OHIO RIVER BRIDGES PROJECT

TWO BRIDGES – ONE PROJECT

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ASSISTANT STATE HIGHWAY ENGINEER
KYTC CONSTRUCTION/PROJECT MANAGER
POINTS TO COVER

• THE EARLY Years
  • Brand New Corvette Dreams
  • 1984 Bronco II Budget

• New Life
  • Okay, A Used Corvette

• Oversight

• Project Take-A-Ways and Progress
The Early Years

• 1969
  • Project placed in long range plan

• 1998
  • GEC selected

• Environmental Documents
  • APRIL 2003 – FEIS
  • SEPT 2003 – ROD
  • 9 Historic Preservation Plans & Easements
The Early Years

- One Project – Six Sections
  - Sections 1 & 4 KY Funded
  - Sections 3 & 6 IN Funded
  - Sections 2 & 5 KY/IN Funded
- Design-Bid-Build
- Six Sub-Consultants managed by GEC
- 2004 - Design began
- $4.1 Billion
- 2006 – 2024 Construction
- 2009 – Interest wanes
New Life

• 2011: Cost saving measures investigated
  • Rebuild Kennedy Interchange “Spaghetti Junction” within existing footprint.
  • East End Tunnel and river crossing reduced from six lanes to four
  • $2.6 B
  • Kentucky fund & administer Downtown Xing – Design-Build
  • Indiana fund & administer East End Xing – P3

• 2012 April: SFEIS
• 2012 June: Revised ROD
Project Management Overview

Bi-State Development Agreement

Downtown Crossing

Bi-State Management Team

GEC

East End Crossing
PROCURMENT TIMELINES

DOWNTOWN CROSSING PROCUREMENT

- March 2012 – RFQ Issued
- April 23, 2012 – Three teams short listed
- August 3, 2012 – Final RFP issued
- October 1, 2012 – Technical Proposals due
- October 1, 2012 to November 15, 2012 – Technical Proposals scored
- November 15, 2012 – Price Proposal due
- December 28, 2012 – Notice to Proceed

EAST END CROSSING PROCUREMENT

- March 2012: RFQ Issued
- April 2012: 4 teams shortlisted
- July 2012: RFP Issued
- October 2012: 4 Proposals Received
- November 2012: WVB Selected
- Dec 2012: Commercial Close (Award)
- March 2013: Financial Close; Bond Sale
## Design-Build Selection

**Downtown Crossing**

- **Value Based Selection**
- **Walsh**  99.2  $860,000,000  1,380 Days
- **SFD**    98.8  $849,630,093  1,408 Days
- **ORTC**  90.4  $959,000,000  1,614 Days

RFP Specified Substantial Completion – June 20, 2018
Walsh Specified Completion Date – December 9, 2016
Downtown Crossing Funding

- $679 M: Traditional Federal Funds
- $272 M: Toll Revenue Bond Proceeds
- $493 M: TIFIA Loan Proceeds
- $1.444 B: Construction Financing
EEC Financing

- Design & Construction Cost = $763 M
- WVB East End Partners
  - $81.9 M equity
  - $702 M Private Activity Bonds
- INDOT/IFA
  - $392 M Milestone Payments
    - Includes $162 M TIFIA loan
  - Availability Payments – 35 yr. O&M Term
    - Begin at Substantial Completion
    - Base MAP of $27.7 M first year
Construction Timeline

DOWN TOWN CROSSING TIMELINE
- February 2013 – Design begins in earnest
- June 2013 – Construction begins
- October 2013 – CSB Drilled Shafts Begin
- October 2014 – Tower Foundations Compl
- June 2015 – Towers Complete
- November 2015 – Superstructure Compl
- December 2015 – Lincoln Bridge Opens
- November 18, 2016 – Substantial Completion
- December 9, 2016 – DBT Specified Substantial Completion Date
- December 15, 2016 – Revised Substantial Completion Date due to Flood Days
- Final Completion – March 31, 2017

EAST END CROSSING TIMELINE
- June 2013: Start of Construction
- Aug 2014: Tower Fdtns. Complete
- March 2015: Flood Event (47 day delay)
- July 2015: Tunnel Excav. Complete
- Feb 2016: Towers Complete
- June 2016: Final Tunnel Liner Complete
- Sep 2016: Superstructure Complete
- Dec 2016: Substantial Completion
Global Dollars & Sense

- $72,600,000
  - Mobilization
  - Contract Execution
  - Public Information
  - Demobilization
- 3,500 Unique Submittals
- 1,750 Unique RFIs
- 106 Change Orders
  - $38.9 M (4.52%)
    - $22 M JFK Stringer Replace
    - $3 M Rosphalt
    - $2.5 M Noise Walls
    - $1,080,000 Early Compl

"You’ll never be able to enforce tolls."

LMPD Sniper

I respectfully disagree.
Section 1 Dollars & Cents

• $59,000,000 – Design
• $355,100,000 – Construction

• 41 Bridges
• 21 walls
• 700,000 CY earthwork
• 500,000 LF piling
• 300,000 TN Asphalt
Section 2 Dollars & Cents

• $35,000,000 – Design
• $213,000,000 – Construction

Six lanes of NB I-65 traffic
2,114 feet long with 3 towers
71 feet above water
50,000 cubic yards concrete
15.8 million pounds steel
175,000 SF precast panels
JFK: New deck
Section 3 Dollars & Cents

• $18,500,000 – Design
• $106,800,000 – Construction
• 19 Bridges
• 39 Retaining walls
• 590,000 CY Earthwork
• 38,000 LF Piling
• 142,000 TN Asphalt
Management Activities

- KYTC management consisted of Construction Manager and 3 Section Engineers
- GEC had a dedicated Technical Review Team Manager coordinating design document review with sub-consultants.
- Consultant Oversight Assistance contract
  - At peak, 50 inspectors from firms having KYTC, INDOT and major river crossing experience
  - Procurement also required an on-site materials testing laboratory
    - Full service concrete cylinder testing, asphalt pavement sampling and testing, soil density testing, aggregate testing and verification.
    - At peak, approximately 15 lab technicians
  - Added photo-documentation sub for aerial and in-depth element photographing.
  - To date, $54,788,812 against $884,420.780 or 6.19%
Oversight Assistance Consultant

Scope of Services

• Construction Engineering and Inspection
• Project Documentation
• Materials Sampling/Testing
• Project (Document) Controls
• Environmental Compliance Oversight
• Monitor Certified Payroll/EEO-DBE
Consultant Oversight Assistance Team

- HDR – Prime Consultant

- Subconsultants
  - Greenman-Pedersen, Inc.
  - FIGG Bridge Inspectors, Inc.
  - Parsons, Cunningham & Shartle Engineers, Inc.*
  - Redwing Ecological Services, Inc.*
  - Multivista
  - S&ME, Inc.
     - American Engineers, Inc.
     - Thelen Associates, Inc.
     - KHAFA*RA*

*DBE Firms
Project Staff

...client-centric focused!
Take-A-Ways

- Well defined basic configuration and aesthetic requirements
  - Allowed innovation in designing for planned construction while guiding DBT through community commitments.

- Robust consultant technical review team
  - Assembled under Project GEC, Indiana & Kentucky firms provided timely review of 3,500 submittals & 1,700 RFIs

- Colocation of KYTC staff and Walsh DBT
  - Facilitated collaboration during design & construction activities between KYTC and DBT allowing exchange of ideas to minimize review time.

- Robust PIO team from KYTC & Walsh
  - Public and Media kept informed constantly of “What’s Next” and issues explained when “The Plan” was better than “The Reality”
  - Generally positive media coverage and positive community reactions.
Take-A-Ways cont.

- Always an underlying spirit of Partnering
  - Frayed nerves on both sides at times but worked through it
  - Only 1 formal claim to KYTC – from a fabricator
    - Started out at $916,161
    - Walsh settled with fabricator for +$400,000
    - Asked KYTC to consider sharing and we ultimately agreed to $200,000

- Frenetic Pace
  - See above
  - June ‘14 – November ‘14 average monthly invoice ~$30M
  - June ‘13 – December ‘16 average monthly invoice ~$17M
  - Peak construction, contractors had over 800 tradespeople on project
Take-A-Ways cont.

- Design-Build vs. Design-Bid-Build Learning Curve
  - See Frenetic Pace
  - KYTC “exclusively” D-B-B
    - We get to decide where in the “design book ends” an element falls.
    - DBT picks this.
    - KYTC construction inspection perhaps more “make it look like the picture.”
      - Symbiotic relationship between Contractor and E.O.R. was able to make up for some of the “that is not what the picture looks like.”

- Fitting the Project Square Peg into the SiteManager Round Hole
  - Had to set up a “ghost” SiteManager for everything except change orders and payment of Walsh invoices.
  - In the age of electronic storage, the Louisville District office has to store 100 copy paper boxes of material related documents.

- Virtually everything else was handled paperless.
Project Progress
With over 170,000 pounds of plate steel alone, this was no small lift
FOR MORE INFORMATION

PROJECT:  
www.kyinbridges.com

TOLLING:  
www.riverlink.com