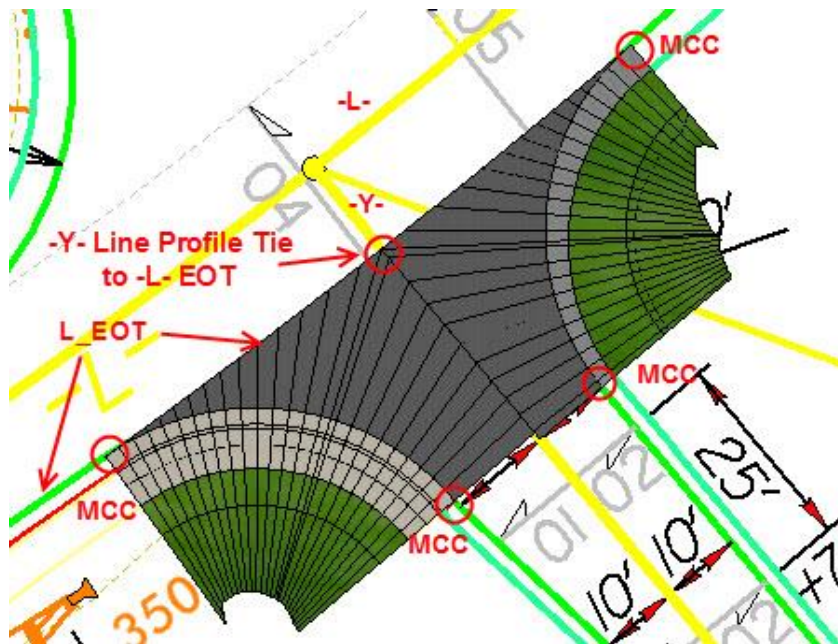## 8_5 INTERSECTION MODELING (AT-GRADE)

Question:

I have a –L- line and a –Y- line. The –Y- line will tie to the –L-. Since the –L- line has a profile grade, the –Y- left eot, -Y- cl, and -Y- right eot will all have different elevations. How does Roadway handle the "warping" to tie down? I don't know if a cross section will be cut in the "warped" area or not…

Answer:

As we move forward to SS3 OpenRoads Technology, I would imagined the procedure to model intersection will be similar to what we have now with SS2. Civil cells will certainly make it easier.

For a simple at-grade intersection, make sure the -Y- Line profile is tied to the -L- Line EOT. Ideally you want maintain the same -L- Line pavement cross slope (superelevation) through your -Y- profile where the tie-down occurs. If the -L- Line EOT profile is not known, then superelevation on the -Y- Line should be fairly close to -L- Line grade because of possible superelevation transitioning on the -L- Line.

For more elaborate at-grade intersection designs, the key tie-down elevations are derived directly from the -L- Line EOT feature/profile. The outside tie-downs on the -Y- Line are determined by the usage of the Multi-Center Curve (MCC) utility while the -Y- Line profile is tied-down to the -L- Line EOT as mentioned above.

In either cases it is recommended cutting the -Y- Line cross sections up to last "good" station where the two side slope tie to natural ground for earthwork. Below is a link to the instructions for MCC and intersection modeling in SS2. Note that intersection modeling in SS2 is NOT required for most projects due to the time required to complete the procedure. The only two exceptions are if Hydro needs it for drainage concerns or Utilities needs the surface elevations around the radius returns for power pole installment (and cannot get this information from other means).