



Autodesk InfraWorks

Ukázkové projekty
další informace najdete na www.cadstudio.cz/infraworks

PROJECT:

Highway A4 between Rotterdam and The Hague

CUSTOMER:

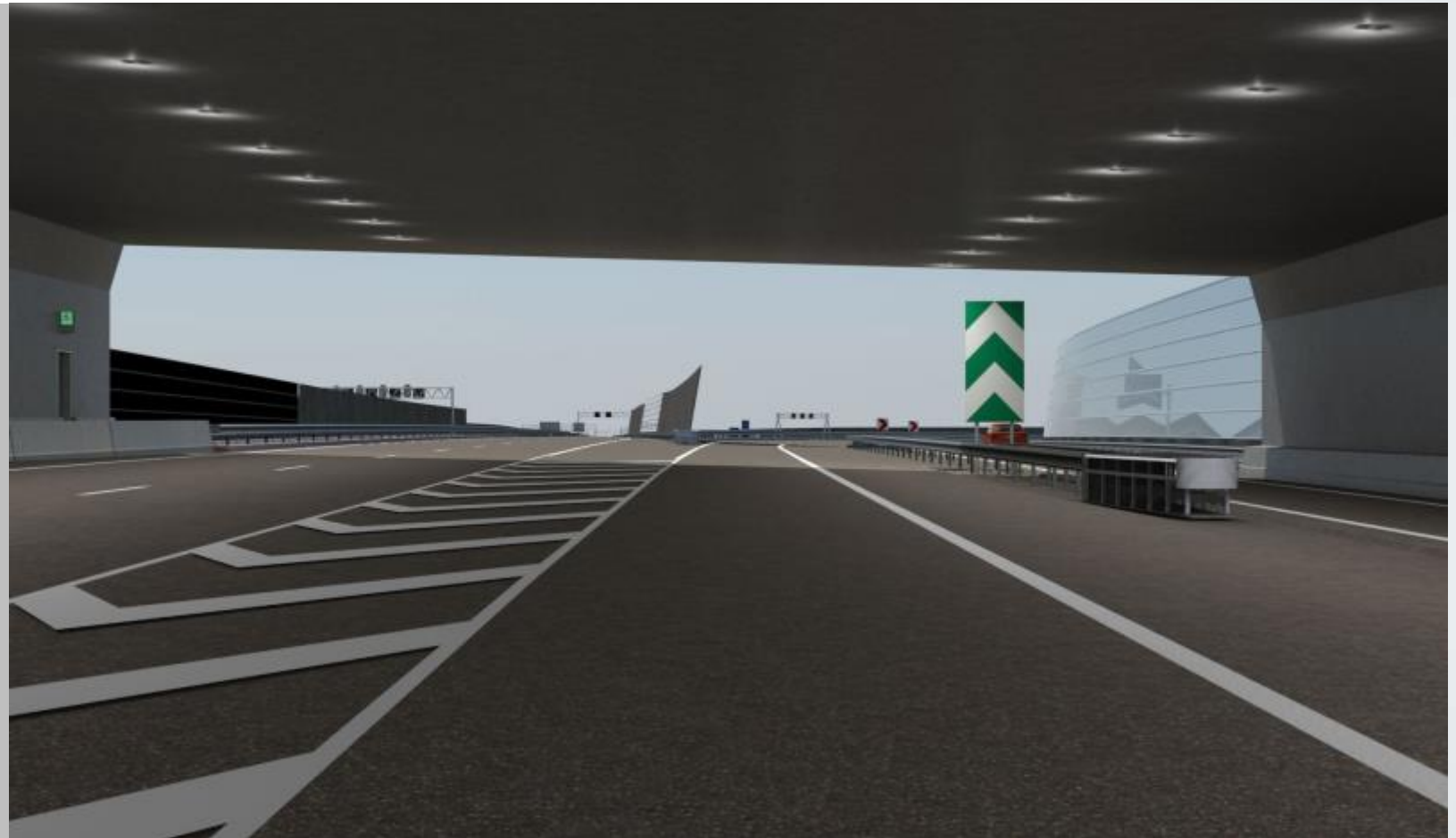
A4ALL Consortium - Boskalis, Heijmans, and VolkerWessels

AGENCY:

Rijkswaterstaat

Model used for various analyses including sun reflection and driver sight lines, and is linked to the project's scheduling system to simulate construction phasing to help more predictably plan field activities. BIM processes supported by the following Autodesk software:

- AutoCAD® Map 3D
- Autodesk® InfraWorks
- AutoCAD® Civil 3D®
- Autodesk® 3ds Max® Design
- Autodesk® Navisworks® Manage
- Autodesk® Design Review
- Autodesk® Revit® Structure



Excellence in Infrastructure 2012

Image courtesy of A4ALL Consortium

BIM for Infrastructure solutions helps consortium improve coordination, planning and review with an intelligent 3D model to support design and build of a new highway

PROJECT:

Gerald Desmond Bridge

CUSTOMER:

ARUP

PORT OF LONG BEACH AND CALTRANS

- 1 of 10 Caltrans Design Build Pilot Program Projects
- 2.4 mile Bridge replacement connects SR-710 to Terminal Island
- Connects America to our second largest port which traffics \$140 billion in goods annually



Excellence in Infrastructure 2013

Image courtesy of ARUP

ARUP provides simulation of traffic cameras on the bridge with Autodesk® InfraWorks software

[view video](#)

PROJECT:

NextRail KC – Visualization

CUSTOMER:

BNIM Architects

AGENCY:

Transit Oriented Development (TOD) & Kansas City, MO (

BNIM is working with the city to create and collaborate 3D aggregated model using Autodesk ReCap, Autodesk InfraWorks 360, Autodesk 3ds Max Design, and Autodesk Revit. Existing data sources include water, wastewater, power, aerial 3D laser scanning (LiDAR), parking, Impervious services, economic impact and City planning data.



Excellence in Infrastructure 2014

Downtown Streetcar starter line rendering. Image courtesy of HDR

3D aggregated project model and visualization - merging existing conditions with street car options - helps TOD communicate the plans and get feedback at community meetings.

PROJECT:

Region of Peel Ontario – Water Distribution

CUSTOMER:

Cole Engineering

AGENCY:

Region of Peel, Ontario, Canada

We were able to quickly identify and resolve design issues in this virtual environment—identifying potential utility conflicts, right-of-way concerns, and constructability issues.

—**Alan Winter**

General Manager,
Greater Toronto Area West office
Cole Engineering Group, Ltd.



Image courtesy of Cole Engineering Group, Ltd.

Cole Engineering used 3d modeling solutions to consolidate different data files – created existing conditions model, developed its pre-engineering design with AutoCAD Civil 3D software, and imported the design into Autodesk InfraWorks

PROJECT:

High Profile Land Development

CUSTOMER:

Cole Engineering

- Commercial and Land development projects that require services.
- Design coordination w2ith



Existing Model using City GIS & CAD Data sources. Image courtesy of Cole Engineering Group, Ltd.

Created concept model using Autodesk InfraWorks for 2km servicing project in coordination with others. Created one single model to show impact of construction on residents and commuter traffic lane closures.

PROJECT:

NE 28th Avenue and Baseline Road Projects

CUSTOMER::

Cardno

AGENCY:

City of Hillsboro, Oregon

The cloud services allowed us to synchronize our Autodesk InfraWorks 360 to the iPad. The iPad was used at the open house to allow residents to walk through the proposed improvements and view them at any angle.

—**Fred Wismer**
Project Engineer
Cardno



Excellence in Infrastructure 2013

Images Courtesy of Cardno

Model-based tools helped improve design workflows for roundabouts and road widening, underground utilities and more. Autodesk InfraWorks 360 helped Cardno and the City of Hillsboro communicate project details to the community.

PROJECT:

Laguna Bridge - Brazil

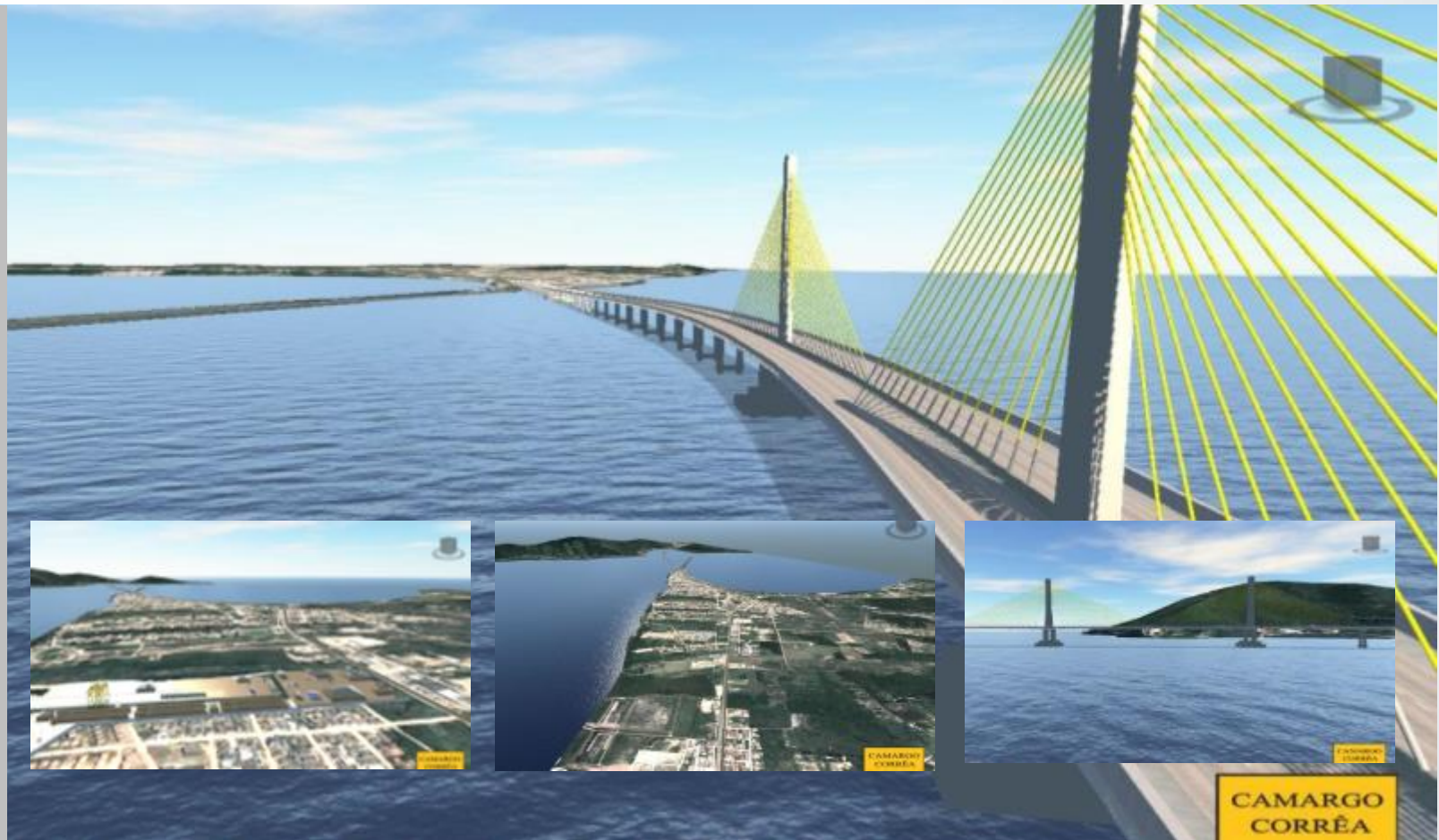
CUSTOMER:

Camargo Correa

Project complexity, size and number of interfaces has greatly increased in the last few years. The more you can use planning and 3D modeling techniques - basically BIM - the more you can cut costs. Cutting costs and lost time is essential in a world where competitiveness and profit margin are getting lower and tighter and becoming more of a deciding factor.

—**Adherbal Moreira**

Director of Operational Support, Heavy Construction
Department
Camargo Correa



Excellence in Infrastructure 2013

Images Courtesy of Camargo Correa

Camargo uses planning and 3D modeling to identify economic, ecological and constructability issues, and to improve communication with stakeholders

PROJECT:

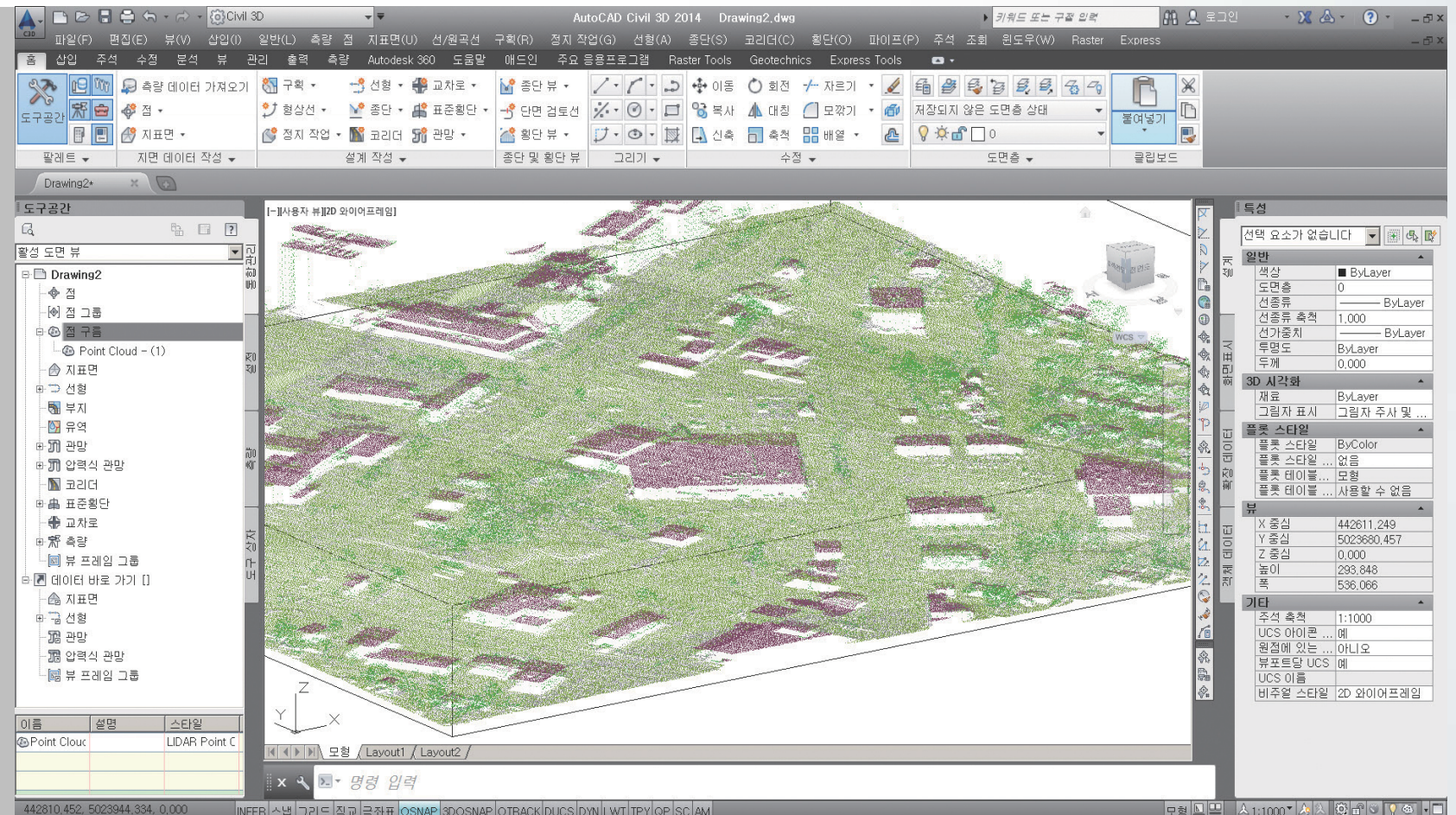
Factory Site Design & Precise Pipeline Management System

CUSTOMER:

Chahoo

The greatest thing about Autodesk Infrastructure Design Suite is that it is a total solution applicable to all areas of construction and civil engineering. As Autodesk Infrastructure Design Suite offers efficiency and versatility across so many areas, it can import data from many different sources. It offers an easy-to-use interface with customizable GUI that improves work productivity.

—Jeong Taekseon
R&D Team Manager
Chahoo



Scanned data in AutoCAD Civil 3D. Image courtesy of Chahoo

Autodesk suites implement automation for factory site and interior modeling - helping Chahoo improve project—communication, terrain design, and review through interior design and specification

PROJECT:

BINM for Jiangyou Project

CUSTOMER:

China Railway Eryuan Engineering Group Co., Ltd.

LOCATION:

Xi'an, Shaanxi, China

Railway-bed modeling helped to improve the construction process – showing real-time exchange of information, improved quality of the design and ease of coordination with stakeholders.



Excellence in Infrastructure 2014 – Submission

Image courtesy of China Railway Eryuan Engineering Group Co., Ltd..

Autodesk BIM for Infrastructure helps design firm make project more consistent across disciplines and workflows, improve stakeholder review process and accessibility of data realizing 10% cost and time savings on the project.

PROJECT:

Rail Transit Project Planning

CUSTOMER:

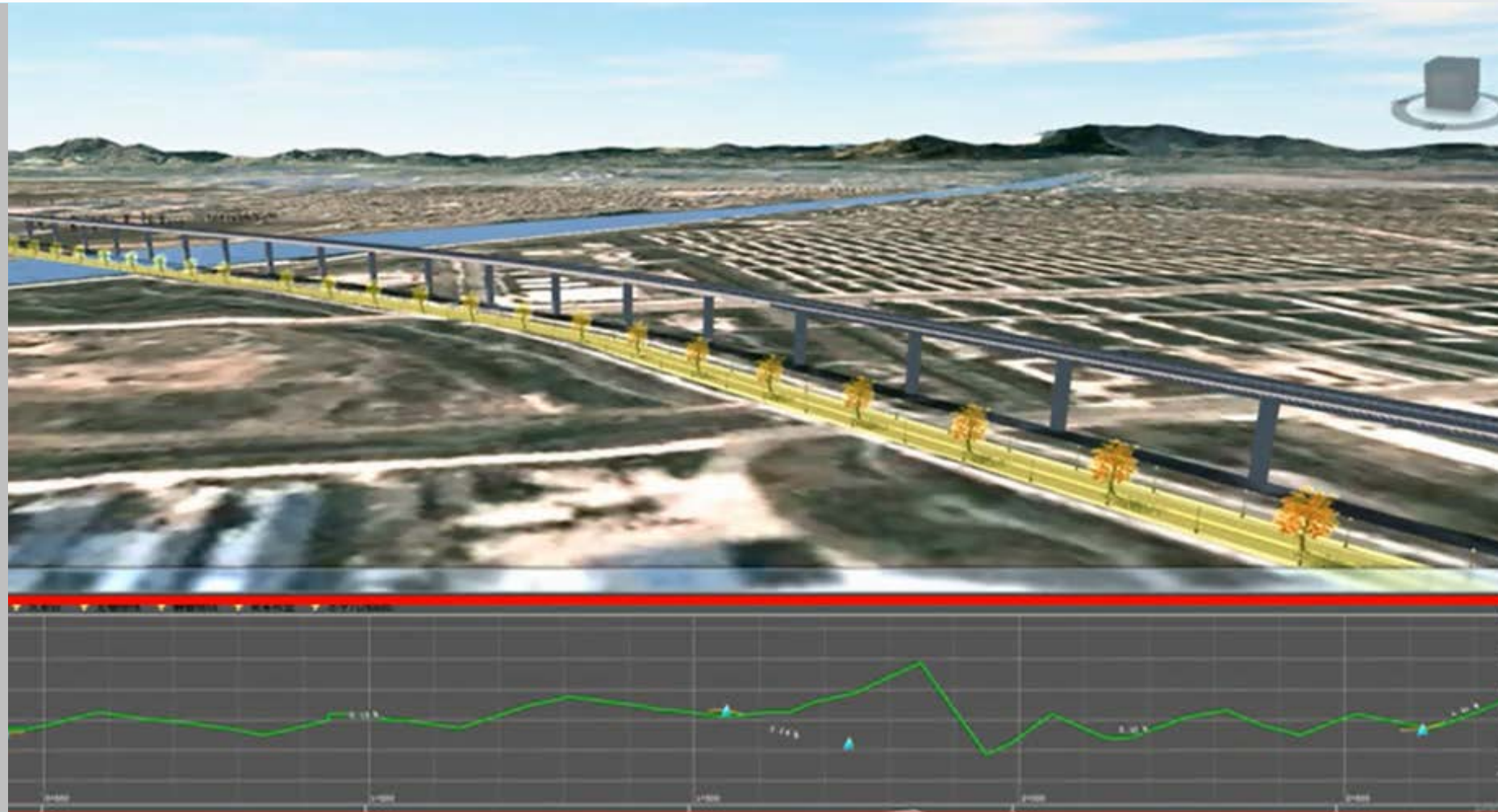
China Railway First Survey & Design Institute Group Co., Ltd.

LOCATION:

Xi'an, Shaanxi, China

Project in the new economic zone of Qingdao, a major city in eastern Shandong Province located on the Yellow Sea.

The planned 70-kilometer R3 line will traverse Qingdao's shoreline, with 20 stations, including seven rail-metro stations and 13 elevated road stations.



Excellence in Infrastructure 2014 – Submission

Image courtesy of China Railway First Survey & Design Institute Group Co., Ltd.

Autodesk BIM for Infrastructure helps design firm study constructability issues and communicate design proposal to stakeholders on new light rail transit project.

PROJECT:

Star Road and Weeping Willow Road Project

CUSTOMER:

Coastal Engineering Associates

InfraWorks is a great tool for visualizing and communicating preliminary designs. It helped our client really see and understand the technical details of our proposal, which ultimately resulted in award of the design project.

—**Burt Bennett**
Director
Coastal Engineering Associates



Image courtesy of Coastal Engineering Associates

Coastal Engineering uses InfraWorks to compete for a Florida road improvement project and wins with 3D visualization

PROJECT:

Oakville Community Hub

CUSTOMER:

Cole Engineering Group, Ltd.

AGENCY:

Ontario, Canada

Conceptual Community site plan and transportation hub with new overpass and pedestrian bridges connecting north side of highway with south side.



Image courtesy of Cole Engineering Group, Ltd.

Cole Engineering combined Civil 3D grading and alignments; GIS data and InfraWorks 360. Rapid design iterations allowed them to critique their work originally created in Civil 3D to improve the design intent before meeting with the client and still meet deadlines.

PROJECT:

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AGENCY:

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Existing Model using City GIS & CAD Data sources. Image courtesy of Cole Engineering Group, Ltd.

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PROJECT:

E16 Road Addition (4 lane/32 kilometer Norway to Sweden)

CUSTOMER:

COWI

AGENCY:

Norwegian Public Road Administration (NPRA)

Before InfraWorks 360, there wasn't any feasible method of bringing together and visualizing existing condition information for large infrastructure projects. It has been a 'eureka' experience.

—Frode Geir Bjoervik
Project director
COWI



Image courtesy of COWI and NPRA

COWI uses 3D model of existing geographical conditions to plan and visualize a major new highway in Norway – getting to the review stages several weeks faster

PROJECT:

Potomac Water Supply Program Visualization

CUSTOMER:

Dewberry

AGENCY:

Loudoun Water

Dewberry's commitment to information modeling continues to improve our ability to communicate design content to our clients and their stakeholders. Using the Autodesk Infrastructure Design Suite, we are replacing traditional paper exhibits with highly detailed three dimensional models and visualizations, providing viewers with a more familiar perspective to better understand design intent.

—**Chris dePascale, P.E.**
Senior Associate
Dewberry



Excellence in Infrastructure 2014 – 2nd place

Trap Rock Water Treatment Facility. Image courtesy of Dewberry (visualization) & CDM (treatment facility model)

BIM processes help Dewberry create more accurate depictions of the proposed program to improve communication to the owner, design teams and the community

PROJECT:

Noman Cole Water Reuse Project

CUSTOMER:

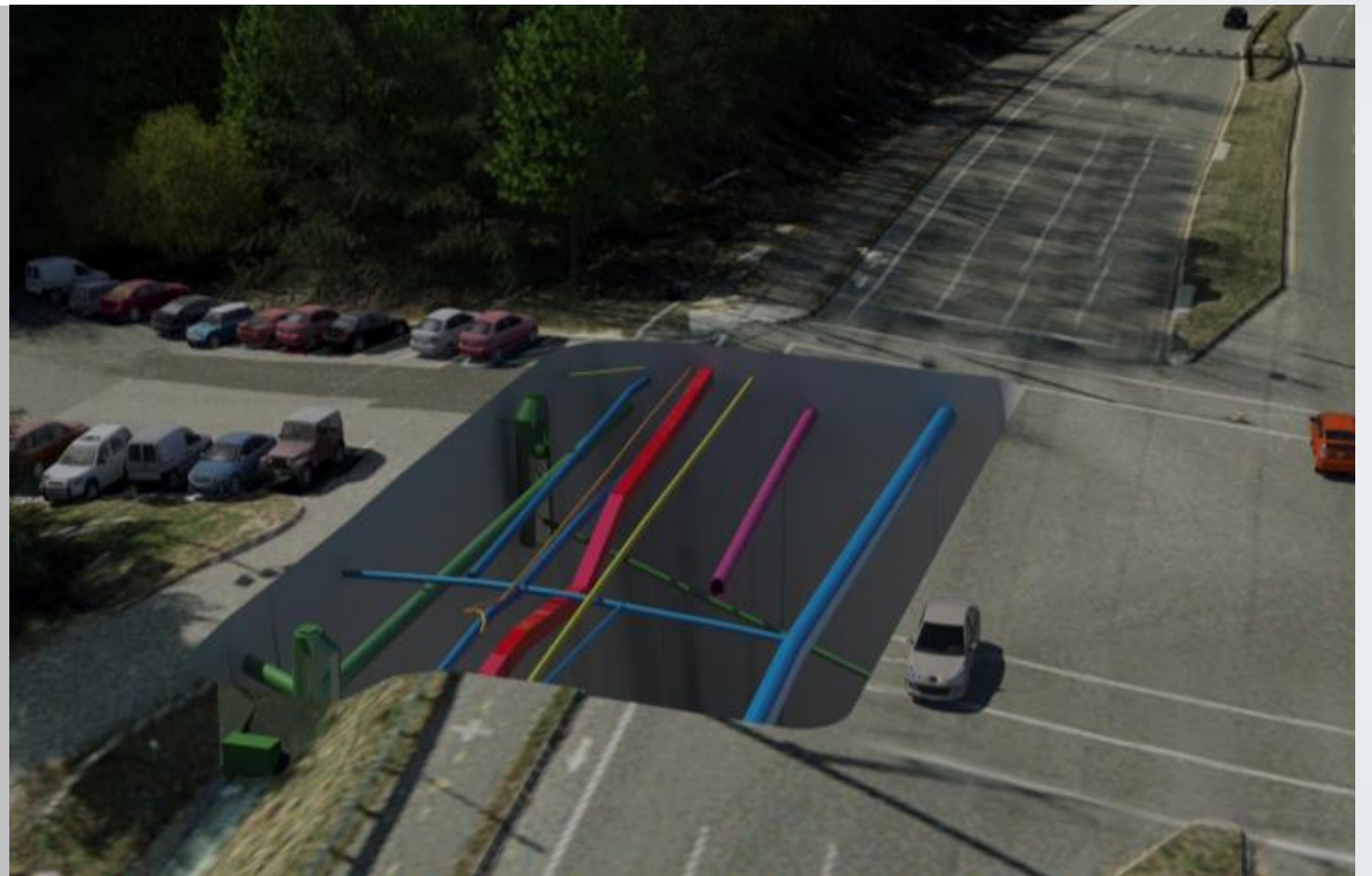
Dewberry

AGENCY:

Fairfax County

To the agencies involved in this design-build project, the schedule was critical. Looking at time and design alternatives and how to make the least impact on the community were all a part of what we did early on for the Noman Cole project. 3ds Max was used as a visualization and simulation tool. The Autodesk tools work well with each other, and using 3ds Max, we were able to present options for the local and state agencies involved.

—**Cody Pennetti**
Site/Civil Engineer
Dewberry



Excellence in Infrastructure 2012

Image courtesy of Dewberry

Modeling in context helped the design-build team construct the project without a single utility conflict. Autodesk® InfraWorks™ and Autodesk® 3ds Max® Design helped the team and the client better understand and evaluate the design for improved decision making and more efficient construction.

PROJECT:

Engineering projects using Infrastructure Design Suite

CUSTOMER:

DL Engineering & Surveying

The software in Autodesk Infrastructure Design Suite 2014 including AutoCAD Civil 3D, AutoCAD Map 3D, Autodesk InfraWorks, Autodesk ReCap and the hydrology and hydraulic tools, allow me to work on a wider variety of project types and create deliverables specific to my clients' requirements..

—**Dino Lustri, P.E. P.S.**
Owner/ Water Resources Engineer
DL Engineering & Surveying

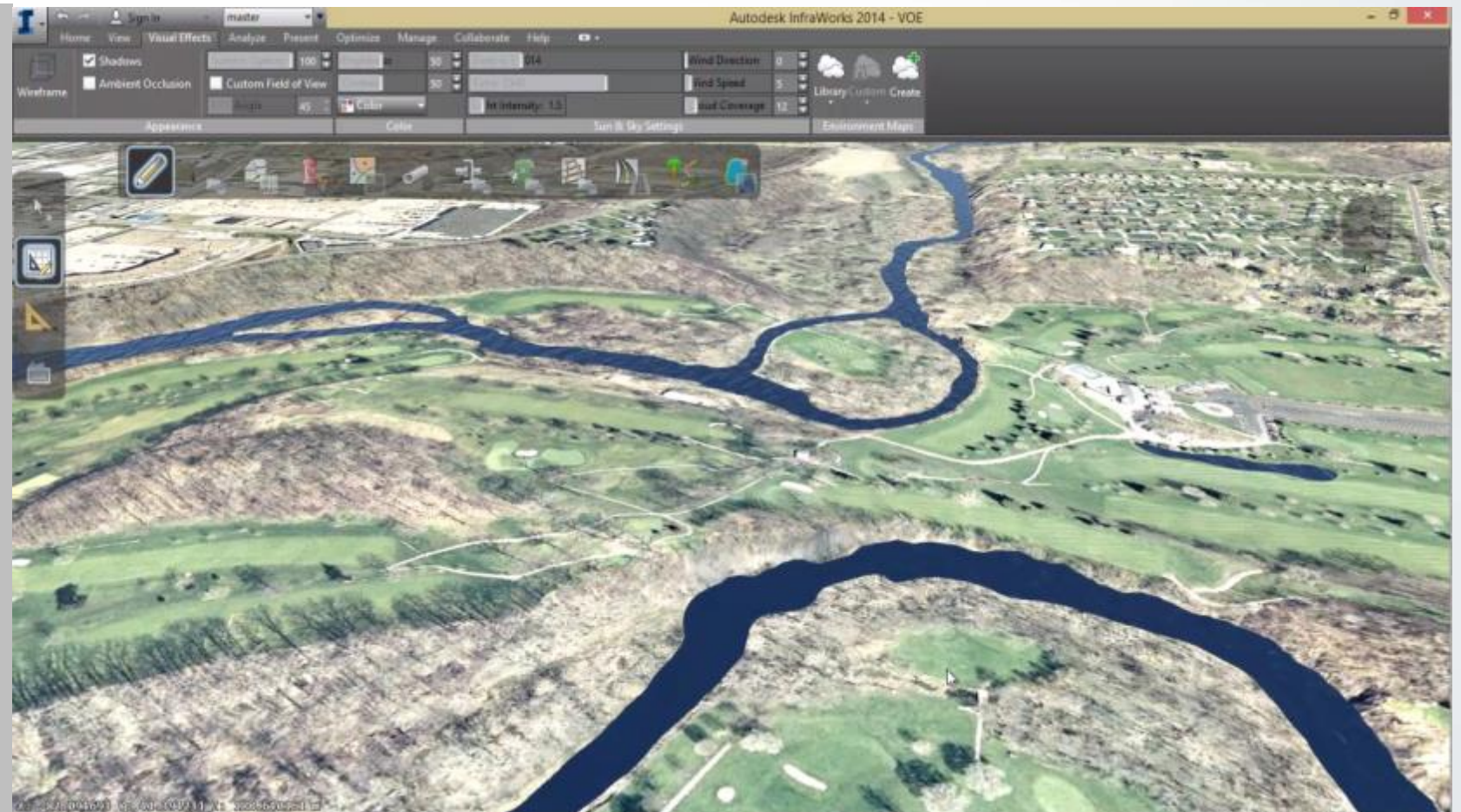


Image courtesy of DL Engineering & Surveying

Engineering firm uses tools in the Infrastructure Design Suite to differentiate and win new projects.

PROJECT:

Subsurface Utility Engineering Investigation – MUSC Central Energy Plant

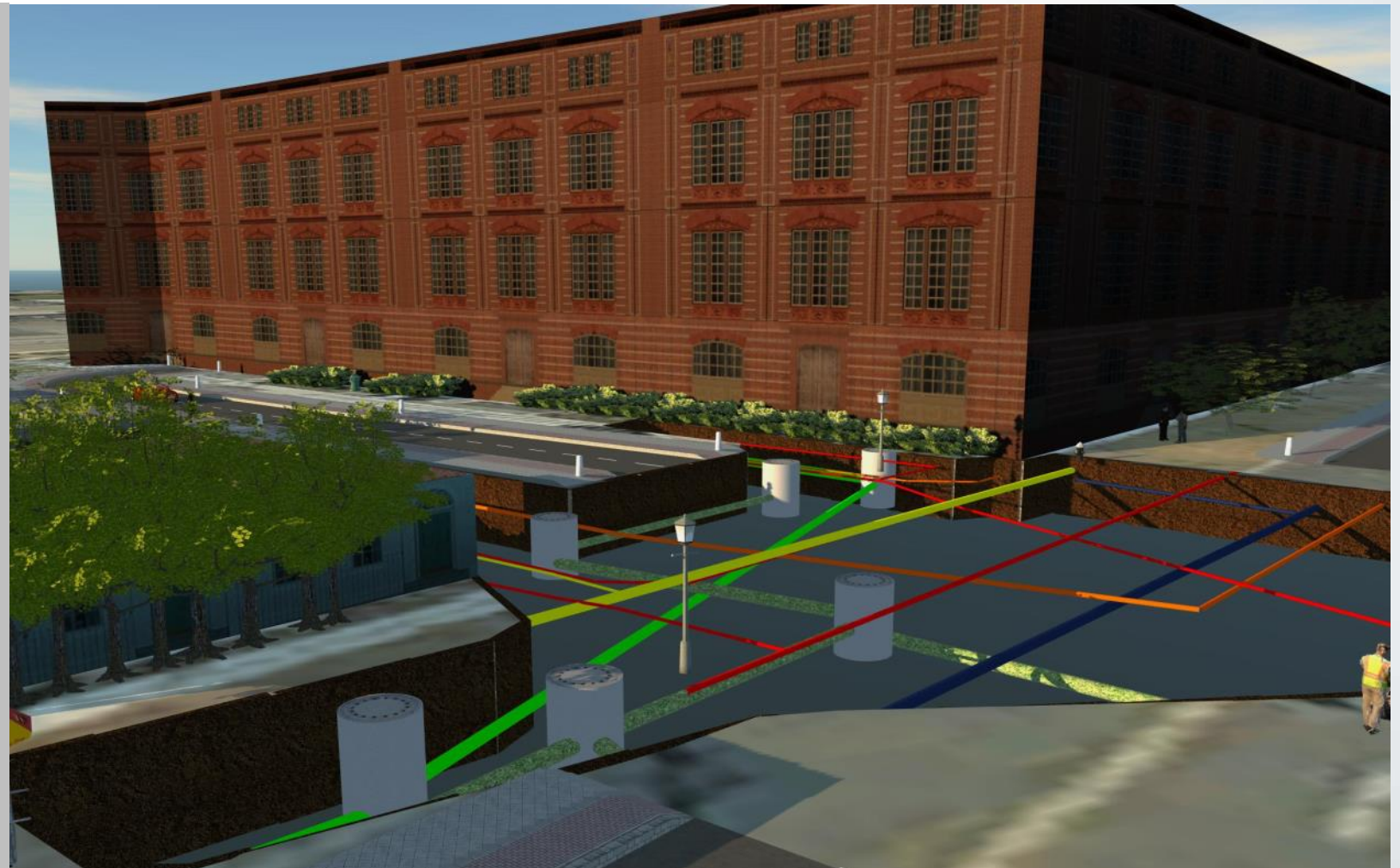
CUSTOMER:

GEL Geophysics

AGENCY:

City of Charleston, South Carolina

The investigation included the use of radio-frequency electromagnetic (EM) pipe and cable locators and ground penetrating radar (GPR) technologies to map buried infrastructure. Final deliverables included detailed 2D drawings and 3D project visualizations of all detectable buried infrastructure and obstructions in the area.



Excellence in Infrastructure 2014 – Submission

Image courtesy of GEL Geophysics

GEL added realism to this visualization model by using ReCap 360 to create a model from scanned data of the firm's GPR equipment create a 3D model of the underground features.

PROJECT:

Subsurface Utility Engineering Investigation – Alexander Street

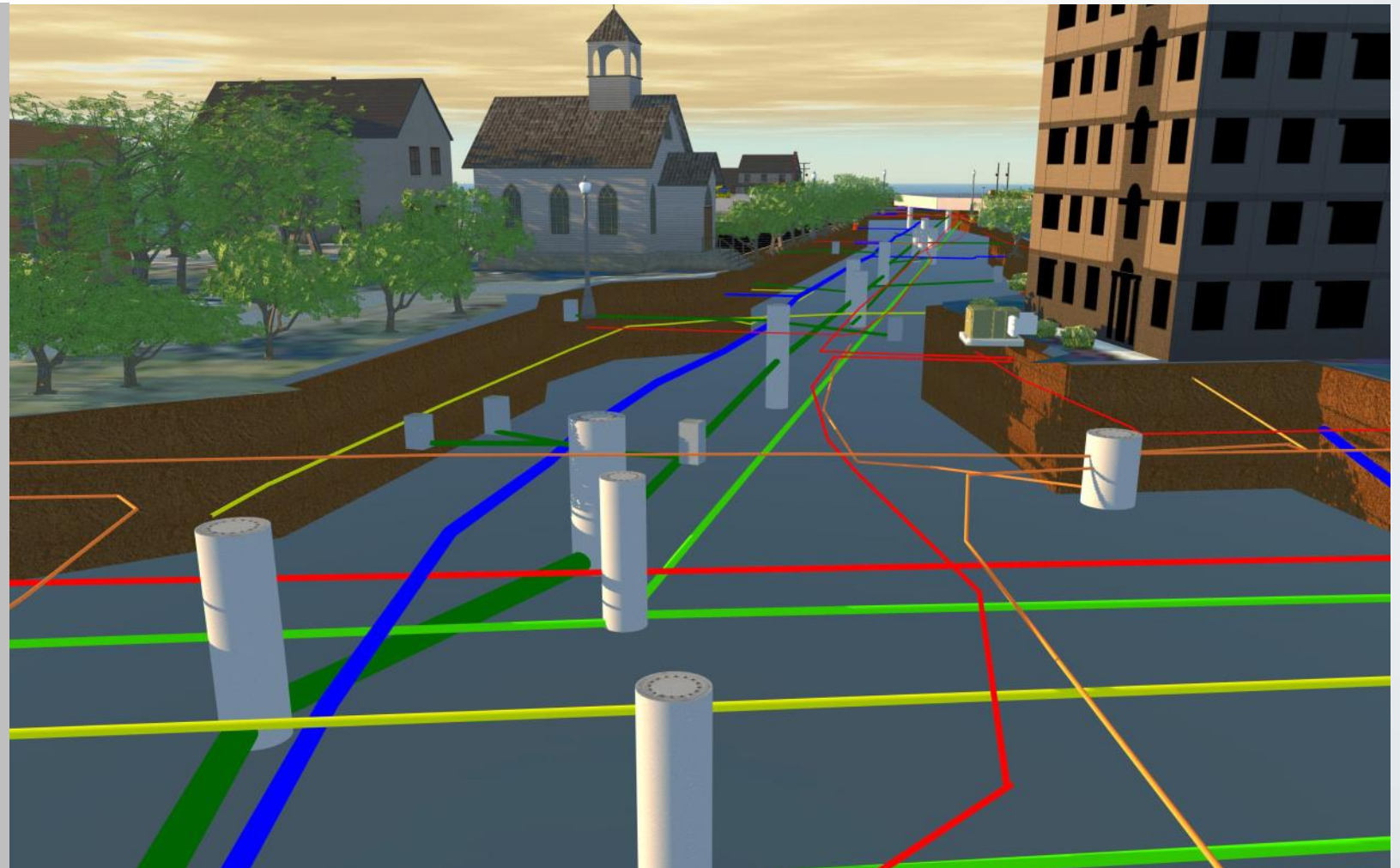
CUSTOMER:

GEL Geophysics

AGENCY:

City of Charleston, South Carolina

During the investigation, instrument-derived depths were recorded at specific intervals along each utility. This reality-captured data was imported into Civil 3D software to create a 3D model of the underground features, as well as conventional 2D drawings. In addition, the firm used Autodesk InfraWorks to create 3D visualizations exposing all the utilities buried under Alexander Street, complete with correct depths and pipe sizes.



Excellence in Infrastructure 2014 – Submission

Image courtesy of GEL Geophysics

Civil 3D survey model, detailed drawings, and InfraWorks visualization model gave stakeholders a better understanding of conditions under the street, helping the utility coordinate design with existing infrastructure and avoid unexpected issues during construction.

PROJECT:

Chicago Transit Authority – Wilson Station

CUSTOMER:

HNTB

AGENCY:

Chicago Transit Authority

Modernizing Chicago Transit's facility around the existing infrastructure, while finding locations for new piers that did not negatively impact existing conditions, was certainly challenging. Use of LiDAR to quickly and efficiently document existing conditions translates quickly into model form - especially for a complex site.

—Eddy Krygiel

Director of Design Technology
HNTB



Excellence in Infrastructure 2013

Images Courtesy of HNTB and Chicago Transit Authority

Project teams embrace BIM to improve project performance, discuss spatial coordination and actively work to eliminate conflicts in the model rather than on site to maintain maximum uptime for the station during construction

PROJECT:

La Pata Avenue Gap Closure and Camino Del Rio Extension Project

CUSTOMER:

Huitt-Zollars, Inc.

AGENCY:

Orange County, California

The ability to study so many alternative designs in such a short amount of time helped save an estimated \$10 million on this project. These cost savings were made possible with help from Civil 3D.

Scott Reed, P.E.
Associate
Huitt-Zollars, Inc.



Excellence in Infrastructure 2014 – 3rd Place

Image courtesy of Huitt-Zollars

Huitt-Zollars uses Autodesk solutions to help significantly reduce the cost of a road project in Southern California and communicate design plans to all stakeholders.

PROJECT:

HD Hydropower Station

CUSTOMER:

HYDROCHINA Kunming

HYDROCHINA relies on **Autodesk® InfraWorks** software for conceptual design and project visualization, Autodesk® Revit® Structure software to design hydraulic structures; Autodesk® Revit® MEP and Autodesk® Inventor® software for mechatronic and metal structures design; Autodesk® Revit® Architecture software for building design; AutoCAD® Civil 3D® software for surveying, hydrological design, and construction; and Autodesk® Navisworks® Manage software for virtual project review, coordination, and 4D construction simulation.



Excellence in Infrastructure 2012

Image courtesy of HYDROCHINA

BIM supports collaboration design, coordination, and planning. Intelligent 3D models support multi-discipline engineering design, volume calculations, clash detection, and project visualizations – to inform better design decisions.

PROJECT:

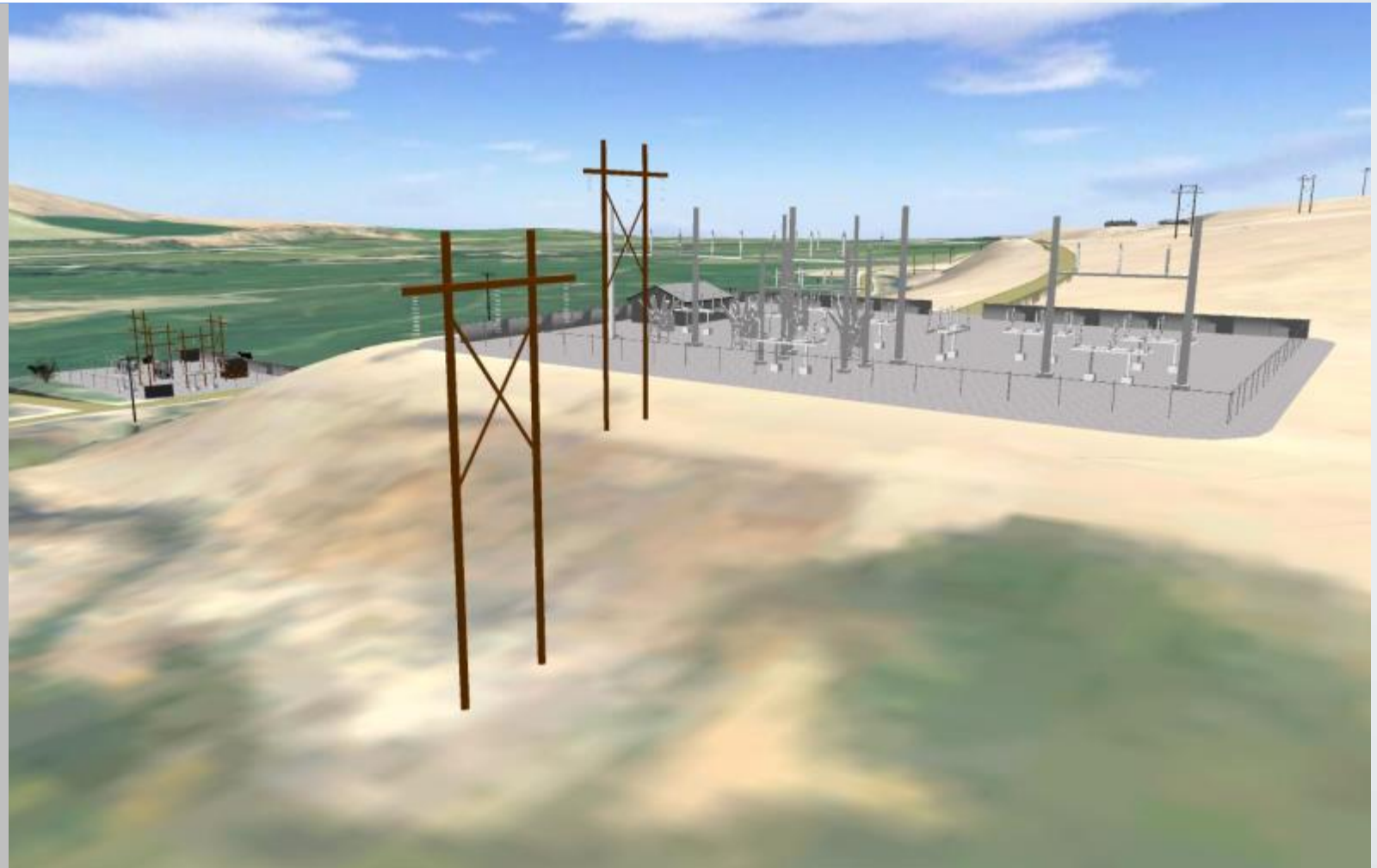
Substation Proposal

CUSTOMER:

Idaho Power

3D modeling combined with mobile devices, helped us communicate with and ultimately win over a rural land owner. Our new substation design concept was a realistic representation of the project. Autodesk InfraWorks 360 helped us reach an agreement quickly so we could get the project underway, saving time and money by minimizing travel to the remote rural area for stakeholder reviews.

—Eric Bush
CADD Technician
Idaho Power



Excellence in Infrastructure 2013

Image courtesy of Idaho Power

Idaho Power mines existing conditions data to find unexpected value. Autodesk InfraWorks 360 helps utility to develop substation relocation options and speeds approval by collaborating with stakeholders via the cloud

PROJECT:

Substation in a barn

CUSTOMER:

Idaho Power

So far, we've used InfraWorks models to plan, communicate with stakeholders, and improve documentation quality. When something works with data from a variety of sources so readily, it's practical to experiment and find unexpected value.

—Erin Sorensen
GIS Technician
Idaho Power



Excellence in Infrastructure 2013

Image courtesy of Idaho Power

3D helps improve productivity and decision-making

PROJECT:

Transmission line versus Substation

CUSTOMER:

Idaho Power

AGENCY:

Community College Campus

3D models of our substations can help us to improve productivity. Starting a new project could be faster in 3D. Currently, it is multi-week process to clean up the old plans. And productivity in the field could be improved as they could access accurate equipment information and clearances with fewer visits to substations.

—Eric Bush
CADD Technician
Idaho Power



Excellence in Infrastructure 2013

Image courtesy of Idaho Power

Autodesk InfraWorks improves communication of design concepts to community college helping non-technical stakeholders understand the which options best meeting increasing power demands and quickly decide on a solution.

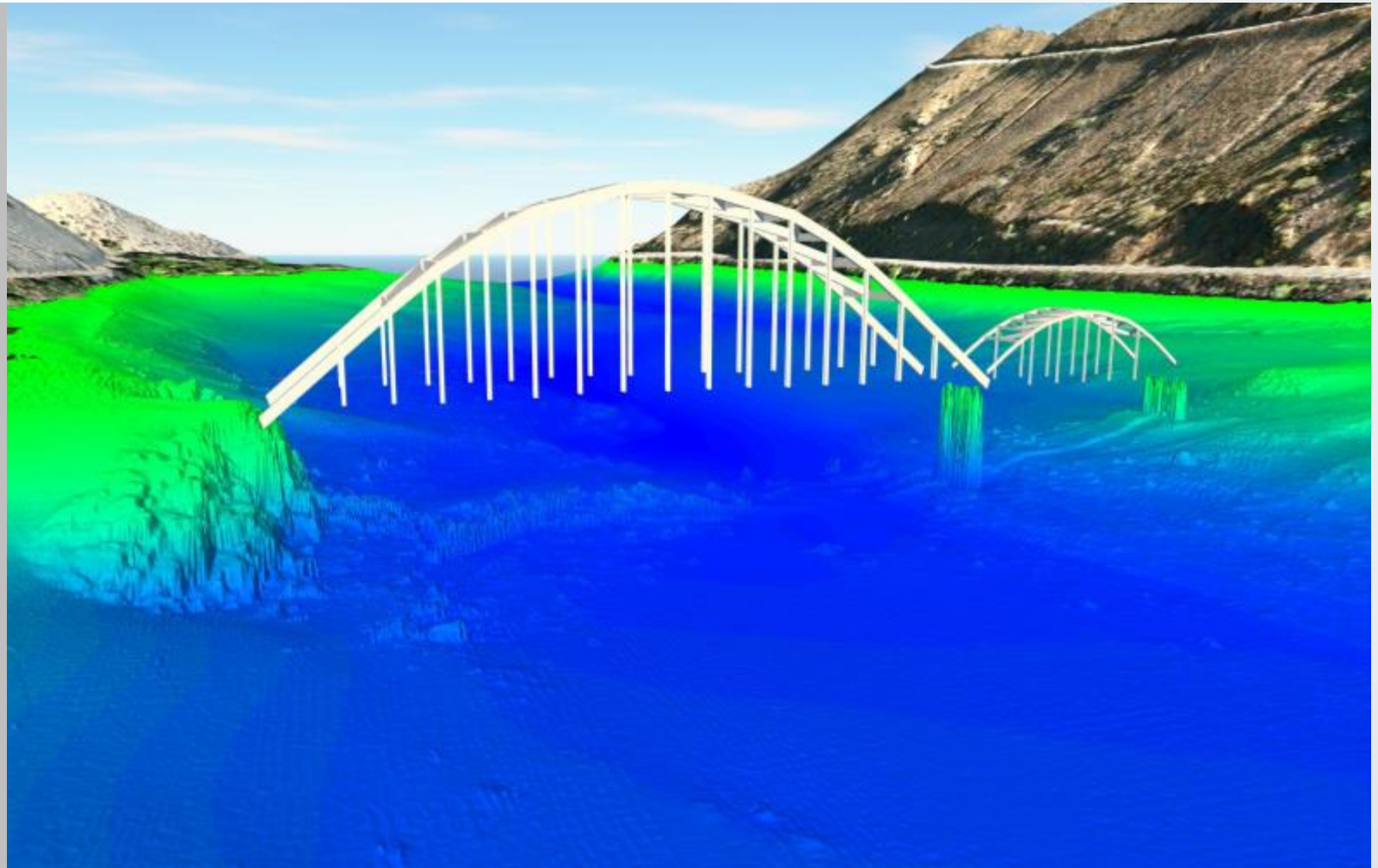
PROJECT:

Sediment Monitoring at Hells Canyon Dam

CUSTOMER:

Idaho Power

Discovered rubble at river bottom and used InfraWorks to reassemble the bridge as it once stood



Excellence in Infrastructure 2013

Image courtesy of Idaho Power

LiDAR scans within Autodesk InfraWorks helps utility visualize the past to help with water management and safety today

PROJECT:

Khed City Model

CUSTOMER:

Kalyani Group

The visualizations along with the engineering data created in the Suite are stunning and conveys the design intent in much effective way to the stakeholders and to the common people.

—**Mr. Yogesh Zope**
CIO
Kalyani Group



Downtown or city centre organized around public squares, plazas and bazaars.
Image courtesy of Kalyani Group.

Building a BIM city: Autodesk software helps Khed City become a new exemplar for enhanced infrastructure development

PROJECT:

Roadway Drainage Improvement

CUSTOMER:

KFW Engineers & Surveying

AGENCY:

City of San Antonio, Texas

Autodesk products are our long term strategy. Our confidence in the software and the designs we produce with them is very high.

—**Stephen Garza**
CAD and GIS Manager
KFW Engineers & Surveying



Image courtesy of KFW Engineers & Surveying

Autodesk InfraWorks helps design firm impress review team and win infrastructure project by getting to results fast – modeling ideas in 8 hours versus 2 weeks

PROJECT:

Nursery Road Bridge Reconstruction Conceptual Design

CUSTOMER:

Lexington County Public Works

LOCATION:

Irmo, South Carolina

To improve access to a local elementary school, Lexington County Public Works is rebuilding an abandoned bridge crossing in the town of Irmo, South Carolina. Initially, the proposed design for the new bridge was presented to the public in the form of traditional 2D drawings, which can be difficult for nontechnical audiences to understand.

Even with the safety improvement, local residents were concerned about the new bridge and the impact on traffic flow in that area. To support public outreach, the County used created a 3D model and an animated movie of the project's conceptual design, set in the context of the surrounding roads and environment.



Excellence in Infrastructure 2014 – Submission

Image courtesy of Lexington, SC

Importing aerial photography and topographical, GIS and road data for the road along with a 3D model of the new bridge, the team created a model, animated drive-through and flyover of the project for viewing at informational sessions and public hearings.

PROJECT:

Burle Marx Park Bridge

CUSTOMER:

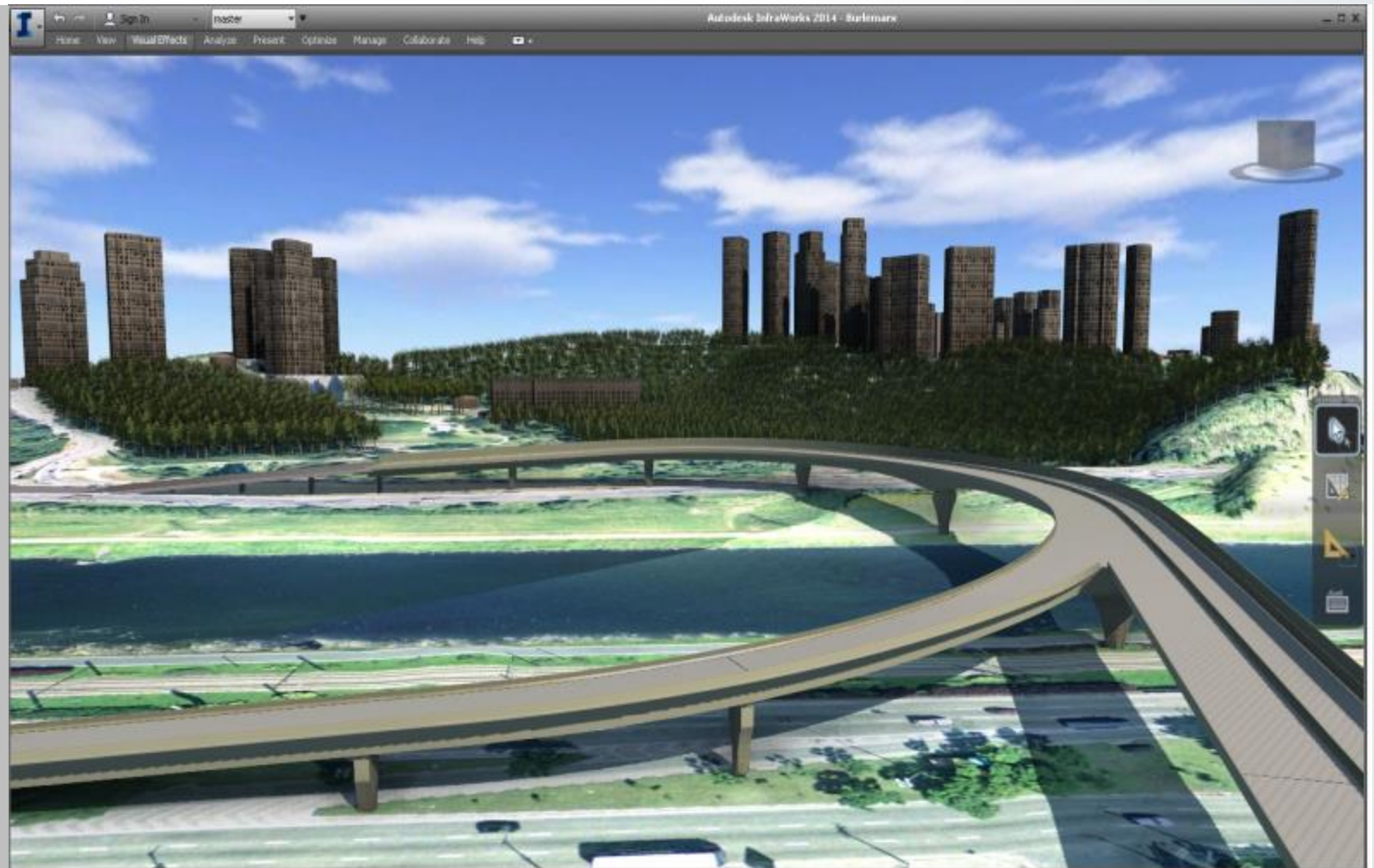
Maubertec Engenharia e Projetos Ltda

AGENCY:

Maubertec-Planservi Consortium

Autodesk software helped us increase productivity, integrate different elements of the project, and improve communication. And Autodesk® InfraWorks™ 360 allowed the project to be analyzed remotely by stakeholders, which contributed significantly to speeding up the process of obtaining the environmental permit for the project.

—**João Leopoldo Wernek Camargo, P.E.**
Projects Superintendent
SPObras



Excellence in Infrastructure 2013

Image Courtesy of Maubertec

Model-based visualizations with Autodesk® InfraWorks™ 360 gives technical and nontechnical stakeholders a view of the bridge from the park and other vantage points in the area and helps city officials approve the project more quickly—accelerating the entire environmental permitting process

PROJECT:

City of Fet Bridge Project

CUSTOMER:

Multiconsult AS

AGENCY:

City of Fet, Norway

In this single InfraWorks model, we developed 17 possible road alternatives and eight different designs for the new bridge across the river. Despite the large amount of data, we could navigate smoothly through the model during our design efforts and during presentations to our client.

—**Philip Hon**
Road Designer/BIM Coordinator
Multiconsult AS



Excellence in Infrastructure 2012

Image courtesy of Multiconsult and City of Fet, Norway

Autodesk InfraWorks helps Multiconsult aggregate a single data-rich model and develop preliminary design alternatives and visualizations in the context of existing environments more quickly and cost effectively

[view video](#)

PROJECT:

Information System for Moscow's Department of Cultural Heritage

CUSTOMER:

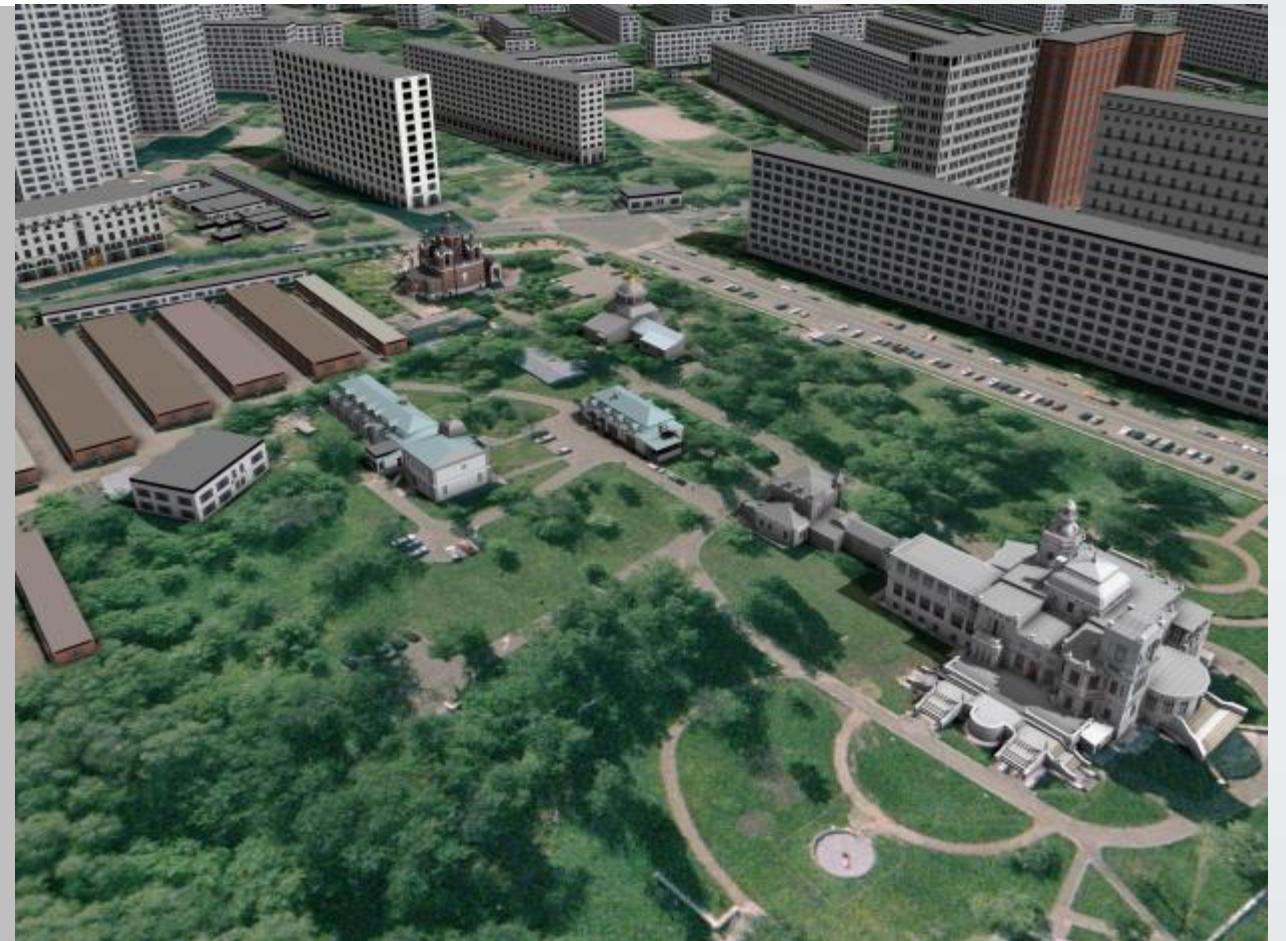
Neolant

AGENCY:

Department of Cultural Heritage, Moscow, Russia

Neolant used **Autodesk® InfraWorks**, AutoCAD® Civil 3D®, Autodesk® 3ds Max® Design, Autodesk® Navisworks® Manage, and Autodesk® 123D® software to create and integrate 3D models of historical or culturally important buildings into the department's existing GIS platform.

The firm created 3D models of the buildings themselves, as well as the urban environment around them such as nearby buildings, terrain, streets, trees, statues, and water features. The team then combined those models and linked appropriate attributes to the existing information database.



Excellence in Infrastructure 2012

Image courtesy of Neolant

Model-based information system helps department in preserving Moscow's cultural heritage. Users can navigate the model—measure distances, heights and areas, and view the status of a historical object—enabling analysis of the impact of proposed development near important historic structures.

PROJECT:

Swiss Canton Urban Master Planning

CUSTOMER:

planIng

AGENCY:

Appenzell Innerhoden, Switzerland

Instead of relying on traditional 2D maps, drawings, and graphics, we used a 3D model to present the information. InfraWorks gave nontechnical canton officials and other interested groups a much better understanding of the development plans by displaying them in the setting of the canton's surrounding environment.

—**Thomas Mauchle**
Owner
planIng



Image courtesy of planIng

Autodesk InfraWorks reduces the cost and time of generating visually compelling 3D planning proposals. As a result, the firm is broadening its service offerings and generating exciting new business opportunities.

PROJECT: **TC01**

CUSTOMER: **ProspeCAD**

LOCATION: **São Jose dos Campos, Brazil**

The 56,000-square-meter development will have 138 residential lots that are approximately 200 square meters each, as well as several other irregularly sized lots at the edges of blocks. The development is quite flat with an abundance of native plants, many of which will be permanently preserved in green spaces. The development's infrastructure will include water and electrical utilities, and a storm water drainage system.



Excellence in Infrastructure 2014 – Submission

Image courtesy of PROSPECAD

Design firm created 3D model of the initial site using aerial imagery and topographical data. With various design options for the site—including calculation of cut/fill volumes – they minimized earthworks and improved client and investor presentations with 3D visualization.

PROJECT:

Loteamento N. Escalada

CUSTOMER:

PROSPECAD Engenharia/Geoprocessamento

In Brazil, demographic expansion and increasing awareness of sustainable use of resources make it even more important for us to rationally project results of analysis and model scenarios in a more agile environment – both meeting deadlines and continuing to be competitive. With the combination of AutoCAD® Civil 3D® and the stormwater analysis tools we better understand the options. Then we rapidly model the results in Autodesk® InfraWorks™ to win more projects.

—**Tiago Garlipp**

Engineer , Earthworks and pluvial drainage design
PROSPECAD Engenharia/Geoprocessamento



Excellence in Infrastructure 2013

Image courtesy of PROSPECAD

BIM leads to collaborated and agile development on drainage project – Autodesk® InfraWorks™ helps display solution to address high rainfall and topographic district showing 3D model of optimized parcel, roadway and catch basins.

PROJECT:

Chaglla Hydroelectric Power Plant

CUSTOMER:

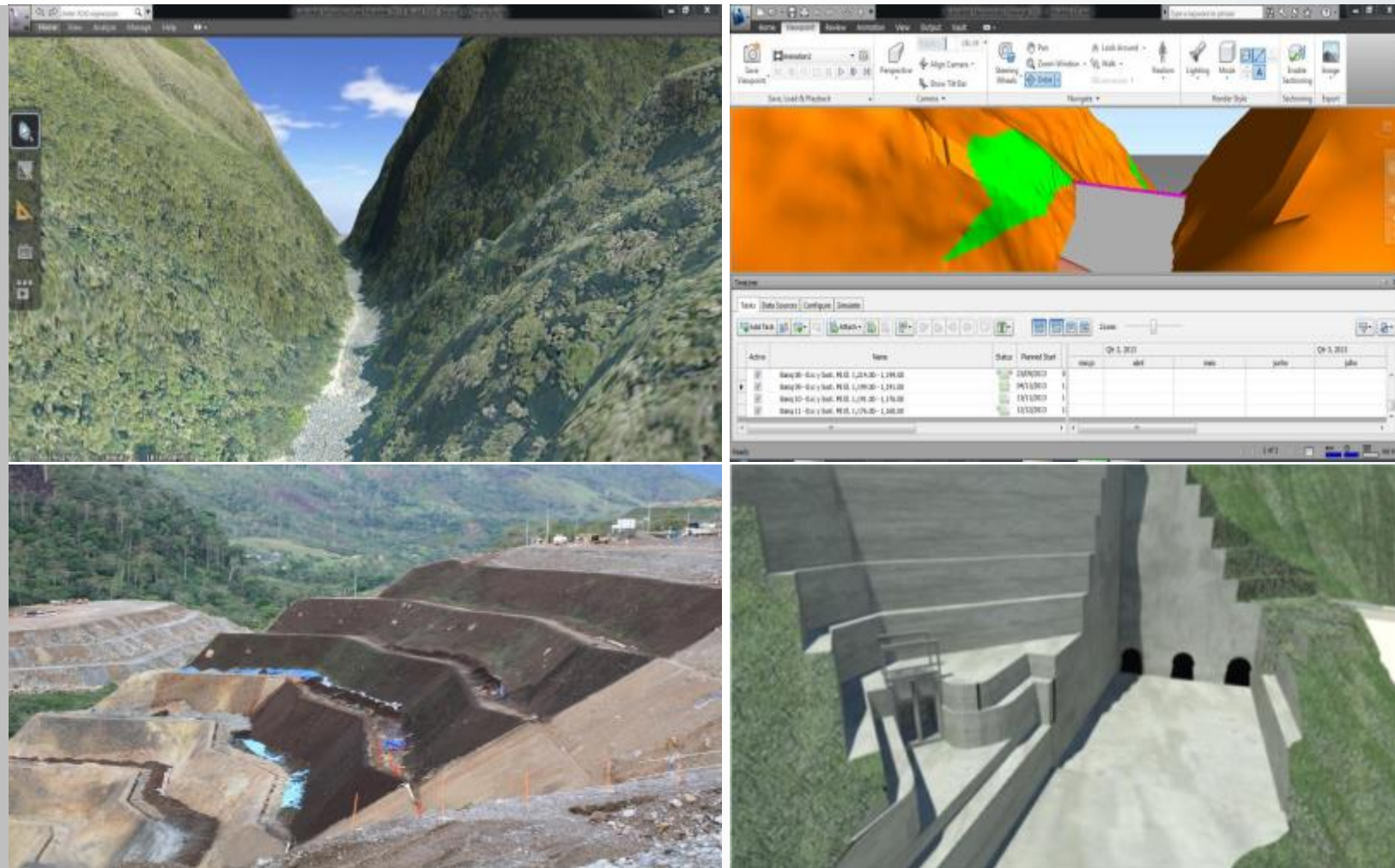
Odebrecht

This proposal involves 5D that is the union of the three-dimensional visualization, proposed by BIM, and the dimensions of cost and time. When all this information can be interpreted together, we can support the director of contract effectively. The result is that we can transform islands of information into knowledge archipelagos.

—Valter Sousa

IT Leader

Odebrecht, Latin America



Excellence in Infrastructure 2013

Autodesk InfraWorks used to visualize river and nearby terrain . Image courtesy Odebrecht

Model-based processes are enabling 3D, 4D, and 5D construction planning and coordination helping Odebrecht to improve construction by 20% and meet environmental challenge and schedule requirements

PROJECT:

HKM 3D Infrastructure Information System

CUSTOMER:

Schildwächter Ingenieure

AGENCY:

Hüttenwerke Krupp Mannesmann (HKM)

The solution consists of models from AutoCAD® Map 3D, **Autodesk® InfraWorks®**, Autodesk® Navisworks® Manage, Autodesk® Navisworks® Simulate, AutoCAD® MEP, AutoCAD® Architecture, AutoCAD® Plant 3D, AutoCAD® Civil 3D®, Autodesk® 3ds Max® Design, and Autodesk® Inventor® software. The new system combines and centrally stores and manages existing 2D and 3D plant data. In addition, the team used laser scanning techniques and Autodesk software to develop new 3D models for missing data or to supplement incomplete or inadequate infrastructure data.



Excellence in Infrastructure 2012

Image courtesy of Schildwächter Ingenieure

BIM helps to unify and extend HKM knowledge base with enterprise-wide D information system for quick access to relevant infrastructure information to make informed decisions.

PROJECT:

The Heart of Highland: Circle highway of XC City

CUSTOMER:

Sichuan Transportation Design Institute of China (SCODI)

The designer always wasted much time to draw the interchange, but now, SCODI just need to sketch it in InfraWorks and export that to Civil3D. It's so quick and visible for Engineering Feasibility Study. And this is very visual way to explore proposals – helping all of us better understand the project. Before it was difficult to express complex proposals such as a circle tunnel in 2D, but in 3D it is so much more easy explore the real project.



Excellence in Infrastructure 2013

Image courtesy of SCODI

Autodesk® InfraWorks™ speeds feasibility study and transforms the assessment process - finding and correcting issues much earlier – something not possible with traditional work methods

PROJECT:

Ring Road proposal to Taubaté City in São Paulo

CUSTOMER:

Soethe Cursino (Sc) Engenharia

With Autodesk InfraWorks the firm imported existing topography and city data to create a base map of the area, and then used the software's layout tools to more easily add the proposed roads—enabling city officials and residents to more effectively visualize the proposal in the surrounding cityscape.



Excellence in Infrastructure 2013

Image courtesy of SC Engenharia

Autodesk® InfraWorks™ helps engineering firm quickly deliver project proposal for Taubaté city which was easy to understand by both technical and non-technical stakeholders

PROJECT:

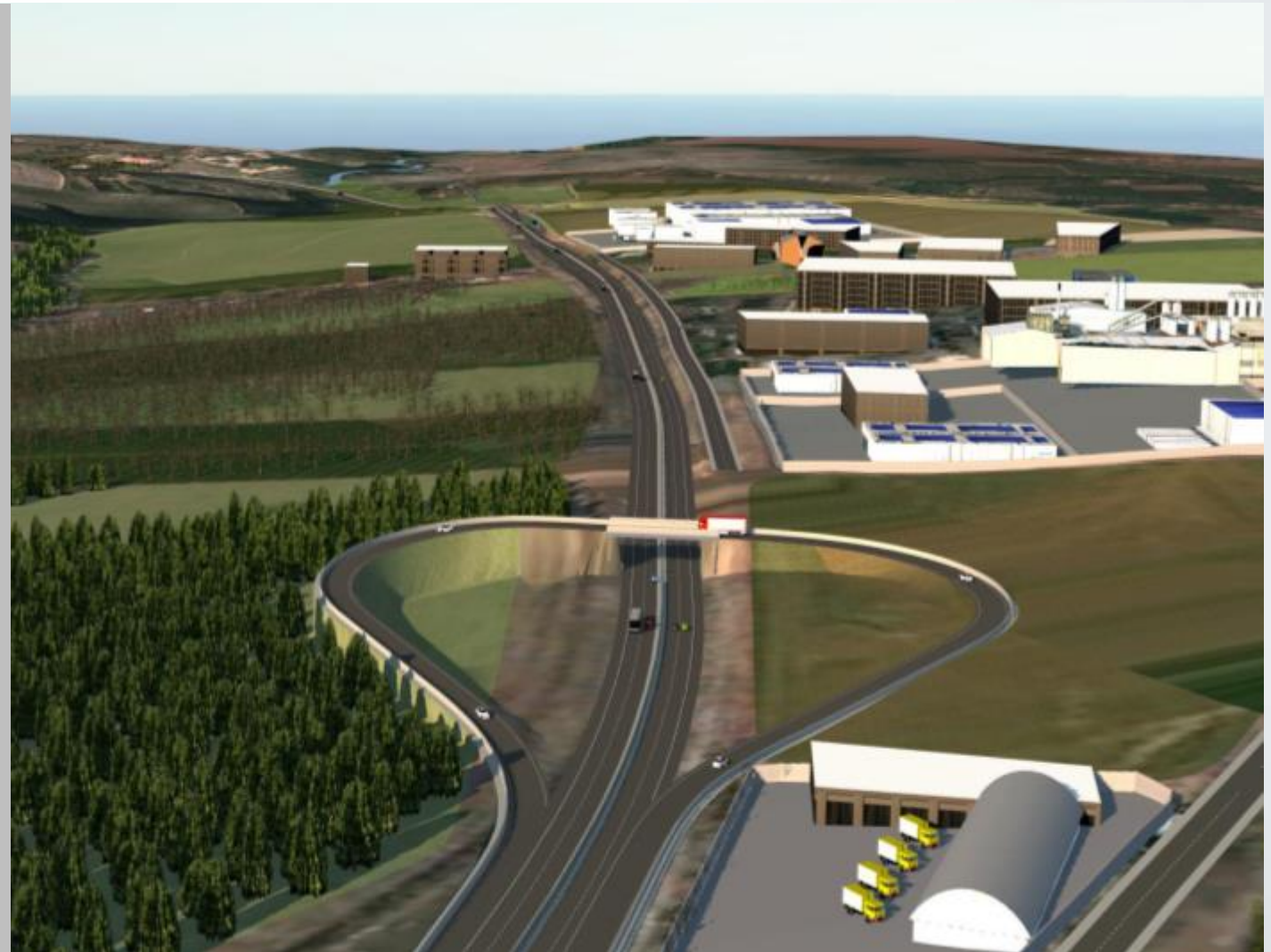
Duplication Project of the highway, Limeira, BR

CUSTOMER:

Soethe Cursino (Sc) Engenharia

The project was a great challenge because of the urgency, the short time and the local conditions. All the transverse accesses had to be studied case by case. We were able to create a single model of our existing highways and work from this model to duplicate the highways. We had to emulate all the interferences and find the better options to intersperse in a functional and safe way with the already existing system – With AutoCAD Civil 3D, Storm and Sanitary analysis and Autodesk InfraWorks we did this fast enough to meet the very tight timeline to win this project.

—**Pedro Soethe**
Engineering Director
SC Engenharia



Excellence in Infrastructure 2013

Image courtesy of SC Engenharia

BIM helps engineering firm deliver complex proposal quickly. Autodesk®
InfraWorks™ helps to more efficiently study design scenarios for each of the five
overpasses.

PROJECT:

Zhaotong Converter Station

CUSTOMER:

Southwest Electric Power Design Institute of China (SWEPDI)

SWEPDI is using intelligent 3D modeling and processes to help overcome a variety of project challenges including site layout planning, the design of such a large electrical facility, and the quantity of earthworks needed to accommodate the site's complex terrain.

Model-based design processes enable closer collaboration between the designers, contractors, and the owner. On a project like this with a large amount of equipment in a confined space, 3D project models are particularly important for hard and soft clash detection—improving the quality of the design and minimizing construction delays.



Excellence in Infrastructure 2013

Images courtesy of SWEPDI

With AutoCAD Civil 3D cut and fill calculations, SWEPDI optimized the project earthworks that will result in a cost reduction of approximately RMB2.2-million and speed up the construction schedule by approximately one month. With Autodesk® InfraWorks™ they created a model of the site and analyzed the roadways.

PROJECT:

Beauvista Drive Rehabilitation, Sherwood Park

CUSTOMER:

Strathcona County, Alberta, Canada

Autodesk InfraWorks provides a fast way to communicate options as 3D models. And it is easier to explore how different options will perform. Going from a concept to a design to construction is faster, and Strathcona is able to reduce the risk of finding unexpected impacts as projects progress.



Excellence in Infrastructure 2013

West Entrance on Beauvista Drive. Image courtesy of Strathcona County

County speeds and improves infrastructure planning with Autodesk® InfraWorks™

PROJECT:

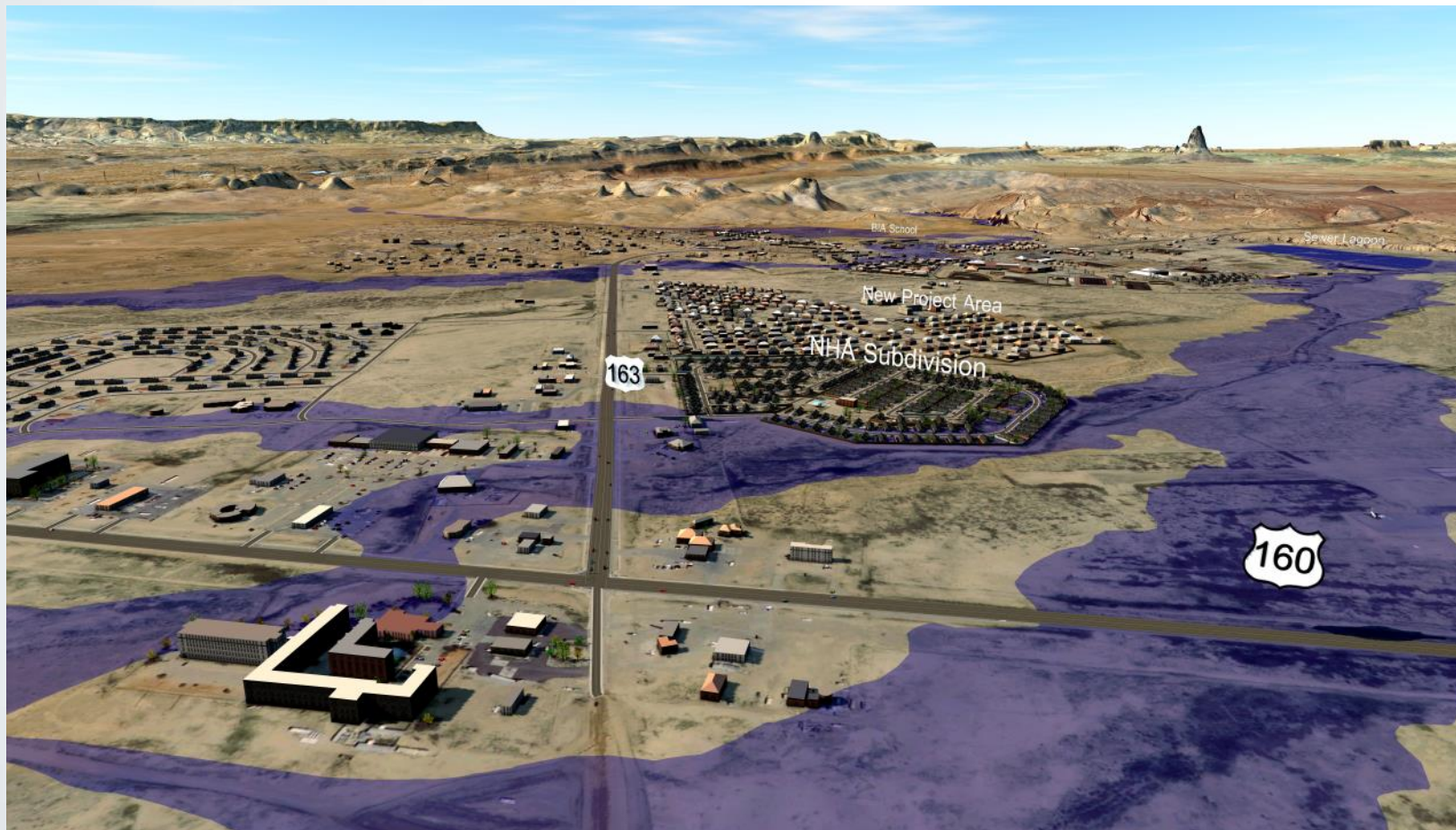
Navajo Housing Authority, Floodplain Hazard Identification and Mitigation

CUSTOMER:

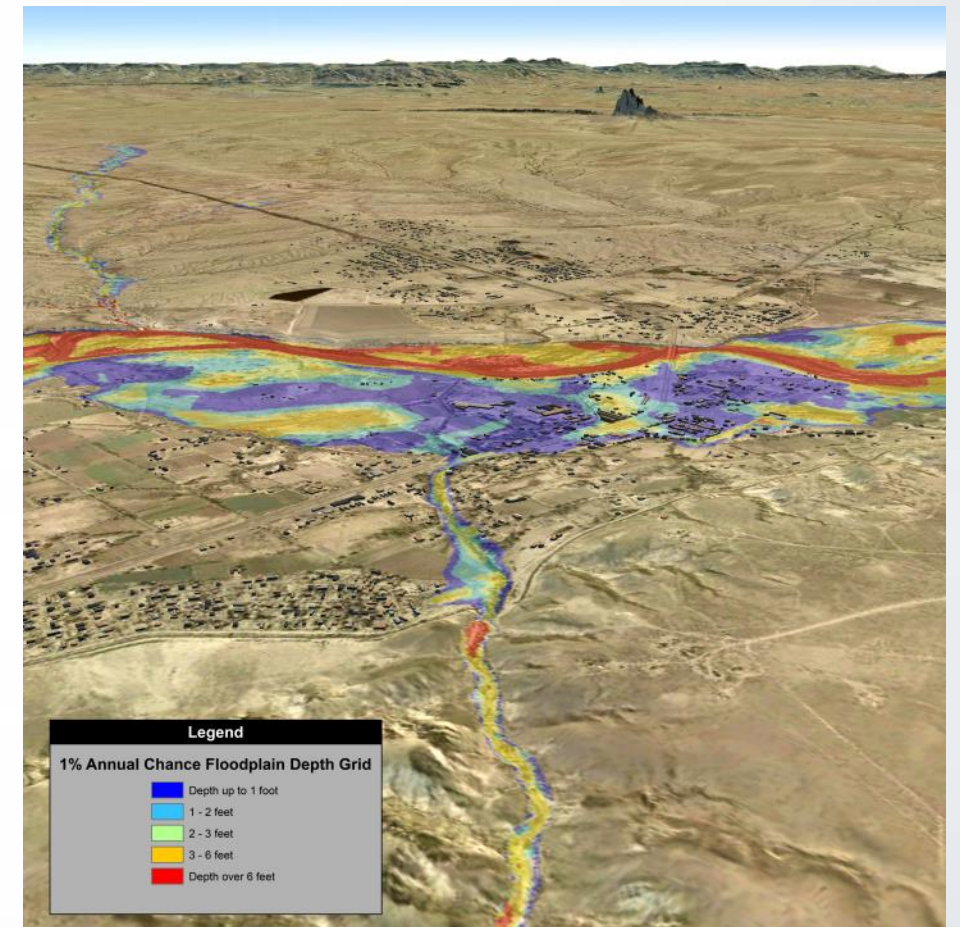
URS

AGENCY:

NHA and U.S. Army Corps of Engineers (USACE)



Excellence in Infrastructure 2014



Images courtesy of URS

3D fly-through animated files displayed flood hazards and impacts on housing projects for NHA's community outreach at planning meetings, public meetings and other public venues

PROJECT:

Middlebury Railway Bridge Replacement

CUSTOMER:

Vanasse Hangen Brustlin, Inc. (VHB)

CUSTOMER:

VTrans

Autodesk InfraWorks is a great way to bring more stakeholders into the planning process because it helps to make the options clear. You can include so much detail in relatively little time.

—**Ryan Noyes**
Technology Engineer
VHB



Historic Downtown Middlebury with proposed tunnel construction. Image courtesy of VHB

VHB bridges the visualization gap to help residents understand design alternatives saving days of effort with easy-to-use modeling and powerful storytelling tools

PROJECT:

Sambrorodon Avenue

CUSTOMER:

Vera Quintana Asociados

LOCATION:

Samborodondon, Guayas, Ecuador

One of the main commuter routes to Guayaquil is Samborondon Avenue, which is just across the River Guayas from Guayaquil. To reduce traffic backups and accident rates, this thoroughfare is slated for major enhancements and restructuring. Plans for the 17-kilometer road include four high-speed lanes on its central axis and two service lanes on each side, four flyover ramps, two exchanger return ramps, as well as special access roads.



Excellence in Infrastructure 2014 – Submission

Image courtesy Vera Quintana Asociados

Firm uses Autodesk model-based solutions to design roads, pedestrian overpasses and adjacent green space. And with a combined project model, boosted project communication and collaboration to extended teams.

PROJECT:

Las Vegas City Model

CUSTOMER:

VTN Consulting, Inc.

AGENCY:

City of Las Vegas, Nevada

We have been able to share our early design concepts to better evaluate feasibility on our infrastructure projects, and has extended our ability to share even the largest models more efficiently with remote teams.

—**Keith Warren**
BIM Visualization Manager
VTN Consulting, Inc.



Excellence in Infrastructure 2013

Image courtesy of VTN Consulting

VTN Consulting uses Autodesk® InfraWorks™ 360 to study proposed land use, roadway projects and to transform 2D GIS utility data into 3D representations for studying system expansions and upgrades.

PROJECT:

Water distribution and wastewater collection project

CUSTOMER:

WSP

LOCATION:

Stockholm, Sweden

Having the Autodesk InfraWorks 360 model available on the iPad helps to make you more informed about what you're seeing on a site visit. It's useful for evaluating options in context.

—**Monica Ek**
Project Manager
WSP



Excellence in Infrastructure 2014 – Submission

Image Courtesy WSP

WSP puts 3D visualization into the hands of designers on infrastructure projects with Autodesk InfraWorks 360