



OpenRoads Designer CONNECT Edition

– *Drainage Training*

Assumptions:

- Have basic MicroStation skills
- Have basic Civil Engineering knowledge
- For all users ... existing GEOPAK, InRoads or MX users, or New OpenRoads Designer users

QuickStart - Navigating the Interface

- Help Dialogs
- Connect Advisor-An Introduction
- Ribbons, Searching the Ribbons, and Quick Access
- Understanding 2d and 3d Models
- Multiple Views, Multiple Models
- Heads up Display and Properties Dialog
- Exploring the Explorer
- References

QuickStart for Geometry – Road

- Create Horizontal Tangent Elements
- Create Horizontal Alignment
- Existing Terrain Model and Define 2D and 3D Views
- Define Profile Model View
- Create, Edit and Review Vertical Geometry
- Create Dynamic Cross Sections off Horizontal Alignment

Using and Editing Terrain Models

- Thematic height terrain display
- Creating a terrain from graphical elements using filters
- Modify terrain features and apply terrain rules
- Report on and resolve crossing break lines and conflicting points
- Create a complex terrain model
- Control edge triangles by edge method, triangle edits and boundary features

QuickStart - Evaluating Subsurface Utilities

- Using Properties and Utility Properties dialogs
- Using Analytic Views (Labels and Color-coding)
- Using and Customizing FlexTables
- Printing and Exporting FlexTable data
- Creating Queries to Filter specific criteria

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Drainage Layout and Design

- Create a Project Design File and Attach Reference Files
- Set an Active Terrain
- Review Model Views and Display/Styles
- Create a Utility Model
- Place Node Command
- Automatic Catchment Delineation
- Compute for Flow and Spread
- Place an Outfall, Conduits and Manholes
- Move a Manhole
- Create Profile Run
- Compute the System
- Design the System
- Limit Available Pipe Sizes for Design
- Station and Offset Report for Structures

Hydraulic Analysis and Design

- Scenario Manager
- Compute Center
- Calculation Summary Tools
- Analysis Profile
- Child Scenarios
- Scenario Comparison
- Pipe Sizing

Managing Multiple Scenarios

- Creating a Child Headloss Alternative and Scenario
- Creating a New Alternative to Manage Surcharge
- Creating a Topology Alternative to Exclude the South Network

Creating Drainage Reports (Bentley will demo a VDOT flex table)

- Reviewing the default FlexTables
- Copying a FlexTable
- Changing the content of a FlexTable
- Formatting a FlexTable
- Producing a report from a FlexTable
- Creating a new FlexTable
- Setting the Table Type
- Set up and export reports to Excel

Drainage Plans, Profiles and Cross Sections (Bentley will demo the Create HEC-RAS Data Tool)

- Activate/Deactivate a Terrain
- Create a plan sheet and plan drawing
 - Delete and recreate (*demo*)
- Move a reference file and annotation cell
- Add and Remove Plan Annotation
- Create a profile model
- Add a profile from a surface

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- Create a profile sheet and profile drawing
- Remove and re-annotate the profile drawing
- Create cross section sheets
- Annotate cross section sheets and update annotation
- Add individual annotation to a cross section
- Place intelligent profile labels
- View the Sheet Index
- Create folders for Plans, Profiles and Cross Sections
- Move Sheets to the appropriate folder
- Use the Sheet Index to navigate to any Sheet Model in the active project