

International Conference on

# CIVIL & STRUCTURAL ENGINEERING

June 21-22, 2018 Paris, France

## Technology and innovation applied to the interstate 55 resurfacing project

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This \$33 million patching and resurfacing project encompassed more than 100 lane-miles of interstate expressway and related construction work, including bridge deck and joint repairs, drainage improvements, vegetation management, fiber optic installation, and enhancements to the intelligent transportation system. Challenges faced during construction included a demanding completion date, restricted work hours, high traffic volumes, and staging construction through seven full interchanges, including the interstate-to-interstate interchange with I-355. Precise layout of longitudinal paving joints was critical to the proper placement of longitudinal joint sealant and inlaid pavement markings, further adding to the engineering complexity of the construction project. This presentation will demonstrate how innovative practices and applied technology, including mobile LiDAR data with calibrated imagery, GPS measurement and layout, 3D modeling, and high-definition video, were used to respond to challenges faced in the field to complete the project on time and under budget, with considerable improvements to quality and efficiency over traditional methods, while at the same time improving safety and minimizing inconvenience to the motoring public.

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### Notes: