I-95 Express Lanes Phase 3B-2 and Diverging Diamond Interchange (DDI) at Glades Road
Palm Beach County, Florida
FPID Nos.: 433109-5-52-01, 433109-5-52-02, 412420-4-52-01, & 435384-1-52-01
Contract No.: E4T19
TPA Committee
February 2020
Project Overview

LIMITS:

SR 9/I-95: from S of Glades Rd to S of Linton Boulevard, Palm Beach County, Florida

Glades Rd: From Butts Road to W University Drive, Palm Beach County, Florida

MUNICIPALITIES:

- City of Boca Raton
- City of Delray Beach
Project Overview

Project Purpose:

- Implement Express Lanes that will provide additional capacity to the mainline, resulting in more reliable travel times and reduced user delay;
- Implement design to address traffic spillback onto I-95;
- Reconfigure Glades Rd Interchange to improve traffic operations, reduce congestion, and increase safety.

Project Need:

- Alleviate existing and future traffic congestion thereby improving safety at the interchange.
RFP Concept Glades Interchange

- Reconstruct SB I-95 Entrance Ramp
- Reconstruct NB I-95 Entrance Ramp
- Construct New Ramp for Airport Rd. and NW 15th Ave. Traffic to Access I-95
- Construct New Bridge over Airport Road for I-95 Access
- Construct Triple Right and Left Turn Lanes
- Widen Bridge over I-95, Military Trail and SFRC for New Ramps
- Reconstruct SB I-95 Entrance Ramp

FPID No.: 433109-5-52-01, 433109-5-52-02, 412420-4-52-01 & 435384-1-52-01 | Contract No.: E4T19
I-95 Phase 3B-2 - Diverging Diamond Interchange (DDI) at Glades Road

Team ATC Glades Interchange DDI
A Diverging Diamond Interchange is a form of Diamond Interchange that allows the two directions of traffic on the crossroad to temporarily divide and cross to the opposite side of the road to provide easier left-turns to and from the freeway.
Team ATC Glades Interchange DDI

- Fewer conflict points (14 for DDI, 26 for Diamond)
- Improved intersection sight distance
- Inherent traffic calming
- Wrong way entry to ramps extremely difficult
- Pedestrian crossings are shorter
- More efficient use of
- Existing bridge can usually be used
- Construction time is reduced
- “Free” or simple left and right turns from freeway
- Increases left turn lane capacity without needing more lanes
- Only two phases needed for traffic signals, shorter cycle length
Glades Road DDI Design Change Benefits

Reduced impacts to existing infrastructure

- Eliminates ramp flyover bridge over Airport Road
- Eliminates bridge widening for Glades Road EB & WB bridges over I-95 and EB bridge over Military Trail / SFRC
- Reduced bridge widening for Glades Road WB bridge over Military Trail / SFRC
- Eliminates 0.38 Acres of R/W acquisition from the Boca Raton Water Treatment Plant Property
- Enhanced safety and fewer crashes due to reduction of conflict points. Proposed DDI 14 Conflict Points vs. FDOT Concept Modified ParClo Design 18 Conflict Points.
- Optimized 2-phase signal operations at intersections within the interchange
Glades Road DDI Design Change Benefits

Bridge widening

RFP Concept

Team ATC DDI

OPTIMIZED 2-PHASE SIGNALIZED INTERSECTION

REACHED BRIDGE WIDENING

ELIMINATED BRIDGE WIDENING

Eliminated bridge widening

Reduced bridge widening

Optimized 2-phase signalized intersection

Team ATC DDI
Glades Road DDI Design Change Benefits

Eliminates flyover ramp bridge

RFP Concept

Team ATC DDI

Team ATC DDI
Glades Road DDI Design Change Benefits
RFP Concept (Lane Configuration, Delay and Level of Service)
Team ATC DDI Diagram (Lane Configuration, Delay and Level of Service)
Project Schedule

- Methodology Letter of Understanding (MLOU)
  - Approved December 12, 2019
- Submit IMR to FDOT D4 and Central Office
  - March 4, 2020
- Construction Open House
  - January 15, 2020
- Submit IMR/Application to NEPA
  - April 20, 2020
- NEPA Reevaluation Approval
  - End of October 2020
Any Questions?

THANK YOU!