

4.2-1 PARKING AND VEHICLE BARRIERS

Alternate Names: Parking Bollards or Blocks

DESCRIPTION

Parking barriers restrict vehicle access to all unpaved areas without impeding snow removal practices. Vehicle traffic compacts soil and disturbs vegetated areas.

APPLICABILITY

- Use parking barriers to protect soil and vegetated areas with the potential for vehicle disturbance. Parking barriers are also suitable along the edges of designated traffic and parking areas.
- Emergency access for fire trucks, ambulance, and police may preclude the use of vehicle barriers in some areas or otherwise must be addressed as part of their design.

Advantages

- Parking barriers protect soil and vegetated areas from vehicular traffic disturbance and compaction.
- Parking barriers can provide attractive means to separate pedestrian and vehicular circulation zones, to organize public spaces, or to use as elements of transition.
- Where emergency vehicle and operations vehicle access is necessary, bollards can be easily removable and retractable.

Disadvantages

- Parking barriers can be damaged by snowplow activities.

DESIGN CONSIDERATIONS

- Parking barriers shall be treated as potential visual features and shall have consistency with neighborhood and regional character and with other landscape elements such as lighting, adjacent building details, and street furniture.
- Cluster and stagger boulders to mimic natural conditions.
- Materials can include large boulders, stone masonry, concrete, composite, wood or metal posts (bollards), or fencing with appropriateness of material determined by location and function of use. Large shrubs or well established vegetation is acceptable as well; however, they are generally not recommended in areas used for snow storage unless the plants are staked or can handle snow loads.
- Ensure any required emergency access is provided for in the design and material selection.

BMP DESIGN APPROACH	
<input checked="" type="checkbox"/>	Pollutant Source Control
<input type="checkbox"/>	Hydrologic Source Control
<input type="checkbox"/>	Stormwater Treatment
SCALE OF APPLICATION	
<input checked="" type="checkbox"/>	All SFR and MFR < 1 acre
<input checked="" type="checkbox"/>	MFR 1-5 Acre and CICU < 5 acres
<input checked="" type="checkbox"/>	MFR and CICU > 5 acres and all WQIPs
TYPE OF APPLICATION	
<input type="checkbox"/>	Temporary
<input checked="" type="checkbox"/>	Permanent



Clustered boulders used for parking barriers enables vegetation establishment and is aesthetically pleasing.

INSTALLATION CONSIDERATIONS

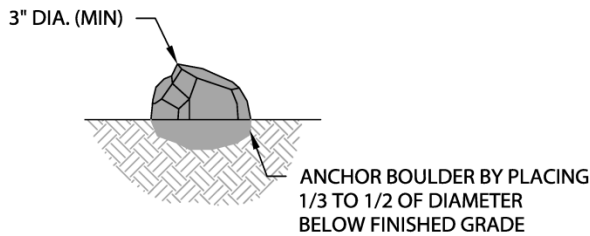
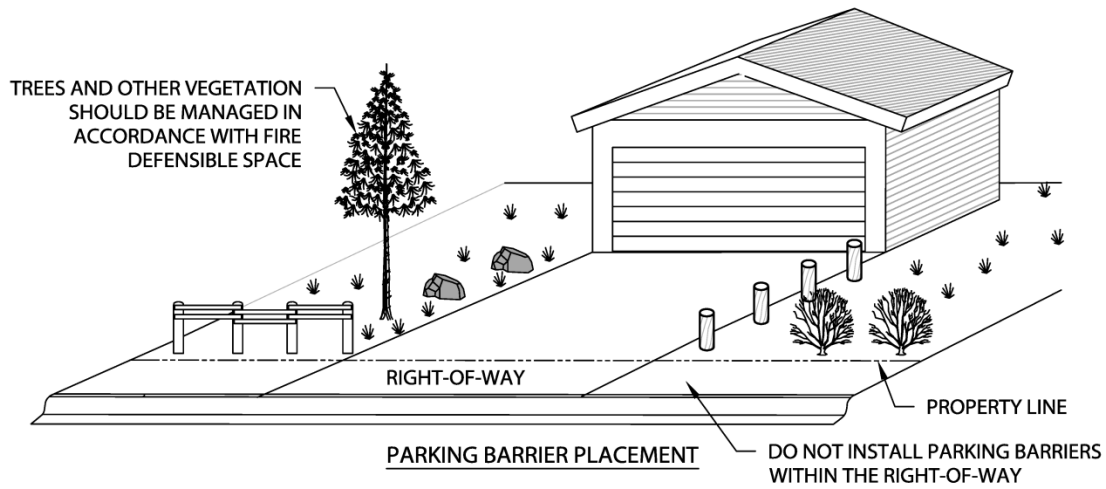
- Parking barriers shall be placed no more than 4 feet apart.
- Boulders shall be greater than 3 feet in diameter and be keyed in to the soil a minimum of 6 inches.
- Posts shall be a minimum of 2 feet above grade and anchored in a concrete footing.
- Fencing posts shall be anchored in a concrete footing.
- Chain link fencing shall not be used.
- Shrubs and vegetation can be used as parking barriers. Do not use flammable shrubs and vegetation as parking barriers next to a driveway. All flammable vegetation should be cleared at least 10 feet from both sides of the driveway.¹²

INSPECTION AND MAINTENANCE

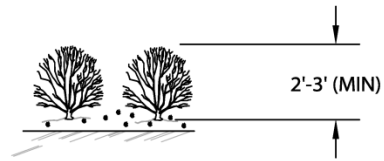
Ensure parking barriers are sized and spaced correctly so they remain intact. Yearly maintenance may be necessary to repair damage from snow removal activities.

¹²University of Nevada Cooperative Extension, 2007, *Living with Fire: A Guide for the Homeowner Lake Tahoe Basin Second Edition*

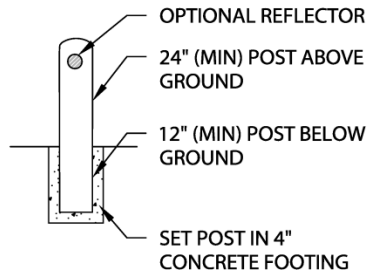
Parking Barriers Figure



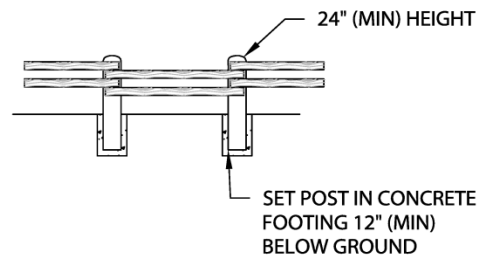
BOULDER SECTION



ESTABLISHED VEGETATION



POST/BOLLARD



FENCING

NOTES:

1. PARKING BARRIERS SHALL BE PLACED TO CONFINE VEHICULAR ACCESS TO PAVED SURFACES. PLACE BARRIERS NO MORE THAN 4' APART.
2. VEGETATION SHALL BE IN ACCORDANCE WITH FIRE DEFENSIBLE SPACE. SEE "LIVING WITH FIRE" AT WWW.LIVINGWITHFIRE.INFO.
3. CONSULT YOUR LOCAL JURISDICTION AND TRPA FOR PERMITTING REQUIREMENTS FOR FENCES.

THE TAHOE REGIONAL PLANNING AGENCY (TRPA) SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS DETAIL.

