Procedure For A Fill Slope Slide

Layer A
-------
Layer B
-------
Layer C
-------

**Step 1**

Layer A
-------
Use $\phi'$ and no $c'$ for Layers A, B, and C1

Layer B
-------
Use $\phi'$ and $c'$ for Layer C2 and layers below

Layer C1
---------
Adjust water table and possibly give layers A, B, or C1 some $c'$ until you get a Safety factor of 1

Layer C2
---------

**Step 2**

Use parameters determined in Step 1 for the Final repair

Layer A
-------
$\phi'$ and no $c'$ for A, B, and C1

Layer B
-------
$\phi'$ and $c'$ for C2

Layer C1
---------
Rock

Layer C2
---------
3' typical

This procedure is only for fill slope slides that do not involve the foundation and where flattening the slope is not an option.

Rock Fill  weight = 135 pcf  $\phi'=35$ degrees  $c'=0$

Typical fill slopes are on a 2:1

Beginning at the top of the slope and a minimum distance of 6’ back from the crest of the slope, (measured perpendicular to the 2:1 slope), the slope is excavated and benched typically on a 1.5:1 slope to a point 3’ below the toe of the slope. The slope is then reconstructed using rock fill. The beginning thickness of the rock fill, excavation slope, and embedment depth may be adjusted to get the required safety factor.