

**GRASS LINED CHANNEL****DEFINITION AND PURPOSE:**

A grass-lined channel conveys runoff through a stable trapezoidal or parabolic stormwater conveyance channel. Vegetation lining the channel slows down concentrated runoff. Because grassed channels are not usually designed to control peak runoff loads by themselves, they are often used with other BMPs, such as subsurface drains and riprap stabilization.

APPROPRIATE APPLICATIONS:

Site grass-lined channels in accordance with the natural drainage system. **They should not cross ridges.** The channel design should not have sharp curves or significant changes in slope. The channel should not receive direct sedimentation from disturbed areas and should be sited only on the perimeter of a construction site to convey relatively clean stormwater runoff. To reduce sediment loads, separate channels from disturbed areas by using a vegetated buffer or another BMP.

CONDITIONS FOR EFFECTIVE USE:

Type of Flow: Concentrated flow.

Flow Properties: See *Storm Water Design Criteria Manual*.

WHEN BMP IS TO BE INSTALLED:

Immediately after clearing, prior to upstream grading activities.

STANDARDS AND SPECIFICATIONS:

Excavate and shape channel to required design. Install subsurface drain, if needed. Install erosion resistant lining, such as rip-rap or sod, at concentrated inflow points. Prepare and fertilize the soil. Install sod or seed with protection (erosion control blankets or turf reinforcement mats), or hydroseeding. Sod should be perpendicular to flow, with a brick-like joint pattern. Stake, staple and/or net corners and center of sod strips as required. Water sod/seed immediately after installation.

OPERATION AND MAINTENANCE PROCEDURES:

Water sod/seed daily for three weeks-enough to soak 4 inches into the soil without causing runoff. Inspect every week and after every 1/2" storm event. Remove any debris from channel, channel outlet or road crossings. Reposition areas of sod that have moved. Remove any sediment accumulation in the bottom of the channel. Repair any eroded areas, revegetate, and stabilize as needed.

SITE CONDITIONS FOR REMOVAL:

Temporary channels can be removed after the permanent storm sewer system is operational.

TYPICAL DETAILS:

RM-5.1, RM-5.2, and RM-5.3