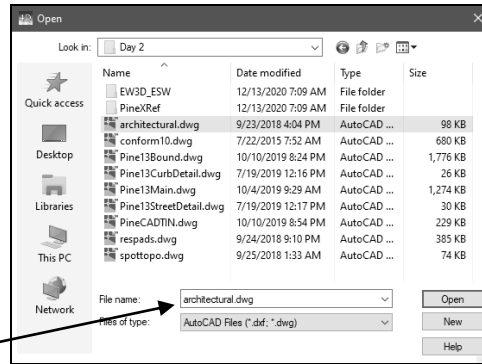


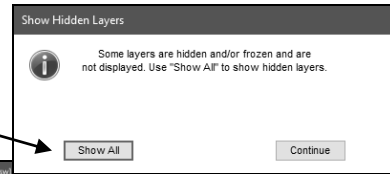
Additional CAD Data Manipulation Examples Check and Adjust for Architectural Units

Most grading plans are produced by civil engineers and the corresponding CAD files will be in **decimal units** (1 CAD unit = 1 foot on the ground). However, CAD files for plans produced by architects, landscape architects, and structural engineers are likely in **architectural units** (1 CAD unit = 12 inches on the ground). Because AGTEK defaults to decimal units, importing CAD data in architectural units without specifying the units will cause all CAD dimensions to be inflated by a factor of 12 in the AGTEK job file. This short example demonstrates how to identify and adjust for architectural units in AGTEK . . .

Step 1: Check the title block of the grading plans. If the grading plan was produced by a civil engineering firm, the corresponding CAD file will likely be in **decimal units** and **we can skip the following steps**. If the title block indicates that the grading plan was produced by an architect (or landscape architect), the corresponding CAD file will likely be in **architectural units** and **we should continue with steps 2-11 below** . . .

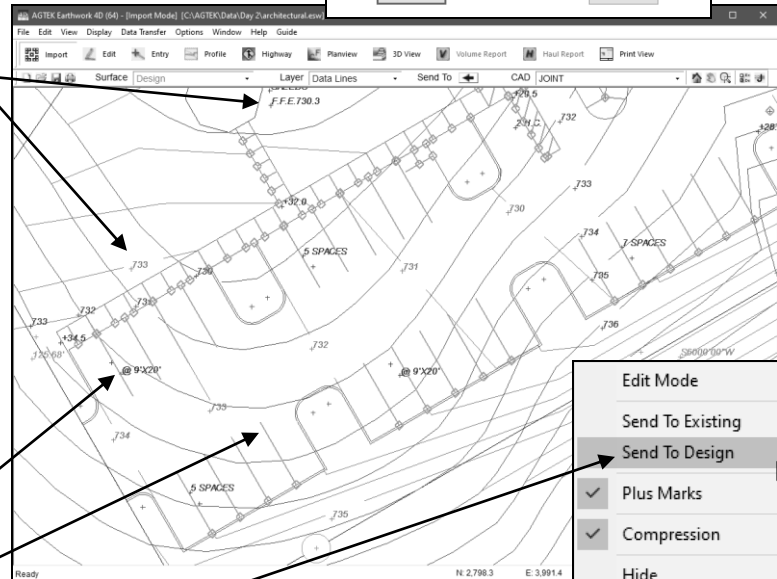


Step 2: Start AGTEK and open the suspect CAD file (**architectural.dwg** for this exercise—see Appendix C). Click **Show All** in the *Show Hidden Layers* dialog.



Step 3: In **Import (CAD Transfer)** mode, zoom and inspect the plan data . . .

- In this view, we see elevation text labels in the range of **730'** to **742'**. But, if we select **Display > Elevations** from the menu (not reflected in this image), we would see the 3D CAD contours show elevations in the range of **8,760'** to **8,904'**, which is twelve times greater than the elevation label values, suggesting that this data is in architectural units (this check only applies when working with 3D CAD data).
- Identify line work with known dimensions (property lines, buildings or, in this case, parking stalls with a given plan dimension of **9' X 20'**).



Step 4: **Left** click any **parking stall** line to select them all (in this example all parking stall lines are on the **JOINT** CAD layer). **Right** click and select **Send to Design** from the pop-up menu.

Reminder: See pages 81-84 for detailed instructions on selecting and transferring CAD layers.