

## 2.8 VEGETATIVE FILTER STRIP



Figure 2.20. Roadway filter strip (Source: Iowa DOT)

### Overview

**Description:** Grass may be used effectively to control dust, protect soil from erosion, and trap sediment.

**Problem identification:** Water-borne erosion and sediment accumulation can occur in and near natural drainageways and at intermediate locations in sloping soil.

**Design purpose:** To protect soil, improve the visual aspects of the site, and trap sediment.

**Associated practices:** May be used to identify property boundaries and enhance the banks of waterways and channels. Vegetative filter strips also help stabilize the soil and trap silt. Filter strips can be a part of seeding, fertilizing, and mulching control measures, slope grading, etc.

**Installation:** Existing turf should be undisturbed during construction and overseeded with native grasses and forbs to enhance vegetation growth during construction. Refer to the control measure procedure for seeding and fertilizing in Section 2.4. Vegetative filter strips can be installed where a long, flat slope allows sheet flows. A 30 ft wide strip of grass will filter a high percentage of sediment from runoff water. Temporary seeding mixtures should be applied during the construction period, followed by permanent seed mixtures or native grasses.

**Maintenance/inspection:** Inspect on a monthly basis and look for erosion and areas of failure. Repair erosion areas and reseed if necessary.

**Design life:** Permanent.

**Estimated cost:** Fertilizing, seeding, and mulching: \$945.00 per acre.



**Figure 2.21. Vegetative filter strip (Source: [photogallery.nrcs.usda.gov](http://photogallery.nrcs.usda.gov))**



**Figure 2.22. Urban filter strip (Source: Department of Civil, Construction, and Environmental Engineering, Iowa State University)**