Workflow Descriptions – General

Contents

Workflow 1A: Place Layout Points – Earth Retaining Systems (ERS)

1. Follow the Geometric Modeling Workflow for your Structure before placing layout points.
   For example - File: *1-03_ CT_Workflow_Wall.pdf / Workflow 1* is the Retaining Wall Geometric Modeling Workflow for a Conventional Retaining Wall.
   a. Note that the ERS objects are already modeled. Layout points, lines, and surfaces will be created from the modeled geometry and issued as the "Lines and Points" deliverable for the project.
2. Review the Wall Layout and determine what layout points need to be generated. For Example, a large gradient of the wall profile along the wall length requires layout points at tighter increments than a relatively constant gradient.
3. Specify the length of each individual ERS segment considering changes in geometry, footing steps, and any plan-driven requirements (for example different wall design heights and different retaining wall types).
4. Specify Layout Points and Lines Requirements for each segment using the Construction Layout Points Document for the relevant Structure type.
   For example - File: *1-02_CT_Constr_Layout-Points_Reqs.pdf* shows the required layout points for a conventional retaining wall.
5. Create points, lines, and surfaces that represent the requirements defined in the previous Step 4:
   a. Create Earth Retaining Structure Points and Lines
      i. Create the required point sets along the modeled wall geometry (LOL, faces, footing intersections, drains, piles, anchors, barrier interfaces) using the required spacing and definitions from Step 4.

Note: If footing steps or changing requirements exist along the modeled length, generate multiple point or line groups (one per segment) to match the requirements and keep the deliverable and tracking clean.

6. Assign tracking attributes: Assign "Object ID" (see *E-01_CT_Object-ID_Reqs.pdf*) to each point, line, and surface group for filtering and deliverable organization.

Workflow 1B: Place Layout Points – Bridges

Forthcoming

Workflow 2 – Attributes Workflow

1. Identify all ERS and Bridge elements to obtain attributes:
    a. Earth Retaining System
    b. Steel Girder Bridge
    c. CIP-PS Box Girder Bridge
    d. Precast Concrete Bridge
2. Identify and allocate the attributes that correspond to each element
3. Import model and pertinent attribute data
    a. For Example - File: *1-03_ CT_Workflow_Wall.pdf / Workflow 1* for the Retaining Wall Geometric Modeling Workflow
    b. Each element should be assigned to an Object ID
        i. e.g. S001-RC-STEM = Stem Wall
4. Apply the attributes to the objects using the Object ID (see *E-01_CT_Object-ID_Reqs.pdf*)
    a. The Object ID can be utilized to fetch the proper objects, and the attributes can be applied.
5. If exporting the model, set up the model to display the newly created Attributes.