

Modeling Subsurface Strata Strata Modeling Overview

In addition to the four primary surfaces (Existing, Stripped, Design and Subgrade) detailed in the *Day 1 Handbook*, an AGTEK ESW job file can model up to **eight (AGTEK 3D)** or **nine (AGTEK 4D)** existing strata sub-surfaces. The ability to model strata sub-surfaces is useful when varying existing strata materials require special handling and/or pricing. Applications include quantifying rock, wet soil, contaminated soil, expansive clay, or any other sub-surface material classification of interest. This handbook includes a range of examples using strata data . . .

- ◆ The fundamentals of strata data entry, strata modeling, strata volume calculations/reporting, and strata volume report interpretation are covered on pages 28-53. AGTEK provides a basic overview of strata modeling in several training videos, including www.agtek.com/video.html?id=142 (older), www.agtek.com/video.html?id=405 (newer) and www.agtek.com/video.html?id=603 (new strata bore hole entry options in **Gradework 4D v1.10+**).
- ◆ Using a strata model to quantify variable-depth topsoil volumes is addressed in the example on pages 55-59.
- ◆ Calculating the total volume of a strata seam underlying a site's disturbed area is addressed in the example on pages 60-63.
- ◆ A method for identifying, delineating, and eliminating areas of conflict between strata layers and Stripping Areas is covered in the example on pages 73-74.
- ◆ A rock undercut (to specified depth) exercise example begins on page 158.
- ◆ An exercise involving the variable-depth removal of a clay stratum begins on page 165.
- ◆ Strata modeling considerations in the discontinued **AGTEK 3D** products are addressed in *Appendix E* (pages 223-229)
- ◆ A method for determining strata cut volumes at *Balance Region* areas is included in *Appendix I* (pages 266-267).
- ◆ For users needing help with reading/interpreting geotechnical reports, a number of related resource links are available at www.earthworksoftwareservices.com/resourceed.htm#readinglist (in particular, "Understanding the Geotechnical Report" and "Geotechnical Properties of Geologic Materials" may be helpful).
- ◆ In addition to the basic AGTEK strata videos referenced above, various other strata application videos are referenced on pages 133, 163 and 180 of this *Day 3 Handbook*. These and many other AGTEK training videos are cataloged in *Appendix D* (pages 215-222).