

provided at the outer edge of the shoulder. It is the preferred treatment for left-turn slots. Sloping curb permits a vehicle with large off-tracking to have a less damaging effect to both vehicle and curb. However, vertical curb may be used on left-turn slots where there is existing vertical curb in the median.

Vertical curb and a safety walk may be desirable along the faces of long walls, bridges, and tunnels, particularly if full shoulders are not provided.

New installation of vertical curb shall not be constructed on freeways and Interstate highways; and are considered undesirable on other high-speed arterials. When accidentally struck at high speeds, it is difficult for the operator to retain control of the vehicle. In addition, most vertical curbs are not adequate to prevent a vehicle from leaving the roadway. Where positive protection is required, such as along a long narrow median or adjacent to a bridge substructure, suitable median barrier or guide rail should be provided.

Generally, vertical curb should not be provided inside the face of bridge parapets. A preferred and more widely used method is to design the parapet in the shape of the Department's concrete barrier curb. On an urban street, vertical curb may be used on bridges with the same curb height as the approach roadway curb. Inlets should be provided in the gutter or the curb, or both.

Generally, it is not practical to design a gutter section to contain all of the runoff, even from frequent rains, and some overflow onto the traveled surface can be expected. The spread of water on the traveled way is kept within tolerable limits by the proper spacing of inlets. Grate inlets and depressions or curb-opening inlets should not be placed in the travel lane because of their adverse effect on drivers and bicycle riders who veer away from them. Warping of the gutter for curb-opening inlets should be limited to the portions within 4 feet of the curb to minimize adverse driving effects. See *NJDOT Drainage Design Manual* for the proper spacing of inlets.

5.6.3 Placement of Curb

Curb introduced intermittently along a street should be offset 3 feet from the edge of lane if there is no shoulder: where the curb is continuous, the offset should be at least 1 foot. See Figure 6-K for offsets of curbs for islands with and without shoulders.

5.6.4 Curb Height

For new installations of sloping curb, the overall curb height shall not exceed 4 inches.

For new installations of vertical curb, the curb height (face) shall conform to the following:

1. For posted speeds greater than 40 mph, the curb height shall not exceed a 4 inch face.
2. For posted speeds less than or equal to 40 mph, the desirable curb height is 4 inches. Where sidewalks are to be constructed, a 6 inch face may be used.
3. For traffic calming areas a 6 inch face may be used.
4. For curb on bridges with sidewalk, the desirable curb height should be 6 inches to accommodate future resurfacing and/or conduits through the sidewalk.

When curb is used in conjunction with guide rail, see Section 8, "Guidelines for Guide Rail Design and Median Barriers," for the placement of guide rail.

Where posted speeds are 40 mph or less and no guide rail exists, an 8 inch face vertical curb may be used to discourage parking of vehicles in the border area of the highway.

When resurfacing adjacent to curb, the curb should not be removed unless it is deteriorated or the curb face will be reduced to less than 3 inches. A curb face less than 3