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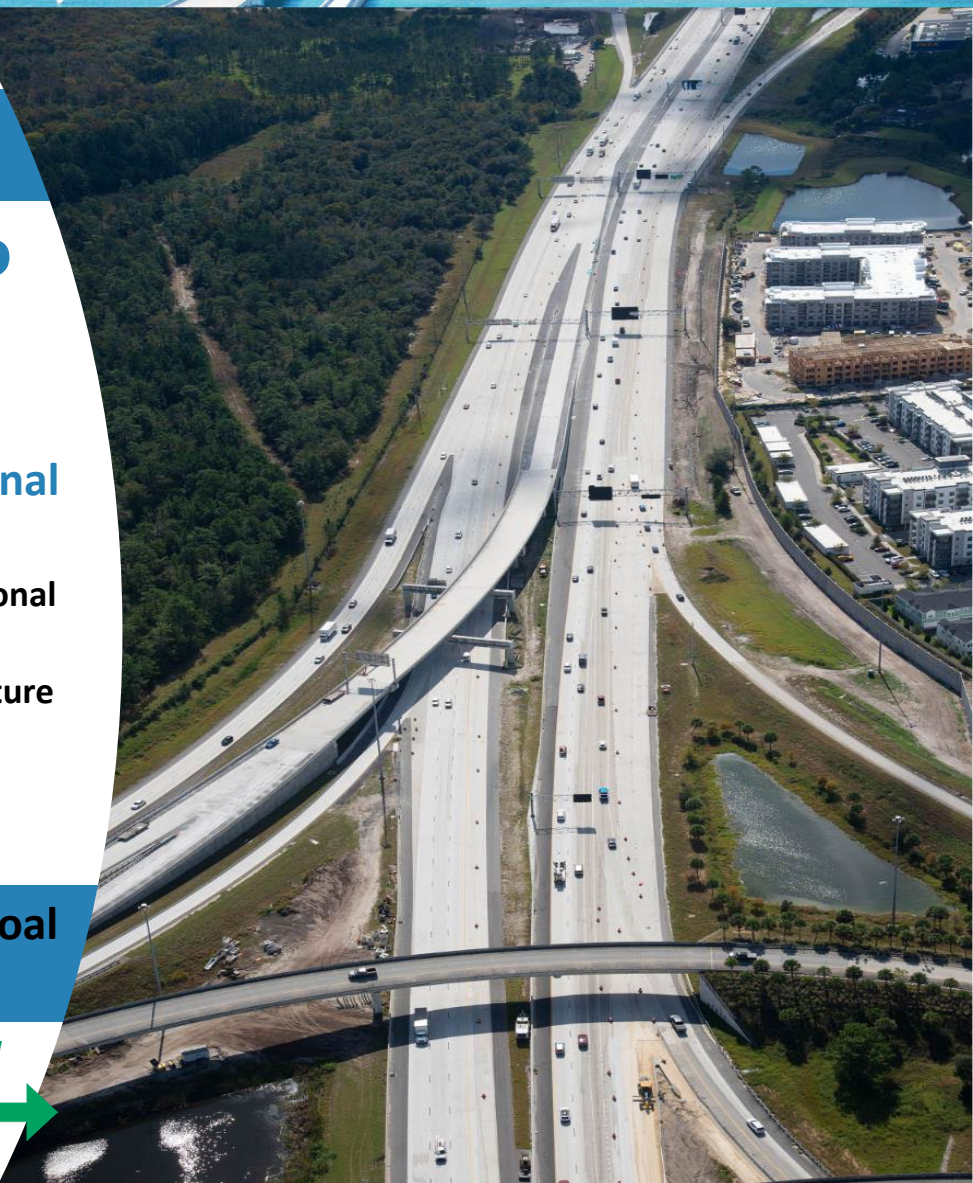
2024 OUTSTANDING PROJECT AWARDS

Outstanding Design-Build or CM at Risk Project

I295 EXPRESS LANES FROM JTB TO SR 9B – DESIGN BUILD

(FDOT FM#: 209301-3-52-01) Jacksonville Florida



PROJECT OVERVIEW:

Scope of work includes all investigation, design, permitting, coordination, final approved construction documents, and construction;

- Two (2) additional concrete pavement interior express lanes in each direction and one additional outside lane in each direction for a five (5) lane section over seven (7) miles.
- Three (3) new FDOT Category 2 Bridges: Braided Ramp, Flyover with post tensioned substructure and an on ramp concrete span greater than 200 feet.
- Six (6) Bridge Widenings and one (1) Bridge culvert.
- Open road tolling at four (4) locations.

PROJECT GOAL- The team approached every element of the job with a goal of increasing efficiency and capacity for the traveling public.

FDOT HNTB RS&H

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Achieving FDOT Goals

- Traffic Control Plans maximized construction out of active lanes.
- Safety was a key consideration, direct median access.
- Achieved high quality pavements and materials.
- HNTB, FDOT and the Contractor maintained the ITS System.
- Vibration monitoring to protect local eye surgery centers.
- The Team- FDOT, HNTB and AW worked closely with FTE on Tolls.
- Project added significant scope at Gate Parkway and the addition of the outside lanes midway through the project.
- Early opening to three general use lanes improved mobility.

Key Design Build Concept Innovation

The AW RSH Team presented an ATC to add a direct connect ramp from the northbound express lanes to JTB in both the east and west direction.

- The straddle piers necessary for this movement required post tensioning and the team chose to use a flexible filler instead of cement-based grout. First in the State.
- Traffic shifted away from this bridge to allow daytime protected construction.

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Community Benefits

The design-build nature of the project allowed the team to develop and innovative approach to design and construction. Community impacts were addressed in all phases.

- ROW and Shoulder Mounted Noise walls - The team utilized noise wall throughout the corridor to reduce the impact of the project and express lanes.
- Cross Street Improvements: Bay Meadows Road and Gate Parkway – Roadways upgraded with bike lanes and high emphasis cross walks.
- Signalization Upgrades – All signals were upgraded and countdown pedestrian signals added.

Safety Improvements

- In 2018 AASHTO published new Roadway Lighting Design Guidelines updating standards for lighting underpasses. Two-hundred (200) daytime lights that cycle off at night when the standard under deck bridge lights come on were installed eliminating any tunnel effect on the motorists' eyes and improves safety.

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Additional I-295 Design Team Impacts

- ✓ **Breakthrough Engineering -** utilized alternative technical concepts (ATC)
- ✓ **Unique Applications –** flexible filler and stress absorbing membranes
- ✓ **Redefining Engineering –** innovations developed improved safety, operations, constructability, and aesthetics, all while reducing overall project maintenance costs, which will redefine engineering thinking.
- ✓ **Public Image of Engineering Excellence –** additional capacity and guaranteed reliable travel time were welcomed benefits to many.
- ✓ **Community Benefits –** noise abatements and additional safe areas for pedestrians and cyclists carefully evaluated and constructed.
- ✓ **Project Contribution –** wetland impact reduction was a goal of the team for this project. Through pond optimization, the team was able to reduce wetland impacts by **20%.**
- ✓ **Addressing Complex Criteria –** "Scissor Bridge" the first of its kind in Northeast Fl. Design adjustment improved the horizontal, vertical, and stopping sight distance by 64% which is much safter for the traveling public.
- ✓ **Extraordinary Conditions –** site challenges constructing straddle piers in a single phase, and drainage issues which were alleviated with varied cross slopes to convey runoff to the median barrier inlets. Eliminating the need for high-maintenance and future costs.
- ✓ **Owner Engagement –** the team collaborated closety with the FDOT and Florida Turnpike to provide vital enhancements to the project.
- ✓ **Cost-Effective Solutions –** resulted in four (4) major approved ATCs, as well as two (2) significant changes that were so essential the FDOT made them project requirements for all teams through RFP Addenda.
- ✓ **Final Cost –** with the additional scope added to the project, the final construction cost was $184M and completed under budget.