

10th Annual ASHE Harrisburg PennDOT Engineering District 8 Conference

PA Turnpike/I-95 Interchange Project

April 4, 2014



Presentation Includes:

- Project Background / History
- Status of Design and Construction
- Where Project is Headed



More than an Interchange

- Free flowing interchange with 60 MPH connection for I-95
- Widening of Turnpike (8 miles) and I-95 (3 miles)
- New bridge over Delaware River
- Completion of I-95 and the interstate system by re-routing I-95 on to the I-95 & NJ Turnpikes



Agency Coordination

- This is a Major Project as defined by FHWA
- PA Turnpike Commission (PTC) is the lead agency with close coordination with FHWA and PennDOT
- Coordination is also required with NJDOT and NJTA

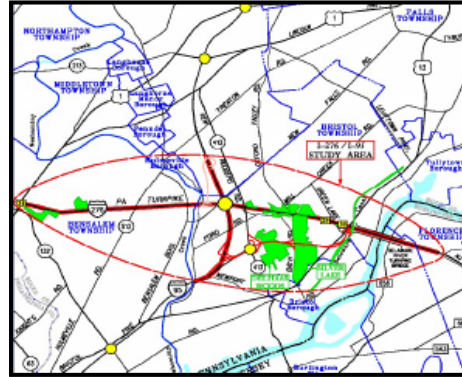


U.S. Department of Transportation
Federal Highway Administration



History

- Turnpike construction (1950's) and I-95 construction (late 1960's) completed without any type of interchange.
- PennDOT studied a connection known as LR1000 Spur f in the 1970's.
- Environmental impacts in Silver Lake Park & Delhaas Woods forced discontinuance of studies.



History

- Federal legislation passed in 1982 to reroute I-95 on to the PA Turnpike when interchange is constructed.
- This was due to approximately 25 miles of I-95 not being constructed near Princeton



History

- State legislation passed in 1985 (Act 61) which authorized PTC to construct the interchange and basically be the lead agency.
- The PTC studied a conventional interchange (closed with tickets) in the 1980's. This concept was scrapped due to a traffic study projecting higher volumes and a desire to have a high speed connection for I-95.



History

- Concept to modify tolling of the Turnpike including a high speed I-95 connection was included in the 1991 Interstate Cost Estimate (EIS).
- In 1992, the EIS began and produced the current scheme under design. The record of Decision (ROD) was received from FHWA in 2003.
- Preliminary Design began in 2004.



Project Design Contracts

Design Management Team

- Assist Agencies in Managing the Project Design
- Environmental Monitoring
- Public Involvement

Eight Design Sections

- I-95-A Turnpike Widening, US 1 Int.
- I-95-B Tolling Modifications
- I-95-C Central Turnpike Widening
- I-95-D Turnpike/I-95 Interchange
- I-95-E Turnpike Widening/US 13 Int.
- I-95-F South I-95 Widening
- I-95-S Overpass Structures
- I-95-ITS. Signing and Lighting

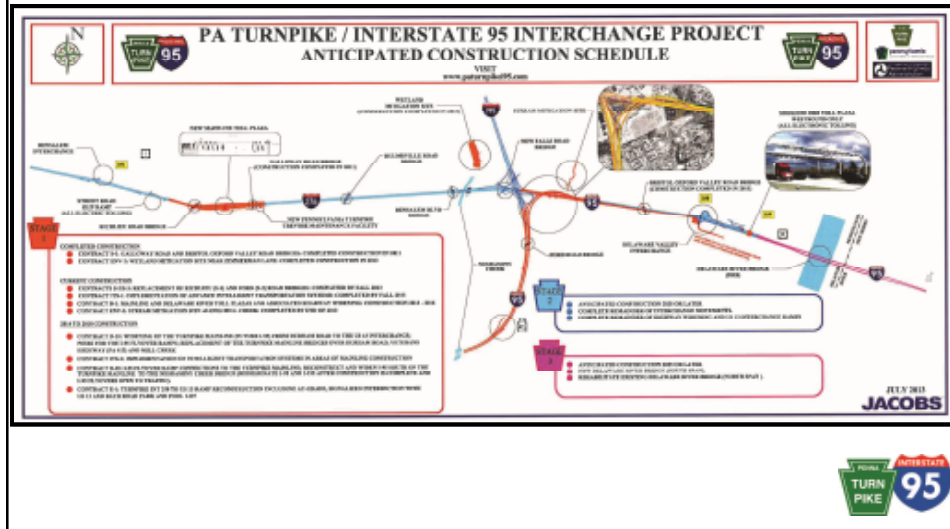


Re-designation of I-95 to I-195



Figure 4 – Renumbering Option #2 – Former I-95 Segment becomes part of Regional Extension of I-195

Construction Staging



Overall Project Costs

Total Project = \$1.4 Billion

- Stage 1: \$425 Million
- Stage 2: \$550 Million
- Stage 3: \$425 Million



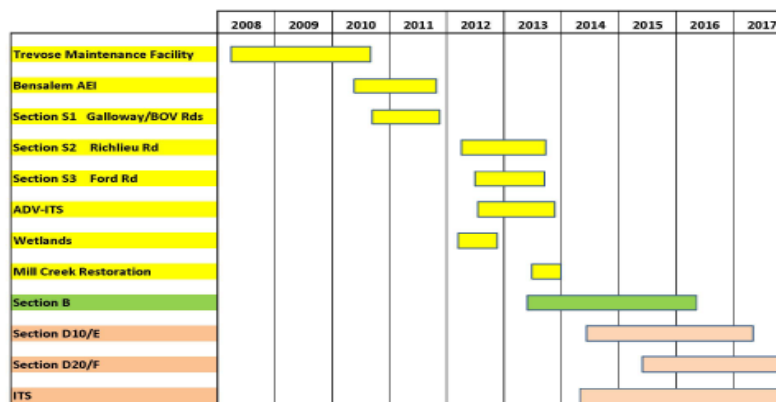
Stage 1 Construction Sections

- Trevoze Maintenance Facility
- All Electronic Interchange (AEI) 352
- Section S1: Galloway Rd./Bristol Oxford Valley Rd. Bridges
- Section S2: Richlieu Rd. Bridge
- Section S3: Ford Rd. Bridge
- Section ADV-ITS
- Section NW Quadrant Wetlands
- Mill Creek Stream Restoration
- Section B Tolling Modifications
- Section D10
- Section D20
- Section ITS



Stage 1 Construction Schedule

I276/195 Construction Schedule---Stage 1



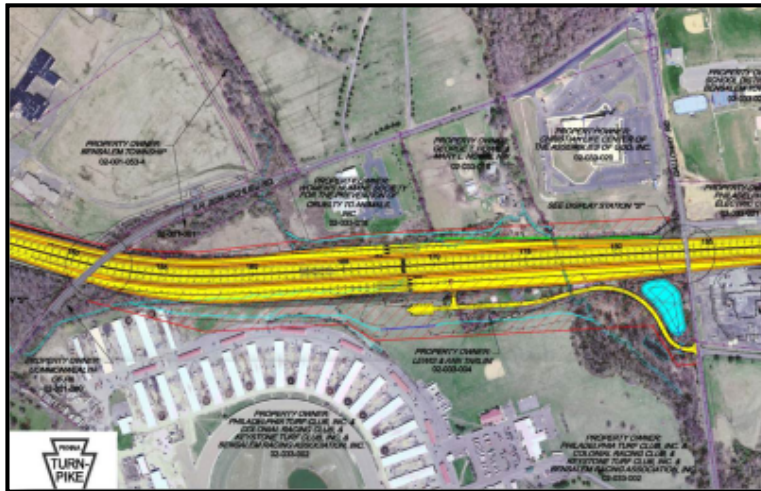
Stage 1 Construction Costs

• Trevoze Maintenance Facility		\$18.3m
• All Electronic Interchange (AEI) 352		\$ 7.0m
• Section S1: Galloway Rd./Bristol Oxford Valley Rd. Bridges		\$ 9.8m
• Section S2: Richlieu Rd. Bridge		\$ 7.9m
• Section S3: Ford Rd. Bridge		\$ 5.8m
• Section ADV-ITS		\$ 3.4m
• Section NW Quadrant Wetlands		\$ 0.3m
• Mill Creek Stream Restoration		\$ 0.8m
• Section B Tolling Modifications		\$61.4m
• Section D10	Estimate >	\$100m
• Section D20	Estimate >	\$100m
• Section ITS	Estimate >	\$10.0m

Stage 1: Total Estimate Cost = \$425 million



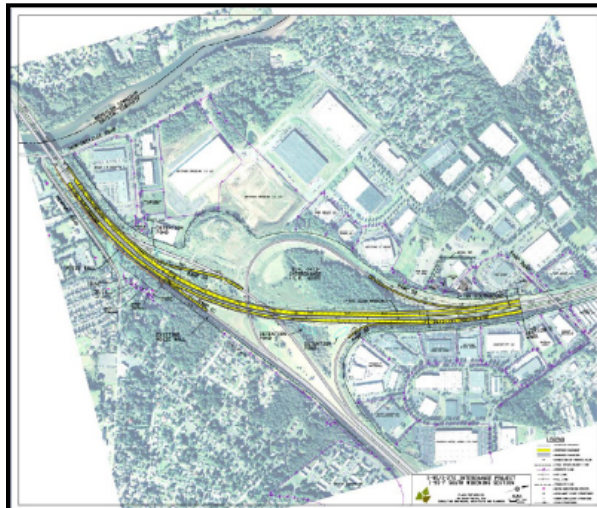
Mainline Toll Plaza Section



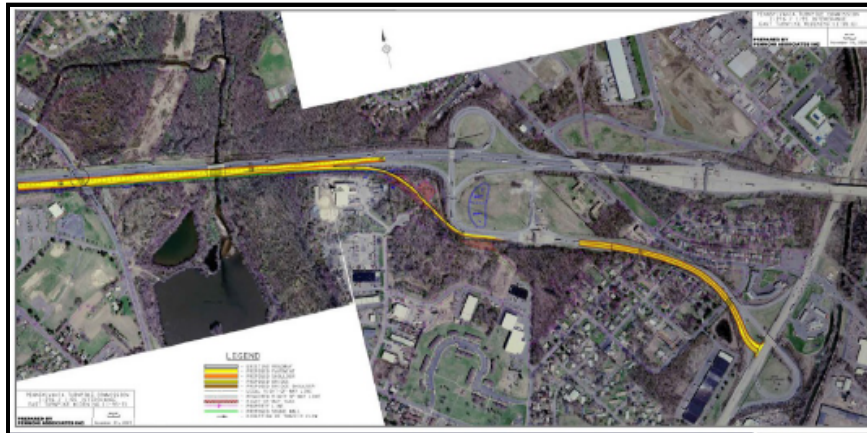
Project Stage 1 Interchange Construction



I-95/PA 413 Interchange Section



DRB Toll Plaza/Int. 358 Section



Project Stage 1 Cost and Funding Issues

- Stage 1 Estimated Cost is \$425 million (YOE)
- Dedicated Federal Funds balance for construction of this project is \$188 million
- Remainder of funding needs to be secured from PTC, State and Federal sources
- Acceptable Financial Plan needed before use of Federal Funds.



Section B

Mainline/DRB/US13 Toll Plazas

- Construction of new mainline toll plaza (12 lanes) 4 lanes Express E-ZPass
- Construction of new 5000 SF toll building and access road
- Conversion of existing DRB toll plaza to AET
- Removal of Bristol (US 13) toll plaza
- Coordination for tolling modifications at 3 separate locations



Section B

Mainline/DRB/US13 Toll Plazas

- Relocation of 2 streams with new jacked box culvert under mainline
- Approximately 180,000 SY of bituminous pavement
- Approximately 300,000 CY of excavation
- Construction of 9 sediment basins and traps
- Work Zone Traffic Monitoring — PTC Vendor



Section B Current Construction

- 4 contracts bid in March 2013 - \$59.2m for GC and \$2.2m for MEP's
- NTP issued in late May of 2013
- Currently in Stage 2 --- widening in both EB and WB directions--- scheduled to be completed in Fall of 2014
- Stage 3 (reconstruction of existing mainline) scheduled to be completed in July of 2015
- Tolling conversion at Section B plaza and AET at DRB scheduled for November 2015



Project Details: Section D10

- | | |
|---|---|
| <ul style="list-style-type: none"> • Bid: Mid 2014 thru ECMS – unofficial plans were on ECMS for contractors to preview • Estimated Construction Cost: >\$100 million • Approximate Construction Timeframe: 3 years • Major Construction Stages: 4 | <ul style="list-style-type: none"> • Structures <ul style="list-style-type: none"> ▫ 7 Bridges <ul style="list-style-type: none"> • 3 – single span replacement • 1 – new 4 span • 1 – new 14 span • 2 – single span rehabilitation ▫ 10 Retaining Walls ▫ 12 Noise Walls ▫ 2 Culvert Extensions • Roadway – Widening approx. 2.5 miles of Turnpike mainline from I-95 to MP 358 <ul style="list-style-type: none"> ▫ 150,000 SY of Bituminous Pavement ▫ 100,000 CY of Excavation |
|---|---|



Project Details - Section D20

- Bid: Early 2015 thru ECMS
 - Estimated Construction Cost: >\$100 million
 - Approximate Construction Timeframe: 3 years
 - Major Construction Stages : 4
- Structures
 - 2 Bridges
 - 1 – new single span
 - 1 – new 15 span
 - 5 Retaining Walls
 - 3 Noise walls
 - Roadway – widening approx. 2 miles of I-95 from Rt. 413 Interchange to Turnpike mainline
 - 180,000 SY of Concrete Pavement
 - 130,000 CY of Excavation



Public Involvement Program

- Project Website and Newsletter
- Project Office – call to ask questions or make an appointment
- Public Officials and Design Advisory Committee
- Incident Management Committee



Things have changed!



Questions?

Jacobs Engineering Group, Inc.

Project Office

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