

ODOT Region 3 3D Design Work Flow – “A way”

Inputs required:

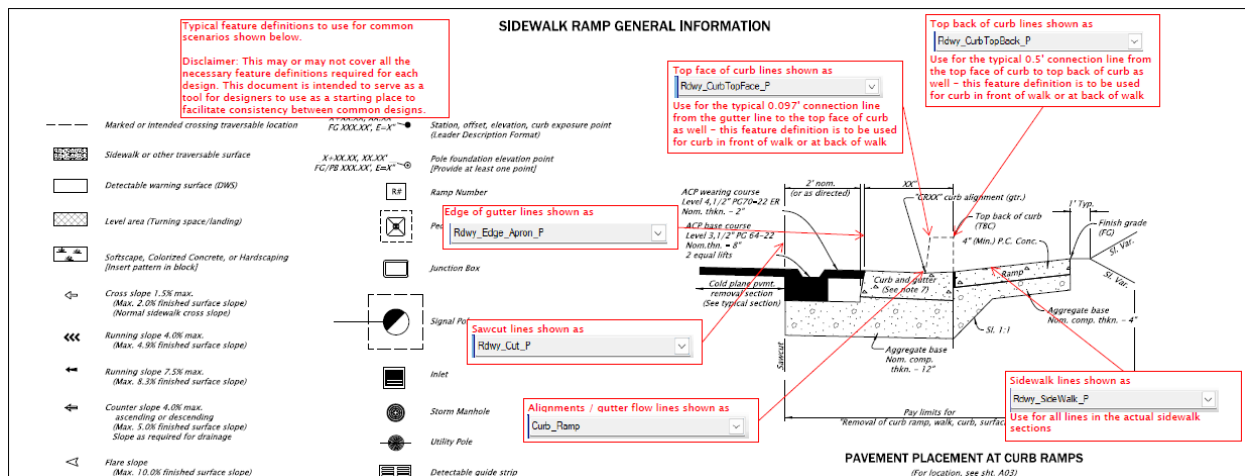
- 1) Survey base map with terrain.
- 2) Conceptual 2D ADA ramp layout.

Design File Set-up:

- 1) Each intersection is designed in a separate GEOM_Pub file (roadway folder).
 - 2) Each intersection has an associated ANNO_Pub file (roadway folder).
 - 3) GEOM_Pub files referenced to a GEOM_bas_CF (6_Civil_Data folder).
- ***Tip – Recommend setting up & referencing all files before beginning design. This can result in significant time saving on large projects.

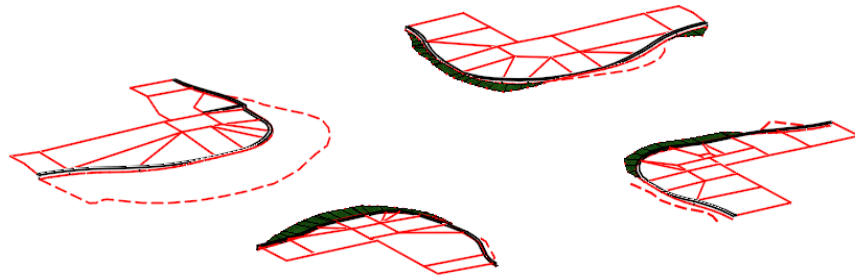
Begin design work in the GEOM_Pub file:

- 1) Everything is done with Civil features.
 - a. See detail for civil feature name standard.

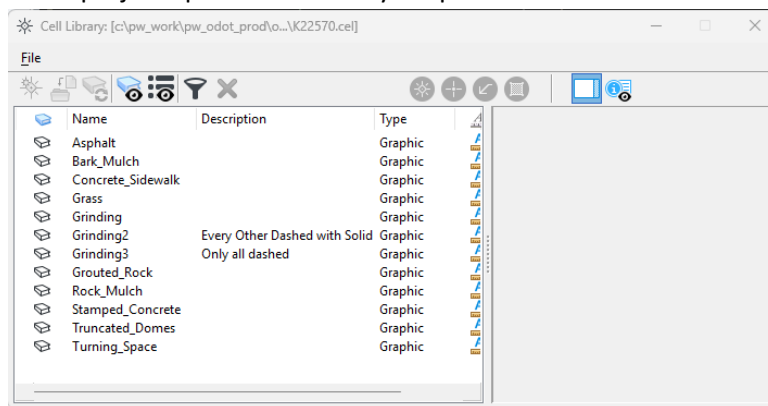


- 2) Lay out the gutter line horizontal alignment.
 - a. Go long on both ends.
 - b. Set start stationing at 1+00.
 - c. Don't worry about an alignment name at this point. Re-name to correspond with sheet numbers once plans are generated.
- 3) Offset TFC, TBC, Back Walk.
- 4) Insert all break lines.
 - a. Make sure all lines are “snapped” to ends, or intersections.
- 5) Draw face of curb break lines in profile.
 - a. In most cases, start by intersecting the existing gutter line.
 - b. Top of curb will intersect the existing curb at the match points.

- c. "E" value will vary depending on design. R3 uses a 6-inch "E" value on retrofit projects, 7-inch on 4R projects, but will adjust on a location-by-location basis.
 - d. **Set each feature as Active Profile once drawn.**
- 6) Draw gutter line in profile view.
- a. Use the Profile Creation -> Profile Intersection Point to intersect the face of curb features previously drawn.
 - b. Complex the vertical geometry.
 - c. Set the design gutter line as Active.
 - d. Repeat this process for the Top Face Curb and Top Back Curb.
- 7) This is a good time to begin viewing the design in 3D. The 3D visualization is a good tool to ensure that your points are connecting at the correct elevation.

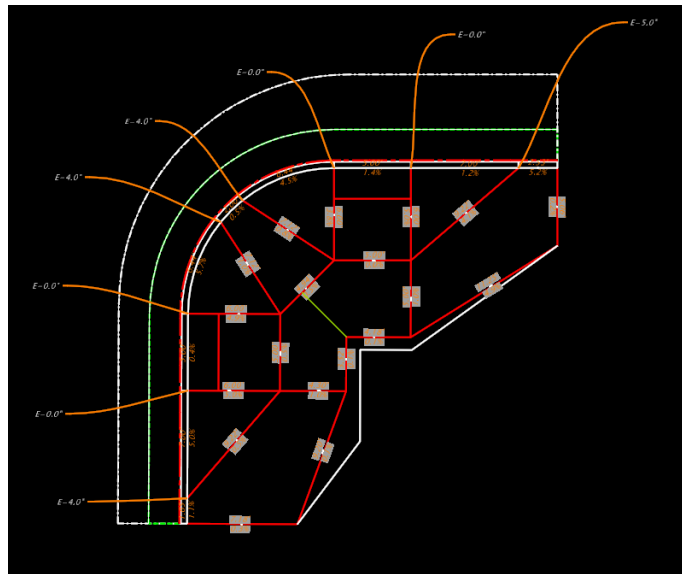
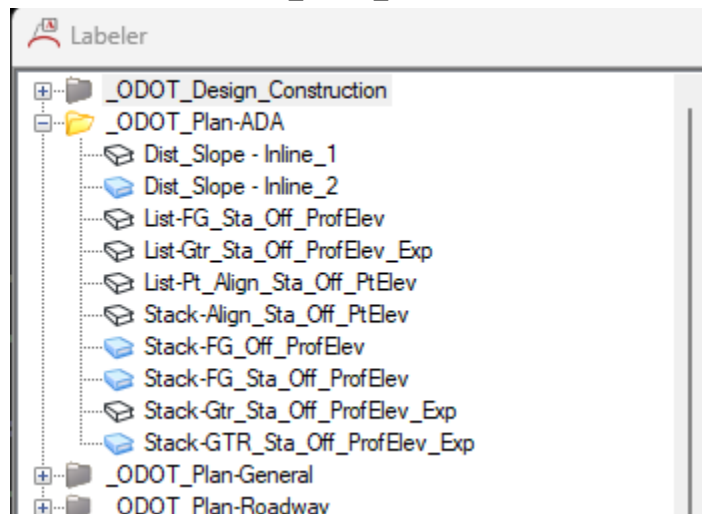


- 8) Draw the remaining break lines in profile view using the same methodology.
- 9) Draw the back of walk, edge of gutter apron, and other parallel offsets in vertical profile using the same methodology that was used for the gutter line.
- 10) Check cut fill slopes at the front of gutter & back of ramp.
 - a. Use the Model Detailing -> Apply Linear Template to establish cut/fill lines quickly.
 - b. Establish saw cut lines based on [C024-01\(A\)](#) or project-specific requirements.
- 11) Pattern the corner
 - a. Use a project-specific cell library for pattern cells. Do not use hatching.



12) Annotate File

- Open the Anno_Pub file
- Use the Civil Labeler -> _ODOT_Plan-ADA:



13) Drafting handoff & contract plan strategy... a topic for another day!