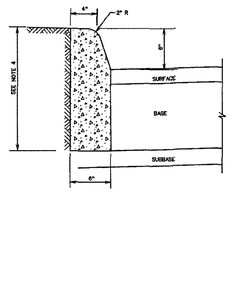
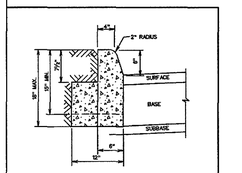
CG-2

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 200 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 2" TO MEET OR BE FLUSH WITH AN ADJACENT GUTTER OF LESSER DEPTH. IN NO CASE SHALL THE DEPTH OF THE CURB BE LESS THAN A GAUGE OF THE PAVEMENT OR STRUCTURE. OTHERWISE THE DEPTH IS TO BE 18" AS SHOWN. THE WIDTH SHOWN IN THE DETAIL IS TO BE MADE FOR A DISTANCE OF AN ADDITIONAL 12".
5. CG-2 IS TO BE USED ON ROADWAYS MEETING THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS, THE VDOT ROAD DESIGN MANUAL, IN THE SECTION OR ON URBAN STANDARDS.





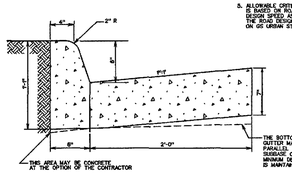
ACCEPTABLE ALTERNATIVE IF CURB IS EXTRUDED

SPECIFICATION REFERENCE	STANDARD 6" CURB	VDOT ROAD AND BRIDGE STANDARDS	SPECIFICATION REFERENCE
105, 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 2010.01 / SHEET 1 OF 1	105, 502

CG-8

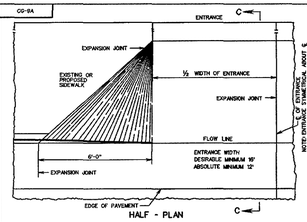
NOTES:

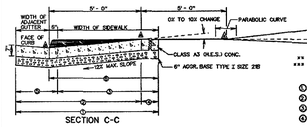
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 200 FEET OR LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STANDARD CG-9, OPEN-GRADED DRAINAGE COURSE FLUSH WITH TOP OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE BETWEEN THE CURB & GUTTER AND THE EDGE OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-8 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED. CRITERIA IS APPROVED AS A DESIGN EXCEPTION SHOWN IN THE SECTION ON IIS URBAN STANDARDS.



SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS	SPECIFICATION REFERENCE
105, 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 2010.03 / SHEET 1 OF 1	105, 502

CG-9A





WHEN USED IN CONJUNCTION WITH STANDARD CG-5 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.

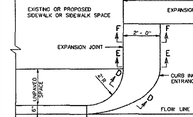
* 12 % MAXIMUM INCREASE IN SLOPE AT MINIMUM 10' INTERVALS
** 3 % MAXIMUM DECREASE IN SLOPE FOR FIRST 10' INTERVAL AND 8 % MAXIMUM DECREASE FOR SUCCEEDING MINIMUM 10' INTERVALS

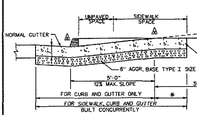
1. FOR SIDEWALK, CURB AND GUTTER - BUILT CONCURRENTLY.
2. FOR INITIAL CURB AND GUTTER ONLY.
3. FOR INITIAL SIDEWALK ONLY - 7" SIDEWALK TO BE DIPPED.
4. FOR PEDESTRIAN ACCESS ROUTE - MINIMUM 4'-0" TRAVERSABLE WIDTH IS REQUIRED WITH A MAXIMUM 2% CROSS SLOPE.
5. FOR CURB AND GUTTER ONLY - AFTER INITIAL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

▲ INDICATES POINT OF GRADE CHANGE.

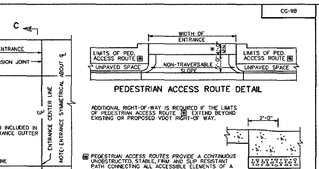
SPECIFICATION REFERENCE	STANDARD ENTRANCE GUTTER WITH FLARED OPENING (FOR USE ACROSS SIDEWALK)	VDOT ROAD AND BRIDGE STANDARDS	SPECIFICATION REFERENCE
502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: / SHEET 1 OF 1: 203.01	502

CG-9B





CG-9B



ADDITIONAL RIGHT-OF-WAY IS REQUIRED IF THE LIMITS OF THE PEDESTRIAN ACCESS ROUTE DO NOT FALL WITHIN EXISTING OR PROPOSED 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. A ACCESS ROUTE IS ADJACENT TO BACK OF CURB, MINIMUM WIDTH SHOULD BE 5'.

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

WHEN USED IN CONJUNCTION WITH STANDARD CG-5, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.

▲ POINT OF GRADE CHANGE

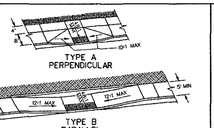
** 12 % MAXIMUM INCREASE IN SLOPE AT MINIMUM 10' INTERVALS
*** 3 % MAXIMUM DECREASE IN SLOPE FOR FIRST 10' INTERVAL AND 8 % MAXIMUM DECREASE FOR SUCCEEDING MINIMUM 10' INTERVALS

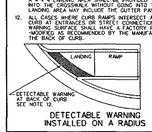
SPECIFICATION REFERENCE	STANDARD ENTRANCE GUTTER (FOR USE WITH UNPAVED SPACE BETWEEN CURB & SIDEWALK)	VDOT ROAD AND BRIDGE STANDARDS	SPECIFICATION REFERENCE
502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 01/13 / SHEET 1 OF 1: 203.02	502

CG-12

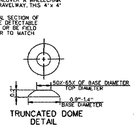
GENERAL NOTES:

1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT INTEGRAL SURFACE CONSISTING OF TRUE DOMES IN A RADIAL PATTERN. THE DOMES SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL. OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING REMOVABLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 5 @ 8" PLACED 9" CENTER TO CENTER ALONG CONSTRUCTION JOINT BETWEEN RAMP FLOOR, NO DEPTH OF RAMP FLOOR, MINIMUM CONCRETE COVER 3".
6. CURB & CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB & CURB AND GUTTER.
7. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER ARE ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER THE CURB IS EXISTING, PROPOSED, OR ALTERED. CURB RAMPS ARE TO BE LOCATED SO THAT THEY ARE NOT BLOCKED AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER, AND SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES, EXISTING LIGHT POLES, FIRE HYDRANTS, SIGN POSTS, ETC. ACCESSIBLE 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.
8. 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 RAMP IS PLACED IN THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO IT AT GUTTER.
9. TYPICAL CONCRETE SIDEWALK IS 4" THICK, WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE STANDARD REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, CONSIDER THE USE OF COMMERCIAL ENTRANCE HEAVY TRUCK TRAFFICS FOR CONCRETE DEPTH.
10. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.
11. WHEN ONLY ONE CURB RAMP IS PROVIDED FOR TWO CROSSINGS (DIAGONAL), A 4' x 4' LANDING AREA SHALL BE PROVIDED TO MANEUVER A WHEELCHAIR INTO THE CROSSWALK WITHOUT GOING INTO THE TRAVELWAY. THIS 4'x 4' LANDING AREA MAY INCLUDE THE GUTTER PAN.
12. ALL CURVES WHERE CURB RAMP INTERSECT A RADIAL SECTION OF CURB SHALL BE CONSTRUCTED WITH A RADIUS OF 9.5'. DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY FINISH OR BE FIELD MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE RADII OF CURB.

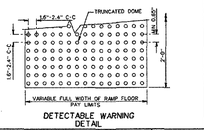




DETECTABLE WARNING INSTALLED ON A RADIUS

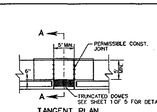


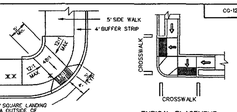
TRUNCATED DOME DETAIL



VDOT ROAD AND BRIDGE STANDARDS	CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES)	SPECIFICATION REFERENCE
SHEET 1 OF 5 / REVISION DATE: 7/11	VIRGINIA DEPARTMENT OF TRANSPORTATION	105, 502
203.05		

CG-12





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

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

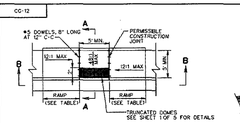
NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

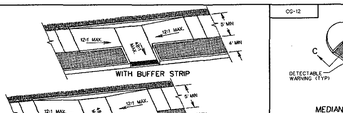
THE SELECTION OF CURB TYPE AND THE CONFIGURATION OF THE BUFFER STRIP MAY VARY TO MEET EXISTING FIELD CONDITIONS AND ROADWAY GEOMETRICS PROVIDING THE MINIMUM WIDTH AND SLOPES ARE NOTED.

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 RAMPED SURFACE.

VDOT ROAD AND BRIDGE STANDARDS	CG-12 DETECTABLE WARNING SURFACE TYPE C (PARALLEL & PERPENDICULAR) APPLICATION	SPECIFICATION REFERENCE
REVISION DATE: 7/11 / SHEET 4 OF 5	VIRGINIA DEPARTMENT OF TRANSPORTATION	105, 502
203.08		

CG-12





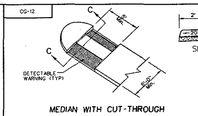
NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

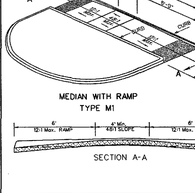
THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.

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

VDOT ROAD AND BRIDGE STANDARDS	CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION	SPECIFICATION REFERENCE
SHEET 3 OF 5 / REVISION DATE: 7/11	VIRGINIA DEPARTMENT OF TRANSPORTATION	105, 502
203.07		

CG-12

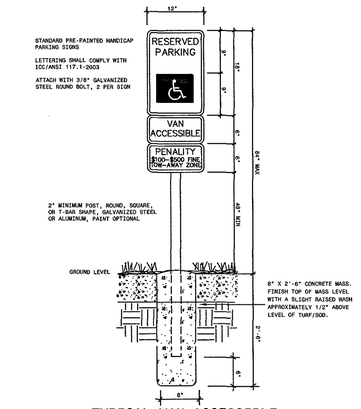




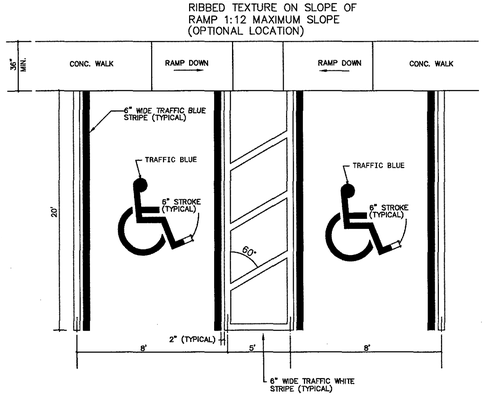
NOTES:

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 THROUGHS SHALL BE ALIGNED WITH CROSSWALKS.
5. THE RAMPS AND CUT THROUGHS 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 THROUGHS LESS THAN 6'-0 IN WIDTH SHALL NOT HAVE DETECTABLE WARNINGS INSTALLED.

VDOT ROAD AND BRIDGE STANDARDS	CG-12 DETECTABLE WARNING SURFACE MEDIAN AND REFUGE ISLAND APPLICATIONS	SPECIFICATION REFERENCE
SHEET 5 OF 5 / REVISION DATE: 7/12	VIRGINIA DEPARTMENT OF TRANSPORTATION	105, 502
203.08A		



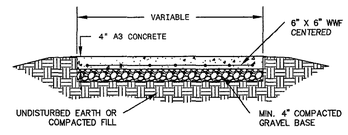
TYPICAL VAN ACCESSIBLE SIGN DETAIL
NOT TO SCALE



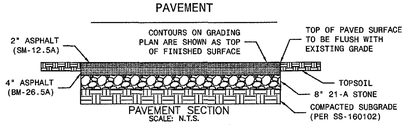
TYPICAL HANDICAPPED STALLS
NOT TO SCALE

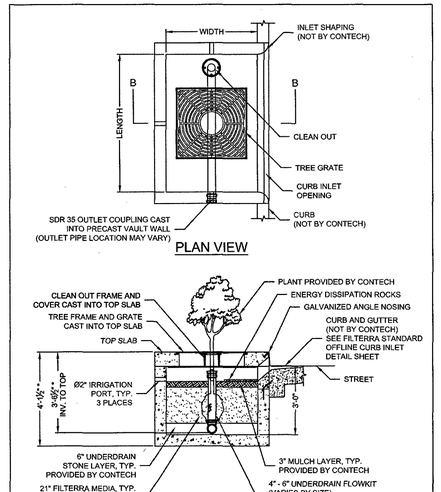
GRID FOR LAYOUT ONLY ONE SQUARE EQUALS 4"x 4" CENTER SYMBOL IN STALL

HANDICAPPED SIGN
NOT TO SCALE



TYPICAL SIDEWALK CROSS-SECTION
N.T.S.





LONG SIDE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0604	6 x 4	6'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0804	8 x 4	8'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0806	8 x 6	8'-0"	5'-6"	4" SDR 35	(1) 4' x 4'
FT1006	10 x 6	10'-0"	5'-6"	6" SDR 35	(1) 4' x 4'
FT1204	12 x 4	12'-0"	4'-0"	4" SDR 35	(2) 3' x 3'
FT1206	12 x 6	12'-0"	5'-6"	6" SDR 35	(2) 4' x 4'
FT1307	13 x 7	13'-0"	7'-0"	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

KEY PLAN

GENERAL NOTES

eec earth environmental and civil

SPECTRUM DESIGN
architects | engineers

10 CHURCH AVE SE, PLAZA SUITE 1 ROANOKE, VIRGINIA 24011 540.342.6001

1920 VALLEY VIEW BLVD NW

COMMERCIAL BUILDING UPGRADE

ROANOKE, VIRGINIA

STATE PROJECT NO. N/A

SPECTRUM DESIGN PROJECT NO.

COMMONWEALTH OF VIRGINIA
BRANDON KIRK SCOTT
Lic. No. 54451
3/29/2016
PROFESSIONAL ENGINEER

DATE	3/29/2016	
DESIGN ARCHITECT		
PROJECT ARCHITECT		
PROJECT ENGINEER	BKS	
CHECKED BY	JNL	
DRAWN BY	AKS	
REVISIONS	NUMBER	DATE

SHEET TITLE

GENERAL DETAILS

C502

J:\15142\Civil\15-063 - Valley View - Standard\Sheets\15-063_GENERAL DETAILS.dwg, Plotted By: tlvick, Plotted: Aug 15, 2016 - 11:38am