

The physical barrier, railing HR-1 Type III or chain link fence shall begin prior to, and extend beyond the area of need. The lateral offset of the physical barrier shall be 3 feet from the edge of the shared use path. The ends of the physical barrier shall be flared away from the edge of the shared use path.

When railing or fence is used to discourage shared use path users from venturing off the path or onto adjacent property the design can include two or four horizontal members with vertical members spaced frequently enough to provide the needed structural support and in accordance with applicable building codes. Berms and/or vegetation can also be used to serve this function. The location of the railing or fence in relationship to the shared use path shall be the same as the location of physical barrier mentioned above.

- Vertical Clearance

The vertical clearance from the shared use path to the bottom of any sign or overhanging vegetation (Trees) shall be a minimum of 8 feet in accordance with the MUTCD, Part 9 and AASHTO's Guide for the Development of Bicycle Facilities, 2012 respectively. However, vertical clearance may need to be greater to permit passage of maintenance and emergency vehicles. For underpasses, tunnels and bridges a minimum vertical clearance of 10' is required.*

- Design Speed

Shared use paths should be designed for a selected speed that is at least as high as the preferred speed of the faster bicyclists. Design speeds range from 12 mph to 30 mph, as shown in Table A-5-7. However, in general a minimum design speed 18 mph should be used. When a downgrade of 6% or greater exist, or where strong prevailing tailwinds exist, a maximum design speed of 30 mph shall be used.

- Horizontal Alignment

Most shared use paths built in the United States must also meet the requirements of the Americans with Disabilities Act. ADA guidelines require that cross slopes not exceed 2% to avoid the severe difficulties that greater cross slopes can create for people using wheelchairs. Thus, for shared use paths, the maximum superelevation rate will be 2%. When transitioning a 2% superelevation, a minimum 25 foot transition distance should be provided between the end and beginning of consecutive and Reversing horizontal curves.

The coefficient of friction depends upon speed; surface type, roughness, and condition; tire type and condition; and whether the surface is wet or dry. Extrapolating from values used in highway design, design friction factors for paved shared use paths can be assumed to vary from 0.34 at 6 mph to 0.21 at 30 mph.

* Rev. 1/17