

ATTENDEE HANDOUT

WED-A7 BIM Workflow: Addressing Opportunities and Challenges

Presentation Title:

BIM Workflow in Landscape Architecture: Addressing the Opportunities and Challenges

Session Summary:

Building design professionals are increasingly adopting Building Information Modeling (BIM) in their projects and asking Landscape Architects to use the same applications. This session will introduce the basic principles of BIM and describe how current technology enables Landscape Architects use open BIM workflows to collaborate with clients. Industry experts will explain the benefits and challenges of integrating BIM modeling software, and explore the myths and realities of BIM as it relates to Landscape Architecture.

Session Description:

Landscape Architects are observing a growing surge of architects, structural engineers, and MEP professionals implementing digital technology known as Building Information Modeling (BIM). Though not all clients require this approach to building design, it is a workflow that the building industry is rapidly adopting. Initially, more technical Landscape Architects observed this workflow, wondering if something similar would be possible in Landscape Architecture, and currently, LA departments within multidisciplinary firms and larger Landscape Architecture firms are being asked to take on the same applications, so their work can be more seamlessly integrated with the work of their project partners. Smaller LA firms are feeling the pressure to change as well, to gain a piece of these projects' site design work.

Should LA firms adopt BIM applications to continue collaboration with Architects who have chosen to make this change? What advantages and disadvantages can be expected in transitioning from typical CAD applications and workflows to building centric/BIM applications and workflows? This session will address these questions, as well as the concept of SIM or "Site Information Modeling". It would be expected that site centric or SIM applications provide advantages over the ones their building design team members are using, but how can LAs use them and still have the ability to collaborate with BIM applications? As with anything this new, there are pros, cons and the opportunity to see future development. Landscape Architects should know how they and their colleagues can have the biggest impact in this future development.

Learning Objectives:

Landscape architects and other site design professionals attending this educational session will

- Learn the benefits and challenges of integrating BIM modeling software into a Landscape Architecture Studio.
- Understand how current technology enables Landscape Architects to collaborate with clients using open BIM file exchange workflows.
- Explore the myths and realities of BIM technology as it relates to Landscape Architecture.

Presentation Outline:

- I. Introduction
- II. Fundamentals of BIM Micah Lipscomb
 - a. Definition - basic principles
 - b. Benefits of BIM
 - c. Challenges to implementing BIM
- III. BIM integration with other common programs Micah Lipscomb
 - a. CAD
 - b. GIS
 - c. 3-D
 - d. Adobe

- IV. Innovation- customization to meet the needs of Landscape Architects Micah Lipscomb
- V. Implementing BIM in a Landscape Architecture Studio – Lessons learned Micah Lipscomb
 - a. Establishing goals
 - b. Changing Culture – more than a drafting tool
 - c. Training
 - d. Hardware and Software Options
 - e. Implementation
- VI. File collaboration between Landscape Architects and BIM Clients Eric Gilbey
 - a. Collaborating in non-BIM methods
 - i. Maintaining status quo
 - ii. Exchange of geometry without data
 - b. BIM-like opportunities for site design – Site Information Modeling (SIM)
 - i. Site geometry/objects with intelligence
 - c. Collaborating in open BIM methods
 - i. How BIM applications collaborate
 - ii. How other applications can collaborate with BIM applications
 - d. Practical Examples
 - i. Areas of success
 - ii. Areas of potential improvement
- VII. The Myths and Realities of BIM James Sipes
 - a. The Promise of BIM
 - b. The Reality of BIM for Landscape Architects
 - i. Lack of “Smart Objects”
 - ii. Limitations with Data Integration
 - iii. Limitations of Existing Tools
 - c. Coordinating with Other Disciplines
 - d. The Changes needed for an Integrated BIM
 - e. A Call for Action

Speaker Bios:

Micah Lipscomb, ASLA is a landscape architect with Perkins + Will with eight years of professional experience in a wide range of projects, including universities, botanical gardens, parks, and nature centers. As a BIM user, he provides perspective on the integration of this software into a landscape architecture studio. He has also taught landscape design at the University of Maine.

Eric Gilbey, ASLA is a Landscape Architecture Industry Specialist for Nemetschek Vectorworks, where he utilizes his professional experience and CAD skills to assist in the development, marketing and sales of Vectorworks Landmark. He is currently serving as the President-elect with the ASLA Maryland Chapter’s executive committee, and ASLA’s Professional Practice Committee’s BIM Working Group. Eric’s unique experience as a practicing landscape architect and user of various CAD programs allows him to help landscape architects and designers develop best practices including sustainable site design and site information modeling.

James Sipes, ASLA is an award-winning landscape architect, environmental planner, and writer with more than twenty-five years of experience encompassing a wide range of planning, design, research, and communication projects. As the Founding Principal of Sand County Studios, Jim’s design philosophy follows the spirit of Thoreau, Muir, and Leopold. He is a member of ASLA’s Professional Practice Committee’s BIM Working Group and the author of Integrating BIM Technology into Landscape Architecture (LATIS, June 17, 2008).