## How to make Culvert TSL Sheet and annotate the structures

These instructions were created on 7/13/2021. These instructions were created with:



OpenRoads Designer CONNECT Edition - 2020 Release 3 Update 9 - Version 10.09.00.91

This is the stage to use the Create Drawing dialog to automate the drawing and sheet model creation and place the views in them.

To create a Culvert TSL sheet, open the DGN file. This example will use the ORD\_06030087\_DOT\_CULVERTS\_SPN.dgn.

In the 2D PIPES model, reference attach everything that will be used to design the structure, all the source information that will be needed and/or wanted to display on the TSL sheet in the plan view. Also needed will be the TXT\_CCRRRPPP.dgn file from the Design folder to get the station and tick marks for the alignment.

👔 Ref	🗈 References (9 of 10 unique, 8 displayed)									
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Next rotate the view into the orientation that is needed to be displayed on the TSL sheet. It should look something like this:



Next, under the OpenRoads Modeling workflow, select the **Named Boundary** tool. Note: if working in a Multi Model View, be sure to have the 2D view active when placing the boundary in the 2D view. Also make sure to have all the references turned on in the 3D view for the information to properly display on the plan sheet.

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	-	Geographic	Primary	Selection	Clip	Saved Views	🖙 Table:	Notes	т	ext 🖙	Annotations 🕞	Named Boundaries 🕞	Drawing Scales

Selecting the Named Boundary tool will open the Place Named Boundary dialog box. Select **From Drawing Boundary** option at the top.

C Place Named Bour	ndary			
	R 🖓 🏛 🕅 🧷			View 2, CULVERTS-3D
Drawing Boundary:	Full Size Sheet	From Drawing Bour	ndary,	
<u>N</u> ame:	Untitled	A drawing bounda	ry is a slot on a sheet	model that will contain the drawing
<u>D</u> escription:				
Detail Scale:	Full Size 1 = 1	<b>~</b>		
Group:	(None)	•		
	Create Drawing			

In the From Drawing Boundary pull down, select the sheet seed that will best fit the desired output.

The first Drawing Boundary needed is the **TSL CUL Plan**. This option will place the traditional plan view and will leave space on each side of the plan view for extra notes.

The second Drawing Boundary needed is the **TSL BRG Plan.** This option will place a plan view that will cover the fullwidth of the TSL page and is intended to be used in the bridge TSL creation process.

Decide what plan view is ideal for the design and sheet layout. For this example, the TSL CUL Plan was used.



In the Name field, enter the station of the structure. For this example, used STA 2179+27.00.

🔏 Place Named Bou	ndary — 🗆 X
	~~ <b>\$ # \$ \$ \$</b>
Drawing Boundary:	TSL CUL Plan 🔻
<u>N</u> ame:	STA 2179+27.00
Description:	12' x 12' RCB
Detail Scale:	1"=20' 🗸
Group:	(None) 🔻
	Create Drawing

Next in the **Description field**, describe the structure. For this example, used 12' x 12' RCB.

🔏 Place Named Bou	ndary — 🗆 X
	~~ <b>\$</b> #
Drawing Boundary:	TSL CUL Plan 🔻
<u>N</u> ame:	STA 2179+27.00
Description:	12' x 12' RCB
Detail Scale:	1"=20'
Group:	(None) 🔻
	Create Drawing

Next select the detail scale. The scale for this example is 1'' = 20'. Note: make sure to <u>not</u> have "Create Drawing" checked/toggled on. This is done so that the named boundary can be moved after it is placed to enable an ideal position in relationship to the structure, then the drawing and sheet model will be created.

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Drawing Boundary:	TSL CUL Plan 🔻			
<u>N</u> ame:	STA 2179+27.00			
Description:	12' x 12' RCB			
Detail Scale:	1"=20'			
Group:	(None) 🔻			
	Create Drawing			

Now place the boundary. It will appear at the end of the cursor. Note: It may be preferred to place it on the outer edge of the structure layout and then move it to the correct location to ensure that the center of the plan view detail on this sheet will be at the centerline of the structure = centerline of the roadway.



To move the boundary after it is placed, use the Element Selection tool and select the boundary, then use the move command to move the boundary to the position that is needed to place it on the sheet. Once placed, then select the Named Boundaries tool to open the dialog box.



Select the boundary that was created and right click on it. Several options will display to choose from. Select the **Create Drawing** option.



The Create Drawing dialog box will open. The name will already be filled out based on the name of the boundary. The example used STA 2179+27.00.

📢 Create Drawing		×
Name:	STA 2179+27.00	
Drawing Seed		•
View Type:	Detail	
Discipline:	Civil	
Purpose:	TSL	
	Create Drawing Model	
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Filename:	(Active File)	
A Hieranie.	1"-20'	
Seed Model:	Iowa_DrawingSeed.dgnlib, TSL CUL [Sheet]	
Filename:	(Active File)	
Sheets:	(New) 👻	•
<u>A</u>	Full Size 1 = 1	•
Drawing Boundary:	TSL CUL Plan	•
Detail Scale :	1"=20' (By Named Boundary)	
	Add To Sheet Index	P
	Make Sheet Coincident	
	Replicate Drawing in Sheet File	
	🖌 Open Model	
	ОК	Cancel

Next, ensure the scales are set correctly for the sheet.

1. Under the Create Drawing Model section set Annotation scale to 1"=20'. The scale is set to match the scale used when referencing the Drawing Model details into the Sheet Model.

2. Under the Create Sheet Model section set Annotation scale to Full Size 1 = 1 and ensure that the Detail Scale is set to 1'' = 20' (By Named Boundary). The scale is set to match the scale used when referencing the Drawing Model details into the Sheet Model.

Sreate Drawing		×
Name:	STA 2179+27.00	
Drawing Seed:	TSL 👻	
View Type:	Detail	
Discipline:	Civil	
Purpose:	TSL	
	Create Drawing Model	
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Filename:	(Active File)	
<u>A</u>	1"=20'	]
	Create Sheet Model	
Seed Model:	Iowa_DrawingSeed.dgnlib, TSL CUL [Sheet]	]
Filename:	(Active File)	
Sheets:	(New) 👻	
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Drawing Boundary:	TSL CUL Plan 🔻	]
Detail Scale :	1"=20' (By Named Boundary)	
	Add To Sheet Index	e
	Make Sheet Coincident	
	Replicate Drawing in Sheet File	
	🖌 Open Model 🖕	
	<u></u> K	Cancel

Check/toggle on Open Model, if desired. Add to Sheet Index may be checked if using the Sheet Indexing feature. Another option is to add sheets to the Sheet Index later in the plan sheet development process. When everything is correct, click OK.



This will create the plan sheet. It should look something like this:

Next, go back to the Multi Model View to make the Longitudinal Cross Section for the sheet.



To make the Longitudinal Cross Section for the sheet, there are two tools to choose from. The tool chosen depends on if the structure is perpendicular, at a 90-degree right angle to the alignment, or if it is a skewed Longitudinal section that is needed.

If it is a perpendicular cross section that is needed, then use the **Civil Cross Section** boundary tool. This tool is located on the Place Named Boundary Civil Cross Section dialog box.

hace Named Boundary	Civil Cross Section - 🗆	×
Drawing Seed: Detail Scale: Group: Name: Description: Start Location: Stop Location: Left Offset: Right Offset: Interval: Vertical Exaggeration: Vertical Exaggeration: Vertical Exaggeration: Elevation Datum Spacing: Event Point List:	(none)   Full Size 1 = 1   (New)   Untitled   (New)   Untitled   -280.000000   280.000000   280.000000   50.000000   280.000000   20.000000   20.000000   5.000000   1.00000   40.000000   20.000000   5.000000   Include Event Points Only   Include Control Points   Mackward Facing   Create Drawing   Create Drawing   Show Dialog	<b>II II ⊻ ⊼</b>

If it is a skewed Longitudinal Cross Section that is needed, then use the **Civil Cross Section by 2 Point** boundary. This tool is also located on the Place Named Boundary Civil Cross Section dialog box.

🔏 Place N	amed Boundary Civil	Cross Section 2 Points	-			×
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		Create Drawing	_ \			
		Show Dialog				

This example used the Civil Cross Section by 2 Point boundary tool. Select a **Drawing Seed**. For this example, used the XS 20 Scale seed to make a 1'' = 20' scale cross section.

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	Description:			
Ve	ertical Exaggeration:	1.000000		
$\checkmark$	Top Clearance:	40.000000		
	Bottom Clearance:	20.000000		
Elevat	ion Datum Spacing:	5.000000		
		Backward Facing		2
		Create Drawing		U III
		Show Dialog		

Next identify the path element. For this process, it will be the roadway horizontal alignment that crosses the structure that is shown on the sheet. Note: selecting the alignment will also set the Group. It is very important to set this so that in a large corridor project the cross sections can be placed on their own sheets when the drainage design is complete. To identify the path element, select it in the 2D view.



🔏 Place N	lamed Boundary Civil	Cross Section 2 Points	—		×
		ぷ√┚▦Ѷ	2		
	Drawing Seed:	XS 20 Scale		-	
	Group:	ML035		-	-
V	ertical Exaggeration:	1.000000			
	Top Clearance:	40.000000			
	Bottom Clearance:	20.000000			
Elevat	tion Datum Spacing:	5.00000			
		Backward Facing			
		Create Drawing			
		Show Dialog			

The **Group** should be named the same as the alignment.

Next, identify the start point. To do this, snap to the intersection point of the structure centerline and the edge of the plan view boundary placed earlier.



Next, identify the end point. To do this, snap to the intersection point of the structure centerline and the edge of the plan view boundary placed earlier.



Once everything is set correctly, then Data point in the plan view to accept the settings and this will open the Create Drawing dialog box. It should be filled in similar to this:

📢 Create Drawing				×	
M Na One Sheet Per I	ode: ime: Ogn:	Cross Section ML035 - 2179+27.00 R3	•		
Drawing Seed: View Type: Discipline: Purpose:	XS 2 Civi Civi Sect	0 Scale 🗸 🗸	A		
Seed Model: Filename: Annotation Group:	Drawing Model         Seed Model:       Cross Section Sheet Seed 20 Scale.dgnlib, XS         Filename:       (Active File)         1"=20'       T         Approtation Group:       XS Grid w/ Annotation 20 Scale				
Seed Model: Filename: Sheets: Drawing Boundary: Detail Scale :	Shee Cross (Act (New Full 1 XS 2 1"=2	t Model ss Section Sheet Seed 20 Scale.dgnlib, XS ive File) v) Size 1 = 1 0 Scale v0'	]		
		Add To Sheet Index 🕼 Make Sheet Coincident Open Model <u>O</u> K	Cance	el	

Select an **Annotation Group** and select the **Sheet** that the section will be placed on. Check/toggle on Open Model. When adding a detail/cross section to an <u>existing plan sheet</u>, the "Add to Sheet Index" option is grayed out. When creating a new plan sheet, the "Add to Sheet Index" option will appear selectable.

Sreate Drawing		X				
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One Sheet Per L	)gn:					
Drawing Seed: View Type: Discipline: Purpose:	XS 20 S Civil C Civil Sectio	scale ▼ ross Section n View				
Seed Model: Filename: A Annotation Group:	Drawing Model Seed Model: Cross Section Sheet Seed 20 Scale.dgnlib, XS Filename: (Active File) 1"=20' Annotation Group: XS Culvert Grid w/ Annotation 20 Scale					
Seed Model: Filename: Sheets: A Drawing Boundary: Detail Scale :	Sheet Model Seed Model: Cross Section Sheet Seed 20 Scale.dgnlib, XS Filename: (Active File) Sheets: STA 2179+27.00 [Sheet] A Full Size 1 = 1 Drawing Boundary: (New) Detail Scale : 1"=20'					
		lake Sheet Coincident pen Model OK Cancel				

Then click OK.

This will place the cross section on the sheet as the Longitudinal Cross Section. It will appear in the center of the sheet.



To move it to the proper location, open the References dialog box and select it in the list. Then right click and select the Move option. This is a reference therefore the reference move tool is used.



Then data point somewhere outside of the sheet. With the AccuDraw compass locked vertically, move it up into the correct position. The sheet should look similar to this:



SITUATION PLAN

Next, annotate the structure in the Plan View drawing model and in the Longitudinal Cross Section drawing model. For example, start with the Longitudinal Cross Section drawing model and annotate a 24" RCP pipe at STA 1101+00.00. Open the model. Note: This will work the same for any drawing model linked to a sheet model.



Turn off some of the automatic annotations of this Longitudinal Cross Section to make room for some of the information that will be needed to display.

96 **View Control** • t Copy 94 <mark>ر ا</mark> Move Scale ţ, 92 Rotate Mirror Select Links ▶ 90 **View Attributes** (i)E Model Properties 88 Select All Select None Select Previous Cut to Clipboard 00 Copy to Clipboard Paste from Clipboard Turn Level Off by Element X Delete Element

To turn off some of the automatic annotations, right click and hold to bring up the menu options:

Then select the Turn Level Off by Element option, click on the items not wanted or needed for the sheet. It should look similar to this:



When annotating a structure in the Longitudinal Cross Section, label the items listed below.

- 1. Design Cover.
- 2. Profile Grade Elevation.
- 3. Distance from centerline right.
- 4. Distance from centerline left.
- 5. Flowline Elevation at each critical point in the structure.
- 6. Structure description and any other unique items that need to be called out.

Some of this information is stored in the ASCI graphics input file. It is helpful to have that file open to the structure that is be annotated when doing this process. Copy and paste information from it to the Place Note tool to save on typing.



Before starting, a few things need set. The first is to change the workflow to the Drawing workflow. Note this may be a user's preference because some users find it easier to locate the tools to annotate in this workflow. These tools are available on other workflows as well.



The second is to select the correct text Element Template for placing the annotations. Click on the Element Template drop down menu in the Attributes Group on the Home tab.





Navigate to the Annotation folder, Plan subfolder and select the Dimension Text Element Template.

Normal Text: Use for any notes except dimension leader notes.

**Dimension Text**: Use for all dimensions, leader notes and dimensional/numerical values and text used in tables or fields. See tables used on Iowa DOT Culvert Barrel Details standard sheets as an example.

Header Text: Use for all headers and title blocks.

**SubHeader Text**: Use when Header and Normal text do not seem appropriate. Such as the word "Notes" used when labeling a group of notes or instructions.

Next, select the correct annotation tool. This example will be placing the Flowline Elevation at the Inlet end of the apron and the offset from centerline. To do this, use the Place Note tool in the Notes Group on the Annotate tab in the Drawing workflow.



Selecting the Place Note tool will open the Place Note dialog box shown below. Select the correct Dimension Style. This example will use the IADOT Eng. Leader Note style.

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By selecting the correct Dimension Style and Element Template, this will ensure the notes are placed with the correct settings. Once this is set, type in the note needing placed. This is where the ASCI graphics input file may be used. With it opened to the specific structure, highlight the information needed to be placed and copy it from the ASCI graphics input file.

	Home	View	Annotate	Attach	Analyze	Curves	Constraints	Utilities	Drawing Aids	Content	Mesh	Help
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Then paste it into the text window.

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	Contract Place Note	-							
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Then snap to the appropriate point to locate the note and place the note.



Then repeat the same process to place all the annotation notes needed.

When complete it should look similar to this:



Once done placing the notes, then dimension the pipes. Select the Dimension Element tool in the Dimensioning group on the Annotate tab in the Drawing workflow.



Next, select the correct Dimension Style. This example will use the IADOT Eng. Linear Dim style.



By selecting the correct Dimension Style and Element Template, this will ensure the dimensions are placed with the correct settings. Next, set the **Alignment** to True and the **Location** to Automatic. If Association is checked/toggled on, it will make the dimension capable of auto correcting if the pipe is adjusted.

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When complete it should look similar to this:







Note: Cut and annotate a cross section for every structure that is designed in the project, even if it is not a B1 Design and will not be placed on a TSL sheet. The cross sections are needed to complete the last part of the Prelim Section Design culvert workflow covered in chapter **CW09\_Entering Pipe and Structure Information into the Access Database**.

Next, annotate the Plan View portion of the TSL Sheet. When annotating a structure in the Plan View, label these items listed below.

- 1. Station at centerline of structure = centerline of the alignment.
- 2. Station at Even Station tic marks before and after the structure.
- 3. Station of the outside corners of the proposed revetment.
- 4. Dimension distance from centerline left.
- 5. Dimension distance from centerline right.
- 6. Dimension to length of new structure.

Similar to annotating the Longitudinal Cross Section, make sure to select the correct Element Template for placing the annotations.



Next, navigate to the Annotation folder, Plan subfolder and select the Dimension Text Element Template.



By selecting the correct Dimension Style and Element Template, this will ensure the notes are placed with the correct settings. It should look similar to this:



Once all the annotation is complete, then place the North Arrow in the Plan View.

To do this, view the Design model that is the 2D Design model in the file being worked in.





Then reset the rotation of the view to unrotated. Select the Rotate View tool at the top of the view.

Then select the Unrotated Method.



This will set it so that the Design model will have North to the top of the view. Next, select the Place Active Cell tool in the Placement group on the Drawing tab.



It will open the Place Active Cell dialog box.

🔏 Plac	ce Active Cell	-		×
A	Active <u>C</u> ell: active <u>A</u> ngle: <u>X</u> Scale: <u>Y</u> Scale:	ngle RCB Parallel W 00°00'00.0" 1.000000 1.000000 Place as Shared	/ing ÷	A
Cale	<u>M</u> irror: Interactive: <u>F</u> latten:	<ul> <li><u>True Scale</u></li> <li>Horizontal</li> <li>Scale and Rotate</li> <li>Top</li> <li>Multi-line Offset</li> <li>Dimension Value</li> </ul>	▼ ▼ ets les	
		Annotations		

Make the North Arrow cell the active cell.

To do this, click on the three dots next to the Active Cell field.

🔏 Place Active Cell			×
Active <u>C</u> ell: Active <u>A</u> ngle: <u>X</u> Scale: <u>Y</u> Scale:	ngle RCB Parallel Wing 00°00'00.0" 1.000000 1.000000 Place as Shared Cell	]	A
<u>M</u> irror: <u>Interactive:</u> <u>F</u> latten: Scale	<ul> <li>True Scale</li> <li>Horizontal</li> <li>Scale and Rotate</li> <li>Top</li> <li>Multi-line Offsets</li> <li>Dimension Values</li> <li>Annotations</li> <li>Association</li> </ul>		



It will open the listing of the cells in the Cell Library.

Click on the File menu to navigate to and open the BridgeGeneralUseCell.cel file located at PWMain\Documents\IowaDOTStandardsConnect\Configuration\Organization-Civil\IowaDOT\_Standards\Cell\<u>BridgeGeneralUseCells.cel</u>

Attach Cell Librar	<b>y</b>	
elect		
Folder		
Cell	✓ ♦ 2 = =	2
Document		
Name	^ O Fi ^	V
BridgeDesMa	nualCaddNotes 9	
BridgeGenera	IUseCells.cel 🗧 🕇	
Cross Section	Labeling.cel 1	
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Address:	pw:\\ntPwInt1.dot.int.lan:PW	VMain\Docun $  imes $
Description:	Bridge Notes and Misc Cells	
File Name:	BridgeGeneralUseCells.cel	
Application:	All Applications	~
	* col	~
Extension:	.cei	
Extension:	t as read-only	Þ

*	Cell Li	orary: [c:\pw_work	\BridgeGeneralUseCells.cel]	– 🗆 X
F	ile			
遊	* =		X	
		Name ^	Description	
		HydaCulv	Hydraulic Data for Culverts	
		InfoDes	Structure Design Information	
		InfoPipe	Structure Pipe Information	
		Location	Location Township Range Sectio	
		LongitCrossSect	Longitudinal Cross Section Grid-	
		LongitCrossSect	Longitudinal Cross Cross Sectior	
		LongSect	Longitudinal Section - Profile Gra	
		Model		$\bigcirc$
		MVC	Minimum Vertical Clearance	
		NorthArrow	North Arrow	
		ProfileGrade	Proposed Profile Grade	
		RBLT	Recoverable Berm Location Table	
<		D+D		

Select the North Arrow cell. Then click on the Place Active Cell tool in the Cell Library dialog box

Place it in the Unrotated 2D design model within the plan view boundary.

	Place Active Cell	—		$\times$		
	Active <u>C</u> ell:	NorthArrow				-∰ Ce
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	<u>X</u> Scale:	1.000000	Ъ			*
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N		✓ True Scale		•		
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	Scale					
	4	Multi-line Offsets				
		Dimension Value	5			
		Annotations				
00+87	T	Association				
—					1 [	-

This will make the arrow appear on the sheet at the correct scale and true North Azimuth of the Design file.



SITUATION PLAN

Next, place any of the other notes that need added to this sheet model to properly convey the design intent of the structure.

In the plan view Drawing model, select and place the following cells.

1. Hydraulic Data (HydraCulv)

*	E Cell Li	brary: [c:\pw_wc	ork\BridgeGeneralUseCells.cel]	– 🗆 X
F	ile			
ykl -	* =		<b>X</b>	
		Name ^	Description	^
		BidItem	Bid Item & Estimate Outlines	
		BKFL1	Backfill for Dirt/Rock	
		BKFL2	Backfill for Granular Material	
		BSLT	New Berm Slope Location Table	Undraulic Data
		CulvPipe	Pipe Structure Information	
		CulvRCB	RCB Structure Information	Drainage Area = ??.? Acres
		CurveData	Curve Data	$Q_{50} = ?,??? CFS$
		Erosion	Frosion Stone Pattern	HW Elev. = ????
		Granular	Granular Material Pattern	Stream Slope = ??.? Ft./Mi.
		HydaBrg	Hydraulic Data for Bridges	
		HydaCulv	Hydraulic Data for Culverts	
		InfoDes	Structure Design Information	
<		1f. n:	Church and Directory and State	

2. Estimated revetment quantities (RevetCulvert) - This will be included with the road plans along with the channel protection typical.

⊰	🔆 Cell Li	brary: [c:\pw_work	\BridgeGeneralUseCells.cel]		_		$\times$
	File						
-	∳ ₽		X	X			
		Name ^	Description	^			
		Model					
		MVC	Minimum Vertical Clearance				
		NorthArrow	North Arrow	-	USE ON NEW ACG CULVERTS AND ALL LENGTHENED RCG CULVERTS AT THE EXTENDED END		9
		ProfileGrade	Proposed Profile Grade				
		RBLT	Recoverable Berm Location Table	6			au c
		RevetBridge 🖌	Revetment Quantities Table for E		Typical Channel Protection Estimated Revetment Quantities		NHUR CONTRACTOR
		RevetCulvert	Revetment Details At Culvert Ou		Included With Road Plans		Virgenanne fatre
		Revetment	Revetment Stone Pattern		Local         Dist         Dist <thdis< th="">         Dist         <thdist< th="">         D</thdist<></thdis<>	<b>.</b>	11. A A
		SpiralCurveData	Spiral Curve Data			A starting and	and an other
		TitleBlock-Bridge	Bridge Title Block & Sheet Borde				<b>P</b> <sup>222-1</sup> Endineerot
		TitleBlock-Culvert	Culvert Title Block & Sheet Bord	(			
		Traffic	Traffic Estimate				
	<		>	•			

## 3. Site location (Location)

* Cell Library: [c:\pw_work\BridgeGeneralUseCells.cel] – 🗆 🗙										
	File									
	* ₹		X							
		Name ^	Description							
		HydaCulv	Hydraulic Data for Culverts							
		InfoDes	Structure Design Information	Location						
		InfoPipe	Structure Pipe Information	?? (label route)						
		Location	Location Township Range Sectio	In City of ??? (if applicable)						
		LongitCrossSect	Longitudinal Cross Section Grid-	T-??N R-??W						
		LongitCrossSect	Longitudinal Cross Cross Sectior	Section ??						
		LongSect	Longitudinal Section - Profile Gr	?? Township 22 County						
		Model	45	FHWA No ??						
		MVC	Minimum Vertical Clearance	Bridge Maint. No. ??						
		NorthArrow	North Arrow	Asset ID No. ??						
		ProfileGrade	Proposed Profile Grade	Latitude ??.123456°						
		RBLT	Recoverable Berm Location Table	Longitude -??.123456°						
	<	D =								

4. Any other notes needed to convey the design intent of the structure.

Once completed, it should look similar to this:



After completing notes, the sheet should appear similar to this:



LONGITUDINAL SECTION ALONG € APPROACH ROADWAY LONGITUDINAL SECTION ALONG € CULVERT

SITUATION PLAN

Next, enter the Control Point information on the sheet. This information is in the SHT\_PS\_CCRRRPPPZ00.dgn file in the PrelimSurvey directory in ProjectWise. Once the correct control point for the structure is determined, edit the text on the sheet model of the TSL sheet to add this information.

The last step in completing the TSL sheet is the Title Block information and working with the Sheet Index in the IaDOT\_WS file that is accessed thru the Project Explorer. This step will be explained in the next chapter. Please refer to **CW07\_Entering and Editing Title Block Information on Sheets**.