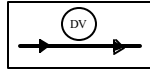


STD & SPEC 3.12 DIVERSION



Practice Description

A channel constructed across a slope with a supporting earthen ridge on the lower side, to reduce slope length and to intercept and divert stormwater runoff to stabilized outlets at non-erosive velocities.

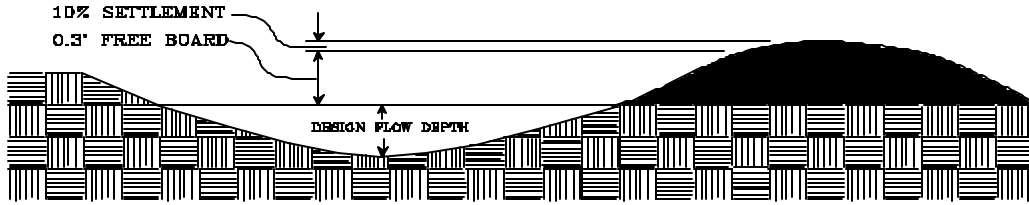
Conditions Where Practice Applies

1. Where runoff from areas of higher elevation may damage property, cause erosion, or interfere with the establishment of vegetation on lower areas.
2. Where surface and/or shallow subsurface flow is damaging sloping upland.
3. Where the slope length needs to be reduced to minimize soil loss.

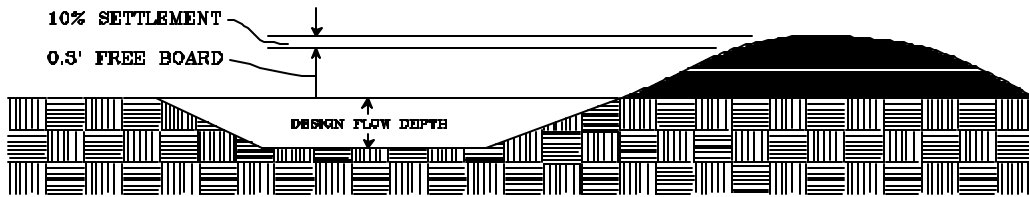
Construction Specifications

1. **Ridge:** The supporting ridge cross-sectioned shall meet the following criteria:
 - a. The side slopes shall be no steeper than 2:1.
 - b. The width at the design water elevation shall be a minimum of 4 feet.
 - c. The minimum freeboard shall be 0.3 foot.
 - d. The design shall include a 10 percent settlement factor.
2. **Outlet:** Diversions shall have adequate outlets which will convey concentrated runoff without erosion. Acceptable outlets include STORMWATER CONVEYANCE CHANNEL (Std. & Spec. 3.17); LEVEL SPREADER (Std. & Spec. 3.21); OUTLET PROTECTION (Std. & Spec. 3.18); and PAVED FLUME (Std. & Spec. 3.16).
3. **Stabilization:**
 - a. The ridge and channel shall be seeded and mulched immediately following their construction in accordance with Std. & Spec. 3.32, PERMANENT SEEDING.

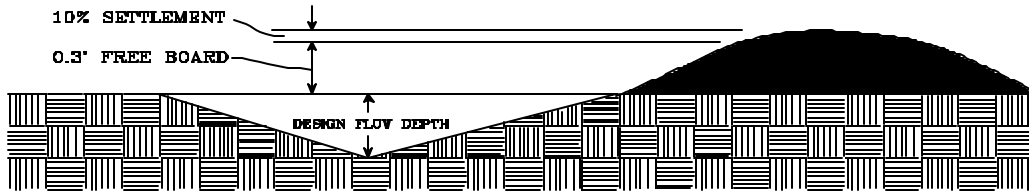
DIVERSIONS



TYPICAL PARABOLIC DIVERSION



TYPICAL TRAPEZOIDAL DIVERSION



TYPICAL VEE-SHAPED DIVERSION

- b. Disturbed areas draining into the diversion should normally be seeded and mulched prior to the time the diversion is constructed. Sediment trapping measures must remain in place to prevent soil movement into the diversion if upslope area is not stabilized.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the diversion.
5. The diversion shall be excavated or shaped to line, grade, and cross-section as required to meet the criteria specified herein, free of irregularities that will impede flow.
6. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed diversion. Fill shall be composed of soil that is free from excessive organic debris, rocks or other objectionable materials.
7. All earth removed and not needed in construction shall be spread or disposed of so that it will not interfere with the functioning of the diversion.
8. Permanent stabilization of disturbed areas shall be done in accordance with the applicable standard and specification contained in this handbook. Permanent stabilization techniques include PERMANENT SEEDING (Std. & Spec. 3.32).

Maintenance

Before final stabilization, the diversion should be inspected after every rainfall and at least once every two weeks. Sediment shall be removed from the channel and repairs made as necessary. Seeded areas that fail to establish a vegetative cover shall be reseeded as necessary.