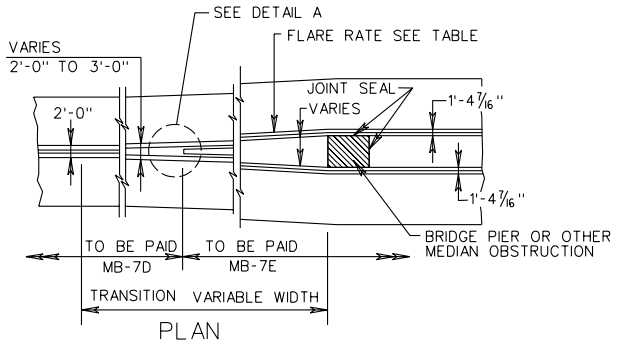
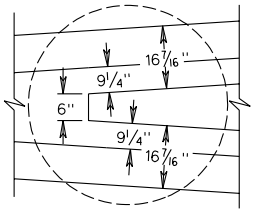
REVISED ON 1/04 REVISED ON 7/05

MB-7D,7E,7F



PLAN

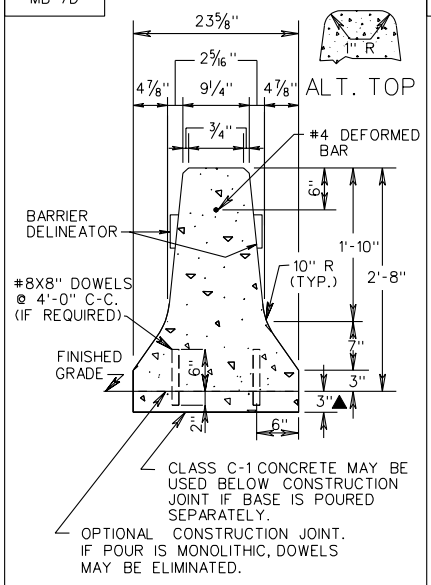
* SUGGESTED MAXIMUM FLARE RATE FOR RIGID BARRIER SYSTEMS.



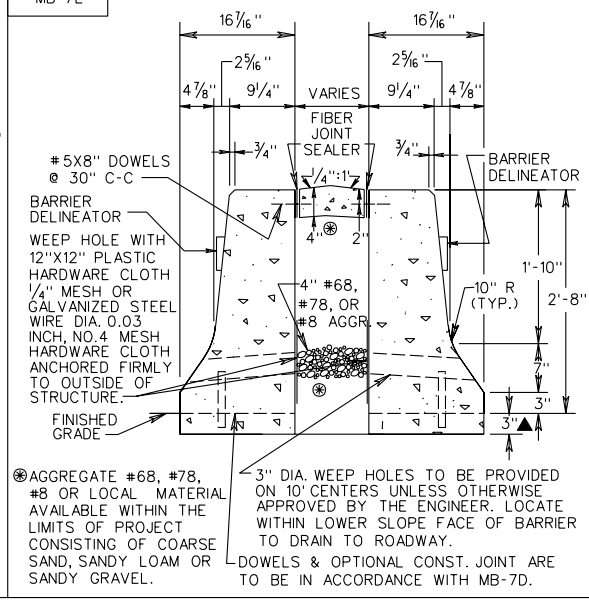
DETAIL A

FLARE RATES			
DESIGN SPEED	INSIDE SHY LINE		BEYOND SHY LINE
MPH	SHY LINE LS	FLARE RATE	FLARE RATE
70	10'	30:1	20:1 *
60	8'	26:1	17:1 *
50	6.5'	21:1	14:1 *
40	5'	17:1	11:1 *
30	3.5'	13:1	8:1 *

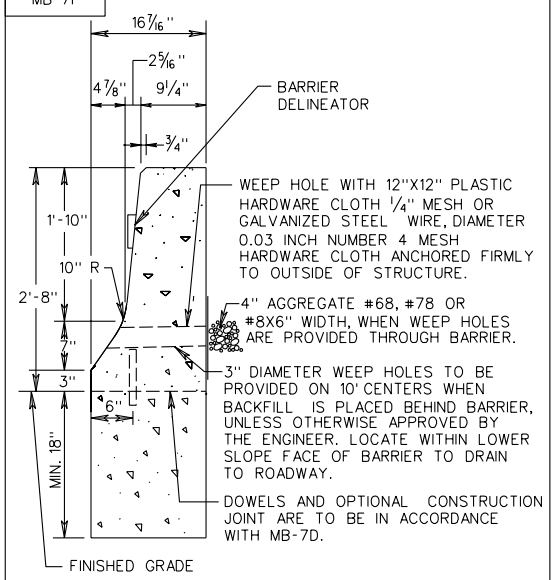
MB-7D



MB-7E



MB-7F



NOTES:

IF THE CONTRACTOR ELECTS TO USE THE OPTIONAL CONSTRUCTION JOINT, TRANSVERSE JOINTS FOR CRACK CONTROL AND EXPANSION JOINTS ARE TO BE PROVIDED IN BOTH FOOTING AND BARRIER AT THE SAME LOCATION.

TRANSVERSE JOINTS ARE TO COINCIDE WITH JOINTS IN ADJACENT PAVEMENT WITH A MAXIMUM SPACING OF 20 FEET C-C.

CONCRETE MEDIAN BARRIER MAY BE PRECAST, CAST IN PLACE OR SLIP-FORMED. FOR PRECAST DESIGN SEE STANDARD MB-7D PC.

HORIZONTAL REINFORCING STEEL BARS ARE TO BE SEPARATED AT ALL EXPANSION AND CONTRACTION JOINTS. A 2" CONCRETE COVER IS REQUIRED OVER THE ENDS OF THE REINFORCING STEEL.

BARRIER DELINEATOR SIZE, COLOR, AND SPACING TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

COST OF DELINEATOR TO BE INCLUDED IN THE PRICE BID FOR MEDIAN BARRIER.

REFLECTIVE SURFACE OF BARRIER DELINEATOR IN ALL INSTANCES, TO BE FACING ONCOMING TRAFFIC.

ALTERNATE TOP DESIGN SHOWN ON MB-7D. MAY ALSO BE APPLIED TO MB-7E AND MB-7F.

CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.

▲ DEPTH OF CONCRETE BASE MAY BE EXTENDED AT THE CONTRACTOR'S OPTION TO COINCIDE WITH BOTTOM OF PAVEMENT COURSE IN WHICH BASE TERMINATES; HOWEVER, THE COST OF ADDITIONAL CONCRETE SHALL BE INCLUDED IN UNIT PRICE BID PER LINEAR FOOT OF BARRIER.

SPECIFICATION REFERENCE
105 502

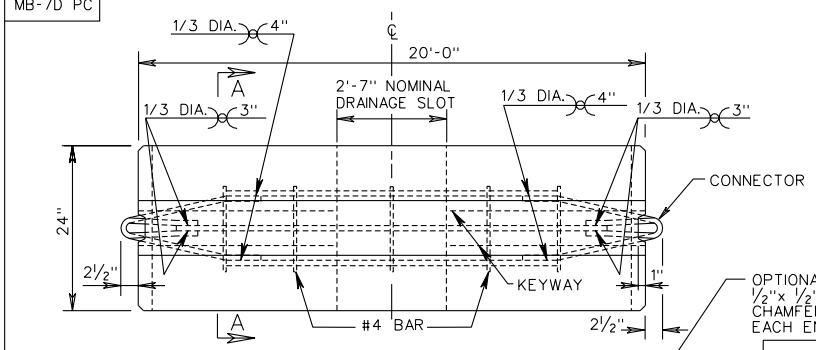
CONCRETE MEDIAN BARRIER

VIRGINIA DEPARTMENT OF TRANSPORTATION

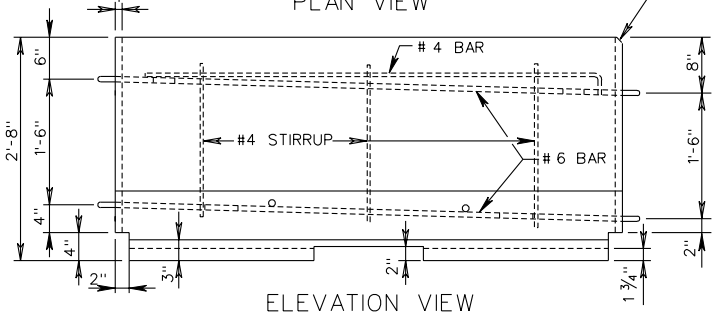
501.44

REVISED ON 1/04 REVISED ON 7/05

MB-7D PC



PLAN VIEW



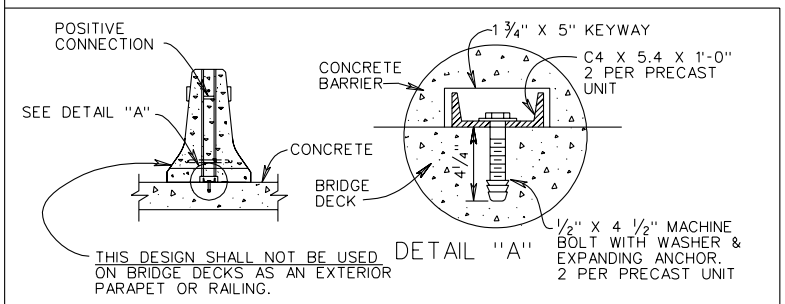
ELEVATION VIEW

FLARE RATES *			
DESIGN SPEED	INSIDE SHY LINE		BEYOND SHY LINE
MPH	SHY LINE LS	FLARE RATE	FLARE RATE
70	10'	30:1	20:1
60	8'	26:1	17:1
50	6.5'	21:1	14:1
40	5'	17:1	11:1
30	3.5	13:1	8:1

*SUGGESTED MAXIMUM FLARED RATE FOR RIGID BARRIER SYSTEMS.

NOTES:

1. FOR POSITIVE CONNECTION DETAILS AND DIMENSIONS SEE SHEETS 501.59 - 501.61.
2. AT THE OPTION OF THE MANUFACTURER, ADDITIONAL REINFORCING MAY BE ADDED TO THE PRECAST CONCRETE BARRIER FOR HANDLING.
3. CONCRETE SHALL BE 4000 P.S.I. MINIMUM.
4. BARRIER DELINEATOR SIZE, COLOR AND SPACING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
5. COST OF DELINEATOR SHALL BE INCLUDED IN THE PRICE BID FOR TRAFFIC BARRIER SERVICE.
6. OTHER PRECAST TRAFFIC BARRIER SERVICE CONCRETE DESIGNS THAT MEET NCHRP 350 TEST REQUIREMENTS AND HAVE BEEN ACCEPTED BY VDOT AS AN ACCEPTABLE ALTERNATE TO THE STANDARD DESIGN MAY BE SUBSTITUTED.
7. A 1" RADIUS MAY BE USED AS AN ALTERNATE FOR THE ¾" CHAMFER.
8. BARRIER DELINEATOR REFLECTIVE SURFACE IN ALL INSTANCES SHALL BE FACING ONCOMING TRAFFIC.
9. BARRIER VERTICAL PANELS SHALL BE SPACED IN ACCORDANCE WITH VIRGINIA WORK AREA PROTECTION MANUAL.



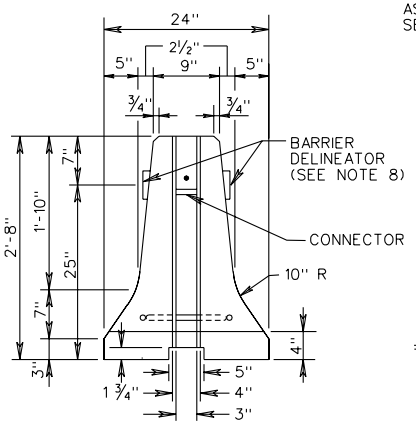
DETAIL "A"

NOTE:
DETAIL A SHALL BE USED ON INSTALLATIONS SEPARATING TRAFFIC LANES IN OPPOSITE DIRECTIONS OR ON SURFACES SUPER-ELEVATED AT A RATE GREATER THAN ¾" PER FOOT.

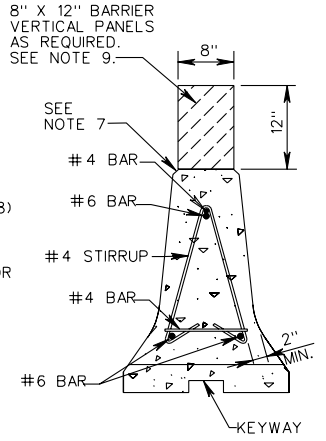
NOTE:
MACHINE BOLTS CENTERED ON CHANNEL SECTIONS SHALL BE PLACED A MIN. OF 2'-0" FROM EACH END OF THE PRECAST UNIT AND SHALL NOT CONFLICT WITH BRIDGE EXPANSION JOINTS.

DETAIL FOR TEMPORARY INSTALLATION ON BRIDGE DECK

SHEET 1 OF 2



END VIEW



SECTION A-A

PRECAST TRAFFIC BARRIER SERVICE CONCRETE

VIRGINIA DEPARTMENT OF TRANSPORTATION

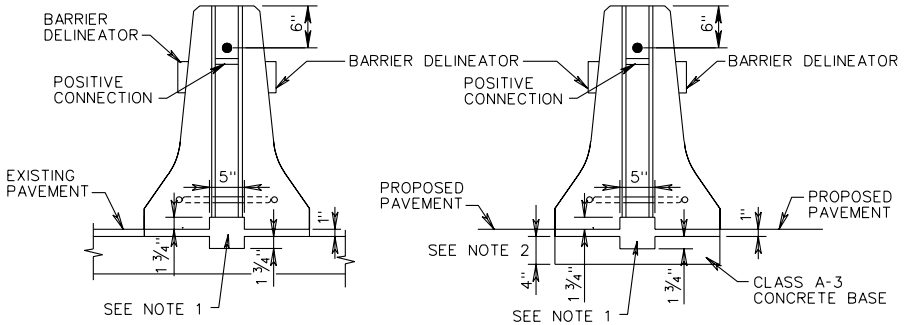
SPECIFICATION REFERENCE

105
512

501.45

REVISED ON 7/05

MB-7D PC



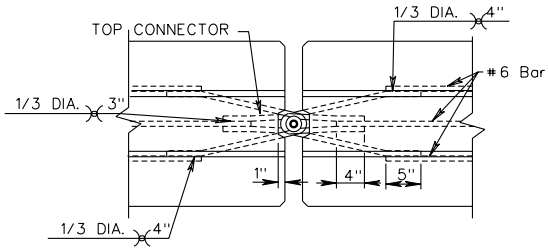
DETAIL A
(EXISTING PAVEMENT LOCATION)

DETAIL B
(PROPOSED PAVEMENT LOCATION)

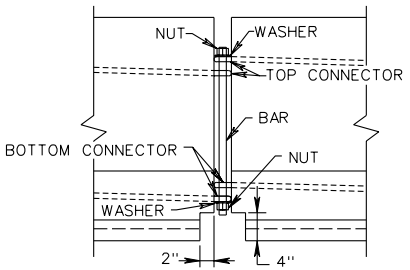
PERMANENT INSTALLATION

NOTES:

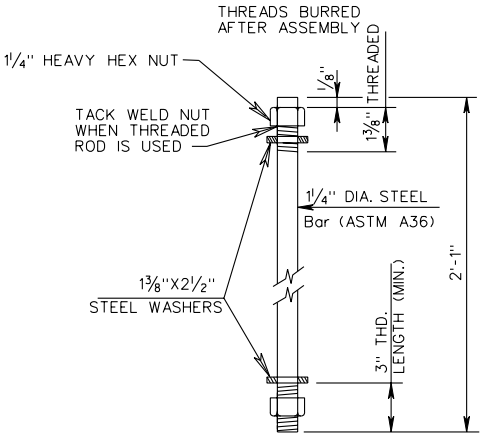
1. HIGH STRENGTH GROUT OR MORTAR SHALL BE IN ACCORDANCE WITH SECTION 218 OF THE SPECIFICATIONS.
2. 4" MIN. OR VARIABLE TO COINCIDE WITH SUBGRADE COURSE.
3. WHEN USED AS MEDIAN BARRIER IN A PERMANENT LOCATION, DRAINAGE SLOTS WILL BE COMPLETELY FILLED AND SEALED WITH MORTAR OR GROUT UNLESS UNIT WILL BE LOCATED OVER MEDIAN DRAINAGE STRUCTURE.
4. BARRIER DELINEATOR SIZE, COLOR, AND SPACING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
5. COST OF DELINEATOR TO BE INCLUDED IN THE PRICE BID FOR MEDIAN BARRIER.
6. REFLECTIVE SURFACE OF BARRIER DELINEATOR IN ALL INSTANCES SHALL BE FACING ONCOMING TRAFFIC.
7. PIN AND CONNECTORS SHALL BE ASTM-A36. REINFORCING STEEL BARS SHALL BE ASTM A 615 GRADE 60. ONE CONNECTOR PIN ASSEMBLY WITH EACH BARRIER SECTION.



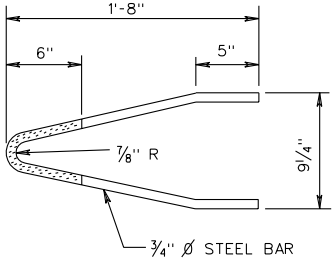
PLAN OF CONNECTION



ELEVATION OF CONNECTION

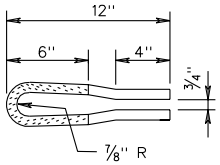


CONNECTOR PIN ASSEMBLY
GALVANIZE AFTER FABRICATION

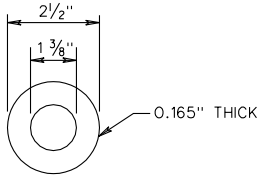


BOTTOM CONNECTOR
GALVANIZE AFTER FORMING

NOTE: ENTIRE CONNECTOR MAY BE GALVANIZED.



TOP CONNECTOR



PLAIN GALVANIZED STEEL WASHER FOR 1¼" PIN

SHEET 2 OF 2

SPECIFICATION REFERENCE
105 512

PRECAST TRAFFIC BARRIER SERVICE CONCRETE

VIRGINIA DEPARTMENT OF TRANSPORTATION

501.46