Introduction To V8/

Windows 7

Tennessee Department of Transportation Roadway Design Division

Introduction to V8i on Windows 7

1. Introduction

Information in this document is based on MicroStation V8i (SELECT Series 2) version 08.11.07.443, Geopak V8i (SELECT Series 2) version 08.11.07.615, Office 2010 and Projectwise Interplot Organizer V8i version 08.11.07.420 on the Windows 7 operating system.

This document is intended as an introduction of this new software for T.D.O.T. Roadway Design Division users who are switching from MicroStation and Geopak V8 2004 on Windows XP.

It includes the following:

- Local settings to finalize PC set ups
- Adjustments to current project settings
- Changes to current functions and new functions

General Software Enhancements

- Task oriented tool navigation
- More advanced video control allowing transparencies and other visual effects not previously available.
- Dynamic view manipulations
- Color filled fences and view window area



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2. Windows 7 System Set Up

Program Access

Click on the Windows Start icon and then click on All Programs.



Programs appear in a folder structure for easy navigation.



Workspace Appearance

Right click on the desktop and pick the option **Personalize** to control system colors, themes, etc.



Attach InterPlot Plotters

Our InterPlot (Iplot) software now requires that plotters must be connected to you PC in order to plot to them. Click on the **Start** icon and click in the search text field. Type in the plot server for your location and hit enter.

Headquarters	\\jj00wf18
Region 1	\\JJ01WF03
Region 2	\\JJ02WF03
Region 3	\\JJ03WF03
Region 4	\\JJ04WF03



Select all plotters you wish to have available for plotting. Once selected, right click over one of them and choose the option **Connect**.

		-	×
► Network > jj00wf18 >	 ✓ ✓ ✓ Search jj00wf18 		Q
File Edit View Tools Help			
Organize Search active directory	Network and Sharing Center View remote printers		0
Favorites	JIHQ12HP1300C for Bridge Map JIHQ12HP1300HPGL		^
Downloads	JJHQ12HP1300RASTER JJHQ12XER6050AW7B		
😭 Libraries 🗈 Documents	JJHQ12XER8830		
Music Pictures Videor	JJHQ12XER8830C		
Computer	JHQ13HP1300CHPGL JHQ13HP1300RASTER		
OSDisk (C:) jj00577\$ (\\J0019083WF013.tdot.s)	JJHQ13XER88301 JHQ13XER88301 R		
P 12shared (\\jj0019083wf012.tdot.s Reserved (\\JJ00WF20.tdot.state.tr Reserved (\\JJ00WF20.tdot.state.tr	JJHQ13XER88301C		E
Reserved (\\JJ00WF20.tdot.state.ti Reserved (\\JJ00WF20.tdot.state.ti 13HARED (\\JJ00I9083WF013.tdo	JJTEST kensrast		
Reserved (\\JJ00WF20.tdot.state.tr 10shared (\\jj0019083wf010.tdot.s publicwin (\\jj00wf20.tdot.state.tr	KIP 2000 MYLAR		
ITDOT	KIP 2003 KIPDRV		
4 items selected			

Set Default Printer

Local printers are connected automatically but you will need to set your default printer. Click on the **Start** icon and go to **Devices and Printers**. Right click over the printer you want and choose the option **Set as default printer**.



Download Iplot Settings files

T.D.O.T. Roadway Design Division personnel will need to go to the intranet CADD web page and download the Iplot settings files for your location.

🏉 Standard Roadway Design	Division V8 CADD Files Safety ▼ 🔝 ▼ 🖃 🖶 ▼ Page ▼ Safety ▼	T <u>o</u> ols ▼ 🔞 ▼	
	C:\Program Files (x86)\ProjectWise InterPlot Organizer\config		*
SettingsHQ12.exe	Plot Queue settings files for Headquarters 12th floor B/W plotter & color plotter. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	
SettingsHQ13A.exe	Plot Queue settings files for Headquarters 13th floor B/W plotter A & color plotter. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	
SettingsHQ13B.exe	Plot Queue settings files for Headquarters 13th floor B/W plotter B. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	
SettingsReg1.exe	Plot Queue settings files for Region 1 B/W plotter & color plotter. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	
SettingsReg2.exe	Plot Queue settings files for Region 2 B/W plotter & color plotter. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	
SettingsReg3.exe	Plot Queue settings files for Region 3 B/W plotter & color plotter. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	
SettingsReg4.exe	Plot Queue settings files for Region 4 B/W plotter & color plotter. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	
SettingsSTD.exe	Plot Queue settings files for standard drawing production at headquarters. Not intended for plans production. Download Location: C:Users\Public\InterPlot Standards\Settings	11/06/12	Ŧ
	🗣 Local intranet Protected Mode: Off 🛛 🐇	• 🔍 100% •	

Windows Explorer

Classic Menu Bar Options

To show classic menu bar options (File, Edit, View, Tools, Help) go to Organize > Layout> Menu bar.



Folder Paths

Click on any folder in the address bar to jump to that folder.

Computer > OSDisk	: (C:) Projects Bradley Mouse Creek	►	√ 43 Se	arch Mouse Creel	 <mark>×</mark> د
File Edit View Tools Help					
Organize 🔻 Include in library 🔻	Share with 🔻 🛛 Burn 🛛 New folder				 0
☆ Favorites	^ Name	Date modified	Туре	Size	^
🧮 Desktop	Construction PDFs	2/25/2013 3:15 PM	File folder		=
🐌 Downloads	projdbs	2/25/2013 3:15 PM	File folder		
Recent Places		2/25/2013 4:43 PM	Text Document	8 KB	
	72 001	10/9/2012 3:52 PM	Adobe Acrobat D	866 KB	

Click to the right of the folder path to get the standard folder path for copying from or pasting to the address bar.



Data from the D drive on old T.D.O.T. Roadway Design Division computers are added to new PCs under the folder **D Drive**. All roadway project folders should be moved to C: to maintain the original folder paths. These folder paths will have to be adjusted in certain files such as the Geopak project and it is less problematic to only change the drive letter.

🕞 🕘 🗢 🕍 🕨 Computer 🕨 OSDisk (C:) 🕨			✓→ Search OSDisk	(C:)	۶
File Edit View Tools Help					
Organize 🔻 😭 Open 🛛 Include in library 🔻 🗧	Share w	ith ▼ E-mail Burn New folder			?
🔆 Favorites	-	Name	Date modified	Туре	S
Desktop		실 81370188870732bf4f2c	11/19/2008 7:09 AM	File folder	
Downloads		퉬 arcgis	10/5/2012 6:36 PM	File folder	
🖫 Recent Places		퉬 BentleyDownloads	11/8/2012 1:19 PM	File folder	
_	=	퉬 bradsfiles	11/13/2012 1:50 PM	File folder	
词 Libraries	_	퉬 cd3e24940d648cd51e9828170976	11/8/2012 1:53 PM	File folder	
Documents		\mu Courtney	11/8/2012 1:53 PM	File folder	
J Music		\mu D Drive	3/4/2013 12:26 PM	File folder	
E Pictures		퉬 Darell	11/8/2012 1:53 PM	File folder	
Videos		\mu Drivers	11/8/2012 1:50 PM	File folder	
_		퉬 f147fd150bbf9a54fe03	11/8/2012 1:53 PM	File folder	
🖳 Computer		퉬 GeoWorkspaces	11/8/2012 1:50 PM	File folder	
SDisk (C:)		퉬 Intel	11/8/2012 7:04 AM	File folder	
ij03249\$ (\\jj0019083wf012.tdot.state.tn.us) (F:)		퉬 Jj0019083wf013.nash.tenn	11/8/2012 1:53 PM	File folder	
12shared (\\jj0019083wf012.tdot.state.tn.us) (K:)		퉬 Kamal	11/8/2012 1:53 PM	File folder	
Reserved (\\JJ00WF20.tdot.state.tn.us\main\PublicV	Vinj 🛫	Monica	11/8/2012 1:53 PM	File folder	•
D Drive Date modified: 3/4/2013 12:26 PM File folder					

T.D.O.T. Roadway Design Division CADD Standards are now located under C:\Users\Public.

File Edit View Tools Help					
Organize 👻 Include in library 🖲	 Sł 	hare with 🔻 🛛 Burn 🔹 New folder			
🔆 Favorites	-	Name	Date modified	Туре	
🧮 Desktop		퉬 Documents	2/6/2013 11:19 AM	File folder	
〕 Downloads		퉬 Geopak Resource Files	2/25/2013 4:44 PM	File folder	
📃 Recent Places		퉬 Geopak Standards	2/25/2013 4:05 PM	File folder	
	E	퉬 InterPlot Standards	2/6/2013 11:20 AM	File folder	
词 Libraries		MicroStation Standards	2/6/2013 11:20 AM	File folder	
Documents		퉬 Office Standards	2/6/2013 11:20 AM	File folder	
J Music		퉬 Public Downloads	7/13/2009 11:54 PM	File folder	
Pictures		퉬 Public Music	7/13/2009 11:54 PM	File folder	
📑 Videos		Public Pictures	7/13/2009 11:54 PM	File folder	
		퉬 Public Recorded TV	4/12/2011 2:51 AM	File folder	
🖳 Computer		퉬 Public Videos	7/13/2009 11:54 PM	File folder	
🏭 OSDisk (C:)					
🖵 jj00577\$ (\\JJ0019083WF013.to	dot.s				
🖵 12shared (\\jj0019083wf012.to	dot.s 🔔	•			

3. Office 2010 Set Up

This is the recommended set up for Office 2010 when using the T.D.O.T. Design Division templates and programs. If Office templates are not installed to the default folders, then the directions will need to be modified accordingly.

Do this **one time only** when using **Word** and **Excel 2010** for the first time with the **TDOT** templates and programs. This must be done for each user profile that will be using Office 2010 to link with MicroStation.

Word

1. In Word 2010, click on the **File** tab at the far left of the ribbon and choose **Options** from the drop down list.



2. In the Word Options dialog click on **Save** in the options on the left.

Set the Save Files in this format: option to Word Document (*.docx).

Use the Browse button to the right of **Default File Location:** to set the folder where you wish all Word documents to be saved by default.

Word Options		? ×
Word Options General Display Proofing Save Language Advanced Customize Ribbon Quick Access Toolbar Add-Ins Trust Center	Customize how documents are saved. Save documents Save files in this format: Word Document (*.docx) Save AutoRecover information every 10 minutes W Save AutoRecover information every 10 minutes W Keep the last autosaved version if 1 close without saving AutoRecover file location: C:\Users\jj00577\AppData\Roaming\Microsoft\Word\ Default file location: C:\Users\jj00577\Documents\ Offline editing options for document management server files Save checked-out files to: The server drafts location on this computer The Qffice Document Cache Server drafts location: C:\Users\jj00577\Documents\SharePoint Drafts\	P Browse Browse
	 Embed fonts in the file ① Embed only the characters used in the document (best for reducing file size) Do not embed common system fonts 	
	ОК	Cancel

3. In the Word Options dialog, click on **Advanced** in the options on the left. Scroll down to the **General** section and click the **File Locations** button.

Word Options	? ×
Word Options General Display Proofing Save Language Advanced Preserve figelity when sharing this document: Quick Access Toolbar Add-Ins Trust Center Provide feedback with sound Quick Access Toolbar Allow opening a document in Ipraft view Enable background repagination Show add-in user interface errors Ø Show add-in user interface errors Ø Show add-in user interface errors	
 Anow opening a document in grant view ✓ Enable background repagination Show add-in gser interface errors ✓ Show customer submitted Office.com content Mailing address: File Locations ✓ Enable background repagination ✓ Show customer submitted Office.com content Mailing address: ✓ File Locations ✓ Enable background repagination ✓ Show customer submitted Office.com content ✓ Mailing address: ✓ Enable background repagination ✓ File Locations ✓ Web Options ✓ Compatibility options for: ✓ 2ndSheetsV8.docx ✓ Lay out this document as if created in: Microsoft Word 2010 ✓ Layout Options 	E
OK	Cancel

Click on **User Templates** and then click on the **Modify** button.

Navigate to and set the folder

C:\Users\Public\Office Standards. Click OK to save the setting.

This will set the default template location for both **Word** and **Excel** so that the TDOT template folders will be available.

File Locations	? ×
File Locations	
Eile types:	Location:
Documents Clipart pictures	C:\Users\jj00577\Documents
User templates	C:\Users\Public\Office Standards
Workgroup templates AutoRecover files Tools Startup	C:\\Roaming\Microsoft\Word C:\\Microsoft Office\Office14 C:\\Microsoft\Word\STARTUP
The default location is treated change a location, make sure	Modify I as a trusted source for opening files. If you that the new location is secure.
	OK Close

4. In the Word Options dialog, click on **Trust Center** in the options on the left.

Click on the **Trust Center Settings** button.



5. In the Trust Center dialog, click on **Trusted Locations** in the options on the left. Select the trusted location for **Application Templates**.

All files stored under Trusted Locations will automatically load macros without any action from the user.

Trust Center	?
Trusted Publishers	Trusted Locations
Trusted Locations	Warning: All these locations are treated as trusted sources for opening files. If you change or add a location, make sure
Trusted Documents	that the new location is secure.
Add-ins	Path Description Date Modified
ActiveX Settings	C:\Program Files (x86)\Microsoft Office\Templates\ Word 2010 default location: Application Templa 10/4/2012 4:24 PM C:\577\AppData\Roaming\Microsoft\Templates\ Word 2010 default location: User Templates
Macro Settings	C:\ppData\Roaming\Microsoft\Word\Startup\ Word 2010 default location: StartUp
Protected View	Policy Locations
Message Bar	
File Block Settings	
Privacy Options	
	Path: C:\Program Files (x86)\Microsoft Office\Templates\
	Description: Word 2010 default location: Application Templates
	Date Modified: 10/4/2012 4:24 PM Sub Folders: Allowed
	Add new location Remove Modify
	Allow Trusted Locations on my network (not recommended)
	Disable all Trusted Locations
· [] []	OK Cancel

The settings for Application Templates are at the bottom. The **Path** should be set to **C:\Users\Public\Office Standards** and **Sub Folders** should be set to **Allowed**.

Click on the **Modify** button. In the dialog which opens, click on the **Browse** button and set the path. Then click on the **Subfolders of this location are also trusted** option and click **OK**.

Microsoft Office Trusted Location
Warning: This location will be treated as a trusted source for opening files. If you change or add a location, make sure that the new location is secure. Path:
C:\Users\Public\Office Standards\
<u>B</u> rowse <u>B</u> rowse <u>B</u> rowse <u>Description:</u>
Word 2010 default location: Application Templates
Date and Time Created: 10/1/2012 10:31 AM OK Cancel

6. In the Trust Center dialog, click on the **Add new location** button.

Click on the **Browse** button and navigate to the location where your project files are stored.

Click on the **Subfolders of this location are also trusted** option, key in a description if desired and click **OK**.

Microsoft Office Trusted Location
Warning: This location will be treated as a trusted source for opening files. If you change or add a location, make sure that the new location is secure. Path:
C:\Projects
Roadway Project Folders
Date and Time Created: 10/4/2012 4:32 PM OK Cancel

With your project folders defined as trusted locations, all macros will automatically be enabled.

Trust Center			? ×
Trusted Publishers	Trusted Locations		
Trusted Locations	Warning: All these locations are treated as trusted	sources for opening files. If you change or add a loo	ation, make sure
Trusted Documents	that the new location is secure.	Provide Pro-	
Add-ins	User Locations	Description	Date Modified *
ActiveX Settings	C:\Users\Public\Office Standards\	Word 2010 default location: Application Templa	10/4/2012 4:33 PM
Macro Settings	C:\577\AppData\Roaming\Microsoft\Templates\	Word 2010 default location: User Templates	10/4/2012 4:55 PW
Protected View	C:\ppData\Roaming\Microsoft\Word\Startup\	Word 2010 default location: StartUp	
Message Bar	Policy Locations		
File Block Settings			
Privacy Options			
	Path: C:\Projects\		
	Description: Roadway Project Folders		
	Date Modified: 10/4/2012 4:33 PM Sub Folders: Allowed		
		Add new location	<u>M</u> odify
	Allow Trusted Locations on my network (not red	commended)	
	Disable all Trusted Locations		
		0	K Cancel

If you open a Word 2010 file with macros that is not in a trusted location, the following two settings will provide you the opportunity to enable the macros as needed.

7. In the Trust Center dialog, click on **Macro Settings** in the options on the left. The option **Disable all macros with notification** should be set.

Trust Center		? 🗙
Trusted Publishers Trusted Locations Trusted Documents Add-ins ActiveX Settings Macro Settings Protected View Message Bar File Block Settings Privacy Options	Macro Settings ○ Disable all macros without notification ○ Disable all macros with notification ○ Disable all macros except digitally signed macros ○ Enable all macros (not recommended; potentially dangerous code can run) Developer Macro Settings □ Trust access to the ¥BA project object model	
	ок	Cancel

8. In the Trust Center dialog, click on **Message Bar** in the options on the left. The option **Show the Message Bar in all applications when active content, such as ActiveX controls or macros, has been blocked** should be set.

Trust Center		?×
Trusted Publishers Trusted Locations	Message Bar Settings for all Office Applications	
Trusted Documents	Showing the Message Bar Show the Message Bar in all applications when active content, such as ActiveX controls and macros, has been blocked	
Add-ins	Never show information about blocked content	
Activex Settings Macro Settings		
Protected View		
Message Bar		
File Block Settings		
Privacy Options		
	Enable Trust Center logging	
J	ОК	ancel

- 9. Click **OK** at the bottom of the Trust Center dialog to save the Trust Center settings just made.
- 10. This completes the settings under Word Options, so click the **OK** button at the bottom of that dialog to complete the Word 2010 set up.

Excel

1. In Excel 2010, click on the **File** tab at the far left of the ribbon and choose **Options** from the drop down list.



2. In the Excel Options dialog click on **Save** in the options on the left.

Set the Save Files in this format: option to Excel Workbook.

Change the path given for **Default File Location:** to set the folder where you wish all Excel documents to be saved by default.

Excel Options		? ×
Excel Options General Formulas Proofing Save Language	Customize how workbooks are saved. Save workbooks Save files in this format: Excel Workbook (*.xlsx) Save AutoRecover information every 10 minutes	
Advanced Customize Ribbon	Image: Weight of the last autosaved version if I close without saving AutoRecover file location: C:\Users\jj00577\AppData\Roaming\Microsoft\Excel\ Default file location: C:\Users\jj00577\Documents	
Quick Access Toolbar Add-Ins Trust Center	AutoRecover exceptions for: Image: Book1 Disable AutoRecover for this workbook only Offline editing options for document management server files Save checked-out files to: Image: Disable AutoRecover for this workbook only Offline editing options for document management server files Save checked-out files to: Image: Disable AutoRecover for this workbook Image: Disable AutoRecover for this workbook Image: Disable AutoRecover for the workbook Preserve visual appearance of the workbook Choose what colors will be seen in previous versions of Excel: Image: Disable AutoRecover for the workbook	<u>B</u> rowse
	OK	Cancel

3. In the Excel Options dialog, click on **Trust Center** in the options on the left.

Click on the **Trust Center Settings** button.

Excel Options	
General Formulas	Help keep your documents safe and your computer secure and healthy.
Proofing	Protecting your privacy
Save	Microsoft cares about your privacy. For more information about how Microsoft Excel helps to protect your privacy, please see the privacy statements.
Language	Show the Microsoft Excel privacy statement
Advanced	Office.com privacy statement
Customize Ribbon	Customer Experience Improvement Program
Quick Access Toolbar	Security & more
Add-Ins	Learn more about protecting your privacy and security from Office.com. Microsoft Trustworthy Computing
Trust Center	Microsoft Excel Trust Center
	The Trust Center contains security and privacy settings. These settings help keep your computer secure. We recommend that you do not change these settings.
	OK Cancel

4. In the Trust Center dialog, click on **Trusted Locations** in the options on the left. Select the trusted location for **Application Templates**.

All files stored under Trusted Locations will automatically load macros without any action from the user.

Trust Center			? 💌
Trusted Publishers	Trusted Locations		
Trusted Locations	Warning: All these locations are treated as trusted	sources for opening files. If you change or add a	location, make sure
Trusted Documents	that the new location is secure.		
Add-ins	Path User Locations	Description	Date Modified 🔻
ActiveX Settings	C:\gram Files (x86)\Microsoft Office\Templates\	Excel 2010 default location: Application Templa.	3/18/2013 12:56 PM
Macro Settings	C:\577\AppData\Roaming\Microsoft\Templates\	Excel 2010 default location: User Templates	
Protected View	C:\pData\Roaming\Microsoft\Excel\XLSTART\ C:\iles (x86)\Microsoft Office\Office14\STARTUP\	Excel 2010 default location: User StartUp Excel 2010 default location: Office StartUp	
Message Bar	C:\iles (x86)\Microsoft Office\Office14\XLSTART\	Excel 2010 default location: Excel StartUp	
External Content	Policy Locations		
File Block Settings			
Privacy Options			
	Path: C:\Program Files (x86)\Microsof Description: Excel 2010 default location: App	t Office\Templates\ plication Templates	
	Date Modified: 3/18/2013 12:56 PM		
	Sub Folders: Disallowed		
	Allow Trusted Locations on my patrice's (act as	Add new location Rem	nove <u>M</u> odify
	Disable all Trusted Locations	connerraeuj	
			OK Cancel
			Cancer

The settings for Application Templates are at the bottom. The **Path** should be set to **C:\Users\Public\Office Standards** and **Sub Folders** should be set to **Allowed**.

If sub folders are Disallowed, click on the **Modify** button. In the dialog which opens, click on the **Browse** button and set the path. Then click on the **Subfolders of this location are also trusted** option and click **OK**.

Microsoft Office Trusted Location
Warning: This location will be treated as a trusted source for opening files. If you change or add a location, make sure that the new location is secure. Path:
C:\Users\Public\Office Standards
Excel 2010 default location: Application Templates
Date and Time Created: 10/4/2012 5:22 PM OK Cancel

5. In the Trust Center dialog, click on the **Add new location** button.

Click on the **Browse** button and navigate to the location where your project files are stored.

Click on the **Subfolders of this location are also trusted** option, key in a description if desired and click **OK**.

Microsoft Office Trusted Location
Warning: This location will be treated as a trusted source for opening files. If you change or add a location, make sure that the new location is secure. Path:
C:\Projects
Roadway Project Folders
Date and Time Created: 10/4/2012 5:23 PM OK Cancel

With your project folders defined as trusted locations, all macros will automatically be enabled.

T	rust Center	2 - X-
	Trusted Publishers	Trusted Locations
	Trusted Locations	Warning: All these locations are treated as trusted sources for opening files. If you change or add a location, make sure
	Trusted Documents	that the new location is secure. Path Description Date Modified
	Add-ins	User Locations
	ActiveX Settings	C:\Projects\ Roadway Project Folders 10/4/2012 5:23 PM C:\Users\Public\Office Standards\ Excel 2010 default location: Application Templat 10/4/2012 5:23 PM
	Macro Settings	C:\ Files (x86)\Microsoft Office\Office14\Library\ Excel 2010 default location: Add-ins
	Protected View	C:\IBS (X86)/MICrOSOTI OTTICE/\OTTICE/4\STARTUP\ EXCEL2UD default location: OTTICE StartUp C:\\AppData\Roaming\Microsoft\Excel/XLSTART\ Excel 2010 default location: User StartUp C:\S7/AppData\Roaming\Microsoft\Emplates
	Message Bar	C:\iles (x86)\Microsoft Office\Office14\XLSTART\ Excel 2010 default location: Excel StartUp
	External Content	Policy Locations
	File Block Settings	
	Privacy Options	
		Path: C:\Projects\
		Description: Roadway Project Folders
		Date Modified: 10/4/2012 5:23 PM
		Sub Folders: Allowed
		Allow Trusted Locations on my network (not recommended)
		Disable all Trusted Locations
Ľ	L	OK Cancel

6. In the Trust Center dialog, click on **Macro Settings** in the options on the left. The option **Disable all macros with notification** should be set.

Trust Center			? 🔀
Trusted Publishers Trusted Locations Trusted Documents Add-ins	Macro Settings Disable all macros without notification Disable all macros with notification Disable all macros except digitally signed macros Enable all macros (not recommended; potentially dangerous code can run) 		
ActiveX Settings Macro Settings Protected View	Developer Macro Settings Trust access to the <u>V</u> BA project object model		_
Message Bar External Content File Block Settings			
Privacy Options			
		ок	Cancel

7. In the Trust Center dialog, click on Message Bar in the options on the left. The option Show the Message Bar in all applications when active content, such as ActiveX controls or macros, has been blocked should be set.

Trust Center	? 🛛
Trusted Publishers	Message Bar Settings for all Office Applications
Trusted Locations	Showing the Message Bar
Trusted Documents	Show the Message Bar in all applications when active content, such as ActiveX controls and macros, has been blocked
Add-ins	Never show information about blocked content
ActiveX Settings	
Macro Settings	
Protected View	
Message Bar	
External Content	
File Block Settings	
Privacy Options	
	Enable Trust Center logging

- 8. Click **OK** at the bottom of the Trust Center dialog to save the Trust Center settings just made.
- 9. This completes the settings under Excel Options, so click the **OK** button at the bottom of that dialog to complete the Excel 2010 set up.

Excel Estimated Roadway Quantities Items.dat File

Since this is a new installation of Office you will need to download a copy of the **Items.dat** file for use by various macros in estimated roadway quantities Excel files.

Access the items web page at:

http://www.tdot.state.tn.us/RoadItemLists/roaditem_index.htm

Follow the directions shown on the right of the web page to save the **items.dat** file to the folder location **C:\Users\Public\Office Standards\TDOT 2nd Sheets**.





4. MicroStation Set Up

Set Up New MicroStation User

Since permissions are more restricted on Windows 7 systems, you must set up your own MicroStation user so that it will remember various options such as the interface and tool layouts that you set. Click on the Untitled user and choose the **New...** option.

Look in:	鷆 dgn	-	🎯 🤌 📂 🛄 🗸	"🗋 🚰 🖻		
(Pa)	Name	*	Date modified	Туре		
Recent Places		No items match your :	iearch.			
Computer	1			•		
(interview Network	File name:	CAD Files (* dag:* dwg:* dwf)	•	Open	User: Proiect:	Untitled Descartes avanuales
_	nee or type.	Open as read-only		Options	Interface:	examples geo_example_designer geo_example_dialogs msgeo Msgeo_mapfinishing msppk msstm mstm

Type in a Name and click **OK**. You can add a description if desired in the second dialog although it is not required. Click the Select button for the User Interface and set it to **tdot**. T.D.O.T. Roadway Design Division personnel should not change the other options. Click **OK** to save the settings.

Name: Dennisl QK Elles: Description: User Configuration: user Configuration: \WorkSpace\users\Dennis.ucf Cancel Cancel Bescription: User Configuration: User Configuration: \WorkSpace\users\Dennis.ucf Components Project: Bescription: Sele User Interface: tdot \interfaces\MicroStation\tdot\	County User Configuration File	Create User Configu	ation File [Dennis]	
	Name: Dennis QK Files: Descartes.ucf examples.ucf geo_example_designe geo_example_dialogs. msgeo.ucf Cancel	Workspace Description User Configuration Components Project User Interface	tdot	Sele

TDOT Interface

The interface should now be set to tdot, if not, use the drop down options to set the Interface to tdot.

User:	Dennis 🔹	
Project:	No Project 🔹	
Interface:	tdot 👻	

User:	Dennis
Project:	No Project 💌
Interface:	default
	default Descartes
	tdot New

Activate Geopak

When you first open MicroStation, you will need to Activate Geopak. Go to Applications > Geopak and click that option.

If there is no Applications menu bar option or Geopak is not under there, T.D.O.T. Roadway Design Division personnel should contact their local IT personnel to update your Geopak configuration so that it will start automatically with MicroStation.



MicroStation Interface

Position Mapping

By default, **Position Mapping** is on which allows keyboard shortcuts for MicroStation functions. The blue boxes with characters shown by default are position mapping aids which are controlled through Preferences.

	🔑 C:\Projects\Bradley\Mouse Cr	eek\BR3660Proposed.dgn [2D ·
с	<mark>: <u>F</u>ile <u>E</u>dit E<u>l</u>ement <u>S</u>etting</mark>	s <u>T</u> ools <u>U</u> tilities Wor <u>k</u> spa
	ESIGN - CENTERLIN	• 3 • = 0 •
	Tasks	무 🗙 🔳 View 1, Default
	🖻 Tasks	🔄 🗖 🖓 🖓 🕶 🗌
	1 2 3 4 4 5 6	F.
	Roundabouts	~
	Z Civil Geometry	→

MicroStation Preferences

Go to **Workspace > Preferences** to personalize the way you want MicroStation to function.

Make settings as desired in sections Look and Feel, Mouse Wheel and Operation.

Preferences [Dennis]	Preferences [Dennis]
Category Name for preferences Default Preferences Database Set Look and Feel Preferences. Set Look and Feel Input Input Input Input Look and Feel Input Input Input Operation Perfault Tool: Selection Input Input Position Mapping Raster Manager Input Input Input Input Reference Spelling Tool Size: IMedium (24 x 24) Input Default Spelling Tags Tags Dialog Eont: Microsoft Sans Serif, 9 Font Text View Options Guide Secons Increase contrast of icon edges Vise Windows File Open Dialogs View Options Transparent dialogs become opaque when receiving focus All modeless dialogs use same transparency Input Image: Tiges the Description 100 Input Input	Category Name for preferences Descates Input Look and Feel Wheel: Mouse Wheel Qirl + Wheel: Operation Qirl + Wheel: Postion Mapping Raster Manager Reference Speling Tags Tags Nawigation Text Vew Options - Civil Vew Options Navigate Distance (Mouse): 10 % Focus Item Description
For more options, click on the category list at left.	For more options, click on the category list at left.

If you do not want to use **Position Mapping**, turn it off or perhaps just turn off the mapping aids once you know them. You can set the keyboard short cuts from here.

Preferences [Dennis]		Preferences [Dennis]		
Category Name for preferences Default Preferences Database Set Operational Preferences. Open Two Application Windows Input Dok and Feel Save Settings on Exit Mouse Wheel Operation Compress File On Exit Position Mapping Raster Manager Enter into Untitled Design Reference Spelling Display Broken Associations with Different Symbology Spelling Usevel Lock Apples for Fence Operations Usevel Lock Apples for Fence Operations View Options - Civil View In Jal Views Viewing Tools Apply to Active View Nesource Cache: 1024 1024	QK Cancel Defaults	Category Database Descartes Input Look and Feel Mouse Wheel Operation Position Mapping Raster Manager Reference Spelling Tags Task Navigation Text View Options - Civil View Options	Name for preferences Default Preferences Set Position Mapping (Keyboard Navigation) Preferences. QK Image: Show Position Mapping Aids QK Main Toolbox Keys: 1234567890 Cancel View Toolbox Keys: Igask Toolbox Keys: Defaults Tool Settings Keys: YUIOPHJKL:NM./ Defaults Left Handed Right Handed Sight Handed	

Make the settings shown for optimal use of **Raster Manager**. The settings in the **Georeference** section must be made as shown to use our MrSID county wide aerial photos.

Category Database Descartes Input Look and Feel Mouse Wheel Operation Position Mapping Raster Manager Reference Spelling Tags Task Navigation Text View Options - Civil View Options	Name for preferences Default Preferences Set Raster Manager preferences. General. Default Attributes Georeference Sister File Settings V Use Sister File, if Present, for Georeferenced Files Save Location Info in Sister File if Required Default Unit Settings Sister File: 1 Unit = 1.00000000 US Survey Feet ▼ Baster file: 1 Unit = 1.00000000 Working Units ▼ V Use Unit Definition Geokey if Present (override PCS unit

Under **Reference** make the settings shown including **Remap Colors on Copy**: Off, **Reload When Changing Files**: On and **Display Raster References**: Off.

Task Navigation provides control over the size and Presentation mode of this new tool navigation functionality.



OK Cancel Defaults **View Options** include several controls for views including the **Show View Toolbox** location which you may wish to switch to the bottom as it was in previous software versions.

You may wish to turn on **Scroll bars on View Windows** or change the **Element Hilite Color** and **Selection Set Color** used in all files.



AccuDraw

If you are not a constant user of AccuDraw you may wish to go to **Settings > AccuDraw** to cut off the **Auto Load** option.

📕 AccuDraw Settings	
Operation Display Coordinates]
 Auto Load Hoating Origin Context Sensitivity Smart Key-ins Default Origin: <u>View center on act</u> 	 Auto Point Placement Sticky Z Lock Always Show Compass Auto Focus Fields ive Z

Snap Button Bar & AccuSnap

Click on the Snap Icon at the bottom on the Status Bar and choose **Button Bar** to open the Snap Button Bar for use.

Snap Mode	X
$\mathbb{E} [\neg \times [\mathbb{N}] \otimes \mathbb{N}] = \mathbb{E} [\mathbb{N}] \otimes \mathbb{E} [\mathbb{N}]$	j

Right click over AccuSnap on the Snap Button Bar and choose **Properties** or from the Status Bar snap options pick **AccuSnap** to open its properties.

Snap M	lode	
381	Show/Hide Tools	
<u>×</u>	Properties	



Click off Enable AccuSnap if you do not want it on by default.

WARNING:

You very likely will want to turn off **Identify Elements Automatically**. This effects all element identifications and if on you **will not** get Accept/Reject options to skip elements as in previous versions.



Keyin Field

Go to **Utilities > Key-in** to open the Key-in dialog.



This functions as it has in the past and can be shrunk to just the Key-in field for easy docking.



Task Navigation and Workflows

MicroStation Root Tasks

MicroStation's Main root tasks include the most commonly used non-drawing tools. These are the Selection Set, Fence, Manipulate, Change Attributes, Groups, Modify, Measure and Delete tool groups.

The most commonly used drawing tools are found in the **Drawing** task group.

In the Main root you can click and hold the mouse button down to access the other tools in the group.

Tasks	4 X
💁 Tasks	-
<mark>▶</mark> □, ₽, ≜, €, ⅔, ∕, ≝	×



At the bottom of Task tool groups is an option to **Open** "*name*" as **Toolbox** which can help when you are jumping back & forth between tools.

Modify - Main Task	
◩◩溅↗ҳ≻₦₦≫ਆ~	* ~ *

Task Layout Modes

Task tool groups including the root tasks can be displayed in 3 different modes.

Icon Layout Mode



List Layout Mode



Panel Layout Mode

 V Drawing 🔏 🦯 🐟 🕂 🚀 🖊 🖉 Panel Layout Mode <\$ ⊢('♪ 12 2 🎱 🚨 🍾 🚳 📑 💋 \otimes ho 🗞 🔗 🐝 📐 A \checkmark^{A} $\overset{B}{\rightarrow}$ $\overset{ABC}{\checkmark}$ $\overset{?}{aBC}$ $\overset{A}{\rightarrow}$ $\overset{A}{A^{\frac{4}{7}}}$ * ** ** ** ** ** <u>~~) ∠ ⊨ ⊂ ♀</u> 더니V =: 박바디

Pinned vs. Un-Pinned

Notice the stick pin icon at the upper right of the Task Navigation. This allows the tools to be "pinned" in place. If you click this icon and un-pin them they will auto-shrink away when your cursor moves away.

When your cursor nears it when un-pinned, the tools pop back out for your use. This can be advantageous when screen space is limited and you want to get tools out of the way.



Un-Pinned



Tasks when un-pinned



Dialog Docking Control

MicroStation now includes docking controls for its dialogs that will allow you to dock dialogs to the left or right or at top or bottom. When you grab a dialog and start to drag it, the software automatically shows docking locations that are compatible.

Left or Right



Tool Settings docked on right



Top or Bottom



References docked on top

K C:\Projects\Bradley\Mouse Creek\BR3660F	Proposed.dgn [2D - V8 DGN] - MicroStation V8i (SELECT series 2)	
Eile Edit Element Settings Tools	<u>U</u> tilities Wor <u>k</u> space <u>Applications</u> <u>W</u> indow T.D.O.T. <u>H</u> elp	
ŧ	💌 🕎 🏹 🔹 💌 (DESIGN-CENTERLIN) 🔲 3 🔻 🧮 0 🔻 🗮 2 💌 💁 0 🗸 📥 0 🗸	
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Tasks # 🗙	References (6 of 6 unique, 2 displayed)	ion 🕂 🗙
😤 Tasks 🔻		
🕨 🖂 💷 🤌 🐼 🖂 🗙		
•••• ••••	Slot 🏱 🖸 File Name Model Description Logical Orientation Presentation 💽 🤳 🍋	
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	4 BR3660PvtDRP Weeframe √ √	
V Drawing	6 BR3660Erosion Wreframe V V	
	8 BR3660trees.dgn Wireframe J J	
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Element Selection > identify element to add to set	J VIII DESIGN - CENTERLIN	

Civil Workflows

Workflows are a grouped set of tools, task groups and even other workflows. MicroStation includes a workflow called Drawing Composition which sets up sheets but not as we do them so it will probably not be used by us. Geopak Suite includes several different workflows but we recommend **Civil Workflows** for our T.D.O.T. Roadway Design Division users. It includes tools and task groups most commonly needed by our personnel in Survey & Roadway Design.

Clicking on the workflow icon activates that workflow and adds common Geopak tools to the task root including **Project Manager, Geopak Attributes, Active Chain Control, Corridor Modeling, Design & Computation Manager** and **Geopak Help**. Several task groups and workflows are made available as well.



Tasks 🖁 🕂 🗙
Tasks ▼
Civil Workflows
▶□
🞇 Road Workflow 🛛 🔏
🐼 Right of Way Workflow 🛛 🔏
🌲 Survey Workflow 🏼 🗳
💥 Site Workflow 🛛 🏄
🎋 Drainage Workflow 🛛 🗳
🚰 Water & Sewer Workflow 🛛 🗳
🧐 Drawing 🔹 🗸
∠ Civil Geometry
🖄 Classic Geometry 🔹 👻
🕅 Data Acquisition 🔹
😻 DTM Tools 🔹 👻
🞇 Road Tools 🔹 👻
Plans Prep & Quantities 🔹 👻
💡 Landscape Tools 🔹 👻
🗰 Geotechnical Tools 🔹 👻

Some of the task groups which are available using Civil Workflows:



To back out of all workflows, right click in the task root area and choose **Clear Task Root**. When you have more than one workflow active, you can click on the workflow tab at the top to go back to that workflow.

Tasks Tasks Civil Workflows Civil Wor	× ×	■ View 1, Default □ ▼ @ ♀ ▼ ▲ ♥ ♥ ⊠ ⊞ ↔
\$\$\$\$\$\$\$ ~ \$		Set 'Geopak Suite' as Task Root
🔧 Drawing 📰 🗮		Clear Task Root
- • • • • • • • • • • • • • • • • • • •	۹	Layout Mode
		Apply Layout Mode to All
$\Box \bigtriangleup \Diamond \circlearrowleft$		Open 'Geopak Suite' as Toolbox
0 0 ノ 🔈 や 🔊 🦯	4	Open 'Geopak Suite' in new Dialog
	· >	Show/Hide 'Geopak Suite' Tools
IV 💞 🕅 🕺		·

MicroStation & Geopak Classic Toolboxess

The TDOT Design Division Toolbox includes access to classic MicroStation & Geopak tool boxes.

TDOT Design Division Toolbox										
]
Click to open Ce	ell Dialog	Те	entativ	e Point Mode	s (Cross Sectio	ns	Geo	pak	-
Area Patterns - Des	Area Patterns - Design		sign		atterns - Design A Delta Coordinates Delete Prop. XSs		Ss	D&C Manager		
Centerline	Jiech		Rotate to Horizontal		/	Delete XS Grids XS Text Styles +		CL Tracking		
Drainage - Profiles	Drainage - Plan Drainage - Profiles\Culv. XS EPSC Devices EPSC Legends Lighting Pavement Marking		ement	View by Points	;			TIN Tracking		
EPSC Devices EPSC Legends			Fence\SS View by Element		nt Pl	Place/Annotate Shts		Sta Offset DP		
Pavement Marking			Custom Line Styles			Plotting		Sta Elev DP &		
Permits & Forms Plan Phase Stamps			Shift	Reverse/Flip)	Iplot Def Settings		Profile Tracking		
Public Hearing	ublic Hearing		Change Scale			Move Raster by		Draw Transition		
Sheets Sheet Titles	-	·				Datum Adjust.		Plan Labeler		
				Classic To	olbox	es .		Profile	Labeler	
Ce	lls		MicroStation Main Geopak Tools X		XS La	beler				
Active Angle 0	AA by 2	Points	s Miscellaneous Labeling							
Attach STDS.cel	Attach Me	letric.cel Text Styles Plus Place Label w/Lea		Text Styles Plus		w/Leade	er Line			
Place Arrowhead	Place Nort	h Arrow	N Text Parameters by Sca		Scale	le Place Station Offset Labe		t Label		. 1
Place Cell & Rotate	Place Cells	s Along	g Measure Area & Annotate Calculate & Label Slope Ca		Cance					



5. CADD Standards & Project Folder Changes

The new default location for T.D.O.T. Design Division's CADD standards is under C:\Users\Public and for many users the following sections should be reviewed as this affects their old project data. The new PCs at the Roadway Design Division only have a C: drive so if projects were originally on the local D: drive then the move to C: drive will affect some things as well.

MicroStation DGN Reference Files

DGN reference files do not need adjustment as long as the folder structure is maintained. The change from D: to C: should not cause a problem.

The **Browse** button in the **Attachment Settings** dialog can be used to update reference file attachments anytime the filename or folder structure is altered.

Attachment Settings: br3660survey.dgn					
<u>Fi</u> le Name: Full Path: <u>M</u> odel:	BR3660Survey.dgn \bradley\mouse creek\br3660survey.dgn Default ▼				
Logical Name:					
Description:					
Detail Scale: Sc <u>al</u> e (Master:Ref):	Full Size 1=1 Image: The second				
Named Grou <u>p</u> ; Revision: Le <u>v</u> el:					
Nested Attachments:	No Nesting Depth: 1				
Display Overrides:	Allow				
Ne <u>w</u> Level Display:	Use MS_REF_NEWLEVELD				
Global LineStyle Scale:	Master 👻				
Synchronize w	ith Saved View				
Toggles					
	<u>O</u> K Cancel				

MicroStation Raster File Attachments

Raster file attachments do not need adjustment as long as the folder structure is maintained. The change from D: to C: should not cause a problem.

If you need to update raster file attachments anytime the filename or folder structure is altered, in Raster Manager go to **Utilities > Filename**. In the File Name dialog revise the name or use the search button to identify it.

💀 Raster Manager : 1 of 1 listed	
<u>File Edit View Display Setting</u>	s <u>U</u> tilities
🚊 • 🛤 • 📬 • 🛃 🖲	9 💵 🛃 😹 📰 🏞 🏦 🍞 🕰 🔯 🕒
🕼 🚱 File Name	Description S Model
P	
🕼 🍓 EAST_CLEVELAND.tif	File Name
	Ele Name: EAST_CLEVELAND.tfi OK Cancel
Another issue may cause an attachment to not appear in a given view. Raster attachments are tied to a level but that did not matter in the previous software. V8i does now honor this so if the level is turned off in the view, the attachment will not show. Notice view 1 is greyed out in the image shown below.

🔡 Raster Manager : 1 of 1 listed		
<u>File E</u> dit <u>V</u> iew <u>D</u> isplay	<u>GIS</u> Tools <u>S</u> ettings <u>U</u> tilities	
🗄 • 🔛 🔛 • 📸 •	2 🕄 👪 👪 😹	# 🖬 🎌 🦍 🏂 🕰 💿 🕒
😥 🍓 File Name	Description	S Model
🕼 🌀 EAST_CLEVELAND.tif		✓ 🔀 BR3660p
2345678 🐼 🕥	Tint: Transparence	cy: 📕

Element information can be used to verify the level the raster attachment is on.

Celection> Celection>	hment [C:\Projects\Bradley\Mouse Creek\	EAST_CLEVELAND.tif]	
General	•	Image	
Description	Baster Attachment (C:\Proje		
Level	Default		
Color	10		
Line Style	2		
Weight	2		
Class	Primary		
Template	None		
Transparency	0		
Priority	0		
Geometry	*	Color	
Display Print	*	Extended	

Once that level is turned on the attachment will appear and the dialog reflects that it is on.



Updating Levels, Level Filters and Text Styles in Project DGN Files

Several new levels and level filters have been added with V8i. These are described in later sections of this document. Some text styles have been updated as well.

Take the following steps if you wish to update these in your project MicroStation DGN files using the **Import Additional V8 Settings** tool:

- Access the program by choosing the drop down menu option T.D.O.T.> V8 – Import Additional Settings or from Geopak's D&C Manager Drafting Standards>Tools > V8 Import
- 2. When the command is first started the Import Additional V8 Settings dialog is displayed.



- 3. Under Import **Options**, choose which of the V8 additional settings are desired for import. By default levels, level filters, text styles and color table are turned on. If you updated your project files with the revised color table last year when it was updated you can turn that option off. If not, you may wish to leave that option on as well.
- 4. Use standard selection methods to highlight the DGN files to be processed. Single click for one file, shift key with clicks at each end for groups of files or the control key with clicks to pick various files. To un-select a file, hold the control key down and select it again.
- 5. When files to be processed have been selected, click on the **Process Files** command button to start the import of additional settings. Each file is opened and processed.

If it encounters text styles in use, it will prompt you on whether or not to update that style.

6. When finished a completion message is given. Click **OK** to dismiss the message.

Import Complete 🛛 🔜
All Files Processed!
ОК



7. Click on the **Cancel** button to dismiss the dialog.

Geopak Roadway Projects

Old Geopak projects will point to C:\Program Files\GeopakStandards for the file tndot.smd. Since that file is now located in C:\Users\Public\Geopak Standards, errors will occur when COGO is started since that file cannot be found. The project's working directory will also need to be updated if the project moved from D: drive to C: drive.

Informat	Information		
8	Unable to access the Feature Database C:\Program Files\GeopakStandards\TNDOT.smd		
	<u>O</u> K		

To update a Geopak project:

- 1. In the Geopak Project Manager dialog **single** click on your project file (*projectname*.prj) and then go to the drop down option **Projects>Edit**.
- 2. If your project moved from D: drive to C: drive, change the **Working Directory** to C:. After reset, you can click the Select button for the **Job Number** to see if it finds the GPK file.
- 3. Click on the **Preferences** button in the **Project Info Edit** dialog.
- 4. In the **GEOPAK User Preferences** dialog click on the **Feature Preferences** button.
- 5. In the **Feature Preferences** dialog click on the **Select** button to specify the location of the SMD file as C:\Users\Public\Geopak Standards\tndot.smd. Once this is set click OK.

📕 Project Info Edit	Job Number
Project Name: mousecreek.prj Working Directory:	Gpk Files: job2a0.gpk
Job Number: 2a0 Select Prefere	inces
Project Description: QK	QK Cancel
Nuser Preferences	K Feature Preferences
Unit System: English Coordinates: NE Direction: Bearing Station: 12+34 Uoutput Accuracy Distance: 99.1234 Station: 9+99(9).12 Angle Seconds: 9^99.12"	Feature Database C:\Users\Public\Geopak_Standards\TNDOT.smd C Apply Best Match Feature Plot Scale: 50.0000C Use Shared Cells Point Label Redraw: Position by SMD Settings
Working Directory: C:\Projects\Bradley\Mouse Creek	OK Cancel
Feature Preferences COGO Preferences Show this dialog at startup	
QK Cancel	

6. Although not normally set to specific values, you may wish to check **COGO Preferences** and reset any project folder settings that still refer to D: drive.

📕 COGO Preferences	- • •
Job (GPK) Open Mode:	Query 🔻
Job (GPK) Directory:	<u> </u>
COGO Input File Directory:	<u> </u>
COGO Output File Directory:	<u> </u>
Redefinition of Element	s
Force Redefinition Off	Jpon COGO Activation
<u>O</u> K	Cancel

7. Click on the **OK** button in the **GEOPAK User Preferences** dialog and again on the **Project Info Edit** dialog. Your project is now reset.

Geopak Roadway Projects Working Alignments

Working alignments build off the Geopak project settings so no further adjustments should be needed once the project is reset.

📕 Working Alignment Definition: main	line		• *
Plan View Pattem Shapes Profile View Location Cross Section View Existing Ground Proposed Finish Grade DTM OK Cancel	Design File: C Chain: M Begin Station: 1 End Station: 1	C:\Projects\Bradley\Moi MOCKRD 11+25.00 16+75.00	ব

Preference file access in Superelevation Runs

Old Geopak superelevation runs will point to C:\Program Files\GeopakStandards for standard superelevation files. Since these files are now located under C:\Users\Public\Geopak Standards, errors will occur when you try to generate the super input file.



To update superelevation runs:

- 1. Open your Geopak project and open your first run under Calculate Superelevation.
- 2. In the **GEOPAK Automated Superelevation** dialog go to the drop down option **File>Directories**.
- 3. Click on the **Default All** button at the bottom of the settings. **Preference Files Path**, **e Files Path** and **Length Files Path** will be reset to the correct location **C:\Users\Public\Geopak Standards**.

Superelevation File Director	ries			
Preference Files Path:	C:\Users\Public\Geopak	Standards\	٩	Default
e Files Path:	C:\Users\Public\Geopak	Standards\	۹	Default
Length Files Path:	C:\Users\Public\Geopak	Standards\	Q	Default
Autoshape Input Files Path:			Q	Default
	Clear All	Default All		
	ОК	Cancel		

Note:

These default directory paths are set in the configuration file **TDOT.cfg** which is normally downloaded under **C:\Program Files (x86)\Bentley\MicroStation V8i (SELECTseries)\MicroStation \config\appl .**

- 4. Click on the **OK** button at the bottom to keep the new settings.
- 5. Exit the run and click on **Yes** to save the changes to the run.
- 6. Repeat steps 1 through 5 for each superelevation run you have.

Criteria file access in Proposed Cross Section Runs

When you use the **Typical** function in the proposed cross section dialog the criteria files are copied to your project directory and those files should still be found without problems. In special cases you may have used the **Add** button to put in special criteria files from the **C:\Program Files\GeopakStandards\criteria** directory which will no longer be found since those files are not located there. Some examples of this situation might be the use of the Berm, Private Drive Profile or Retaining Wall criteria files.

Most of the time your proposed cross section runs will still function but your cross sections will leave out some portion of the proposed section. When you open the run you will get a message such as shown below.



In the output screen when running proposed cross sections and near the top you will see the error message Can't open file C:\Program Files\GeopakStandards\criteria*filename*.x as input.

H Process Cross Sections Display		×
<pre>Input File: pxsprj.inp Output File: temp.log Can't open file c:\Program Files\GeopakStandards\Criteria\PvtDriveProfileRural.x as : %EXP-W-NOREG, No region number specified. Assumed region 1. Note that you may indicate the region number by typing "R n" after the station, where n is the region number. For example, " Sta > 10+00 R 2" %EXP-W-NOREG, No region number specified. Assumed region 1. Note that you may indicate the region number by typing "R n" after the station, where n is the region number. For example, " Sta > 10+00 R 2" %EXP-W-NOREG, No region number specified. Assumed region 1. Note that you may indicate the region number by typing "R n" after the station, where n is the region number.</pre>	input	- III -
Next Run Exit		

Take the following steps to update the cross section run:

- 1. In the **Proposed Cross Sections** dialog go to the **Shape Clusters** section by clicking that option in the list on the left.
- 2. Click on each roadway cluster in the upper right list box and then review the criteria files listed below for the left and/or right sides looking for any place where the criteria file listed in the error message is used. In most cases these special criteria files are only used in 1 or 2 locations and you will probably know where to look for them.
- 3. When you find the criteria file use the **Delete** button to remove the file from your criteria list and be sure and note its position in the criteria list. Click **Yes** in the message box to confirm the deletion.
- 4. Click on the Add button, which will open the Criteria selection dialog.
- 5. Click on the directory **Select** button and go to **C:\Users\Public\Geopak Standards\criteria**.
- 6. Click on any criteria file listed and click the **OK** button.

7. Back in the **Criteria** selection dialog scroll through the list and highlight the criteria file you are replacing.

📕 Criteria		
Directory: C:\Use	rs\Public\Geopak Standards\Criteria\	<u>S</u> elect
Files	Description	
Plot Proposed ROW x	Plot Proposed R.O.W. on XSections	
PlotRockatDepth x	Plot Rock at Specified Depth	E
Plot Topsoilat Depth x	Plot Topsoil at Specified Depth	
Plot Unsuitable Matl x	Plot Unsuitable Material Layer at Specified Depth	8
PvtDriveProfileRural x	Private Drive Profiles (Rural)	
PvtDriveProfileRuralMe	tric x Private Drive Profiles (Rural)	
PvtDriveProfileUrban x	Private Drive Profiles (Urban)	-
	To Criteria Done]

- 8. Click the **To Criteria** button to add it back into your criteria file list at the bottom.
- 9. Finally use the Up and Down buttons to place the criteria file at the correct location in the list.
- 10. Repeat steps 2 through 9 for any other instances of that criteria file or other criteria files not found. You can leave the **Criteria** selection dialog up during this process and if you do, close it, the correct directory will still be set when it is re-opened.
- 11. Once these corrections are made, exit the run and click on **Yes** to save the changes to the run.

In some cases where roadways may have been changed, such as a change from urban to rural, and the criteria files that were no longer needed were deleted from the project folder you may get a missing criteria file warning message that it cannot find them even though they are no longer specified for use.



Use **Windows Explorer** and navigate to **C:\Users\Public\Geopak Standards\criteria** to copy the missing file and then paste it in your project folder. This will prevent the message from popping up every time you open the run. You can just click OK until it lets you in the proposed cross section run and it will process without issue.

Standard file access in Geopak Drainage

Old Geopak drainage projects will point to C:\Program Files\GeopakStandards for different standard files. Since these files are now located under C:\Users\Public\\Geopak Standards ..., error messages will occur when you open your drainage project since they cannot be found. If projects were originally on the local D: drive, then the move to C: drive may affect some project specific settings as well.

Informat	Information		
į)	Criteria directory [c:\Program Files\GeopakStandards\Criteria\] not found. Criteria directory reset to [c:\Projects\Henderson\SR20]		
	Ōĸ		

To update the drainage project:

- 1. Open your Geopak drainage project. You will get an error message(s) since it cannot certain standard files. Click **OK** to dismiss the message(s).
- 2. Under the **Drainage** drop down menu, go to the drop down option **Project>Preferences**.
- 3. In the **Preferences** dialog click on the **Project Components** option in the list on the left.
- 4. Reset the location for the **Criteria Directory** by clicking on the browser icon and going to **C:\Users\Public\Geopak Standards\criteria**\.
- 5. Reset the location for the **GEOPAK DDB** by clicking on the browser icon and going to **C:\Users\Public\Geopak Standards\tdot.ddb**

📕 Preferences - Project Components 📃 🗉 🕰				
<u>F</u> ile				
Options	Drainage Library File (DLB):	C:\Users\Public\Geopak Standards'	Q	
Units	GPK Job Number:	500 Q User Preferen	ices	
Project Components				
Rainfall Parameters	Drainage Cell Library:	C:\Users\Public\MicroStation Stand;	찍	
Frequency Options	Criteria Directory:	C:\Users\Public\Geopak Standards'	এ	
Intensity Option	DDB:	C:\Users\Public\Geopak Standards`	9	
Junction Losses	Water and Sewer Project:		٩	
Node Options	Superelevation Shapes File:	Shapes Henderson.dgn	a	
Link Options Profile Options	Site Project:		2	
Plan Symbology	Original Ground			
Updates	TIN File 💌	GROUND.TIN	Q	
Save Options	Design Surface			
	TIN File	Prop A TIN	al	
OK Cancel				

The **Drainage Library** and **Drainage Cell Library** standard files should not need to be reset. In the new software, these are now set automatically for you to the correct locations.

- 6. Depending on whether or not you have the full path stored with your **Superelevation Shapes File** and if your project moved from D: drive to C: drive, you may need to update that setting. Edit the path or use the browse button to reset it.
- 7. Click on **OK** to close the Preferences dialog.
- 8. Under the **Drainage** drop down menu, go to the drop down option **Project>Save** to save the changes just made.

Office Links

Office links such as Excel tabulation blocks are always stored with the full path at the time of linking. If your project folder has changed location as in the case of moving from D: drive to C: drive then the links will be broken and may require attention.

If no changes are required then you do not have to do anything. However if you need to update them or think they will need to be updated later, you will need to update the Office file location.



To update links:

1. In MicroStation, go to the drop down option Edit > Links to open the links dialog

Links				×
Links: D:\MouseD	R\BR3660Estimated	Type Roadw alyQakaahtiitiet s	Update 1.xls!Box Mandge l Quant	Cancel
D:\MouseD D:\MouseD	R\BR3660Estimated R\BR3660Estimated	RoadwaWGokahiitiets RoadwaWGokahiitiets	1xls!Coll#tän-Batl.Rdw 1xls!Coll##2n=Batl.Rdw	Update Now
				Open Source
				Change Source
				Break Link
Source:	uantities1xls!Col	#1-Est. Rdwy. Qu	antities!R1C1:R60C9	
Type:	Microsoft Excel 97	-2003 Worksheet		
Update:	Automatic	Ma	nual	

2. Click the option **Change Source** on the right side, navigate to the file that is linked and click Open.

4	Change Source				— ×
	Look in:	🚺 Mouse Creek		- G 👂 📂 🛄-	
	æ	Name	*	Date modified	Туре 🔺
		🔏 BR3660C01		10/11/2012 5:15 PM	Bentley
	Recent Places	🔏 BR3660Conto	ours	10/11/2012 5:10 PM	Bentle
		🔊 BR3660 culve	rtxsections	10/11/2012 5:10 PM	Bentle
		🔊 BR3660Drain	agemap	10/11/2012 5:10 PM	Bentley
	Desktop	👜 BR3660Englis	sh General Notes	6/28/2005 10:44 AM	Micros
	<u> </u>	🕺 BR3660Erosic	on	10/11/2012 5:10 PM	Bentley
		🕺 BR3660Erosic	onNotes	10/11/2012 5:11 PM	Bentley
	Libraries	BR3660Estim	atedRoadwayQuantities1	6/12/2006 1:55 PM	Micros
		BR3660EWQ	uant	3/7/2006 2:14 PM	Micros
		BR3660EXTR	Α	10/11/2012 5:15 PM	Bentley
	Computer	BR3660LOCA	TION	10/11/2012 5:15 PM	Bentley
		BR3660LOCA	TION	5/12/2005 2:43 PM	JPEG ir
		M BR3660mlsec	tion	2/27/2013 5:41 PM	Bentle
	Network	·			,
		File name:	BR3660EstimatedRoadwayQu	antities1 🔹	Open
		Files of type:	All Files (*.*)	▼	Cancel
	Item Name:	Col #1-Est. Rdwy. G	Quantities!R1C1:R60C9		

The linked file should now be accessible for updating.

- 3. Repeat steps 1 & 2 to fix other broken links as needed.
- 4. When links are corrected, click Close to exit the Links dialog and double click on the edge of the link in MicroStation to ensure they are working correctly.

🛛 🗔 🤊	- (21 -] -	BR3660EstimatedRoadwayC)uantities	1 [Compatibilit	y Mode] - Microsoft Excel 🗖 🗖 🔀
File	Home	Insert Page Layout Formulas Data F	Review	View	X 🖷 🗆 🕥 a
Paste 🖋	Blue H	ghway Con * 8 * A A * = = ⇒ ≫ * <u>U</u> * ⊞ * <u>≫</u> * <u>A</u> * ≡ ≡ ≡ ‡ ‡	•	Text ✓ \$ ✓ % , *.0 .00	Image: Second tional Formating * Image: Second tional Formating * Image: Second tional Format as Table * Image: Second tional * Image: Second tional * Image: Second tional *
Clipboard	Gi .	Font 🗔 Alignment	Ea.	Number 5	Styles Cells Editing
	A1	\bullet (f_x			×
A	В	С	D	E	IJKLMI
2		ESTIMATED ROADWAY QUANTI	TIES		For more detailed information on use of the Item Programs, see A
3 4 5	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	Select Item Numbers From List 1. The file "Items.dat" mus 2. A word (no asterisks) ca
6	201-01	CLEARING AND GRUBBING	LS	1	Fill In Description and Unit 1. The file "Items.dat" mus
7	202-02.01	REMOVAL OF PIPE (18" RCP ,STA. 11+41.16 TO STA.13+1	L.F.	178	
9	<u> </u>				2.1 his program will fill in o
10	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	1573	
11	203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	423	
12	203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	900	
13	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	235	
14	203-06	WATER	M.G.	4	
15	203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	60	
16	203-08	CHANNEL EXCAVATION (UNCLASSIFIED)	C.Y.	2838	Item Numbers Web Page 1. Download the current ite
18	204.08	FOUNDATION FUL MATERIAL	C V	120	2. The item numbers list ca
19	204-00		6.1.	120	
20	209-03	CHECK DAMS	S.F.	72	
21	209-05	SEDIMENT REMOVAL	C.Y.	85	1 Column Format
22	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	492	
23	209-08.04	TEMPORARY ENHANCED SILT FENCE	L.F.	278	2 Column Format
24	209-09.01	SANDBAGS	BAG	700	
25	209-09.02	TEMPORARY SEDIMENT FILTER BAG (14'6" X 2'0" X 13'3")	BAG	12	1.The project numbers can
26	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	141	
28	303.01		TON	1101	3 Column Format
29	303-01-01	(GRANIII AR BACKELL (ROADWAY)	TON	127	
30	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	101	
31	303-10.04	MINERAL AGGREGATE (SIZE 3)	TON	37	
32	307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADIN	TON	219	
33	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADIN	TON	143	Format Body Text and Borders 1. If needed, use to recreat
	Project D	ata Col #1-Est. Rdwy, Quantities Col #1	2-Est. Rd	wy. Quantities	
Ready	Juccio		Average	e: 301.9459459	Count: 190 Sum: 11172 🔠 💷 100% 🔿 🔶 🕂

Excel Estimated Roadway Quantities Macros

Clicking command buttons in old estimated roadway quantities may do nothing or may give an error message that the items.dat file cannot be found. They fail because certain aspects of the macros had to be changed for use on Windows 7 including the location of Office standard files.

Other Excel templates such as our auto-build versions may have these types of errors as well but can be easily re-generated with the new Windows 7 versions.

Take the following steps to update your estimated roadway quantities files:

- 1. Open the estimated roadway quantities Excel file to be updated. MicroStation should be closed during this process.
- In Excel, go to File> New> My Templates > TDOT 2nd Sheets and select the Convert Excel To V8.xltm template.

This template was originally created for conversions that were required several years ago but can also be used as illustrated here to copy your current data into an updated version of the estimated roadway quantities template with revised macros.

Í 🔣 🛃 🤊) - (2 - -	Ŧ				Conve	rt Excel To V	/81 - Micros	oft E	cel			
File	Home	Insert	Page Layou	t Fo	ormulas	Data	Review	View	Add-	Ins		۵ 🕜	X 🖷 🗆 🜔
Paste	Arial B	7 <u>U</u> →	• 10 •	A A A -	= =)≡ ≫ च ≢	. 11 # 12 5	Text \$ → % •.0 .00 Number	• •	Conditional Formatting Format as Table * Cell Styles * Styles	 The Insert ▼ Delete ▼ Format ▼ Cells 	Σ × A ↓ Z Sort 2 × Filte Ed	t & Find & er * Select * iting
	A1	-	f_x										~
A	В							С					DE
2	IDOT Design Division These programs change the formatting of old Excel files to appear correctly in MicroStation V8. The Excel files distributed by TDOT until 2005 were formatted for use in OLE links between Office 97 and Microstation V7. Because the OLE linking is done differently in Microstation V8, the Excel 97 files need to be formatted differently to appear correctly when linked to Microstation V8. Note: This file. Convert Excel To V8.xttm. is available as part of the 2ndSheets exe download at the TDOT Design Division Standard CADD Files and Documents web page, in the Office Section. These directions and programs will NOT run correctly unless the Convert Excel To V8.xttm file is located in the default location at C:\UsersPublic\Office												
4	0	Standard	s\TDOT 2nd	Sheet	<u>s.</u>								
6	Convert	Micros	tation V7	desig	n files	with OL	.E links f	to Micros	tati	on V8			
7	Note: E	Excel 97 v	vorksheets o	lo <u>NOT</u>	need to b	be convert	ed unless	they will be	link	ed to Microstation V8.			
9	Steps for c	onverting	Microstation	v7 sh	eets with	OLE links	s to Micros	station V8					
11	1. li t	n Microsta abulated I	ation V7, ope block.	en each	Excel O	LE attach	ment and	make a not	e of 1	what Excel file and works	eet is linked for	that	
13	2.F d	ollow the	directions in s to Microst	tion V8	erting TE 3.)OT Desig	gn Divisio	n V7 Proje	ct Fi	les to V8.pdf for convertin	g the Microstati	on V7	
15	3. li	n Excel, u	use the "Cor	vert Ex	xcel to V	8" progra	ms. See b	pelow for de	taile	l instructions.			
17	4. 0	Open the r	new Microsta	ation V8	3 files and	delete o	r move the	V7 attachn	nent	graphics out of the sheet	oorder area.		
19	້ 5.li t	n the Micr ext. See	rostation V8 e " 2nd Shee "	files, at t <mark>sV8.pd</mark>	.tach the If" for mo	Excel files re details	s converted on linking	d to Excel 2 Excel files	003 to M	formatting. Use a scale o icrostation V8.	f 17 for 0.14 bo	iy	
21	N ti	lote: Doc he docum	cumentation rentation sec	files are tion.	available	e at the Tl	DOT Desig	n Division S	stand	ard CADD Files and Docu	ments web page	e in	
23	Create E	xcel "Co	nvert to V8	" Menu									
	Convert	Excel to	Ne. V8 ∕*⊐ ∕							ī 4 💷			▼ ►
Ready											100% 😑		•

3. Select the macro button to **Create Excel "Convert to V8" Menu.** This will create a pull down menu under the **Add-Ins** tab on the ribbon named **Convert To V8.**

	, 19) - (21 -	-			Conve	ert Excel To \	/81 - Mici	osoft Excel				23
Fi	le	Home	Insert	Page Layout	Formulas	Data	Review	View	Add-Ins		۵ ()	- 6	23
Co	nvert T	o V8 -											
Cus	tom Io	olbars											
		A1		f _*									~
	А	В						С			D)	
1		TDOT	Design D	ivision									
			These prog by TDOT u is done diff	grams change t Intil 2005 were ferently in Micro	the formatting formatted for ostation V8, tl	of old Ex use in OL he Excel	cel files to E links bet 97 files ne	appear c tween Off ed to be f	orrectly in N ice 97 and N ormatted dif	MicroStation V8. The Excel files distributed Microstation V7. Because the OLE linking fferently to appear correctly when linked to	1		_

Close the Convert Excel To V8 file created.

When the **Convert to V8 programs are** accessed, it will open **Convert Excel To V8.xltm** to run the convert programs. **Convert Excel To V8.xltm** does **not** need to be saved and should be closed **without** saving after running programs.



4. Click the option **Convert Estimated Roadway Quantities File** – This program opens a dialog box to allow selection of the estimate file to be converted.

Select Estimate File to be Converted	
BR3660EstimatedRoadwavOuantities1	Convert Selected File
	Open a New File to Converl
J	Cancel

The program creates a new Microsoft Office Excel file by copying the information from the existing estimated roadway quantities excel file into a new estimated roadway quantities file. The existing estimated roadway quantities file is not changed. The new file has "_V8" in the filename.

Excel worksheets that are not named "Col *" will be copied by sheet to the new file but no formatting changes will be done to the worksheet.

After converting the estimated roadway quantities file some additional cleanup may be needed. Use the **Format Notes Area** macro to trim your main quantity blocks and format its footnotes correctly.

Carefully review all footnotes. They may be getting cut off at the end of the line or at the bottom of the note. If the entire note is entered in one cell, adjust the row height so that all lines of the note appear. If separate lines of text were entered, you can either combine the text in the first cell or just add any cut off words to the next line. Short, single line footnotes should not be affected by this.

- 5. Save the new version of your file with _V8 at the end and close all files including the original estimated roadway quantities file (without _V8 at end).
- 6. Go to **Windows Explorer** and delete or rename your original file. Rename your new file without the V8 on the end so that it can be used and recognized from links in MicroStation.

							, •	x
Computer	 OSDisk (C:) 	Projects Bradley Mouse Creek			rch Mouse Creel	k		Q
File Edit View Tools	Help							
Organize 👻 🔀 Open	 Print 	Burn New folder				== -		0
👉 Favorites		Name	Date modified	Туре	Size			*
Desktop		😹 BR3660Drainagemap	10/11/2012 5:10 PM	Bentley MicroStati	58 KB			
Downloads		BR3660English General Notes	6/28/2005 10:44 AM	Microsoft Word 9	49 KB			
🖳 Recent Places		🔊 BR3660Erosion	10/11/2012 5:10 PM	Bentley MicroStati	165 KB			
		📕 BR3660ErosionNotes	10/11/2012 5:11 PM	Bentley MicroStati	51 KB			
🔚 Libraries		BR3660EstimatedRoadwayQuantities1	3/4/2013 11:15 AM	Microsoft Excel M	250 KB			
Documents		BR3660EstimatedRoadwayQuantities1old	3/1/2013 4:56 PM	Microsoft Excel 97	1,044 KB			E
B MALLEL		BR3660EWOuant	3/7/2006 2:14 PM	Microsoft Excel 97	65 KB			

6. MicroStation Tools

Attributes

Now includes option to use an element template as well as control for transparency and priority of elements.



View Tools

Several of the View Control icons have changed in appearance. They also now include access to View Attributes, View Display Mode, View Brightness, Copy View, Clip Volume and Clip Mask.

View Control	
	◙◙₽%₽

-	View Attributes	
<u> </u>	View Display Mode ((new for 2D)
₩ -	View Brightness	
\mathbf{R}	Window Area	
+++	Fit View	
{	Rotate View	
1	Pan	
88	Walk (3D only)	New! Use to "walk" through 3D Models
X	Clip Volume	
	Clip Mask	New! Similar to Clip Mask for References, can be used as an alternative

View Attributes

This tool has a new layout and view control. Settings are automatically applied to the current view. Options to apply to other views are now icons at the top.

🔑 View Attributes - View 1	
View Number: 1 🛛 🖳 🖳	
Presentation	#= ^
Display Style: (Wireframe	e Display) 🗸 🤉
🔒 ACS Triad	😑 Fill
Background	III Grid
Boundary Display	🏹 Level Overrides
Camera	Line Styles
->> Clip Back	Line Weights
< ≪ Clip Front	Pattern/Bump Maps
🕵 Clip Volume	Atterns
Constructions	🔅 Default Lighting
H Dimensions	🕥 Tags
🛄 Data Fields	A Text
🟴 Displayset	¼- Text Nodes
🐼 Fast Cells	Transparency
🔨 Fast Curves	
Global Brightness: 👾 <	► \$
View Setup	•



Apply to open views



Apply to selected view

Primary Tools

Includes some revised icons as well as access to a few new functions.



Raster Manager

Raster Manager now includes several icons for tool access. These are still available through the drop down menu and as right click options.

Several on the fly appearance controls are available on the bottom of the dialog.



Level Display

The View controls have changed and are now set via icons at the upper left. Also, **Dialog Properties** is now available through an icon on the menu bar.

🥩 Level Display - View 1			23
View Display	▼ 📔 🕞 (none) ▼ Levels ▼	-	_
E-M BR3660Proposed.dgn	Name ^	Target List: Vertical 🔻	-
BR3660Survey.dgn	Default	Merge <u>N</u> ames	
-w8 BR3660Alignment.dg	CONSTRUCTION - SLOPE QUANTITIES - Inte	Link Tree Selection	
-w8 BR3660PvtDRPatte	CONSTRUCTION - SLOPE QUANTITIES - Ma	Auto-arrange items	
-w8 BR3660Contours.dg	CONSTRUCTION - SLOPE QUANTITIES - Mis	Allow Docking	
-w8 BR3660Erosion.dgn	CONSTRUCTION - SLOPE QUANTITIES - See	Follow Active View	
BR3660trees.dgn	CONSTRUCTION - SLOPE QUANTITIES - So		
	DESIGN - CENTERLINE - Proposed	Number Map Settings	
	DESIGN - CENTERLINE - Proposed Curve Te	DGN Levels as: Names	
	DESIGN - CENTERLINE - Proposed GPK Visu		
	DESIGN - CENTERLINE - Proposed Te	Start Number: 1 -	
	DESIGN - CONTOURS - Index with Text	Man Size: Dynamic 💌	
	DESIGN - CONTOURS - Intermediate with opti	Bowe: 8	
	DESIGN - DRAINAGE - Bridges	Columna: 0	
	DESIGN - DRAINAGE - Bridges and Cr		
	DESIGN - DRAINAGE - Cross Drains	Small	
	DESIGN - DRAINAGE - Side Drains - Id		
	DESIGN - DRAINAGE - Special Ditches	5 200 • 51 •	
	DESIGN - DRAINAGE - John Sewer	52	
	DESIGN - EROSION CONTROL - Devices	58	-
	DESIGN - EROSION CONTROL - Devices Tex	t and Legends 261	
			-



Apply to open views

Apply to selected view

Display Colors

Some do not care for the default level text and level highlight colors for **Level Display**. These are controlled through the same Windows setting.

Go to the Windows desktop, right click and choose Personalize. Under the **Personalization** dialog go to **Window Color** at the bottom. In the **Window Color** and **Appearance** dialog, change the Item to **Selected Items** and adjust the color as desired.



Element Information

The appearance of this tool has changed somewhat but works about the same. It uses the selection set tool so if anything is selected it automatically displays data for those elements. If nothing is selected then it will be blank until you select an element.

Use the arrow on the right of each data group's menu bar to open or close them.

You can change certain attributes of elements from here. If you select any data item it will become a key in field for data entry or a drop down box for setting that attribute. Any changes are immediately done without further interaction.

 Element Information 		•	② Element Information	
Gelection> — A Text: 12+50.00			Grand Selection> Image: A Text: 12+50.00	
General	*	-	General	*
Description	Text: 12+50.00		Description	Text: 12+50.00
Level	DESIGN - ROW - Right-of-Way and Easen		Level	DESIGN - ROW - Right-of-Way and Easer
Color	6		Color	6
Weight	2		Weight	2
Class	Primary		Class	(10) ByLevel
Template	None		Template	
Transparency	0		Transparency	0
Priority	0	=	Priority	
Geometry	*		Geometry	
Extended	*		Extended	5
Raw Data	*		Raw Data	78
Contents	*		Contents	9
Text String	12+50.00		Text String	—— 11 —
Text Style	(None)		Text Style	(None)
Formatting	*		Formatting	^
Font Name	EROYMON		Font Name	
Vertical	False	-	Vertical	False

Change Attributes

The new eye dropper icon at the top is used to match the attributes of any element selected so that you could use those settings to change another without changing the current active values.

The attributes list now includes options to change the transparency and priority of an element.

It also includes new items at the bottom to use an active fence, create a new copy of the element with the changed attributes or to change all of the colors of an element that includes more than one color setting.

🖇 Change Attribu	ites		• 🗙
Use Active Attrib	outes	*	
Level:	DESIG	GN - DRAI	NA 👻
Color:		3	-
V Style:		<u> </u>	•
Veight:		- 6	•
Transparency:	0	0	-
Priority:	4	0	-
Class:	Primar	у	•
Template:	None		v
Use <u>F</u> ence:	Inside	-	
Make Copy			
Change Entire E	lement		

Fence Operations

Fence operations now include dynamic displays so that you can see the results as you do them.



Measure Distance Perpendicular

The Measure Distance Perpendicular tool now includes a **Segment Only** option. If it is off, measurement will stop at the end of a line or with line strings and shapes, will jump to the next segment. With Segment Only on, the tool locks onto the chosen segment and will let you measure locations beyond the end.



Change Element Direction or Reverse/Flip Line Style

This tool now displays a red arrow indicating the current direction. Data point on the red arrow to change the direction and data point again to the side to accept the new direction.



7. TDOT Roadway Design Division Tools

Note that with V8i the T.D.O.T. Roadway Design Division interface is set up separately from the default MicroStation interface so to use it, go to MicroStation Manager and set the **Interface** option at bottom to **tdot**.

TDOT Design Division Tool Strip

Access this customized toolbox from the menu bar at **T.D.O.T.> Tools> Design Division Tool Strip** or from Geopak's D&C Manager at **Drafting Standards> Tools> Design Tool Strip**.

Includes: Design Division Toolbox Rotate to Horizontal Tools Text styles+ Custom Line Style Tools Graphic Group Lock Toggle Plotting Tools



Rotate to Horizontal Tools

Includes: Rotate Element to Horizontal Rotate Fence or Selection Set to Horizontal Rotate View by Element



Custom Line Style Tools

Includes: Shift Line Style Pattern Reverse/Flip Line Style Pattern Change Line Style Scale



Plotting Tools

Includes: Iplot, Set Set Iplot Default Settings InterPlot Organizer MicroStation Print



Cell Dialogs

The old MicroStation Cell Tools function and tools have been replaced by customized cell placement tools. The default cell placement type varies for different cell dialogs and is set based on the most commonly used functionality.

Traffic Control Device	Cells	— ×
Restart Cell Place		^
Barrel - Center Barrel - Left Barrel - Right	_	
Temporary Sign-1 Fa Temporary Sign-2 Fa Temporary Sign-2 Po Vertical Panel Sign-1 Vertical Panel Sign-2 Traffic Flow Arrow(So	ce ces st Face Faces cale=1) ▼	\bigcirc
Legend Cells	Work Zone AP	Const. Signs Cancel
Place Along		

Click on the **Cell Placement Type** button at the lower left of the cell dialog.

These are special cell placement tools including:

Simple Place	activates cell and starts MicroStation's Place Cell command
Place/Rotate	places cell by data point with dynamic rotation
Place Along	places cell along an element at specified spacing, scale and angle

New dialogs for cell placement control:

Place/Roate



Place Along

Place Cells Along Element 🛛 🛋							
Cell Sp	acing:	40					
Cell Sca	ale:	50					
Cell An	gle:	90	_				
Place Cells Along							

This function works slightly differently than the old MicroStation function. You can pick an element to place along at any location along its length for the first identification point and placement will start there. The second point tells the tool where to stop placement.

Signs

Sign face cell dialogs include an additional cell placement **Place Sign Face with**. This replaces the old command button used for that purpose and will now place sign face with other optional graphics by default

Permanent signs now have a label option which can be a sign number or the sign name with size.

Construction Sign (Cells		x
Restart Cell Place	_		
Exit Open (E5-2) Exit Closed (E5-2a Road Work Next X End Road Work (G End Detour (M4-8 Detour with Arrow Detour with Arrow Pedestrian Detour Pedestrian Detour Detour Arrow - Le Detour Arrow - Rig Work Zone Speed	a) (X Mile(s) (G20-1) (20-2) a) - Left (M4-9) - Right (M4-9) ,Arrow - Left (M4-9b) ,Arrow - Right (M4-9b) ft (M4-10) ght (M4-10) Limit (R2-1 MOD.)	ROAD WORK AHEAT	
Place Sign Face with	C D 1 C	Scale	50
Text Label	Sign Number 1	Sign Name	W20-1
🔽 Leader Line	Permanent Label Option	Single Lane	36" X 36"
Ginn Symbol	Number	O Multi-Lane	36" X 36"
I♥ Sign Symbol	C Name & Size	○ Interstate	48" X 48"
Place Sign Face with	···· ▼ Place Sign # Only	Warning Signs	Cancel
Simple Place Place/Rotate Place Along Place Sion Face wi			

Drainage Structure Tools

All of the old MicroStation Basic programs previously used to place drainage structures in the plan and profile have been replaced with new visual basic programs with enhancements.

Plan – Box Culvert or Bridge

Draw Prop. Box Culvert or Bridge in Plan by 2 Points							
Barrels		Skew					
Number of Barrels	3	Skew Angle	45				
Barrel Width	8	Enter skew ar DMS (45 or 3	ngle in degrees or 5^20'15")				
Barrel Height	8	Skew Direction	Left 🔻				
Wing Walls (op	tional)	Label					
Short WW Length	8	Scale	50				
Long WW Length	12	Place Label as F	Flag 🔽				
(Not used for 90	Deg. Skew)	Terminator	Standard Arrow 💌				
Draw Box	Wall Thickness (used to determin	1.000 e span length)	Cancel				

Now includes options to control label and terminator if placed as a flag. During placement structure and text label are now shown dynamically.

Plan - Endwalls

Draw Prop. Type "U" Endwall in Plan (D-PE-4, 15A to 48A)								
Pipe Size	24 in / 600 mm	•	Side Slope	6:1	-			
Pipe Type	Cross Drain	•	Grate Option	Without Grate	-			
Number of Pi (2:1 or 1.5	pes 1 :1 Side Slope)		Skew Angle Enter skew a (45 or 35^20	90 ngle in degrees or '15")	DMS			
			Skew Direction	None (90 Deg)	-			
Draw End	wall	Review E	Endwall Data	Cance				

During placement the structure is shown dynamically, Endwall data including quantities and applicable standard drawings are written as Geopak adhoc data to the graphic element for later recall.

The Review Endwall Data command button opens a secondary dialog for review of all endwall data.

Review Endwall Data Val	Review Endwall Data Values 🗾						
Pipe Diameter	36						
Skew Angle	90°						
Endwall Type	ບ						
Standard Drawings	D-PE-36A D-PE-36B						
Side Slope	6:1						
Number of Pipes	1						
Concrete 611-07.01	4.39						
Reinf. Steel 611-07.02	388						
Struc. Steel 611-07.03	217						
X Coordinate	2311016.35						
Y coordinate	318481.82						
Read Endwall	Cancel						

Some of the endwall data can be seen on the fly by simply snapping to the endwall and checking the pop up info.



Our set ups for Geopak's D&C Manager now include pay items for endwall materials which read these graphics to get quantities for preliminary estimates.

All profile drainage structure tools now include the option to place proposed or existing structures. They also have a command button to open the **DP station & Elevation** tool so that structures may be placed by the centerline station and flow line elevation. During Placement structure and text label are shown dynamically.

Profile – Box Culvert or Bridge

Draw Box Culvert	or Bridge on Pi	ofile by Flow Point
	• Existing	Proposed
Barrels		
Number of Barrels	3	Skew Angle 60
Barrel Width	18	Enter skew angle in degrees or DMS (45 or 35^20'15")
Barrel Height	11	Skew Direction Right
Thickness		Label Scale 50
Outside Wall	12	
Inside Wall	9	Vertical 10 Exaggeration
Top Slab	12	Enter barrel sizes in feet or meters and thicknesses in
Bottom Slab	12	inches or millimeters.
Draw Structure	DP by	Station & Elevation Cancel

Proposed box structures are placed as filled group hole elements for better visibility on the profile.

	View 1, Default												ð	×
ę) • 🥥 🌣 • 🛓	998	▦І╡┚	🕵 🕞										
	Draw Box Culvert o	or Bridge on P	rofile by Flow Point	23	· · · · · ·					Data Point Pr	ofile Statio	on Elevation	23	
		C Existing	Proposed							Profile Sett	ings ——			
Ξ.	Barrels				0.05					Job:	2A0			
	Number of Barrels	3	Skew Angle 60		+0.80)/•	0		^{-1.} 60%	Chain: Station:	40CKRD			1
	Barrel Width	18	Enter skew angle i DMS (45 or 35^20'	n degrees or 15")	<u> </u>					Elevation: Horiz/Vert:	765.00 10:1			4
	Barrel Height	11	Skew Direction Rig	ht 💌		ן ז ו				X:	2315158.2	28		8
	Thickness		Label Scale 50			3		1						
₹L	Outside Wall	12		_		i –				<u>I</u> de	ntify Profil	e Cell		
(Inside Wall	9	Vertical 10 Exaggeration			· -}- · ·				Label Statio	n & _	Station		
	Top Slab	12	Enter barrel sizes	in feet or	:	1 1	1	_ ! <u>}</u>		Elevation	<u> </u>	0.00(0) 40		Ξ
	Bottom Slab	12	inches or millimet	ers.		i ļ		i i	769.	Dynamic Tra	king	Elevation		
	Draw Structure	DP by	Station & Elevation	Cancel				. .			💩	769.01		
	Draw Structure	DP Dy		Cancer			· ~ ~.	<u>_'</u>	· · · · · -	Dynamic	Luber	99.12	-	
)										Data Point	Text Sty	/les Plus	Cancel	
			VP] EL				:		-	:		VP I EL	:	
														+
•						III							1	

Profile – Slab Culvert or Bridge

Draw Slab Culvert	or Bridge on I	Profile by Flow Point
	• Existing	Proposed
Barrels		
Number of Barrels	3	Skew Angle 60
Barrel Width	18	Enter skew angle in degrees or DMS (45 or 35^20'15")
Barrel Height	11	Skew Direction Right
Thickness		Label Scale 50
Outside Wall	12	
Inside Wall	9	Vertical 10 Exaggeration
Top Slab	12	Enter barrel sizes in feet or meters and thicknesses in
Footing Slab	18	inches or millimeters.
Draw Structure	DP by	y Station & Elevation Cancel

Proposed slab structures are placed as filled shape elements for better visibility on the profile.

View 1, Default									ð 💌
🖫 • 🥥 🔅 • 🛓		H 🔄 🖉 🖂 🗗	🕵 🕞						
Draw Slab Culvert o	or Bridge on Pr	ofile by Flow Point	8	· · · · · · · · · · · · · · · · · · ·			Data Point Profile	Station Elevation	83
	C Existing	Proposed		:			Profile Settings		•
Barrels							Job: 2A0		
Number of Barrels	3	Skew Angle 90		+0.88%			Chain: MOC	KRD	
Barrel Width	18	Enter skew angle in DMS (45 or 35^20'	n degrees or 15")				Station: 11+2 Elevation: 765.0	25.00 00	
Barrel Height	11	Skew Direction Nor	ne (90 Deg) 🔻				Horiz/Vert: 10:1 X: 2315	158.28	9
Thickness		Label Carls 50	_			1	Y: 3170	65.25	
Outside Wall	12	Laber Scale	-				<u>I</u> dentify	Profile Cell	
Inside Wall	9	Exaggeration 10		·····›		12.	Label Station 0	Station	·
Top Slab	12	Enter barrel sizes meters and thickr	in feet or lesses in				Elevation &	9+99(9) 12	
Footing Slab	18	inches or millimet	ers.				Dynamic Tracking	Elevation	
Draw Structure	DP by S	Station & Elevation	Cancel	· · · · · · · · · · · · · · ·	· la <u>seri</u> e	1	Vynamic Labe	99.12	-
		[1 78(Data Point Te	xt Styles Plus	Cancel
		VP: EL	:					VP I E L	
12+00									
T									

Profile – Pipe



Proposed pipes are placed at a weight of 6 to improve visibility on the profile.

View 1, Default				- 6 - ×
<u>□</u> - Ø ¥ - <u>▲ Q Q R E</u>	<u> </u>			
Draw Pipe on Profile by Flow Point			Data Point Profile Station Elevation	8
C Existing	Proposed		Profile Settings	_
Pipe Height 24	Skew Angle 90 Enter skew angle in degrees or		Job: 2A0 Chain: MOCKRD	
Pipe Width	DMS (45 or 35 [^] 20'15")		Elevation: 765.00	
Number of Pipes 1	Skew Direction None (90 Deg)		Horiz/Vert: 10:1	
Space Between Pipes 12	Vertical 10 Exaggeration	····· ⁴ • 9 5%···	X: 2315158.28 Y: 317065.25	
Enter values in inches or mm. Pipe Width is optional.	Label Scale 50	A 1	Identify Profile Cell	
Min. drawn width = 42"/1050 mm at Vertical Exaggerations > 1	Pipe Type Cross Drain		Station	
Draw Dina DD hu Stati		tin	Label Station & Bevation	
Draw Pipe DP by Stau		· · · · · · · · · · · · · · · · · · ·	9+99(9).1	12 💌
	MOTEKRD		Dynamic Tracking 0777.09	
			Dynamic Label 99.12	-
	1 19.5 . 000	000	Data Point Text Styles Plus	Cancel
	76-5-		0	
			0	
			o	
			Ö Ø	
<				•

Iplot Default Settings

The listing of settings files is now restricted to leave out the current version of iplot.set as well as settings files used only with InterPlot Organizer and not with Iplot. The file list dialog is no longer modal and can remain open for later use as needed. Selection of the settings file automatically makes it active with a success message which displays on the dialog to indicate the settings file that was activated.



Move Raster by Datum Adjustment Factor

The user no longer needs to provide a data point for the move. Instead the tool uses the origins of the raster file attachments to calculate and give a data point to the system. It now includes a separate command button for the Move Raster(s) Back to Original Location function. Also added a command button to open the Raster Manager dialog. One or more raster attachments may be moved at the same time now.



DGN Batch Text Editor

Added Find/Replace Text options Match Case, Whole Words, Use Regular Expressions and Change In Cells to duplicate the options provided by the regular tool and give the user the capability to use these as needed. All are on by default except for Use Regular Expressions..

DGN Batch Text Editor	×
001.sht 001A.sht 002A.sht 002A.sht 002B.sht 002C.sht 002C.sht 002D.sht 002E.sht 003.sht 003A.sht	Original Text New Text Image: Match Case Image: Use Regular Image: Change In
004.sht 004A.sht ▼	Expressions Cells
Select Files for Editing	

Place Mast Arm by Length

Now includes dynamics when first started so that mast arm is shown at the specified length during identification of the start point.



8. Geopak Survey

Survey Project Workflow Toolbox

A new command button has been added to the **Graphics Display** group to access the **Draw Ancillary Features** tool which can be used to add underground utility crossings to the profile.

TDOT Survey Project WorkFlow Toolbox					×		
					_		
Project Cor	ntrol			Data	set Processin	g	
Create Project F	Preferences		New Dataset		Open Dataset	Control Editor	
Open Project S	Save Project		Edit Dataset		Reduce	Review Reports	;
Close Pro	oject		Import to GPK	U	pdate OBS/XYZ	Save Dataset	
				[Delete Dataset		
Graphics Di	isplav	Coordina	te Geometry		DTM Pro	ocessina	
D & C Mana	ager	Class	ic COGO		Edit Crossing Cl	hains/Breaklines	
Draw Prof	Draw Profile		Horizontal Alignment Tools		Build DTM from Survey		
Plan View La	Plan View Labeler		Graphical COGO		Load DTM Features		
Profile Lab	Profile Labeler		Generate Groundline Profile		Edit DTM		
Draw Ancillary F	Draw Ancillary Features		Edit Points		TIN Tracking	- Height Tool	
Shift Line S	Shift Line Style Edit		Chains		TIN Sta	atistics	
Flip Line St	tyle						
Visualize Fea	atures						
UnVisualize Fe	eatures						Cancel

New Survey Level Filters

Several new level filters have been added for use by Survey.

The Field Topo level filter is for looking at only field located data without office data showing.

The **Topo Control** level filters include associated graphics that are used to control or just to check a given type of survey data. These can be used as needed with other specific level filters when checking survey data.

Survey - Drainage - Topo Control

Survey - DTM - Topo Control

Survey - Field Topo

Survey - Profile - Topo Control

🥩 Level Display - Viev	🔰 Level Display - View 1 📃 🗉 💌		
U Kiew Disp	play V Kiters V Filters V		
	Name	^	
	Survey - All Survey - All but Points Survey - All with Point Elevations Survey - All with Point Locators Survey - Drainage Survey - Drainage - Topo Control Survey - DTM Survey - DTM Survey - DTM - Topo Control Survey - DTM - Topo Control		
< <u> </u>	Survey - Non-Transportation Survey - Points Survey - Profile Survey - Profile - Topo Control Survey - Property Survey - Transportation Survey - Utilities Utilities - Plan without Points	E	

Revised Rockwall Feature

Only one Survey feature has changed in the SMD database. The rock wall feature named ROCKW now uses a new line style that runs along the face of the wall rather than down the center as it did previously. The center set up required special consideration in the field and/or post processing in the office when wall center points couldn't be gathered.

Field Points should be gathered from left to right so that wall will appear correctly when visualized.

WARNING:

Care should be taken if the need arises to re-visualize data gathered prior to this change since older rock walls set up on the wall centerline could be shifted with this new set up. Re-visualizing will replace the old line style ROCK WALL with the new one. If this happens, simply change the line style back to ROCK WALL

Data Acquisition

Not currently adopted for use by T.D.O.T. Survey.

9. Geopak Road

The Geopak Road training manual for T.D.O.T. Design Division personnel, **TDOT GEOPAK Road Course Guide.pdf**, has been updated for V8i and follows our standard workflows. The locations for Geopak tools in that document reflects the use of Civil Workflows as described previously with descriptions of the new Task Navigation interface.

That document, along with the class files, are available from the CADD web page at

http://www.tdot.state.tn.us/Chief Engineer/assistant engineer design/design/v8/v8design.htm

Proposed Cross Sections

The generation of proposed cross sections has not really changed for the user. There are a few small changes which should make things run more smoothly than previously.

Typical Sections

In the past warning messages would appear when you tried to either apply a roadway typical section on a shapeless run or anytime it was about to overwrite standard criteria files in your project folder.

Our roadway typical sections were set up to handle shapeless runs so that did not matter. Since our criteria is standardized and special criteria files have alternate file names that message did not matter either. These messages are now suppressed in our configuration of GEOPAK so we no longer have to deal with dismissing those warnings all of the time.

Plot Parameters

There is a new option under Plot Parameters called **Pavement Shapes**. This option does need to be turned on in your runs for it to place the lines for our pavement superelevation shapes.

📕 Proposed Cross Section	s - mainline	• 💌	
<u>F</u> ile			
XS DGN File Pattern Existing Ground Shapes Shape Clusters Define DGN Variables Define Variables Plot Parameters Drainage	Cross Section Lines: Text Line Text Station Text Baseline Name Text Somple]] 	
Plot Plot Pavement Thickness	0.0		
Fill Gaps between Clu	Isters		
Transition Definition	Transition Definition Apply Shape Transition Codes 💌		
Intersect between Clu	usters		
Process Clusters as Ir	ndicated		
Remove Skewed Effe	ect		
Process Only Section	s with Existing Ground		
Pavement Shapes			

Disable View Update

There is a new cross section processing option named **Disable View Update**. This is for use on longer proposed cross section runs to suppress view updates which can speed up the process substantially.

	K Process Cross Sections Display	- • ×
Proposed Cross Section	profile = MLPROFILE,	*
Output	tie = 0.000000,	
To Screen	pgl chain = ,	
	cluster offset = MINUS.	
	Check the existing ground lines in this cross-section.	
Pause On Each Section	Cross-section plotted	
Criteria Viewer Apply Cisable View Update	Station = 12+00.00, Region = 1 Cross-section plotted	
	Station = 12+50.00, Region = 1	
	Cross-section plotted	-
	Continue Criteria Viewer V Disable View Update Abort Run Pause On Each Section Maintain Relative Window	

Plan/Profile Sheets

New EPSC Level Filters

We have added 3 new level filters for use in setting up the different Erosion Prevention and Sediment Control phases in the plans sheets.

Sheets - EPSC Clearing and Grubbing

Sheets - EPSC Intermediate Grading

Sheets - EPSC Final Construction

Edit Sheet Number

We must use the **Append Alpha Suffix** option now to generate sheets with a suffix letter. The sheet suffix letter(s) can no longer be added in Clip Sheets using the Sheet Name Prefix control.

Edit Sheet Number	
Add Prefix:	
Compute Sheet Number By:	
Starting at Sheet Number 🛛 💌	4
Append Alpha Suffix: Begining Letter(s): A	Z AA BB 💉
	Cancel

Sheet Name Prefix

The Sheet Name Prefix field is used to control the final format for the DGN filenames which are applied. The number of characters used for the sheet number as well as the filename extension can be set.

Now we enter square brackets with 4 asterisks for the sheet number, [****], followed by .sht for the filename extension. You should end up with [****].sht.

This differs from the past where we only required 3 asterisks for the sheet number, [***], followed by a suffix letter if needed and .sht for the filename extension. The Append Alpha Suffix option under Edit Sheet Number must be used for the suffix letter.

🔁 Plan She	🛿 Plan Sheet Layout: Clip Sheets 📃 🗖 🔀		
Output File -			
Directory: C	:\Projects\Roane\SR95PoplarCr\		
Sheet Name	e Prefix: [****].sht 004A.sht		
Orie	ntation: Rotate View		
Sheets p	per File: 1 Model: Active		
Sheet Range	Begin: 4A 💌 End: 9A 💌		
Labels and A	Labels and Annotations		
Sheet T	heet Title: R.O.W.		
Project Numb	umber: 35256-2204-04		
Match Li	Match Line: MATCH LIN XXX+XXX SEE SHT. 1		
Auxiliary Sheet Annotations			
Create Digital InterPlot Plot Set			
IPS File: C:\Projects\Roane\SR95PoplarCr\untitled.ips			
Sheet Type: Plan Open InterPlot Organizer			
Process Sheets			

Refer to chapter 19 in **TDOT GEOPAK Road Course Guide.pdf** for the plan sheet layout workflow and more specific details of its use.

Corridor Modeling & Roadway Designer

These new functions for Geopak V8i can be used in developing display models of proposed designs for presentations at public hearings or other meetings. We have a new template library and style file for use with the Geopak V8i Roadway Designer tool in Corridor Modeling. The template library has all of our primary roadway types as well as bridges, walls or other associated features. Our MicroStation standards include new levels for model displays which already have material assignments so that when models are produced they will be automatically rendered as pavement, concrete, grass, etc.

We are not replacing our current set ups using criteria files for final design.

Start Corridor Modeling

Start Corridor Modeling from the roadway model icon in the task root. In the Corridor Modeling dialog we will set up the base controls for the corridor project.

	Tasks Civil Workflows Civil Workflows Road Workflow Road Workflow	
Corridor Modeling		
Job: 2A0 Q >	Image: Station Lock: Increment Slope Readout: 50% Slope Readout: 50% Horizontal Chord Height: 0.100000 Vertical Chord Height: 0.050000 Template Library: C:\Users\Public\Geopak Standards\TDOTDefault.itl DTM Files Path: Image: Standards Standards	<u>ୁ</u> ପ

Import DDB

Select the **DDB** option in the list on the left. Our style file is set by default but we do need to import it in. Click the **Import** button to add this control to the corridor project.

📕 Corridor Modeling		×
<u>File T</u> ools		
Job: 2A0 <u>Q</u> <u>></u>		
	Drafting Standards DDB File: C:\Users\Public\Geopak Standards\TDOT_Styles.ddb Import]

Click **OK** in the Import message.

Informat	ion
į)	35 Drafting Standards imported.
	Ōĸ

Add Existing Surface

Next, select the **DTM** option in the list on the left. The surface type should be set to TIN. Use the browse icon to identify your existing ground surface.

First, click the **ADD TIN to List** icon on the right.

X Add TIN to List
Add TIN to List

Then click **Import** to add it to the corridor project.

📕 Corridor Modeling			×
<u>File T</u> ools			
Job: 2A0 <u>Q</u> ×			
Preferences	TIN/DTM Files		
	C:\Projects\Bradley\Mouse Creek\GROUND.TIN		1
			브
Geometry			\mathbf{X}
Plan Graphics			
ALG Viewer			
			1
	TIN: C:\Projects\Bradley\Mouse Creek\GROUND.TIN	<u> </u>	
	Import		

Click **OK** in the Import message.

Information				
į)	Tin file has been imported			
<u>O</u> K				

Set Horizontal & Vertical Alignments

Now, select the **Geometry** option in the list on the left. If you have your Geopak Roadway project going, the GPK job number should already be set. If not use its browse button to set it.

Select the proposed roadway centerline **chain** from the drop down list as well as the corresponding proposed **profile**.

Use **Centerline** for the Drafting Standard.

When all settings are made, click the **ADD Chain to List** icon on the right. Then click **Import** to add it to the corridor project.



Click **OK** in the Import message.

Information					
į	Geometry has been imported.				
	<u>o</u> k				

Corridor Modeling creates the folder **rddbs** where it stores files. The Import functions create those files.

Open Roadway Designer

Now that all base controls have been set, we can start the Roadway Designer tool. Click on the roadway model icon in the Corridor Modeling dialog to **Open Roadway Designer**.

📕 Corridor Modeling						X
<u>File T</u> ools						
Job: 2A0 Q	1	A				
Preferences	Ch Open Roadwa	y Designer	Drafting Standard			
- DDB	MOCKRD	MLPROFILE	Centerline			2
- 🗖 DTM						
- Ceometry						
- 🗖 Plan Graphics						\mathbf{X}
ALG Viewer						
	Chain: MOCKRD	•		Profile(s)		
	Drafting Standard	Aggregate	- <u> </u>	MIMOSAPRO		
	branning otariaara.	nggrogato		MLGROUND	=	
				MLPROFILE		
				MOCRK	-	
			Import	ъ		

When Roadway Designer first opens on a new roadway set up, all views will be blank. The main view to the right is a cross section view, the upper left view is the plan view and the lower left is the profile view. These include view control icons similar to regular MicroStation views.

Roadway Designer -				
File Corridor Superelevation Tools Overlag	y Tools			
				Close Help
				^
	2			
	0			
	-2			
+	-4			
	-6			
╾	+	-10 -5	0 5	10 15 *
Corridor:	Station: K	0+00.00	> > +	Process All
Active Surface: GROUND	Interval:	0.0000		Process Visible Range
	Template:		Display Mo	de: Normal Superelevation Overlay

Set up a Roadway Corridor

The first step is to set up a roadway corridor. Click the **Manage Corridors** icon or go to **Corridor** > **Corridor Management**.

Type in a name, set **Centerline** as the Surface Symbology and set the Horizontal & Vertical Alignments. Some of this may already be defined for you.

Click the **Station** option and adjust the station range as needed for the roadway limits.

Click **Add** to set up that roadway and **Close** to dismiss the dialog.

Note that multiple roadways can be set up in a single corridor such as two roads that form an intersection or an interstate roadway with ramps and a crossroad.

I Manage Corridors					
Name: Mouse Creek F Surface Symbology: Type: Horizontal Alignment:	Road Centerline Alignment MOCKRD	• •	Limits Station Start: 11+50.00 Stan:	Add Close thange	
Vertical Alignment: PI Rounding Tangent: Corridors:	MLPROFILE 0.0000	•	16+50.00	Copy Copy From Help	
Name T Mouse Creek Ro Ai	ype gnment	Source Nam MOCKRD	ne Start Station 11+50.00	Stop Station 16+50.00	
				Delete	
Attach a Template

The next step is to attach a template to the roadway. Click the **Template Drops** icon or go to **Corridor** > **Template Drops**.

First set the beginning station value.

Look through the template library list for the required template. Double click the library name if not expanded and go to the Templates folder.

Select the desired roadway template and it will display in the preview widow. The multiple slope tie options indicate that it is set up for variable slopes such as with Case I or Case II as we use them.

Click Add to set it up in the template drop list and Close to dismiss the dialog.

You can explore the template library to see what all is available from the Open Template Library icon in Roadway Designer or from Tools> Template Library.





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Process All

Now that we have a horizontal and vertical alignment set with a template to use we can process that set up. Click **Process All** to build the roadway through the project.



Using the control buttons on the bottom right, navigate through the cross sections. Notice that the plan and profile views are locked with the movement and display a yellow line corresponding to the current cross section.

The lines in the plan view represent the transition lines of various points on the proposed roadway such as roadway lanes, shoulders, curb, sidewalks, etc.



You can use the view controls or the mouse scroll button to zoom in and out on the views.

Parametric Constraints

Parametric Constraints are variables that control widths and other values for the template. These are similar to Define Variables in Geopak's Proposed Cross Section tool. Access these from **Tools> Parametric Constraints**.



In the Parametric Constraints dialog click on the Constraint Label drop down to access the individual values. These do vary depending on the template but many are commonly used in all roadway set ups.

💷 Parametric Co	onstraints		- • •
Comidor:	Mouse Creek Road	Station Limits	Add
Constraint Label:	Grass Separator Width LT 🔷	Start: 11+50.00	+ Close
Start Value:	Grass Separator Width LT Grass Separator Width RT	Stop: 16+50.00	Change
Stop Value:	Gutter Depth D Half Center Lane Width		Help
Override Values:	Lane Width		
Enabled	Outside Grass Strip Width Half Ce Shoulder Width Sidewalk Depth Sidewalk Width LT Subgrade Depth	enter Lane Width Jut Station	Stop Station
	Urban Ditch Depth LT Urban Ditch Foreslope LT Urban Ditch Foreslope RT Urban Ditch Half Width LT Urban Ditch Half Width RT		
Export	Import		Delete

For this example we will set up a transition at the beginning for the shoulder width to go from 2' to 6' as well as the turn lane to go from nothing to 12'. We can also reset the subgrade depth to be 1.25' for the entire roadway.

After selecting a variable, its default value is shown.

Set the **Start Value** and **Stop Value** or click the lock to make them the same

Then enter the **Start & Stop** stations for transitioning. Use the begin and end stations to apply for the entire roadway.

Click **Add** to add the setting to the list. Click **Close** when done



Process Parametric Constraints

Click **Process All** again and review the results of the parametric constraint changes. In the plan view we can see the beginning transitions. If you zoom in on the cross section view you can observe the change in width at various stations of the transition.



Add Additional Templates

To build up this roadway set up a bit more, we will add a bridge template. Going back to Template Drops, we can add additional stations for templates and control whether they try to transition or not. In this example we do not want transitioning between the 2 template set ups so the regular template is applied just before the beginning and just after the end of the bridge area.

💷 Templa	te Drops				• 🗙
Corridor:	Mouse Creek R	oad 🔻		6	Add
Station:	14+94.99	+			Close
Interval:	50.0000	+			Change
Library Ten	nplates:	_			Criange
×	🗙 Bridge 2 Lane	with Center Turn Lane	*		Сору
×	≺ Bridge 4 Lane	Dual	_		Help
	≺ Bridge 4 Lane	Median Barrier	E		
	< Bridge 4 Larie	mun center rum Lane			
, ,	≺ Driveway Aspl	halt			1
>	KRamp 1 Lane				
>	≺ Ramp 2 Lane			1	
	 Relocated Str Revealed at the 	eam\Special Ditch	-		and the second second
Current Ter	mplate Drops:				
Station	Interval	Template	Enable Transition	Revised In	Library
11+50.00	50.0000	Urban 2 Lane with Center Turn Lane	N/A	ITL	C:\Users\PL
14+09.99	50.0000	Urban 2 Lane with Center Turn Lane	•	ITL	C:\Users\PL
14+10.00	50.0000	Bridge 2 Lane with Center Turn Lane	•	ITL	C:\Users\PL
14+94.99	50.0000	Bridge 2 Lane with Center Turn Lane	9	ITL	C:\Users\Pu
14+95.00	50.0000	Urban 2 Lane with Center Turn Lane	e X	ITL	C:\Users\PL
		III			•
Synchron	ize with Library			Edit	Delete

Process All again.

In the plan view we can see that our curb lines are not lining up with the ones on the bridge. This is due to the extra 2' of gutter in addition to the 6' shoulder.



The bridge template includes separate parametric constraints for elements outside the roadway lanes since those can differ from the roadway. We can go back to Parametric Constraints and change the bridge shoulders to 8' to account for the extra 2 feet for the gutter.

After processing again we can see that our curb lines now line up.

💷 Parametric C	onstraints				• 🗙		Roadway Designer - C:\Projects\Bradley\Mouse Creek
Corridor:	Mouse Creek Road	Station	n Limits		Add		File Corridor Superelevation Tools Overlay Tools
Constraint Label: Start Value: Stop Value: Override Values:	Bridge Shoulder Width L -8.0000 -8.0000	Stop:	11+50.00	+	Close Change Help		
Enabled	Name	Start Value	Stop Value	Start Station	Stop St	Ш	
х	Half Center Lane Width	0.0010	6.0000	11+50.00	12+50.0	ш	
X	Shoulder Width	2.0000	6.0000	11+50.00	12+50.0	ш	
×	Bridge Shoulder Width LT	-1.2500	-1.2500	11+50.00	16+50.0	ш	
x	Bridge Shoulder Width RT	8.0000	8.0000	11+50.00	16+50.0		
•		111			F.	ш	
Export	Import				Delete		

Generate Proposed Model

Before we generate the model we need to go back to the **Template Drops** dialog. The interval needs to be changed at each template set up to 5' in order to ensure that an accurate proposed model is formed.

Click **Change** to apply the edits as you do them.

	late Drops				
Comidor:	Mouse Creek F	Road 🔻			Add
Station:	14+95.00	+			Close
Interval:	5.0000	+			Chappage
Library Te	emplates:				
>	🛩 Rural 6 Lane	Depressed Median			Сору
>	🛩 Rural 6 Lane	Independent Roadway L	Т		Help
>	→ Rural 6 Lane	Independent Roadway R	IT.		
>	← Rural 6 Lane	Median Barrier			λ /
	🛩 Rurai 6 Lane ve⁄ Shared Use F	With Center Turn Lane			
Ś	✓ Urban 2 Lane				
				E	
>	🛩 Urban 2 Lane	e No Shid			
>	🛩 Urban 2 Lane 써 Urban 2 Lane	e No Shld e with Center Turn Lane			
>	₩ Urban 2 Lane ₩ Urban 2 Lane ₩ Urban 4 Lane	e No Shld e with Center Turn Lane		-	
> Current Te	← Urban 2 Lane ← Urban 2 Lane ← Urban 4 Lane emplate Drops:	e No Shid e with Center Tum Lane		-	1
Current Te Station	✓ Urban 2 Lane ✓ Urban 2 Lane ✓ Urban 4 Lane emplate Drops: Interval	e No Shid e with Center Tum Lane	Enable Transition	Revised In	Library
Current Te Station 11+50.00	Virban 2 Lane Virban 2 Lane Virban 2 Lane Virban 4 Lane emplate Drops: Interval 5.0000	a No Shid a with Center Tum Lane Template Urban 2 Lane with Ce	Enable Transition	Revised In ITL	Library C:\Users\Public\Geopak
Current Te Station 11+50.00 14+09.99	Urban 2 Lane Urban 2 Lane Urban 2 Lane Urban 4 Lane Irban 4 Lane Irban 4 Lane Interval 5.0000 5.0000	e No Shid e with Center Tum Lane Template Urban 2 Lane with Ce Urban 2 Lane with Ce	Enable Transition	Revised In ITL ITL	Library C:\Users\Public\Geopak C:\Users\Public\Geopak
Current Te Station 11+50.00 14+09.99 14+10.00	Urban 2 Lane Urban 2 Lane Urban 2 Lane Urban 2 Lane Urban 4 Lane Irban 4 Lane Irban 4 Lane Interval 5.0000 5.0000 5.0000 5.0000	e No Shid e with Center Tum Lane Template Urban 2 Lane with Ce Urban 2 Lane with Ce Bridge 2 Lane with C.	Enable Transition N/A	Revised In ITL ITL ITL	Library C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak
Current Te Station 11+50.00 14+09.99 14+10.00 14+94.99		a No Shid a with Center Tum Lane Template Urban 2 Lane with Ce Urban 2 Lane with Ce Bridge 2 Lane with C. Bridge 2 Lane with C.	Enable Transition N/A 	Revised In ITL ITL ITL ITL	Library C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak
Current Te Station 11+50.00 14+09.99 14+10.00 14+94.99 14+95.00	← Urban 2 Lane ← Urban 2 Lane ← Urban 4 Lane ← Urban 4 Lane ← Irban	e No Shid e with Center Turn Lane Template Urban 2 Lane with Ce Urban 2 Lane with Ce Bridge 2 Lane with C. Bridge 2 Lane with C.	Enable Transition N/A 	Revised In ITL ITL ITL ITL ITL	Library C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak
Current Te Station 11+50.00 14+09.99 14+10.00 14+94.99 14+95.00		Template Urban 2 Lane with Ce Urban 2 Lane with Ce Urban 2 Lane with Ce Bridge 2 Lane with C. Bridge 2 Lane with C. Urban 2 Lane with Ce	Enable Transition N/A 	Revised In ITL ITL ITL ITL ITL ITL	Library C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak C:\Users\Public\Geopak

Click Process All.

Now we are ready to generate the proposed model. Click on the **Create Surfaces** icon or go to **Corridor> Create Surface.**

First you need to key in a name for the surface.

Select the corridor(s) to create the surface from.

Set **General Options** as required. **Empty Design Surface** should be on so that when run more than once it will simply replace the previous one.

Under **Display in Plan View** at the lower left, click on **Components**.

You will need to be in a 3D DGN file or create a separate 3D model in your 2D DGN.

When all settings are made, click **Apply**.



Name:	MouseCrRd	 Apply
Default Preference:	Default	Close
Create Surface(s) from	n:	Preferences
Mouse Creek Road		Help
		AI
		lone
Clip	pping Options	
General Options	Each Comidor 🔲 Cre	ate Alternate Surfaces
Empty Design Su	urface 🔲 Pro	cess Visible Range Only
Include Null Poir	nts 📃 Re	move Loops
✓ Triangulate		
Features		
Ouplicate Names:	🔿 Replace 🛛 🔘 Rena	ame 🔘 Modify
Add Transverse	Features	
Style:	Aggregate	-
Add Exterior Bou	undary	
Style:	Aggregate	V
Densify using Chord	Height Tolerance	Display in Plan View
Horizontal Curve	s	Features
Vertical Curves		Components

Set View Display

Fit the 3D view to find your proposed model. Our DGN files are set to display style **Wireframe** with a black background by default. In this view mode you can see the frame work of the proposed model.



Open View Attributes and set the **Display Style** to **Smooth**.

The model may appear dark. Open **Adjust View Brightness** in the view controls and increase the lighting level with the scroll bar provided.



The default black background makes it harder to see the model well so you can alter the background used with the Smooth display style. Open the **Display Style** dialog from the view controls and change the **Background Color** to something lighter.



Drive Roadway & Review Model

0

Click the Drive Roadway icon in the Corridor Modeling dialog. In the **Drive Roadway** dialog set the driver's eye location and speed. Click **Run** to start the drive through.

	Drive Roadway		- • •
📕 Corridor Modeling	Horizontal Alignment:		Pup
<u>File</u> <u>T</u> ools	Vatical Alignment:		
	venical Alignment.	MLPROFILE -	Display
	Horizontal Offset:	10.5000	Close
Preferences Chain Drive Roadway	Vertical Offset:	8.0000	Defenses
	Speed:	2.0000	Preferences
Geometry	Frames per Second:	8	Help
Plan Graphics	Start:	11+50.00	+
	Stop:	16+50.00	+
	Target Distance:	45.0000	+



Use MicroStation's **Fit View** command after using the Drive Roadway tool to reset the display depth and perspective.

Use view control tools such as **Dynamic Rotation** or **Walk** to explore the model. Look for gaps, bad joins or other evidence of incorrect model creation. Some of these can be fixed in Roadway Designer or it may be simpler to just use MicroStation tools.



All proposed model graphics are created on the following new levels with V8i and are automatically rendered with material assignments.

DESIGN - MODEL - Aggregate DESIGN - MODEL - Asphalt DESIGN - MODEL - Concrete DESIGN - MODEL - Grass DESIGN - MODEL - Rip-Rap DESIGN - MODEL - Truck Apron Pavers

Save Roadway Designer & Corridor Modeling Settings

To save your Roadway Designer set ups for the roadway to **File> Save**. The file will have an "**ird**" extension.

Before closing the Corridor Modeling dialog, save those settings as well by going to **File> Save**. This file will have an "**rdp**" extension.

FYI

When proposed models are generated, Geopak TIN and InRoads DTM surface files are also created in your project folder.



10.InterPlot Organizer

Plotter not found

As stated previously in this document, **InterPlot (Iplot) software requires that plotters must be connected to you PC in order to plot to them**. This can be an issue in InterPlot Organizer.

When creating a new plot set for plotting or PDF creation you **should always** get this message after clicking OK in the Create Plots dialog. It indicates that it is applying the settings you specified and that the plotter specified is being used.

ProjectWis	e InterPlot Organizer V8i (SELECTseries 2)				
The settings file being applied contains a common section. Applying this section to the plot set will modify the attributes of the plot set. Do you wish to apply the common section to the plot set?					
	Yes No Cancel				

If you did not get that message, it is a good indication the plotter you asked for was not found. In InterPlot Organizer the current default printer is used as shown below.

🖉 Untitled - ProjectWise InterPlot Organizer V8i (SELECTseries 2)							×		
File Edit \	lew loois Help)							
0 🖻 🔒	a 🕹 🕹 🕅		• ≠ <u>≠</u> <u>•</u> <u>•</u> <u>•</u> <u>•</u>	£ 🖩					
Plot Name	File	Model	View Group	Plot Area	Design Script	MS Pen Table	Color Table	Paper Size	
8 001	001.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
001A	001A.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
8 002	002.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
📕 002A	002A.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
📕 002B	002B.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
🛛 📶 002C	002C.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
🛛 🔼 002D	002D.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
🔣 002E	002E.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
M 003	003.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
AE00 🕺	003A.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
M 004	004.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
🛛 🔼 004A	004A.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
🛛 🛃 004B	004B.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
🛛 🔼 004C	004C.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
005	005.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
006	006.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
007	007.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
800 🛃	008.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
009	009.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
M 010	010.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
📕 🚺 010A	010A.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
8011	011.sht	Default	Default Views	View	irp336.ful	NONE	stdcolor.tbl	NONE	
•			III						
Desking date									_
SEUSED Set	auit settings ttings file C:\Users\Pi	ublic\InterPlot Standa	ards\Settings\inlat set is h	eina used					^
NOSUCHFO	RM, paper size "34.00	0x960.00" is not valid	for printer "\\HQPRINT	HQ_13thFir_SOL	JTHWEST"				
INVSCALE, A	A scale of 50.000000:	1.000000, generates	a plot size of 36.703264	x 48.856663, whi	ch exceeds the plotter lim	ts, 10.653333 x 8.1533	33		
Applying defa	s) from C:\Projects\Br ault settings	adley (wouse Creek)	VUTT.SITE						
SFUSED, Se	ttings file C:\Users\Pu	ublic\InterPlot Standa	ards\Settings\iplot.set is b	eing used.					_
NOSUCHFO	RM, paper size "34.00	0x960.00" is not valid	for printer "\\HQPRINT	HQ_13thFir_SOU	JTHWEST"		2222		
INVSCALE, A	A scale of SULUUUUUU:	1.000000, generates	a plot size of 230.00049	6 X 306.232813, V	mich exceeds the plotter	imits, 10.6033333 x 8.10.	3333		-
Ready	Ready Printer: \\HOPRINT\HO 13thFir SOUTHWEST 22 plots NUM								

PDF Generation

The **Export PDF** function now includes an option to **Create a separate PDF file for each plot** which can be used when generating construction plans.

At least one user has encountered problems using InterPlot Organizer to create PDF files when MicroStation was still open. Other users did not appear to have this problem. If you get an error in InterPlot Organizer that MicroStation failed during processing then close MicroStation and try again.

They also had problems with a broken Office link. The file would print fine but would fail when attempting to create a PDF file. The file was no longer available to fix the link so the solution in that case was simply to use **Break Link** at Edit> Links.

Export PDF
Plot range All plots C Selected plots
Creation options C Create one PDF file containing all plots C Create a separate PDF file for each plot
PDF options PDF Format Configuration
Create PDF Cancel

11. Configurations For Consultant CADD Managers

The documentation file **TDOT Roadway Design Division V8 Configurations for Consultant CADD Managers.pdf** has been updated to reflect the changes required for application on Windows 7 with the new V8i software.

That document is available from the CADD internet web page at

http://www.tdot.state.tn.us/Chief Engineer/assistant engineer design/design/v8/v8design.htm

In this orientation document, we will present the key files that may need adjustment for application at your office. For more information on setting up project level configurations see the document on the web.

MicroStation & Geopak - TDOT.cfg

Our configuration file for V8i is very comprehensive since all standards now reside outside the product folders. It utilizes variable names for the MicroStation and Geopak standards folders and only has 3 specific folder paths specified.

Default settings in TDOT.cfg:

#				#
# TDOT.cfg - TDOT Roadway Do	esign Division Standar	ds Configur	ation File for MicroStation	V8i #
#				#
#======================================		=====#		
# This file sets MicroStation confi	igurations	#		
# for IDOI Roadway Design Div # Any changes made to this file m	vision's Use	Ŧ	#	
# TDOT Roadway Design Divisio	on standards.	#		
#======================================		=====#		
#		MicroStatio	1	
			·	
# TDOT Design Division MicroSt	tation standards folder	nath		
_TDOT_MICROSTATION_ST	ANDARDS =	• C:/Users/P	ublic/MicroStation Stand	lards/
# Special environment settings				
# When compressing DGN files.	no options on by defau	lt		
MS_COMPRESS_OPTIONS	= -ALL			
# Include full path in Title Bar				
MS_FULLPATHINTITLEBAR	= 1			
# When updating levels do not de	lete unused levels			
MS_UPDATE_KEEP_UNUSED	_LIBRARY_LEVELS	= 1		
# Setting to allow attachment of la	arge digital image files			
MS_RASTER_LOADMODE	= 3			
# Standard faldens & 61				
# Standard Tolders & files				
MS_SYMBRSRC	> \$(_TDOT_MICRO	STATION_	STANDARDS)symb/*.rsc	1
MS_SEEDFILES	< \$(TDOT MICRO	STATION	STANDARDS)seed/	
MS_DESIGNMODELSEED	< \$(_TDOT_MICRO	STATION_	STANDARDS)seed/seed2	d.dgn
MS_DESIGNSEED	= \$(_TDOT_MICRO	STATION_	STANDARDS)seed/seed2	d.dgn
MS CELL	<\$(TDOT MICRO	STATION	STANDARDS)cell/	
MS_CELLLIST	< \$(_TDOT_MICRO	STATION_	STANDARDS)cell/STDS	.CEL
MS_CELL_SEEDFILE	< \$(_TDOT_MICRO	STATION_	STANDARDS)seed/Engli	sh2dCell.dgn
MS_PLTCFG_PATH	< \$(_TDOT_MICRO	STATION_	STANDARDS)pltcfg/	
MIS_FLICFU_FAIH	< \$(_IDOI_MICKU	STATION_	51 ANDARDS)pitcig/	

= \$(_TDOT_MICROSTATION_STANDARDS)pltcfg/ MS_PENTABLE MS_PLOTDLG_DEF_PENTABLE = \$(_TDOT_MICROSTATION_STANDARDS)pltcfg/TdotPlot.tbl MS_PENTABLE_DATE_FORMAT=%c < \$(_TDOT_MICROSTATION_STANDARDS)data/ MS DATA < \$(_TDOT_MICROSTATION_STANDARDS)data/ MS_LEVEL_LIB_DIR < \$(TDOT MICROSTATION STANDARDS)data/TDOTV8main.csv MS REMAP CSVFILE MS V7TOV8 CSVNAME = \$(_TDOT_MICROSTATION_STANDARDS)dgnlib/TDOTV8mainOnTheFly.csv MS V7 LEVEL NAME PREFIX = V7Level MS_VBASEARCHDIRECTORIES < \$(_TDOT_MICROSTATION_STANDARDS)vba/ MS_TDOTDGNLIB_PATH = \$(_TDOT_MICROSTATION_STANDARDS)dgnlib/ %lock MS_DESIGNSEED _ Geopak _ # TDOT Design Division Geopak standards folder path _TDOT_GEOPAK_STANDARDS = C:/Users/Public/Geopak Standards/ # Geopak resource file folder GPK_RSCDIR = C:/Users/Public/Geopak Resource Files/ # Force all Geopak configuration variables to supersede RSC file settings GPK_FORCE_ALLCFGVARS = 1 # Setting to create level if not found $GPK_LEVEL_CREATE_NEW = 0$ # Setting to allow Geopak attributes to show with Accusnap GPK ACCUSNAP IDENTIFY ELEMENTS AUTOMATICALLY = 1 # Setting to control station ticks on alignments displayed from D&C Manager GPK_DDB_STA_SMALL_TICKS = 0# ticks left label left GPK_DDB_STA_LARGE_TICKS # ticks both label left = 2# Suppress warning for shapeless in proposed typical sections GPK_TYPICAL_SUPPRESS_SHAPELESS_MODE_VALIDATION_PROMPT = 1 # Suppress warning for criteria file overwrite in proposed typical sections GPK_TYPICAL_SUPPRESS_CRITERIA_FILE_OVERWRITE_PROMPT = 1 # Standard folders & files # Geopak Databases: D&C Manager DDB, Drainage Library, COGO SMD GPK_ACBOOK_DDBFILE < \$(_TDOT_GEOPAK_STANDARDS)tdot.ddb GPK DRGPREF DEFDRLIB < \$(_TDOT_GEOPAK_STANDARDS)TDOTEnglish.dlb GPK_SURVMNGR_SMDFILE <\$(_TDOT_GEOPAK_STANDARDS)TNDOT.smd # COGO Visualization preferences GPK VISUALPREF SMD < \$(_TDOT_GEOPAK_STANDARDS)TNDOT.smd GPK_VISUALPREF_PLOTSCALE = 50.00000 # Superelevation design control files GPK SUPER PREFDIR < \$(_TDOT_GEOPAK_STANDARDS) GPK SUPER EDIR < \$(TDOT GEOPAK STANDARDS) GPK SUPER LENGTHDIR < \$(_TDOT_GEOPAK_STANDARDS) # Design control file for vertical curves GPK PROFILE CURVATURE TABLE = \$(_TDOT_GEOPAK_STANDARDS)tdot01.kvl # 3PC programs location GPK_DC_3PCDIR < \$(_TDOT_GEOPAK_STANDARDS)3PC/ # XS criteria programs location, typical section controls GPK_MY_CRITERIADIR < \$(_TDOT_GEOPAK_STANDARDS)criteria/

GPK_TYPICAL < \$(_TDOT_GEOPAK_STANDARDS)criteria/ GPK_TYPICAL_EDITOR < C:\WINDOWS\system32\write.exe # Plan & Profile sheet set up library and folder location GPK SHEETCLP SHEET LIBRARY NAME = \$(TDOT GEOPAK STANDARDS)tdot.psl GPK_SHEETCLP_SHEET_LIBRARY_DIR = \$(_TDOT_GEOPAK_STANDARDS) # Geopak Corridor Modeling Databases for Roadway Designer: Template Library and Styles DDB GPK RD Template Library < \$(TDOT GEOPAK STANDARDS)TDOTDefault.itl GPK_ACBOOK_DDBFILE_STYLES < \$(_TDOT_GEOPAK_STANDARDS)TDOT_Styles.ddb # default drainage cell library used by Geopak GPK_DRGPREF_DEFCELLLIB < \$(_TDOT_MICROSTATION_STANDARDS)cell/STDS.CEL # Label Style Files GPK_LABELER_PLANSTYLEFILE = \$(_TDOT_GEOPAK_STANDARDS)tdotdef_plan.lsf GPK_LABELER_XSSTYLEFILE = \$(_TDOT_GEOPAK_STANDARDS)tdotdef_xs.lsf GPK_LABELER_PROFSTYLEFILE = \$(_TDOT_GEOPAK_STANDARDS)tdotdef_prof.lsf GPK LABELER DRGSTYLEFILE = \$(TDOT GEOPAK STANDARDS)tdotdef drainage.lsf

Interplot - Iplot.cfg, Iplotsrv.cfg & ip.cfg

These are software product level configuration files that have been customized for use by T.D.O.T. Roadway Design Division personnel. They are rather large files, so listed below each filename are configurations of particular interest that may need to be reset for your system.

Default Folder Location: C:\Program Files (x86)\Common Files\InterPlot\IPLOT\config

Iplot.cfg

IPLOT_OUTPUT_DIR = c:\temp IPLOT_DLOG_OUTPUT_DIR = c:\temp IPLOT_DLOG_SAVE_DIR = c:\temp

IPLOT_COLOR_TABLE_PATH = "C:\Users\Public\MicroStation Standards\data" IPLOT_PEN_TABLE_PATH = "C:\Users\Public\InterPlot Standards\Design Scripts"

Iplotsrv.cfg

IPLOTSRV_PATTERN_PATH = "C:\Users\Public\InterPlot Standards\resrc"

IPLOTSRV_LINESTYLE_PATH = "C:\Users\Public\InterPlot Standards\resrc"

Default Folder Location: C:\Program Files (x86)\ProjectWise InterPlot Organizer\config

ip.cfg

IP_SETTINGS_PATH = "C:\Users\Public\InterPlot Standards\Settings"

IP_DEFAULT_SETTINGS = iplot.set

Hard Coded File Paths

Although hard coded file paths e avoided wherever possible some standard files will not function correctly without being set this way. The following section lists the various standard files grouped by software type that have hard coded file paths.

MicroStation & InterPlot

Default Folder Location: C:\Users\Public\MicroStation Standards\vba

IplotSet.mvba

(sett default Iplot settings file)

This only a concern if you use InterPlot software.

Access the **Set Iplot Default Settings** tool through the TDOT drop down menu option **Iplot – Default Settings** or through Geopak's D&C Manager at **Drafting Standards > Tools> Set Iplot**.



Open the Visual Basic Editor at Utilities > Macro> Visual Basic Editor

To edit:

Navigate to module & subroutine or use the Replace function to find locations Make changes as needed Click Save icon in Visual Basic Editor

from form code **SelectFiles** subroutine **IplotSettings_Click**

settingsFile = "C:\Users\Public\InterPlot Standards\Settings\" + fileName

settingsFile = "C:\Users\Public\InterPlot Standards\Settings\" + fileName

testString = Dir("C:\Users\Public\InterPlot Standards\Settings\iplot.set")

Kill "C:\Users\Public\InterPlot Standards\Settings\iplot.set"

FileCopy settingsFile, "C:\Users\Public\InterPlot Standards\Settings\iplot.set"

from module **Start** subroutine **Main**

 $If FileLen("C:\Program Files (x86)\Common Files\InterPlot\IPLOT\bin\iplot.exe") > 0 Then If FileLen("C:\Program Files (x86)\Common Files\InterPlot\IPLOT\bin\IP$

 $fpath = "C:\Users\Public\InterPlot\Standards\Settings"$

Geopak

Default Folder Location: C:\Users\Public\Geopak Standards

DrainageProject.gdf

(default drainage project)

TDOTdrainageprefs.dpf

(default drainage project preferences)

Preferences: criteria directory, DDB

📕 Preferences - Project Cor	nponents		
<u>F</u> ile			
Options	Drainage Library File (DLB):	C:\Users\Public\Geopak Standards'	Q
Units Project Components	GPK Job Number:	Q User Preferen	ces
Rainfall Parameters	Drainage Cell Library:	C:\Users\Public\MicroStation Stand;	٩
Land Use Options	Criteria Directory:	C:\Users\Public\Geopak Standards'	٩
Intensity Option	DDB:	C:\Users\Public\Geopak Standards'	ব
Junction Losses	Water and Sewer Project:		ব
Node Options	Superelevation Shapes File:		ব
Link Options Profile Options	Site Project:		٩
Plan Symbology	Original Ground		
Updates Save Options	TIN File 🔻		<u> </u>
	Design Surface		
OK Cancel	TIN File 🔻		এ

Note::

The Drainage Library and Drainage Cell Library are now set by configuration variables.

To edit both files:

Start Geopak Drainage Go to Drainage>Project>Open Navigate to Geopak Standards folder and open **DrainageProject.gdf** Go to Drainage>Project>Preferences Under Project Components make path changes as needed Go to File > Save As Navigate to Geopak Standards folder, select file name **TDOTdrainageprefs.dpf** and click Save Click OK to close Preferences dialog Go to Drainage>Project>Save

Office (Excel)

Open the template file and then the Visual Basic Editor at View > Macros> View Macros> Edit

Note: Due to the many instances of the same folder path in some templates you should use the Replace function under **Edit>Replace** in the Visual Basic Editor as shown below.

Replace		—
Find What: C:\Users	\Public\Office Standards\T 💌	Find Next
Replace With: G:\stand	Cancel	
Search C Current Procedure	Direction: All	Replace
C Current Module	Find Whole Word Only	Deplace All
Current Project	Match Case	
C Selected Text	Use Pattern Matching	Help

To edit:

Navigate to module & subroutine or use the Replace function to find locations Make changes as needed Click Save icon in Visual Basic Editor

Default Folder Location: C:\Users\Public\Office Standards\TDOT 2nd Sheets

Convert Excel To V8.xltm

(Estimated Roadway Quantities.xltm file path, menu control)

from module ConvertEstimatetoV8 subroutine ConvertEstToV8

Workbooks.Add Template:= _ "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Estimated Roadway Quantities.xltm"

MsgBox "File " + Chr(34) + _ "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Estimated Roadway Quantities.xltm" + _

from module **ConvertMenu** subroutine **CreateConvertMenu**

.OnAction = "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Convert Excel To V8.xltm!ProcessSelection"

Estimated Roadway Quantities.xltm, (Items.dat file path, auto build calls in Roadway only) **Bridge Quantities.xltm, Maintenance Quantities.xltm**

from form code **SearchForText** subroutine **UserForm_Initialize**

Open "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat" For Input Shared As #1

from module **AutoBuildCalls** subroutine **BuildGRBlock**

Workbooks.Open "C:\Users\Public\Office Standards\TDOT English Tab Quantities\Guardrail Tab Builder.xltm", , True

subroutine runcheckitemsGR

Workbooks.Open "C:\Users\Public\Office Standards\TDOT English Tab Quantities\Guardrail Tab Builder.xltm", , True

subroutine BuildStormDrainagePipes

Workbooks.Open "C:\Users\Public\Office Standards\TDOT English Tab Quantities\Storm Drainage Pipe Tab Builder.xltm", , True

subroutine runcheckitemsSS

Workbooks. Open "C: Users Public Office Standards TDOT English Tab Quantities Storm Drainage Pipe Tab Builder.xltm", , True

subroutine BuildCatchBasinsBlock

Workbooks.Open "C:\Users\Public\Office Standards\TDOT English Tab Quantities\Storm Drainage Structure Tab Builder.xltm", , True

subroutine runcheckitemsCB

Workbooks.Open "C:\Users\Public\Office Standards\TDOT English Tab Quantities\Storm Drainage Structure Tab Builder.xltm", , True

from module **datfilchecks** subroutine **CheckforDat**

Open "C:\Users\Public\Office Standards\tdot 2nd Sheets\Items.dat" For Input Shared As #1

datdate = FileDateTime("C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat")

subroutine checkforTxt

Open "C:\Users\Public\Office Standards\tdot 2nd Sheets\items.dat.txt" For Input Shared As #1

txtdate = FileDateTime("C:\Users\Public\Office Standards\tdot 2nd Sheets\items.dat.txt")

subroutine dattxt

 $\label{eq:linear} FileCopy "C:\Users\Public\Office Standards\tdot 2nd Sheets\terms.dat.txt", "C:\Users\Public\Standards\tdot 2nd Sheets\terms.dat.txt", "C:\Users\Public\Standards\tdot 2nd Sheets\terms.dat.txt", "C:\Users\terms.dat.txt", "C:\Users\terms.dat.t$

Kill "C:\Users\Public\Office Standards\tdot 2nd Sheets\items.dat.txt"

Kill "C:\Users\Public\Office Standards\tdot 2nd Sheets\items.dat.txt"

subroutine DateCheck

datdate = FileDateTime("C:\Program Files\Microsoft Office\Templates\tdot 2nd Sheets\Items.dat")

subroutine **netDownload**

 $msg2 = "C:\Users\Public\Office Standards\tdot 2nd Sheets"$

subroutine TxtCopy

FileCopy "C:\Users\Public\Office Standards\tdot 2nd Sheets\items.dat.txt", "C:\Users\Public\Office Standards\tdot 2nd Sheets\Items.dat" Kill "C:\Users\Public\Office Standards\tdot 2nd Sheets\items.dat.txt"

from module FillIn_Items subroutine FillinItemNos

Open "C:\Users\Public\Office Standards\tdot 2nd Sheets\Items.dat" For Input Shared As #1

Default Folder Location: C:\Users\Public\Office Standards\TDOT English Tab Quantities

Guardrail Tab Builder.xltm,

(Items.dat file path)

from module **ItemNumbersCheck** subroutine **checkitemsGR**

 $filespec = "C: \label{eq:standards} TDOT 2nd Sheets \label{eq:standards} terms.dat"$

m2 = "at C:\Users\Public\Office Standards\TDOT 2nd Sheets"

datdate = FileDateTime("C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat")

ifile = "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat" Open "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat" For Input Shared As #1

(Items.dat file path)

(Items.dat file path)

Storm Drainage Pipe Tab Builder.xltm,

from module CheckItemsDat subroutine checkItemsSS

filespec = "C:\Users\Public\Office Standards\TDOT 2nd Sheets\items.dat" m2 = "at C:\Users\Public\Office Standards\TDOT 2nd Sheets" datdate = FileDateTime("C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat") Open "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat" For Input Shared As #1

Storm Drainage Structure Tab Builder.xltm,

from module ItemNumbersCheck subroutine checkitemsCB

filespec = "C:\Users\Public\Office Standards\TDOT 2nd Sheets\items.dat"

 $m2 = "at C:\Users\Public\Office Standards\TDOT 2nd Sheets"$

datdate = FileDateTime("C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat")

Open "C:\Users\Public\Office Standards\TDOT 2nd Sheets\Items.dat" For Input Shared As #1

Default Folder Location: C:\Users\Public\Office Standards\Survey

Survey_Contact_Acq_Create.xltm (ROWAcqTable.xltm, help & letter template file paths)

from Microsoft Excel Objects code **Sheet1 (Project Info)** subroutine **cmdAcqTable_Click**

 $strPath = "C: \label{eq:strPath} ublic \label{eq:strPath} Survey \label{eq:strPath} where \label{eq:strPath} strPath = "C: \label{eq:strPath} ublic \label{eq:strPath} ub$

subroutine cmdHelp_Click

FName = "C:\Users\Public\Office Standards\Survey\Survey Contact Letter and R.O.W. Acquisition Table Creator.pdf"

from form code Letter subroutine cmdCreateLetter_Click

strLetterPath = "C:\Users\Public\Office Standards\Survey\"