



## **CITY OF CHESTERFIELD REQUIREMENTS FOR SIDEWALK CONSTRUCTION March 1, 2003**

All sidewalks constructed after March 1, 2003 must be built in accordance with the following guidelines. Following the guidelines is a discussion of the reasons certain elements in the guidelines were developed.

### REQUIREMENTS

1. Width of the sidewalk shall be a minimum of 4 feet.
2. A 5 foot wide passing area shall be provided every 200 feet along the length of the sidewalk. Intersections, sidewalks, and driveways may serve as passing areas for sidewalks less than 5 feet wide.
3. Curb ramps shall be installed such that the ramp is perpendicular to the curb.
4. Curb ramps shall be installed directly across from one another to allow for the shortest possible crossing distance.
5. At "T" intersections, a third ramp to allow crossing of the major road shall be required.
6. The cross slope on the sidewalk shall be 2% (1:48) sloping toward the street. This includes areas where the sidewalk is crossing a driveway.
7. The running slope on the sidewalk shall generally parallel the street grade. When not parallel, the maximum slope shall be 8% (1:12).
8. Side flares shall have a maximum slope of 8% (1:12).
9. The ramp shall be flush with the back of curb on the street. The curb shall have a ½-inch rise in 6 inches at the ramp.
10. Diagonal or perpendicular curb ramps shall have a minimum 4 foot square landing at the top of the ramp. A 5 foot square landing is preferred.
11. Longitudinal or combination ramps shall have a minimum 5 foot square landing where changes in direction are required.
12. The maximum slope on any landing is 2% (1:48).
13. Ponding of water on or at the base of any sidewalk or ramp shall not be permitted.
14. The ramp shall have a minimum width of 48 inches and a maximum slope of 8% (1:12).

15. A detectable warning consisting of truncated domes shall be placed at each curb ramp. If curb cuts are used to allow a crosswalk to pass through an island then detectable warnings shall be placed at each exit point from the island.
16. The detectable warning shall be a premolded tile cast directly into the plastic concrete, such as Armor-Tile Cast in Place Tile Systems as manufactured by Engineered Plastics Inc. (800-682-2525), [www.armor-tile.com](http://www.armor-tile.com).
17. The warning surface shall be “brick red” in color. Concrete will generally not be colored. On special projects, the warning surface shall be “black” when placed in red colored concrete. Warning surfaces used to retrofit existing ramps shall meet these color requirements.
18. The detectable warning shall be placed between 6 and 8 inches of the front of the curb line.
19. The detectable warning shall extend 24 inches in the direction of travel and the full width of the ramp, landing, or blended transition.
20. The maximum allowed protrusion over the sidewalk area is 4 inches, unless the object is more than 80 inches above the sidewalk.

## DISCUSSION

The width of the sidewalk and the requirement for passing areas are to provide room for two wheelchairs to pass. As noted driveways are acceptable for use as passing areas, they are not acceptable for curb ramps.

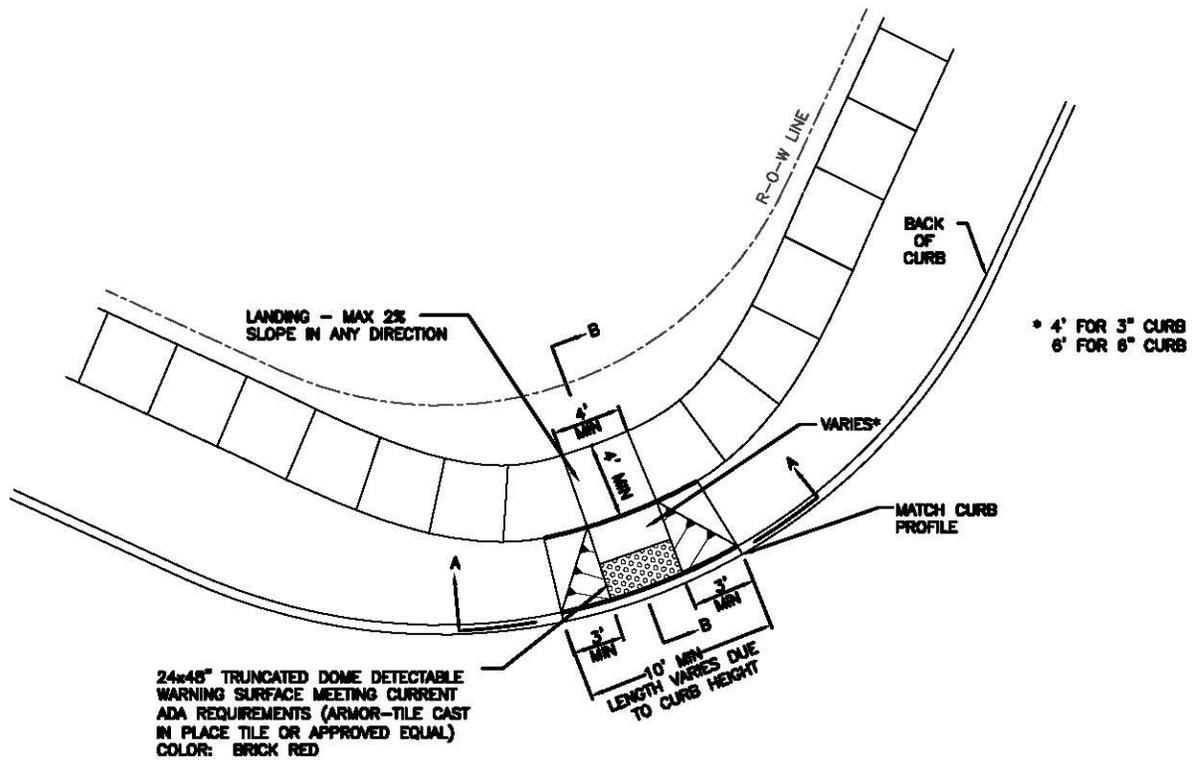
The curb ramp must be perpendicular to the curb else the wheelchair user finds it very difficult to use. What happens is that one of the wheels on the chair will come off the ground as the user goes up or down the ramp. There should be no lip or sudden change in grade where the ramp meets the street.

Diagonal ramps should only be used when the curb radius is greater than 20 feet; otherwise the wheelchair user is directed into an intersection, not a cross walk area. For radii of 20 feet and less, two perpendicular ramps should be used.

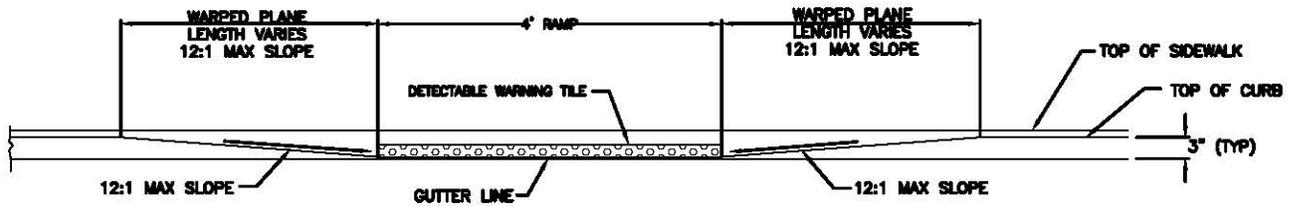
A combination ramp is one that combines the elements of a parallel, perpendicular and/or a diagonal ramp to achieve the best overall result. In all cases the sidewalk should connect to the landing, not the flares or ramp.

The product listed for the detectable warning area is installed directly into the plastic concrete. Products that are anchored with epoxy or mortar shall only be used on retrofit installations.

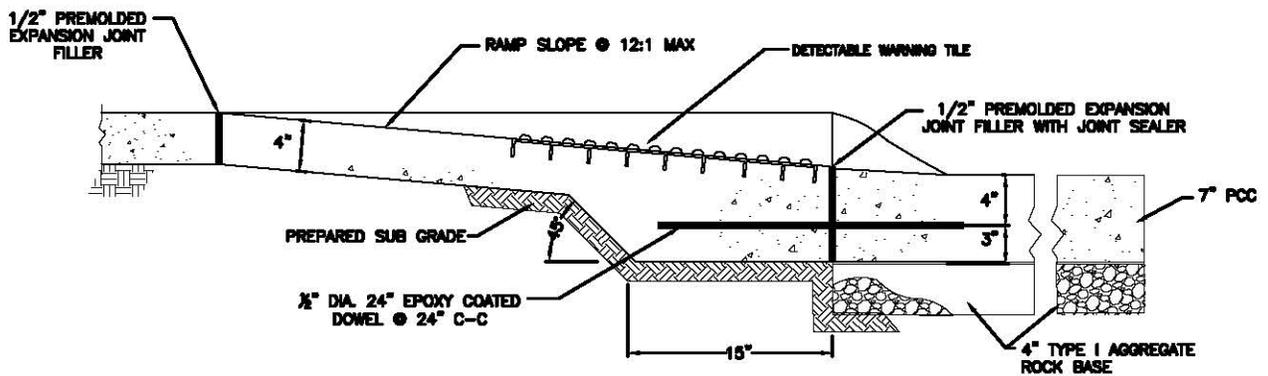
Detectable warnings should be placed at all locations where pedestrians can cross into the street without encountering a curb. This includes in areas such as parking lots and parking garages.



PLAN VIEW



SECTION A-A



SECTION B-B

**GENERAL NOTES:**

1. DO NOT SCALE DRAWING. FOLLOW DIMENSIONS.
2. INSTALL 1/2" RISE IN LIEU OF NORMAL CURB SECTION AT RAMP
3. INSTALL RAMP FLUSH WITH PAVEMENT. NO BULLNOSE WILL BE PERMITTED.

**DRAWING**

ISSUED	REVISIONS
02-25-2003	
 <b>City of Chesterfield</b> Department of Public Works Chesterfield, Missouri	
<b>TYPICAL BMP DETAIL</b> <b>HANDICAP RAMP DETAIL</b>	