

6.4.1

The Impacts of Virtual Design and Construction (VDC) Technologies - Today and Tomorrow

Presenter

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For over 20 years, planning, design and construction methodologies have been continually refined through the use of two dimensional (2D) computer utilities such as Computer Aided Design (CAD). These tools have revolutionized the planning and design processes by increasing the knowledge base, productivity and accuracy of projects. These technologies are now evolving to become three-dimensional (3D) database driven processes commonly referred to as; Virtual Design and Construction. This presentation will focus on:

- What VDC is
- The Benefits of VDC
- Barriers to Investment Costs
- How it can be implemented within various disciplines and projects.
- Referenced Case Study The Florida Department of Transportation, Central Broward Transit Corridor
- Virtual Design and Construction can be used as a key TOOL when striving for a creative approach to planning, design and construction issues to save time, money and consensus on many projects.
- Key aspects of VDC that will be featured during the presentation are:
- VDC is a 3D graphical database that can be used from conception to construction. Databases include;
 - GIS applications, traffic simulation data programs such as Corsim, Synchro and VISSIM
 - Scheduling (4D)
 - Cost Estimating and Tracking (5D)
- Unlimited viewing time from an infinite amount of viewpoints
 - Real-time rendering
- Collision Detection
 - Improves the construction process and helps to eliminate previously unforeseen issues.
- Learn how constructors and their clients are successfully using various VDC applications.