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OBJECT INTELLIGENCE — INTEROPERABILITY VIRTUAL DESIGN AND CONSTRUCTION

3D Laser Scanning/Imaging in GSA's National 3D-4D-BIM Program

Since 2003, the Office of the Chief Architect (OCA) of the U.S. General Services Administration (GSA) Public Buildings Service (PBS) has spearheaded the National 3D-4D-BIM Program. To date, OCA has over 40 major projects that have incorporated a variety of 3D, 4D, and BIM technologies to address different programming, design, and construction challenges faced by GSA capital projects. GSA is committed to a strategic and incremental adoption of 3D-4D-BIM technologies.

GSA realizes the promises of 3D Laser Scanning/Imaging in enhancing the accuracy and efficiency of documenting existing conditions of capital assets. In the past 3 years, GSA has employed 3D laser scanning technologies on 7 capital projects, ranging from an entry pavilion to a campus of federal properties. As GSA streamlines the adoption of 3D Laser Scanning/Imaging technologies, the Office of the Chief Architect has contracted the National Institute of Standards and Technology and leading academic/research institutions to capture best practices and advise GSA on contract administration. GSA values inputs from and collaborations with standard organizations, peer owners, service providers, and manufacturers in the following areas:

3D Imaging/Laser Scanning Topics:

- Assess industry readiness and technology maturity
- Evaluate benefits, short-comings, cost, and risks
- Establish short-term tactics and long-term strategies
- Collaborate with standard-setting organization, industry leaders, manufacturers, service providers, and academic/research institutions
- Formulate GSA BIM Guide Series 03 on 3D Imaging/Laser Scanning
- Capture best practices and case studies
- Define requirements and update sample solicitation and contractual language
- Assure quality in post-processing, 2D drafting, 3D modeling, and building information modeling

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