I-64 Southside Widening and High Rise Bridge Phase 1 Project

Presentation at Hampton Roads Joint Societies Luncheon

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VDOT Hampton Roads District Major Projects
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I-64 Southside Widening and High Rise Bridge Phase 1
Agenda

• Introduction
• Project Location
• Existing and New High Rise Bridges
• Project History
• Project Goals
• Project Scope
• Design-Build Contract and Team
• Design-Build Schedule
• Design and Construction Details
• Questions
Project Location
City of Chesapeake:
From: Rotunda Avenue, 0.3 mile east of I-264 interchange at Bowers Hill
To: Battlefield Blvd, 1.0 mile east of the I-464 Interchange
Existing High Rise Bridge

Existing bridge built in 1966
Rendering of New High Rise Bridge
Construction is Underway!
Project History

- 1995: Hampton Roads Congestion Management System planning study recommended adding one General Purpose (GP) lane
- 1996: Major Investment Study (MIS) for I-64 Corridor Improvements from Route 168 (Battlefield Blvd.) to Interstate I-264 (Bowers Hill)
- 1997: FHWA issued a Finding of No Significant Impact (FONSI)
- 2007: VDOT and FHWA drafted a Revised EA as part of design project that advanced to the preliminary design level before it was canceled due to lack of construction funds
- 2013: VA legislation created the HRTF, which would be administered by the HRTAC
- 2013: Hampton Roads 2034 Long-Range Transportation Plan include an environmental study for the I-64 corridor from I-464 to I-664/264
- Oct 2014: Draft Environmental Assessment approved by FHWA
- Nov 2014: Location Public Hearing was held
Project History

- Mar 2015: CTB approved location of project (Alternative 2):
  - Widen I-64 from 4 to 8 lanes, adding 2 managed lanes in each direction
  - Replace High Rise Bridge with high-level, fixed-span bridge
- Jul 2015: VDOT began phasing study, endorsed by HRTPO
- Jan 2016: HRTPO gave approval to build the project in 2 phases:
  - **Phase 1 Project:** Widen I-64 from 4 lanes to 6 lanes; new High Rise Bridge south of the existing bridge.
  - **Phase 2 Project:** Widen I-64 from 6 lanes to 8 lanes; replace existing High Rise Bridge; I-264, Military Hwy, Rte. 17 and I-464 Interchanges.
- Feb 2016: Started preliminary design and development of design-build (DB) contract
- Aug 2016: FHWA issued a FONSI
- Aug 2016: Advertised RFQ for DB contractors
- Oct 2016: Design Public Hearing
- Dec 2016: Issued RFP to shortlisted DB contractors
- Nov 2017: NTP to Granite/Parsons/Corman, a JV (GPC)
Project Goals

- Increase capacity
- Improve safety
- Enhanced emergency evacuation route
Project Scope

- Widen 9 miles of I-64 in Chesapeake from 4 lanes to 6 lanes
- Add one HOT lane in each direction
- Add one shoulder lane in each direction from Rte 17 (George Washington Highway) to Rte 190 (Great Bridge Blvd) (Adds 4th lane in each direction during peak congestion periods)
- New High Rise Bridge
- Retrofit existing High Rise Bridge for 1-way traffic
- Replace Great Bridge Blvd Bridge
- Widen 6 bridges on I-64
Design-Build Contract and Team

- **Original Project Budget:** $597,576,863
  - Preliminary Engineering
  - Right-of-Way, Utilities
  - Final Design and Construction (estimated at $490 Million)

- **DB Contract:** $410 Million ($80 Million less than estimate)
  - Largest DB contract in VDOT history
  - Design-Builder – Granite- Parsons- Corman, JV (GPC)

- **Revised Project Budget:**
  - PE $12,200,000
  - RW $18,726,000
  - CN **$493,687,765** (Incl. $9.6 Million early completion incentive)
  - Total: $524,613,765

- **Funding:**
  - HRTAC: $431,956,220
  - SMART SCALE (Fed/State): $92,657,545
Design-Build Contract and Team

- Design-Bid-Build Delivery
- Design-Build Project Delivery
Design-Build Schedule

Start Prelim. Design
02/19/2016

DB Notice to Proceed
11/17/2017

Start Construction
09/18/2018

Open New HRB
11/21/2020

Final Completion
07/30/2021

Incentive Date
05/07/2021
## Design-Build Schedule

### Estimated Construction Scheduling

![Map of I-64 Southside / High Rise Bridge]

#### Phase and Location:

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*Actual start and end dates will fall within the above timelines*
Current Design/Build Progress (Approximation)

- Geotechnical Exploration (927 borings): Completed
- Design (Bridges): 95%
- Design (Roadway): 90%
- Permits (USACE, DEQ, VMRC, USCG, VPDES): Completed
- Utility Relocations: 50%
- ROW: 40%
- Construction: 10%
Roadway Typical Sections

I-64 Widening
From Beginning of Project to Rte. 17

I-64 Widening
From Rte. 17 To Project End

Median > 30’ = Grass, west of Rte. 17
Median < 30’ = Concrete Barrier, east of Rte. 17
Noise Barriers

Project includes about 8 miles of noise barriers
Great Bridge Blvd Bridge Replacement

Existing Great Bridge Blvd Bridge (Looking East)

Current View of Great Bridge Blvd Bridge (Looking East)

Proposed Great Bridge Blvd Bridge (Looking East)
I-64 Bridge Widenings

Widening of Six Bridges:

- I-64 EB & I-64 WB over Military Highway (Rte. 13 & Rte. 460)
- I-64 EB & I-64 WB over Yadkin Road & Norfolk Southern Railroad
- I-64 EB & I-64 WB over Shell Road (Rte. 648)
Proposed High Rise Bridge

Typical Section

Existing High Rise Bridge (I-64 EB Lanes)

Proposed High Rise Bridge (I-64 WB Lanes)
High Rise Bridge Typical Section

Wide enough for 6 lanes during construction of Phase 2 project
Channel Unit of High Rise Bridge
High Rise Bridge by the Numbers

- Total Length: 1.2 Miles (6110 feet)
- Width: 85 feet
- Total Area: 519,350 SF (= area of 11 football fields)
- Maximum Height: 113 feet (100 feet clearance over river)
- Spans (140’ to 250’): 37
- Piles (Prestressed Concrete): 324 (23,000 LF)
- Concrete: 70,000 CY
- Rebar: 13 Million LBS
- Beams (Prestressed Concrete) (140’ to 196’ long Bulb-Ts): 296
- Structural Steel (3 spans over navigation channel): 3 Million LBS
Piles on New High Rise Bridge

- **Abutment A:** 18” square PS concrete piles – 18 total
- **Abutment B:** 24” square PS concrete piles – 18 total
- **Land & River Piers:** 36” square PS concrete piles – 222 total
- **River Piers:** 66” diam. PS concrete cylinder piles – 66 total
Access for High Rise Bridge Construction

- Spans 1-4: Built from land
- Spans 5-8: Built from 700 ft long west temporary trestle
- Spans 9-18: Built from floating barges
- Span 19: Built from 200 ft long east temporary trestle (trestle also used for material delivery to river)
- Spans 20-37: Built from 2000 ft long temporary access road
Current Construction Activity on High Rise Bridge
Stay Informed

• Visit the project website – www.64highrise.org
  ➢ Traffic alerts
  ➢ Past presentations
  ➢ Upcoming presentations
  ➢ Project cameras showing real time activity
  ➢ FAQs
  ➢ Sign up for e-blasts

• VDOT Facebook Page/Group

• Quarterly Community/Public Meetings

• Contact Information:
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Questions?