

or diagonal to the primary direction of travel (figure 37). Openings narrower than $\frac{1}{4}$ inch (6.4 millimeters) are allowed parallel to the dominant direction of travel.

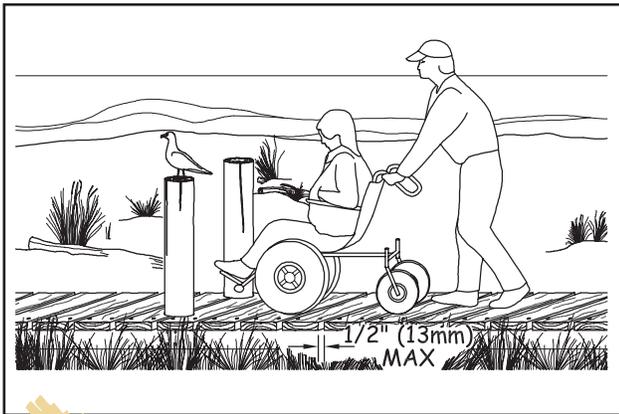


Figure 37—Elongated openings must be perpendicular to the direction of travel.

38

Edge Protection for ORARs

Edge protection is a raised curb, wall, railing, or other structure that defines the edge of a travel surface and helps keep people and assistive devices from accidentally falling off the edge. Edge protection is not required for accessibility on ORARs. However, where designers and managers have determined that edge protection is required for safety or other reasons, the FSORAG requires curbs to be at least 3 inches (76 millimeters) high (figure

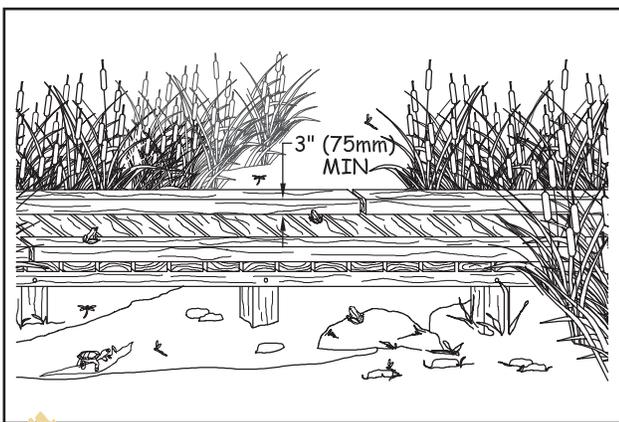


Figure 38—Edge protection is optional on an ORAR, but if present, edge protection must be at least 3 inches high.

38). This is higher than required by the ABAAS because objects less than 3 inches (75 millimeters) high aren't easy to see or detect outdoors and could become a tripping hazard.

Getting to the Water—Beach Access Routes

A beach access route is a continuous unobstructed path intended for pedestrian use that crosses the surface of the beach. Because beach access routes and ORARs perform similar functions, their provisions are closely related. Section 3 of the FSORAG covers beach access routes.

Beaches are grouped into three general types:

- Coastal beaches
- River beaches
- Lake, pond, or reservoir beaches

Beach access routes allow pedestrians to get to the water so they can play, swim, or participate in other shoreline activities. Areas where entry into the water may be possible, but no specific path or route is provided, aren't beach access routes.

A beach access route is a pathway over the surface of the beach itself that leads to the water. The route leading to the edge of the beach surface in a recreation area is an ORAR.

The FSORAG has different requirements for new and existing beaches. A new beach is a site where a beach is created artificially by importing sand or other beach material. At least one beach access route must be provided for each linear half mile (800 meters) of new beach. The beach access route must be permanent and extend to the high tide level for coastal beaches, the mean high water level for river beaches, or the normal recreation

water level for lakes, ponds, and reservoirs (figures 39, 40, and 41).

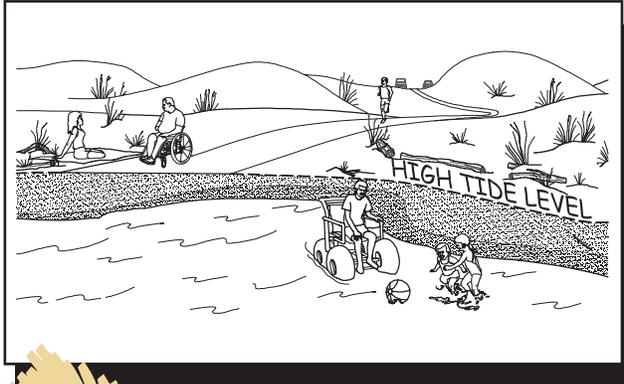


Figure 39—The high tide level on a coastal beach.

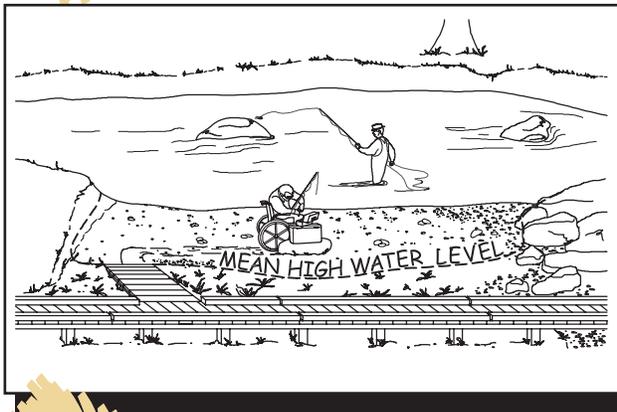


Figure 40—The mean high water level on a river.

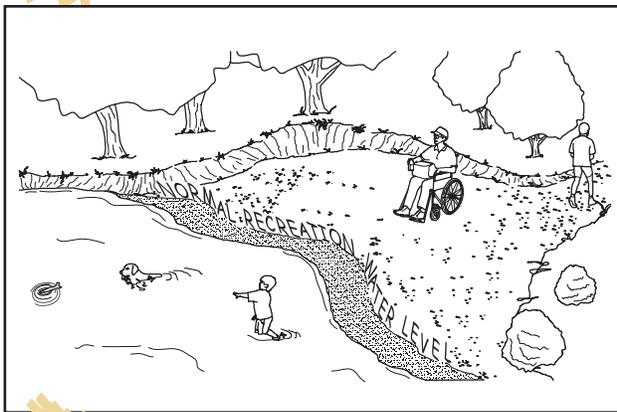


Figure 41—The normal recreation water level on a lake.



DESIGN TIP—

How far down the beach must the access route go?

Beach access to the water will vary considerably depending on geographic locations because the difference between low and high tides varies from place to place. For example, a beach in Alaska may experience tidal differences of up to 30 feet (9 meters); beaches in Florida will have much smaller differences between the tides. The high tide mark is a reasonable location to stop constructed features; they are much more likely to wash out below this point. The mean high water level applies to rivers and the normal recreation water level applies to lakes.

In some locations, it may make sense to continue the beach access route below the mean high water level or normal recreation water level. In locations with significant variations in water level through the recreation season, visitors appreciate extended access routes where they can be constructed (figure 42).

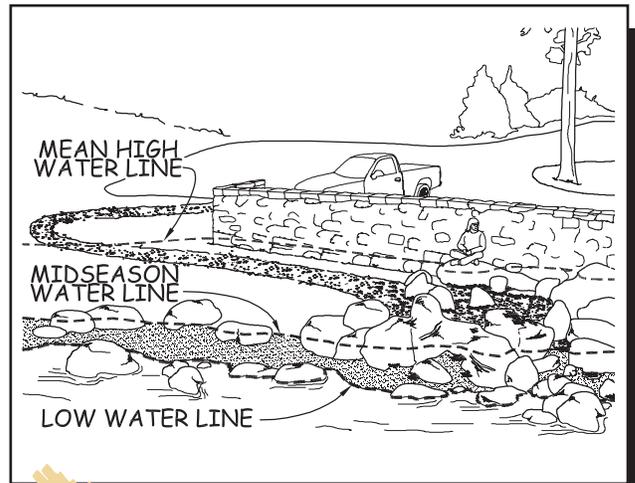


Figure 42—This beach access route is partly inundated every year.