



Efficiently Modeling Walls and Side Slopes with OpenRoads Designer

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Agenda

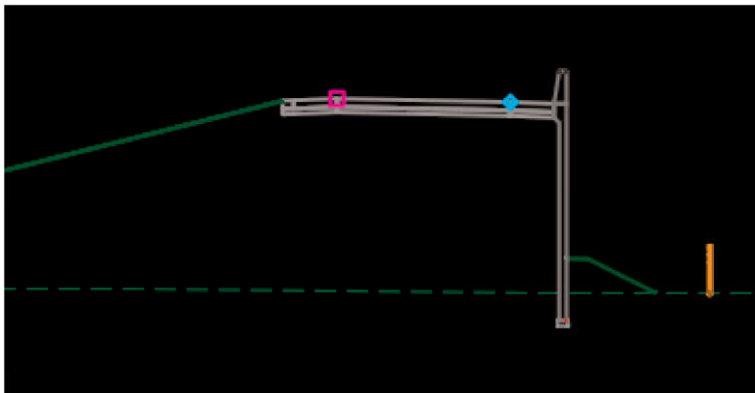
- Retaining Wall and Side Slope Templates
- Creating Retaining Wall Corridors and Alignments
- Displaying Critical Retaining Wall Features in Profile
- Creating Retaining Wall Plan and Profile Sheets
- Cut Wall Modeling Techniques
- Abutment Wall Modeling Techniques

Why Do We Model Walls and Side Slopes?

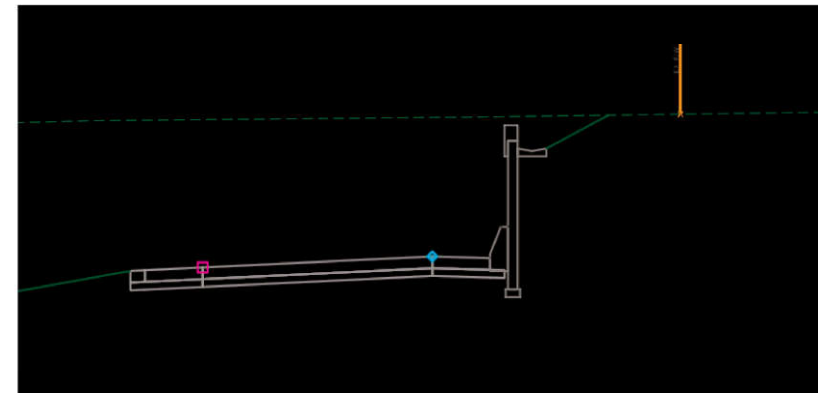
- Cross Sections
- Earthwork and Quantities
- To Determine Wall Location and Height
- Constructability
- Retaining Wall Plan and Profiles

Types of Walls

- Most retaining walls are either fill walls or cut walls.
- Fill walls are generally constructed from the bottom up by placing material behind the wall.
- Cut walls are generally constructed from the top down by removing material from in front of the wall.

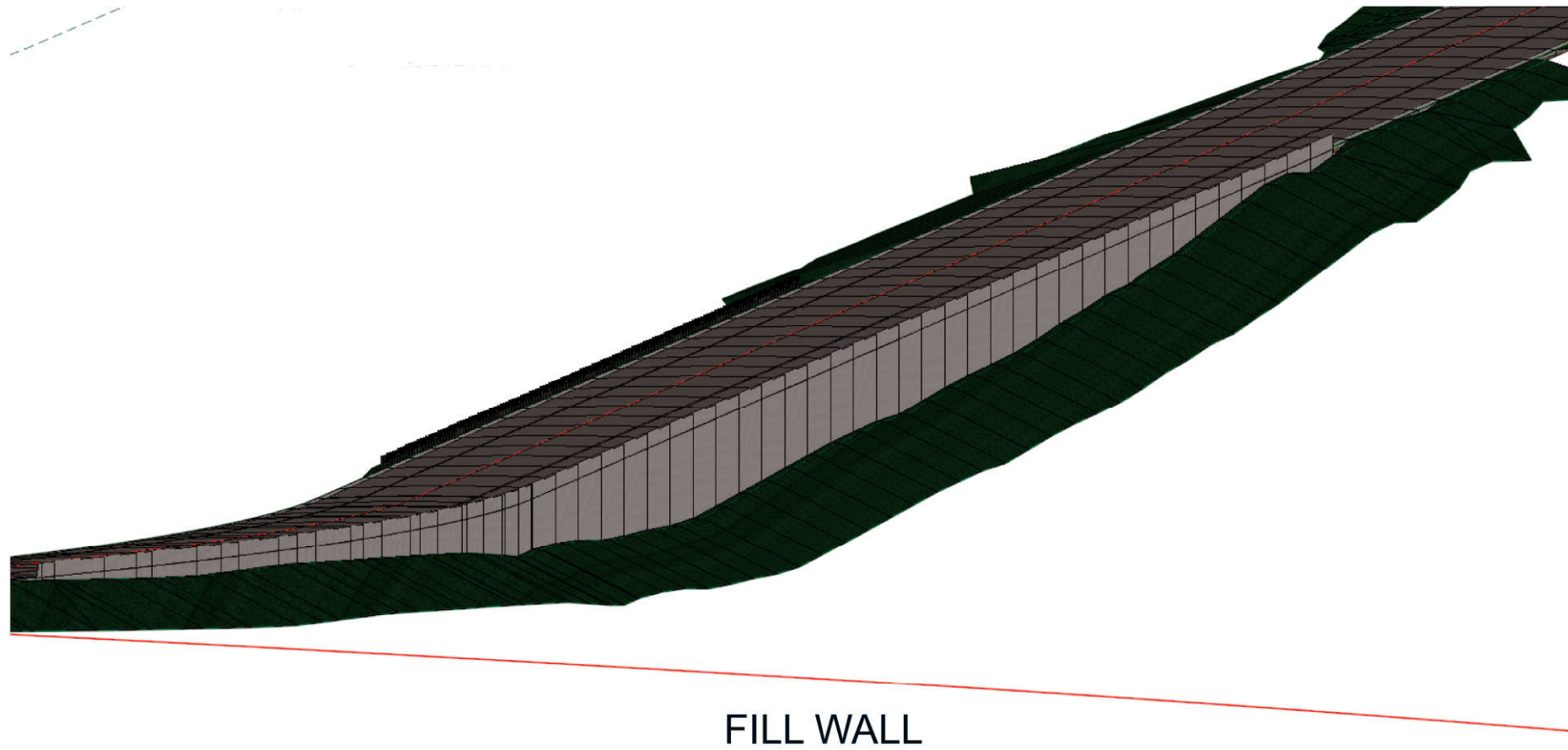


FILL WALL

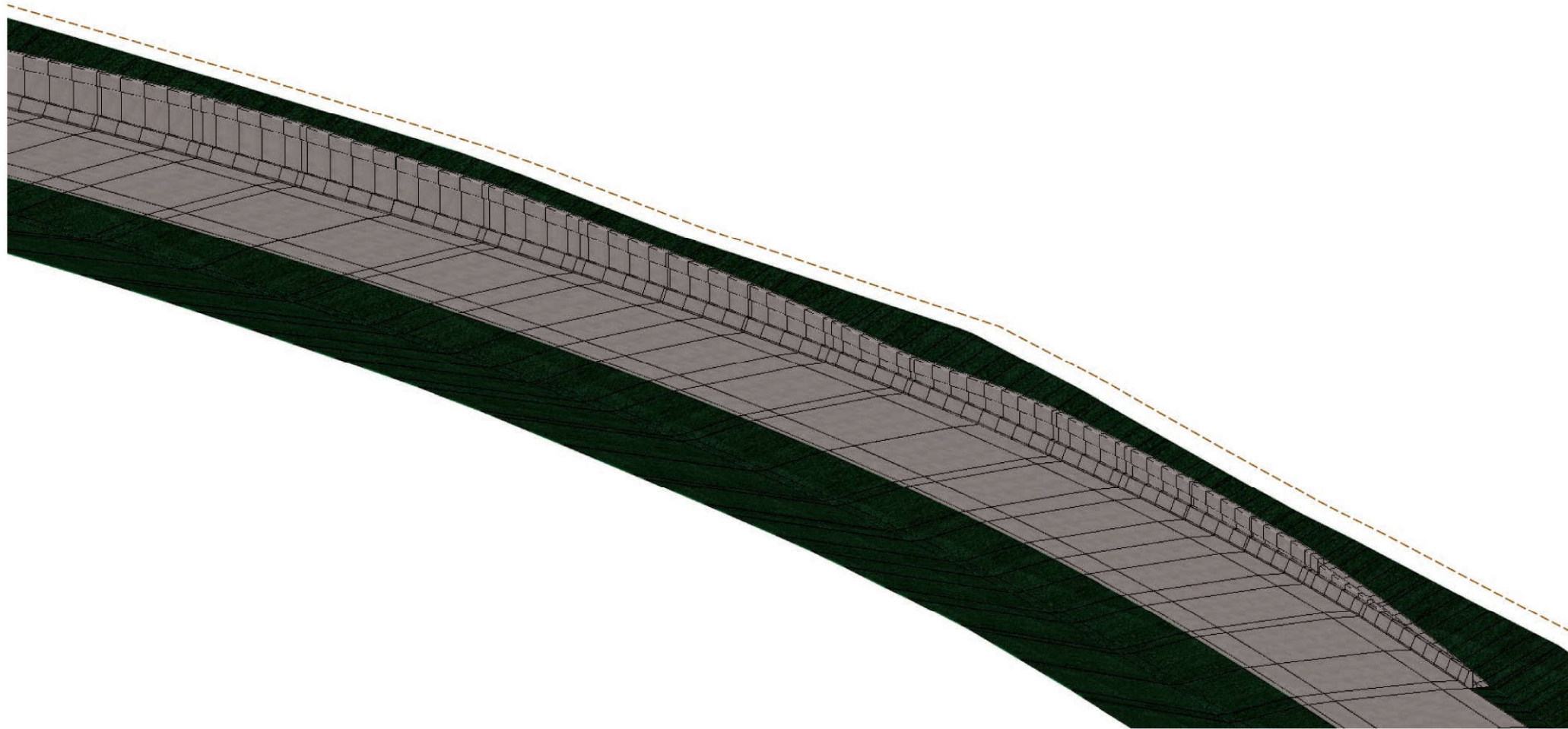


CUT WALL

Types of Walls

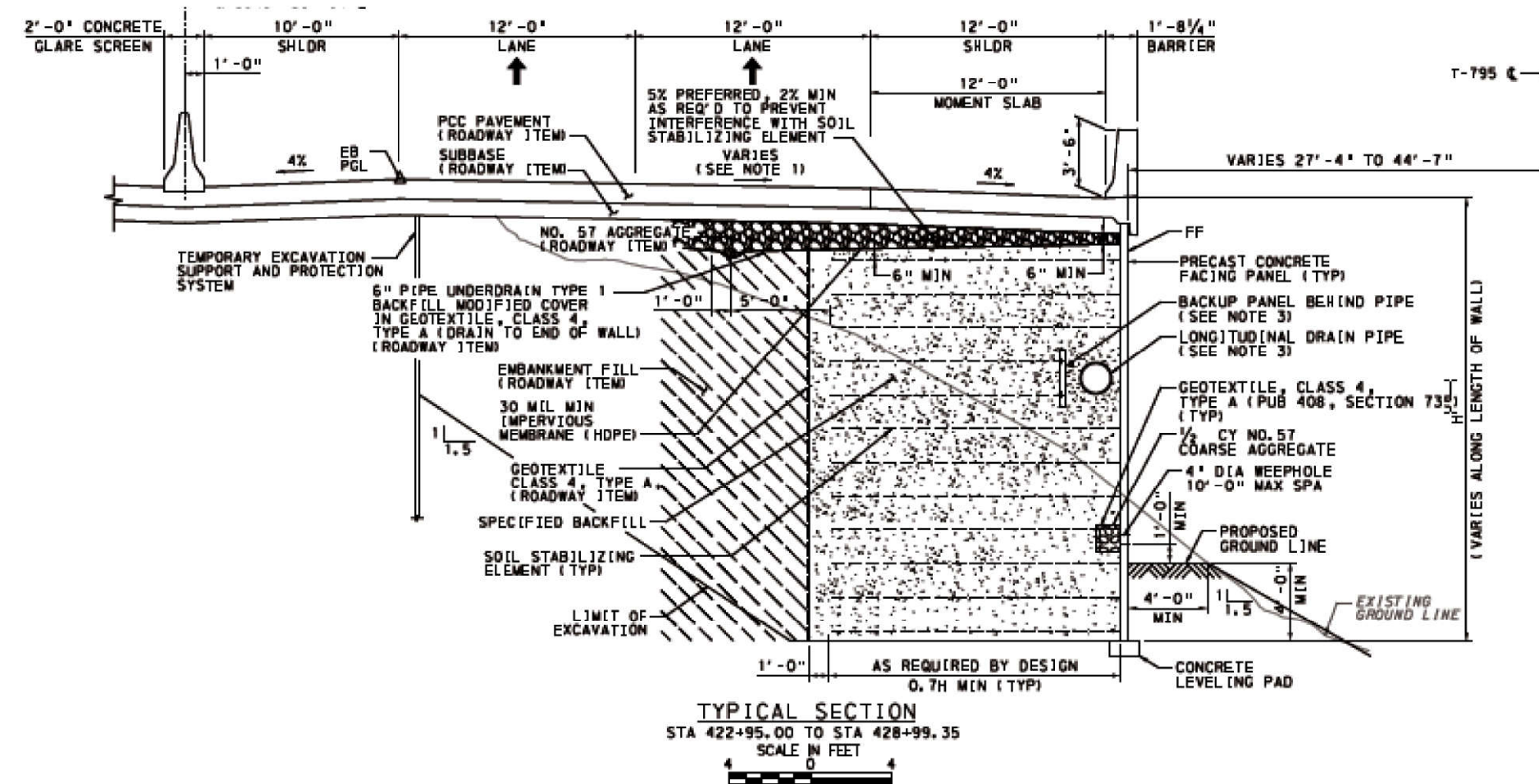


Types of Walls

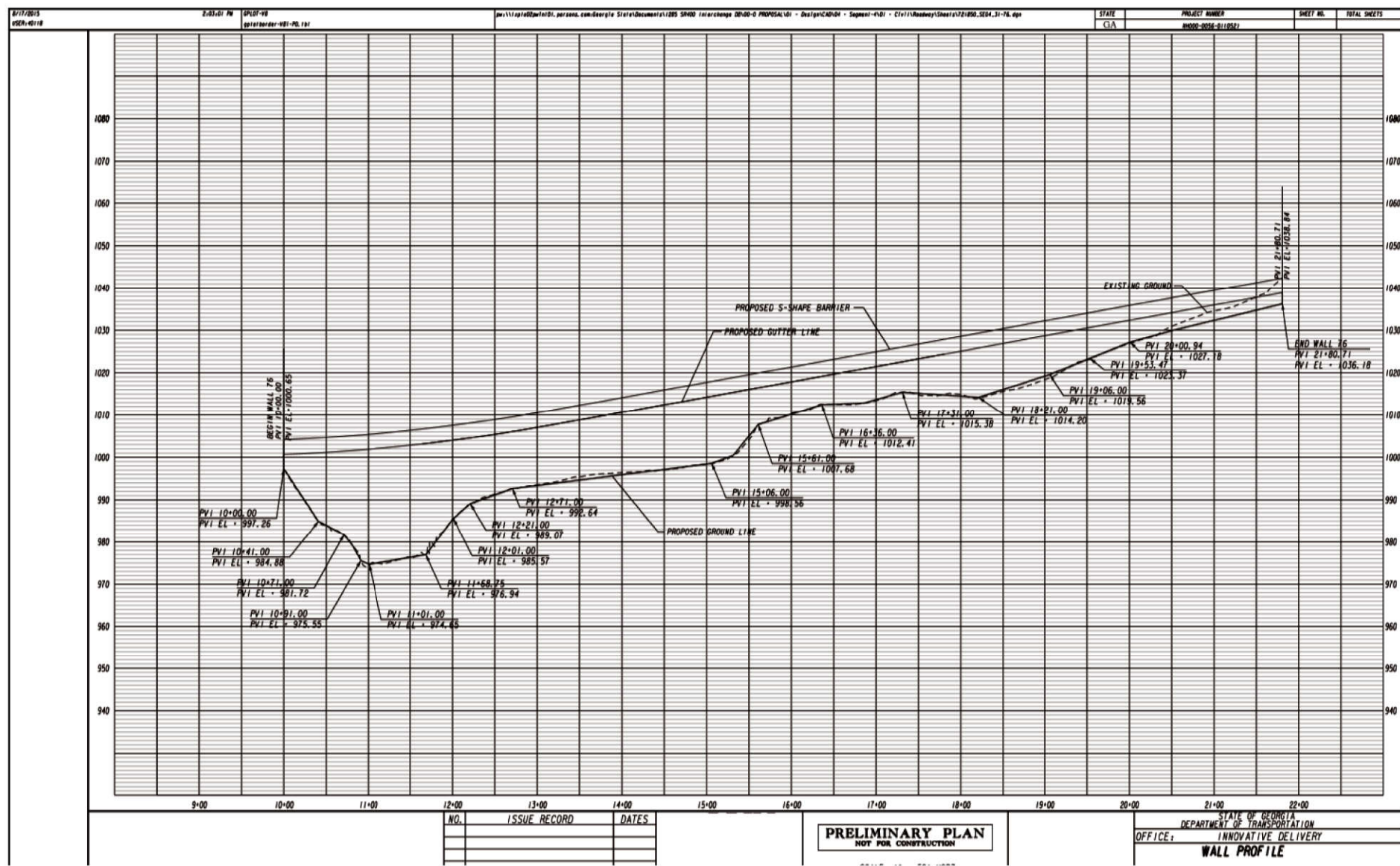


CUT WALL

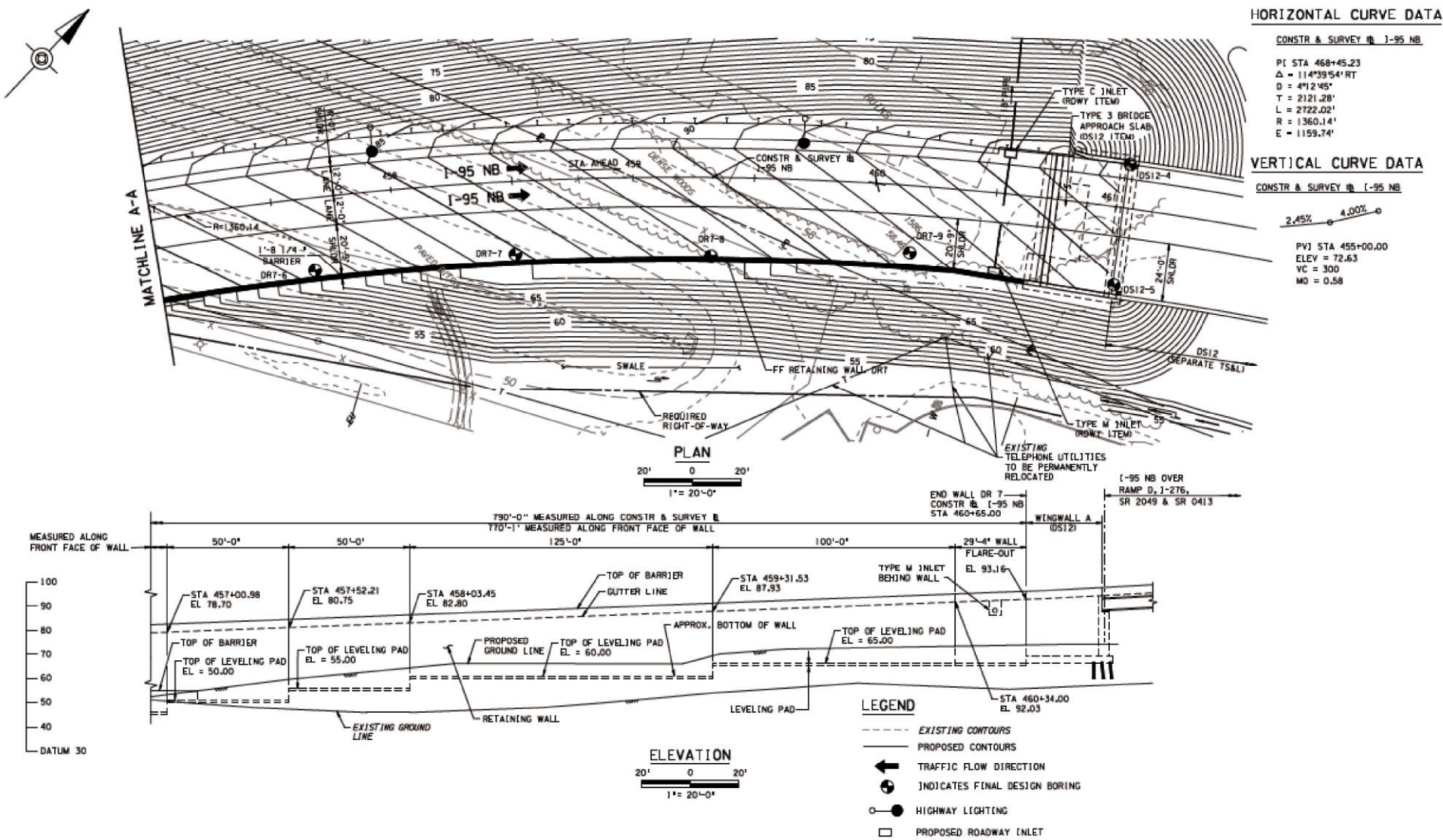
Wall Details



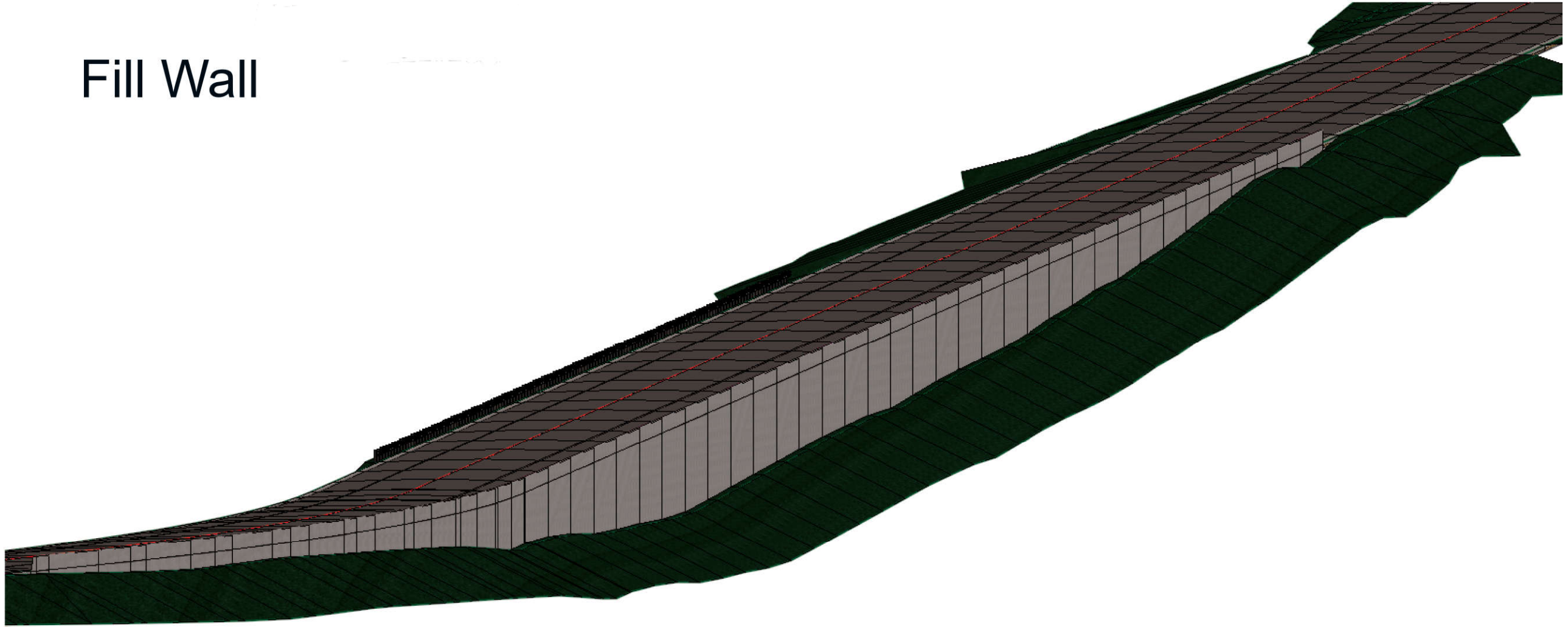
Wall Details



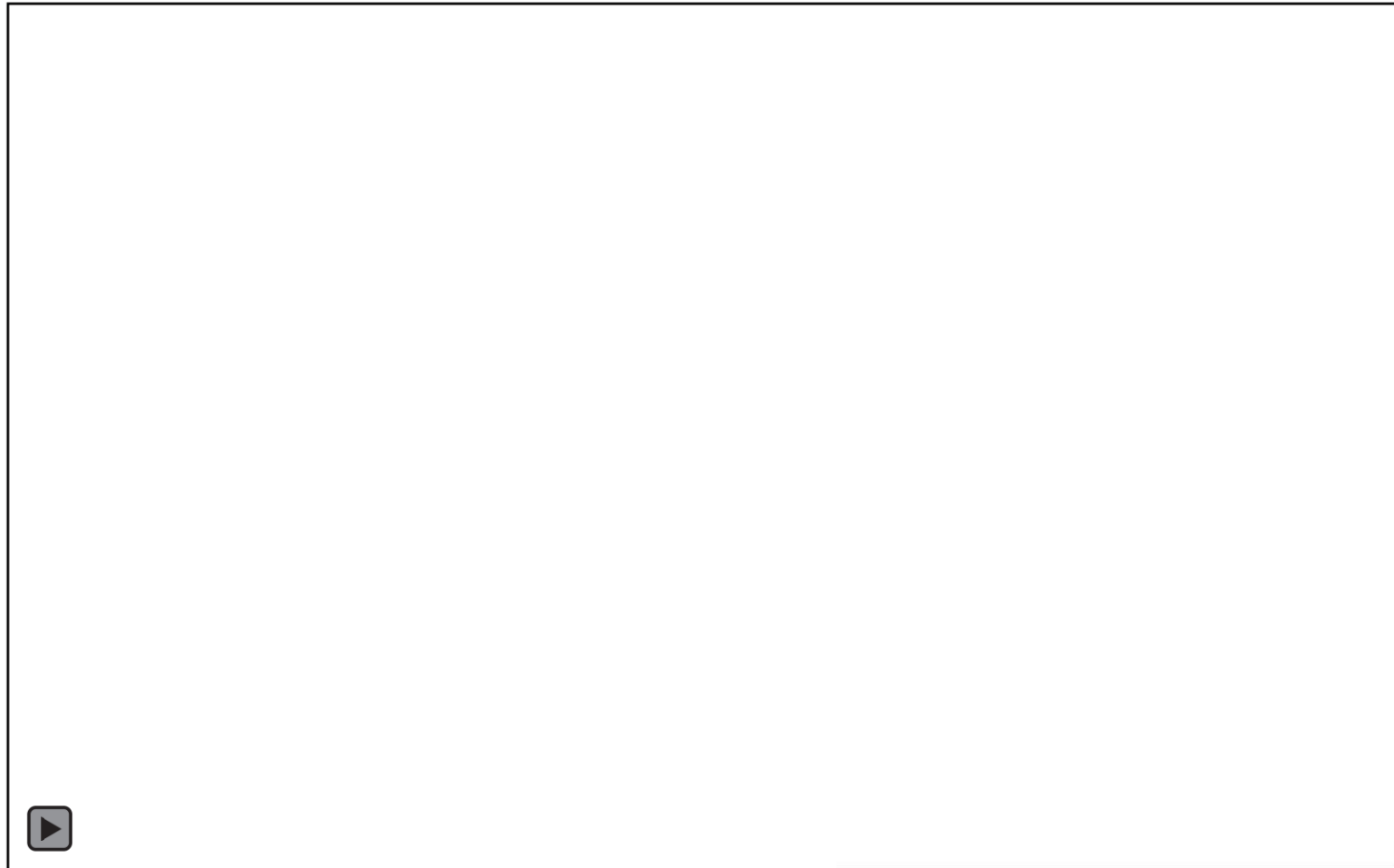
Wall Details



Fill Wall

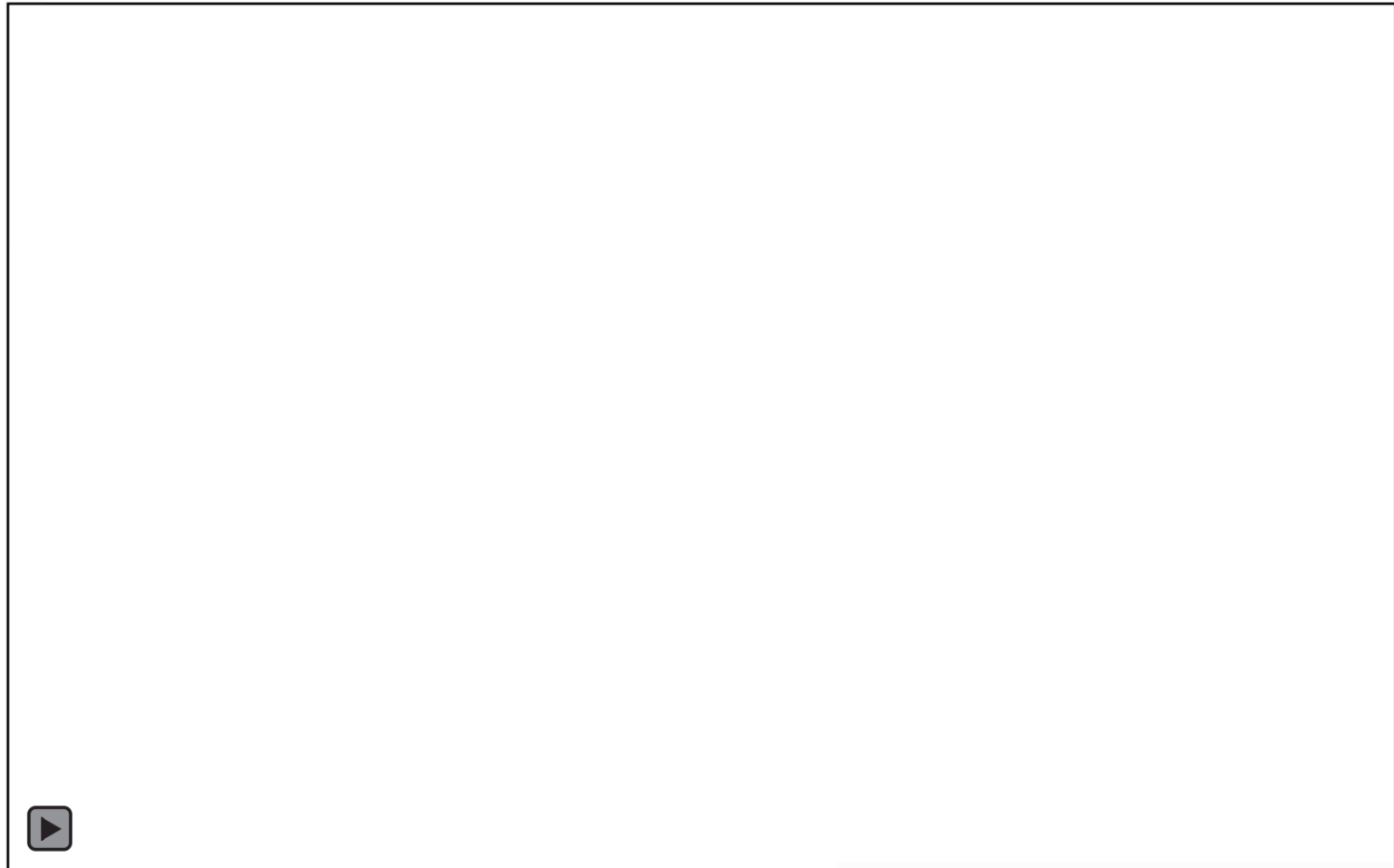


Preliminary Wall Design



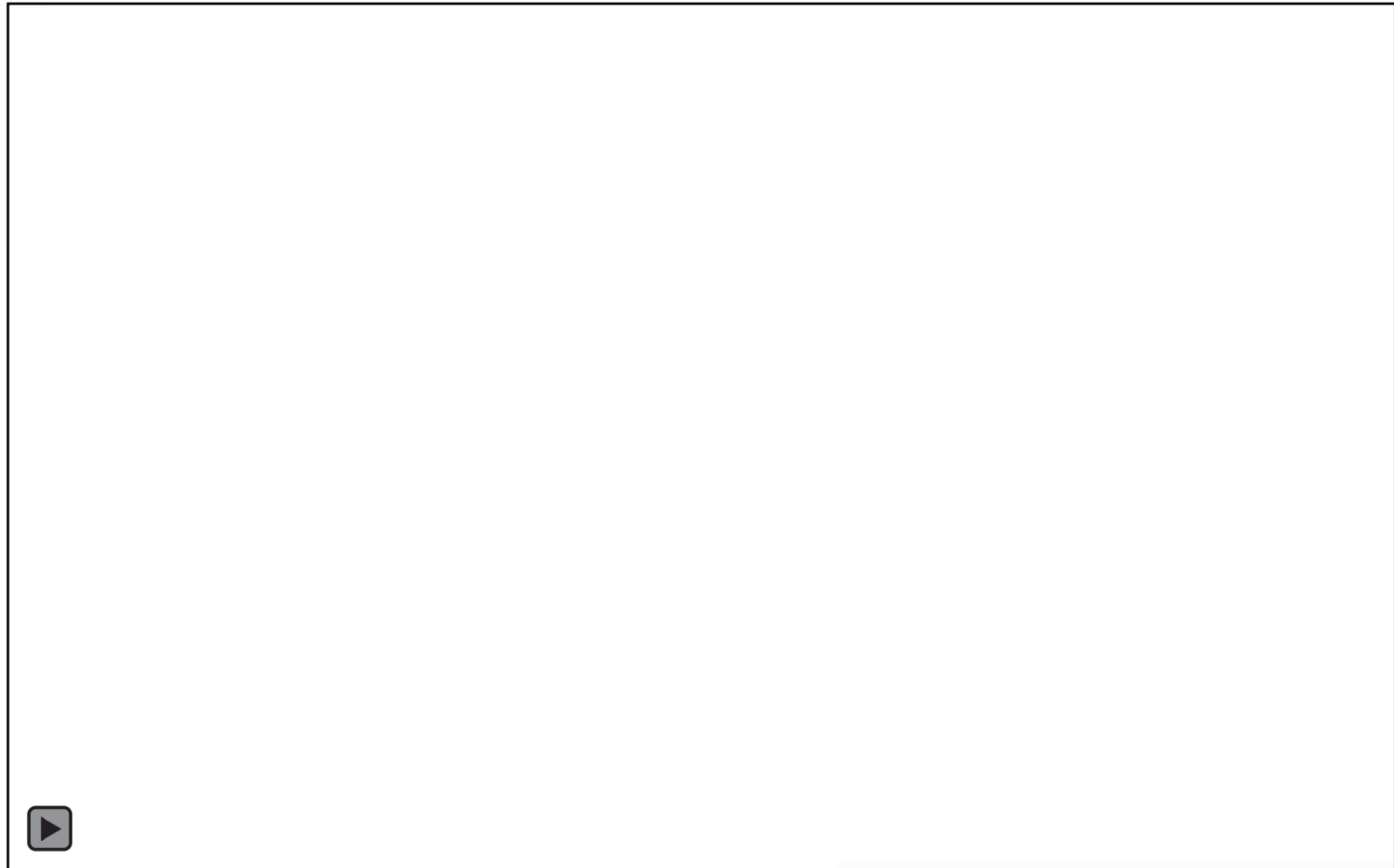
Stepped Profile Wall – Horizontal Geometry

- Plan by 3D Element



Stepped Profile Wall – Vertical Geometry

- Import Geometry from Text File



Stepped Profile Wall – Add to Corridor

- Point Control



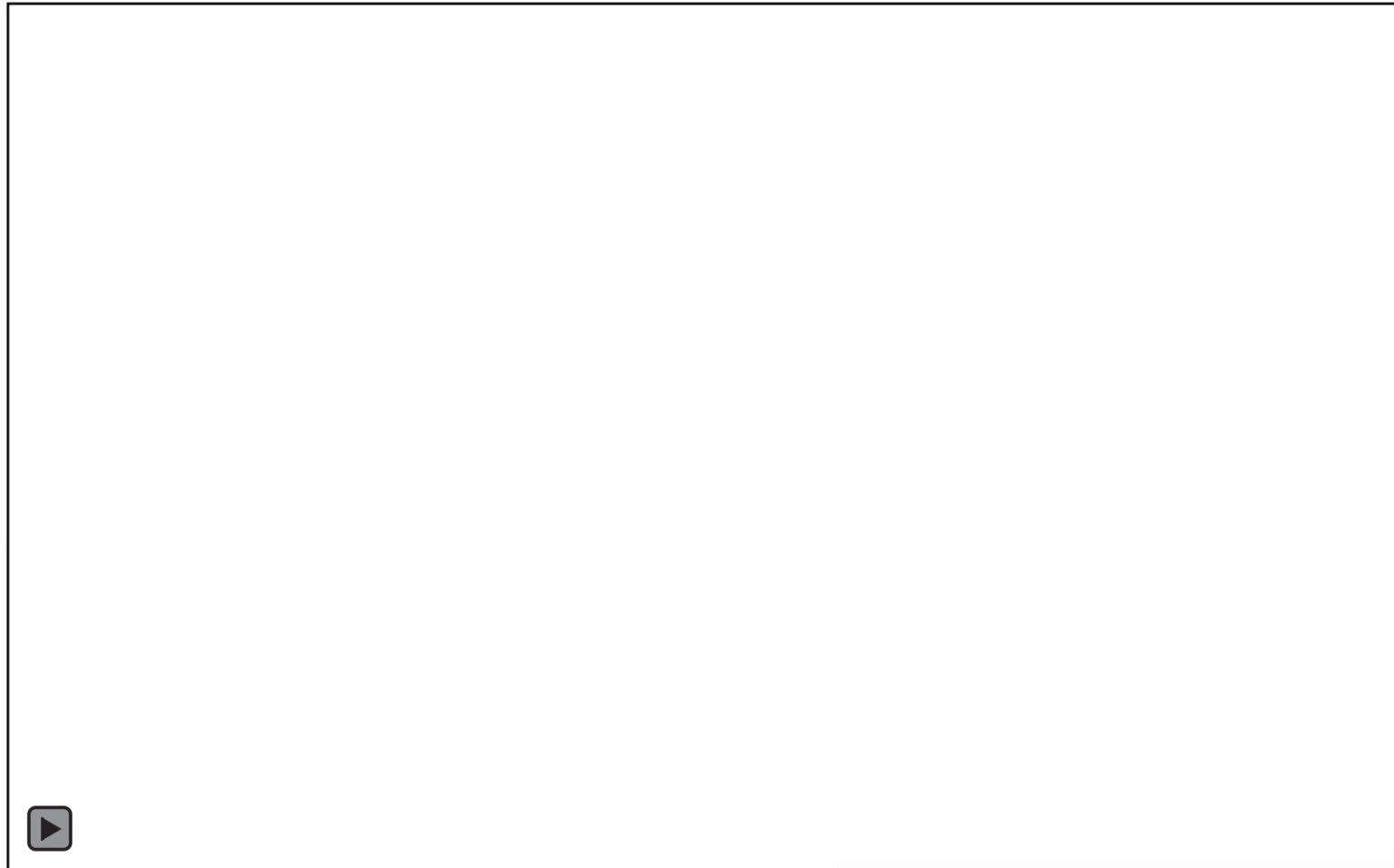
Stepped Profile Wall – Project Features

- Project Profile to Element

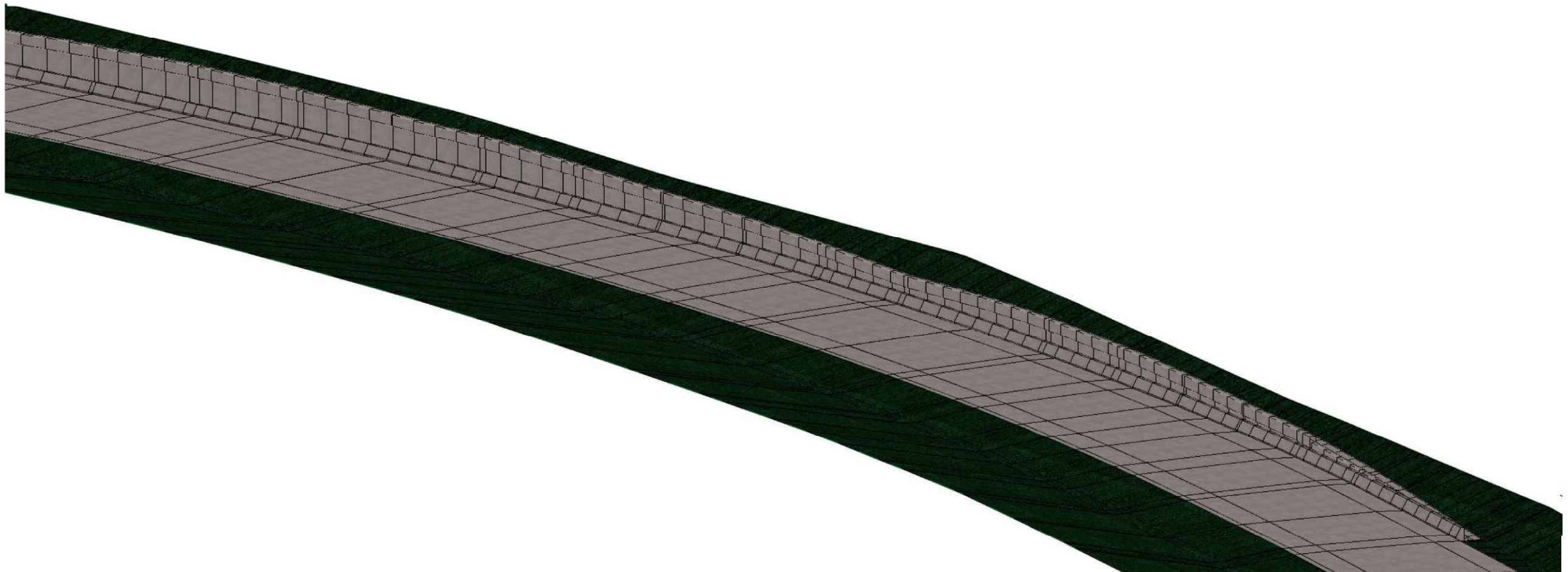


Stepped Profile Wall – Create Sheets

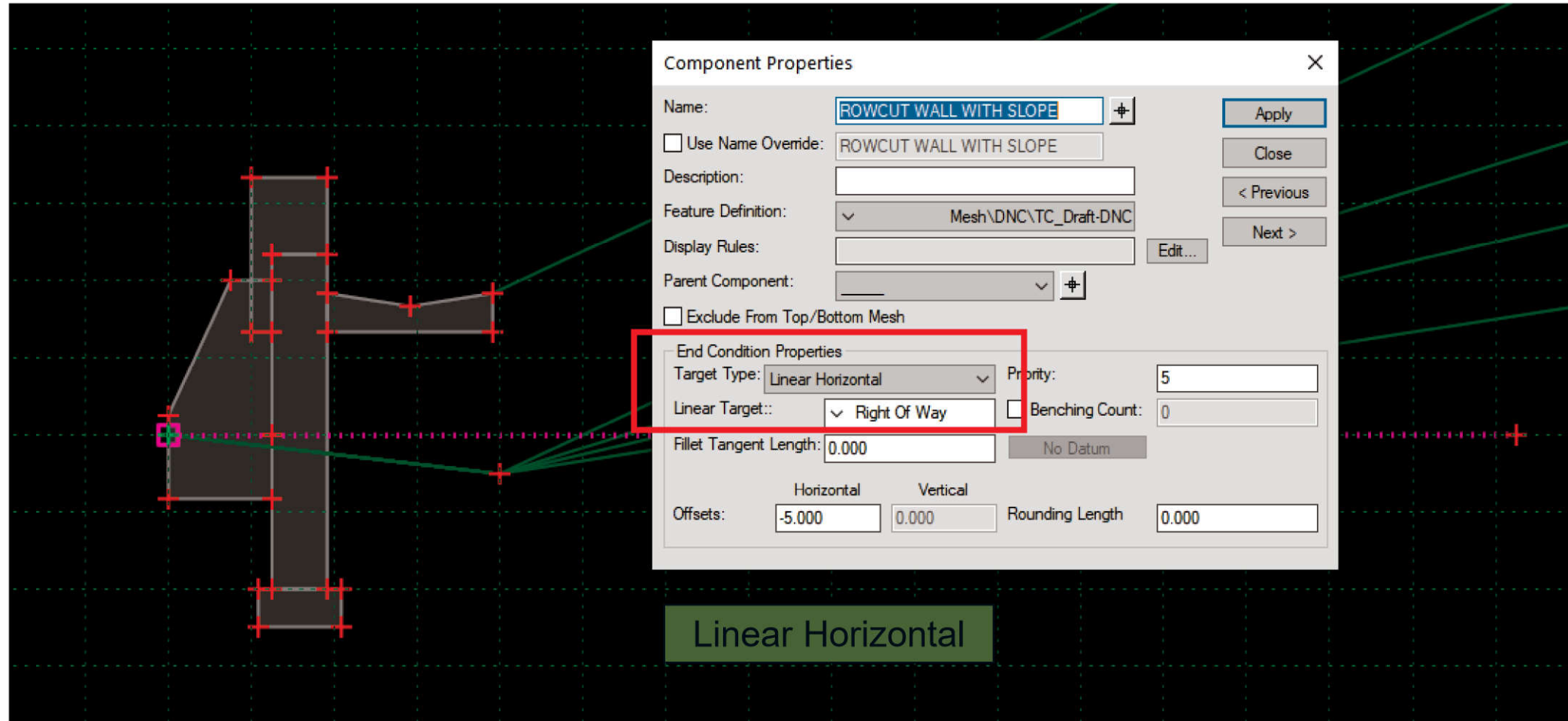
- Named Boundary
- Place Label



Cut Wall



Cut Wall Template



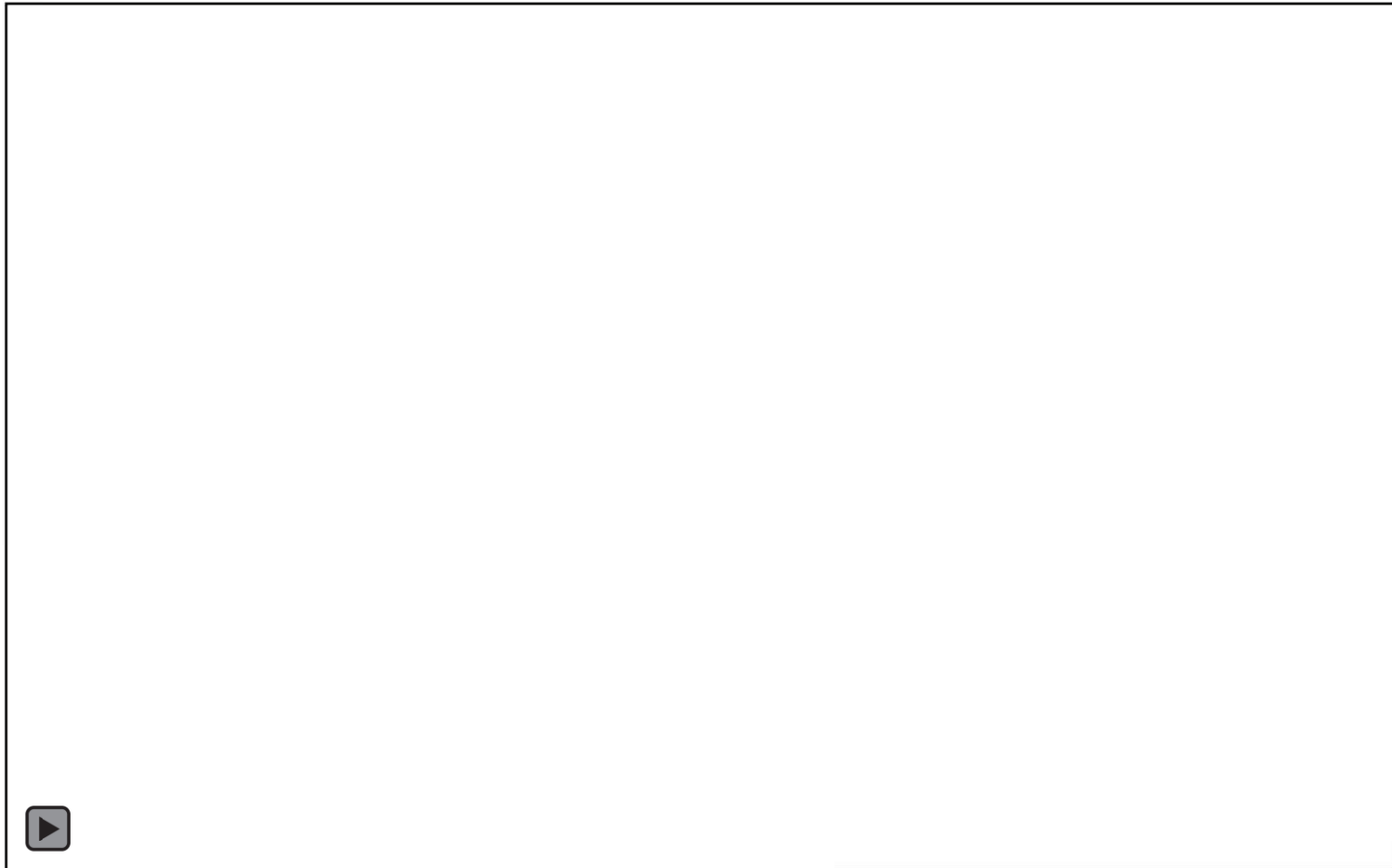
How Does this Work?

- Template

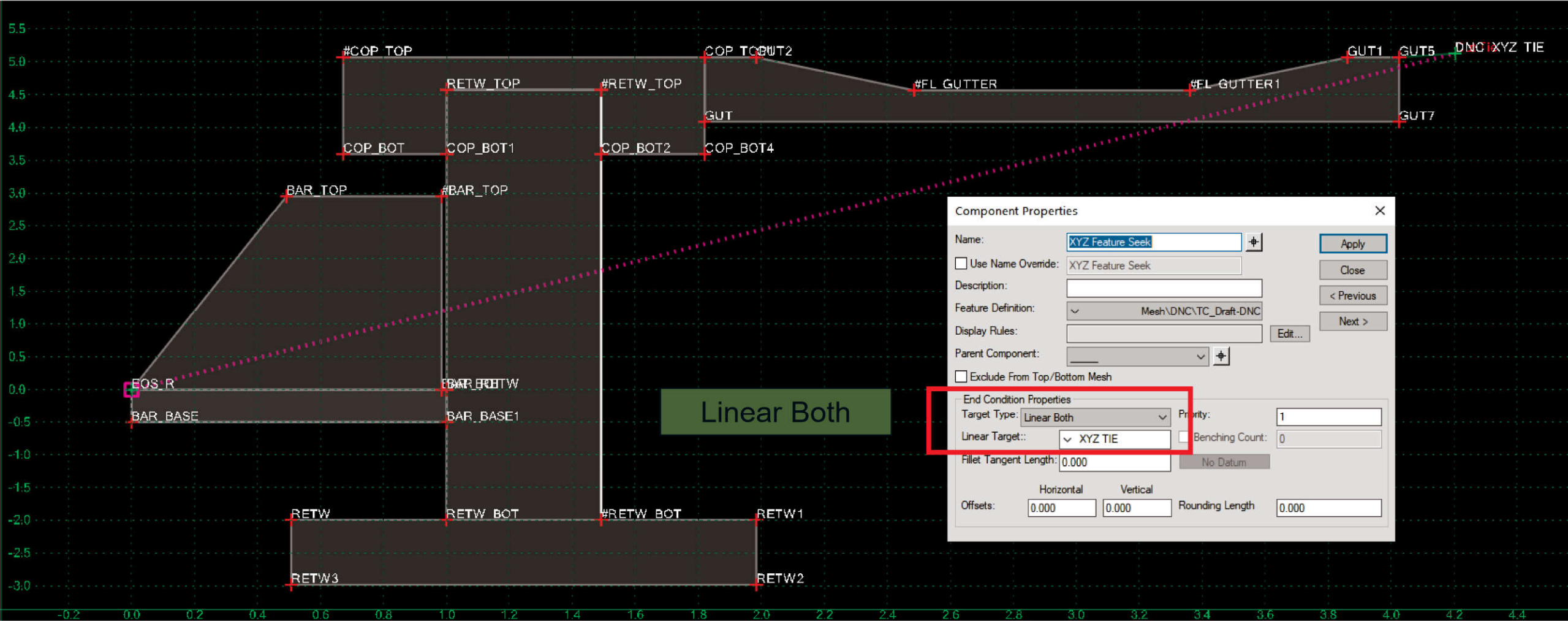


How Does this Work?

- Corridor Referencing
- Target Aliasing



Cut Wall Template

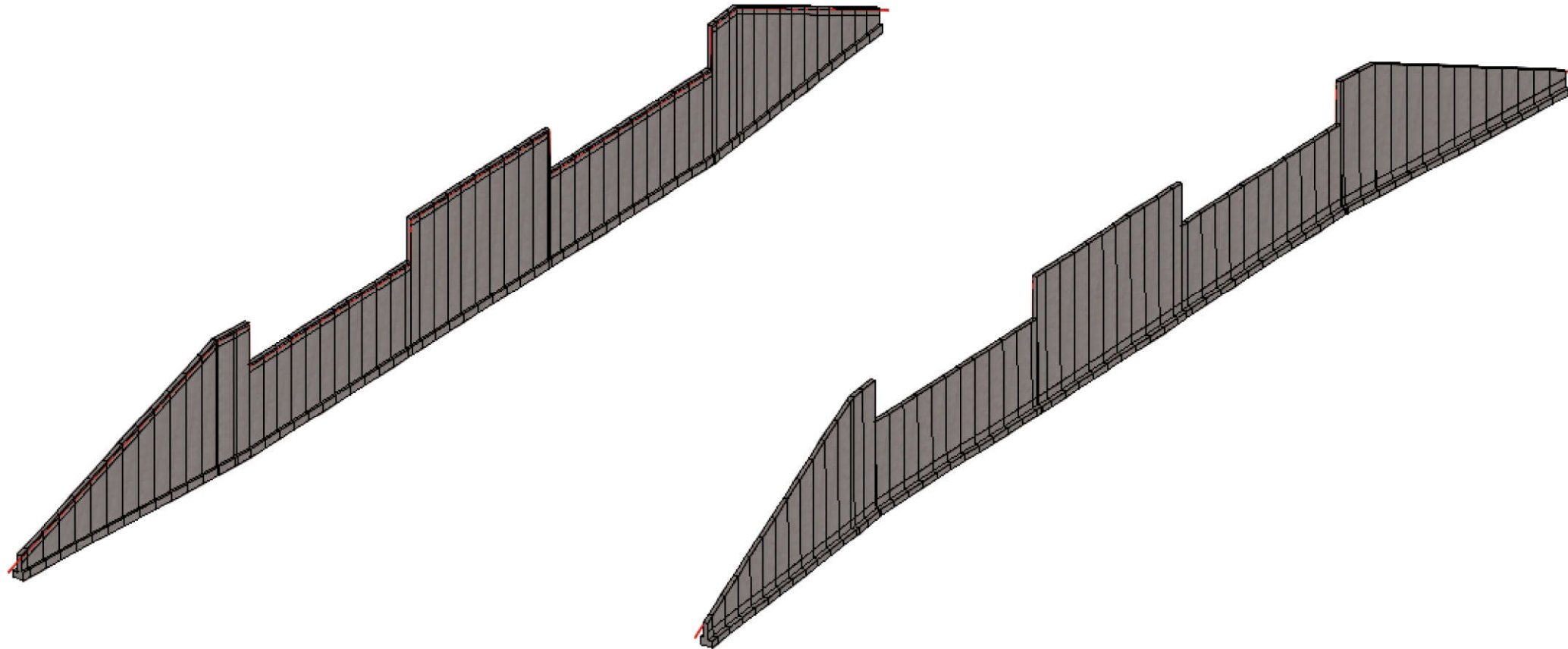


How Does this Work?

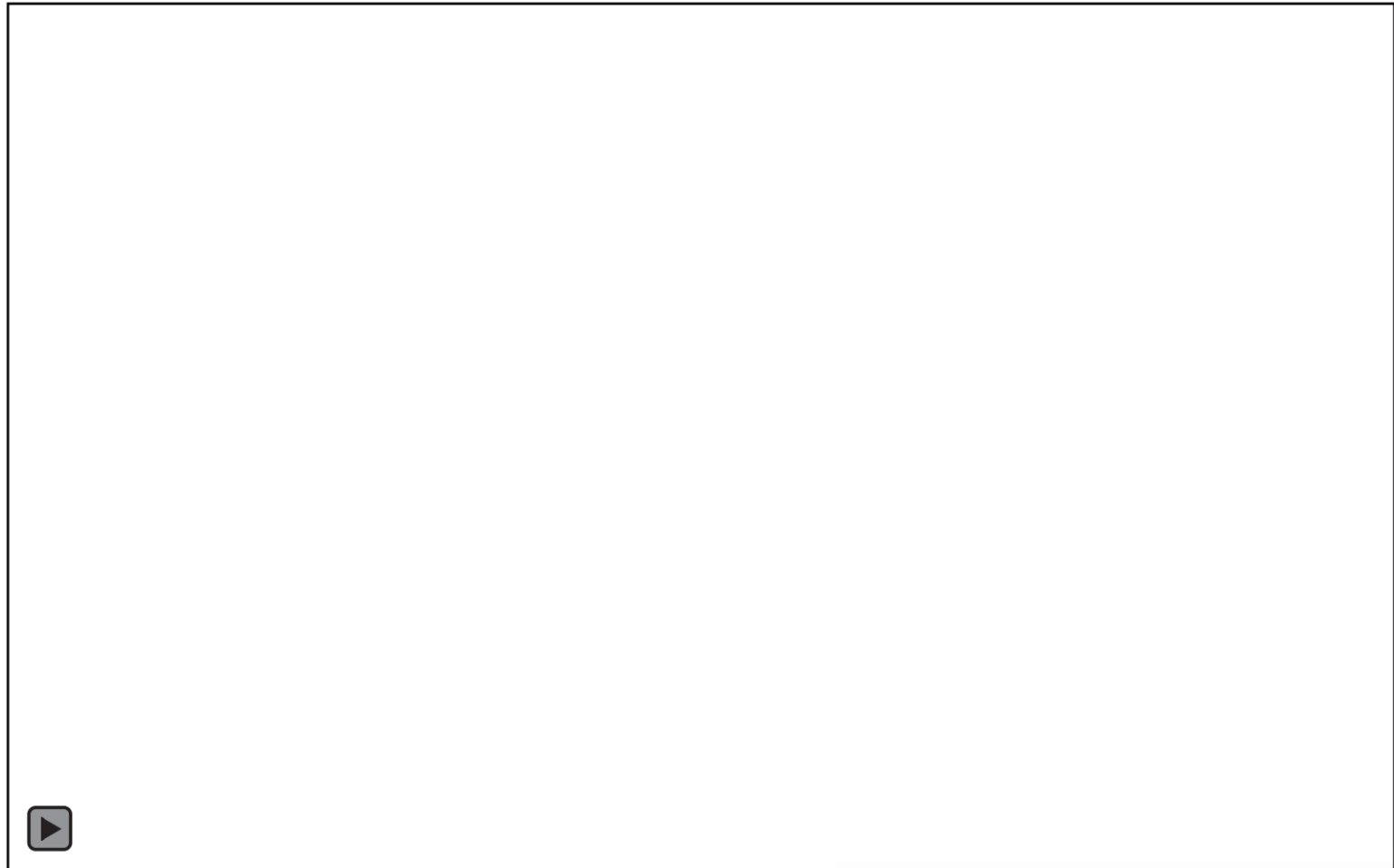
- Seeking Another Corridor



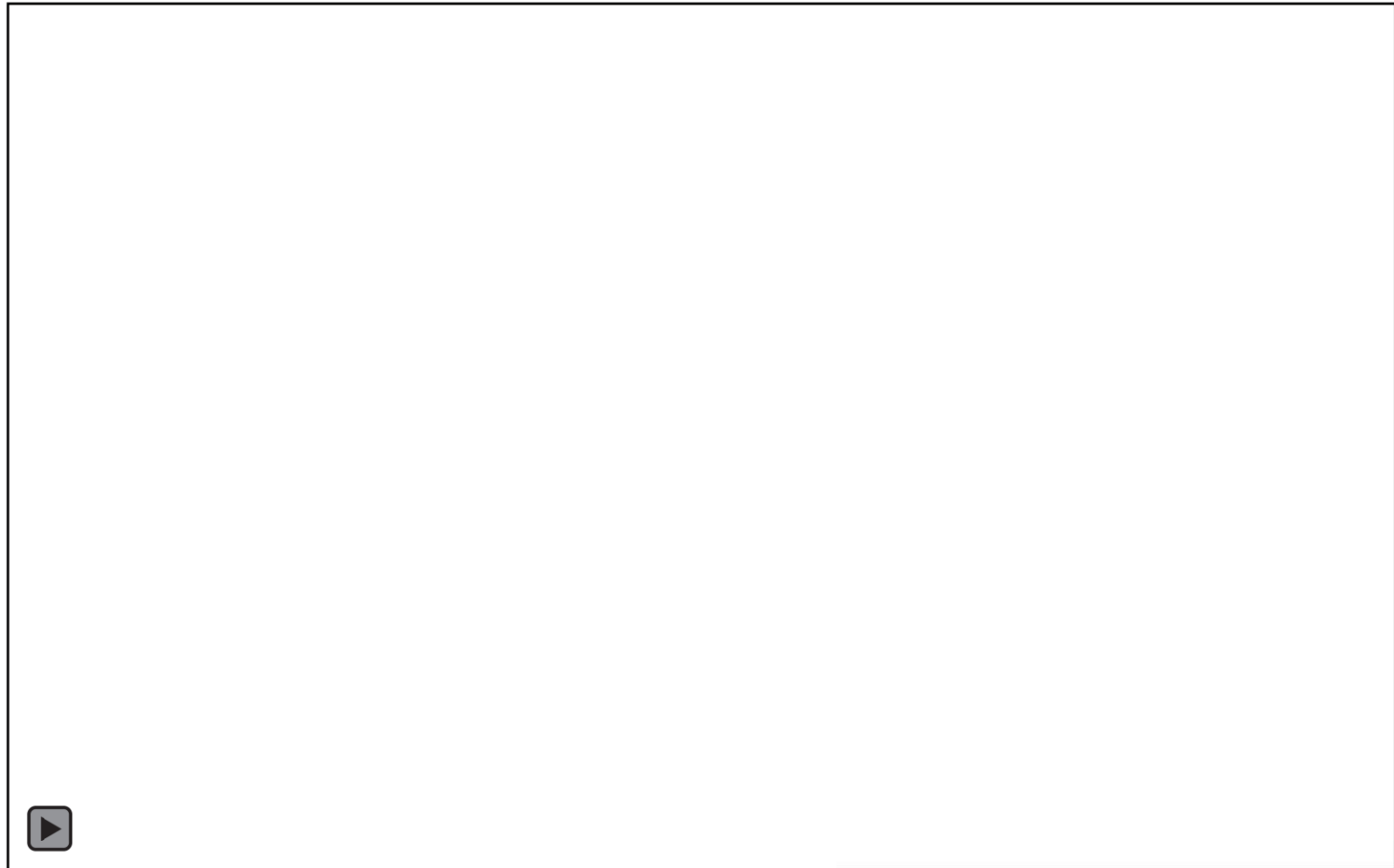
Abutment Wall



Abutment Wall – Geometry



Abutment Wall – Model



Efficiently Model Walls and Side Slopes

Thank You!