CIA TEAM

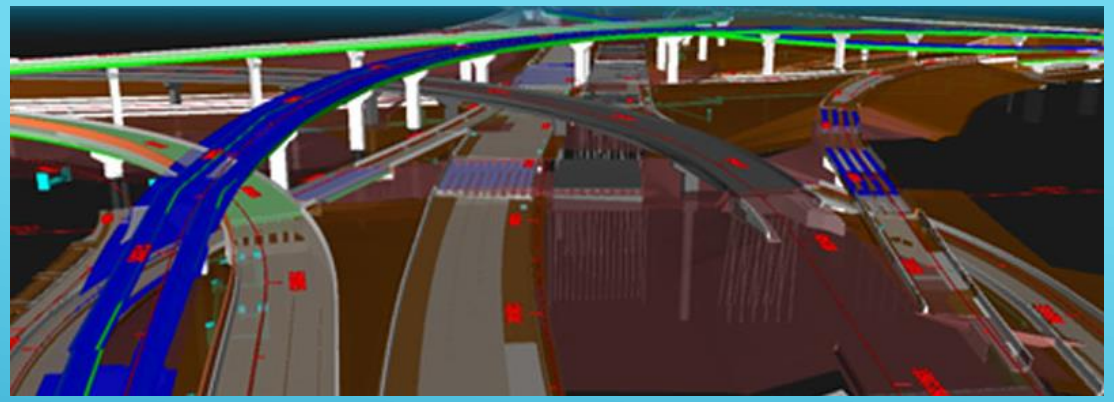
INFRASTRUCTURE PRESERVATION

NJDOT – Bob Signora

FHWA – John Miller

EDC – 6

Digital As-Builts



Purpose: *To explore the use of 3D models to build projects and update that digital information to reflect the project's as-built condition*

Benefits:

- Construction using digital information can lead to safer projects
- Digital information streamlines project delivery
- Digital as-builts can provide enhanced historical data

Status:

- Team assembled (NJDOT, FHWA, Industry), Baseline Report completed, Working on prepare a list of required resources and preparing a cost estimate

EDC – 6

e-Ticketing

Purpose: **Provide stakeholders with an electronic means to produce, transmit, and track and verify materials deliveries**

Benefits:

- *Enhances data collection & reduces exposure to construction equipment*
- *Time Savings - Real-time access*
- *Project documentation is more consistent and efficient using e-Ticketing*

Status:

- *Effort in Development Stage*
- *Assessing vendors for possible use*

EDC – 6 Targeted Overlay Pavement Solutions (TOPS)

Purpose: *To develop and install overlays that provide long-life performance under a wide range of traffic, environmental, & existing pavement conditions*

Benefits:

- Improve surface characteristics, such as smoothness, friction, and noise
- Timely and well-designed overlays are consistently cost-effective
- Targeted solutions to high-traffic areas result in reduced maintenance needs, fewer work zones, and improved safety

Status:

- NJDOT is a *lead agency* using High-Performance Thin Overlay (HPTO), Binder Rich Intermediate Course (BRIC), & Stone Matrix Asphalt (SMA)
- Asphalt Rubber Gap-Graded (ARGG), Open-Graded Friction Course (OGFC), & Ultra-Thin Bonded Wearing Course (UTBWC) in Standard Specs

EDC – 6

UHPC for Bridge Preservation and Repair

Purpose: *To explore the use of UHPC for Bridge Preservation and Repair.*

Benefits:

- Versatile & Strong - UHPC is a fiber-reinforced, cementitious composite material with mechanical and durability properties that far exceed those of conventional concrete materials
- UHPC repairs can outlive and outperform their conventional counterparts, resulting in life-cycle cost savings

Status:

- 2 Pilot projects using UHPC completed in 2020. Information being gathered on performance and usability
- Life cycle cost analysis will also be conducted
- Bridge Design Manual will be updated to include UHPC P&R