

6.2 Vegetated Buffer Strip



Figure 6-10: Roadside Vegetated Buffer Strip
Source: www.cabmphandbooks.com

Best Uses

- Roadside shoulders
- Landscape buffer

Advantages

- Minimal maintenance
- Reliable
- Aesthetic appeal
- Adjustable to suit site

Limitations

- No large drainage areas
- Thick cover necessary
- Large size requirements
- Minimal detention provided

Vegetated buffer strips (grassed buffer strips, filter strips, and grassed filters) are vegetated surfaces that are designed to treat sheet flow from adjacent surfaces. Vegetated buffer strips function by slowing runoff velocities and allowing sediment and other pollutants to settle and by providing some infiltration into underlying soils. Vegetated buffer strips were originally used as an agricultural treatment practice and have more recently evolved into an urban practice. With proper design and maintenance, vegetated buffer strips can provide relatively high pollutant removal. In addition, the public views them as landscaped amenities and not as stormwater infrastructure.

Design and Sizing Guidelines

- Maximum width of the tributary impervious drainage area to be treated (in the direction of flow towards the buffer) shall be 60 feet.
- Strip shall be sized as wide as the site will reasonably allow, but at least 15 feet minimum width.
- Slopes should not exceed 15%.
- A subdrain system shall be used if the vegetated buffer strip's slope is 0.5% or less.
- If runoff is piped or channeled to the strip, a level spreader must be installed to create sheet flow.
- Length should be the same as the tributary area length.
- Either grass or a diverse selection of other low growing, drought tolerant, native vegetation should be specified. Vegetation whose growing season corresponds to the wet season is preferred. See planting guidance in Appendix B.

- Planting soil will be to a minimum depth of at least 6 inches. Native soil may be used as a planting soil if approved by the landscape architect.
- Strip shall be free of gullies or rills.

MAINTENANCE

A maintenance agreement shall be provided with the vegetated buffer strip.

- The maintenance agreement shall state the parties' responsibility for maintenance and upkeep.
- Mow and irrigate during dry weather to the extent necessary to keep vegetation alive. Where 6-inch high grasses are used, the grass height shall be at least 3 inches after mowing.
- Remove obstructions and trash from vegetated buffer strip.
- The use of pesticides and quick-release synthetic fertilizers shall be minimized, and the principles of integrated pest management (IPM) followed. Check with the local jurisdiction for any local policies regarding the use of pesticides and fertilizers.

Vegetated buffer strips shall be inspected and maintained monthly to review:

- Obstructions and trash.
- Ponded flow is drained within five days after a rainfall event.
- Condition of grasses or other vegetation.
- If ponding is observed, grading will be required to restore positive drainage.

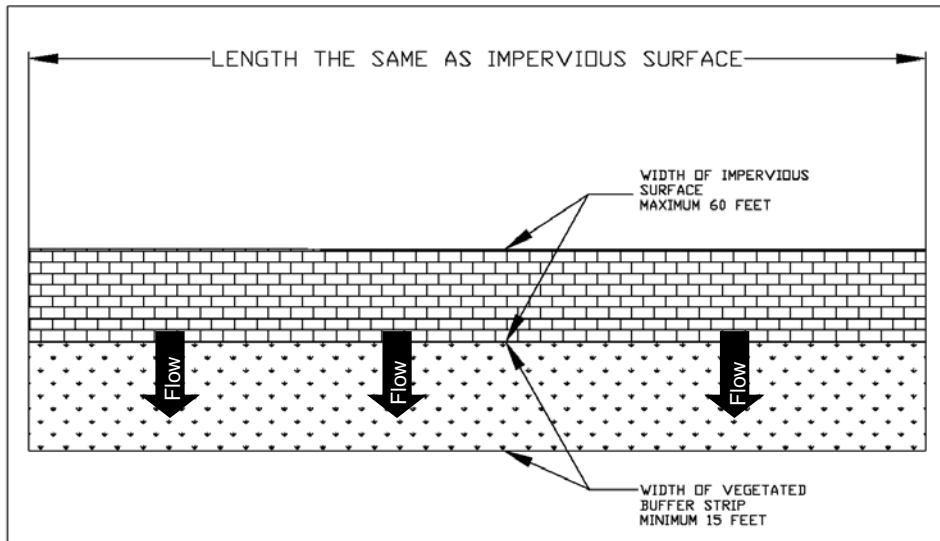


Figure 6-11: Plan View, Vegetated Buffer Strip

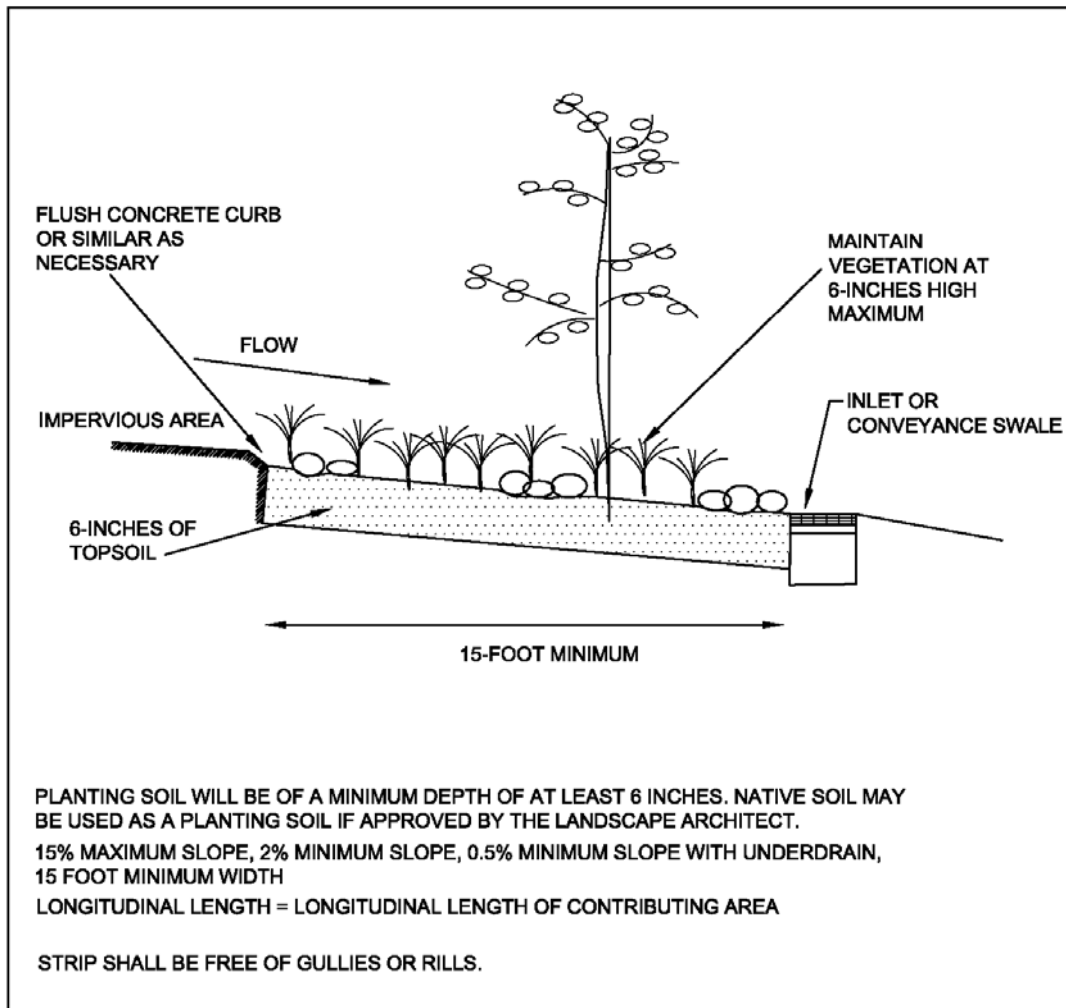


Figure 6-12: Profile View, Vegetated Buffer Strip