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.

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* 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.



Cr	reate Surface	-		×
	Name: Default Preference: De	fault		Apply
	Create Surface(s) from: I_oak			Preferences
	Clipping) Options	All	
	General Options	h Corridor	Create A	Itemate Surfaces
	Empty Design Surfac	e	Process	Visible Range Only
	Triangulate		Remove	Loops
	Features Duplicate Names: Append R Add Transverse Feat	eplace () Rename	O Modify
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	Densify using Chord He Horizontal Curves	ight Toleran	ce Di	splay in Plan View] Features] Components

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

Corridor:	l_oak	•
Active Surface:	R2582B_LS_tin	_
	Default R2582B_LS_tin	
	Loak	

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.

Manage Corridors	_			
Name: MI01 Surface Symbology: Type: Horizontal Alignment: Vertical Alignment: PI Rounding Tangent: Corridors:	Alignment L L 0.0000	• • • •	Limits Station Start: 520+02.00 Stop: 520+98.02	Add Close Change Copy Copy From Help
Name T	уре	Source Name	Start Station	Stop Station
l_oak Ali	gnment	L	516+00.00	525+00.00
MI01 Ali	gnment	L	520+02.00	520+98.02

Manage C Name: MI02 Surface Symbo Type: Horizontal Align Vertical Alignm PI Rounding T Corridors:	orridors ology: Alignment hment: L ent: L angent: 0.0000	• • • •	Limits Station Start: 520+52.57 Stop: 521+00.07	Add Close Change Copy t Copy From Help
Name	Туре	Source Name	Start Station	Stop Station
l_oak	Alignment	L	516+00.00	525+00.00
MI01	Alignment	L	520+02.00	520+98.02
MI02	Alianment	L	520+52.57	521+00.07

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).

Corridor:	MI01	•
Active Surface:	l_oak	- ₽

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

Corridor: MI01 Add Station: 520+02.00 Image: Close Interval: 1.0000 Change Library Templates: Copy Components Copy End Conditions Help Detour Mainline Monolithic Island Concrete Monolithic Island Ramps and Loops V.1 ince Current Template Drops: Current Template Drops:	
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520+02.00 1.0000 Concrete Monolithic Island N/A	
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Synchronize with Library Edit Delete	

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					Add
Control Description:					Close
Point: LT_ALG MI	Edge-C1 🔻	+ Sta	tion Limits t: 520+02.00	+	Change
Mode Inizontal O Vertical) Both	Sto	p: 520+98.02	+ +	Help
Control Type: Alignment	•	Ho	rizontal Offsets		
Horizontal Alignment: MI01_LT	•	+ Sta	rt: 0.0000	+	
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Use as Secondary Alignment		Ve	tical Offsets		
		Sta	rt: 0.0000	+	1
Priority: 1		Sto	p: 0.0000	-+	Ī
Horizontal and Vertical Controls:					
E P Name	Start Sta	Stop Sta	Mode	Туре	Control
X 1 LT_ALG MI Edge-CTL	520+02.00	520+98.0	2 Horizontal	Alignment	MI01_LT
•					Þ.
					Delete

Point Controls						
Corridor: MI01						Add
Control Description:						Close
Point: RT	_ALG MI Edge-(Station Limi	ts	_	Change
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e Horizontal	ertical 💿 Bo	th	Stop: 520+	98.02	+	Help
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Horizontal Alignment: MI	01_RT	• +	Start: 0.00	00	+	
			Stop: 0.00	00	+	
Use as Secondary Alig	nment		Vertical Off	sets		
			Start: 0.00	00	-	
			Stop: 0 00	00	-	
Priority: 1			0.00			
Horizontal and Vertical Co	ntrols:					
Start St	a Stop Sta	Mode	Туре	Control	De	escription
MI Edge-CTL 520+02.	0 520+98.02	Horizontal	Alignment	MI01_LT		
i MI Edge-CTL 520+02.	0 520+98.02	Horizontal	Alignment	MI01_RT		
•						4
						Delete
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11. In Roadway Designer, verify the monolithic island in Plan and Cross Section views.



12. Create Surface of the MI corridor.

Create Surface	1.00		×
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Create Surface(s) from	:	• • • • • • • • • • • • • • • • • • •	Close Preferences
I_оак MI01 MI02			Help
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Include Null Point Include Null Point Include Null Point	s	Remove Lo	ops
Features Duplicate Names: Append Add Transverse F) Replace () Rename (Modify
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Densify using Chord Horizontal Curves	Height Tolerand	ce Displa	ay in Plan View atures
Vertical Curves		Co	omponents

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.

Draw Cross Sections	
File Edit Update Options	
Job Number: RDY Chain: L XS Cells Surfaces	Draw DP Origin
Type Name Displement TIN R:\DTM\R2582B_LS_tin.tin Lv: E DTM I_oak.dtm Lv: E DTM MI01.dtm Lv: E DTM MI02.dtm Lv: E	ay Settings Methinic Structure M
Details Dtm File: ▼ R:\DTM\R2582B Method: Triangles ▼ Display Settings By Level Symbology ▼ Feature: < No Entries > ▼ Text Settings ▼ Elevation 12.34	LS_tin Q Type: Line Filter Tolerances Horizontal: 0.3000 Variance: 0.1000

520+55,00 / 1
Cross Section Navigator - L - Scale 10 H : 10 V
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