

- 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.

Based upon various design speeds of 18 to 30 mph and a desirable maximum lean angle of 20°, minimum radii of curvature for Paved Shared Use Paths can be selected from Table A-5-7:

Design Speed (V) (mph)	Minimum Radius (feet)
12	27
14	36
16	47
18	60
20	74
25	115
30	166

**TABLE A-5-7**

**MINIMUM RADII FOR PAVED SHARED USE PATHS BASED ON 20° LEAN ANGLE**

*Source: AASHTO – Guide For The Development Of Bicycle Facilities.*