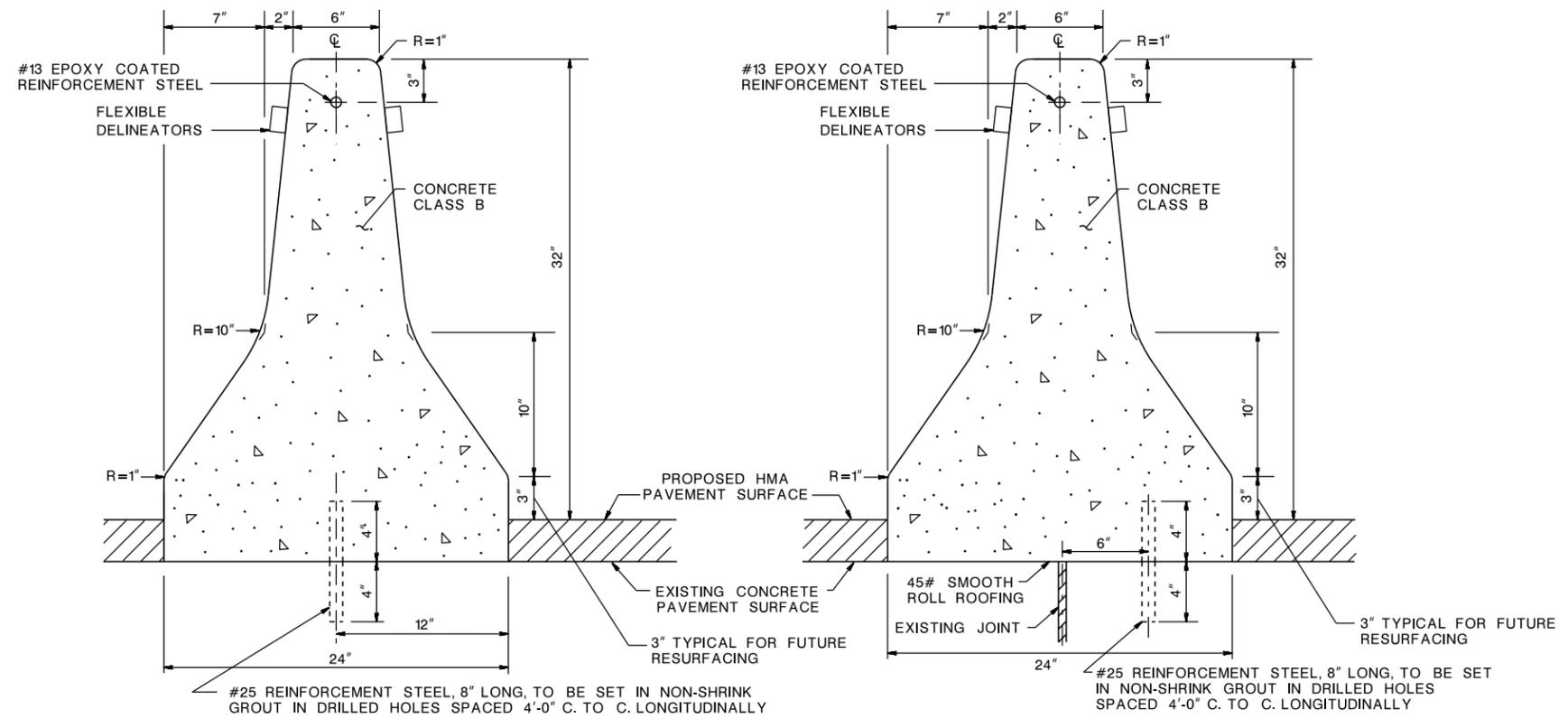
N.T.S.

CD-607-2

NEW JERSEY DEPARTMENT OF TRANSPORTATION

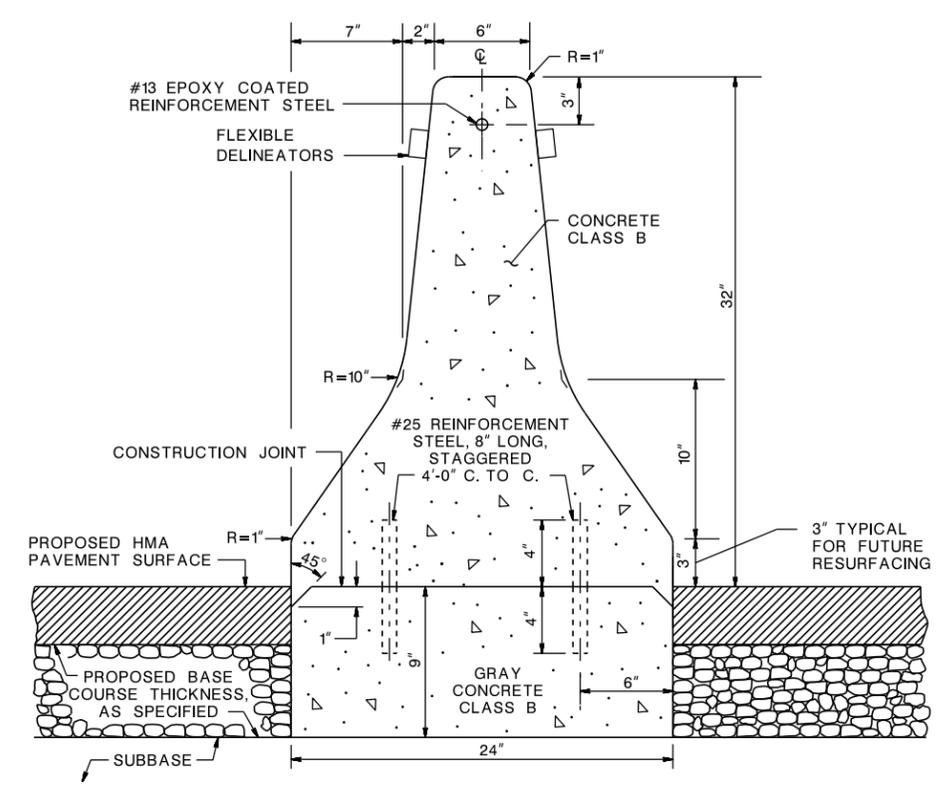
CONSTRUCTION DETAILS

BDC7D-10-TRANSITION WITH GUIDE RAIL ADDED
 BDC7D-05-WASH TITLE ADDED
 BDC6B-03-ORIGINAL SHEET



24" x _____ " CONCRETE BARRIER CURB, DOWELLED

CD-607-3.1

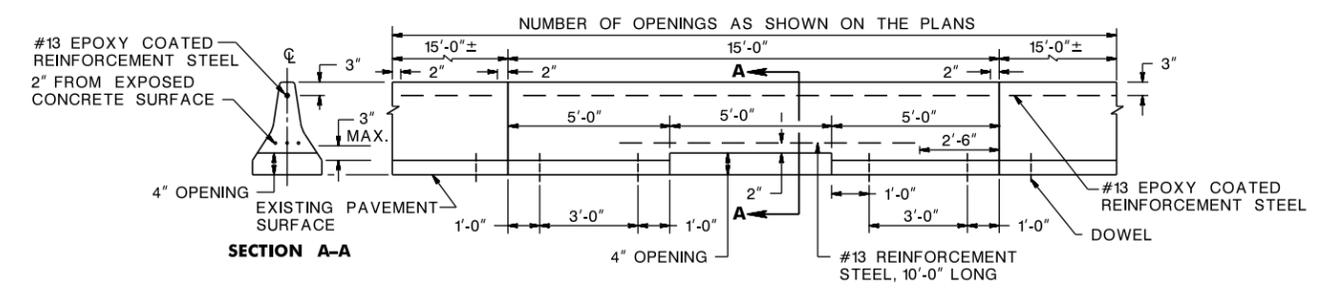


24" x 41" CONCRETE BARRIER CURB

CD-607-3.2

GENERAL NOTES:

- (A) WHERE DOWELLED BARRIER CURB IS TO BE CONSTRUCTED ON EXISTING CONCRETE PAVEMENT OR EXISTING CONCRETE BASE COURSE:
 - (1) INSTALL TRANSVERSE JOINTS IN THE CURBS AT AND DIRECTLY OVER TRANSVERSE JOINTS IN THE PAVEMENT. TREAT DEFINITE CRACKS THROUGH THE PAVEMENT AS JOINTS. ALSO CONSTRUCT ADDITIONAL JOINTS IN THE CURB SO SPACED AS TO MAKE EQUAL SECTIONS NOT OVER 15'-0" IN LENGTH.
 - (2) FILL THE TRANSVERSE JOINTS WITH PREFORMED BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213 SPECIFICATION, RECESSED 1/4" FROM FACES AND TOP OF CURB. THE THICKNESS OF THE TRANSVERSE EXPANSION JOINT FILLER IS AS FOLLOWS:
 - (a) 1/2" FOR IMMEDIATE JOINTS AND JOINTS OVER DEFINITE CRACKS, 1/2" OVER PAVEMENT JOINTS WHERE SLAB LENGTH IS 50 FEET OR LESS, 1" OVER PAVEMENT JOINTS WHERE SLAB LENGTH IS MORE THAN 50 FEET.
 - (b) VARIABLE IN MULTIPLES OF 1/2" BUT NOT LESS THAN THE EXISTING WIDTH OF THE TRANSVERSE JOINTS IN BRIDGES AND JOINTS BETWEEN THE APPROACH SLABS AND BRIDGES.
 - (c) THE THICKNESS OF 1" OR MORE LAYERS OF 1/2" MATERIAL MAY BE GLUED OR OTHERWISE FASTENED TOGETHER BY A MEANS SATISFACTORY TO THE RE. WHERE THE REQUIRED JOINT OPENING EXCEEDS 1", THE CONTRACTOR MAY CONSTRUCT OPEN JOINTS.
 - (3) CLEAN THE SURFACE OF THE EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE AS SPECIFIED IN THE SPECIFICATIONS PRIOR TO THE CONSTRUCTION OF THE CURB THEREON.
- (B) WHERE DOWELLED BARRIER CURB IS TO BE CONSTRUCTED ACROSS A LONGITUDINAL JOINT IN THE EXISTING CONCRETE OR BASE COURSE, OMIT THE DOWELS IN THE SHORTER PORTION OF THE CURB. CONSTRUCT THE CURB IN THIS PORTION OF THE PANEL WITH 45# SMOOTH ROLL ROOFING BETWEEN IT AND THE EXISTING PAVEMENT.
- (C) WHERE BARRIER CURB IS TO BE CONSTRUCTED ON PROPOSED CONCRETE BASE, INSTALL TRANSVERSE JOINTS 1/2" WIDE IN THE BASE 20'-0" APART AND IN THE BARRIER CURB DIRECTLY OVER JOINTS IN THE BASE. FILL THE JOINTS WITH PREFORMED BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213 SPECIFICATION, RECESSED 1/4" FROM FACES AND TOP OF CURB.
- (D) THE FINISHED SURFACE OF THE BARRIER CURB IS TO BE SMOOTH, DENSE UNPITTED AND FREE FROM AIR BUBBLE POCKETS, DEPRESSIONS, AND HONEYCOMBS. IF THE RE DEEMS IT NECESSARY, THE CURB IS TO BE GIVEN A WOOD FLOAT FINISH RUBBED WITH A MIXTURE OF CEMENT, SAND, AND WATER TO OBTAIN THE ABOVE MENTIONED FINISHED SURFACE.
- (E) INSTALL FLEXIBLE DELINEATORS ON BARRIER CURB.
- (F) REINFORCEMENT STEEL IS IN METRIC UNITS.



OPENINGS TO BE CONSTRUCTED IN BARRIER CURB

HMA = HOT MIX ASPHALT

BARRIER CURB

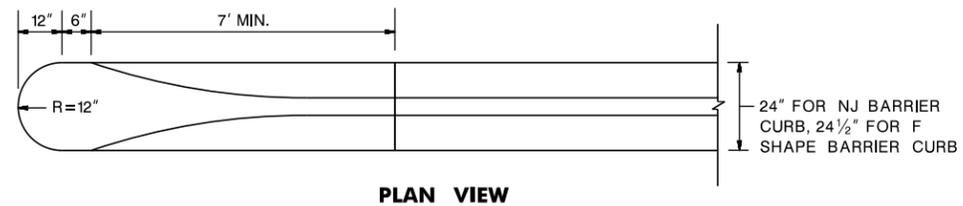
N.T.S.

CD-607-3

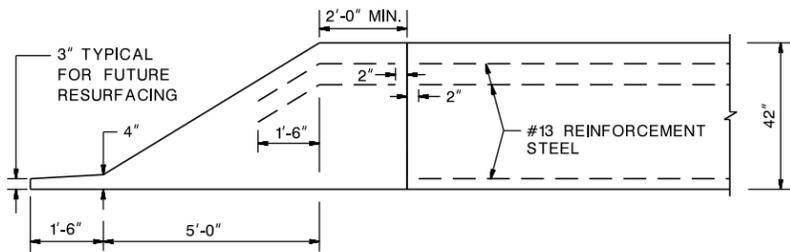
NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

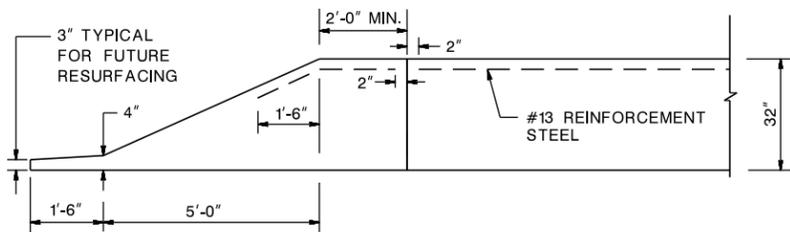
BDCITD-10-CD-607-3.1 & CD-607-3.2 TEXT REVISED
 BDCITD-02-MASH TITLE ADDED
 BDCIBD-05-ORIGINAL SHEET



PLAN VIEW



42" F SHAPE BARRIER CURB TAPERED END

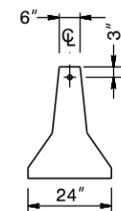
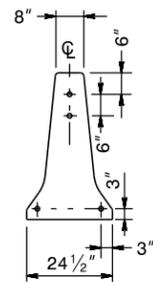


32" NJ BARRIER CURB TAPERED END

NOTES:

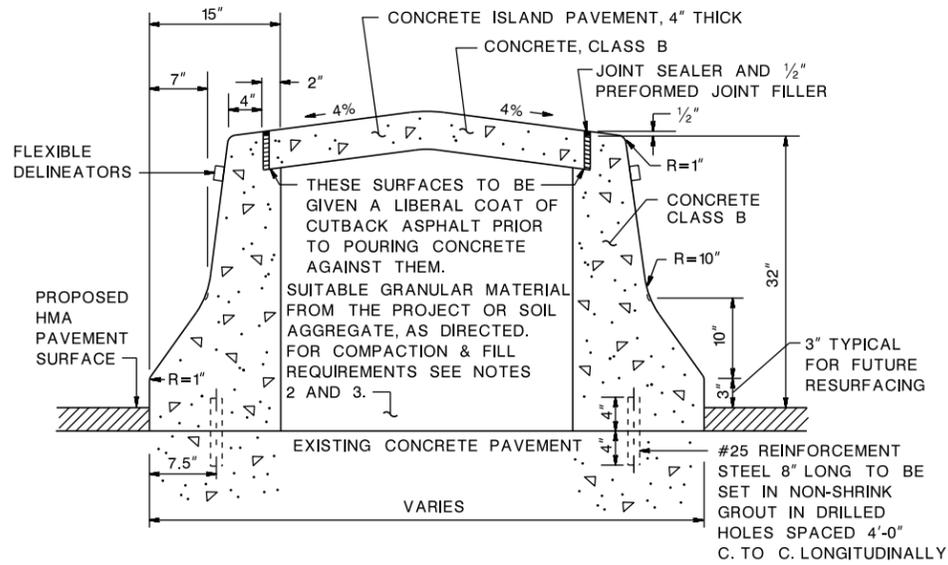
1. THIS DETAIL IS TO BE USED ONLY AT THE TRAILING END OF BARRIER CURB SEPARATING SAME DIRECTION TRAFFIC OR WHERE THE TERMINAL IS BEYOND THE CLEAR ZONE.
2. REINFORCEMENT STEEL IS IN METRIC UNITS.
3. PAYMENT FOR NJ BARRIER CURB TAPERED END WILL BE MADE UNDER ITEM "CONCRETE BARRIER CURB". PAYMENT FOR F SHAPE BARRIER CURB TAPERED END WILL BE MADE UNDER "F SHAPE CONCRETE BARRIER CURB".

BARRIER CURB TAPERED END

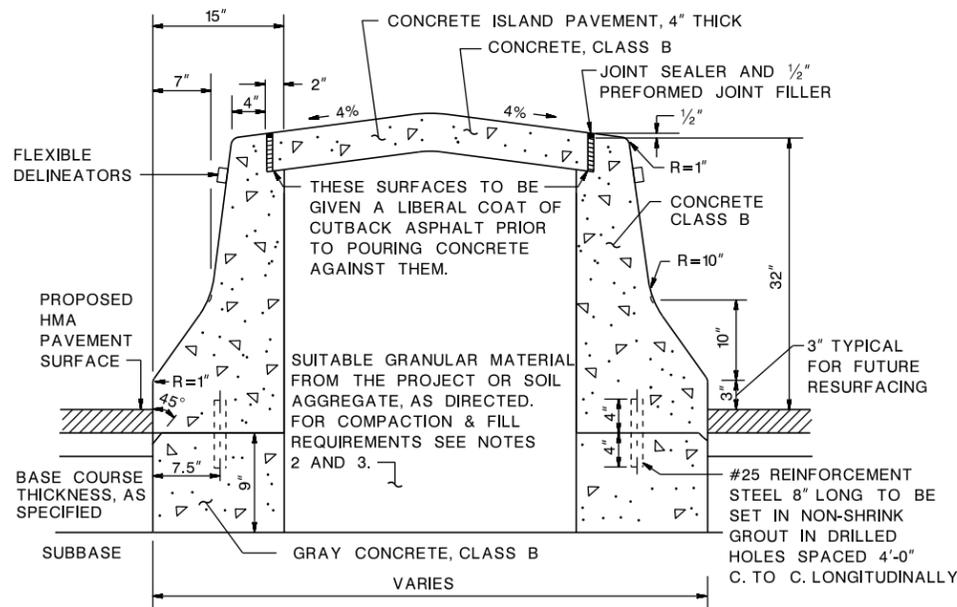


BD07D-02-NJ BARRIER ADDED
BD07D-02-NEW SHEET

CD-607-6.1



15" x VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED

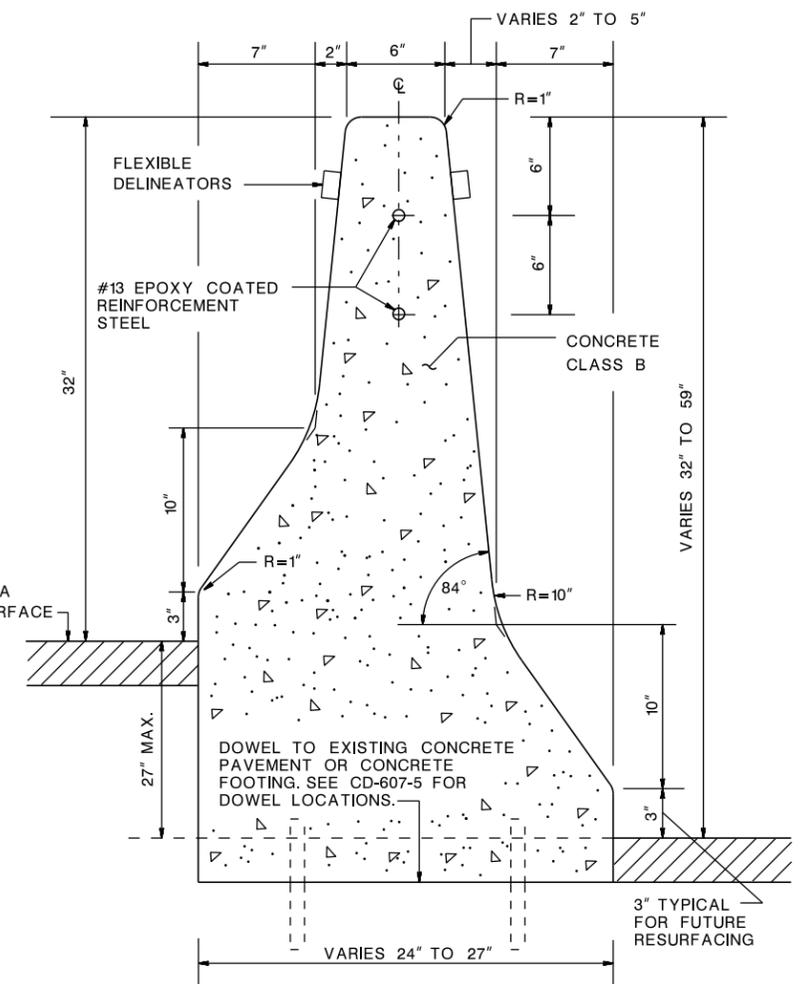


15" x 41" CONCRETE BARRIER CURB

NOTES:

1. SEE GENERAL NOTES APPLYING TO ALL BARRIER CURB CD-607-3.
2. COMPACT ACCORDING TO SUBSECTION 202.03.
3. SHAPE AND COMPACT THE FILL BETWEEN THE CURBS TO A FIRM EVEN SURFACE. REMOVE UNSUITABLE MATERIAL AND REPLACE WITH ACCEPTABLE MATERIAL AND COMPACT.
4. REINFORCEMENT STEEL IS IN METRIC UNITS.
5. HMA = HOT MIX ASPHALT.

MASH TL-3 NJ BARRIER CURB



VARIABLE WIDTH x VARIABLE HEIGHT CONCRETE BARRIER CURB

BARRIER CURB

N.T.S.

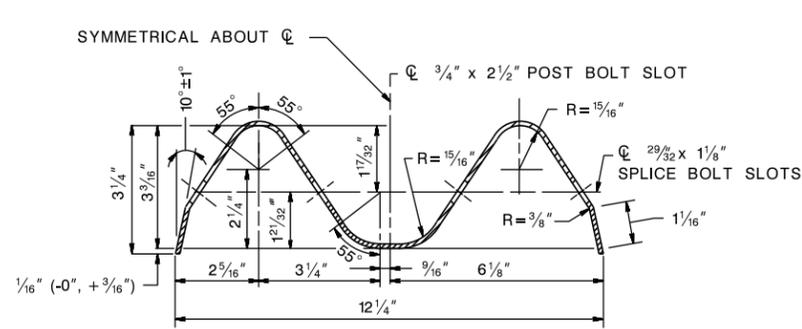
CD-607-6

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

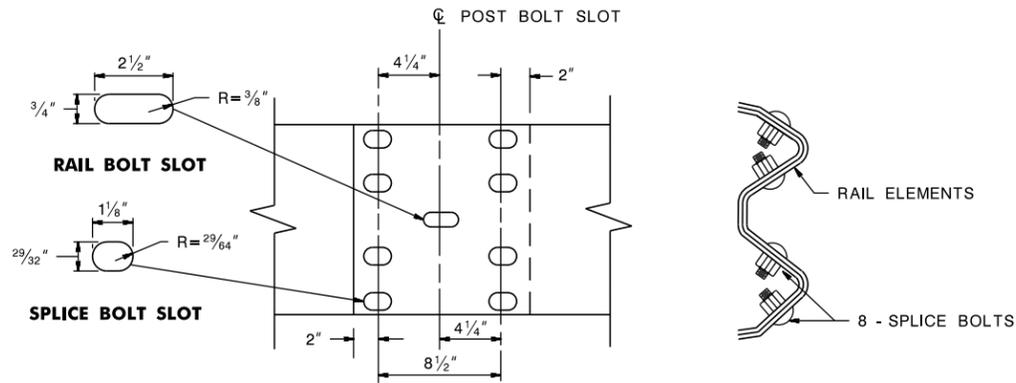
60C
164

CD-607-6.2

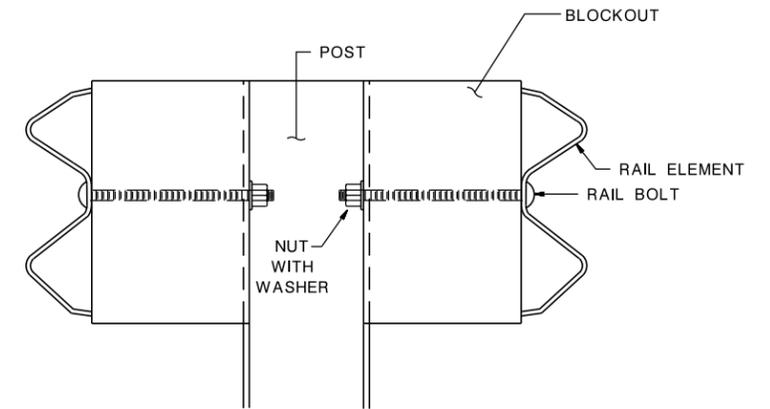


RAIL ELEMENT TO BE SUPPLIED IN LENGTHS OF 13'-6 1/2" OR 26'-0 1/2"

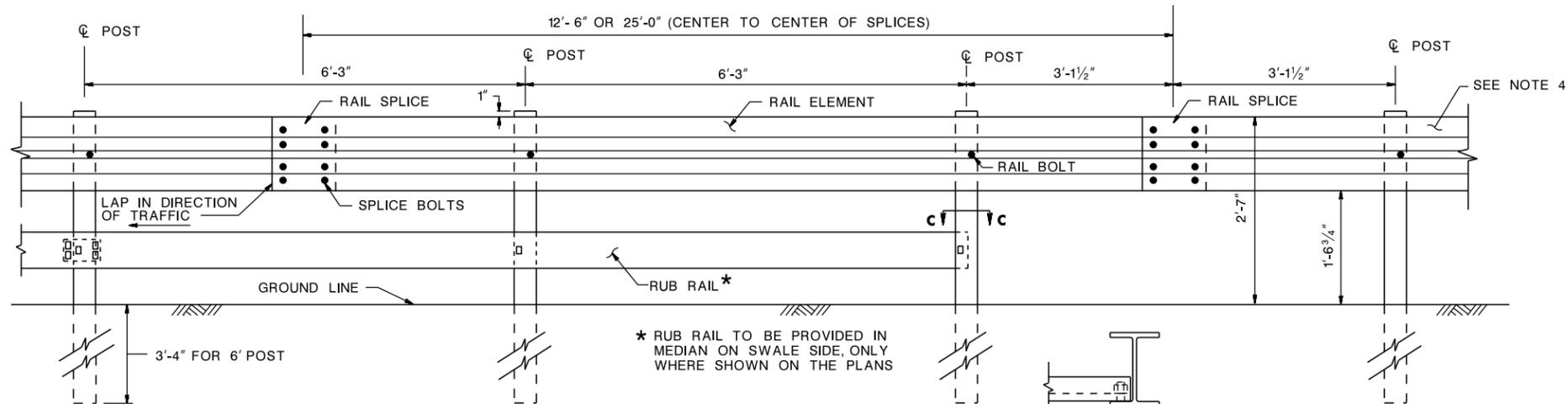
W-BEAM RAIL ELEMENT



RAIL SPLICE

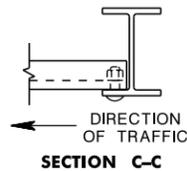


POST ASSEMBLY, DUAL FACED

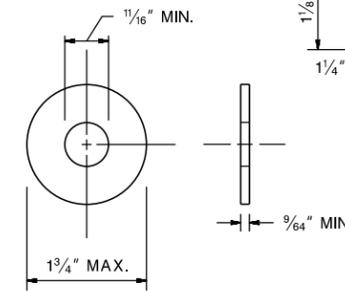


BEAM GUIDE RAIL, DUAL FACED

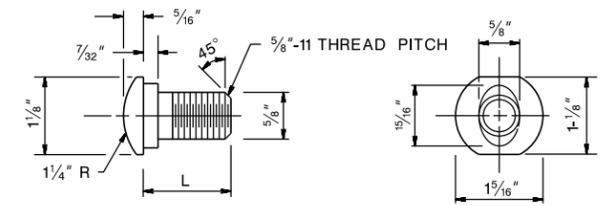
* RUB RAIL TO BE PROVIDED IN MEDIAN ON SWALE SIDE, ONLY WHERE SHOWN ON THE PLANS



SECTION C-C

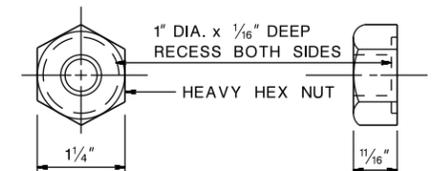


STEEL WASHER



TYPE	L	MIN. THREAD LENGTH
SPLICE	1 1/4"	FULL LENGTH THREAD
RAIL	9 1/2"	1 3/4"

5/8" DIA. BUTTON HEAD BOLT

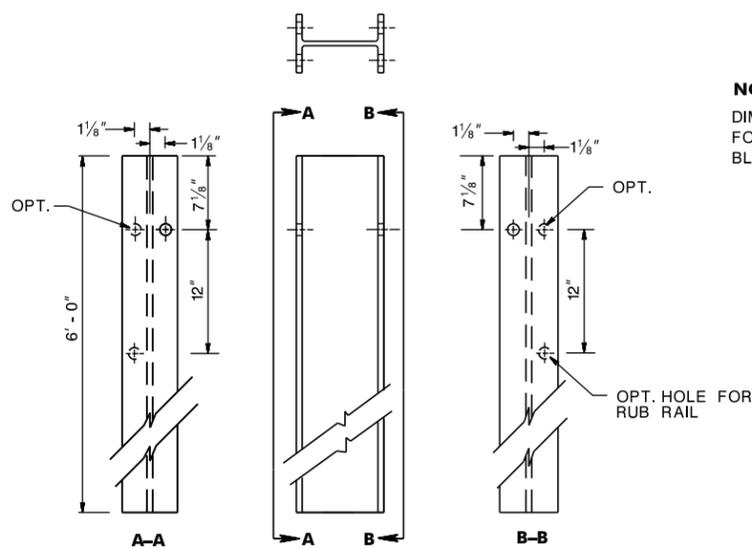


5/8" DIA. RECESS NUT

SPLICE & RAIL NUT & BOLT

BEAM GUIDE RAIL, DUAL FACED (MASH TL-3)

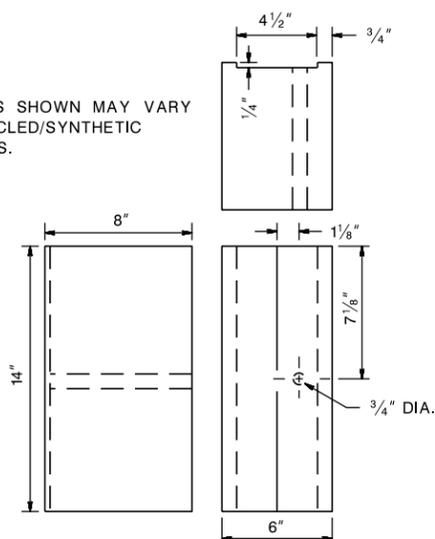
N.T.S.



W6x8.5 OR W6x9 STEEL POST

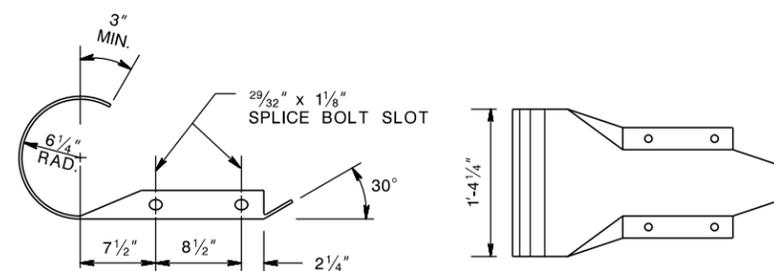
6' POST

NOTE: ALL HOLES 13/16" DIA.



APPROVED RECYCLED/ SYNTHETIC MATERIALS

6"x8"x14" BLOCKOUT



END SECTION (ROUNDED)

NOTES:

1. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
2. FURNISH RAIL ELEMENTS SHOPCURVED, CONCAVE OR CONVEX, FOR RADII BETWEEN 20 AND 150 FEET.
3. WHERE TRANSITIONING TO EXISTING GUIDE RAIL, AN END TERMINAL, OR A CRASH CUSHION MOUNTED AT A HEIGHT OTHER THAN 2'-7", THE VERTICAL TRANSITION TO BE ACCOMPLISHED IN A MINIMUM LENGTH OF 12'-6" FOR EACH 2" OF VERTICAL CHANGE. SEE CD-609-8.
4. INSTALL AN END TERMINAL AS SHOWN ON THE PLANS. USE THE END SECTION (ROUNDED) ON THE END OF THE RAIL ELEMENT WHERE DUAL FACED BEAM GUIDE RAIL ENDS AND SINGLE FACED BEAM GUIDE RAIL BEGINS.

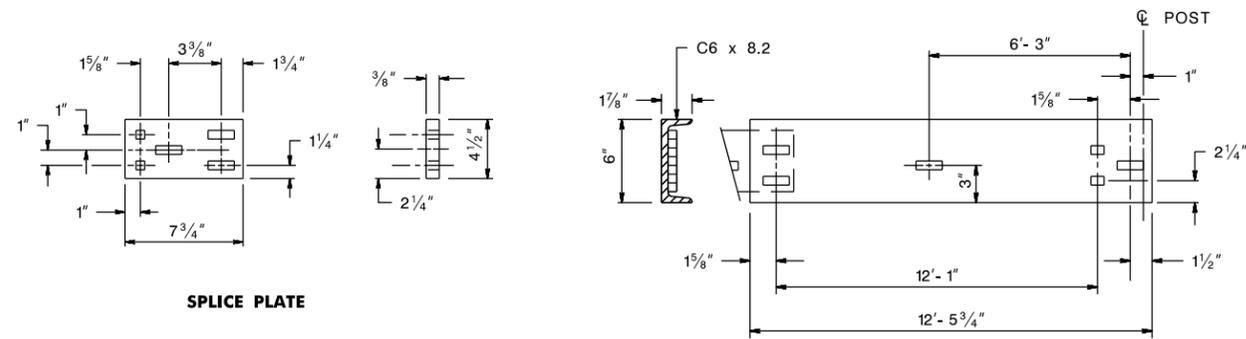
BDC17D-10-RUB RAIL ADDED
BDC17D-02-REVISIONS TO CD-609-2
BDC18D-01-ORIGINAL SHEET

CD-609-2

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

CD-609-2.1

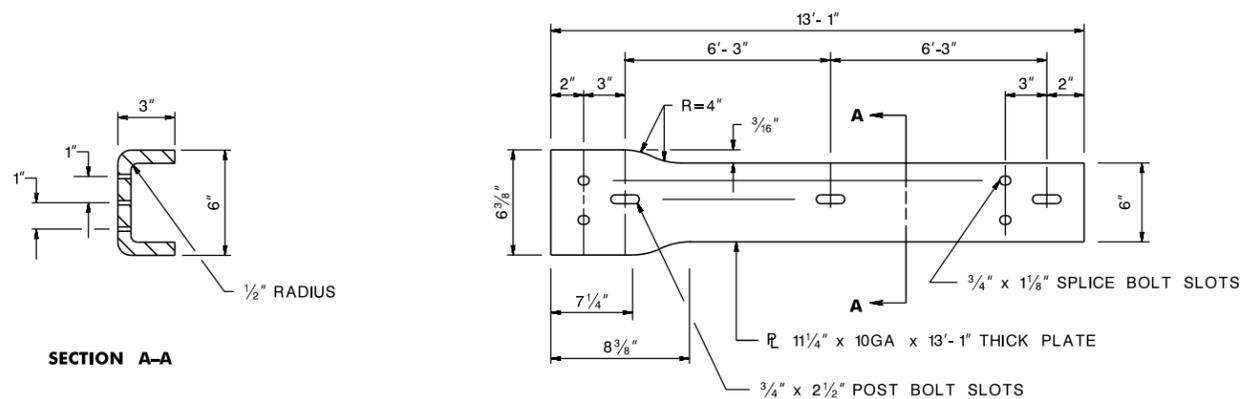


SPLICE PLATE

NOTES:

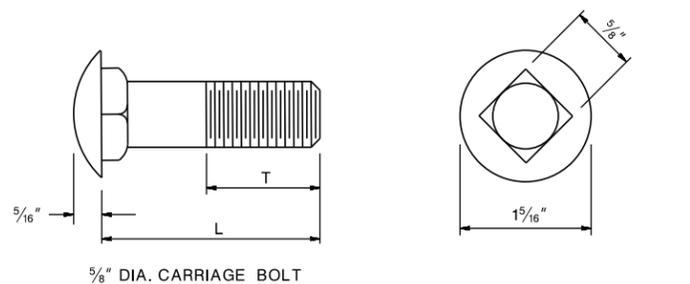
1. RUB RAIL MAY BE SUPPLIED IN LENGTHS OF 12'-5 3/4" OR 24'-11 3/4"
2. ALL RECTANGULAR SLOTS ARE 1 1/16" x 2", ALL SQUARE HOLES ARE 1 1/16"

C6 x 8.2

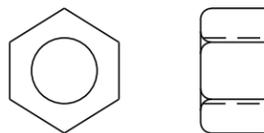


SECTION A-A

BENT PLATE



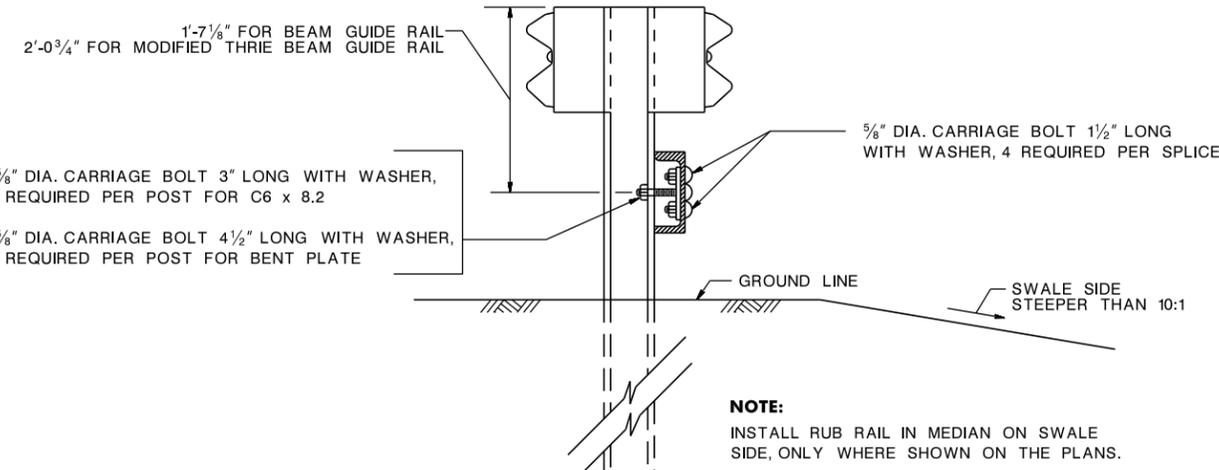
5/8" DIA. CARRIAGE BOLT



5/8" DIA. HEX NUT

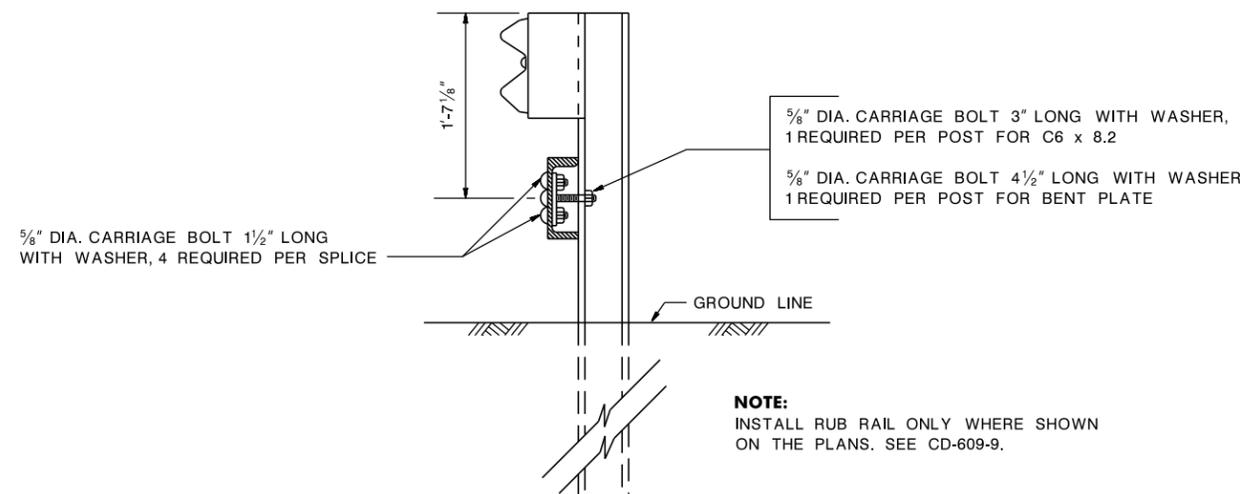
CARRIAGE BOLT DETAIL

L	THREAD LENGTH (T)
1 1/2"	FULL LENGTH
3"	1 1/2" MIN.
4 1/2"	1 1/2" MIN.



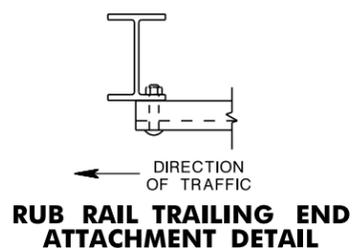
RUB RAIL SECTION IN MEDIAN

NOTE:
INSTALL RUB RAIL IN MEDIAN ON SWALE SIDE, ONLY WHERE SHOWN ON THE PLANS.



RUB RAIL SECTION AT BURIED GUIDE RAIL TERMINAL

NOTE:
INSTALL RUB RAIL ONLY WHERE SHOWN ON THE PLANS. SEE CD-609-9.



RUB RAIL TRAILING END ATTACHMENT DETAIL



RUB RAIL APPROACH END ATTACHMENT DETAIL

NOTE:
USE EITHER C6 x 8.2 OR BENT PLATE FOR RUB RAIL.

RUB RAIL

N.T.S.

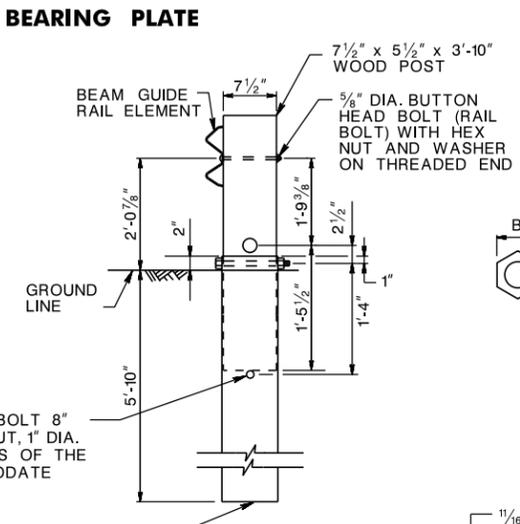
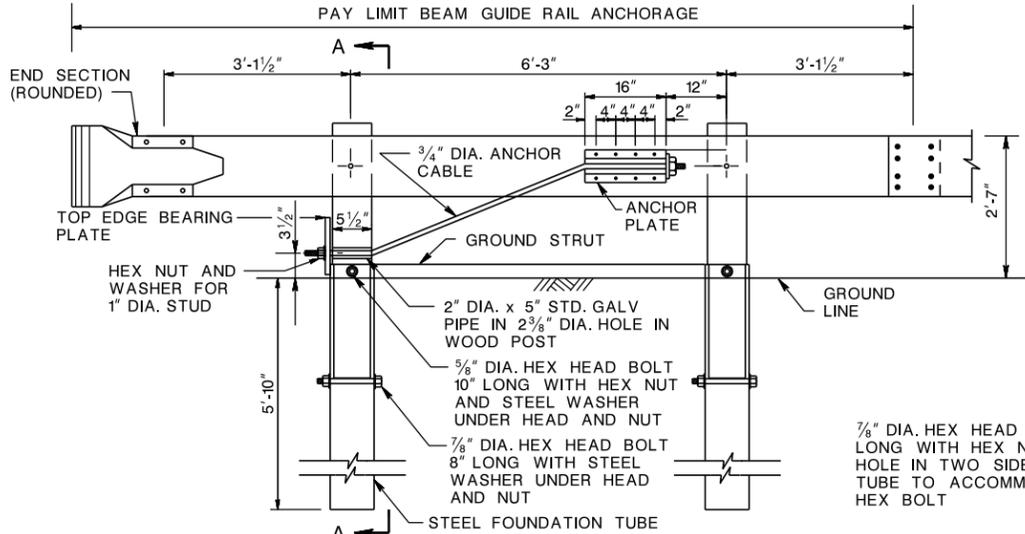
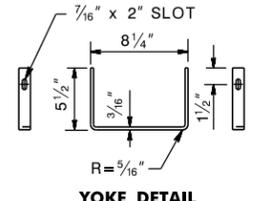
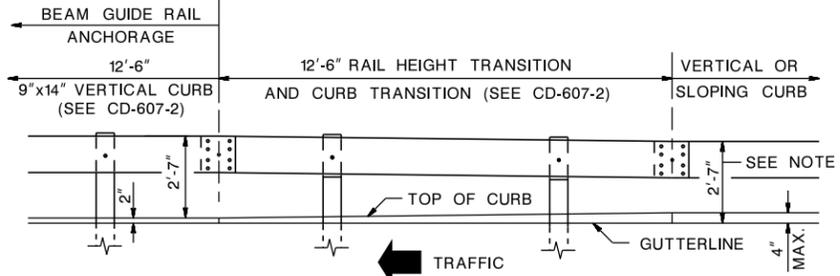
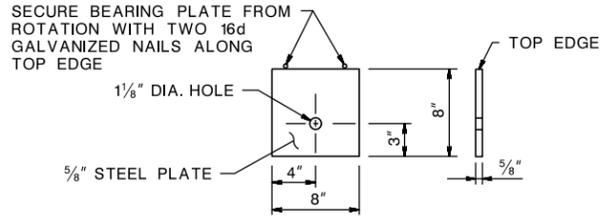
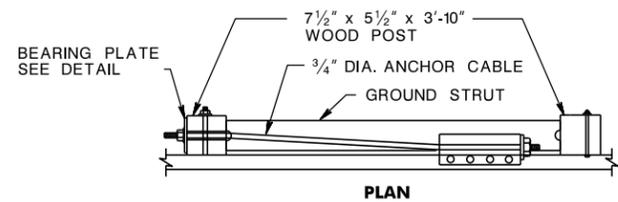
BDCITD-10-MEDIAN SECTION ADDED
 BDCITD-02-REVISIONS TO CD-609-3
 BDCR6D-01-ORIGINAL SHEET

CD-609-3

NEW JERSEY DEPARTMENT OF TRANSPORTATION

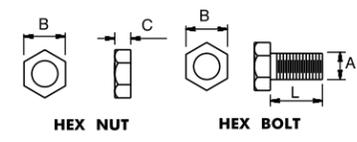
CONSTRUCTION DETAILS

CD-609-3.1



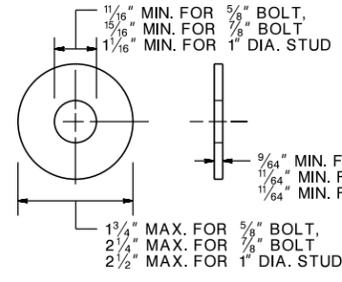
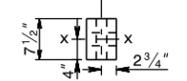
NOTE:
WHERE GUIDE RAIL IS OFFSET 4 FEET OR MORE FROM THE GUTTERLINE (CD-609-8A) RAIL HEIGHT IS MEASURED FROM THE GROUND LINE ALONG THE ENTIRE LENGTH OF THE CURB TRANSITION AND THE GUIDE RAIL ANCHORAGE.

GUIDE RAIL ANCHORAGE WITH CURB

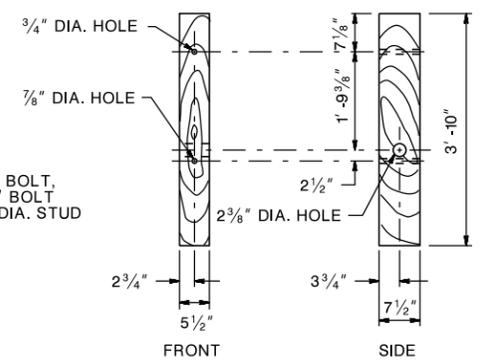


BOLT SIZE	THREAD PITCH	A	B	C	L
5/8"	5/8-11	5/8"	15/16"	35/64"	1 1/2", 10"
7/8"	7/8-9	7/8"	1 5/16"	3/4"	8"

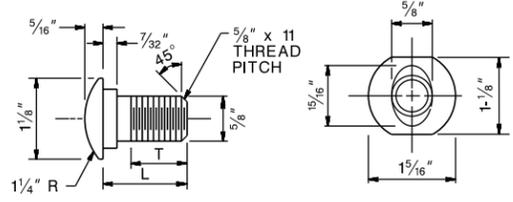
HEX NUT AND BOLT



STEEL WASHER

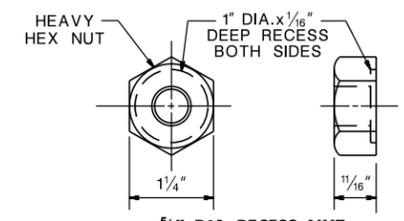


WOOD POST

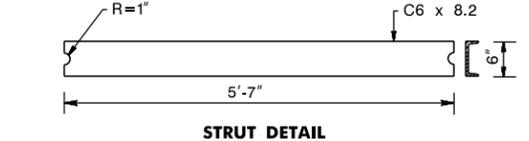


5/8" DIA. BUTTON HEAD BOLT

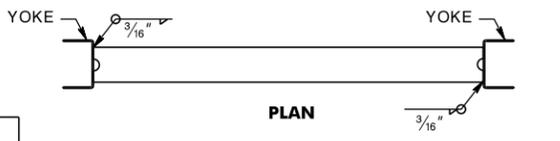
TYPE	L	MIN. THREAD LENGTH (T)
RAIL	10"	4"
SPLICE	1 1/4"	FULL LENGTH THREAD



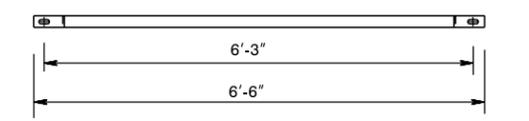
RAIL NUT & BOLT



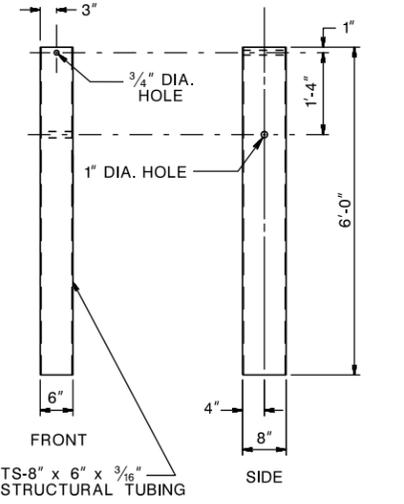
STRUT DETAIL



PLAN



**ELEVATION
GROUND STRUT**



STEEL FOUNDATION TUBE

BEAM GUIDE RAIL ANCHORAGE (MASH TL-3)

N.T.S.

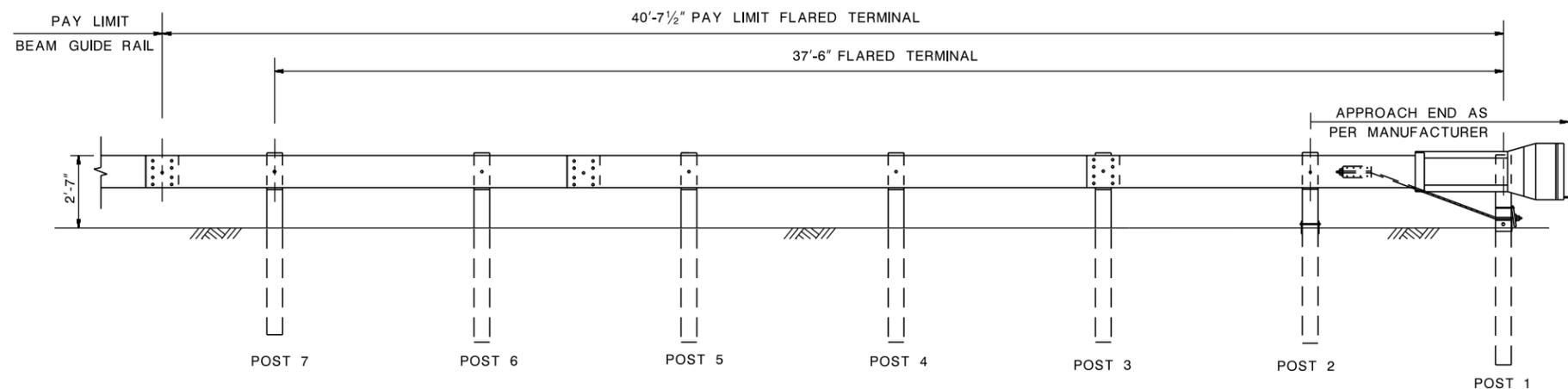
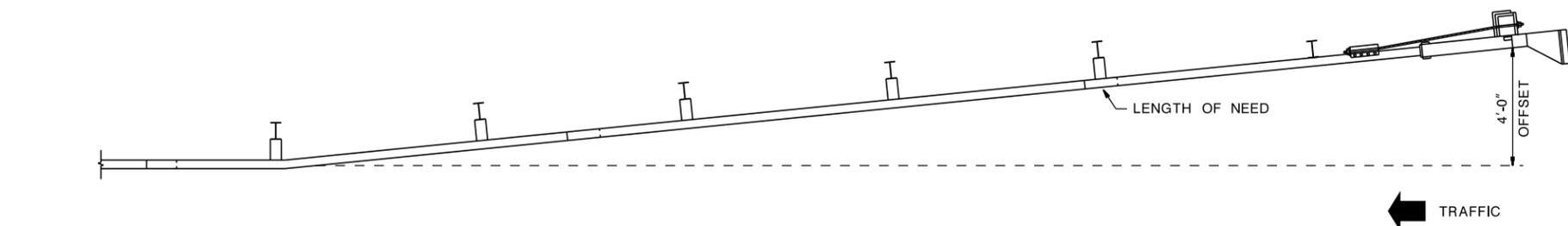
CD-609-4

NEW JERSEY DEPARTMENT OF TRANSPORTATION

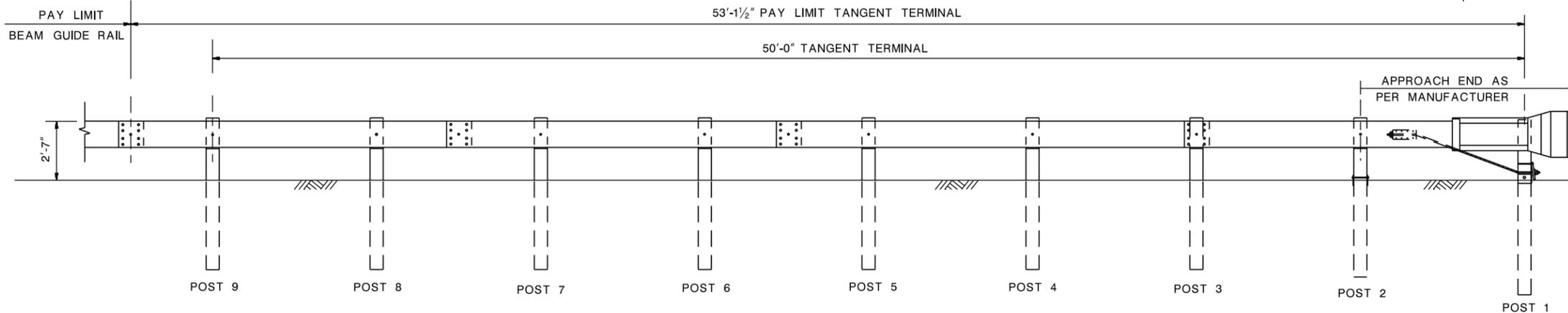
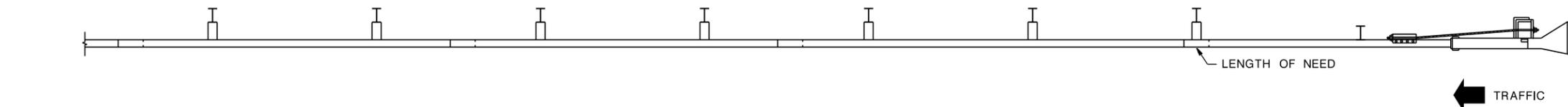
CONSTRUCTION DETAILS

CD-609-4.1

BDC1D-10-ANCHORAGE WITH CURB ADDED
 BDC1D-02-REVISIONS TO CD-609-4
 BDC1D-01-ORIGINAL SHEET



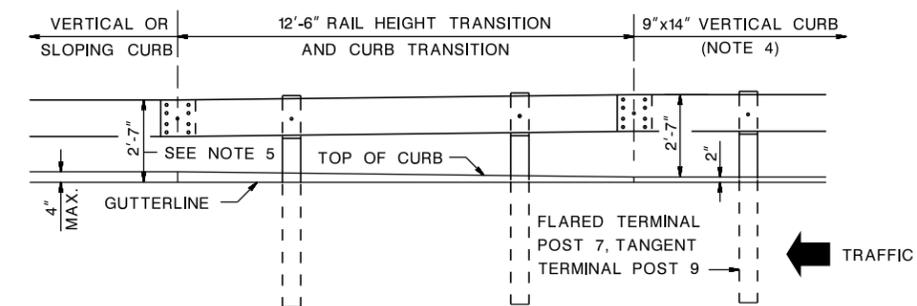
FLARED GUIDE RAIL TERMINAL



TANGENT GUIDE RAIL TERMINAL

NOTES:

1. NUMBER OF POSTS, TYPE OF POST, POST SPACING, FLARE RATE, AND MATERIALS TO BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE DEPARTMENT'S QUALIFIED PRODUCTS LIST.
2. WHERE GUIDE RAIL IS INSTALLED FLUSH WITH THE GUTTER LINE, CONSTRUCT THE TANGENT TERMINAL WITH A STRAIGHT FLARE FOR ITS ENTIRE LENGTH TO PROVIDE A ONE FOOT OFFSET SO THAT THE EXTRUDER HEAD DOES NOT PROTRUDE INTO THE ROADWAY.
3. WHERE THE DOWNSTREAM GUIDE RAIL IS ON A HORIZONTAL CURVE, CONSTRUCT THE FLARED OR TANGENT TERMINAL IN A STRAIGHT LINE AS SHOWN ON THIS DETAIL (DO NOT FOLLOW THE HORIZONTAL CURVE).
4. 9"x14" CONCRETE VERTICAL CURB SHALL CONTINUE FOR THE ENTIRE LENGTH OF THE TERMINAL AND FOR A MINIMUM OF 75 FEET IN ADVANCE OF POST #1. SEE CD-607-2 FOR CURB TRANSITION DETAILS.
5. WHERE GUIDE RAIL IS OFFSET 4 FEET OR MORE FROM THE GUTTERLINE (CD-609-8A) RAIL HEIGHT IS MEASURED FROM THE GROUND LINE ALONG THE ENTIRE LENGTH OF THE CURB TRANSITION AND THE FLARED OR TANGENT TERMINAL.



FLARED OR TANGENT TERMINAL WITH CURB

FLARED GUIDE RAIL TERMINAL AND TANGENT GUIDE RAIL TERMINAL (MASH TL-3)

N.T.S.

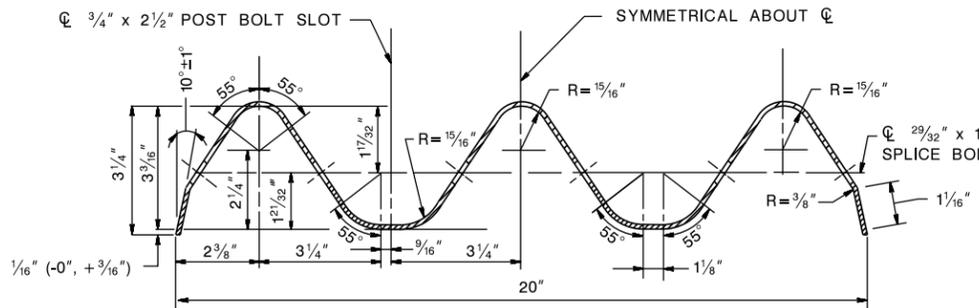
BDC17D-10-TERMINAL WITH CURB ADDED
 BDC17D-02-REVISIONS TO CD-609-5
 BDC16D-01-ORIGINAL SHEET

CD-609-5

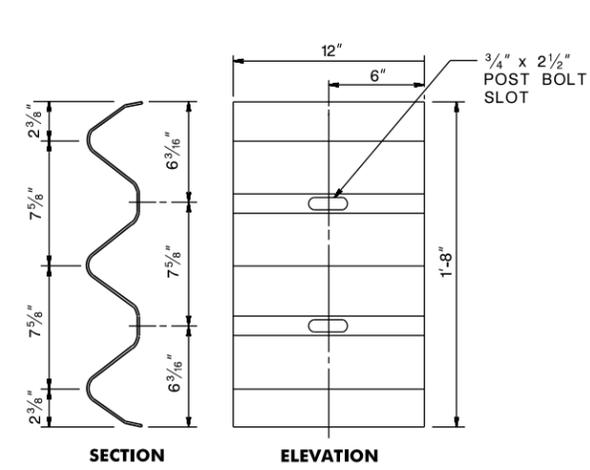
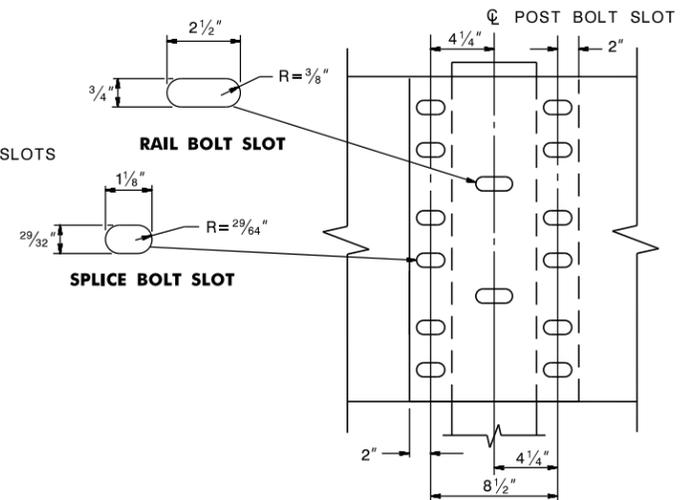
NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

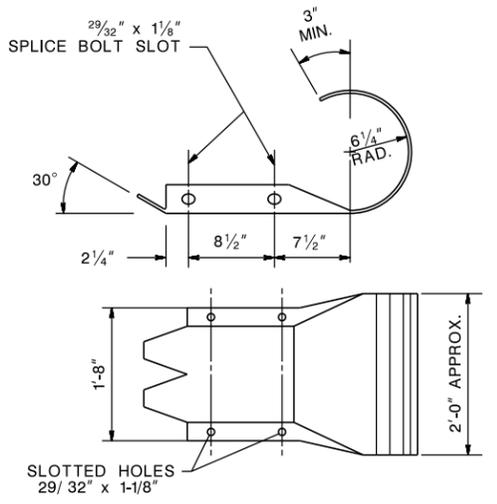
CD-609-5.1



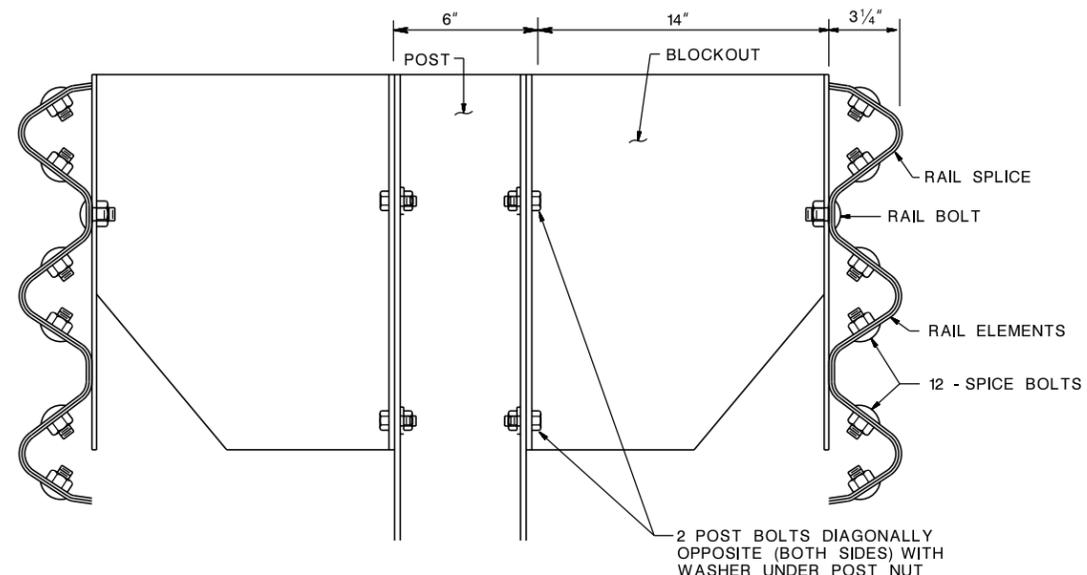
RAIL ELEMENT TO BE SUPPLIED IN LENGTHS OF 13'-6 1/2" OR 26'-0 1/2"
THRIE BEAM RAIL ELEMENT AND BACKUP PLATE



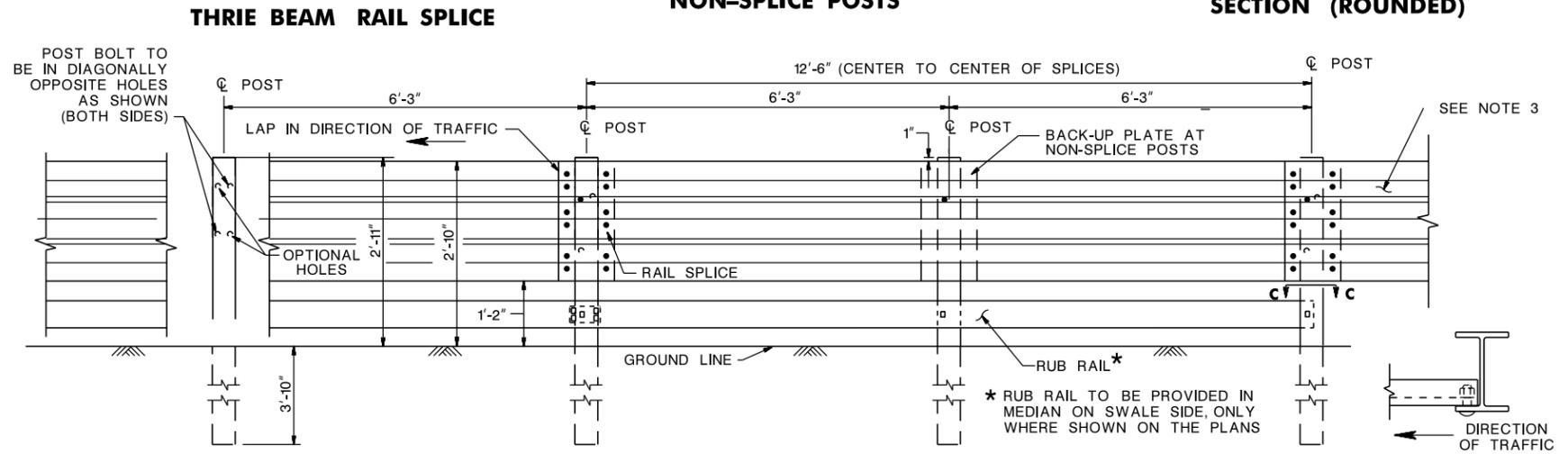
BACK-UP PLATE AT NON-SPLICE POSTS



THRIE BEAM END SECTION (ROUNDED)

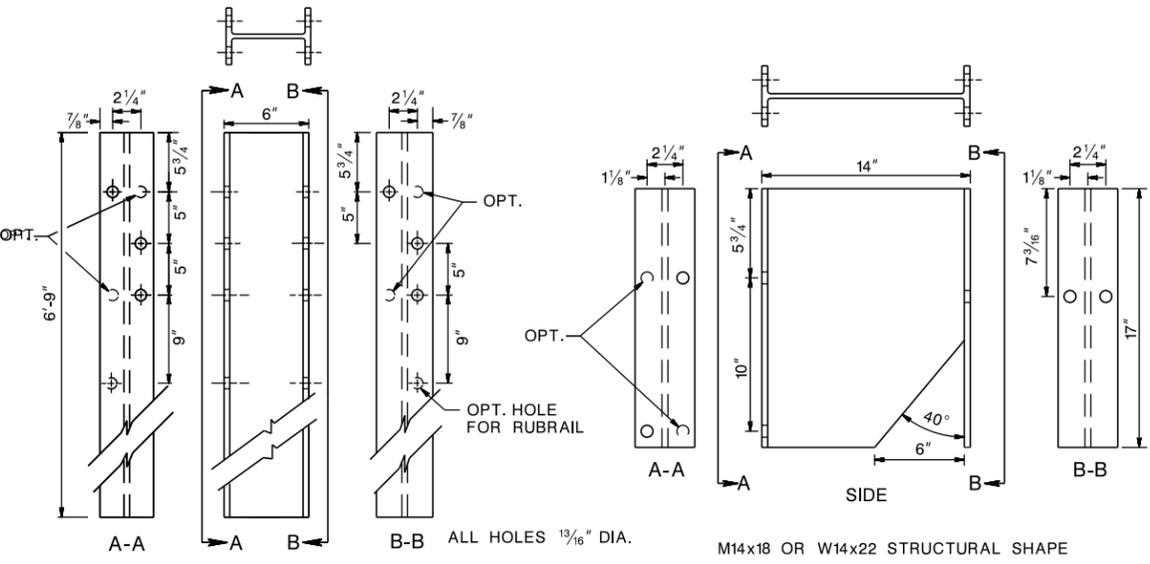


POST ASSEMBLY



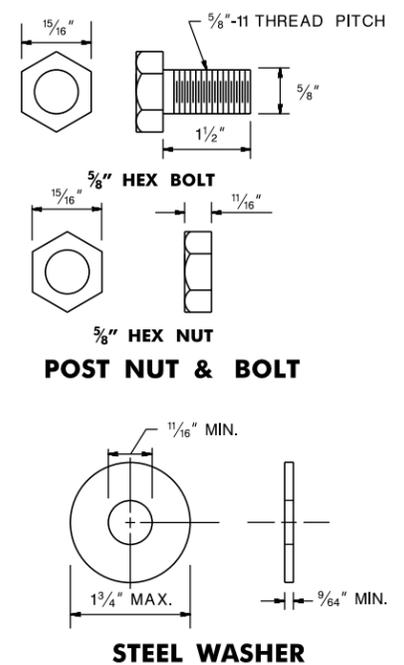
MODIFIED THRIE BEAM GUIDE RAIL

- NOTES:**
- ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
 - RAIL ELEMENTS TO BE FURNISHED SHOPCURVED, CONCAVE OR CONVEX, FOR RADII BETWEEN 20 FEET AND 150 FEET.
 - SEE CD-609-7 FOR TRANSITION TO DUAL FACED BEAM GUIDE RAIL AND AN END TERMINAL. USE THE THRIE BEAM END SECTION (ROUNDED) ON THE END OF THE RAIL ELEMENT WHERE DUAL FACED MODIFIED THRIE BEAM GUIDE RAIL ENDS AND SINGLE FACED MODIFIED THRIE BEAM GUIDE RAIL BEGINS.



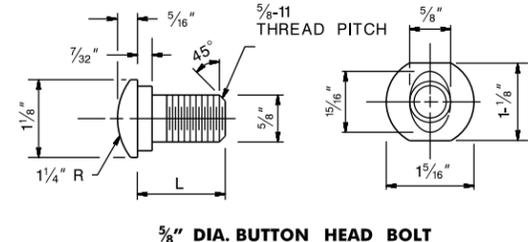
W6x8.5 OR W6x9 STEEL POST
6'-9" POST

M14x18 OR W14x22 STRUCTURAL SHAPE
14" BLOCKOUT



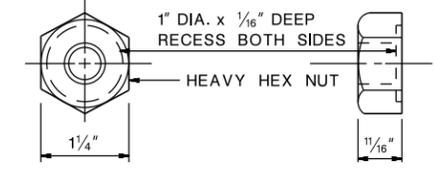
POST NUT & BOLT

STEEL WASHER



5/8" DIA. BUTTON HEAD BOLT

TYPE	L	MIN. THREAD LENGTH
SPLICE	1 1/4"	FULL LENGTH THREAD
RAIL	2"	FULL LENGTH THREAD



5/8" RECESS NUT

SPLICE & RAIL NUT & BOLT

MODIFIED THRIE BEAM GUIDE RAIL, DUAL FACED (NCHRP 350 TL-4)

N.T.S.

CD-609-19

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

BDC7D-10-RUB RAIL ADDED
 BDC7D-02-REVISIONS TO CD-609-19
 BDC6D-01-ORIGINAL SHEET