

Ancillary Features Workshop



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REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
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				58-333	SOMEWHERE	2016-17	18

*MILL & RESURFACE
CROSS SECTIONS*

Introduction

- Draw Ancillary Features is the GEOPAK tool used to draw cells, symbols, and/or text onto cross section or profile cells using MicroStation elements as the horizontal control and a variety of sources for the vertical.
- Vertical sources include tin files or existing ground lines with a depth of cover or stored profiles.

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	BY	REVISION	ROAD NO.	COUNTY	PROJECT NO.	
				50 221	SOMERSET	207661-01-01	18

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Introduction

- Draw Ancillary Features can mark and label any design feature using level symbology to identify the feature in a MicroStation design file.
- Examples include:
 - Utilities
 - R/W
 - Baselines
 - Wetland Limits
 - Fence

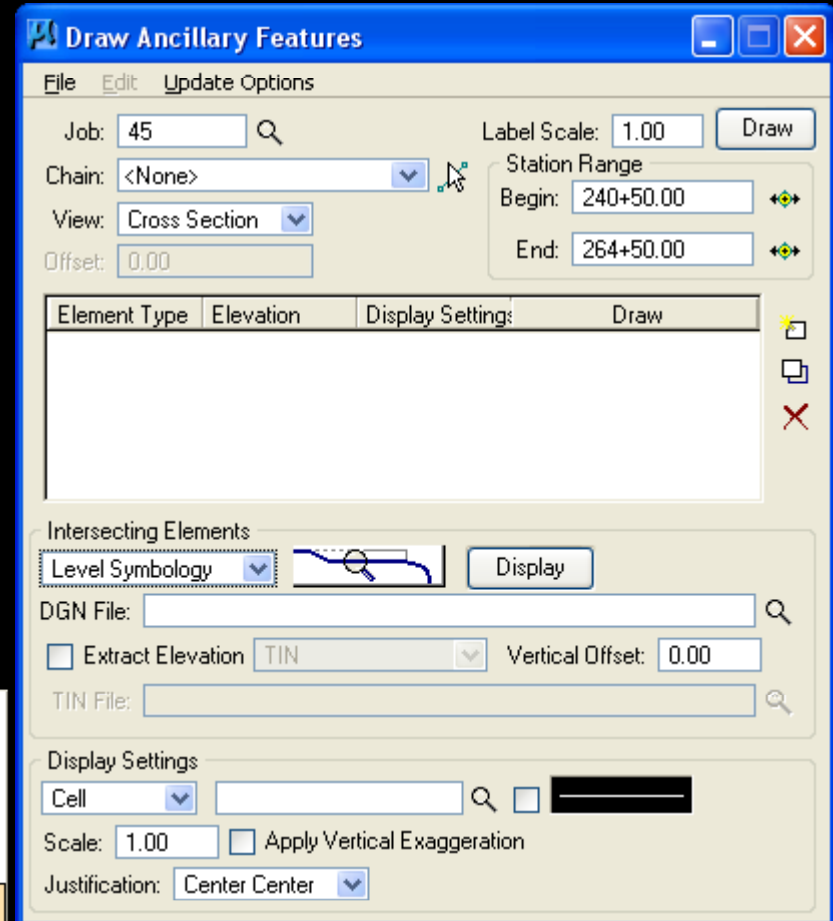
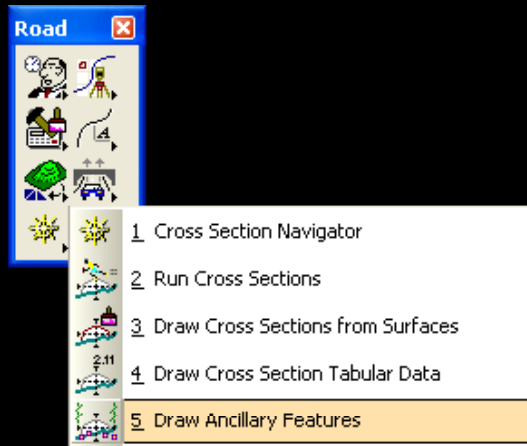
REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	BY	REASON	PROJECT NO.	COUNTY	SECTION, PART & DATE	
				50 221	SOMERSET	207661-01-01	18

Accessing Draw Ancillary Features

- Applications > Road > Cross Sections > Draw Ancillary Features

--or--

- Road Toolbox



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DATE	DESCRIPTION	BY	CHECKED BY	PROJECT NO.	CONTRACT	SECTION	
				58-221	SOMEWHERE	207661-01-01	18

Workflow

- Define the Project information

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DATE	DESCRIPTION	BY	REVISION	ROW ID	CONT	PROJECT, PART			
				58_001	SOMEWHERE	SOMEWHERE-01-01		18	

Workflow

- Define the Intersecting Elements
 - Horizontal
 - Chain
 - Survey Chain
 - Level Symbology
 - By Feature

Draw Ancillary Features

File Edit Update Options

Job: 45 Label Scale: 1.00 Draw

Chain: <None> Station Range

View: Cross Section Begin: 240+50.00 End: 264+50.00

Offset: 0.00

Element Type	Elevation	Display Settings	Draw
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Intersecting Elements

Level Symbology [Image] Display

DGN File: [Search]

Extract Elevation TIN Vertical Offset: 0.00

TIN File: [Search]

Display Settings

Cell [Search] [Image]

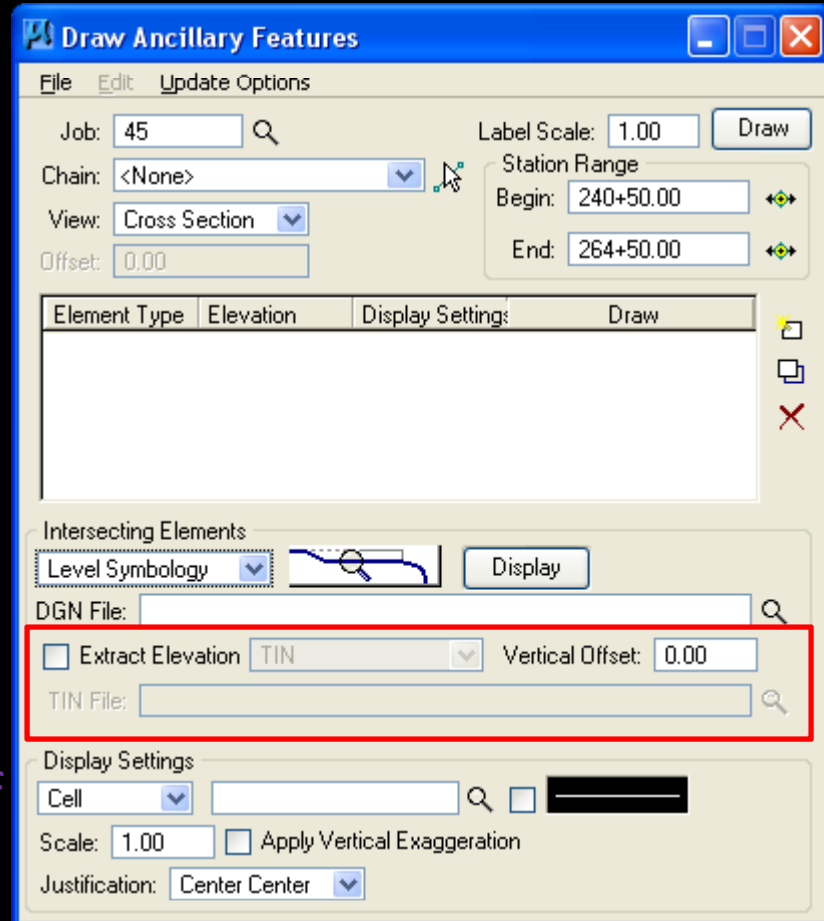
Scale: 1.00 Apply Vertical Exaggeration

Justification: Center Center

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DATE	DESCRIPTION	BY	REVISION	NO.	DATE	PROJECT NO.			
				58	2021	2021-01-01		18	

Workflow

- Define the Intersecting Elements
 - Vertical
 - Profile
 - Extract Elevation
 - TIN
 - Level Symbology
 - Feature
 - Vertical Offset (Depth of Cover)



REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			MILL & RESURFACE CROSS SECTIONS		SHEET NO.
DATE	DESCRIPTION	BY	REVISION	NO.	DATE	PROJECT NO.			
				58	2021	2021-01-01		11	

Workflow

- Define the Display Settings (What does it need to draw?)
 - Cell
 - Symbol
 - Text

Draw Ancillary Features

File Edit Update Options

Job: 45 Label Scale: 1.00 Draw

Chain: <None> Station Range

View: Cross Section Begin: 240+50.00 End: 264+50.00

Offset: 0.00

Element Type	Elevation	Display Settings	Draw
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Intersecting Elements

Level Symbology Display

DGN File:

Extract Elevation TIN Vertical Offset: 0.00

TIN File:

Display Settings

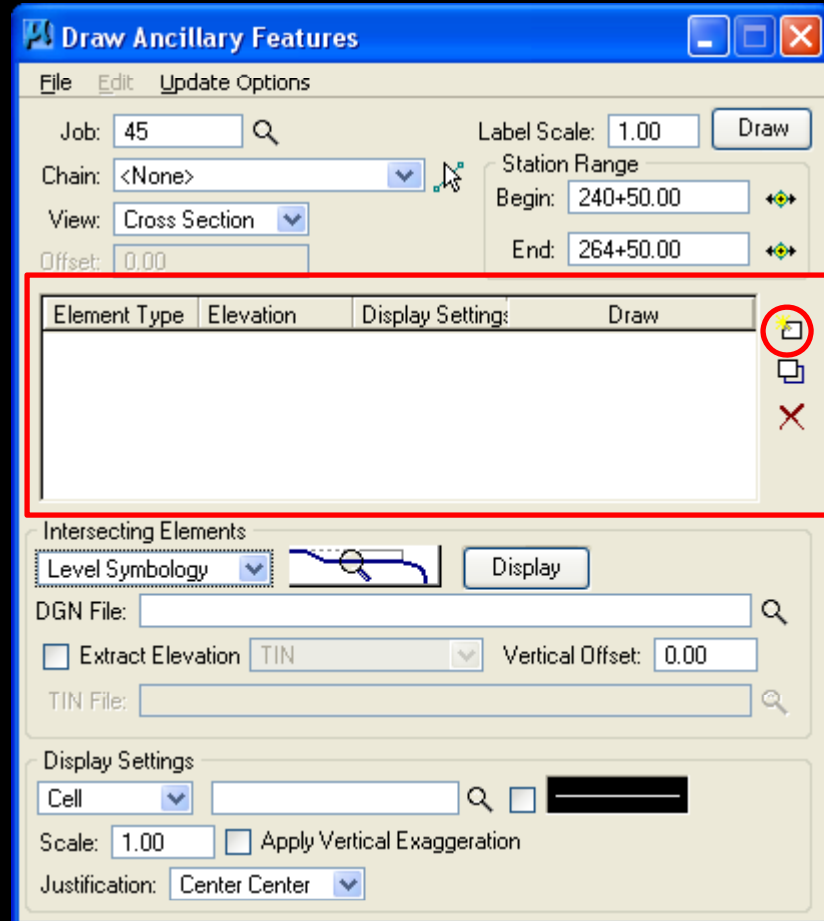
Cell Scale: 1.00 Apply Vertical Exaggeration

Justification: Center Center

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DATE	DESCRIPTION	BY	REVISION	NO. TO	DATE	PROJECT	NO.		
				58	2001	SOMEWHERE	2076641-01-01		18

Workflow

- Add the information to the List Box
 - Add
 - Modify
 - Delete
- 2 lines will be needed per Utility
 - Cell or Symbol
 - Text Label

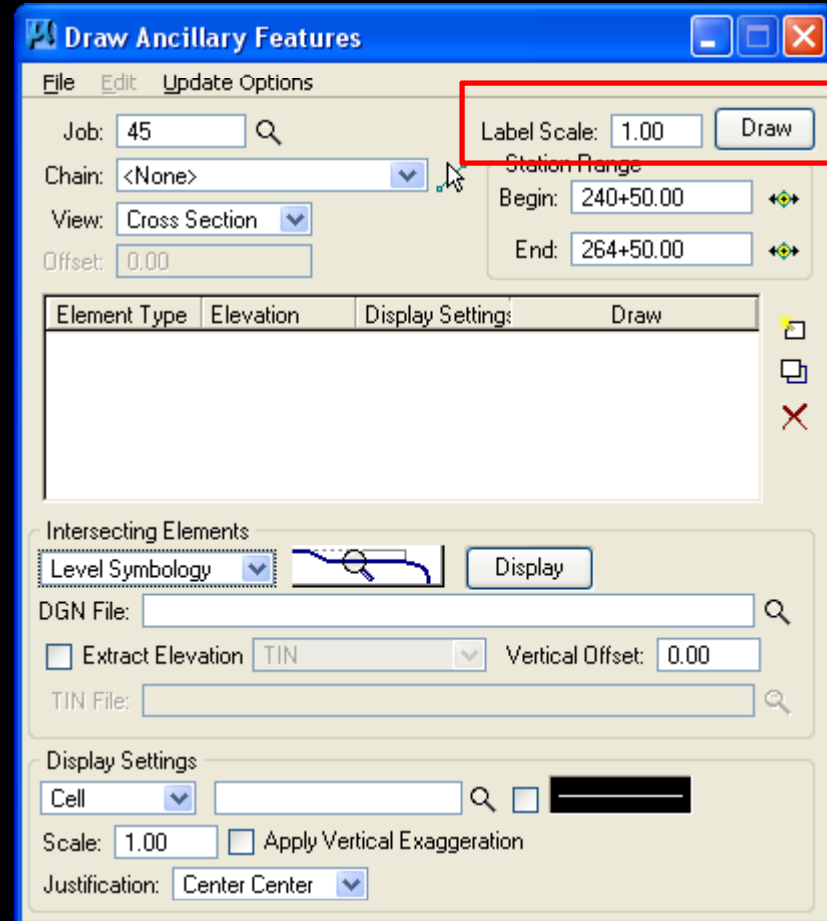


REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			MILL & RESURFACE CROSS SECTIONS		SHEET NO.
DATE	DESCRIPTION	BY	REVISION	NO. TO	DATE	PROJECT	SECTION	NO.	
				58	2001	SOMEWHERE	2076641-01-01	18	

Workflow

- Set the Label Scale
- Click Draw
 - Make sure that the correct file and model is open. **GEOPAK does not recognize models.**

Exercise 1



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DATE	DESCRIPTION	BY	REVISION	NO. TO	DATE	PROJECT NO.			
				58-333	5/20/2011	2076641-01-01			18

Questions???

REVISED				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	BY	REVISION	ROAD NO.	COUNTY	FISCAL YEAR	
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18

Borehole Navigator Workshop



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				58-333	SOMEWHERE	2016-17	18

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Introduction

- The Borehole Navigator is part of the GeoTechnical Tools. It is used to manage borehole information and plot the information into the design files.
 - Plan View
 - Profile View
 - Cross Section View

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	BY	REVIEWER	ROAD NO.	COUNTY	FISCAL YEAR	
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CROSS SECTIONS*

ASBTP A0124 11/2012 01/12

Types of Information

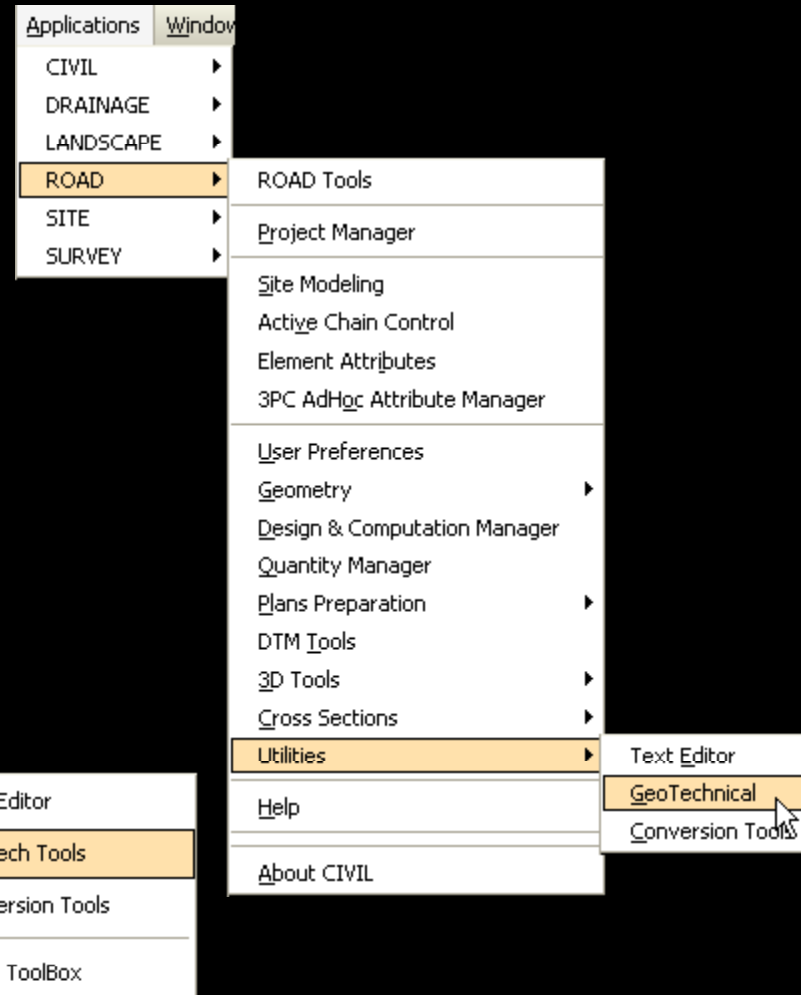
- Borehole Name
- Location
- Material Types
- Elevations
- Water Elevations
 - 0 hr.
 - 24 hr.
- SPT (Standard Penetration Test)

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DATE	DESCRIPTION	BY	REASON	ROAD NO.	COUNTY	FEDERAL PROJECT NO.	
				50 221	SOMERSET	207661-01-01	18

11/10/01 11/10/01 11/10/01 11/10/01

Accessing Borehole Navigator

- Applications > Road > Utilities > GeoTechnical



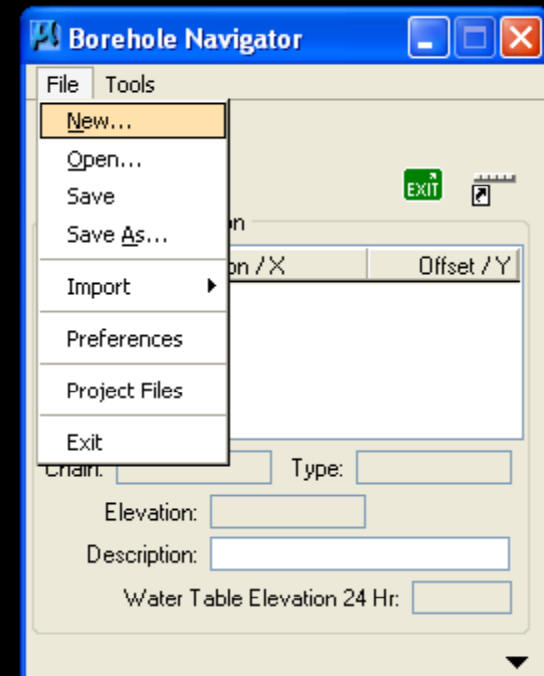
-or-

- Road Toolbox

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			MILL & RESURFACE CROSS SECTIONS		SHEET NO.
DATE	DESCRIPTION	BY	REVISION	NO.	DATE	PROJECT NO.			
				58	2001	207661-01-01			18

Workflow

- Information CANNOT be imported into the tool without first creating a project file (.gtd).

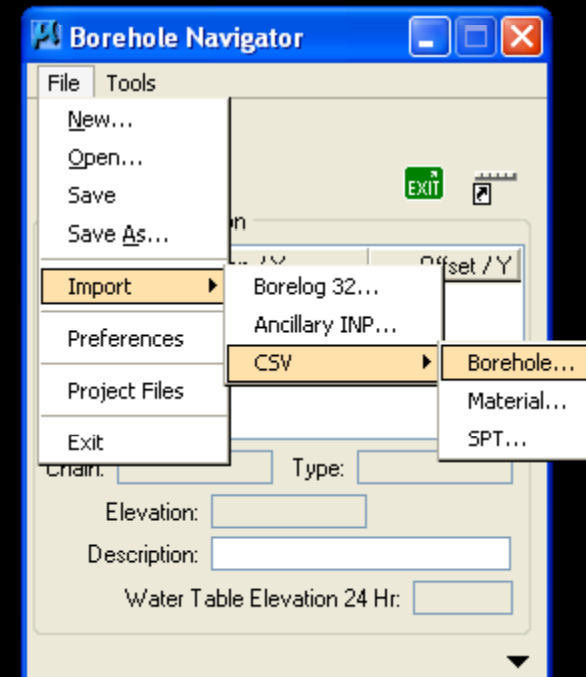


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DATE	DESCRIPTION	BY	REVISION	ROAD NO.	COUNTY	SECTION, POINT, & DISTANCE			
				50 333	SOMEWHERE	SOMEWHERE-01-01			18

Workflow

- Import data
 - Borelog 32
 - Ancillary Input files
 - CSV files
 - Borehole
 - Material
 - SPT

Note: The FDOT ECSO recommends using the CSV files.



REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			MILL & RESURFACE CROSS SECTIONS	SHEET NO. 18
DATE	DESCRIPTION	BY	REVISION	ROW NO	CONT	LOCATION, PART OF		
				58	SOMEWHERE	SOMEWHERE-01-01		

Workflow

- Once the data is imported into the file, the dialog populates with the information and the tool icons appear at the top of the dialog.

SR817.gtd - Borehole Na...

File Tools

Borehole Information

Borehole	Station / X	Offset / Y
Borehole-01	78+00.00	15.000
Borehole-02	80+00.00	3.000
Borehole-03	83+00.00	3.000
Borehole-04	85+00.00	4.000
Borehole-05	90+00.00	12.000

Chain: Type:

Elevation:

Description:

Water Table Elevation 24 Hr:

Material Information

Material Name	Depth Of Cover	Type
1	5.0000	DOC
2	7.0000	DOC
3	9.0000	DOC

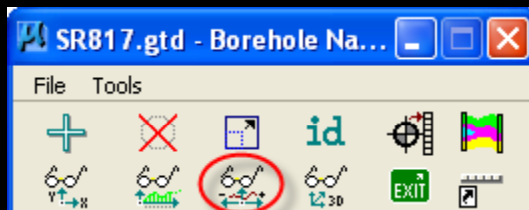
Description:

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Workflow

- Plotting into Cross Section View



Visualize Boreholes in Cross Section View

Chain: Chain to use:

Borehole	Station / X	Offset / Y	Elevation	Aux Chain
Borehole-01	78+00.00	15.000	5.958	N
Borehole-02	80+00.00	3.000	6.488	N
Borehole-03	83+00.00	3.000	5.966	N
Borehole-04	85+00.00	4.000	5.770	N
Borehole-05	90+00.00	12.000	5.801	N

Station Range
 Begin:
 End:

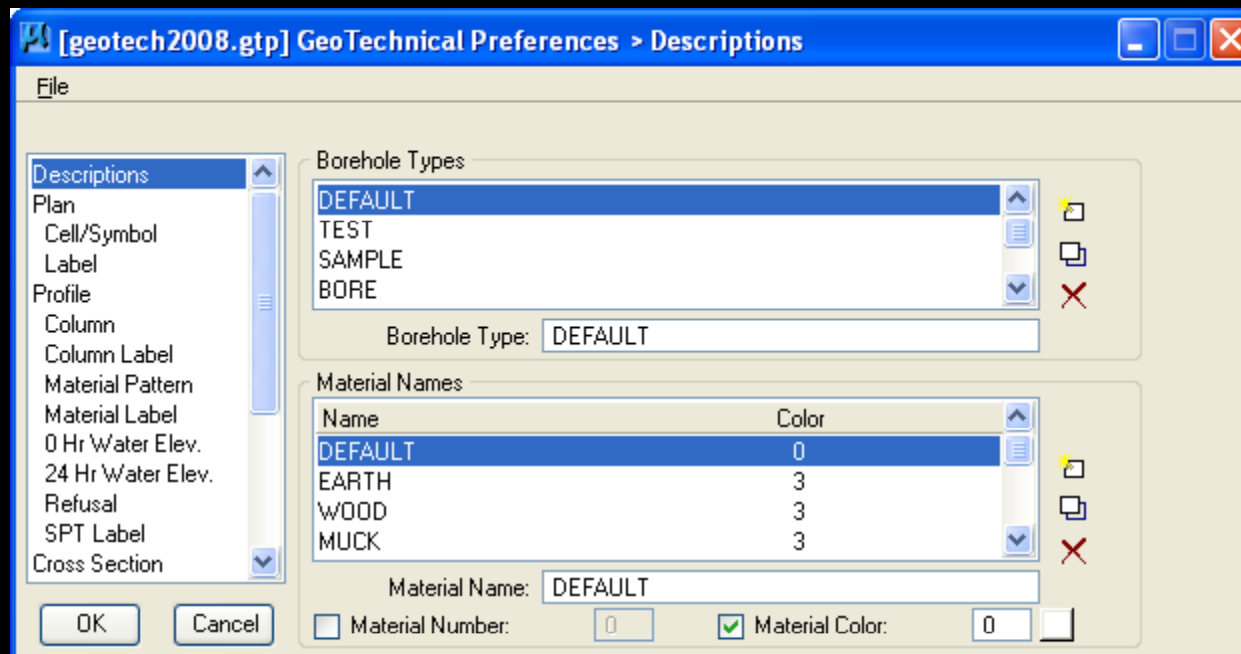
Projection Data
 Project onto Nearest XS
 Max. Projection Distance:
 Project at Borehole Ground Elev

Apply Text Wrapping:
 Number of char. per line: Line spacing:

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DATE	DESCRIPTION	BY	REVISION	NO. OF	DATE	PROJECT NO.		
				58	2001	SR817-01-01		

Preferences

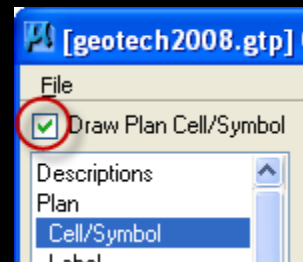
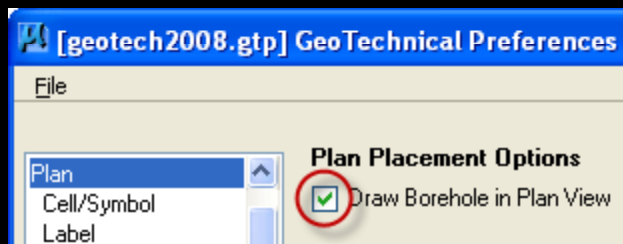
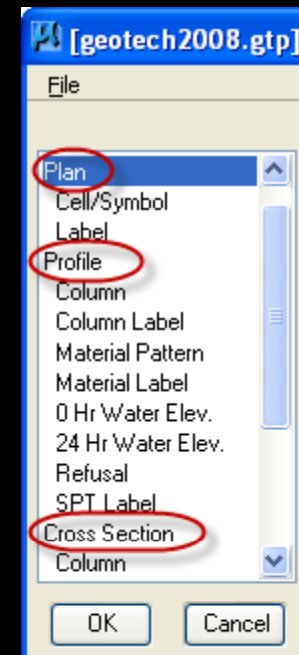
- Description
 - Defines the Borehole Types and the Material Names used by the various dialogs.



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DATE	DESCRIPTION	NO.	DESCRIPTION	NO. 20	COUNT	PROJECT, PART 10			
				58 223	SOMEWHERE	207661-01-01		18	

Preferences

- Plan, Profile, and Cross Section
 - Defines what and how the program draws the borehole information into the various views.
 - Note: Each section of the dialog has a toggle to enable the feature to be drawn.



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DATE	DESCRIPTION	BY	REVIEWER	NO.	DATE	PROJECT NO.			
				58	2008	SOMEWHERE	207661-01-01	18	

Hands-On

Live Demonstration

Exercises

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	BY	REASON	ROAD NO.	COUNTY	FISCAL YEAR	
				50 999	SOMERSET	2024-25	

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18

Questions???

Any and all of your comments and suggestions are greatly appreciated.

Thank-you for attending this training.

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E-mail: ecso.support@dot.state.fl.us

<http://www.dot.state.fl.us/ecso>

http://www.surveymonkey.com/s.aspx?sm=vpH3GF_rro8xuDfrcuBSVFW_3d_3d

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DATE	DESCRIPTION	BY	REVISION	PROJECT NO.	COUNTY	FISCAL YEAR	
				50 333	SOMEWHERE	2011-12-31	18