

## APPENDIX E

# TRAIL USAGE, PURPOSE AND DEVELOPMENT CRITERIA

### PEDESTRIAN TRAILS

- A. **Footlanes** can be formal, paved trails when constructed in urban or suburban areas of high usage. In rural or low use areas they can be designated shoulder of existing roads and streets. Footlanes generally parallel the roadway and should be raised-curbed in the urban areas when constructed immediately adjacent to the traffic lanes. Curb ramps are required at crosswalks in all cities and towns. Additional provisions for wheelchair and handicap users are desirable.

Highway traffic volume should be less than 5,000 ADT/lane and highway speed should not exceed 35 MPH. The width of pedestrian lanes should be a minimum of five feet. The footlane should share the same grade as the highway.

- B. **Footpaths** can be used as the need for a formal trail diminishes. Footpaths are independent of roadways and provide a safer, more pleasant experience. The width of the footpath should be a minimum of four (4) feet with a grade not to exceed 10 percent. The alignment should be beyond the 30-foot safety zone.

### EQUESTRIAN TRAILS

- A. **Equestrian Lanes** are adjacent to the highway, and should only be utilized where low traffic volumes and low vehicular speeds exist. Vehicle speed should not exceed 35 MPH. Equestrian lanes should have the same grade as the roadway and the width should be at least five (5) feet and preferably eight (8) feet. Two-way equestrian lanes should be at least (8) feet wide and preferably (10) feet. They are constructed of either natural materials or gravel.
- B. **Equestrian Paths** independent of the road, and should be used where motor vehicle speeds and traffic volume make horseback riding unsafe immediately adjacent to the road. The width of an equestrian path should be a minimum of four (4) feet. Two-way equestrian paths should be six (6) feet in width. The equestrian path surface can be graveled, bard, or natural.
- C. **Equestrian Trails** are designed for use in more remote areas, are independent of roadways, and feature steeper grades and unpaved surfaces. Width of the trail should be a minimum of (4) feet. The grade of the trail should not exceed 20 percent for short distance or 10 feet for any extended period of time. Clearance should be a minimum of 14 feet vertical and 10 feet lateral. The surface is of a natural or gravel material.

## WAGON TRAILS

Criteria and design guidelines need to be developed for horse drawn wagon routes.

### **General development criteria include:**

1. Equestrian route markers should be posted so that there is sufficient warning to motorist of the presence of equestrians as well as providing direction to the equestrian.
2. All designs must be durable, accessible and sufficiently wide to allow maintenance vehicles to keep a clean, smooth surface.
3. Whenever possible, equestrians should be kept from motorized traffic.
4. The design of equestrian paths and lanes must recognize the probable use by bicycles and pedestrians. Therefore, criterion for bicycles and pedestrians should be reviewed for compatibility.

## BICYCLE TRAILS

- A. **Bicycle Ways** are facilities that allow the mixture of motorized vehicle and bicycle traffic in the same lanes. In this shared roadway concept vehicle speeds should generally not exceed 35 MPH and traffic volumes should be below 1,000 ADT/lane. If bicycle volumes are high enough to cause traffic disruptions, a bicycle lane or path is desirable. Bicycle ways are generally applicable in urban and suburban areas where traffic speeds and volumes are low and where the ability for cyclist to maneuver at intersections is essential.
- B. **Bicycle Lanes** are separate but adjacent to motor vehicle traffic, and are applicable when motor vehicle speed and volume are high. —As bicycle and motorized vehicle traffic volumes and differential operating speeds increase, it becomes necessary to provide separate lanes for each mode of travel. In rural areas, a paved shoulder with proper delineation and pavement marking is normally adequate to be designed as a bicycle lane. In urban areas, it may be necessary to prohibit parking in order to develop the bicycle lane concept.

Bicycle lanes can coexist with relatively heavy traffic volumes since bicycles travel next to, rather than mixed with, the motor vehicles. Bicycle lanes perform especially well along roadways with few or low volumes cross streets. The width of bicycle lanes should be at least five (5) feet and desirably eight (8) feet wide, with a desirable width of ten (10) feet. Delineation of the bicycle lanes on roadway shoulders should consist of a painted white line at least eight (8) inches wide. Mountable curbing should be avoided in that it provides a barrier maneuverability while providing virtually no protection for the motor vehicles.

- C. **Bicycle Paths** are used when vehicle speeds and volume make it necessary to completely separate bicycles from vehicle traffic. The alignment of a bicycle path need not necessarily parallel the alignment of the highway and should generally conform to the topography when possible.

A bicycle path has a 3.5 foot minimum width and a 4-foot desirable width for one-way operation. A two-way path should be at least seven feet wide. With an eight foot desirable width. When possible the path should be located at least 30 feet from the edge of the traveled way. The speed for which a bicycle path is designed will vary with its purpose and its vertical alignment. For a primarily recreational-scenic route, a design speed of 15 MPH should be used if lengthy downgrades are encountered. As the design speed of a bike path increases, wider paths should be favored and up to two feet of widening on the inside curves for two-way bike lanes may be needed for curves with a radius of less than 100 feet.

**General development criteria include:**

1. The maximum grade of a bicycle path should not exceed 10 percent. A grade of 6 percent may be optimum in a hilly region but totally unacceptable in areas with level terrain. Generally the longer the grade the flatter it should be.
2. All designs must be durable, accessible and sufficiently wide to allow maintenance to keep a clean, smooth surface.
3. Signing for all bicycle facilities should be in conformance with the “Manual on Union Traffic Control Devices”.
4. Where bridge rails or other protective railings are used, the top element should be at least 4’6” high.
5. A 10-foot vertical clearance is desirable with 8.5 feet being minimum. All clearance must be sufficient to accommodate anticipated maintenance equipment.
6. Bicycle route and crossing markers should be posted so that there is sufficient warning to motorist of the presence of bicyclist as well as providing direction to the bike rider.

**MULTI-USE TRAILS**

A multi-use trail is a trail designed for use by more than one of the three user types (bicycles, pedestrian, and equestrians). The main separation should be between bicycles and equestrians. As a result of compatibility pedestrians can use either bicycles or equestrian trails. In the event that a trail must be used by more than one user type, design criteria of the different user types should be reviewed for compatibility and when possible incorporated in the design of the trail under construction.

**VEHICULAR ACCESS**

The trail standards need to address the potential for vehicular access along portions of trails as they are developed. For example, the old rail bed along the Similkameen River has historically been used for access by adjoining landowners and prospectors. The County should develop a process for identification of appropriate access and establish a permit process that provides standards and conditions for such access prior to permitting such uses.