

4.3 SERRATED CUT



Figure 4.3. Serrated cut (Source: Department of Civil, Construction, and Environmental Engineering, Iowa State University)

Overview

Description: Serrated cut or stair-step grading used in soils containing large amounts of soft rock where it may be impractical to smooth grade.

Problem identification: Soft rock in cut areas prevents the area from being sloped to allow vegetation to be established after grading is complete.

Design purpose: Each step catches material from above and provides a flat area where vegetation can become established.

Associated practices: Used in soft rock when it is difficult to obtain a smooth slope.

Installation: Each step shall be constructed on the contour and will have steps at nominal 2 ft intervals with nominal 3 ft horizontal shelves. Steps may vary, depending on the slope ratio. The nominal slope line is 1.5:1. The steps will weather and act to hold seed and fertilizer and will produce quicker and longer-lived vegetative cover, as well as better slope stabilization. Surface water should be diverted from the face of all cuts.

Maintenance/inspection: Check on a monthly basis for any loose rock and any runoff flows that are detrimental to the finished product. Remove and dispose of loose rock and make any drainage corrections.

Design life: Permanent.

Estimated Cost: Costs are based on the material type to be excavated and the equipment selected for the construction.