The 2015 ‘Be Inspired’ awards

The awards programme, organised by Bentley Systems, showcases excellence and innovation in the design, construction, and operations of infrastructure projects around the world.

Bentley Systems announced the winners of the 2015 Be Inspired Awards at its Year in Infrastructure 2015 Conference, held from November 3-5, 2015 in London.

The awards honour the extraordinary work of Bentley users improving the world’s infrastructure. At a ceremony and gala held on November 5, 18 Be Inspired Awards winners and five Be Inspired Special Recognition Awards winners were acknowledged.

The Year in Infrastructure Conference is a global gathering of leading executives in the world of infrastructure design, construction, and operations. The agenda also includes presentations by finalists in the Be Inspired Awards programme, culminating in the selection of the winning projects.

For the 2015 cycle, 10 independent panels of jurors, comprising distinguished industry experts, selected the 18 Be Inspired Awards winners from 54 project finalists. These finalists had been previously chosen from over 360 submissions by organisations in 66 countries.

Candidates for Bentley’s Be Inspired Special Recognition Awards were selected by the jurors from the top finalist projects as well as other exemplary nominations. This selection was based on the projects’ uniquely innovative and visionary achievements that transcend the narrower focus of the standing Be Inspired Awards categories.

Bentley Systems CEO Greg Bentley said, “This has been a year of major achievements for Bentley Systems that include the introduction of our CONNECT Edition infrastructure engineering software, providing a common environment for comprehensive project delivery. But the achievements that my colleagues and I are most proud of are those of our users. For while our goal at Bentley is advancing infrastructure, we can only accomplish it through the vision, talent, and dedication of the architects, engineers, constructors, and operations professionals who creatively apply our technology in pursuit of effective strategies for achieving new levels of project and/or infrastructure asset performance.”

The Be Inspired Special Recognition Awards winners for 2015 are as follows:

Advancing Collaborative BIM

Advancing Comprehensive BIM ‘Playbooks’
- Hatch Ltd – Keeyask Hydroelectric Generating Station Project – (Nelson River, Manitoba, Canada)

Advancing Construction Modelling
- Jacobs – NAG Project – (Baytown, Texas, US)

Advancing Information Mobility in Operations
- Western Power Distribution – EMU for iPad – (Exeter, UK)
Advancing Integrated Projects
• HDR – Union Station to Oak Cliff Streetcar TIGER Design-Build Project – (Dallas) The Be Inspired Awards winners for 2015 are as follows:

Innovation in Asset Performance Management
• SA Water – Predictive and Operational Analytics Tools, Adelaide Metro Water Distribution Network – (South Australia) The North South Interconnection System Project was proposed to improve water security for the Adelaide region by linking the city of Adelaide’s separate northern and southern water zones through a series of new transfer pipelines, new pump stations, and other enhancements to the existing water network. As part of the overall project, AssetWise Amulet provided decision support tools that deliver real-time operational analytics.

Innovation in Bridges
• LCW Consult – The Ceira River Bridge – (Coimbra, Coimbra District, Portugal) The new Ceira River Bridge provides a fast connection between Lisbon and Coimbra, Portugal. Spanning 250 meters and rising 140 meters over the river bed, this $29.49m structure has a 26.4-metre-wide box girder cross section and a 700-metre curve radius. LCW Consult used Bentley software to ensure precise geometry during the cantilever construction.

Innovation in Building
• Robin Partington and Partners – One Merchant Square – (London) There were many challenges on this $726.02m, 42-story building project. Above ground, the complex curved profile of the tower meant that all cladding, structural floors, and perimeter structural columns with their faience cladding were potentially unique. Below ground, the basement – which at the time was the largest excavation in London after Crossrail – had to function independently for a number of years before the second phase started.

Innovation in Construction
• Vic’s Crane & Heavy Haul, Inc. – Unit 25 Project – (Rosemount, Minnesota) Flint Hills Resources chose Vic’s Crane & Heavy Haul to transport a 160-foot-long, 750,000-pound process vessel by barge and trailers to its Pine Bend Refinery in Rosemount, Minnesota. The two-year feat involved coordinating the loading and unloading of transport vehicles, permitting the load on highways, coordinating with utilities, and redesigning roads and bridges that were not designed for such a heavy load. Bentley software allowed Vic’s Crane & Heavy Haul to detail every aspect of this $100m project.

Innovation in Government
• Singapore Land Authority – Mapping Singapore in 3D The Singapore Land Authority led this $5.54m government initiative to create and maintain a high-resolution 3D map of the country. The project involved capturing large amounts of data, creating 2D/3D datasets in several data formats, and supporting the interoperability of the data and management of datasets in a single repository.

Innovation in Land Development
• Tata Consulting Engineers. – Detailed Design of Utility Infrastructure – (Dharampur, Gujarat, India) On this $30m project in Dharampur, India, the SRM Ashram Committee requested that Tata Consulting Engineers provide a detailed design for an economical ashram and surrounding infrastructure that would be sustainable for the next 100 years. A primary challenge was the site’s sloping terrain and it being hemmed in by valleys. The team also had to plan for considerable pedestrian traffic of up to 8,000 visitors per day.

Innovation in Megaprojects
• AECOM – E4 Stockholm Bypass FSK02 Rock Tunnels Design Contract – (Stockholm, Sweden) The E4 Stockholm Bypass is a new motorway linking northern and southern Stockholm, Sweden. To reduce the impact on sensitive natural and cultural environments, 18 km of its 21km are in tunnels. Adopting BIM methodology and applying a common data environment permitted opportunities for more rigorous optioneering during design development and a more streamlined process for collaboration, review, and checking during design.

Innovation in Mining
• Tetra Tech Proteus – Kvanefjeld Rare Earth: Uranium Project – (Narsaq, Kujalleq, Greenland) Greenland Mining and Energy engaged Tetra Tech Proteus to contribute to a feasibility study, including multi-discipline design, capital cost estimates, and implementation planning assistance.

Innovation in Offshore
• Keystone Engineering Inc. – Block Island Wind Farm – (Block Island, Rhode Island) Keystone Engineering adapted deep water jacket-type support structure design from the oil industry for use on five, 6-MW wind turbine generators on America’s first offshore wind farm. The innovative design significantly reduced the amount of steel required, resulting in installed costs savings of 20% and making the project economically feasible.

Innovation in Power Generation
• MWH Global – Tyseley Resource Recovery Centre – (Birmingham, West Midland, UK) Generating power through the gasification of waste wood, this $69.70m Tyseley plant will be the first of its kind in the UK.

Innovation in Process Manufacturing
• Giprotyumenneftegaz – Preliminary Water Removal Unit: North Vankor Field – (Igarka, Krasnoyarsk Territory, Russia) Located in the Turukhansk District of Russia’s Krasnoyarsk Territory, the UPSV-North oil and gas field is operated by Vankorneft, a Rosneft subsidiary. Located in a permafrost soil zone, this highly complex facility requires the separation of an oil-gas-water sludge to exact industry standards. For this project, Giprotyumenneftegaz designed the preliminary water removal unit which included surveying to create a digital terrain model and soil sampling for weight and pressure calculations. (Rest of the categories have been put up on www.infrastructureme.com)