

SECTION 200

CURBS, MEDIANS
&
ENTRANCE GUTTERS

STANDARD

THIS PAGE INTENTIONALLY LEFT BLANK



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

TITLE

SPECIFICATION
REFERENCE

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

STANDARD	TITLE	PAGE
CG-2	STANDARD 6" CURB	201.01
CG-3	STANDARD 4" CURB	201.02
CG-6	COMBINATION 6" CURB AND GUTTER	201.03
CG-7	COMBINATION 4" CURB AND GUTTER	201.04
MC-3, 3A	ASPHALT CONCRETE CURB AND MEDIAN (FOR TEMPORARY OR PERMANENT INSTALLATION)	201.05
MC-3B, 3C	ASPHALT CONCRETE CURB AND MEDIAN (FOR TEMPORARY OR PERMANENT INSTALLATION)	201.06
	ASPHALT CONCRETE CURB (ASPHALT BACKUP MATERIAL INSTALLATION)	201.07
MC-4	ASPHALT PAVING UNDER GUARDRAIL	201.08
MC-1	CONCRETE MEDIAN CURB	202.01
MS-1	STANDARD SOLID CONCRETE RAISED MEDIAN STRIP	202.02
MS-1A	STANDARD SOLID CONCRETE RAISED MEDIAN STRIP	202.03
MS-2	STANDARD RAISED GRASS MEDIAN STRIP	202.04
MS-4	STANDARD RAISED ASPHALT MEDIAN (WITH P.C. CONCRETE CURB)	202.05
CG-9A	STANDARD ENTRANCE GUTTER WITH FLARED OPENING (FOR USE ACROSS SIDEWALK)	203.01
CG-9B	STANDARD ENTRANCE GUTTER (FOR USE WITH UNPAVED SPACE BETWEEN CURB AND GUTTER)	203.02
CG-9D	STANDARD ENTRANCE GUTTER	203.03
CG-11	METHOD OF TREATMENT (CONNECTION FOR STREET INTERSECTIONS)	203.04
	PAGES 203.05 - 203.09 NOT USED	
CG-13	COMMERCIAL ENTRANCE (HEAVY TRUCK TRAFFIC ANTICIPATED)	203.10
CG-12	CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES)	204.01
	CG-12 DETECTABLE WARNING SURFACE (TYPE A, PERPENDICULAR APPLICATION)	204.02
	CG-12 DETECTABLE WARNING SURFACE (TYPE B, PARALLEL APPLICATION)	204.03
	CG-12 DETECTABLE WARNING SURFACE (TYPE C, PARALLEL & PERPENDICULAR APPLICATION)	204.04
	CG-12 DETECTABLE WARNING SURFACE (TYPE MEDIAN AND REFUGE ISLAND APPLICATIONS)	204.05
CG-12-INS	CG-12 DETECTABLE WARNING SURFACE (DETECTABLE WARNING INSTALLATION)	204.06
	CG-12 DETECTABLE WARNING SURFACE (METHOD OF INSTALLING DETECTABLE WARNINGS ON A RADIUS)	204.07

INDEX OF SHEETS
SECTION 200-CURBS AND ENTRANCES

VIRGINIA DEPARTMENT OF TRANSPORTATION



ROAD AND BRIDGE STANDARDS

REVISION DATE

04/19

SHEET 1 OF 1

200.01

THIS PAGE INTENTIONALLY LEFT BLANK



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

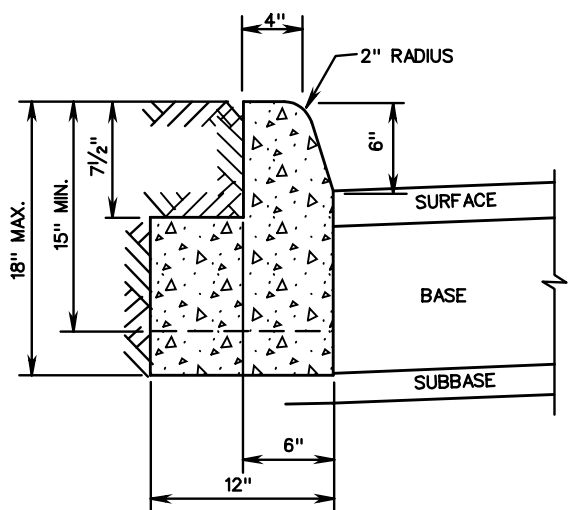
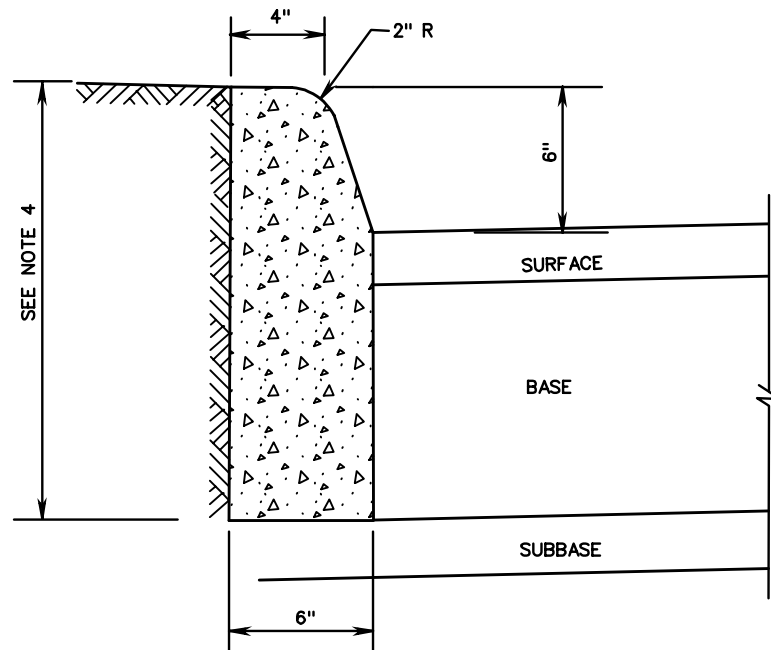
200.02

SPECIFICATION
REFERENCE

VIRGINIA DEPARTMENT OF TRANSPORTATION

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. CURB HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL CURB.
4. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (15" DEPTH) OR INCREASED AS MUCH AS 3" (21" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE, THE DEPTH IS TO BE 18" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
5. CG-2 IS TO BE USED ON ROADWAYS MEETING THE REQUIREMENTS FOR CG-6 AS SHOWN IN APPENDIX A OF THE VDOT ROAD DESIGN MANUAL, IN THE SECTION ON GS URBAN STANDARDS.



**ACCEPTABLE ALTERNATIVE
IF CURB IS EXTRUDED**

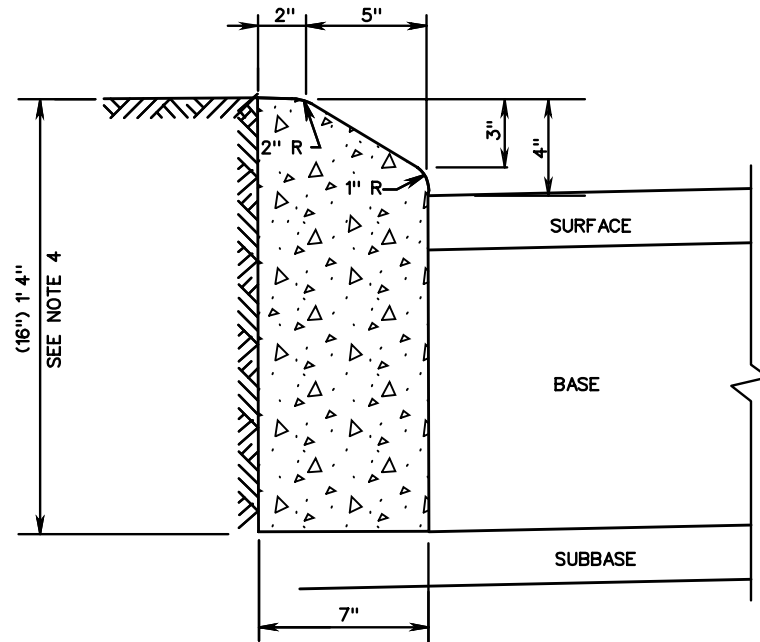
SPECIFICATION REFERENCE
105 502

STANDARD 6" CURB

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT	
ROAD AND BRIDGE STANDARDS	
REVISION DATE	SHEET 1 OF 1
	201.01

CG-3



NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. CURB HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL CURB.
4. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (13" DEPTH) OR INCREASED AS MUCH AS 3" (19" DEPTH) IN ORDER THAT THE BOTTOM OF THE CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE, THE DEPTH IS TO BE 16" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
5. CG-3 IS TO BE USED ON ROADWAYS MEETING THE REQUIREMENTS FOR CG-7 AS SHOWN IN APPENDIX A OF THE VDOT ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.
6. WHEN THIS STANDARD IS TO BE TIED INTO EXISTING BARRIER CURB, THE TRANSITION IS TO BE MADE WITHIN 10' OR THE CHANGE IN STANDARDS CAN BE MADE AT REGULAR OPENINGS.



ROAD AND BRIDGE STANDARDS

STANDARD 4" CURB

SPECIFICATION REFERENCE

SHEET 1 OF 1

REVISION DATE

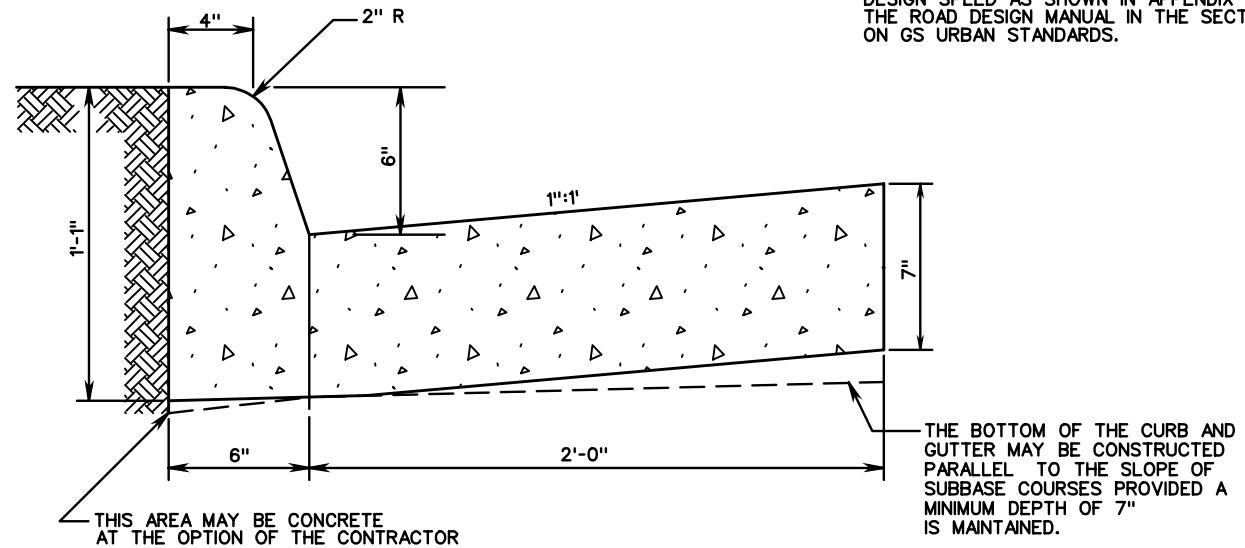
VIRGINIA DEPARTMENT OF TRANSPORTATION

201.02

105
502

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.



SPECIFICATION REFERENCE
105 502

COMBINATION 6" CURB AND GUTTER

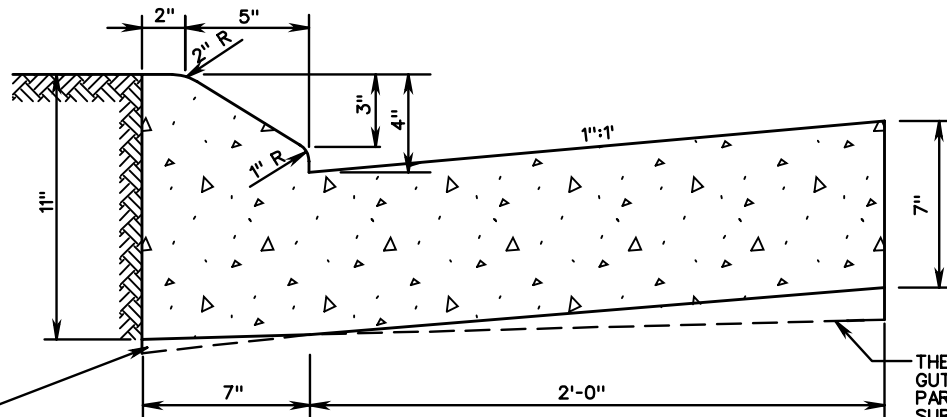
VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT	
ROAD AND BRIDGE STANDARDS	
REVISION DATE	SHEET 1 OF 1
	201.03

CG-7

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB AND GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-7 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE VDOT ROAD DESIGN MANUAL IN THE SECTION ON URBAN GS STANDARDS.
6. WHEN THIS STANDARD IS TO BE TIED INTO EXISTING BARRIER CURB, THE TRANSITION IS TO BE MADE WITHIN 10' OR THE CHANGE IN STANDARDS CAN BE MADE AT REGULAR OPENINGS.
7. WHEN COMBINATION MOUNTABLE CURB AND GUTTER IS USED, THE STANDARD ENTRANCE GUTTERS OR STANDARD CONNECTION FOR STREET INTERSECTIONS ARE TO HAVE THE MOUNTABLE CURB CONFIGURATION INCORPORATED.



THIS AREA MAY BE CONCRETE AT THE OPTION OF THE CONTRACTOR

THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES PROVIDED A MIN. DEPTH OF 7" IS MAINTAINED



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

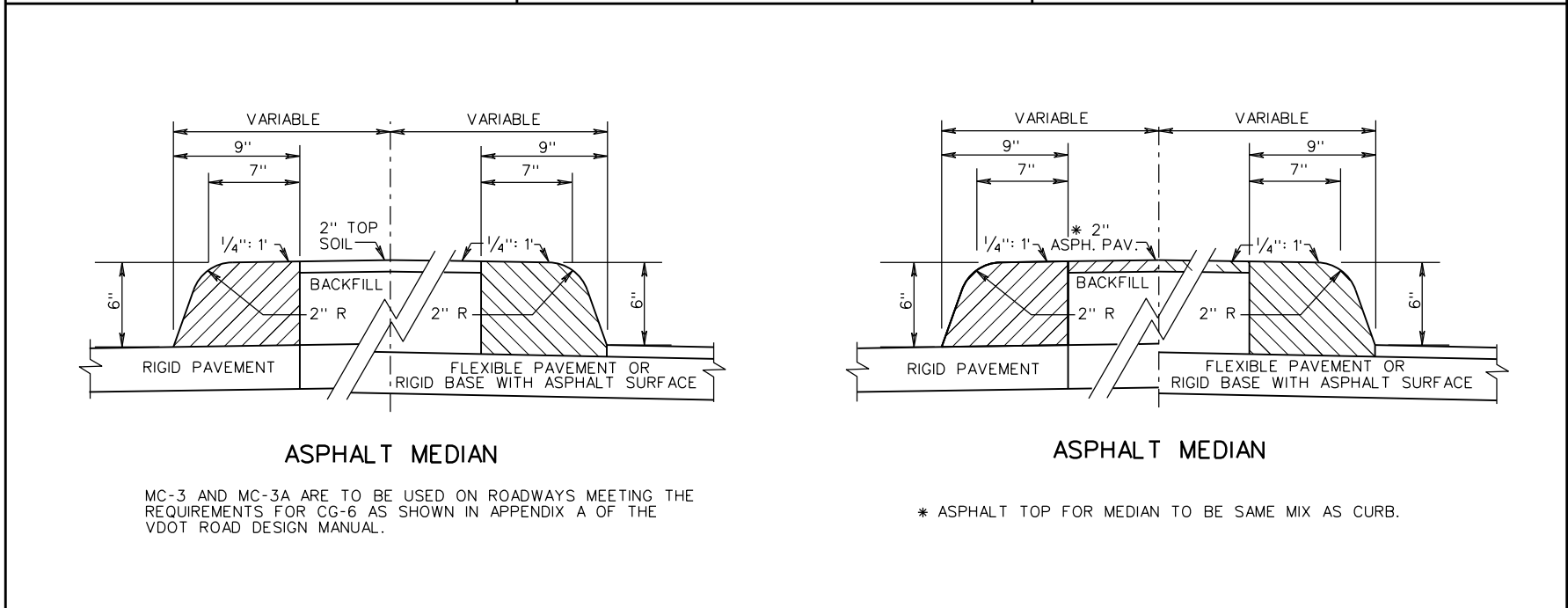
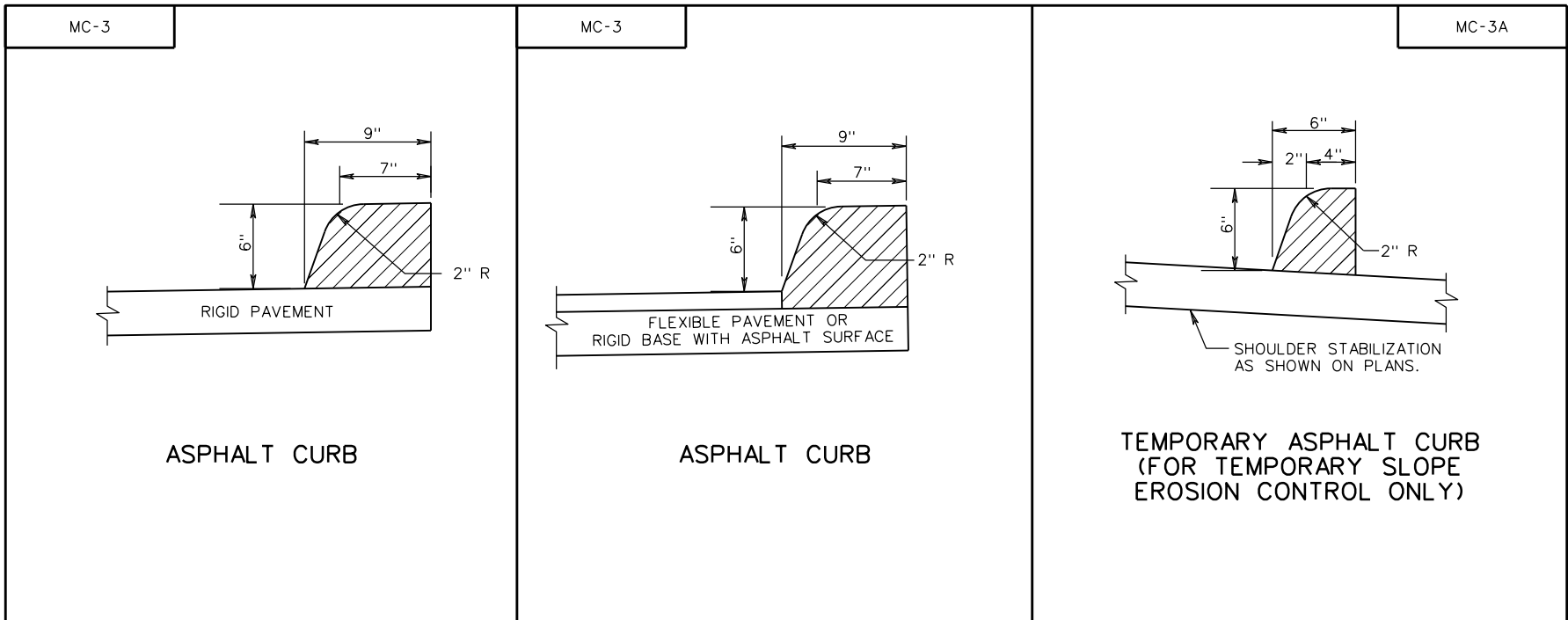
201.04

COMBINATION 4" CURB AND GUTTER

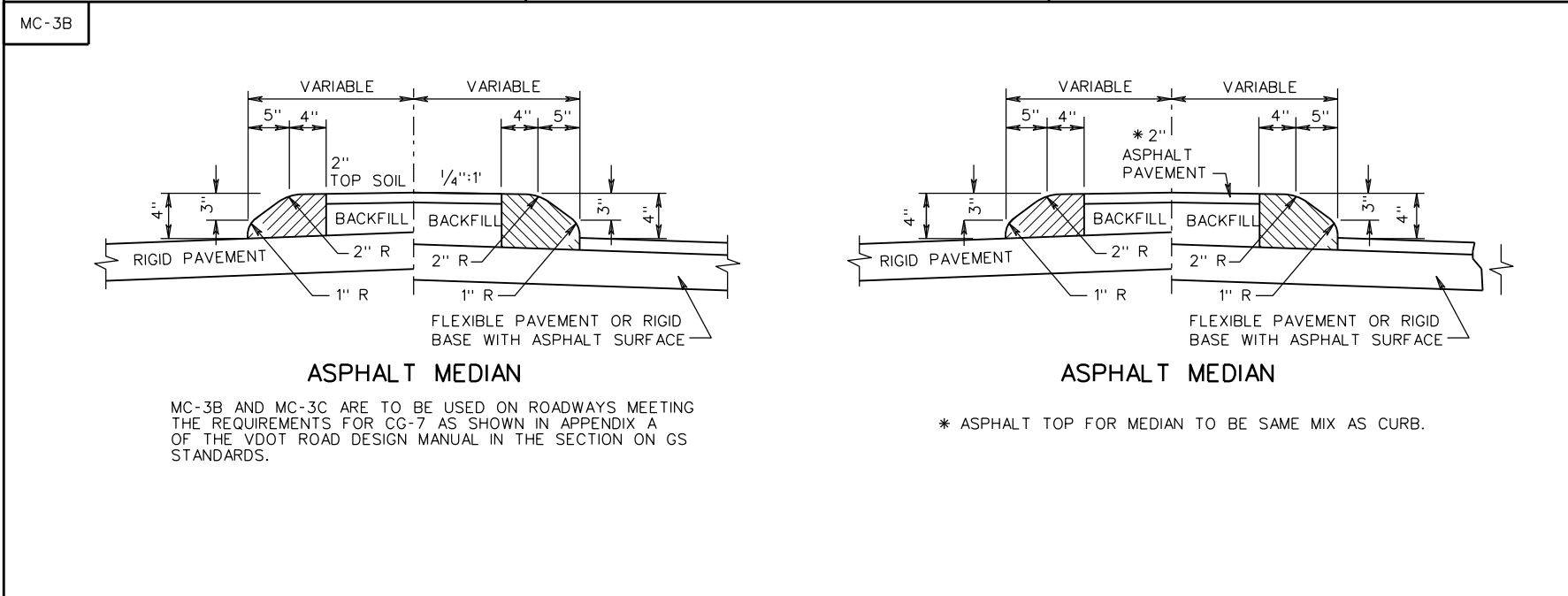
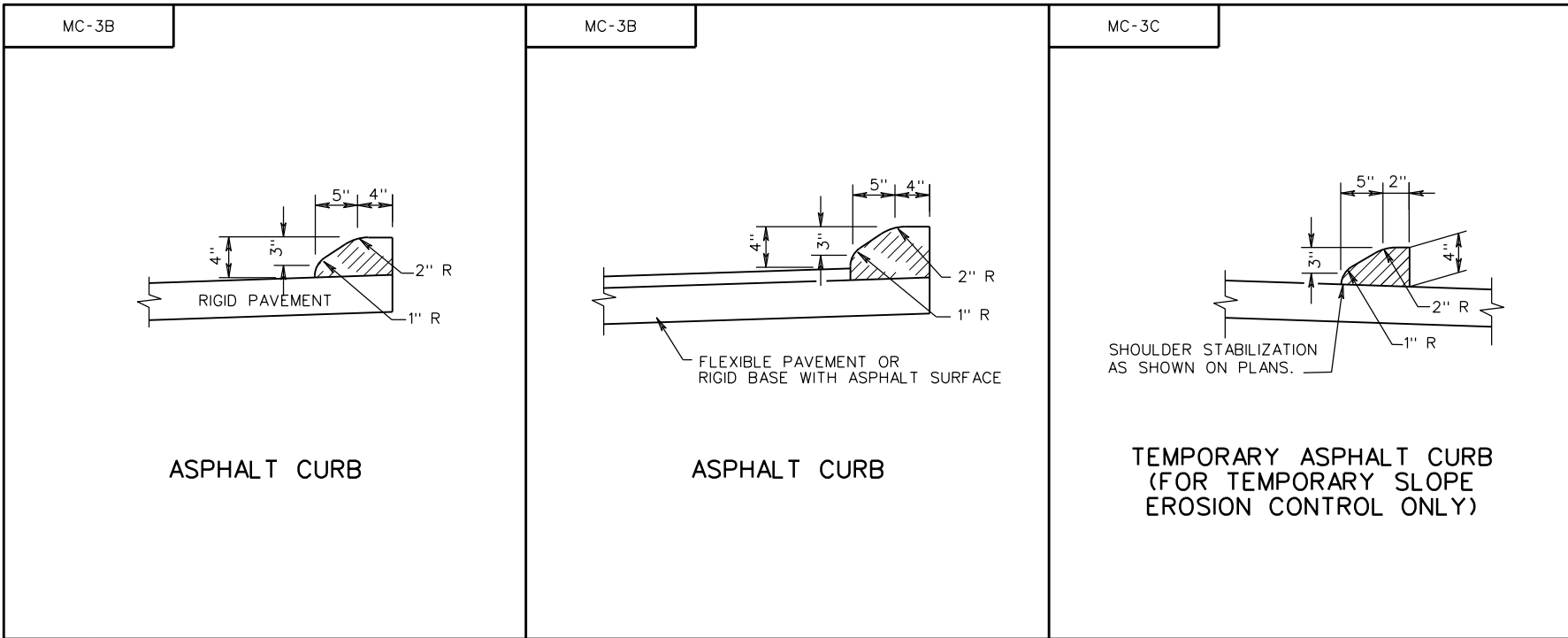
VIRGINIA DEPARTMENT OF TRANSPORTATION


SPECIFICATION REFERENCE

105
502



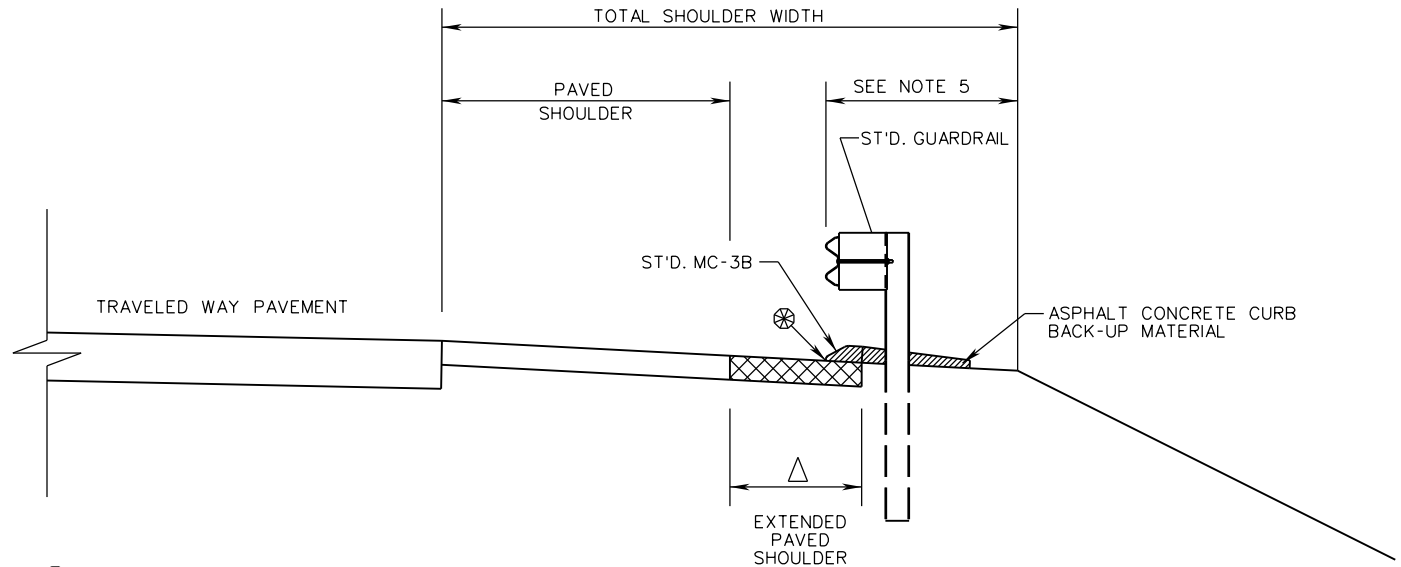
<p>SPECIFICATION REFERENCE</p>	<p>ASPHALT CONCRETE CURB AND MEDIAN (FOR TEMPORARY OR PERMANENT INSTALLATION)</p> <p style="font-size: small;">VIRGINIA DEPARTMENT OF TRANSPORTATION</p>	<p>VDOT ROAD AND BRIDGE STANDARDS</p>		
<p>502</p>		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center; font-size: small;">REVISION DATE 07/16</td> <td style="width:50%; text-align: center; font-size: small;">SHEET 1 OF 1 201.05</td> </tr> </table>	REVISION DATE 07/16	SHEET 1 OF 1 201.05
REVISION DATE 07/16	SHEET 1 OF 1 201.05			



 ROAD AND BRIDGE STANDARDS	<h2 style="margin: 0;">ASPHALT CONCRETE CURB AND MEDIAN</h2> <p style="margin: 0;">(FOR TEMPORARY OR PERMANENT INSTALLATION)</p> <p style="margin: 0; font-size: small;">VIRGINIA DEPARTMENT OF TRANSPORTATION</p>	SPECIFICATION REFERENCE 502
SHEET 1 OF 2 201.06	REVISION DATE 07/16	

NOTES

1. STANDARD MC-3B REQUIRES THE PAVED SHOULDER TO EXTEND TO THE BACK OF CURB.
2. PAVED SHOULDER WIDTHS TO BE IN ACCORDANCE WITH THE PLANS, VDOT POLICY, OR AS DIRECTED BY THE ENGINEER.
3. THE PAVED SHOULDER AND THE EXTENDED PAVED SHOULDER SHALL BE PLACED SIMULTANEOUSLY.
4. FACE OF GUARDRAIL SHALL BE ALIGNED WITH FACE OF THE CURB.
5. DISTANCE FROM THE FACE OF RAIL TO THE HINGE POINT IN ACCORDANCE WITH THE GUARDRAIL STANDARD USED.
6. MC-3B CURB NOT PERMITTED WITHIN THE LIMITS OF ANY GUARDRAIL TERMINAL.



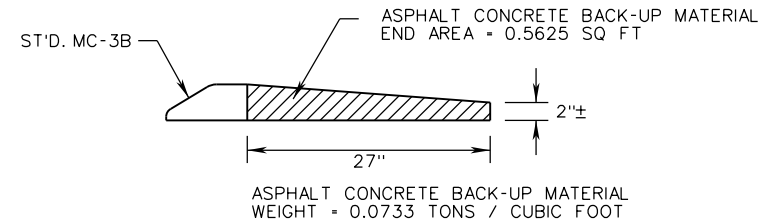
⊗ LIMIT OF SURFACE TREATMENT IF SHOULDER IS TO RECEIVE A PRIME & SEAL. THE PRIME AND SEAL IS TO BE APPLIED TO THE SHOULDER AFTER THE CURB HAS BEEN INSTALLED.

△ TO BE CONSTRUCTED WITH THE SAME MATERIAL AND TO THE SAME DEPTH AS THE PAVED SHOULDER.

STANDARD GUARDRAIL & MC-3B ASPHALT CURB INSTALLATION

TO CALCULATE THE ASPHALT BACKUP MATERIAL

1. MULTIPLY THE LENGTH OF MC-3B BY THE END AREA WHICH RESULTS IN CUBIC FEET.
2. MULTIPLY CUBIC FEET BY 0.0733 TONS / CUBIC FOOT WHICH RESULTS IN TONS OF ASPHALT CONCRETE BACKUP MATERIAL.



SPECIFICATION REFERENCE

105
502

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

**ASPHALT CONCRETE CURB
(ASPHALT BACKUP MATERIAL INSTALLATION)**

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT

ROAD AND BRIDGE STANDARDS

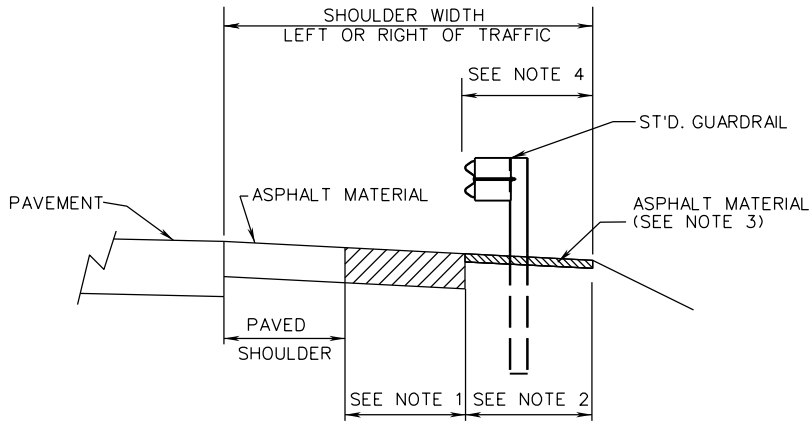
REVISION DATE

08/17

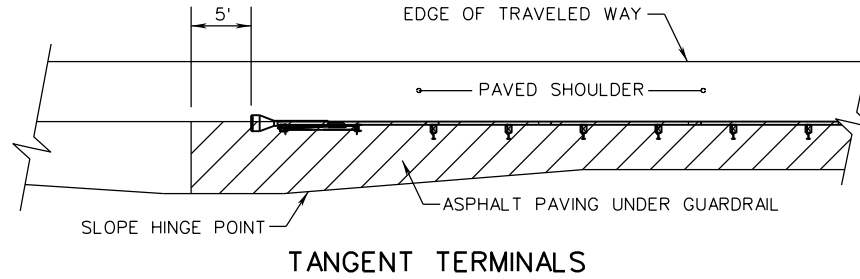
SHEET 2 OF 2

201.07

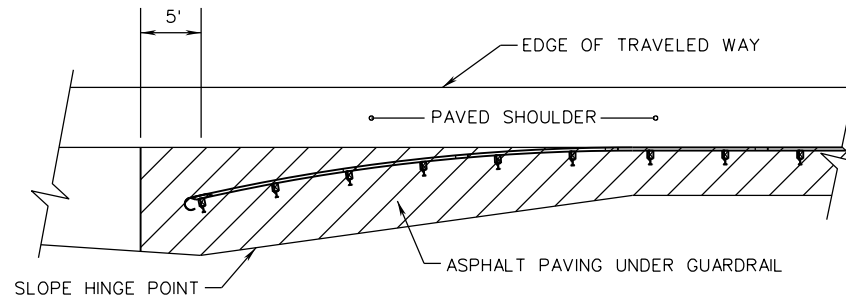
MC-4



ASPHALT PAVING UNDER GUARDRAIL
(FOR USE WHERE ASPHALT CURB IS NOT REQUIRED)



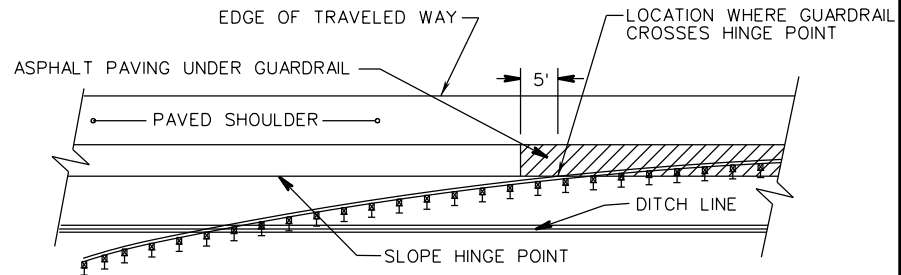
TANGENT TERMINALS



FLARED TERMINALS

NOTES:

1. CONSTRUCTED WITH THE SAME MATERIAL AND TO THE SAME DEPTH AS THE ROADWAY PAVED SHOULDER.
2. CONSTRUCTED WITH THE SAME ASPHALT MATERIALS AS THE PAVED SHOULDER FROM THE FACE OF RAIL TO THE SHOULDER HINGE POINT AT FOLLOWING DEPTHS:
ALLOWABLE DEPTHS OF ASPHALT MATERIAL
SM-9.5A OR SM-12.5D 1.5"
OR
IM-19.0A OR IM-19.0D 2"
3. MAXIMUM ALLOWABLE DEPTH FOR PAVING UNDER GUARDRAIL IS 2 INCHES.
4. DISTANCE FROM THE FACE OF RAIL TO THE HINGE POINT IN ACCORDANCE WITH THE GUARDRAIL STANDARD USED.
5. SEE GUARDRAIL OR GUARDRAIL TERMINAL STANDARD FOR INSTALLATION AND SITE PREPARATION REQUIREMENTS.



BURIED IN BACKSLOPE TERMINAL

METHODS FOR BEGINNING & ENDING ASPHALT PAVING UNDER GUARDRAIL AND GUARDRAIL TERMINALS.



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

201.08

08/17

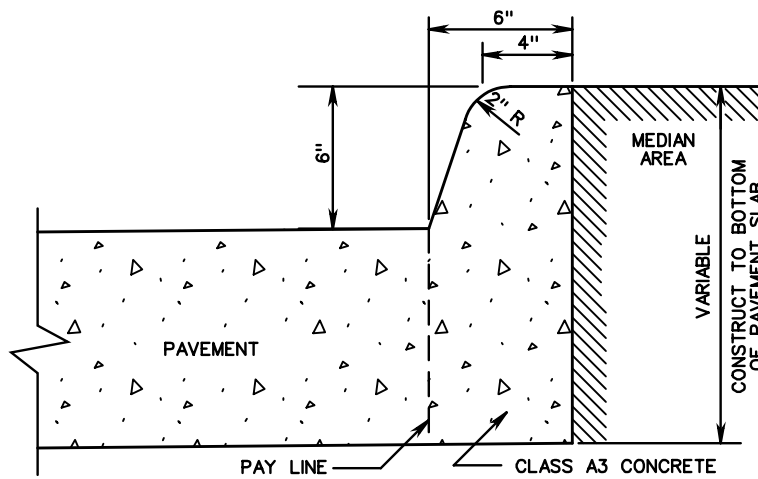
A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

ASPHALT PAVING UNDER GUARDRAIL

VIRGINIA DEPARTMENT OF TRANSPORTATION

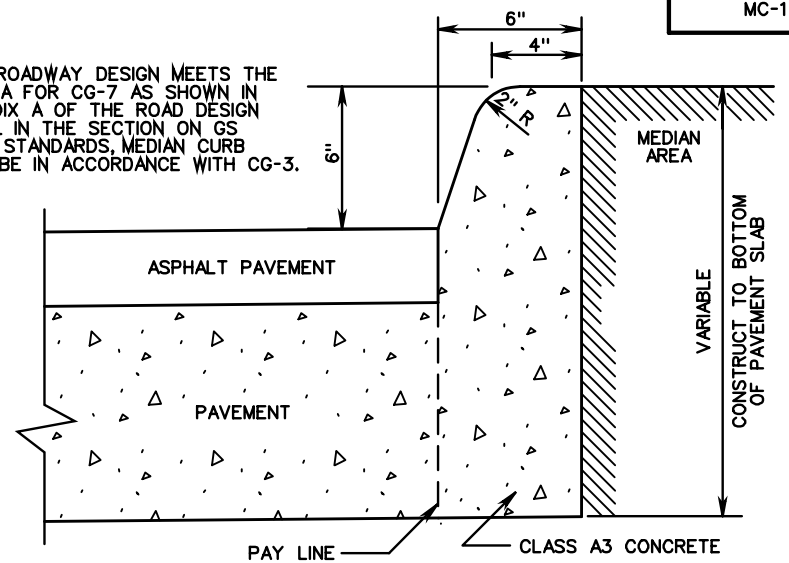
SPECIFICATION REFERENCE

105
502



FOR USE WITH CONCRETE PAVEMENT

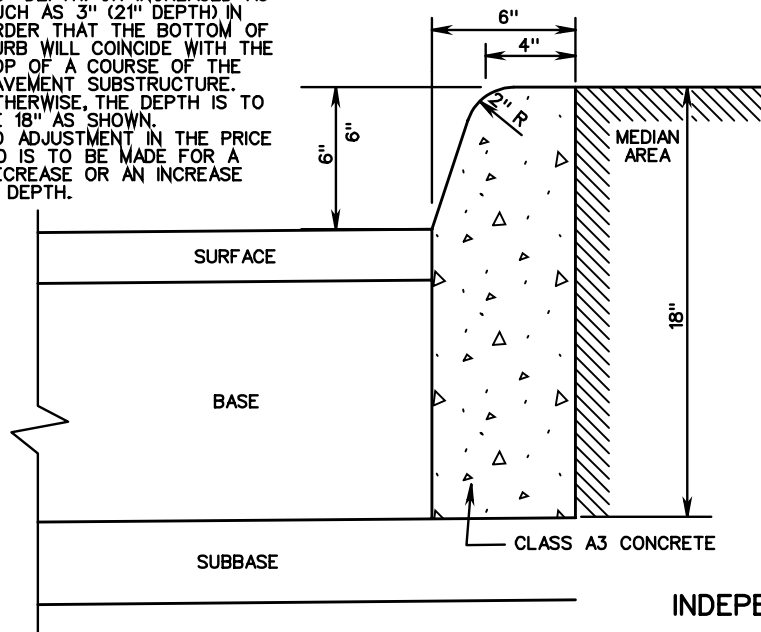
WHEN ROADWAY DESIGN MEETS THE CRITERIA FOR CG-7 AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS, MEDIAN CURB IS TO BE IN ACCORDANCE WITH CG-3.



FOR USE WITH CONCRETE WITH ASPHALT TOP COURSE

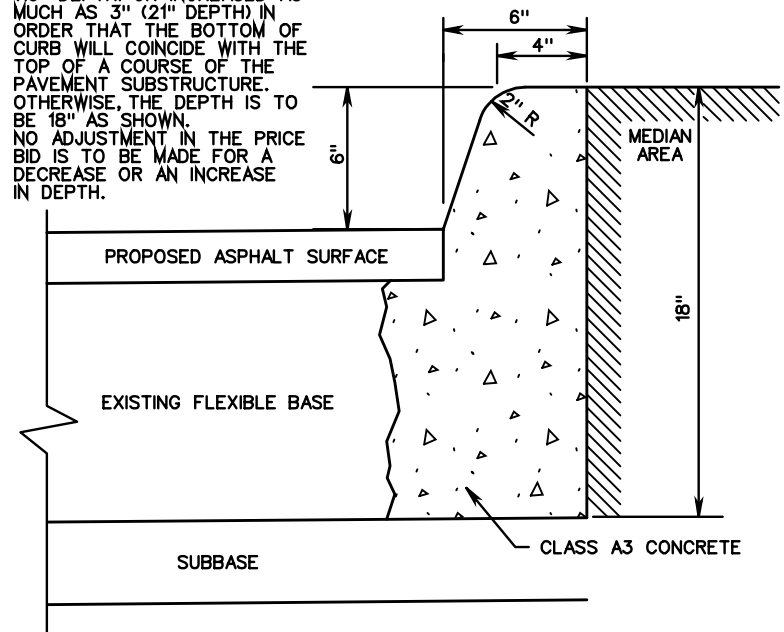
INTEGRAL

THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (15" DEPTH) OR INCREASED AS MUCH AS 3" (21" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE, THE DEPTH IS TO BE 18" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.



INDEPENDENT

THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (15" DEPTH) OR INCREASED AS MUCH AS 3" (21" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE, THE DEPTH IS TO BE 18" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.



SPECIFICATION REFERENCE

502

CONCRETE MEDIAN CURB

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT

ROAD AND BRIDGE STANDARDS

REVISION DATE

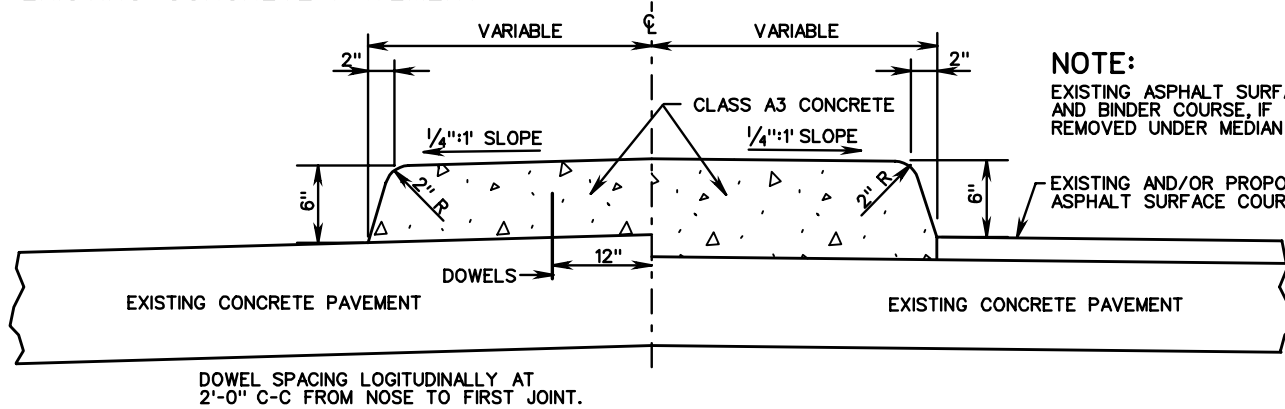
SHEET 1 OF 1

202.01

MS-1

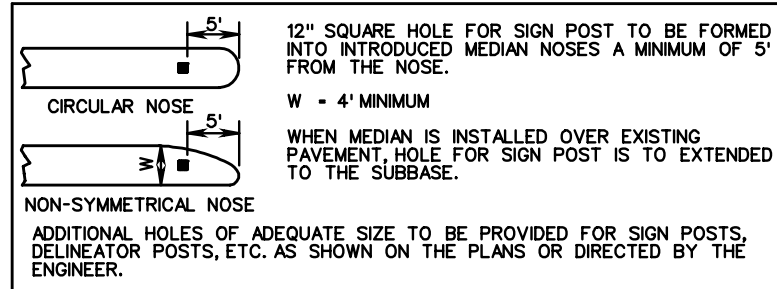
HALF SECTION ON EXISTING CONCRETE PAVEMENT

HALF SECTION ON EXISTING CONCRETE PAVEMENT WITH PROPOSED OR EXISTING ASPHALT PAVEMENT



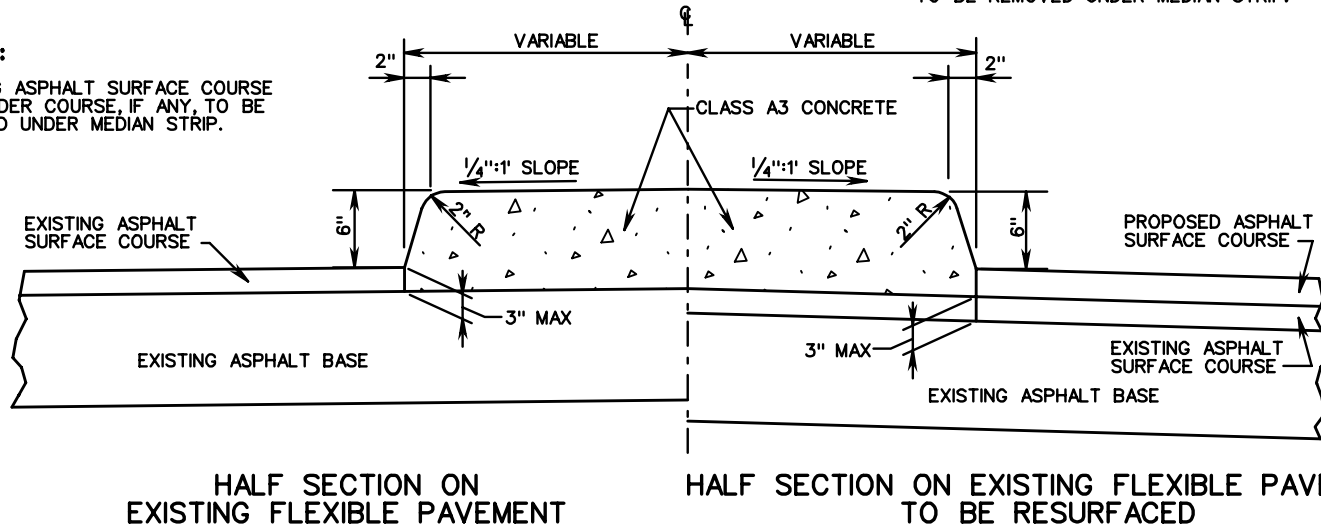
NOTE:
EXISTING ASPHALT SURFACE COURSE AND BINDER COURSE, IF ANY, TO BE REMOVED UNDER MEDIAN STRIP.

WHEN ROADWAY DESIGN MEETS THE CRITERIA FOR CG-7 AS SHOWN IN APPENDIX A OF THE ROADWAY DESIGN MANUAL, IN THE GS STANDARDS SECTION, MEDIAN CURB IS TO BE IN ACCORDANCE WITH CG-3.



NOTE: EXISTING ASPHALT SURFACE COURSE AND BINDER COURSE, IF ANY, TO BE REMOVED UNDER MEDIAN STRIP.

NOTE:
EXISTING ASPHALT SURFACE COURSE AND BINDER COURSE, IF ANY, TO BE REMOVED UNDER MEDIAN STRIP.



HALF SECTION ON EXISTING FLEXIBLE PAVEMENT

HALF SECTION ON EXISTING FLEXIBLE PAVEMENT TO BE RESURFACED



ROAD AND BRIDGE STANDARDS

STANDARD SOLID CONCRETE RAISED MEDIAN STRIP

SPECIFICATION REFERENCE

SHEET 1 OF 1

REVISION DATE

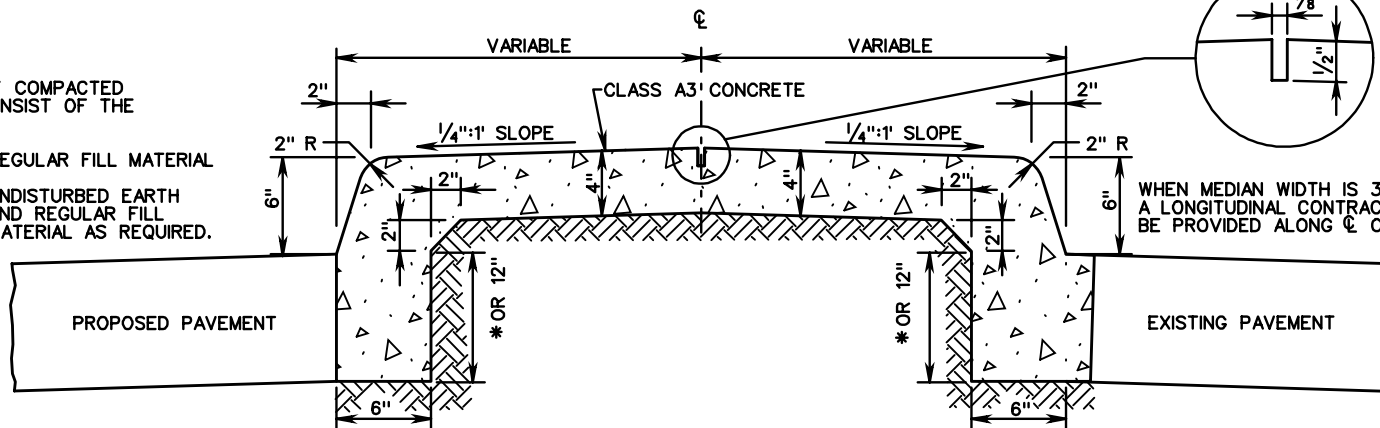
VIRGINIA DEPARTMENT OF TRANSPORTATION

502

202.02

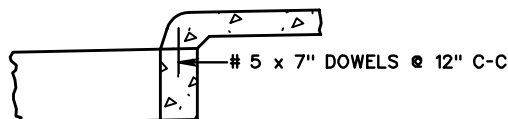
NOTES:

- (1) THOROUGHLY COMPACTED AREA TO CONSIST OF THE FOLLOWING:
 IN FILLS - REGULAR FILL MATERIAL
 IN CUTS - UNDISTURBED EARTH AND REGULAR FILL MATERIAL AS REQUIRED.

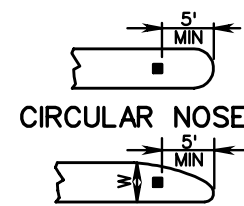
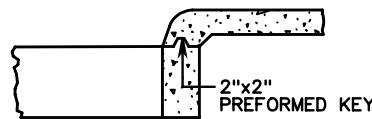


WHEN MEDIAN WIDTH IS 3 FEET OR GREATER, A LONGITUDINAL CONTRACTION JOINT SHALL BE PROVIDED ALONG ϕ OF MEDIAN STRIP.

SUGGESTED CONSTRUCTION METHOD IF TOP SLAB IS POURED SEPARATELY



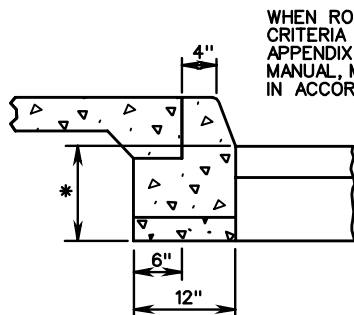
ALTERNATE CONSTRUCTION METHOD IF TOP SLAB IS POURED SEPARATELY



12" SQUARE HOLE FOR SIGN POST TO BE FORMED INTO INTRODUCED MEDIAN NOSES A MINIMUM OF 5' FROM THE NOSE.

W - 4' MIN

NON-SYMMETRICAL NOSE

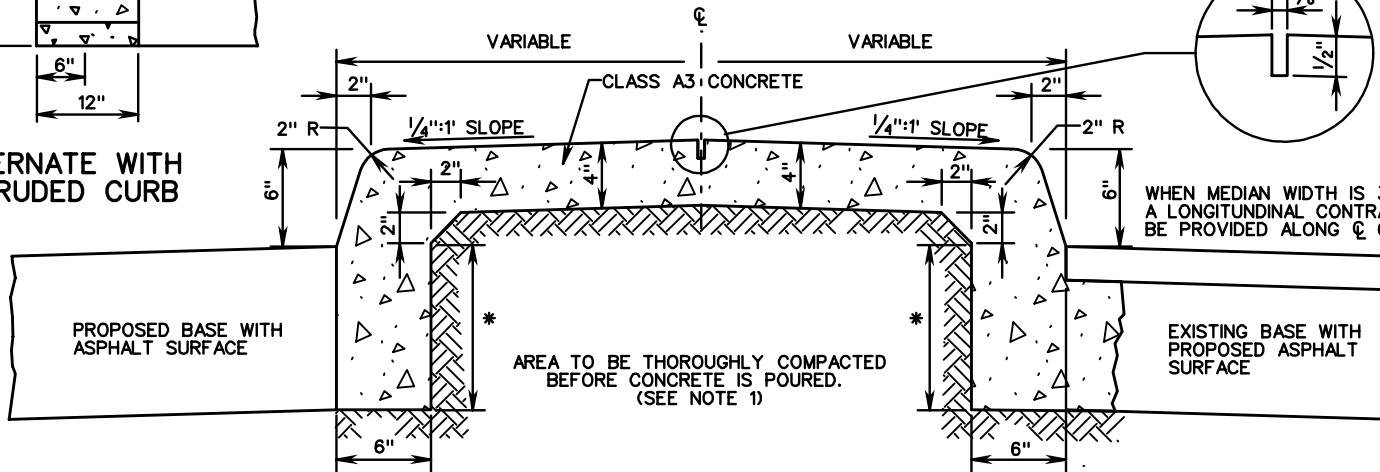


WHEN ROADWAY DESIGN MEETS THE CRITERIA FOR CG-7 AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL, MEDIAN CURB IS TO BE IN ACCORDANCE WITH STANDARD CG-3.

*THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (9" DEPTH) OR INCREASED AS MUCH AS 3" (15" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT STRUCTURE. OTHERWISE, THE DEPTH IS TO BE 12" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.

ADDITIONAL HOLES OF ADEQUATE SIZE TO BE PROVIDED FOR SIGN POSTS, DELINEATOR POSTS, ETC. AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.

ALTERNATE WITH EXTRUDED CURB



WHEN MEDIAN WIDTH IS 3 FEET OR GREATER A LONGITUDINAL CONTRACTION JOINT SHALL BE PROVIDED ALONG ϕ OF MEDIAN STRIP.

AREA TO BE THOROUGHLY COMPACTED BEFORE CONCRETE IS POURED. (SEE NOTE 1)

SPECIFICATION REFERENCE

502

STANDARD SOLID CONCRETE RAISED MEDIAN STRIP

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT

ROAD AND BRIDGE STANDARDS

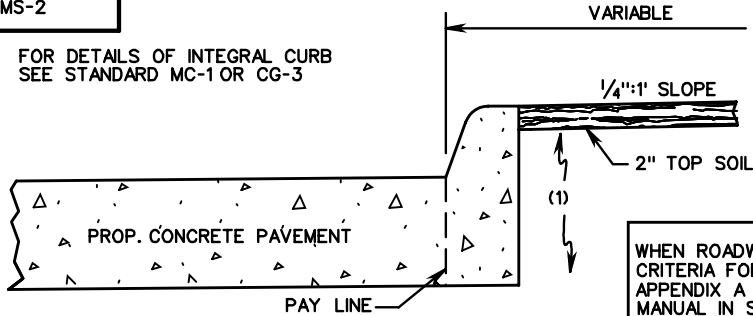
REVISION DATE

SHEET 1 OF 1

202.03

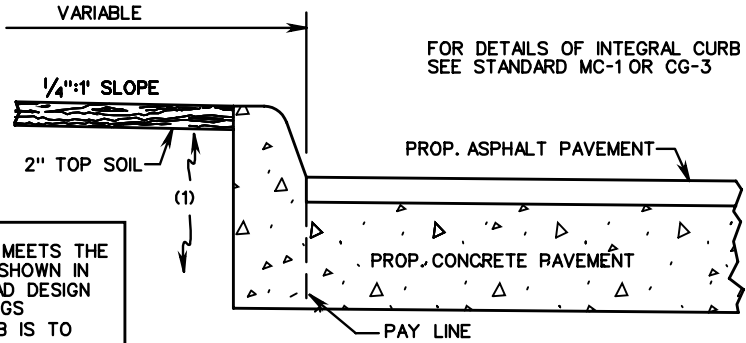
MS-2

FOR DETAILS OF INTEGRAL CURB
SEE STANDARD MC-1 OR CG-3



HALF SECTION WITH PROP.
CONCRETE PAVEMENT

WHEN ROADWAY DESIGN MEETS THE
CRITERIA FOR CG-7 AS SHOWN IN
APPENDIX A OF THE ROAD DESIGN
MANUAL IN SECTION ON GS
STANDARDS, MEDIAN CURB IS TO
BE IN ACCORDANCE WITH CG-3



HALF SECTION WITH PROP. CONCRETE
BASE WITH ASPHALT TOP

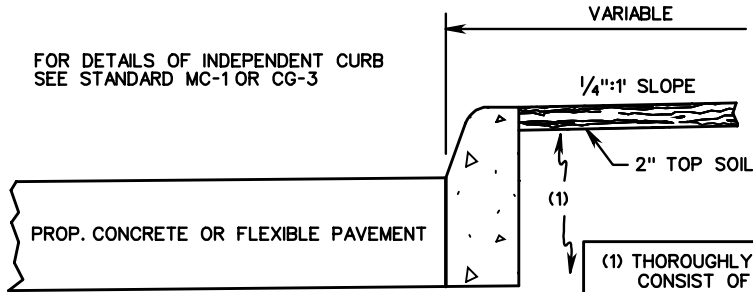
FOR DETAILS OF INTEGRAL CURB
SEE STANDARD MC-1 OR CG-3

PROP. ASPHALT PAVEMENT

PROP. CONCRETE PAVEMENT

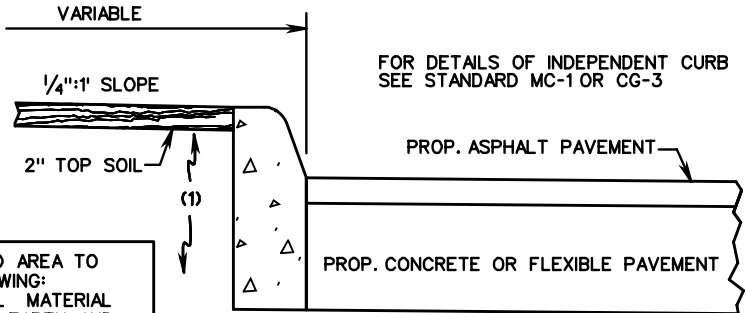
PAY LINE

FOR DETAILS OF INDEPENDENT CURB
SEE STANDARD MC-1 OR CG-3



HALF SECTION WITH PROP. CONCRETE
OR FLEXIBLE PAVEMENT

(1) THOROUGHLY COMPACTED AREA TO
CONSIST OF THE FOLLOWING:
IN FILLS - REGULAR FILL MATERIAL
IN CUTS - UNDISTURBED EARTH AND
REGULAR FILL MATERIAL,
AS REQUIRED.
(2) THOROUGHLY COMPACTED AREA TO
CONSIST OF REGULAR FILL MATERIAL.



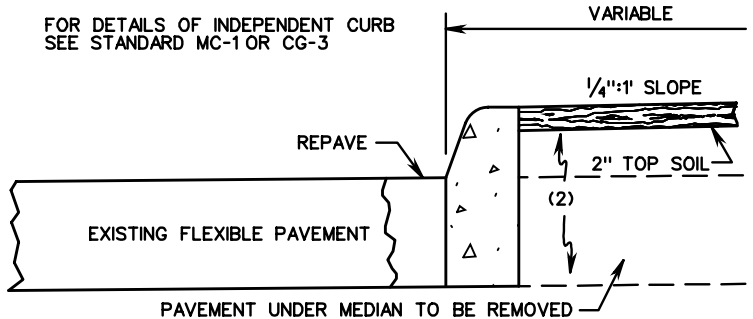
HALF SECTION WITH PROP. CONCRETE OR
FLEXIBLE BASE WITH ASPHALT TOP

FOR DETAILS OF INDEPENDENT CURB
SEE STANDARD MC-1 OR CG-3

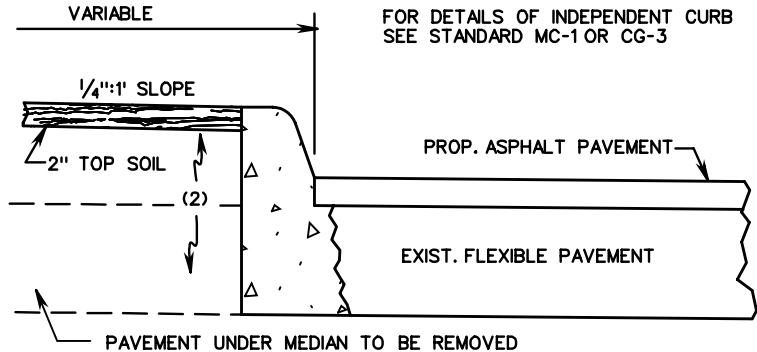
PROP. ASPHALT PAVEMENT

PROP. CONCRETE OR FLEXIBLE PAVEMENT

FOR DETAILS OF INDEPENDENT CURB
SEE STANDARD MC-1 OR CG-3



HALF SECTION WITH EXISTING FLEXIBLE PAVEMENT



HALF SECTION WITH EXIST. FLEXIBLE BASE
WITH ASPHALT TOP

FOR DETAILS OF INDEPENDENT CURB
SEE STANDARD MC-1 OR CG-3

PROP. ASPHALT PAVEMENT

EXIST. FLEXIBLE PAVEMENT

PAVEMENT UNDER MEDIAN TO BE REMOVED



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

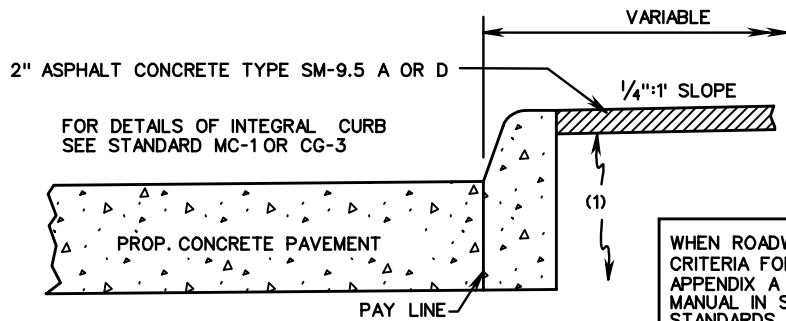
202.04

STANDARD RAISED GRASS MEDIAN STRIPS

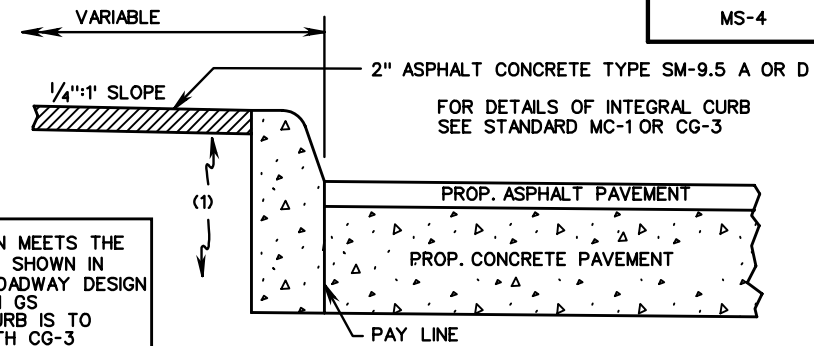
VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION
REFERENCE

502

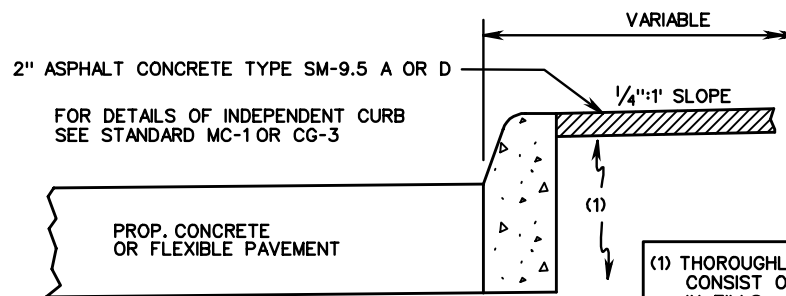


HALF SECTION WITH PROPOSED CONCRETE PAVEMENT

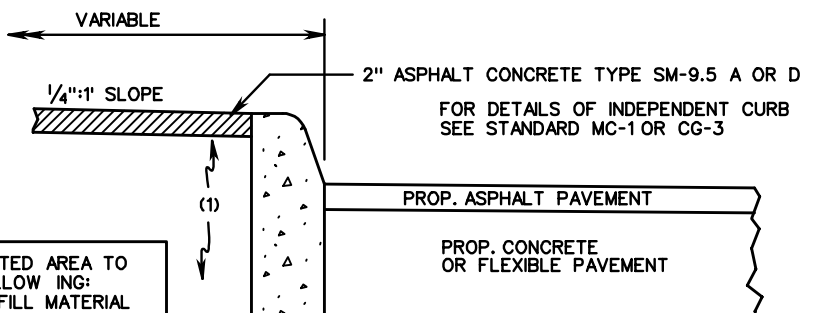


HALF SECTION WITH PROPOSED CONCRETE BASE WITH ASPHALT TOP

WHEN ROADWAY DESIGN MEETS THE CRITERIA FOR CG-7 AS SHOWN IN APPENDIX A OF THE ROADWAY DESIGN MANUAL IN SECTION ON GS STANDARDS, MEDIAN CURB IS TO BE IN ACCORDANCE WITH CG-3

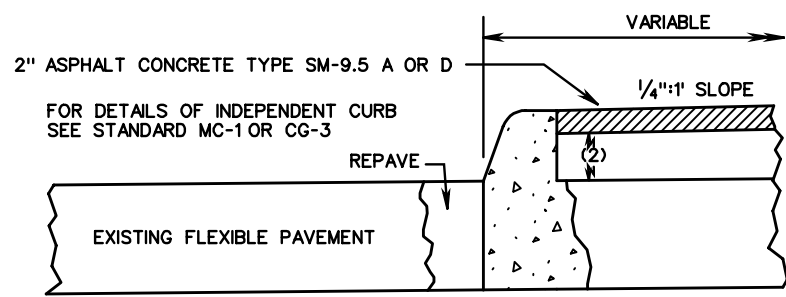


HALF SECTION WITH PROP. CONCRETE OR FLEXIBLE PAVEMENT

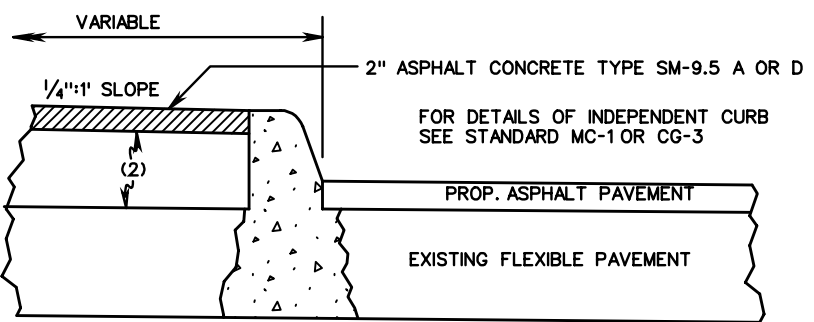


HALF SECTION WITH PROP. CONCRETE OR FLEXIBLE BASE WITH ASPHALT TOP

(1) THOROUGHLY COMPACTED AREA TO CONSIST OF THE FOLLOWING:
 IN FILLS - REGULAR FILL MATERIAL
 IN CUTS - UNDISTURBED EARTH AND REGULAR FILL MATERIAL, AS REQUIRED.
 (2) THOROUGHLY COMPACTED AREA TO CONSIST OF REGULAR FILL MATERIAL.



HALF SECTION WITH EXISTING FLEXIBLE PAVEMENT



HALF SECTION WITH EXISTING FLEXIBLE BASE WITH ASPHALT TOP

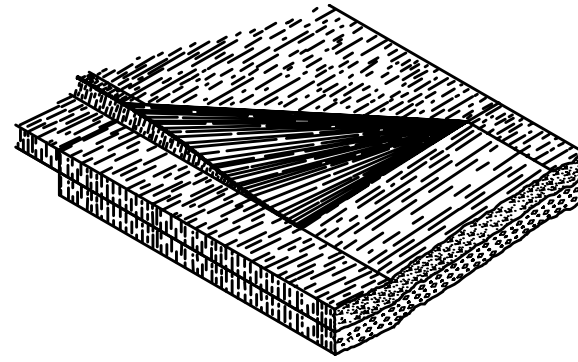
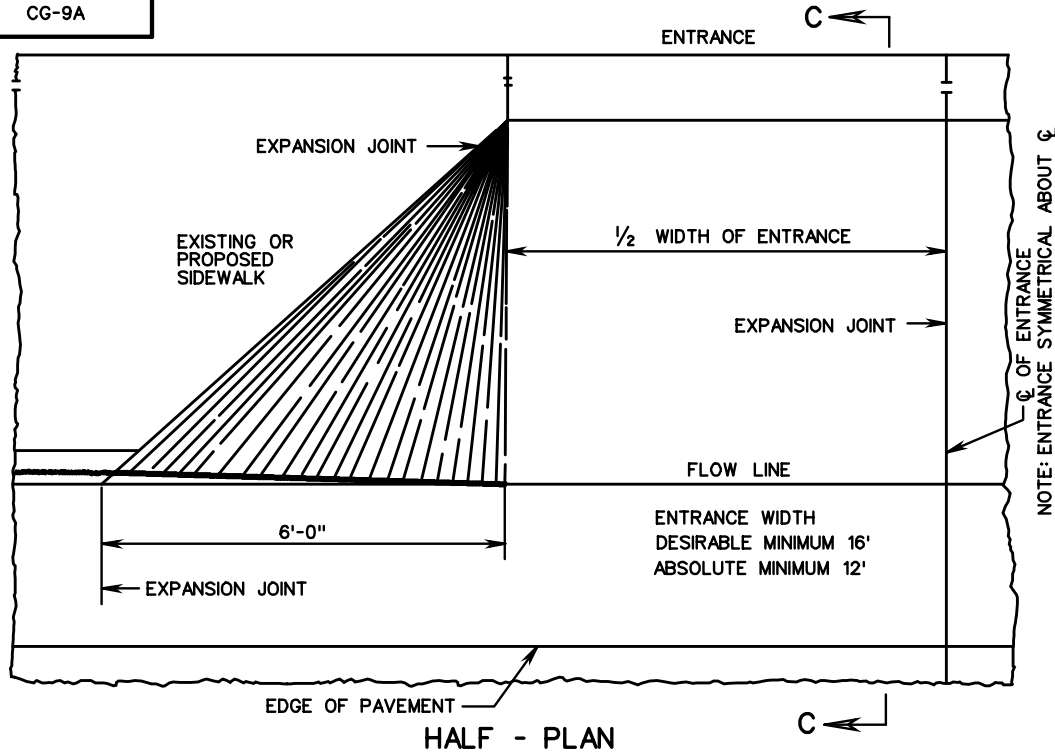
NOTE: THE ASPHALT CONCRETE SURFACE SLAB IS TO CONFORM TO THE CURRENT ROAD & BRIDGE SPECIFICATIONS FOR SM-9.5 A OR D MATERIAL EXCEPT THAT THE MINIMUM BITUMEN CONTENT IS TO BE 6.5%.

SPECIFICATION REFERENCE
502

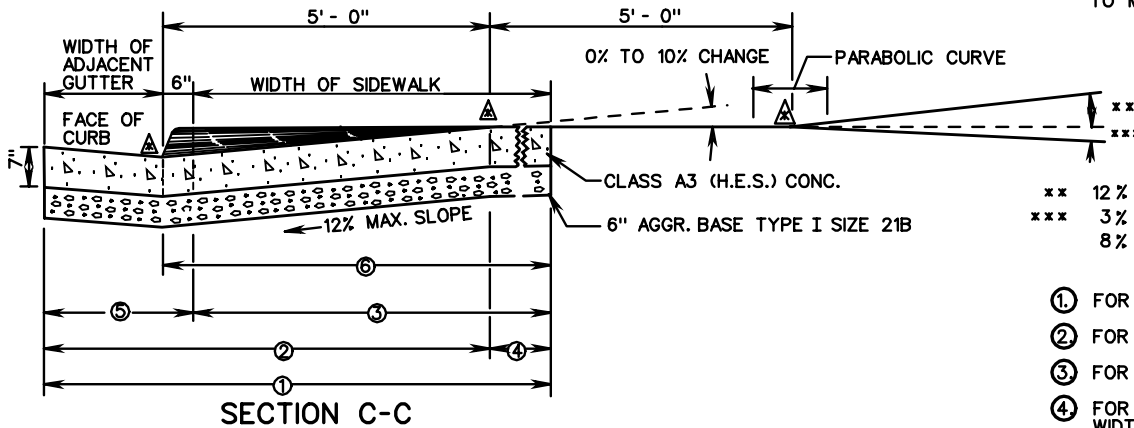
STANDARD RAISED ASPHALT MEDIAN
 (WITH P.C. CONCRETE CURB)
 VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT	
ROAD AND BRIDGE STANDARDS	
REVISION DATE	SHEET 1 OF 1
	202.05

CG-9A



ISOMETRIC VIEW



WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.

- ** 12% MAXIMUM INCREASE IN SLOPE AT MINIMUM 10' INTERVALS
- *** 3% MAXIMUM DECREASE IN SLOPE FOR FIRST 10' INTERVAL AND 8% MAXIMUM DECREASE FOR SUCCEEDING MINIMUM 10' INTERVALS

- ① FOR SIDEWALK, CURB AND GUTTER - BUILT CONCURRENTLY.
- ② FOR INITIAL CURB AND GUTTER ONLY.
- ③ FOR INITIAL SIDEWALK ONLY - 7" SIDEWALK TO BE DIPPED.
- ④ FOR PEDESTRIAN ACCESS ROUTE - MINIMUM 4'-0" TRAVERSABLE WIDTH IS REQUIRED WITH A MAXIMUM 2% CROSS SLOPE.
- ⑤ FOR CURB AND GUTTER ONLY - AFTER INITIAL SIDEWALK.
- ⑥ FOR CURB AND SIDEWALK ONLY - WITHOUT GUTTER.
- △ INDICATES POINT OF GRADE CHANGE.



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

203.01

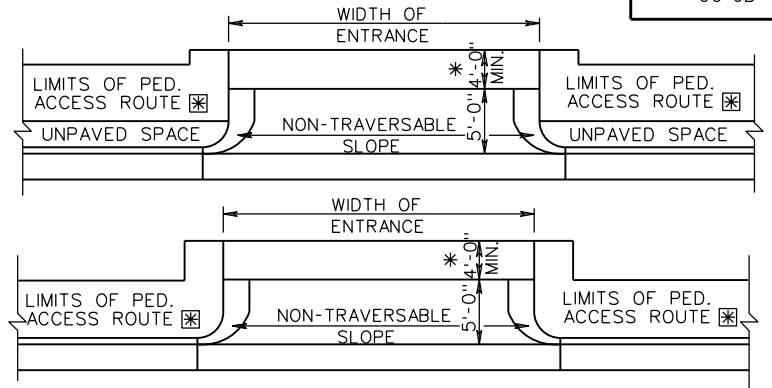
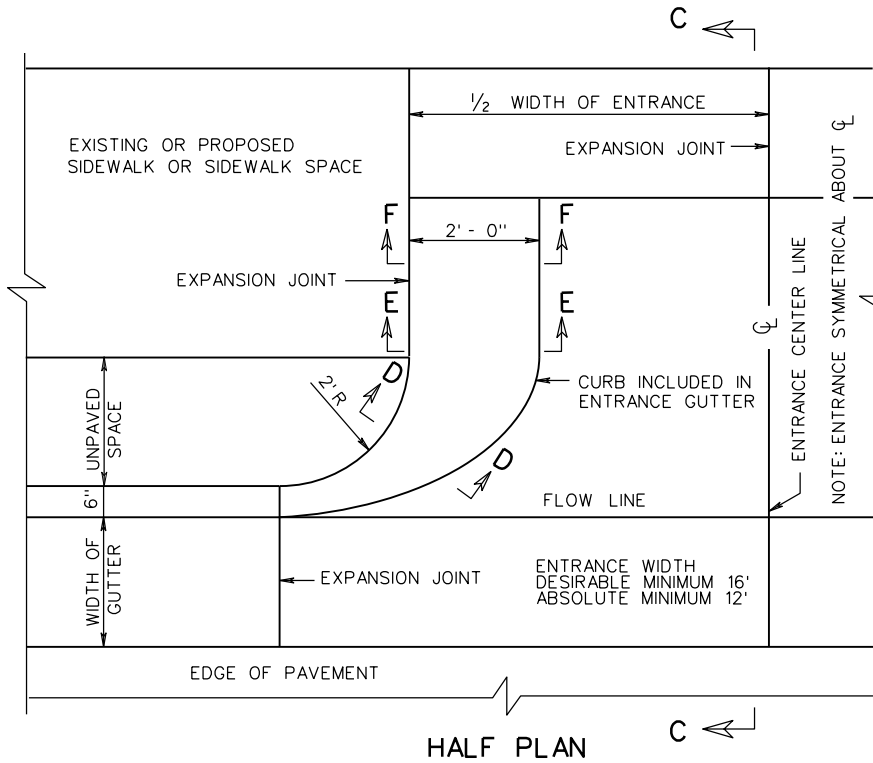
STANDARD ENTRANCE GUTTER WITH FLARED OPENING

(FOR USE ACROSS SIDEWALK)

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE

502

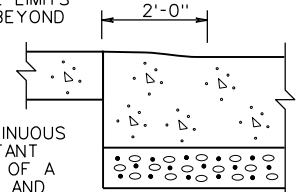


PEDESTRIAN ACCESS ROUTE DETAIL WITH & WITHOUT UNPAVED SPACE

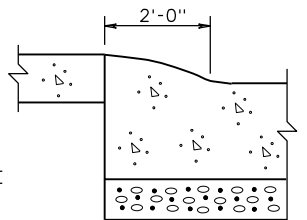
ADDITIONAL RIGHT-OF-WAY IS REQUIRED IF THE LIMITS OF PEDESTRIAN ACCESS ROUTE \boxtimes EXTEND BEYOND EXISTING OR PROPOSED VDOT RIGHT-OF-WAY.

\boxtimes PEDESTRIAN ACCESS ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS. IF ACCESS ROUTE IS ADJACENT TO BACK OF CURB, MINIMUM WIDTH SHOULD BE 6'.

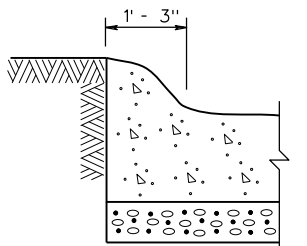
* IF PEDESTRIAN ACCESS ROUTES \boxtimes ARE BEING PROVIDED, A MINIMUM 4' TRAVERSABLE WIDTH IS REQUIRED WITH A MAX. 2% CROSS SLOPE.



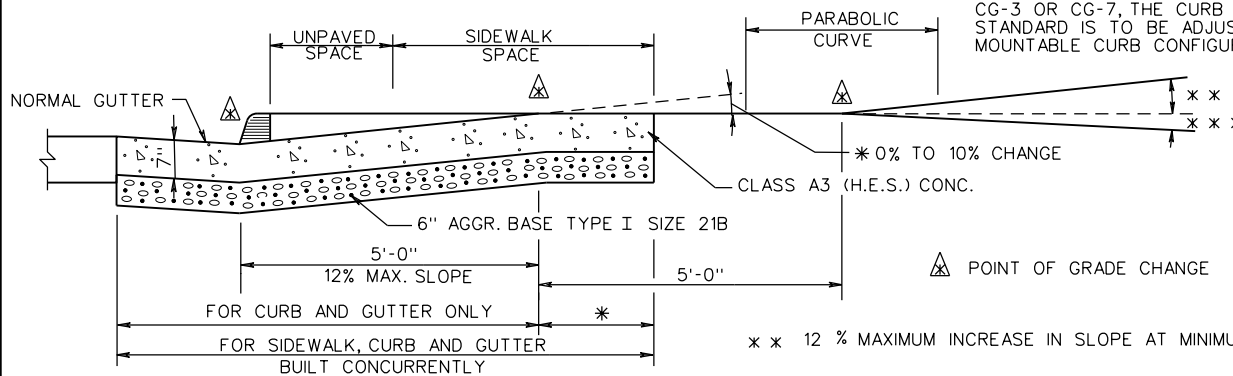
SECTION F-F



SECTION E-E



SECTION D-D



SECTION C-C

SPECIFICATION REFERENCE

502

STANDARD ENTRANCE GUTTER

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT
ROAD AND BRIDGE STANDARDS

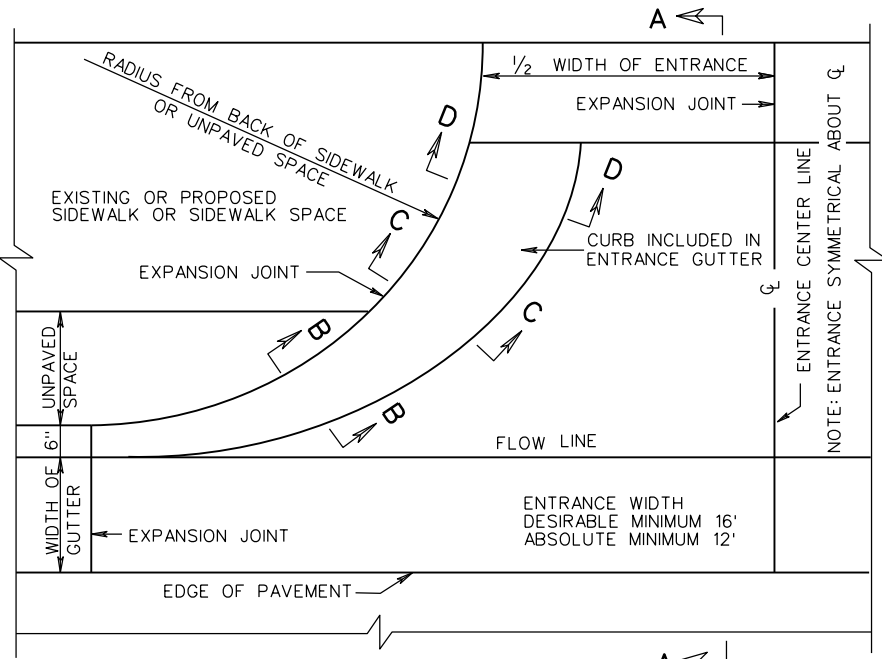
REVISION DATE

07/15

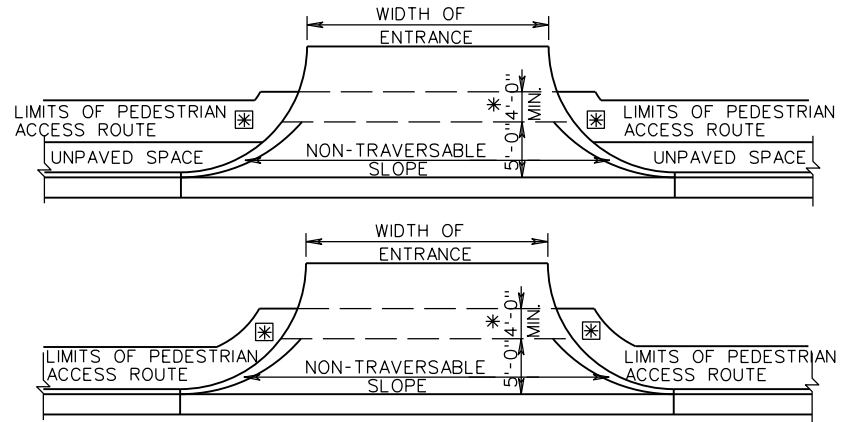
SHEET 1 OF 1

203.02

CG-9D



HALF PLAN



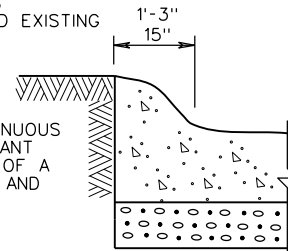
PEDESTRIAN ACCESS ROUTE DETAILS WITH & WITHOUT UNPAVED SPACE

ADDITIONAL RIGHT-OF-WAY IS REQUIRED IF THE LIMITS OF PEDESTRIAN ACCESS ROUTE \boxtimes EXTEND BEYOND EXISTING OR PROPOSED VDOT RIGHT-OF-WAY.

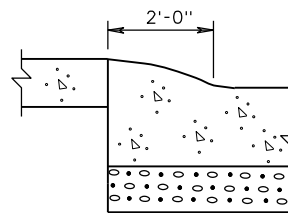
\boxtimes PEDESTRIAN ACCESS ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.

* IF PEDESTRIAN ACCESS ROUTES \boxtimes ARE BEING PROVIDED, A MINIMUM 4' TRAVERSABLE WIDTH IS REQUIRED WITH A MAX. 2% CROSS SLOPE.

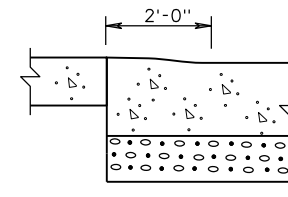
WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.



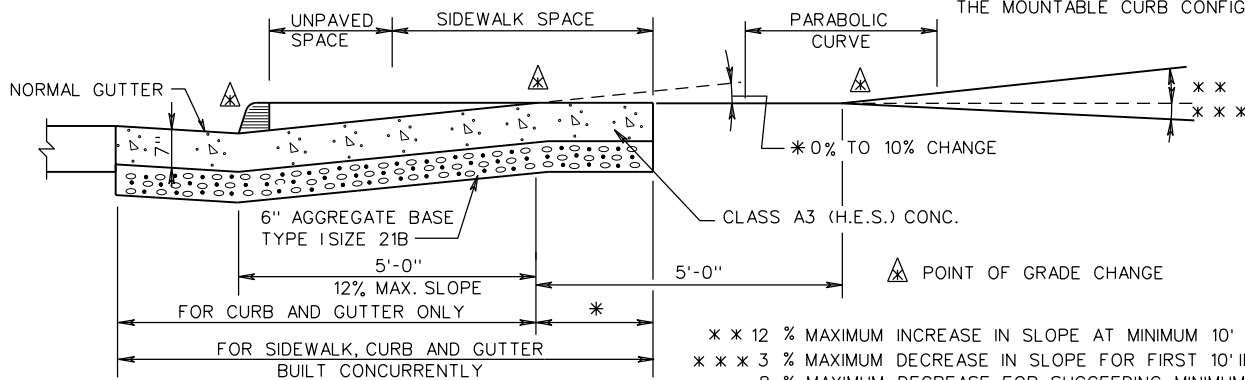
SECTION B-B



SECTION C-C



SECTION D-D



SECTION A-A



ROAD AND BRIDGE STANDARDS

STANDARD ENTRANCE GUTTER

SPECIFICATION REFERENCE

SHEET 1 OF 1

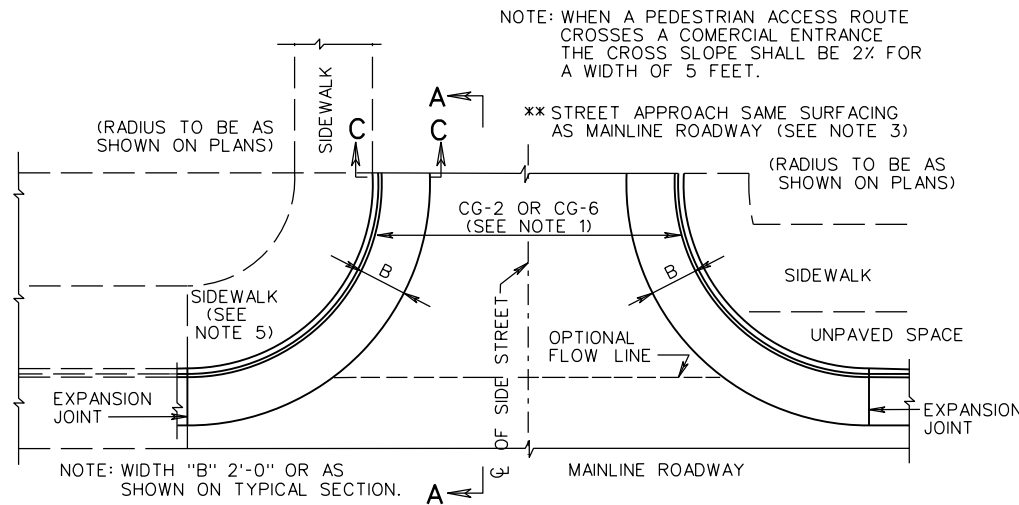
REVISION DATE

502

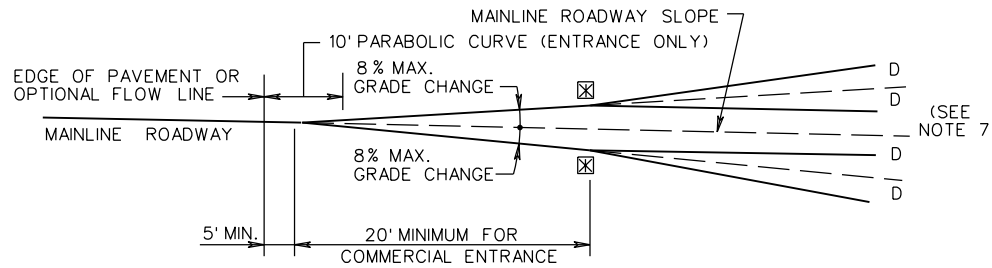
203.03

07/15

VIRGINIA DEPARTMENT OF TRANSPORTATION

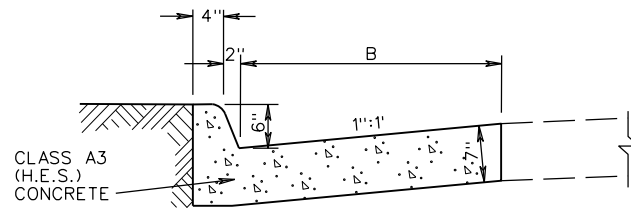


PLAN VIEW



☒ CONSTRUCT GRADE CHANGES WITH A PARABOLIC CURVE.

SECTION A - A



SECTION C-C

GENERAL NOTES

1. WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.
2. SEE STANDARD CG-12 FOR CURB RAMP DESIGN TO BE USED WITH THIS STANDARD.
3. MAINLINE PAVEMENT SHALL BE CONSTRUCTED TO THE R/W LINE (EXCEPT ANY SUBGRADE STABILIZATION REQUIRED FOR MAINLINE PAVEMENT WHICH CAN BE OMITTED IN THE ENTRANCE.)
4. RADIAL CURB OR COMBINATION CURB AND GUTTER SHALL NOT BE CONSTRUCTED BEYOND THE R/W LINE EXCEPT FOR REPLACEMENT PURPOSES.

ENTRANCE NOTES

5. WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, THE DEPTH FOR SIDEWALK & CURB RAMPS WITHIN THE LIMITS OF THE RADII SHOULD BE INCREASED TO 7". (SEE CG-13)
6. PLANS ARE TO INDICATE WHEN CONSTRUCTION OF A FLOW LINE IS REQUIRED TO PROVIDE POSITIVE DRAINAGE ACROSS THE ENTRANCE.
7. THE DESIRABLE AND MAXIMUM ENTRANCE GRADE CHANGES "D" ARE LISTED IN THE ALLOWABLE ENTRANCE GRADE TABLE. THESE VALUES ARE NOT APPLICABLE TO STREET CONNECTIONS.

INTERSECTION NOTES

8. WHEN CG-11 IS USED FOR STREET CONNECTIONS, THE CONNECTION MUST BE DESIGNED IN ACCORDANCE WITH AASHTO POLICY AND THE APPLICABLE REQUIREMENTS OF THE VDOT ROAD DESIGN MANUAL, INCLUDING STOPPING SIGHT DISTANCE AND K VALUE REQUIREMENTS.
9. OPTIONAL FLOWLINE MAY REQUIRE WARPING OF A PORTION OF GUTTER TO PROVIDE POSITIVE DRAINAGE ACROSS THE INTERSECTION.

ALLOWABLE ENTRANCE GRADE CHANGES

ENTRANCE VOLUME		GRADE CHANGE "D"	
		DESIRABLE	MAXIMUM
HIGH	MORE THAN 1500 VPD	0 %	3 %
MEDIUM	500-1500 VPD	≤ 3 %	6 %
LOW	LESS THAN 500 VPD	≤ 6 %	8 %

NOTE: ALLOWABLE ENTRANCE GRADE TABLE IS NOT APPLICABLE TO STREET CONNECTIONS

SPECIFICATION REFERENCE	502	<p style="text-align: center;">METHOD OF TREATMENT</p> <p style="text-align: center;">(CONNECTION FOR STREET INTERSECTIONS AND COMMERCIAL ENTRANCES)</p> <p style="text-align: center;">VIRGINIA DEPARTMENT OF TRANSPORTATION</p>	<p>ROAD AND BRIDGE STANDARDS</p>	
			REVISION DATE	SHEET 1 OF 1
			07/15	203.04

STANDARD

THIS PAGE INTENTIONALLY LEFT BLANK



ROAD AND BRIDGE STANDARDS

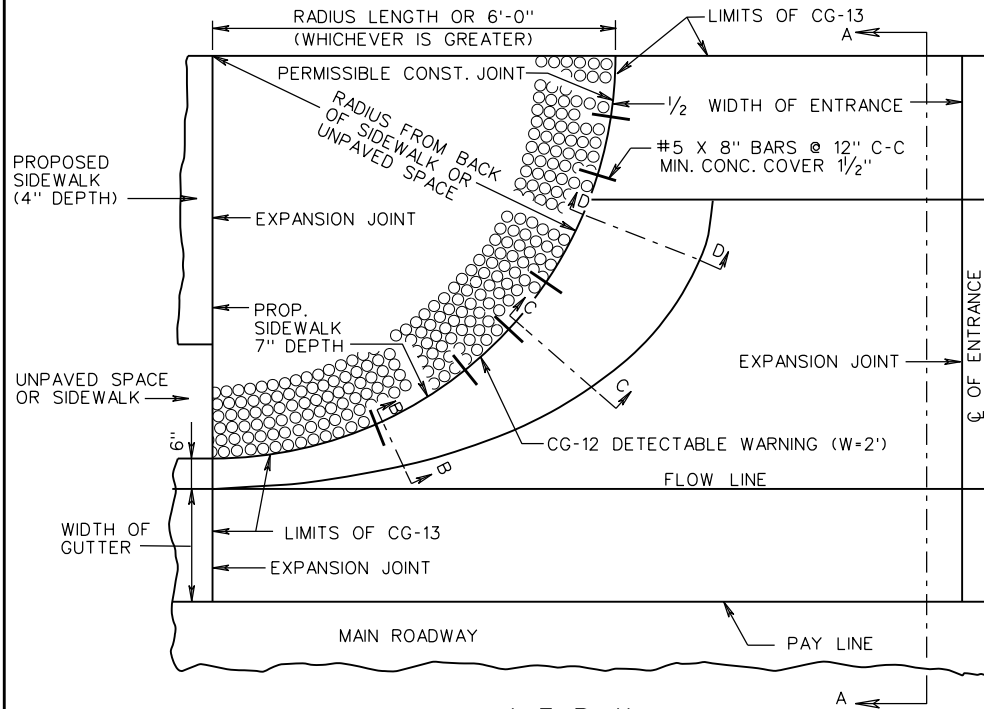
SHEET 1 OF 1

REVISION DATE

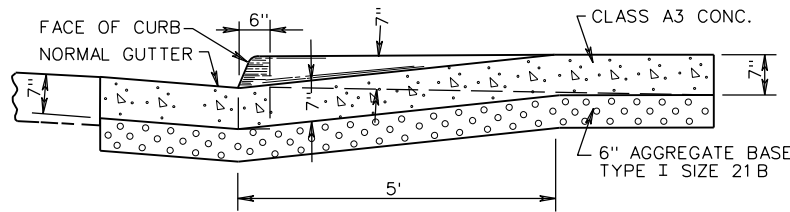
TITLE

SPECIFICATION
REFERENCE

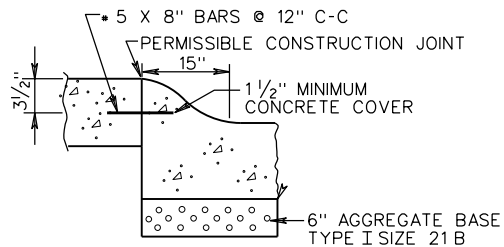
VIRGINIA DEPARTMENT OF TRANSPORTATION



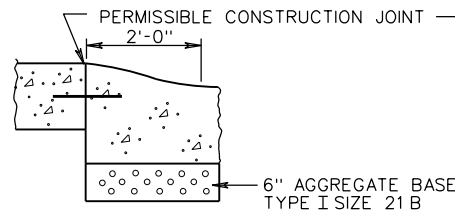
HALF PLAN



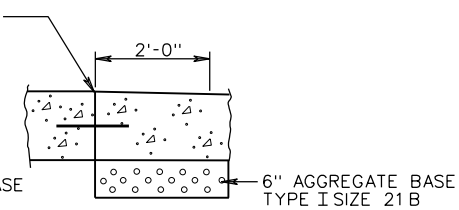
SECTION A-A



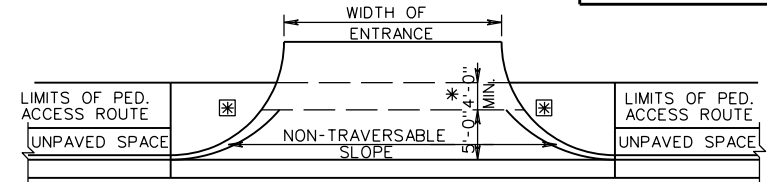
SECTION B-B



SECTION C-C



SECTION D-D



PEDESTRIAN ACCESS ROUTE DETAIL

ADDITIONAL RIGHT-OF-WAY IS REQUIRED IF THE LIMITS OF PEDESTRIAN ACCESS ROUTE ☒ EXTEND BEYOND EXISTING OR PROPOSED VDOT RIGHT-OF WAY.

☒ PEDESTRIAN ACCESS ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS. IF ACCESS ROUTE IS ADJACENT TO BACK OF CURB, MINIMUM WIDTH SHOULD BE 6'.

* IF PEDESTRIAN ACCESS ROUTES ☒ ARE BEING PROVIDED, A MINIMUM 4' TRAVERSABLE WIDTH IS REQUIRED WITH MAX. 2% CROSS SLOPE.

NOTES:

1. PROPOSED 7" SIDEWALK IS TO BE POURED MONOLITHICALLY WITH ENTRANCE OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
2. PROPOSED 7" SIDEWALK TO BE CLASS A-3 CONCRETE.
3. REQUIRED BARS ARE TO BE NO. 5X8" PLACED 1' CENTER TO CENTER ALONG BACK OF CURB, MID-DEPTH OF SIDEWALK. MINIMUM CONCRETE COVER 1 1/2".
4. ALL DETAILS AND DIMENSIONS NOT SHOWN ARE THE SAME AS STANDARD CG-9D.
5. THIS DESIGN MAY ALSO BE APPLIED TO OTHER ENTRANCE STANDARDS AS THE NEED ARISES.
6. WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.
7. SEE STANDARD CG-12 FOR DETECTABLE WARNING DETAILS.

SPECIFICATION REFERENCE
502

**COMMERCIAL ENTRANCE
(HEAVY TRUCK TRAFFIC ANTICIPATED)**

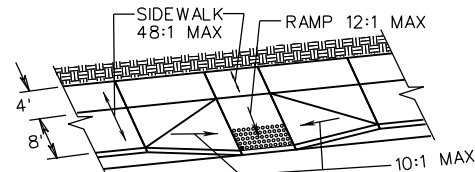
VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT	
ROAD AND BRIDGE STANDARDS	
REVISION DATE	SHEET 1 OF 1
	203.10

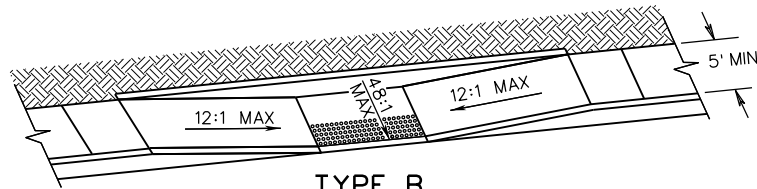
GENERAL NOTES:

1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. ALL DETECTABLE WARNING SURFACE PRODUCTS SHALL MEET THE REQUIREMENTS OF SECTION 504 OF THE SPECIFICATIONS FOR CG-12 DETECTABLE WARNING SURFACE. DETECTABLE WARNING SURFACE PRODUCTS USED SHALL BE FROM THE MATERIALS APPROVED PRODUCT LIST NUMBER 72.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. REQUIRED BARS ARE TO BE NO. 5 X 8" PLACED 1' CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1/2".
5. ROADWAY CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER.
6. CURB RAMPS ARE REQUIRED FOR SIDEWALKS AND SHARED USE PATHS. THE WIDTH OF THE CURB RAMP SHALL MATCH SIDEWALK WIDTH. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.
7. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP LANDING FLOOR.
8. CURB RAMPS WILL BE INSTALLED AND LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. CURB RAMPS SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES, LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC.
9. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
10. DETECTABLE WARNING SURFACE PANELS SHALL BE INSTALLED FLUSH WITH THE BACK OF CURB.
11. WHERE CURB RAMPS INTERSECT A RADIAL SECTION OF CURB AT ENTRANCES OR STREET CONNECTIONS THE DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY RADIUS OR BE FIELD-MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB. SEE CG-12-INS PAGES 204.06 AND 204.07 FOR METHODS OF INSTALLING DETECTABLE WARNINGS ON A RADIUS.

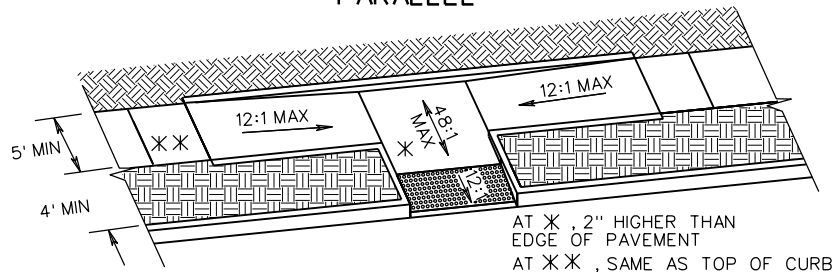
NOTE: COMPONENTS OF CURB RAMPS CONSIST OF THE FOLLOWING:
 HYDRAULIC CEMENT SIDEWALK (DEPTH IN INCHES, AREA IN SQUARE YARDS)
 CURB WHEN REQUIRED (CG-2 OR CG-3 IN LINEAR FEET)
 DETECTABLE WARNING SURFACE (AREA IN SQUARE YARDS)
 EACH OF THE ABOVE ITEMS IS A SEPARATE PAY ITEM AND SHOULD BE SUMMARIZED FOR EACH CURB CUT RAMP.



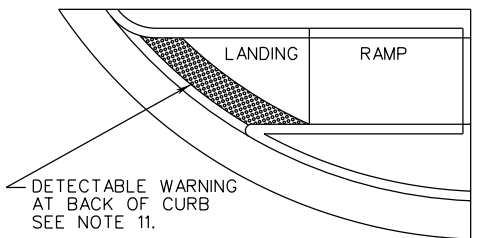
**TYPE A
PERPENDICULAR**



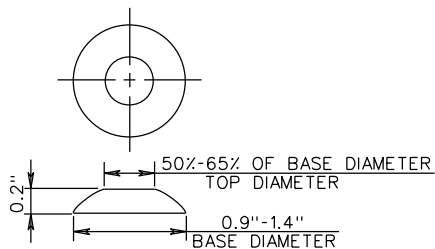
**TYPE B
PARALLEL**



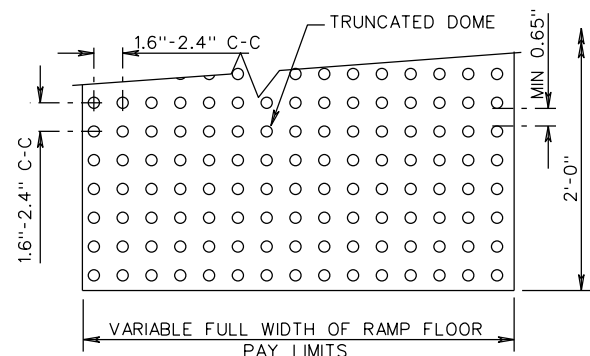
**TYPE C
PARALLEL & PERPENDICULAR**



**DETECTABLE WARNING
INSTALLED ON A RADIUS**



**TRUNCATED DOME
DETAIL**

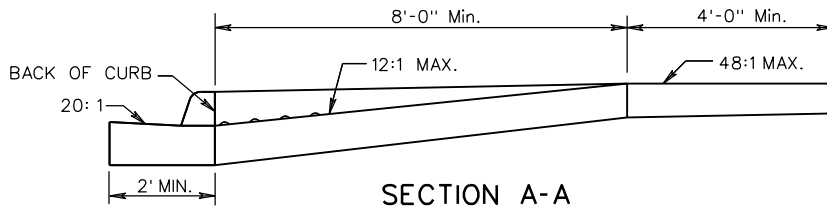
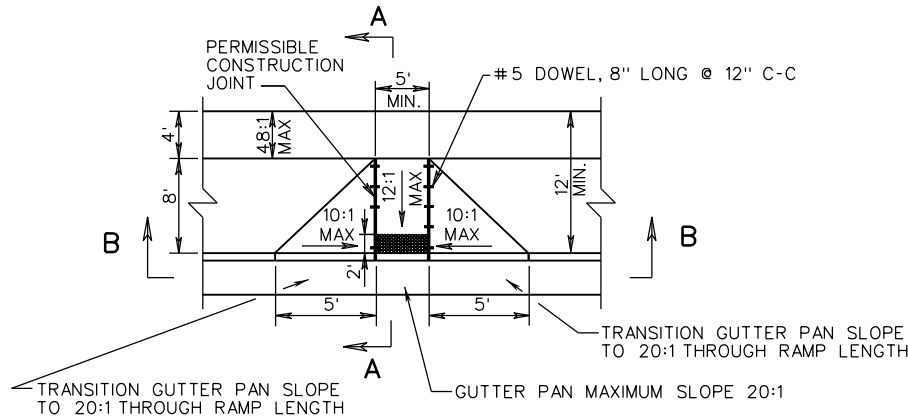


**DETECTABLE WARNING
DETAIL**

VDOT	
ROAD AND BRIDGE STANDARDS	
SHEET 1 OF 5	REVISION DATE
204.01	04/19

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.
CG-12 DETECTABLE WARNING SURFACE
 (GENERAL NOTES)
 VIRGINIA DEPARTMENT OF TRANSPORTATION

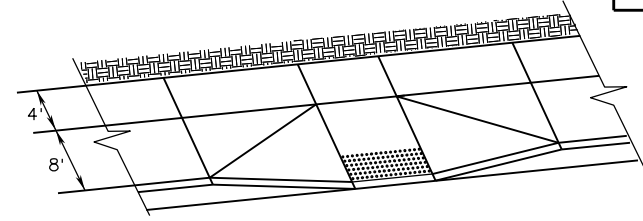
SPECIFICATION REFERENCE
105 502 504



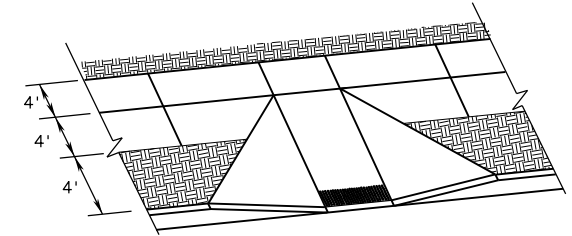
SECTION B-B

NOTES:

1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. THIS DESIGN TO BE USED FOR CONSTRUCTION THAT INCORPORATES WIDER SIDEWALK. LANDING (4' WIDE) REQUIRED AT TOP OF CURB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR NEW CONSTRUCTION.
3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
4. DIAGONAL PLACEMENT IS NOT PERMITTED.

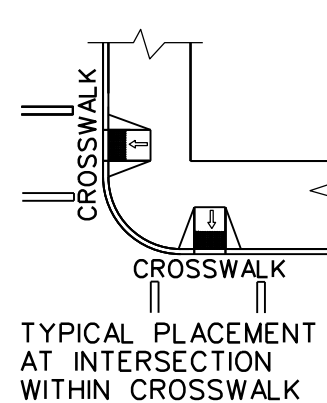


TYPICAL DESIGN

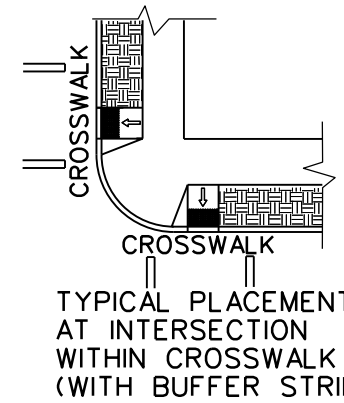


TYPE A WITH BUFFER STRIP

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT



TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK



TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK (WITH BUFFER STRIP)

SPECIFICATION REFERENCE

105
502
504

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

CG-12 DETECTABLE WARNING SURFACE

TYPE A (PERPENDICULAR) APPLICATION

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT

ROAD AND BRIDGE STANDARDS

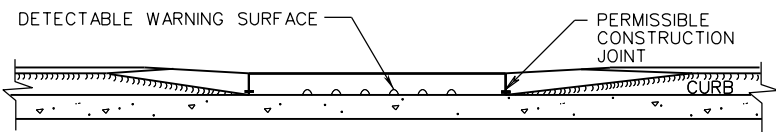
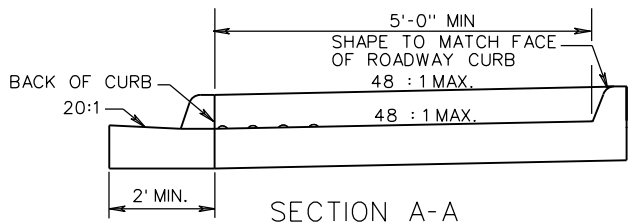
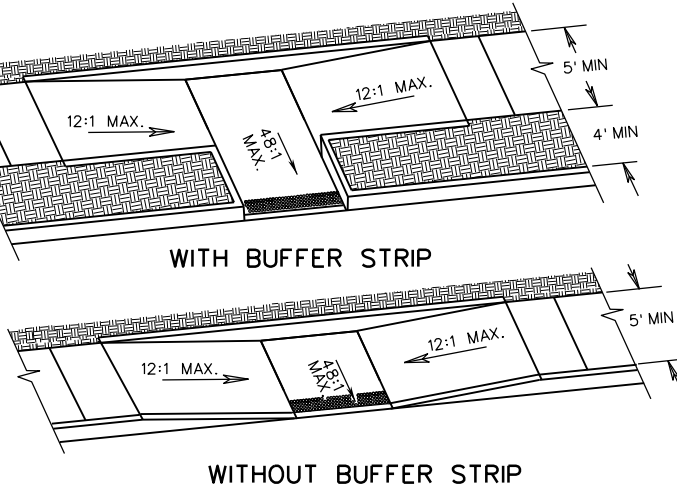
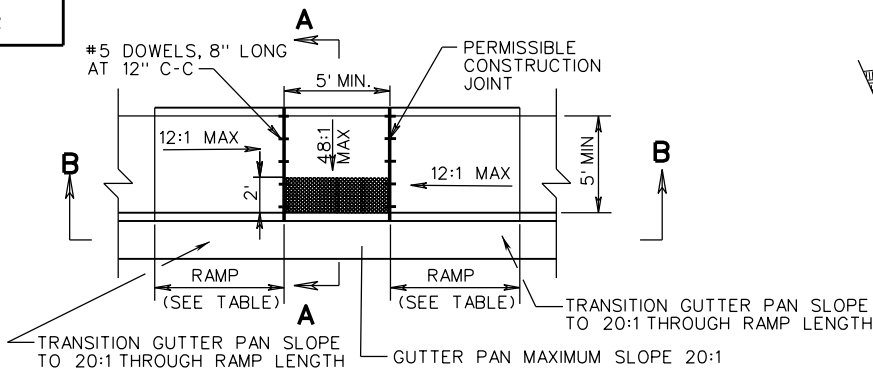
REVISION DATE

04/19

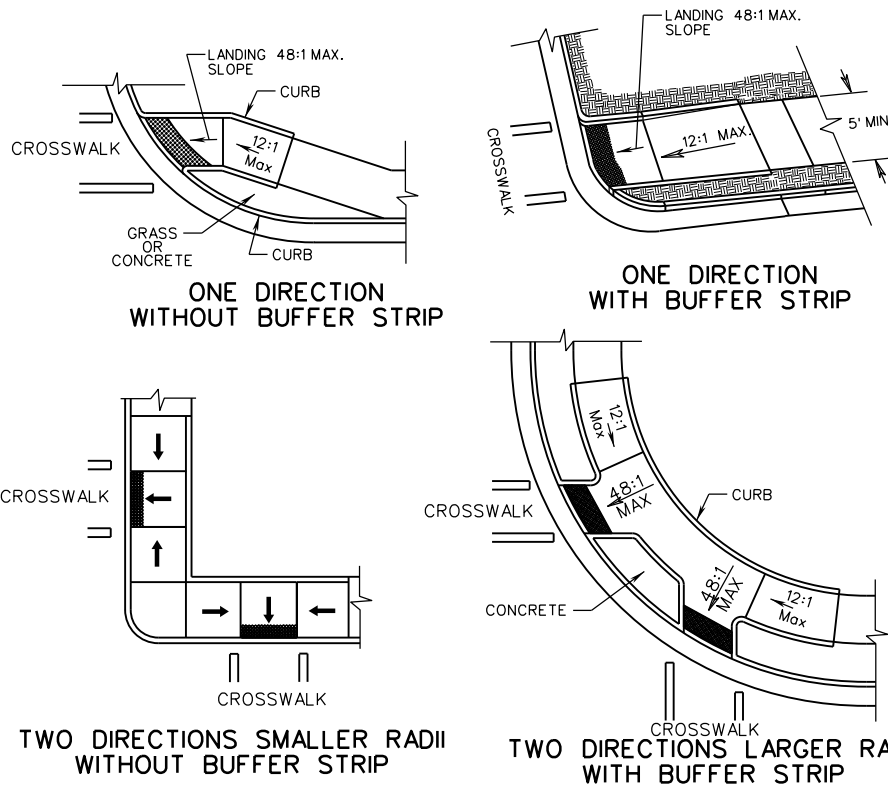
SHEET 2 OF 5

204.02

CG-12



EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT



- NOTES:
1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
 2. THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.
 3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
 4. DIAGONAL PLACEMENT IS NOT PERMITTED.

TYPE B PARALLEL APPLICATION		
ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15

VDOT
ROAD AND BRIDGE STANDARDS

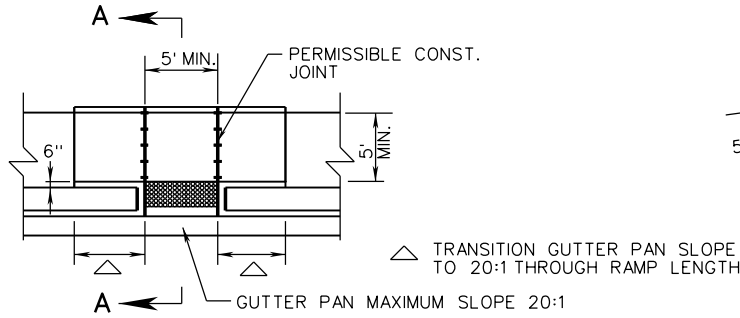
SHEET 3 OF 5 REVISION DATE
204.03 04/19

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

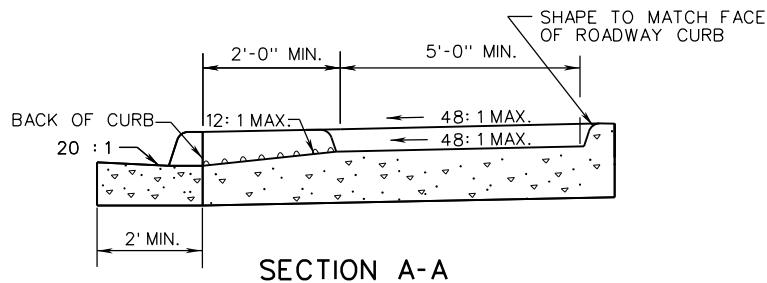
CG-12 DETECTABLE WARNING SURFACE
TYPE B (PARALLEL) APPLICATION

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE
105
502
504



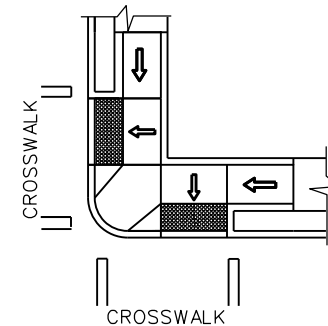
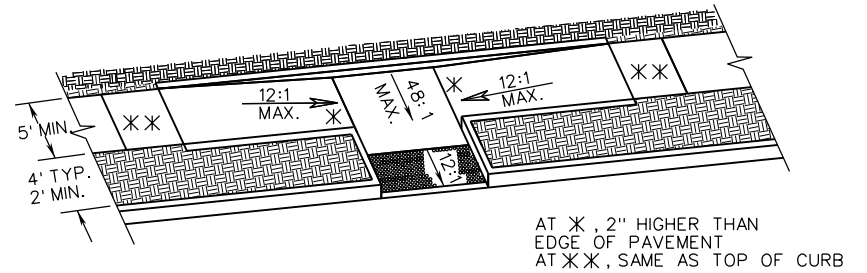
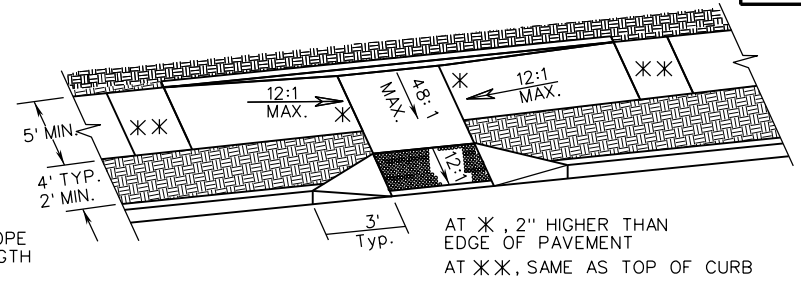
TANGENT PLAN



SECTION A-A

TYPE C PARALLEL & PERPENDICULAR APPLICATION		
ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	2	4
1	2	5
2	3	5
3	3	6
4	4	8
5	5	10
6	7	14
7	13	15
8	15	15

THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.



EXAMPLE PLACEMENT AT INTERSECTION WITH BUFFER STRIP

NOTES:

- FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
- THE SELECTION OF CURB TYPE AND THE CONFIGURATION OF THE BUFFER STRIP MAY VARY TO MEET EXISTING FIELD CONDITIONS AND ROADWAY GEOMETRICS PROVIDING THE DIMENSIONS AND SLOPES ARE AS NOTED.
- THIS COMBINED (PARALLEL & PERPENDICULAR) DESIGN CAN BE USED WITH ADJOINING BUFFER STRIP. LANDING AT BOTTOM OF TWO SLOPING SIDES WITH 5' X 5' MIN. DIMENSIONS. THE SHORT PERPENDICULAR RUN TO THE STREET CAN BE PROTECTED BY A LANDSCAPED SETBACK OR CONNECTED TO THE SIDEWALK WITH A WARPED SURFACE.
- GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
- DIAGONAL PLACEMENT IS NOT PERMITTED.

SPECIFICATION REFERENCE
105 502

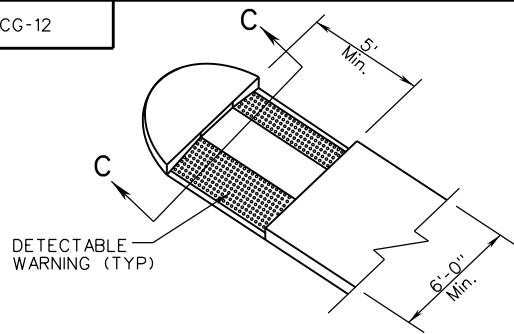
A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

CG-12 DETECTABLE WARNING SURFACE
TYPE C (PARALLEL & PERPENDICULAR) APPLICATION

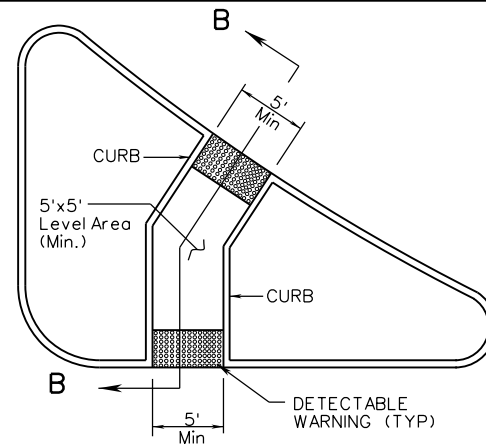
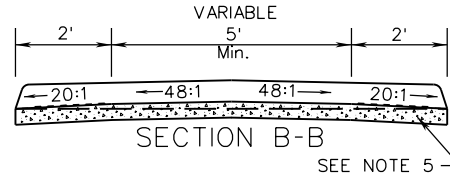
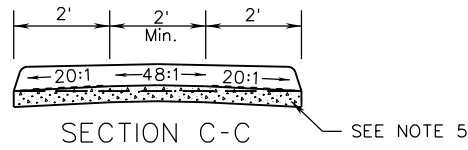
VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS	
REVISION DATE	SHEET 4 OF 5
04/19	204.04

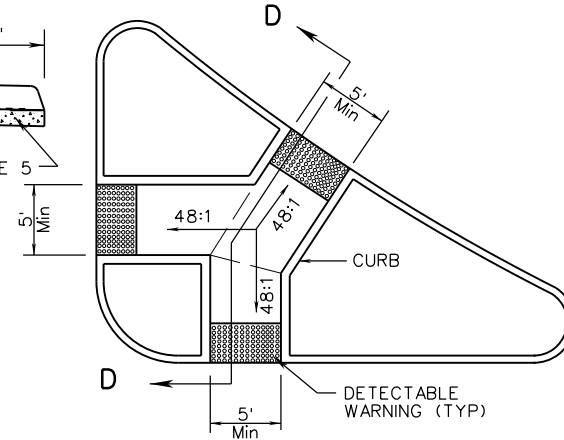
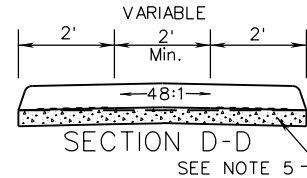
CG-12



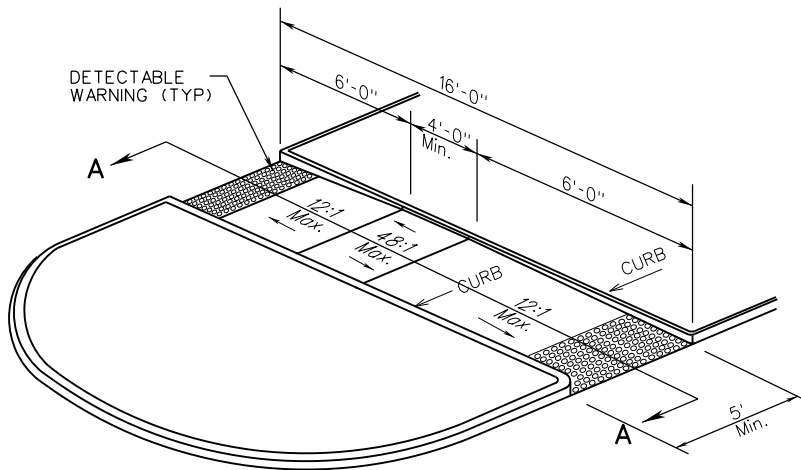
MEDIAN WITH CUT-THROUGH
TYPE M2



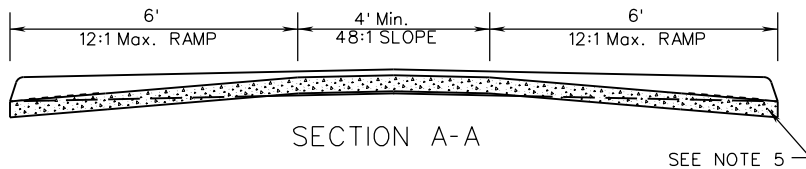
REFUGE ISLAND WITH RAMPS
TYPE RI1



REFUGE ISLAND CUT - THROUGH
TYPE RI2



MEDIAN WITH RAMP
TYPE M1



NOTES:

1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. CURB SHALL BE SHAPED TO MATCH THE FACE OF ROADWAY CURB.
3. SEE ROADWAY PLANS FOR MEDIAN AND REFUGE ISLAND DIMENSIONS
4. RAMPS AND CUT THROUGH'S SHALL BE ALIGNED WITH CROSSWALKS.
5. THE RAMPS AND CUT THROUGH'S SHALL BE INSTALLED AND PAID FOR AS 4" HYDRAULIC CEMENT CONCRETE SIDEWALK IN ACCORDANCE WITH SECTION 504 OF THE ROAD & BRIDGE SPECIFICATIONS. EXCAVATION OF MATERIAL FOR THE INSTALLATION OF THE SIDEWALK SHALL BE INCLUDED IN THE PRICE BID FOR 4" HYDRAULIC CEMENT CONCRETE SIDEWALK.
6. CUT THROUGH'S LESS THAN 6' IN WIDTH SHALL NOT HAVE DETECTABLE WARNINGS INSTALLED.



ROAD AND BRIDGE STANDARDS

SHEET 5 OF 5

REVISION DATE

204.05

04/19

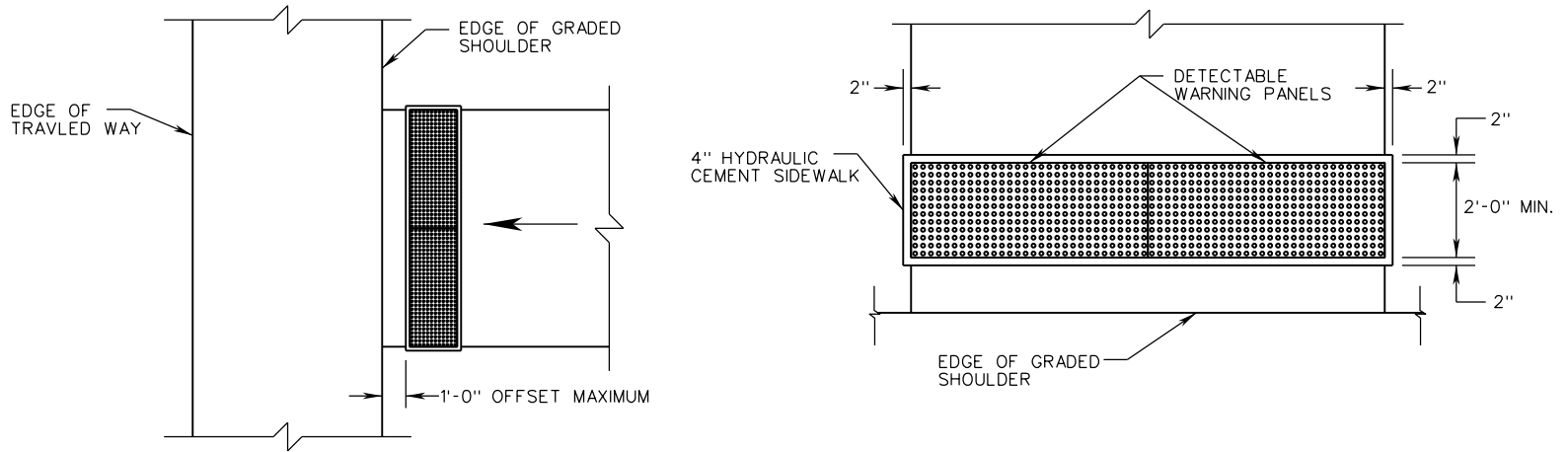
A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

CG-12 DETECTABLE WARNING SURFACE
MEDIAN AND REFUGE ISLAND APPLICATIONS

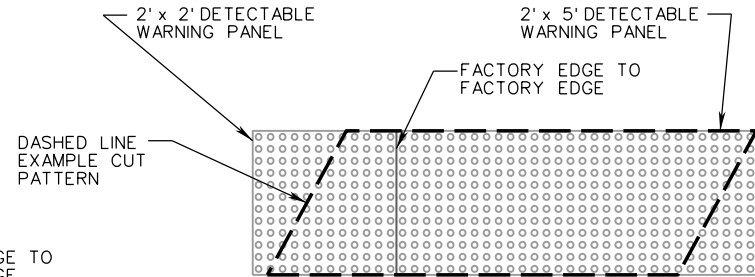
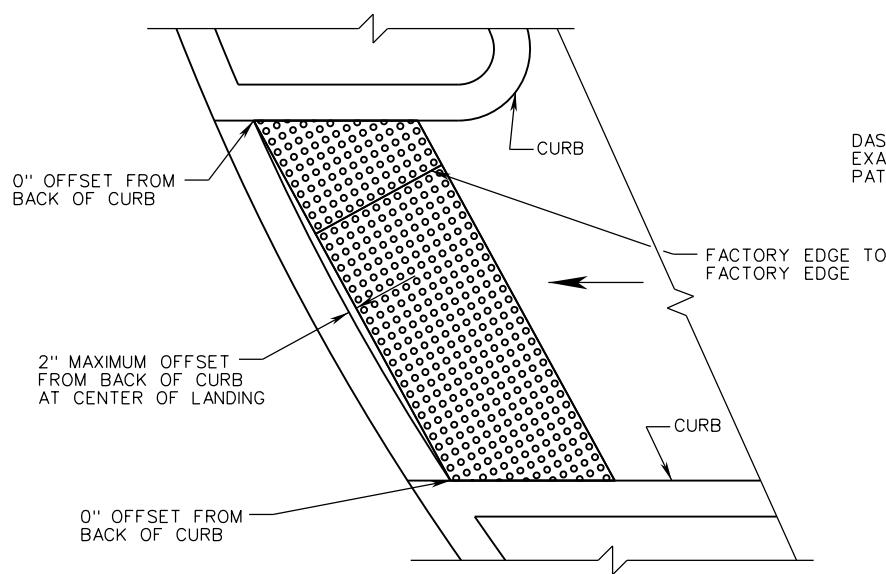
VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION
REFERENCE

105
502



TYPICAL INSTALLATION FOR SHARED-USE PATH WITH SHOULDER



NOTES

1. THE OFFSET OF THE DETECTABLE WARNING PANEL AT THE LANDING CENTER IS 2" MAXIMUM WITH A 0" OFFSET AT EACH END. OFFSETS GREATER THAN 2" ARE NOT PERMITTED AND REQUIRE THE DETECTABLE WARNING PANELS TO BE CUT TO MATCH THE BACK OF CURB RADIUS.
2. JOINTS BETWEEN DETECTABLE WARNING PANELS SHALL BE FACTORY EDGES. CUT SIDES OF PANELS ARE NOT PERMITTED TO ABUT ADJACENT PANELS.
3. ALIGNMENT OF DOMES ON ADJACENT PANELS THAT WILL BE MODIFIED TO FIT A RADIUS SHALL BE MAINTAINED WHEN FIELD MODIFYING DETECTABLE WARNING PANELS.
4. PARTIAL DETECTABLE WARNING DOMES THAT ARE THE RESULT OF CUTTING PANELS SHOULD BE GROUND FLUSH WITH THE PANEL SURFACE.
5. GAPS BETWEEN ADJACENT DETECTABLE WARNING PANELS ARE NOT PERMITTED.
6. SEE PLANS FOR CROSSWALK MARKINGS, TURNING AREAS, ROUTE WIDTHS, GRADE CHANGES AND RAMP CONFIGURATIONS.

TYPICAL INSTALLATION ON RADIUS (SIDEWALKS OR SHARED USE PATHS)

SPECIFICATION REFERENCE
105
502
504

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

CG-12 DETECTABLE WARNING SURFACE
DETECTABLE WARNING INSTALLATION

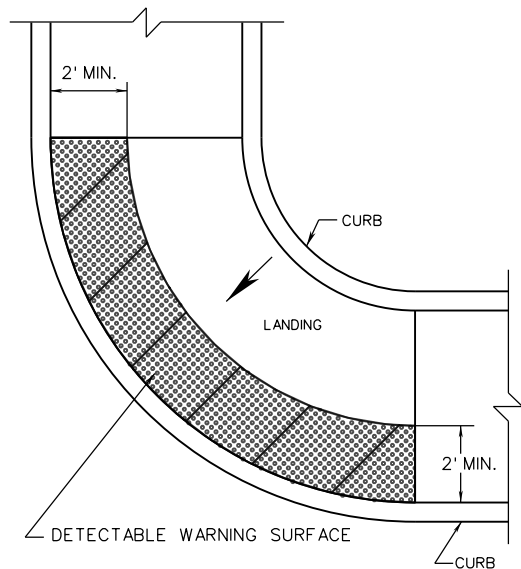
VIRGINIA DEPARTMENT OF TRANSPORTATION



ROAD AND BRIDGE STANDARDS

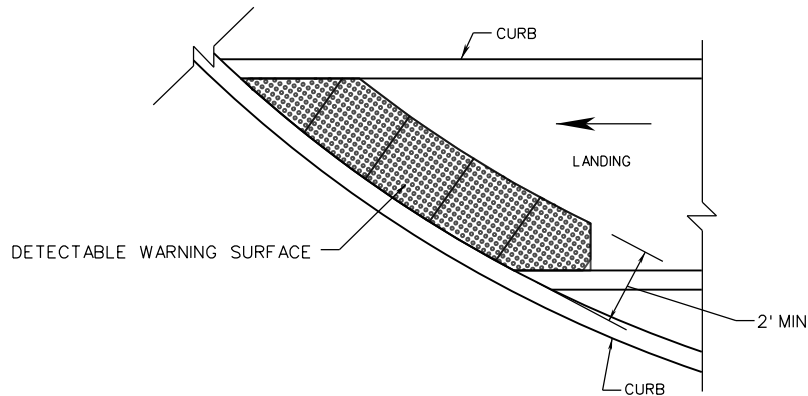
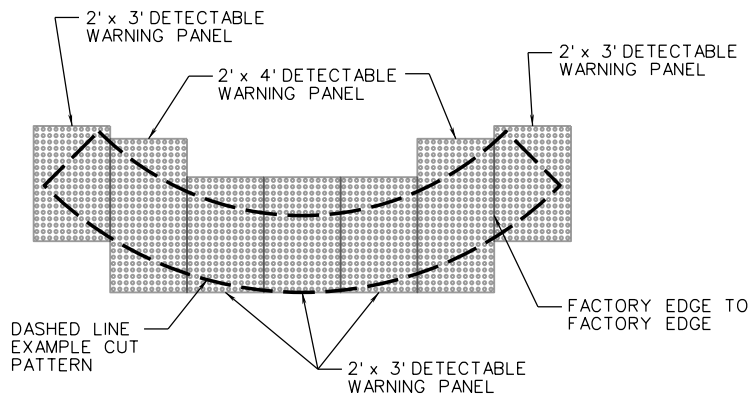
REVISION DATE	SHEET 1 OF 2
NEW 04/19	204.06

CG-12-INS

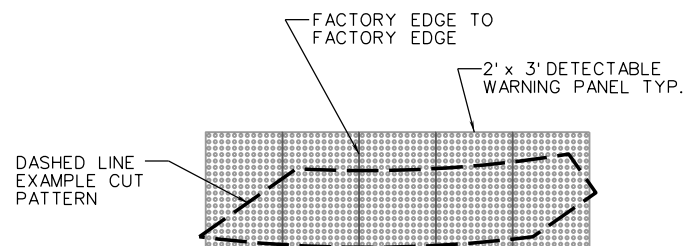


EXAMPLE BLENDED TRANSITION

(NOT FOR USE IN NEW CONSTRUCTION FOR RETROFIT OR ALTERATIONS ONLY)



EXAMPLE RADIAL INSTALLATION



NOTES

1. LOCATIONS WHERE THE DETECTABLE WARNING CANNOT BE INSTALLED WITH A MAXIMUM 2" OFFSET FROM THE BACK OF CURB SHALL HAVE A RADIUS TO MATCH RADIUS OF THE CURB. DETECTABLE WARNING PANELS SHALL HAVE A FACTORY RADIUS OR IF APPROVED BY THE ENGINEER MAY BE FIELD MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB.
2. JOINTS BETWEEN DETECTABLE WARNING PANELS SHALL BE FACTORY EDGES. CUT SIDES OF PANELS ARE NOT PERMITTED TO ABUT ADJACENT PANELS.
3. ALIGNMENT OF DOMES ON ADJACENT PANELS THAT WILL BE MODIFIED TO FIT A RADIUS SHALL BE MAINTAINED WHEN FIELD MODIFYING DETECTABLE WARNING PANELS.
4. DETECTABLE WARNING PANEL SIZES SHOWN ARE FOR EXAMPLE PURPOSES. OTHER PANEL SIZES MAY BE USED IN ORDER TO MAINTAIN CONSISTENT ALIGNMENT OF THE DOMES FOR EACH CURB RAMP LOCATION.
5. BLENDED TRANSITION CURB RAMPS ARE FOR ALTERATION SITUATIONS WHERE STANDARD DIRECTIONAL CURB RAMPS ARE NOT FEASIBLE DUE TO SITE CONSTRAINTS. BLENDED TRANSITION CURB RAMPS ARE NOT PERMITTED FOR NEW CONSTRUCTION.
6. PARTIAL DETECTABLE WARNING DOMES THAT ARE THE RESULT OF CUTTING PANELS SHOULD BE GROUND FLUSH WITH THE PANEL SURFACE.
7. GAPS BETWEEN ADJACENT DETECTABLE WARNING PANELS ARE NOT PERMITTED.
8. SEE PLANS FOR CROSSWALK MARKINGS, TURNING AREAS, ROUTE WIDTHS, GRADE CHANGES, AND RAMP CONFIGURATIONS.



ROAD AND BRIDGE STANDARDS

SHEET 2 OF 2

REVISION DATE

204.07

NEW 04/19

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

CG-12 DETECTABLE WARNING SURFACE
METHOD OF INSTALLING DETECTABLE WARNINGS ON A RADIUS

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE

105
502
504