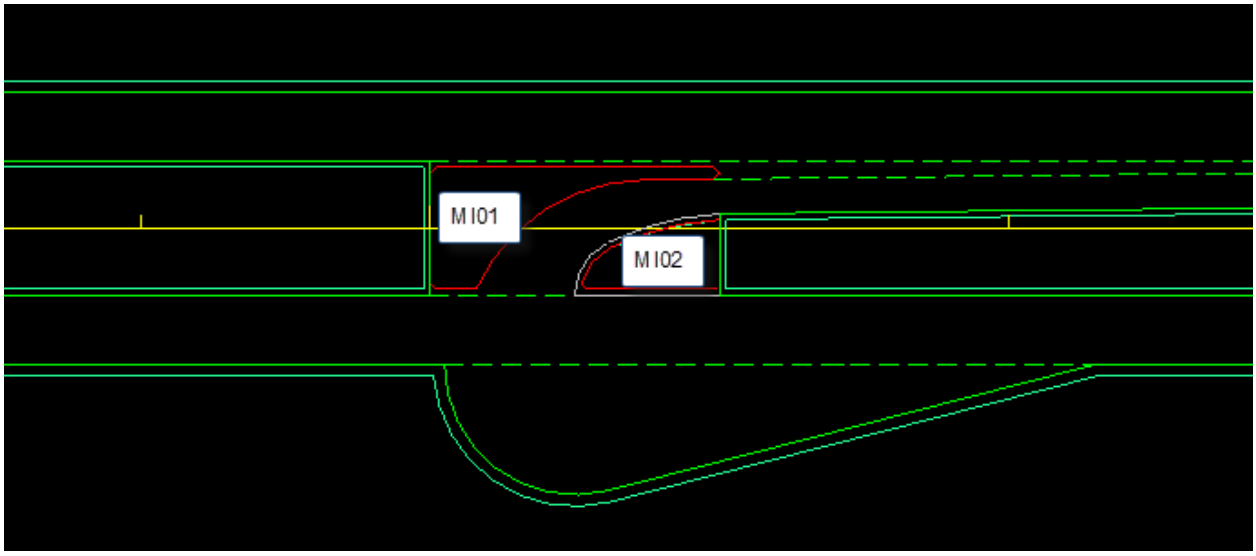
Monolithic Islands

Post Surface Creation

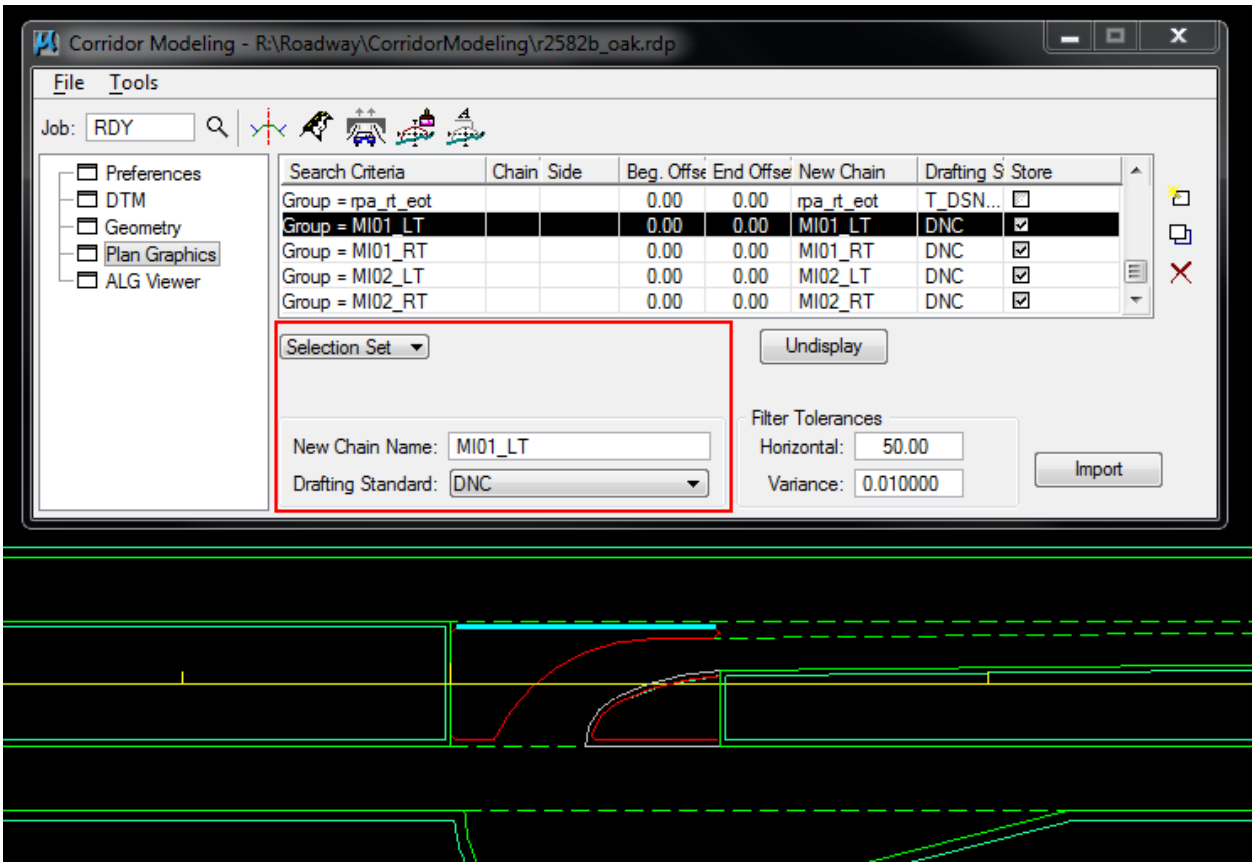
1. Each monolithic island is group individually as plan graphics. The naming convention is MI01, MI02, MI03, etc. from the beginning of the project to the end.

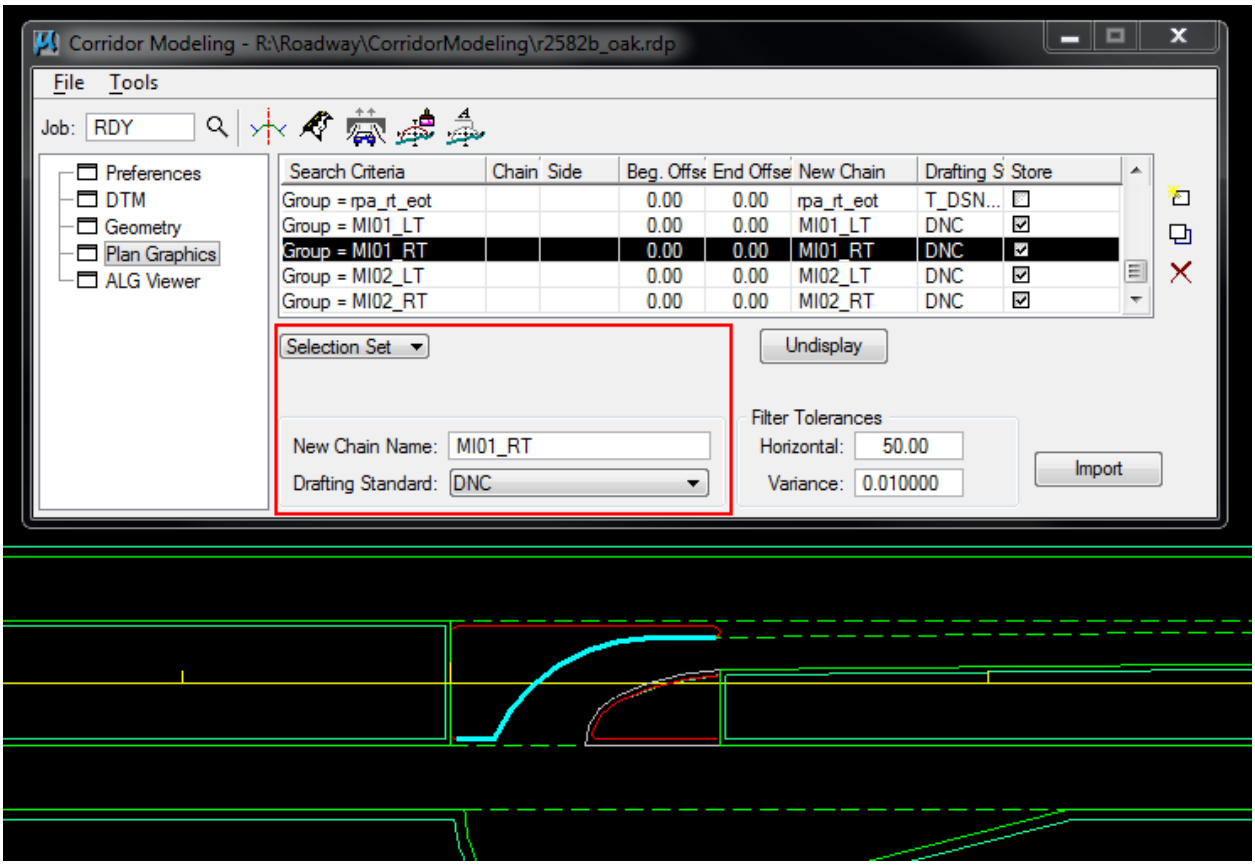


2. For each monolithic island group, store the left and right edge as graphics. Note that the left or right edge does not depend on where it is in relationship to the Centerline.

The recommended New Chain Name for each side is **MI01_LT, MI01_RT, MI02_LT, MI02_RT,** etc. Use the Drafting Standard **DNC**.

Use the “Selection Set” method instead of “Symbology” to identify the monolithic island edge graphically is highly recommended for this procedure due to the MI edges commonly cross the Centerline.


Corridor Modeling - R:\Roadway\CorridorModeling\r2582b_oak.rdp
File Tools
Job: RDY
Preferences
DTM
Geometry
Plan Graphics
ALG Viewer
Search Criteria Chain Side Beg. Offse End Offse New Chain Drafting S Store
Group = rpa_rt_eot 0.00 0.00 rpa_rt_eot T_DSN...
Group = MI01_LT 0.00 0.00 MI01_LT DNC
Group = MI01_RT 0.00 0.00 MI01_RT DNC
Group = MI02_LT 0.00 0.00 MI02_LT DNC
Group = MI02_RT 0.00 0.00 MI02_RT DNC
Selection Set
Undisplay
New Chain Name: MI01_LT
Drafting Standard: DNC
Filter Tolerances
Horizontal: 50.00
Variance: 0.010000
Import


Corridor Modeling - R:\Roadway\CorridorModeling\r2582b_oak.rdp
File Tools
Job: RDY
Preferences
DTM
Geometry
Plan Graphics
ALG Viewer
Search Criteria Chain Side Beg. Offse End Offse New Chain Drafting S Store
Group = rpa_rt_eot 0.00 0.00 rpa_rt_eot T_DSN...
Group = MI01_LT 0.00 0.00 MI01_LT DNC
Group = MI01_RT 0.00 0.00 MI01_RT DNC
Group = MI02_LT 0.00 0.00 MI02_LT DNC
Group = MI02_RT 0.00 0.00 MI02_RT DNC
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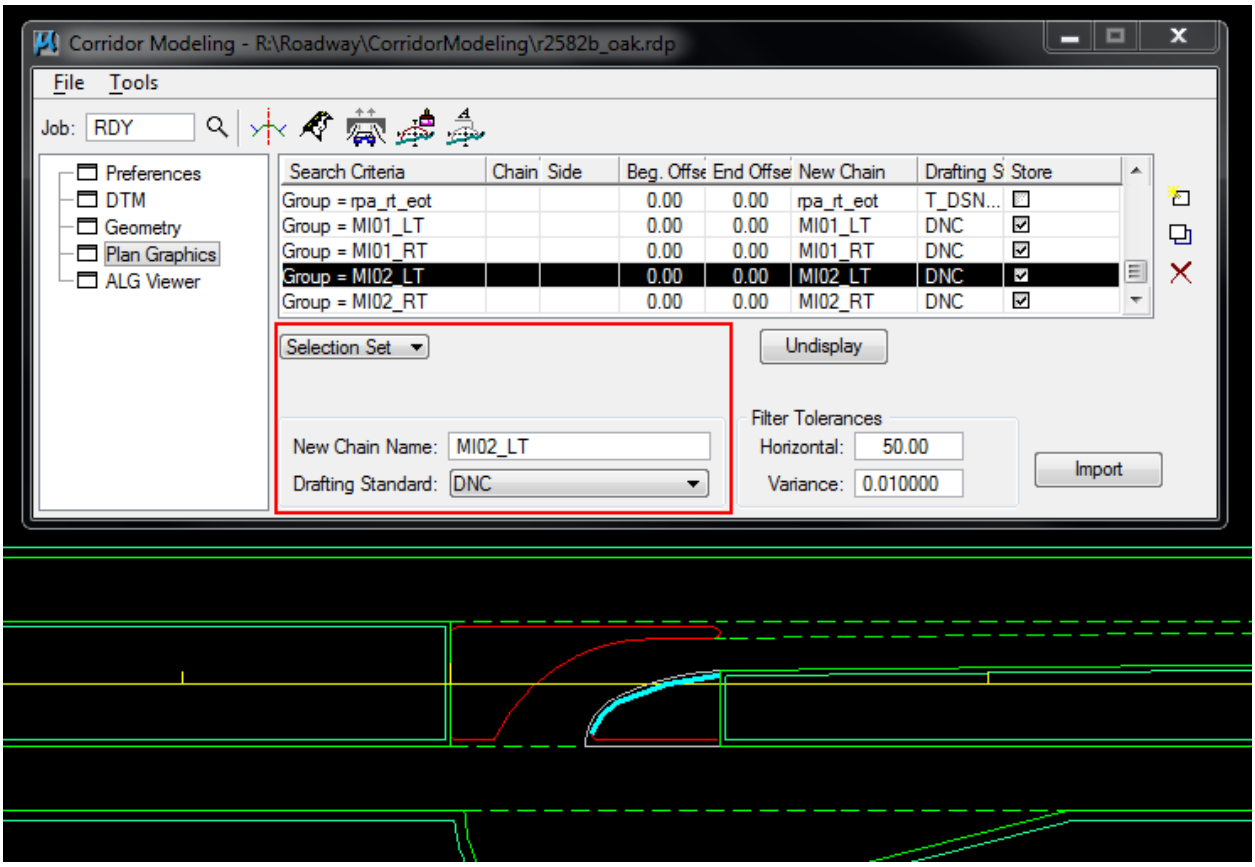
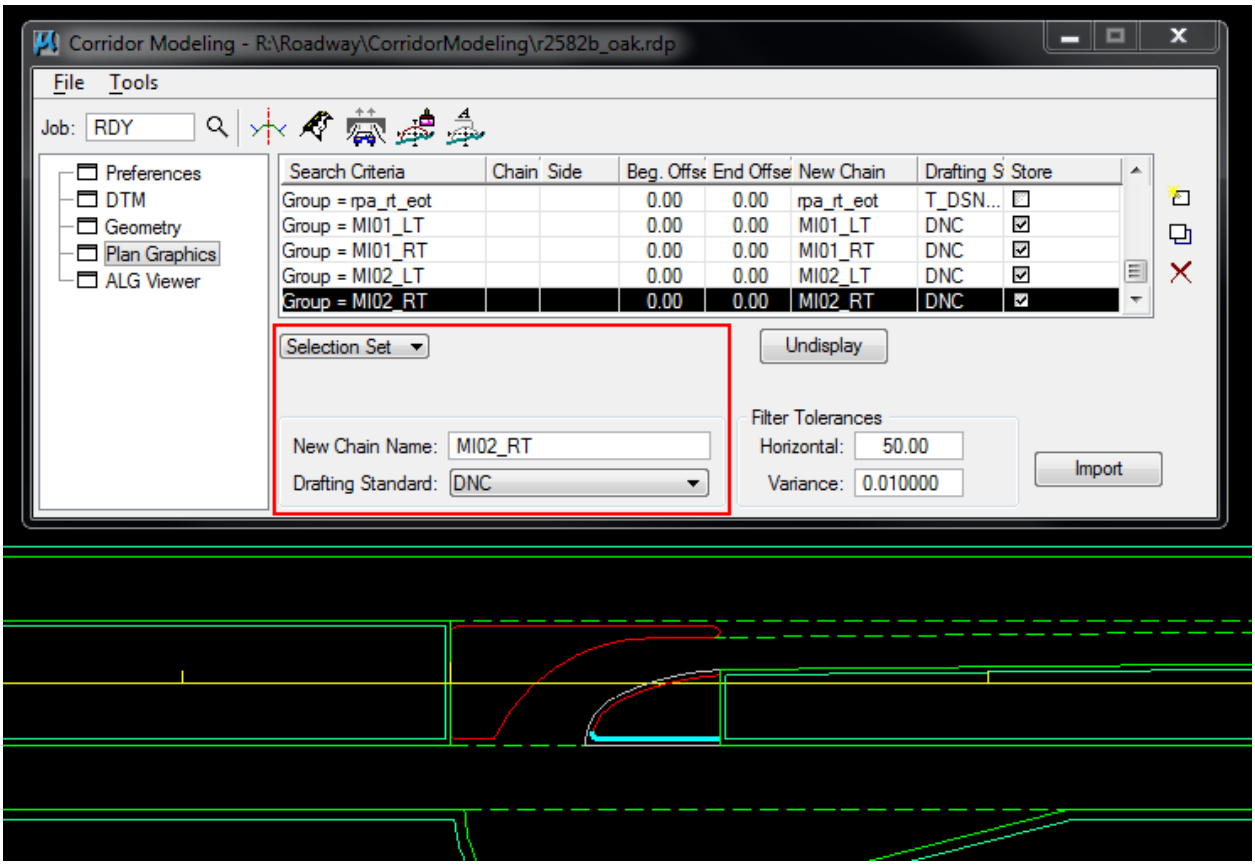
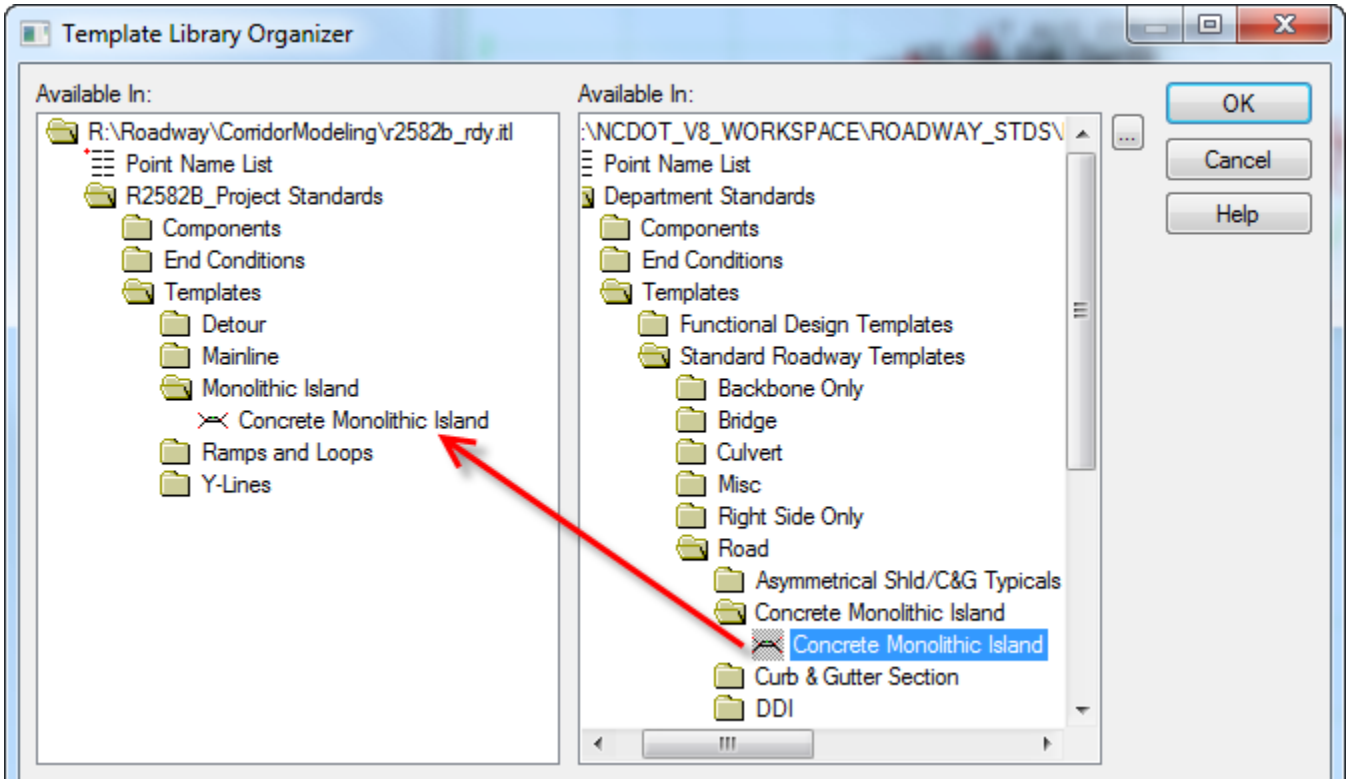
Undisplay
New Chain Name: MI01_RT
Drafting Standard: DNC
Filter Tolerances
Horizontal: 50.00
Variance: 0.010000
Import


Corridor Modeling - R:\Roadway\CorridorModeling\r2582b_oak.rdp
File Tools
Job: RDY
Preferences
DTM
Geometry
Plan Graphics
ALG Viewer
Search Criteria | Chain | Side | Beg. Offse | End Offse | New Chain | Drafting S | Store
Group = rpa_rt_eot | 0.00 | 0.00 | rpa_rt_eot | T_DSN... | ☐
Group = MI01_LT | 0.00 | 0.00 | MI01_LT | DNC | ☑
Group = MI01_RT | 0.00 | 0.00 | MI01_RT | DNC | ☑
Group = MI02_LT | 0.00 | 0.00 | MI02_LT | DNC | ☑
Group = MI02_RT | 0.00 | 0.00 | MI02_RT | DNC | ☑
Selection Set
Undisplay
New Chain Name: MI02_LT
Drafting Standard: DNC
Filter Tolerances
Horizontal: 50.00
Variance: 0.010000
Import

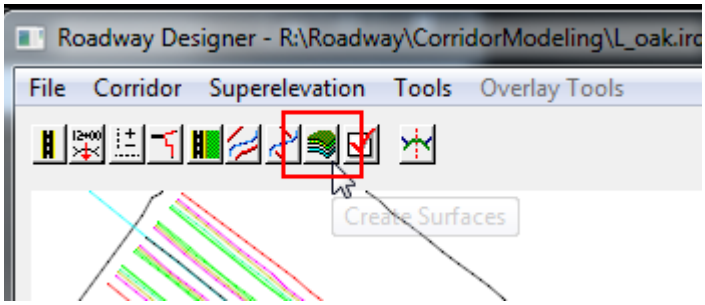

Corridor Modeling - R:\Roadway\CorridorModeling\r2582b_oak.rdp
File Tools
Job: RDY
Preferences
DTM
Geometry
Plan Graphics
ALG Viewer
Search Criteria | Chain | Side | Beg. Offse | End Offse | New Chain | Drafting S | Store
Group = rpa_rt_eot | 0.00 | 0.00 | rpa_rt_eot | T_DSN... | ☐
Group = MI01_LT | 0.00 | 0.00 | MI01_LT | DNC | ☑
Group = MI01_RT | 0.00 | 0.00 | MI01_RT | DNC | ☑
Group = MI02_LT | 0.00 | 0.00 | MI02_LT | DNC | ☑
Group = MI02_RT | 0.00 | 0.00 | MI02_RT | DNC | ☑
Selection Set
Undisplay
New Chain Name: MI02_RT
Drafting Standard: DNC
Filter Tolerances
Horizontal: 50.00
Variance: 0.010000
Import

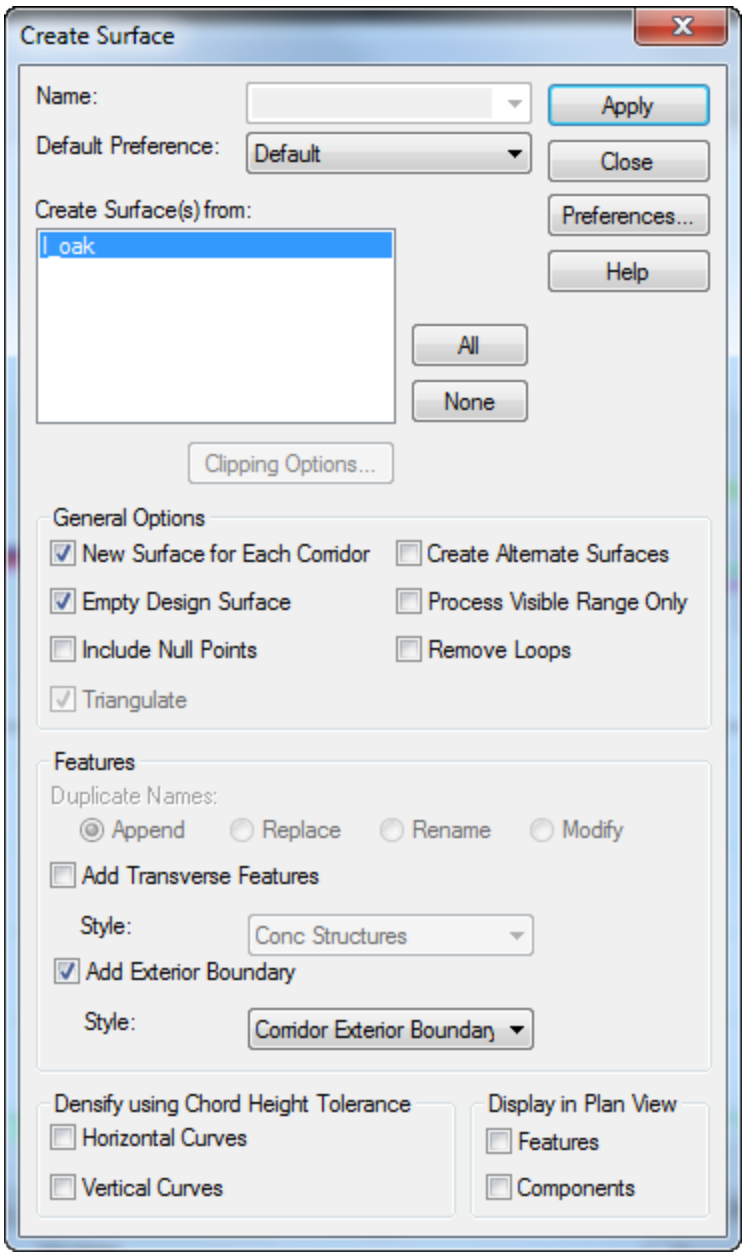
* Note that the round “nose” of the monolithic island is not recommended to be stored as plan graphics.

3. Save the **RDP**.
4. Use the **Template Library Organizer** copy over the latest “Concrete Monolithic Island” template from the Roadway Workspace to your project ITL.

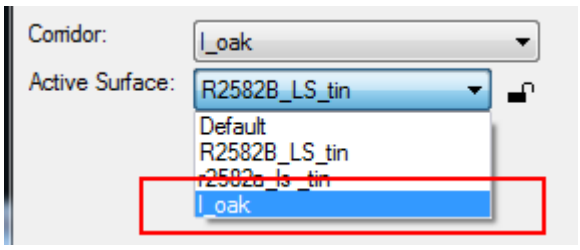


5. Save the **ITL**.
6. In Roadway Designer **Create Surface** of the proposed road.

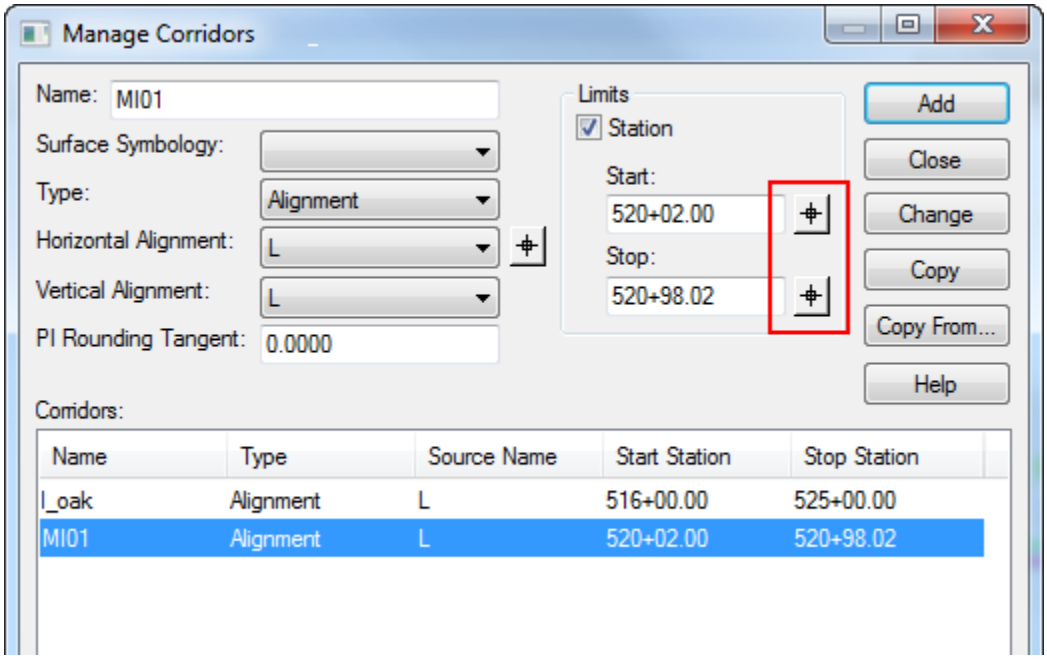


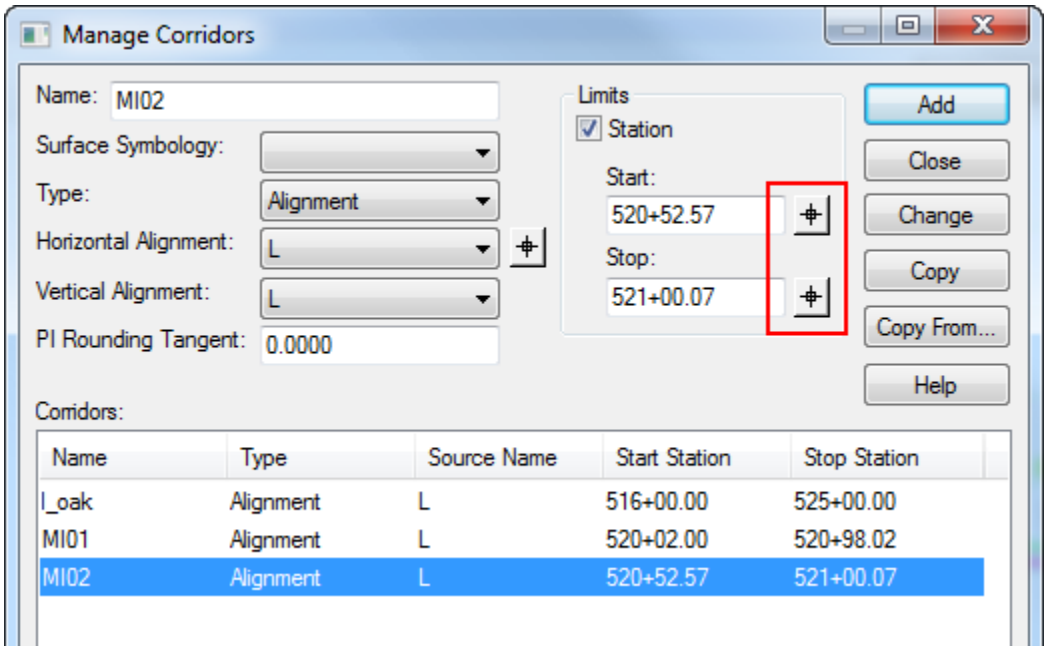


Note that after the creation of the new surface DTM, it now available as an **Active Surface** to choose from.

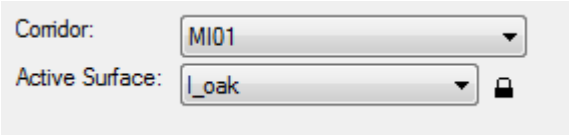


7. Under **Manage Corridors**, Add a new corridor for each monolithic island. The proposed road Horizontal and Vertical Alignments can be arbitrary used, but try to limit the start and stop stations for each MI corridor with the graphical station selector tool. The recommended naming convention for each MI corridor is MI01, MI02, MI03, etc.

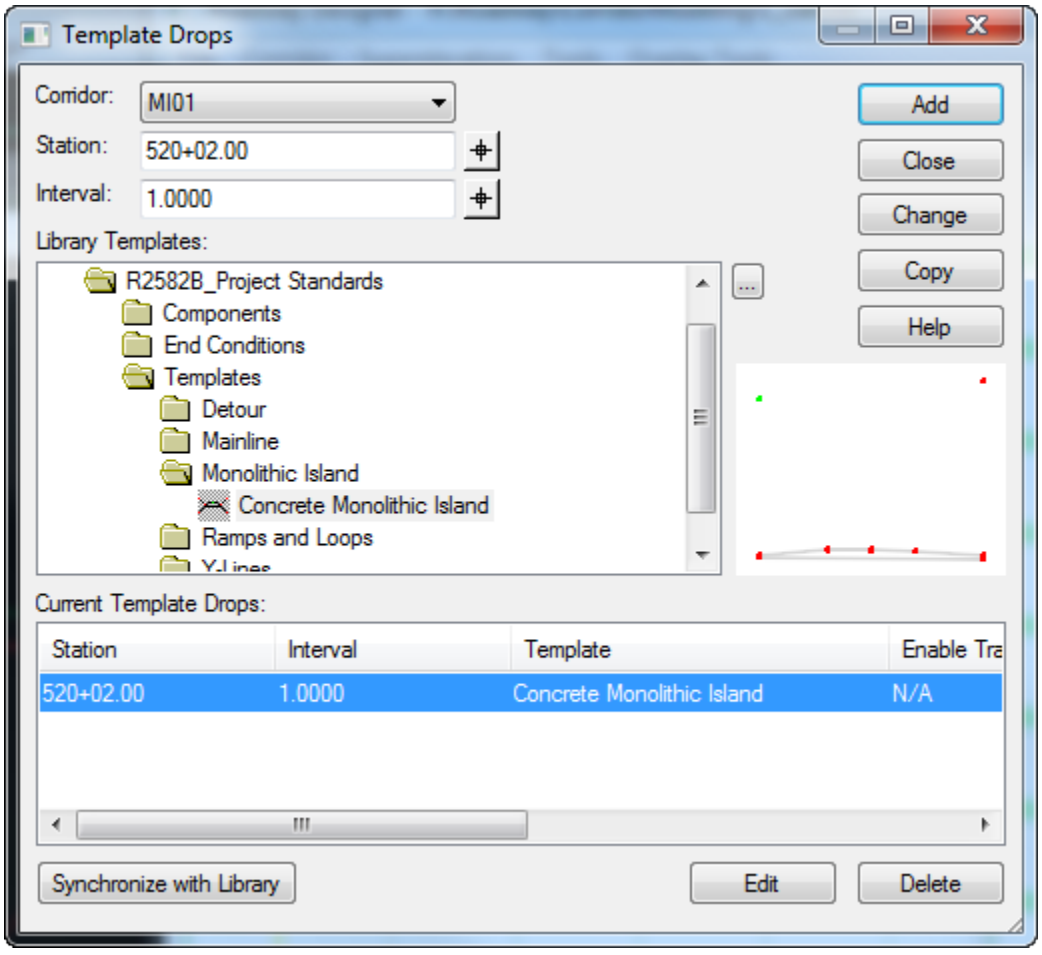




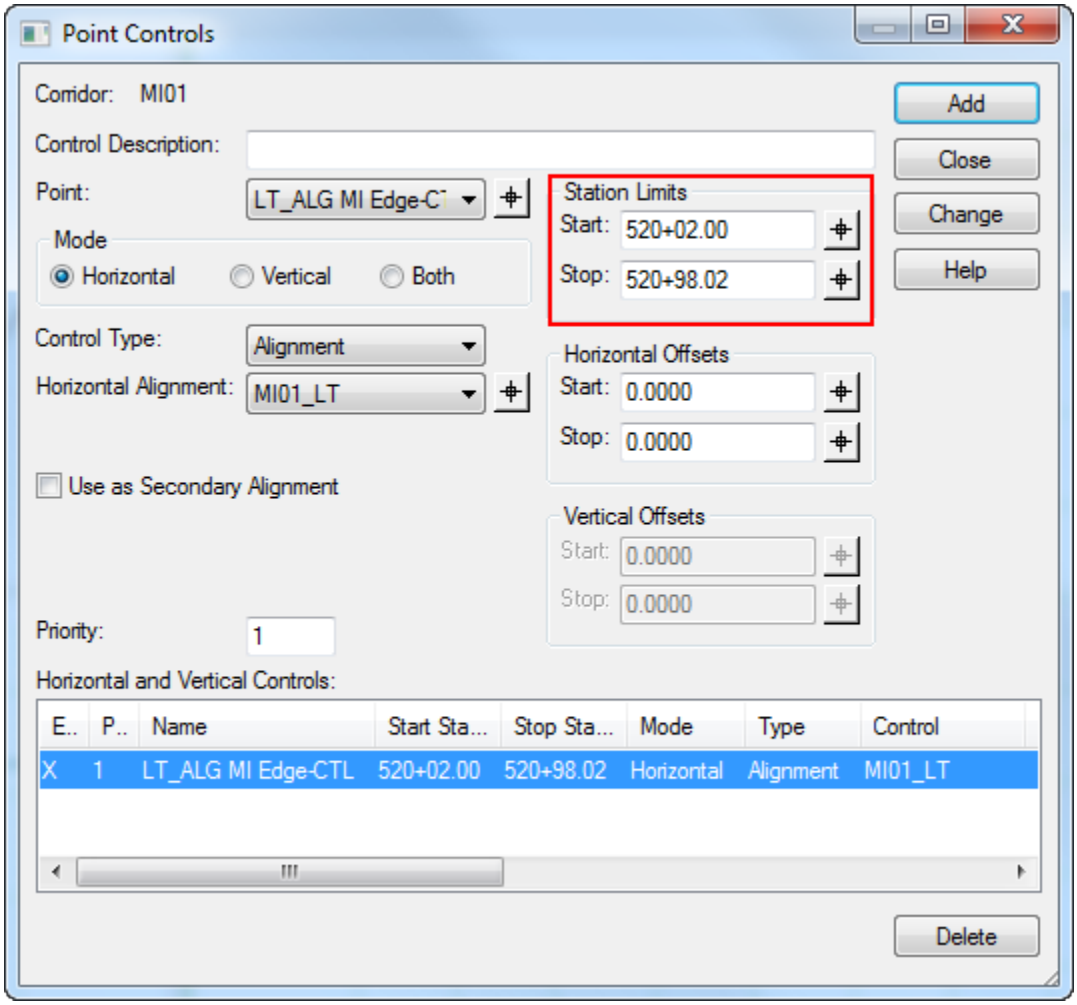
8. In Roadway Designer, set the active **Corridor** and **Active Surface**. Note the Active Surface (Existing Ground Surface) is the surface of the proposed road. The objective is the place monolithic island template on top the proposed road (Active Surface).

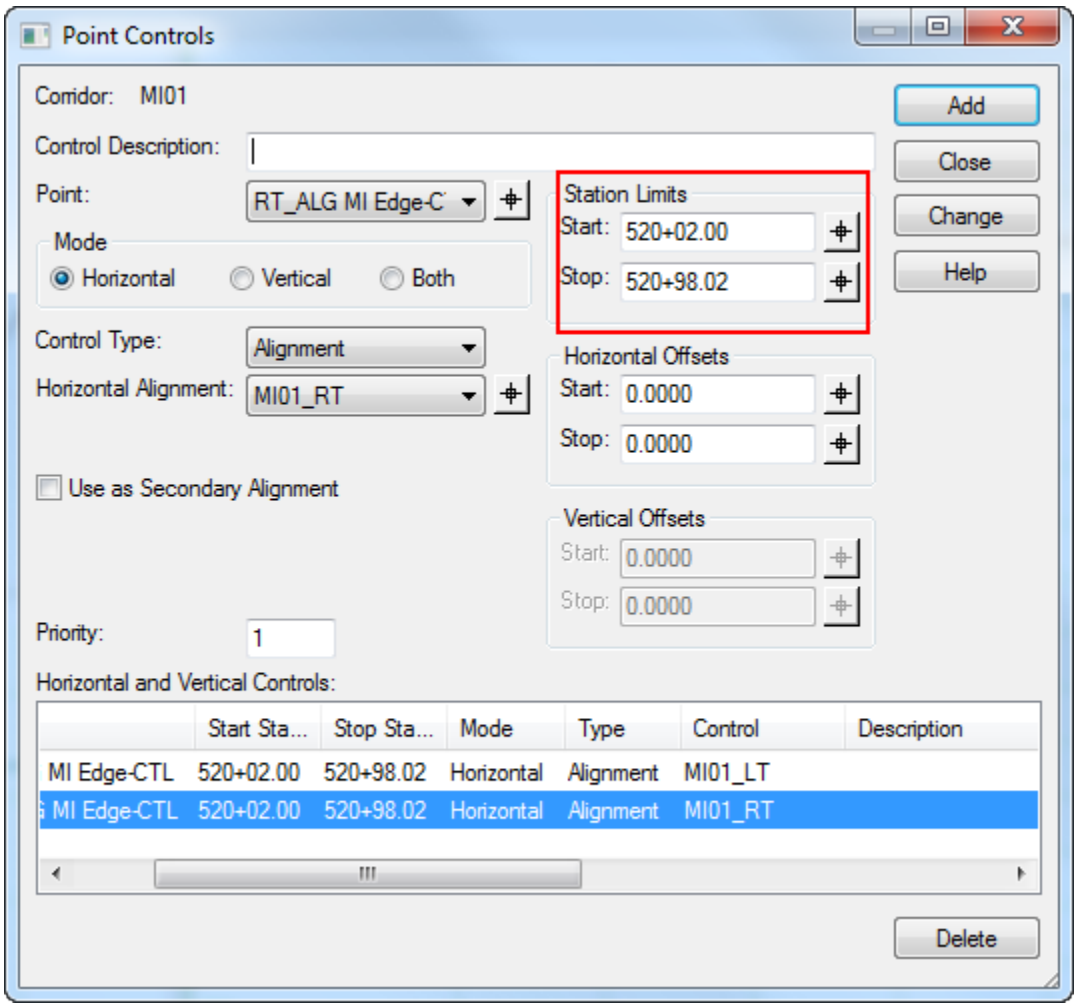


9. In the **Template Drop** dialog box, Add a **Concrete Monolithic Island** template drop at a 1' interval for the entire corridor.

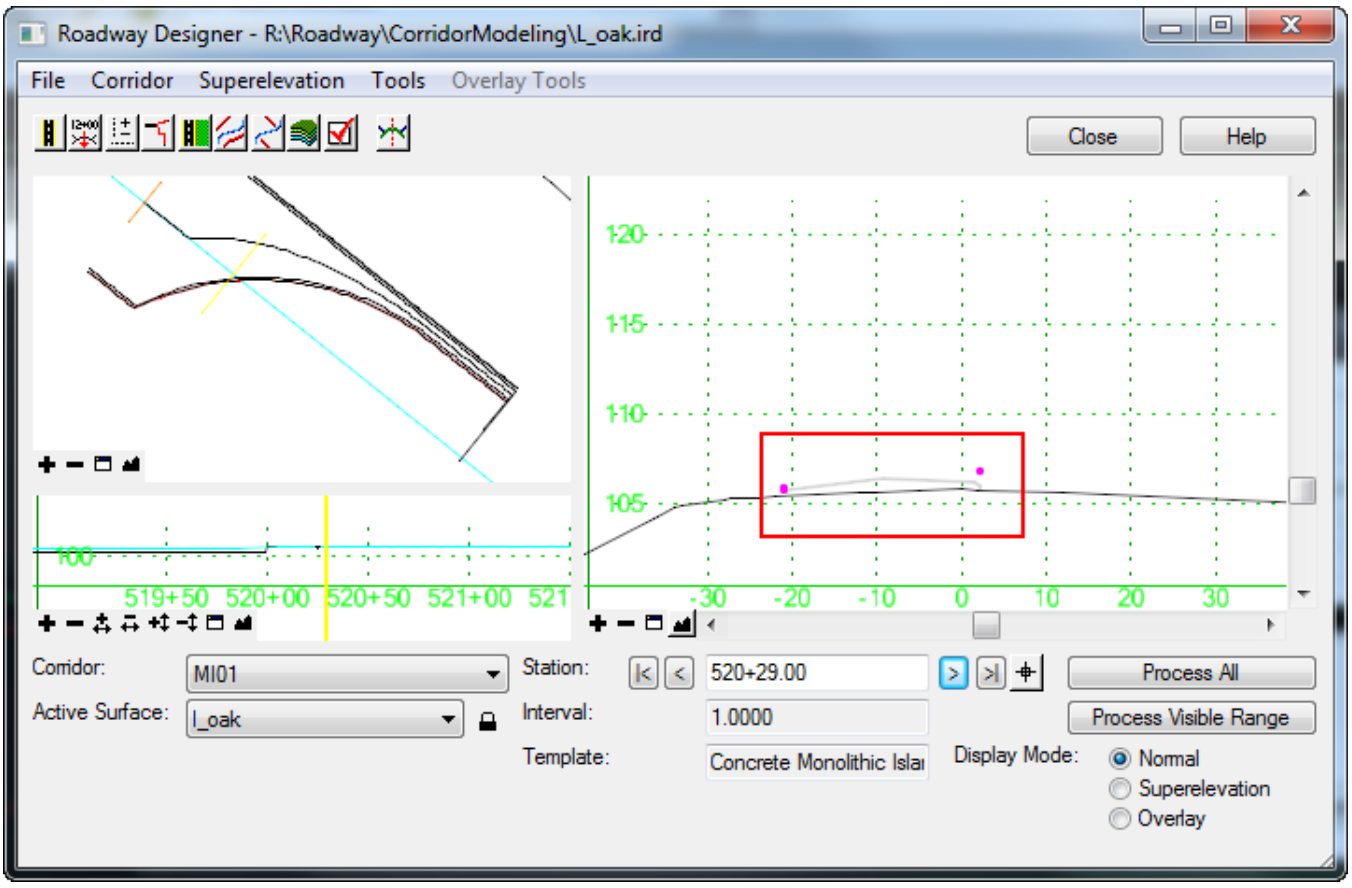


10. Use **Point Controls** to define the left and right edge (Horizontal Mode) of the monolithic island. The point on the template to control is either the **LT_ALG MI Edge-CTL** or **RT_ALG MI Edge-CTL**. The corresponding **Horizontal Alignment** chain (name of the MI graphics) is **MI01_LT** and **MI01_RT** respectively. Always verify the **Station Limits** Start and Stop values.

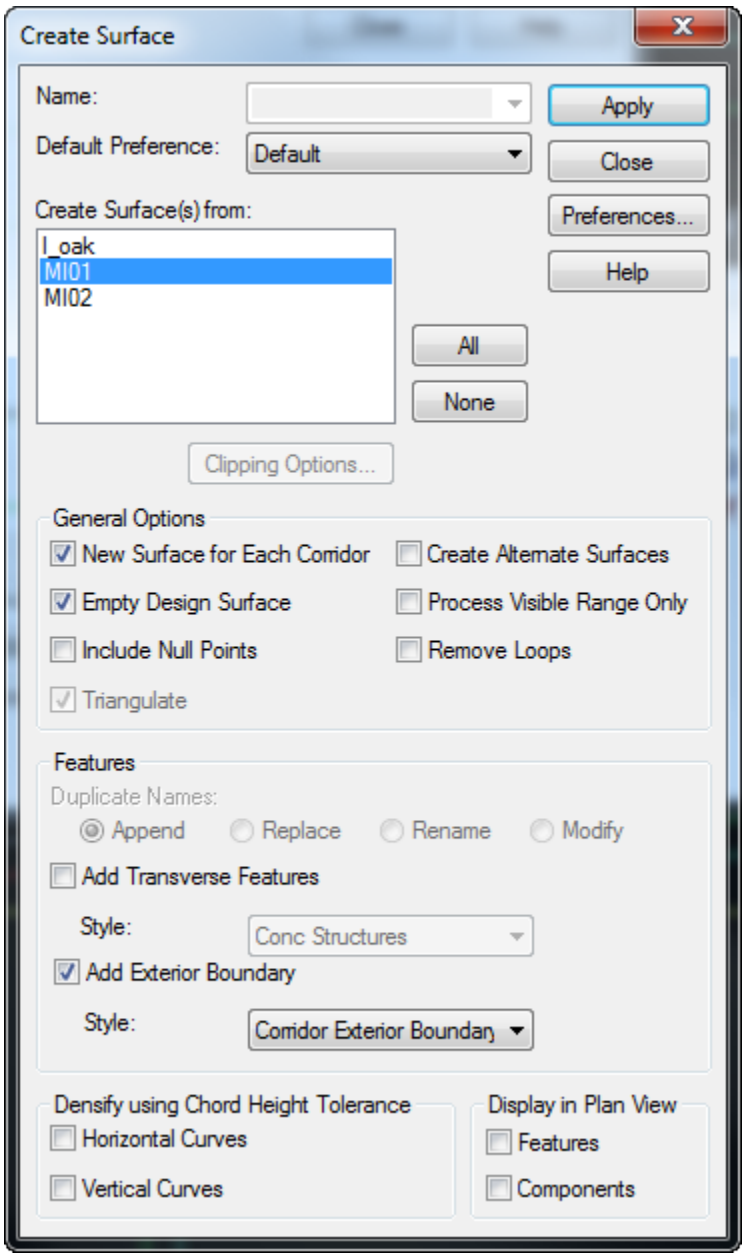



Point Controls
Corridor: MI01
Control Description:
Point: RT_ALG MI Edge-C
Mode
Horizontal
Vertical
Both
Control Type: Alignment
Horizontal Alignment: MI01_RT
Use as Secondary Alignment
Priority: 1
Station Limits
Start: 520+02.00
Stop: 520+98.02
Horizontal Offsets
Start: 0.0000
Stop: 0.0000
Vertical Offsets
Start: 0.0000
Stop: 0.0000
Add
Close
Change
Help
Delete
Horizontal and Vertical Controls:
Start Sta...
Stop Sta...
Mode
Type
Control
Description
MI Edge-CTL 520+02.00 520+98.02 Horizontal Alignment MI01_LT
MI Edge-CTL 520+02.00 520+98.02 Horizontal Alignment MI01_RT

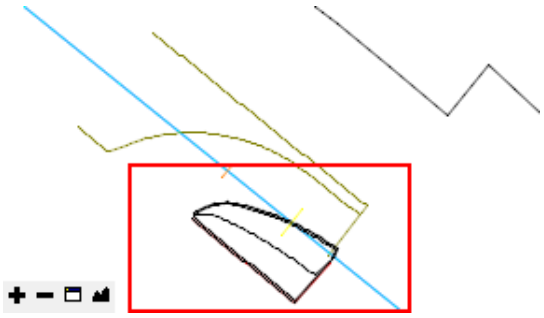
11. In Roadway Designer, verify the monolithic island in Plan and Cross Section views.



12. Create Surface of the MI corridor.



13. Repeat step 8 thru 12 for next MI group. Plan view of MI02 below.



14. Once all of the MI corridors are complete, cut cross sections with the MI DTMs along with the existing TIN and proposed road DTM.