

Grading on Multi-Year Projects

As shown on Grading Typical 4D-Grade and 4D-Grade_Aux, the final subgrade cross sections consist of a 1% slope to one side and a 2% slope to the other side (see Figure 1). See Section 3D-1 for more information on this cross section and why it is used.

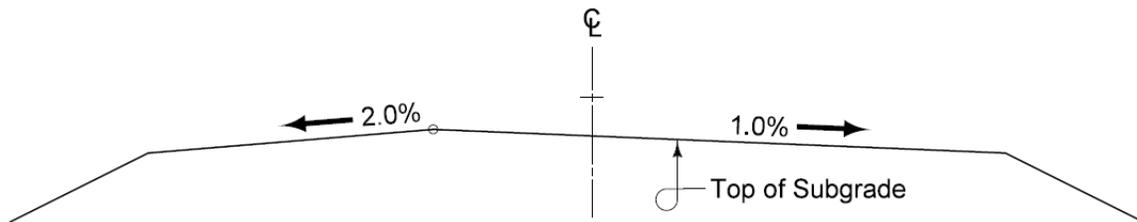


Figure 1: Final subgrade cross section.

For projects that are graded and paved in separate years, water may not drain off the 1% graded surface prior to paving. Water infiltration then creates a wet subgrade. Prior to paving in the following year, the soil in these areas has to be reworked to dry it out and then recompact. In some cases, the soil has to be replaced and then recompact. In order to prevent this problem, the subgrade cross sections in the first year are graded to a temporary 2% slope in both directions (see Figure 2). Grading Typical 4D-Grade_Delay and/or 4D-Grade_Aux_Delayed should be included in the plans for four-lane divided grading projects.

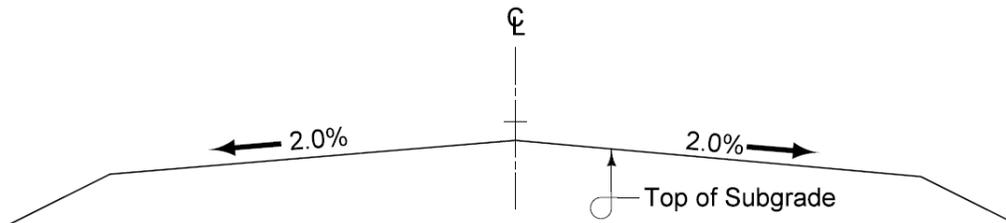


Figure 2: Temporary subgrade cross section.

Prior to paving in the following year, the subgrade is trimmed to the final 1%–2% cross section (see Figure 3).

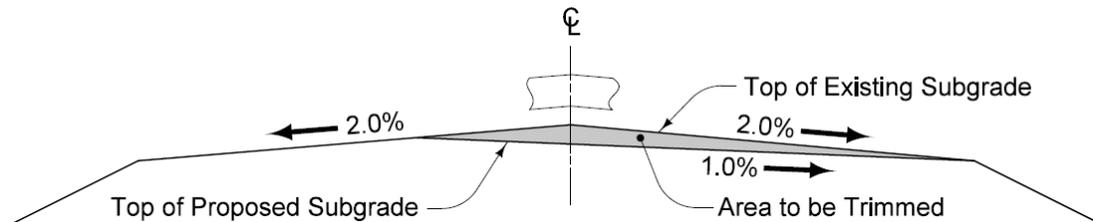


Figure 3: Temporary subgrade is trimmed before paving.

The trimmed material is used as earth shoulder fill and should be included in excavation required for Earth Shoulder Construction. The designer should add a note in the Estimate Reference Information that indicates the volume for Earth Shoulder Construction that is available from this trimmed material.

Typical 3221 should be included in the paving plans.

Chronology of Changes to Design Manual Section:

003D-002 Grading on Multi-Year Projects

9/13/2012 Revised
Revised to reference current typicals.

6/2/2000
New material.