Quick Turnaround Deliverables from Laser Scanning Data
Silviu Stoian – VB Services Manager @The Beck Group
This is not about sexy deliverables!
Traditional As-Built workflows are not always the fastest solution
Houston Galleria Mall – Shores Analysis
Houston Galleria Mall – Shores Analysis

Challenges:
• ~8000 shores to be surveyed
• Instrument available for project team: robotic total station
• No access under the supported structure
• Shore needed to be shot from the perimeter
• Very strict structural specifications
Houston Galleria Mall – Shores Analysis

Deliverables

- PDFs
- CAD
- Excel - Coordinates
UNT - Floor Flatness Analysis
UNT - Floor Flatness Analysis

Challenges:
• Preliminary spot elevation survey done by the Field Engineer – 2” deviation
• The majority of the new installed finish floor is Terrazzo (40,000SF/Floor)
• Terrazzo flooring Specs are strict and installation is expensive
• Difficult to calculate an optimal fill volume accurately
UNT - Floor Flatness Analysis
Elevation Heat Maps
Results:

- Level 2 – 129 CY @ an average of 1” of fill/SF
- Level 3 – 100 CY @ an average of 3/4” of fill/SF
Point Clouds on Sheets – No Modeling Required

12”x4” HSS
Point Clouds on Sheets – No Modeling Required
Conclusion

- Laser Scanning will not solve all your problems, but will definitely provide the most complete set of data about your project
- If the resources are available in house try to use them on a regular basis. You might be surprised by the result
- Educate the project team about new technology and their applications
- Participate in PM and Superintendent meetings and understand their needs
- Do not be afraid to experiment. Think outside the box.

Thank you!