3D Models Build Smart Projects

Challenge Execution of Accountable and Transparent Infrastructure Programs

Solution Digital 3D models compel program quality. 3D rehearsals find and fix project challenges before potential impacts disrupt implementation.

Benefit Projects execute quickly, construction progress is transparent; dollars are spent effectively and sustainable practices are preset.

The public discussion on President Obama's green infrastructure investments has focused on priorities such as enhancing the electrical grid, extending broadband penetration and creating alternative energy sources. Another dimension of green infrastructure investment is often overlooked: using 3D modeling to build smarter -and greener - roads, bridges, utilities and public buildings.

3D design and construction enhance execution of infrastructure programs, improving project speed, accountability and on-budget performance

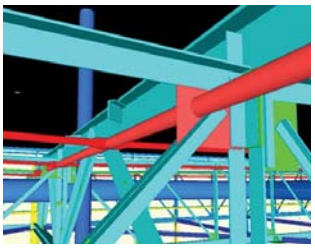
Virtual design and construction - including 3D modeling, geospatial analysis and Building Information Modeling (BIM) - enable project managers to experience projects before a shovel breaks the soil. These next-generation visualization tools minimize waste in the construction process, enhance collaboration among government agencies, permit engineers to test the environmental impact of designs and prevent mistakes that slow projects down. For example:

- 3D models enable "smart" construction; digitally rehearsing construction and assembly. Projects go together smoothly preventing on-site mistakes and delays.
- 3D Modeling allows simple tracking of cost/quantity information, providing transparency and accountability on infrastructure investments.
- Civil engineers can easily see environmental issues and impacts. 3D methods speed the analysis of drainage and storm water management systems that reduce flooding, erosion, pollution and sedimentation.
- Structural engineers use 3D models to simulate structural loads and perform environmental analyses, improving the structural integrity and environmental impacts.
- Buildings under renovation can easily run energy simulations on 3D models to ensure that the best sustainable options are selected.

The economic recovery legislation provides a path to a "smart" way of investing in infrastructure. Encouraging the use of 3D modeling will ensure that these investments produce well managed, transparent and "green" sustainable programs.

Find out more at http://usa.autodesk.com/company/building-information-modeling

It's not just about <u>what</u> we build, but <u>how</u> we build



Ensure program success with 3D Modeling, Virtual Design and Construction practices, including:

- Design-Build contract frameworks

- Integrated Project Delivery (IPD) collaboration methods

- Building Information Modeling (BIM) technologies

- Energy modeling for buildings and utility infrastructures

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