



Instead of being flush, this curb ramp has a lip where it meets the asphalt, making the transition from parking lot to ramp abrupt.



The proper design of this curb ramp in Warren meets all necessary requirements. (Photos by Marilyn Sydow)



Built-up curb ramps (whether poorly-done or well-designed) should not be placed in handicap parking access aisles.

Accessibility Bits

Design, construction keys to proper curb ramps

By Marilyn Sydow, RSC facilities planner

Curb ramps should provide a smooth, level change from roadways and parking lots to sidewalks. Although beneficial to persons using carts, strollers and bicycles, this component is especially important for people who use wheelchairs or have mobility disabilities that make using steps difficult. According to the Americans with Disabilities Act Standards for Accessible Design (ADAAG, revised 7-1-94) under Section 4.7 Curb Ramps, they “shall be provided wherever an accessible route crosses a curb.”

To be accessible, all curb ramps must have:

- 1) a minimum width of 36 inches,
- 2) a surface that is “stable, firm and slip-resistant,”

3) a transition from one level to another that is “flush and free of abrupt changes,” and

4) a maximum slope of 1:12 (12 inches of ramp length for each inch of curb height) and an adjoining slope (roadway) not exceeding 1:20.

In addition, ADAAG states that curb ramps must:

5) “be located or protected to prevent their obstruction by parked vehicles.”

There are three basic types of curb ramps allowed by the ADAAG.

The **flared sides** version (Fig 12a); is installed into the higher-level sidewalk. This type of ramp is the most versatile as it allows pedestrian traffic to walk across the ramp. The maximum slope of the flared sides is 1:10 when the sidewalk space at the top of the ramp is 48 inches deep or more. However, if this space is less than 48 inches, then the maximum slope of the flared sides must be 1:12.

A second type of curb ramp is the **returned curb** (Fig. 12b). It can only be used when pedestrian traffic can't cross the ramp because

of adjacent non-walking surfaces such as grass, planted areas, benches, etc. Sidewalk space at the top of this ramp must be a minimum of 48 inches deep.

The **built-up curb** ramp (Fig. 13) extends into the street or parking lot. The flared sides on this ramp are allowed a maximum slope of 1:10. This type of ramp can't be used in handicap parking access aisles, which must remain level. It also can't project into vehicular traffic lanes. Therefore, built-up curb ramps are the least preferred of the three styles.

Properly designed and constructed curb ramps provide people with a safe and easily-maneuvered passage to their final destinations in the built environment.

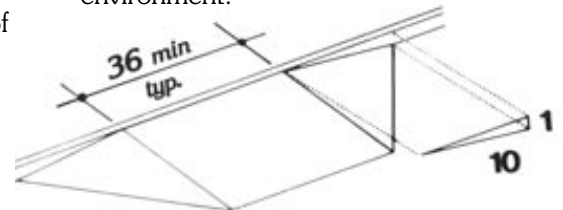


Figure 13 – built-up curb ramp

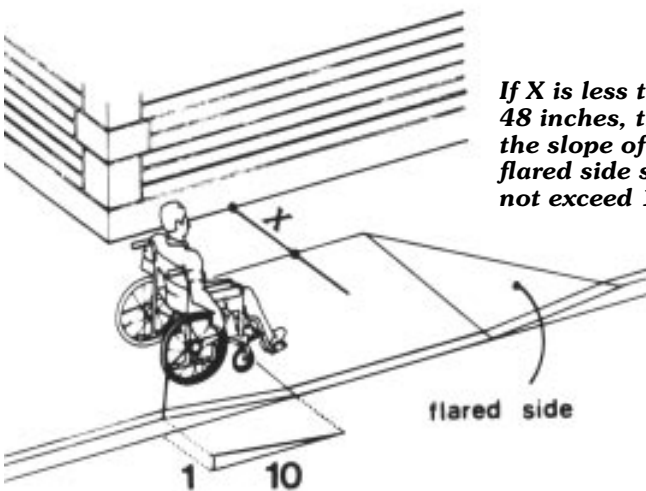


Figure 12a – flared sides

If X is less than 48 inches, then the slope of the flared side shall not exceed 1:12.

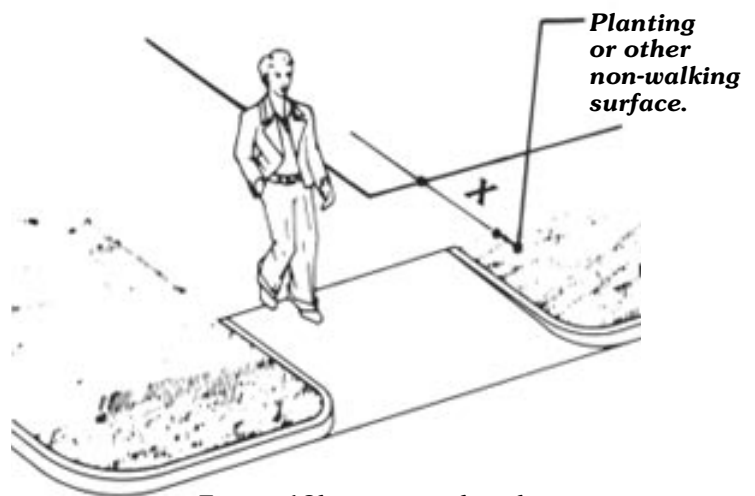


Figure 12b – returned curb