Reality Capture Technologies: Bringing Value to Owners

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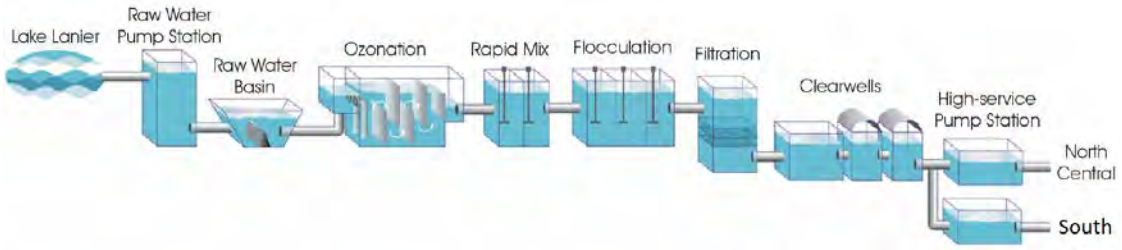
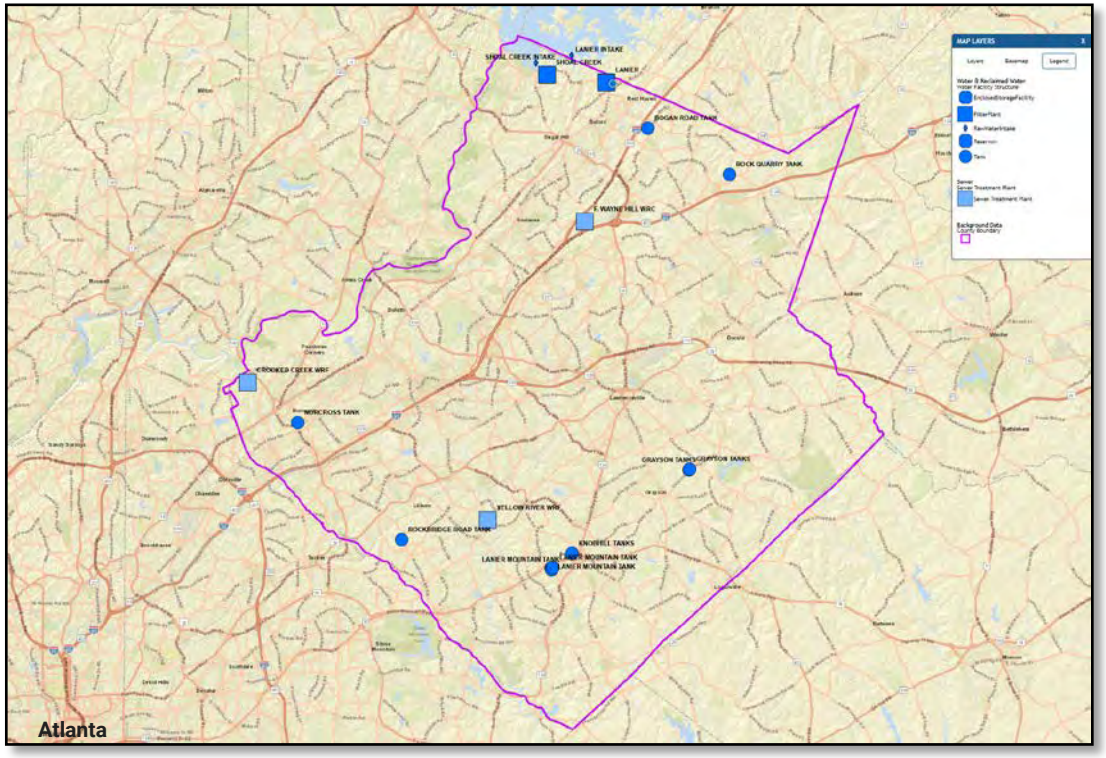
Solomon Kang, PE, PMP, Gwinnett County
Brian Gombos, PE, Wade Trim
Neil Wakeman, Wade Trim

Project Location

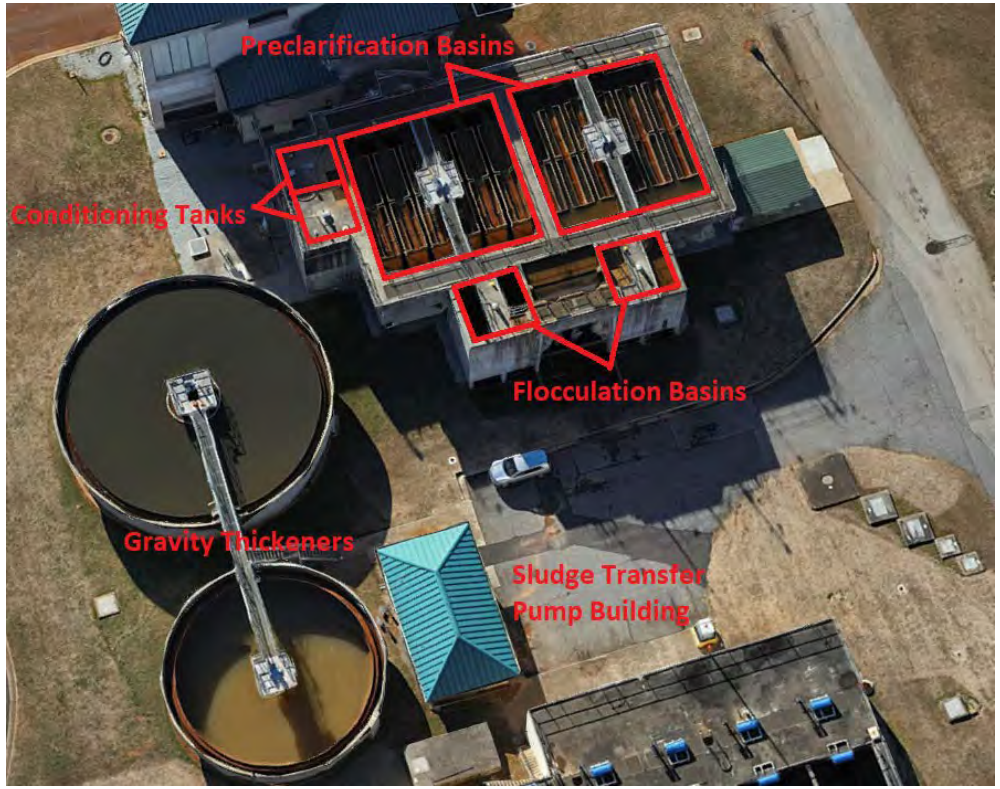
- Lanier Filter Plant (150 MGD)
  - GAWP's Best Operated Water Plant in Georgia
  - One of two water plants in Gwinnett County

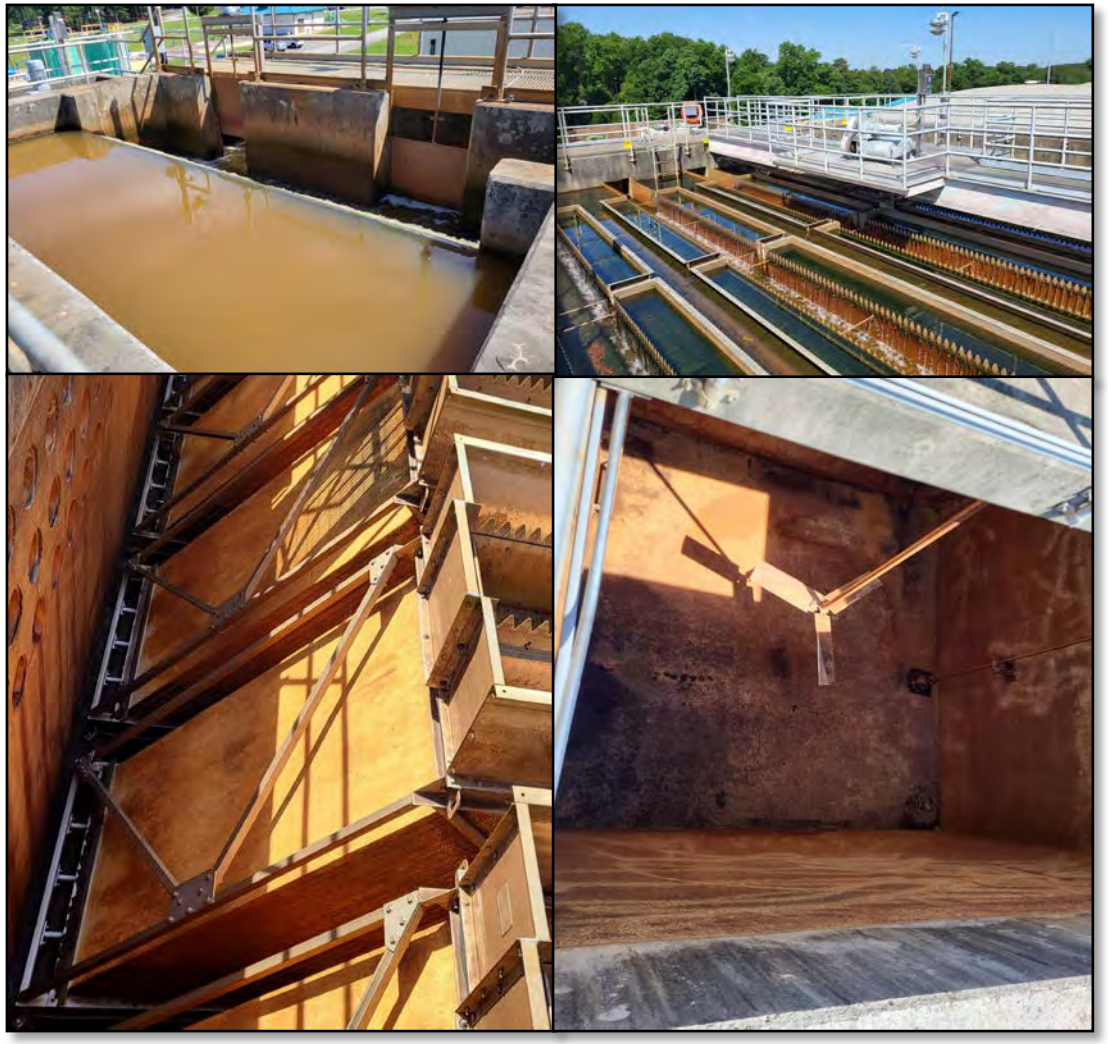




Project Description

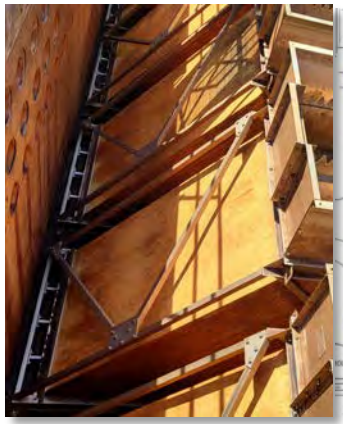
- Residuals Handling Facility
  - Processes filter backwash from both plants
  - Originally constructed about 20 years ago

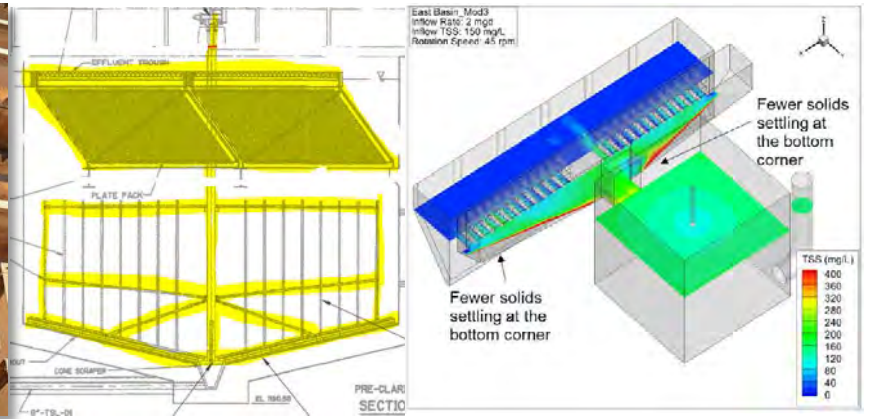


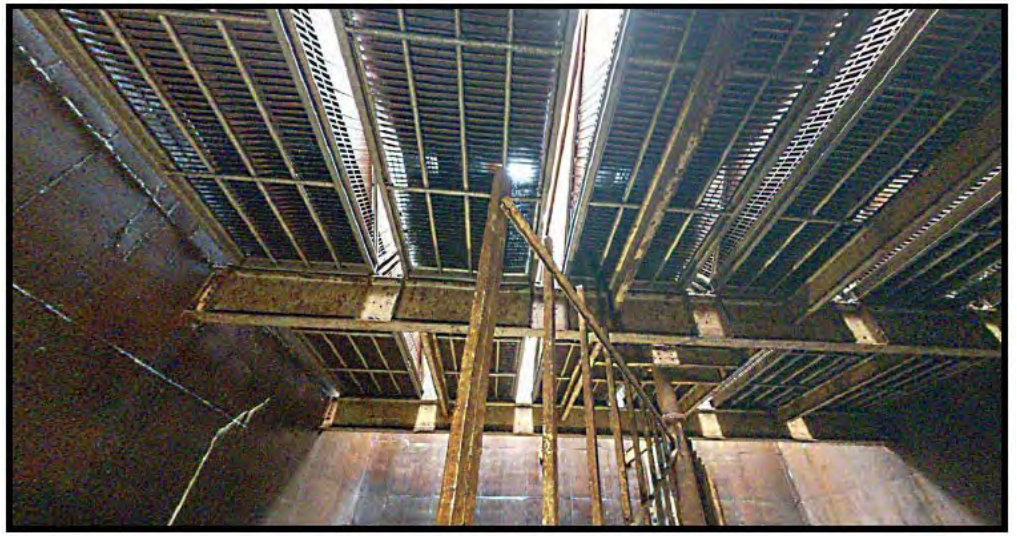


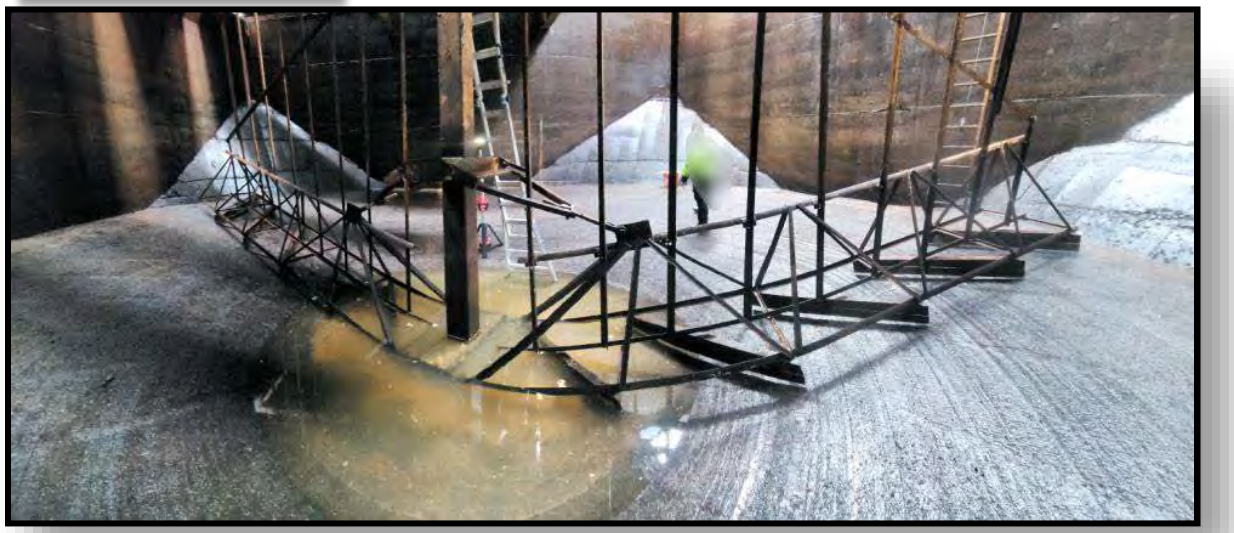
Condition Assessment Approach

- Confined Space Entry with Reality Capture:
  - Saved time and money on condition assessment
  - Remote access to scanned area from anywhere



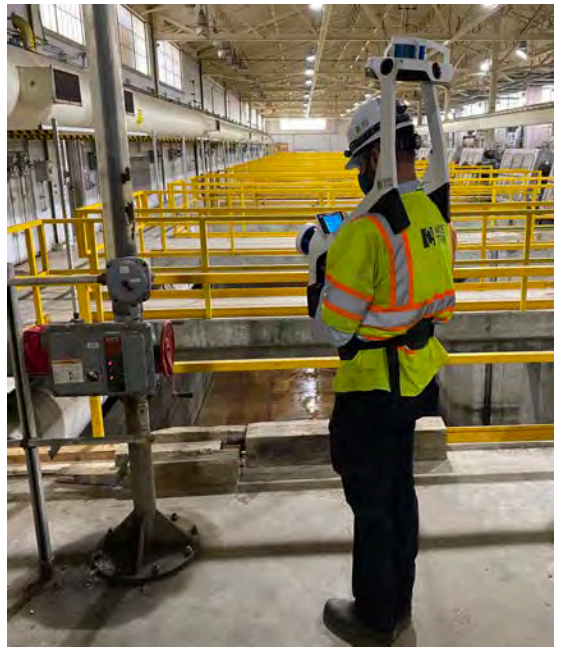


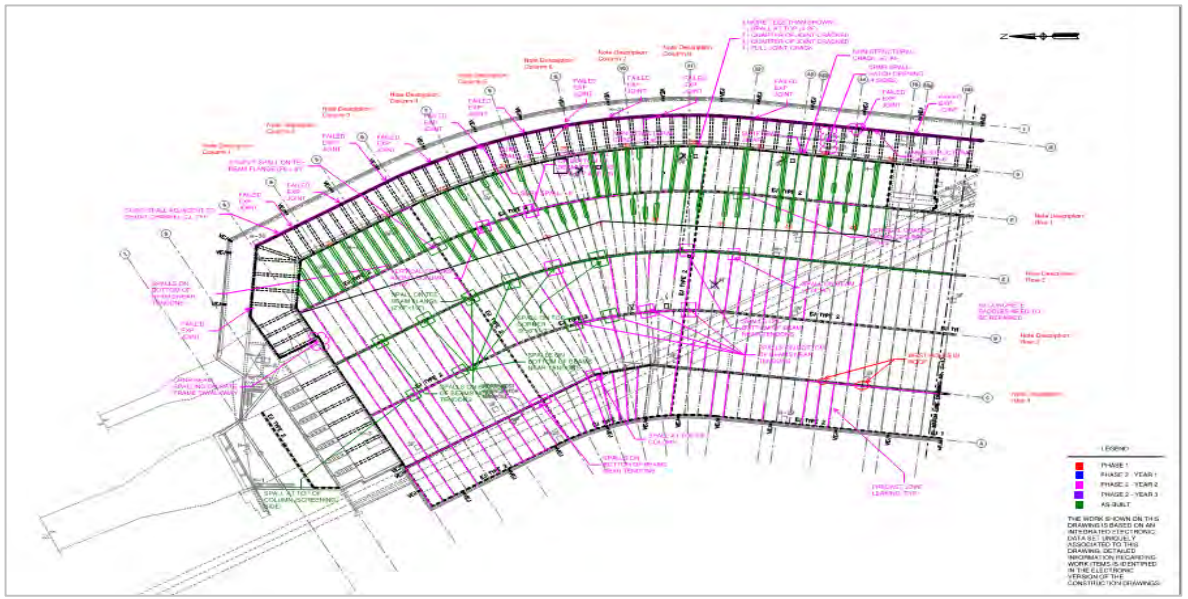


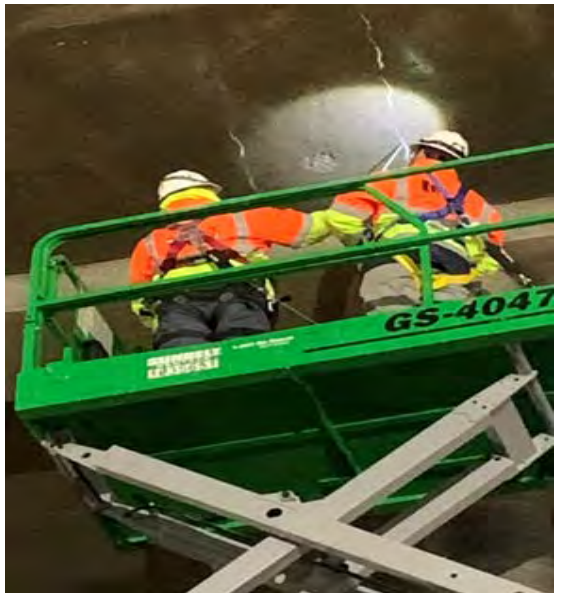


Investigative Solutions

- MOPO and confined space
- Visual and non-destructive testing
- Destructive testing, if necessary
- Intelligent digital workflow through project duration
- Reality capture-digital twin







Solution:
Mobile Reality Capture

What is Reality Capture?

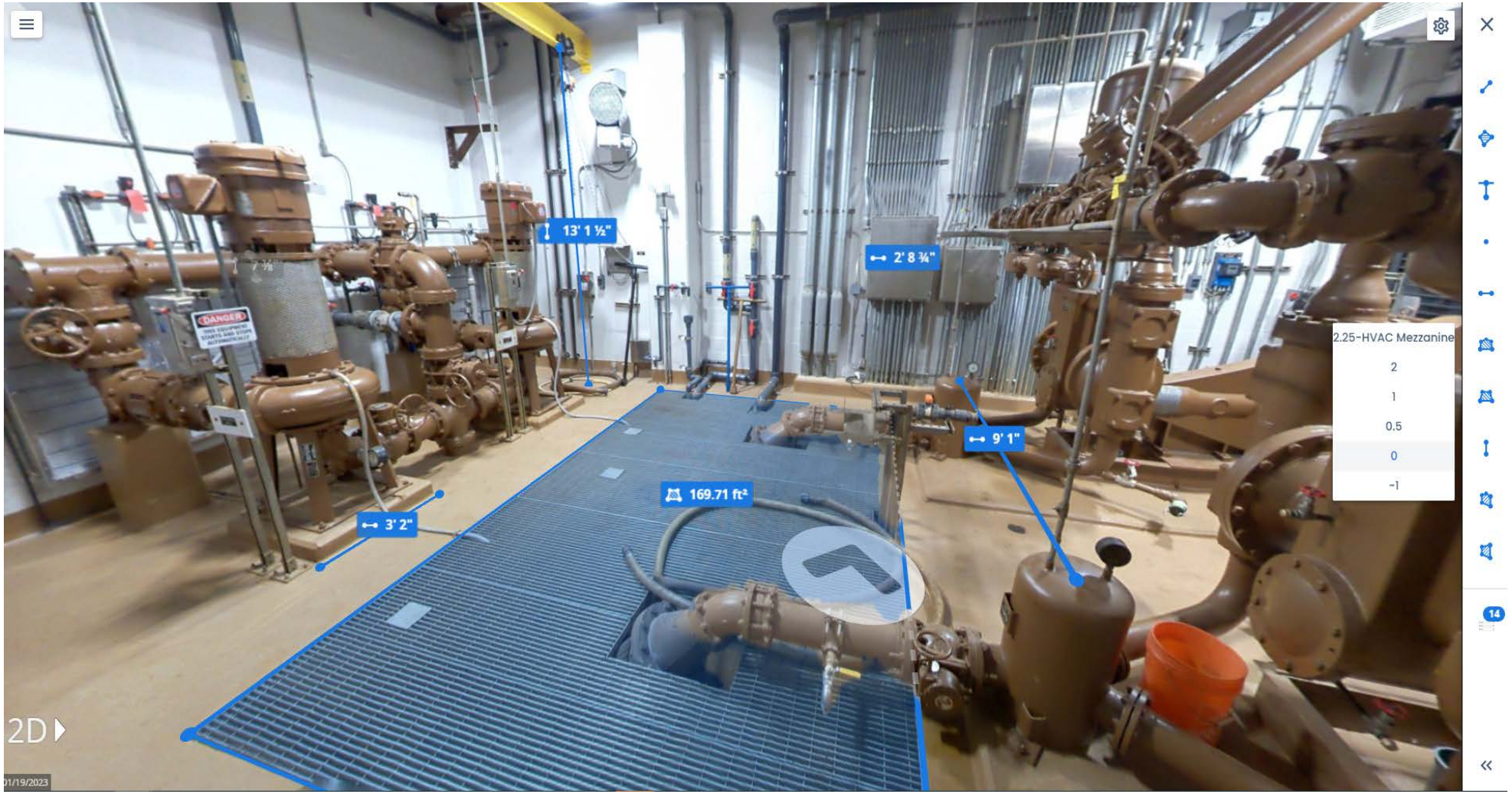
Using digital hardware and software technology to quickly and cost-effectively make an accurate record of existing surroundings for design, construction, and related purposes.

Solution – Mobile Reality Capture Technology!

Fast Scanning Speed

360° Panoramic Imagery

Enhanced Toolset



Cloud Delivered 3D Point Cloud

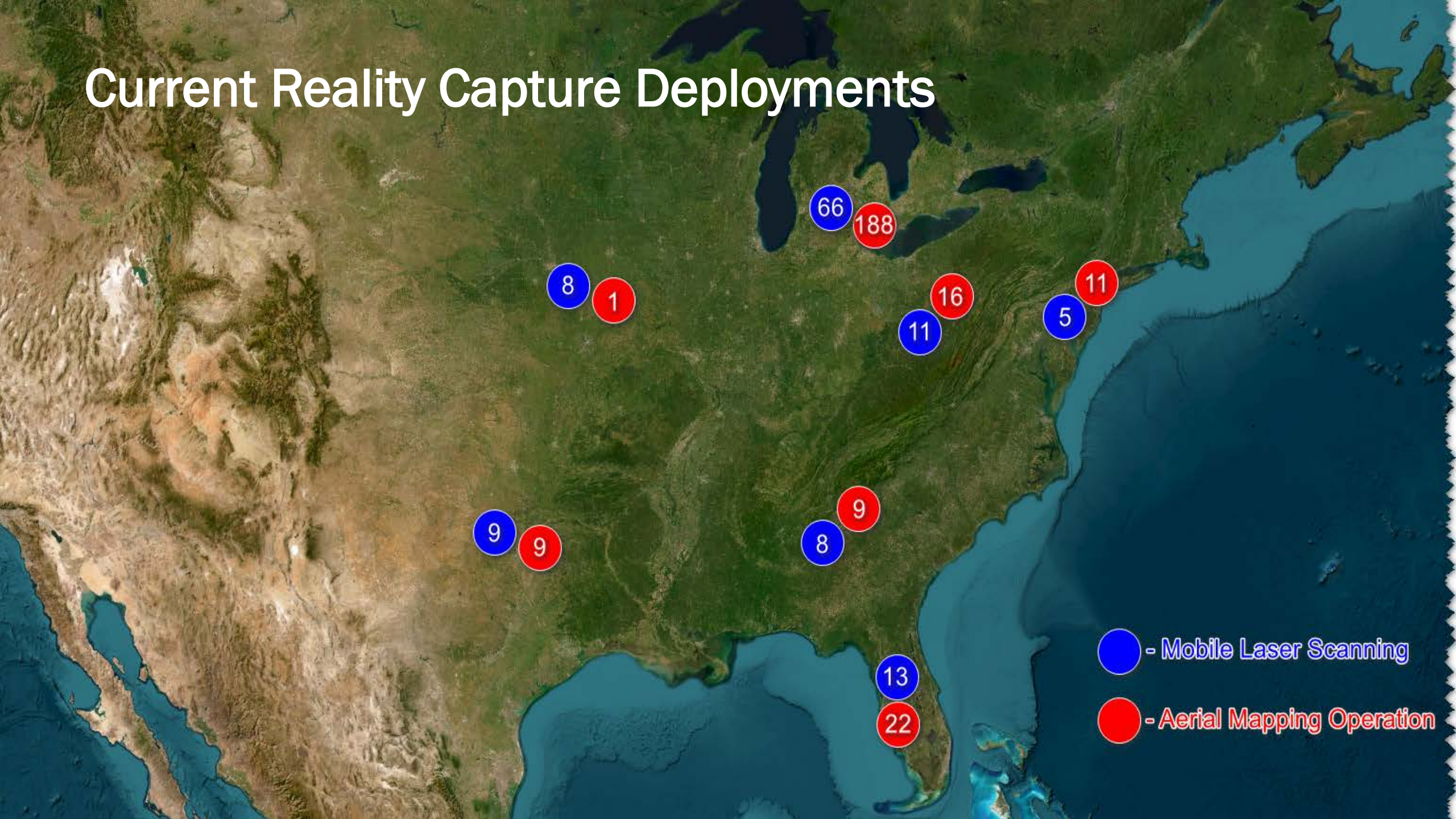
Scan-to-BIM
WADE TRIM

Scan-to-BIM

Live Demo

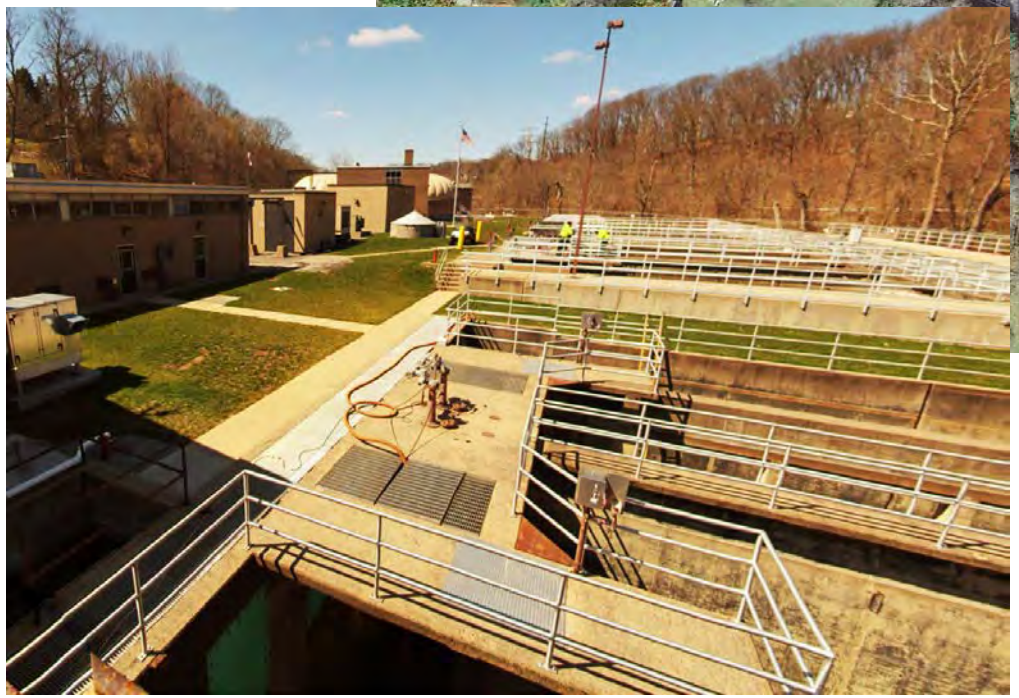
Other Examples

Current Reality Capture Deployments



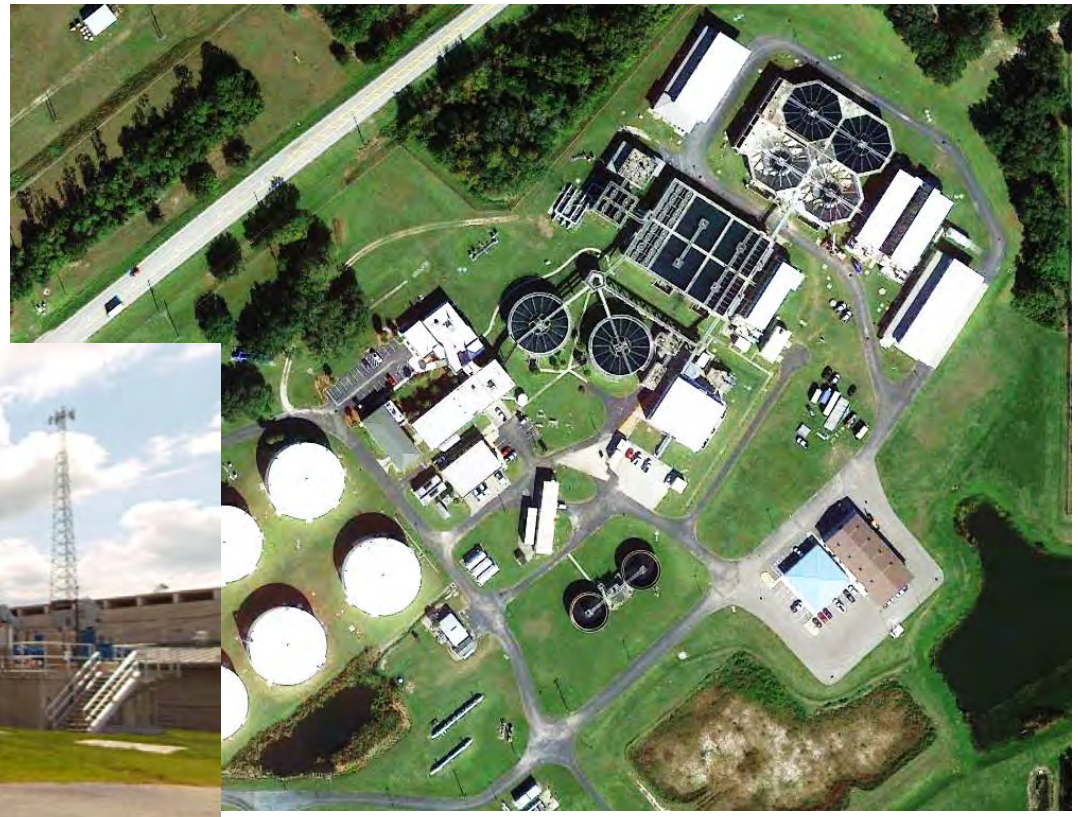
Piney Fork Sewage Treatment Plant- Bethel Park, PA

- Aerial UAV and Mobile reality capture
- Planning and detailed design
- Modify existing congested process areas
- New headworks retrofitted within existing clarifiers



Peace River Water Treatment-Platt, FL

- Aerial UAV and Mobile reality capture
- Planning and preparation for preliminary design



Great Lakes Water Authority- Detroit, MI

- Aerial UAV, Mobile reality capture, survey control
- 58 facilities, “campus-wide” approach
- On-demand scanning related to availability
- All areas (process, admin, confined space)
- Virtual environment accessible to all staff, consultants, contractors
- Immersive pre-bid virtual access
- CMMS and asset management

Next Level: CMMS – Asset Management

Questions?

Gwinnett
Water Resources