	IBUG FALL 2016 TUESDAY WORKSHOPS
Quick start- Roadway Modeling Using Open Roads.	During this hands-on course you will learn the underlying fundamentals of OpenRoads. Beginning with it's set up you will learn to work with files and practices attaching existing ground terrain and aerial imagery, define horizontal and vertical geometry, and model an urban roadway and inter-section using the OpenRoads Technology found in the current version of all Bentley civil applica-tions
Overlay, Milling & Widening	This hands-on course teaches how to create templates for overlay, milling, and widening projects and to use those templates to model the projects. You will also learn how to create vertical alignments to ensure full width milling, how to limit the depth of milling for more economical or better engineering solutions, and how to control the depth of overlay material.
Dual Installation of IDOT Standards CIVIL CELLS	Setting up and the new idot ss4 workspace for networked and projectwise environments
IDOT Features The Basis For Everything	Fundamental - This presentation focuses on the fundamental aspects of understanding feature definitions within OpenRoads. It will explain what feature definitions are, how to create them, and how to use them in OpenRoads. The presentation will provide best practices for linking to existing native styles as well as explaining the differences in using native styles versus element templates. The presentation will demonstrate how feature definitions impact the design model and show you how to utilize feature definitions in a design environment.
Project Explorer	The Project Explorer dialog is an essential part of working with the OpenRoads technology. It allows the user to create shortcuts to all kinds of project data such as other design files, office documents and PDF documents. By doing so you are adding value to your design. This session will demonstrate the functionality of the Project Explorer dialog as well as a workflow on how to create, manage, and use Link Sets
Horizontal Alignments IDOT Features	This hands-on course teaches the workflows and techniques required to layout the horizontal geometry for a complex interchange including lanes,transitions, tapers and ramps. In addition to using multiple horizontal geometry tools you will use Civil AccuDraw and learning about the geometry rules created throughout the process
Introduction to MicroStation & GEOPAK	Beginner- Get a start on MicroStation/GeoPak. This is a 3 day single track course
Pad and Parking Lot Modeling	Intermediate - this course teaches how to add vertical information to 2d pad and parking lot ele-ments and uses linear templates for slopes that tie into the existing terrain
Quick Start using Open Roads Concept Station	Intermediate - Getting a Complete Model of your design is more then just grading a pad along a road, or designing a site that has a road. Come see how the tools offered in OpenRoads allows you to take your model to new limits by providing tools that are geared to bring your models to life.
Defining the Template Backbone	This hands-on course teaches how to create templates and components for those complex project situations that require more than simply modifying existing templates. This training focuses on the hinge-to-hinge backbone portion of the template. You will learn how to create pavement slabs, pavement stripes, curbs, pavement widening matching existing pavement, and barriers.
	IBUG FALL 2016 TUESDAY LECTURES
Beyond Corridor Modeling in Open Roads	Intermediate - Getting a Complete Model of your design is more then just grading a pad along a road, or designing a site that has a road. Come see how the tools offered in OpenRoads allows you to take your model to new limits by providing tools that are geared to bring your models to life.
Concept Station	Learn about Bentley's new OpenRoads ConceptStation solution for rapidly creating, analyzing, and optimizing multiple conceptual corridor design alternatives to gain the maximum insights with the minimum of effort in a real-time high-end game-like visualization environment. These conceptual design alternatives can help identify high-cost items allowing alternatives to be evaluated early in a project. The results of the conceptual models integrate with OpenRoads for detailed and final design
Earthwork, Cross Sections & Labeling	Intermediate- Learn how to create cross section sheets along a previously designed corridor, annotate proposed cross sections, compute end-area earthwork volumes
IDOT CADD Standards (Open Discussion)	Discussion on the development new IDOT Cadd standards.
Using Sheet Set Manager	
LumenRT	Quickly create images, videos and real-time presentations of architecture, landscape, urban and infrastructure designs. With LumenRT, you will 'Tell a Better Story'. Win business through more engaging user experiences while still working in Your Design System. Nothing to learn! Quickly bring your scenes to life using tools you know. Enjoy high quality graphics with real-time natural lighting.

	IBUG FALL 2016 WEDNESDAY WORKSHOPS
Modeling an Interchange Ramp	Tools and techniques for creating geometry and model existing utilities and drainage,
Modeling a Divided Highway	Intermediate - Model a divided highway with superelevation in a corridor.
Using and Editing Templates	This hands-on training teaches how to create and make major modifications to templates. This training focuses on connecting the template hinge to the tie down point. In addition, this class teaches how to create templates and components for those complex project situations that require more than simply modifying existing templates.
Vertical Alignments	Intermediate- During this hands-on course you will learn to use vertical geometry tools to add 3D elevation to existing 2D geometry elements that define edges of pavement, islands, and medians in an inter-section. The resulting 3D geometry elements define the skeleton of the intersection model.
Converting information from GEOPAK to Open Roads	Intermediate- Get your GeoPak data into Open Roads
First Corridor	Intermediate - Model a divided highway with superelevation in a corridor using IDOT standards.
Advanced End Conditions -IDOT Features	This advanced workshop studies in-depth: End Conditions, Component Display Rules, Overlay Components, and Linear Templates for modeling of Roadway Corridors. Prerequisite: Intended for Intermediate to Advanced users with some experience with template development.
Advanced Templates -IDOT Features	This advanced workshop studies in-depth: End Conditions, Component Display Rules, Overlay Components, and Linear Templates for modeling of Roadway Corridors. Prerequisite: Intended for Intermediate to Advanced users with some experience with template development.
(Continued from Tuesday) Introduction to MicroStation & GEOPAK	Beginner- Get a start on MicroStation/GeoPak. This is a 3 day single track course and is a continuation from Tuesday.
Creating/Using Civil Cells in Open Roads	Intermediate - This course is for both new users and users upgrading from previous versions of PowerCivil, Power GEOPAK, MX, and Power InRoads software to use the OpenRoads Technolo-gy in SELECTseries 3 & 4. You will learn the basics of placing civil cells. This includes gaining an understanding of what civil cell references are and how to use them in a practical workflow. You will learn to use the civil cells delivered with the product, as well as how to use civil cells taken from external sources and incorporate them into your models. You will learn to edit and re-use civil cells that have been placed within a model.
Quick start- Roadway Modeling Using Open Roads.	During this hands-on course you will learn the underlying fundamentals of OpenRoads. Beginning with it's set up you will learn to work with files and practices attaching existing ground terrain and aerial imagery, define horizontal and vertical geometry, and model an urban roadway and inter-section using the OpenRoads Technology found in the current version of all Bentley civil applications. **This is workshop is a repeat from Tuesday.**
	IBUG FALL 2016 WEDNESDAY LECTURES
Best Practices Civil Geometry	During this hands-on course you will learn the underlying fundamentals of OpenRoads. Beginning with it's set up you will learn to work with files and practices attaching existing ground terrain and aerial imagery, define horizontal and vertical geometry, and model an urban roadway and inter-section using the OpenRoads Technology found in the current version of all Bentley civil applications.
Exploring Other Approaches in 3D Modeling	
Open Roads Product Update	Hear about the Latest Developments in Open Roads Technology.
The New Tollway Workspace and CADD Standards	An Update on The New Tollway Workspace and CADD Standards
Understanding design Intent and How it Impacts Open Roads.	Design intent builds associations and relationships between civil elements. These relationships include geometric information such as offset and elevation differences between elements, but go much further and even allow designers to "snap" two elements to dictate their intent that elements depend on one another. Information about the object is stored to capture the designer's intent.
Tips and Tricks for Optimizing Corridor Processing Speeds	Speed up Corridor Processing.

	IBUG FALL 2016 THURSDAY WORKSHOPS
Templates 202	This hands-on workshop will advance users from having little or no experience with templates to understanding how to create a complex corridor using various template components. this work-shop is intended for either advanced users, or users who have previously taken the open roads technology - horizontal and vertical geometry workshop.
Intersection Modeling	During this hands-on course you will learn to create an intersection model complete with curbs, gutters, sidewalks, medians, islands, and pavement layers. You will learn to use linear templates, surface templates, and terrain models to create a complete model.
Cross Section Labeling and Creating Sheets -IDOT Features	During this hands-on course you will learn how to create cross section sheets along a previously designed corridor, annotate proposed cross sections, compute end-area earthwork volumes, using IDOT CADD Standards.
Converting from GEOPAK to OpenRoads	This crash course into OpenRoads teaches how to convert your workflows and processes from the legacy GEOPAK menus and dialogs into OpenRoads tasks and tools. We'll help you convert dialog-by-dialog so you can stay productive and efficient while designing with OpenRoads.
Total 3D Modeling	We'll teach you how to easily & automatically create 3D Models (using all versions) of all major components (roads, bridges, drainage, utilities, structures, etc) so that design intelligence is maintained and all assets can be easily evaluated, revised and updated.
(Continued from Wednesday) Introduction to MicroStation & GEOPAK	Beginner- Get a start on MicroStation/GeoPak. This is a 3 day single track course and is a continuation from Wednesday.
SUE & SUDA (Subsurface Utilities)	This hands-on training guides you thru the subsurface utility engineering tools used to create 3d models of storm, sanitary, and other underground utility networks. topics covered include model-ing of storm water networks and creating models of utilities from survey data. See the drainage design capabilities of subsurface utilities design and analysis in action. see hydraulics calcula-tions from basic to advanced, in one package. hydraulic capabilities are integrated with open-roads, including high definition 3d model.
Civil Visualization in MicroStation SELECTseries 4	Learn how MicroStation's Visualization tools mirror the real world with realistic visualization. Learn how to set up views and environments, how to simply integrate realistic 3D content, stamp existing pavement markings into a drawing, and bring your designs to life with Luxology rendering. Enable your Civil Design team with the tools needed to visualize and simulate civil projects within the design environment.
	IBUG FALL 2016 THURSDAY LECTURES
Sharing OpenRoads for Review	An in-depth discussion of how to share OpenRoads models using the ICM (integrated civil model). The discussion will explore specific settings that affect how the ICM is created and how data is mapped between OpenRoads and other vendors systems such as the Trimble Business Center.
Putting the Pieces Together - Creating Composite Models in OpenRoad	You have completed a complex model that contains multiple corridors, linear templates, surface templates, and 3D geometry. Your model includes all of the proper pavement layers and sub surfaces but what do you do next? Join us for a discussion of how to use this model and how to create a terrain model that includes all of the parts of the model.
Creating/Using Civil Cells in Open Roads	How to create civil cells. It will offer examples of civil cell creation while focusing on the tools and methods to impart rules and relationships to the civil cell elements
OpenBridge Modeler: What is it & how can I use it today?	Develop intelligent, 3D, parametric bridge models within the context of an overall highway project with Bentley's OpenBridge Modeler. Easily manage changes with built-in, user-defined relationships among bridge components and reference DGN models throughout the lifecycle of the bridge. This session will cover bridge modeling with OpenBridge Modeler. Learn how roadway engineering data is integrated from OpenRoads as well as transferred directly into LEAP Bridge and RM Bridge for design and analysis. Attendees will learn how to leverage OpenRoads geometry data (terrain, alignments, profile, and superelevation) in bridge projects, layout a multi-span pre-stressed girder bridge using standard AASHTO beams, and define the bridge substructure.
LEAP Bridge Steel: Technical Overview	This session will provide a review of the updates and enhancements in the latest delivery of the CONNECT Editions of LEAP Bridge.
IDOT CADD Standards (Open Discussion)	Discussion on the development new IDOT Cadd standards.