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# Bentley's *OpenRoads Designer CONNECT Edition* Advances Roadway Projects from Conception through Construction

OpenRoads' Comprehensive Modeling Environment Leverages BIM Advancements to Empower Project Delivery

LONDON – The *Year in Infrastructure* 2016 Conference – 1 November 2016 – Bentley Systems, Incorporated, a leading global provider of comprehensive software solutions for *advancing infrastructure*, today announced that *OpenRoads Designer CONNECT Edition* will be available for Early Access on December 1, 2016. *OpenRoads CONNECT Edition* is the successor to Bentley's industry leading civil engineering brands InRoads, GEOPAK, MX, and PowerCivil.

OpenRoads Designer is a comprehensive, multi-discipline 3D modeling application to advance the delivery of roadway projects from conceptual design through construction. OpenRoads Designer blends traditional engineering workflows for plan, profile, and cross-sections with 3D parametric modeling to enable the model-centric creation of all design deliverables.

OpenRoads Designer supports all aspects of a detailed roadway design including survey, geotechnical, drainage, subsurface utilities, terrain, road, roadway furniture, and more. The incorporation of reality meshes, imagery, point cloud, and other geocoordinated data sources can provide the continuous context of real-world conditions throughout the design and construction lifecycle.

*OpenRoads Designer* completes the convergence of InRoads, GEOPAK, MX, and PowerCivil, but adds many powerful new innovations, including:

- *Progressive Conceptual Design*. Users can directly progress conceptual designs created with *OpenRoads ConceptStation*, preserving all work and data. (*OpenRoads ConceptStation* enables rapid conceptual and preliminary design, leveraging existing context captured through reality meshes, point clouds, GIS, and other sources, and creating compelling presentations with engineering precision.)
- *Contextual Design*. All detailed design in *OpenRoads Designer* is driven by functional components, which inherently respond contextually to express appropriate design, annotation, and plan set display behaviors. Design models are expressed in multiple live views including plan, profile, cross section, and 3D; changes in one view are live and dynamically update all views.
- Multi-discipline Support. OpenRoads Designer integrates support for each
  discipline with specific user profiles dedicated to each discipline. Users can switch
  discipline perspectives, for instance from Road Design profile to Subsurface Utility
  profile.
- Reality Modeling Tools. OpenRoads Designer includes a fully-functioned toolset
  to incorporate and edit all reality modeling data types, including the capability to
  extract ground-level features from reality meshes and LiDAR, as well as to
  reference point clouds and imagery.
- *Geotechnical Tools*. Users can connect directly to gINT geotechnical databases to incorporate subsurface terrain details into their models for improving grading and piling. Subsurface terrains can be generated or modeled based on the bore hole materials and projected in road and drainage profiles, sections, and plans.
- Subsurface Utilities. Users can select from a large catalog of functional components for utility and drainage to model underground drainage and utility networks. Drainage models, moreover, can be optimized for water flow using integrated water analysis tools, with results available in data tables or visually in a profile view.

- *Rich Deliverables*. An expanded set of deliverables range from traditional plan sets and animations to digital construction models—for automated machine control and field positioning systems including for excavation, grading, piling, and paving.
- Live Plan Generation. Plan generation need no longer be a separate process limited to a point in time, as settings and annotations are dynamically updated and live in the model. Views are saved with specific display rules and sheet index embedded, making it easy to navigate between model and drawings. Up-to-date drawings can be generated automatically at any time, creating a natural and fluid design environment for both modeling and detailing.
- *Enlivened Visualization*. *OpenRoads Designer* provides direct integration to Bentley LumenRT for producing cinematic visualization, adding vegetation, reflecting nature and climate, and for traffic simulation with VISSIM.

Designs created in *OpenRoads Designer* benefit from BIM Review through *OpenRoads Navigator*, in the office, in the field, and at the site. *OpenRoads Navigator* enables not only visualization and review of 3D designs, but also status visibility—allowing dispersed teams to progress approvals and the resolution of issues.

Bhupinder Singh, chief product officer, Bentley Systems, said, "OpenRoads CONNECT Edition is the culmination of three decades of Bentley leadership and experience gained from thousands of roadway projects around the world. We have conscientiously preserved concepts and continuity from GEOPAK, InRoads, and MX—but the BIM advancements in OpenRoads Designer CONNECT Edition are so compelling that we and our users are excited to now take full advantage of this next generation in roadway design software."

### About OpenRoads CONNECT Edition

OpenRoads CONNECT Edition, by integrating OpenRoads ConceptStation, OpenRoads Designer, and OpenRoads Navigator, ensures a comprehensive modeling environment for the delivery of roadway projects, streamlining and automating workflows across all disciplines to progress designs from conception to detailed design and through construction. OpenRoads'

immersive 3D modeling environment also leverages 3D reality meshes for continuously surveyed context of site conditions throughout design and construction.

Project delivery teams, owner-operators, and construction firms benefit from *OpenRoads'* connected data environment—enabled through *ProjectWise*— to access, store, share, and manage all project data and models, from concept through construction, for information mobility across disciplines and in the field. *OpenRoads* takes advantage of a connected data environment's Component Center to enable rapid and consistent modeling for every project, owner, or contractor.

#### **View and Download Related Images:**

#### Image 1

**Image 1 Caption:** OpenRoads Designer introduces a new comprehensive modeling environment to provide construction-driven engineering.

## **About Bentley Systems**

Bentley Systems is a global leader in providing architects, engineers, geospatial professionals, constructors, and owner-operators with comprehensive software solutions for advancing the design, construction, and operations of infrastructure. Bentley users leverage information mobility across disciplines and throughout the infrastructure lifecycle to deliver better-performing projects and assets. Bentley solutions encompass *MicroStation* applications for *information modeling*, *ProjectWise* collaboration services to deliver *integrated projects*, and *AssetWise* operations services to achieve *intelligent infrastructure* – complemented by worldwide professional services and comprehensive managed services.

Founded in 1984, Bentley has more than 3,000 colleagues in over 50 countries, more than \$600 million in annual revenues, and since 2009 has invested more than \$1 billion in research, development, and acquisitions.

Additional information about Bentley is available at <a href="www.bentley.com">www.bentley.com</a>. For Bentley news as it happens, subscribe to an <a href="RSS feed">RSS feed</a> of Bentley press releases and news alerts. Visit <a href="The Year in Infrastructure">The Year in Infrastructure Conference</a> website for information on Bentley's premier thought-leadership event. To view a searchable collection of innovative infrastructure projects from the annual <a href="Be Inspired">Be Inspired</a> Awards, access Bentley's <a href="Infrastructure Yearbooks">Infrastructure Yearbooks</a>. To access a professional networking site that enables members of the infrastructure community to connect, communicate, and learn from each other, visit <a href="Bentley Communities">Bentley Communities</a>.

To download the *Bentley Infrastructure 500* Top Owners ranking, a unique global compendium of the top public- and private-sector owners of infrastructure based on the value of their cumulative infrastructure investments, visit BI 500.

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