

3.4 TEMPORARY SLOPE DRAIN (PIPE OR ROCK)



Figure 3.9. Temporary slope drain (Source: Department of Civil, Construction, and Environmental Engineering, Iowa State University)

Overview

Description: A temporary structure, either metal or flexible pipe, placed from the top of a slope to the bottom of a slope.

Problem identification: Limited construction areas, steep slopes, and large drainage areas create a need to control concentrated flows down a slope face.

Design purpose: To carry a concentrated flow of runoff water down a slope without causing erosion.

Associated practices: May be used on benched back slopes, with diversion structures, or where runoff is conveyed down fill sections.

Installation: The slope drains shall have a minimum grade of 3%. The top of the dike shall be at least 1 ft higher than the top of the inlet. All inlets shall be fitted with an apron and attached with a watertight connection. When flexible pipes are used, they shall be securely anchored with grommets placed 10 ft on center. A sediment trapping device may be placed at the outlet if deemed necessary. Riprap may be required at the outlet.

Maintenance/inspection: Inspection shall be performed after each storm. All problem areas should be corrected as soon as possible.

Design life: Temporary, until vegetation is established.