

Louisville-Southern Indiana  
Ohio River Bridges Project

# Project Management Plan 2016 Update

September 30, 2016



## **Louisville – Southern Indiana Ohio River Bridges Project**

### **Revisions included in the 2016 Project Management Plan Update**

Page IV, Joint Board 2<sup>nd</sup> Paragraph – Updated Kapsch involvement

Page VII, Toll System Integrator/Operator – Updated Kapsch and C2 Strategic involvement, statement on tolling start

Page VIII, Ombudsmen – Showed ombudsmen responsibilities retention through substantial completion

Page IX, 1<sup>st</sup> paragraph – Updated dates for prior completion of updates and statement for the current completion

Page X – Updated 2016 Financial Plan costs

Page 7 III – Updated Project Safety Statistics

Page 8, 1<sup>st</sup> bullet – Updated completion date for the project

Page 8, 2<sup>nd</sup> bullet – Updated the status information for current cost and completion

Page 10, 1<sup>st</sup> bullet - Updated Minority and Female Goals for Downtown and East End Crossings construction

Page 11, 1<sup>st</sup> bullet – Updated status of Market Street project

Page 11, 2<sup>nd</sup> bullet – Updated crash statistics

Page 18, Ombudsmen - Showed ombudsmen responsibilities retention through substantial completion

Page 25, 2<sup>nd</sup> & 4<sup>th</sup> paragraphs – Updated status for Kapsch and the TSP contractor

Page 26, 2<sup>nd</sup> paragraph – Added reference to C2 Strategic’s involvement with tolling

Page 32 – Updated status on the sale of the Vincent, Grocer’s Ice, Drumanard and Rosewell properties

Page 33 – Updated current construction status

Page 46 – Updated 2016 Financial Plan costs

Page 48, 1<sup>st</sup> paragraph - Updated costs from the Financial Plan

Page 49, Design and Construction Financing – Updated current costs

Page 62, Special Studies – Added information about the required post-construction traffic study

Page 65, bottom paragraph – Added information about the sale of Rosewell, Drumanard & Grocer’s Ice

Page 66 – Added information about the preparation of the preservation easement for the lime kilns and Spring Street Freight House

Page 70 – Added information about the scheduled NHI Tunnel Inspection Safety Training

Page 90 – Updated Minority and Female Goals for Downtown and East End Crossings construction

Page 97 - Showed ombudsmen responsibilities retention through substantial completion

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# EXECUTIVE SUMMARY

## Overview

The Project Management Plan (PMP) defines the Louisville-Southern Indiana Ohio River Bridges Project management control processes. This PMP documents the mechanisms to provide timely information to effectively manage the Project including control of the scope, budget, schedule, and quality of the Project to ensure the public's trust and confidence.

## Project Description & Scope of Work

The overall purpose of the Project, as defined in the Final Environmental Impact Statement (FEIS) issued by the Federal Highway Administration (FHWA) for the Project, as modified by the 2012 Supplemental Final Environmental Impact Statement (SFEIS) and 2012 Revised Record of Decision (ROD), is to improve cross-river mobility between Jefferson County, Kentucky and Clark County, Indiana and to reduce congestion and to improve safety within the Kennedy Interchange and on the I-65 Kennedy Bridge.

The selected alternative provides for construction of a new six lane I-65 Bridge to accommodate the I-65 northbound movement. The existing I-65 Bridge will be reconfigured to accommodate the six lane I-65 southbound movement. This alternative also provides for a four lane expressway from I-71 in Kentucky to SR 62 in Indiana, connecting the Gene Snyder Freeway (KY 841) in Kentucky with the Lee Hamilton Highway (SR 265) in Indiana. Lastly, the selected alternative provides for the reconstruction of the Kennedy Interchange primarily within its current right-of-way-footprint.

## Goals and Objectives

The Project goals and objectives are to:

- Meet the Project purpose and need while avoiding, minimizing, or mitigating adverse impacts to the environment, including adverse effects to historic properties to the extent reasonable, feasible, and prudent. Avoidance of adverse effects is the preferred treatment.
- Complete the Project safely for the workers and the traveling public.

- Provide proactive public relations and maintain the public trust, support, and confidence throughout the life of the Project.
- Complete the Project in a timely manner and within the budget.
- Complete the Project with the highest degree of quality and safety possible.
- Meet all Federal and state statutory and regulatory requirements.
- Meet Disadvantaged Business Enterprise goals.
- Complete the Project in accordance with the 2012 Revised ROD.
- Encourage design and construction solutions that respect environmental concerns beyond those included in the 2012 ROD.
- Provide a high-quality, and maintainable highway facility.
- Minimize disruptions to traffic and local businesses and communities.

The overall Louisville-Southern Indiana Ohio River Bridges Project as defined in the FEIS and Revised ROD will be completed in two major procurements, namely the Downtown Crossing Procurement, which will be managed by Kentucky, and the East End Crossing Procurement, which will be managed by Indiana.

## Organization and Responsibilities

### JOINT BOARD

The Joint Board acts as the appeal authority for conflict resolution for the Bi-State Management Team. Members include the Secretary of the Kentucky Transportation Cabinet (KYTC), the Chairman of the Kentucky Public Transportation Infrastructure Authority (KPTIA), the Commissioner of the Indiana Department of Transportation (INDOT), and the Public Finance Director of the Indiana Finance Authority (IFA).

The Bi-state Joint Board selected, through a procurement of the Indiana Finance Authority, Kapsch Trafficom (Kapsch) to serve as the Toll System Provider to design, develop, integrate, deliver, install, test, operate, maintain, repair, and manage the all-electronic toll collection system. Kapsch was provided a Notice To Proceed in May of 2015., Kapsch aided the states in the development of the Business Rules that will govern the system's day to day operations. Parsons Transportation Group is assisting the Joint Board in overseeing Kapsch as Interim Toll System Advisor through INDOT's East End Crossing Technical Team contract. Through a separate contract with KYTC, the Joint Board is receiving communications and public outreach support.

### THE TOLLING BODY

The Tolling Body is responsible for developing tolling policies that will be the basis for determining future toll rates. The Tolling Body consists of the members of the Joint Board, plus one additional representative from IFA and one additional representative from KPTIA.

## BI-STATE MANAGEMENT TEAM

Overall project management, as described in this Project Management Plan (PMP) is to be performed by the Bi-State Management Team (BSMT) comprised of representatives from the KYTC and the INDOT, as well as the Federal Highway Administration (FHWA) as a non-voting, ex-officio member. Actions taken by the BSMT are done so with consideration to current state policies and processes.

The states reached an agreement in principal in December 2011 on a plan for constructing the Project, with Kentucky taking the lead on completing the Downtown Crossing portion of the Project (Design Sections 1, 2 and 3), and Indiana taking the lead on completing the East End Crossing portion of the Project (Design Sections 4, 5 and 6) as a separate contract. Kentucky used a design-build type alternative delivery contract for the Downtown Crossing. Indiana used an availability payment style Public-Private Agreement (PPA) contract for the East End Crossing. Due to Indiana law with regards to a P3 type contract, the Indiana Finance Authority (IFA) is Indiana's contracting entity for the East End Crossing. IFA worked closely with INDOT in the development and execution of the contract.

Additional details regarding the planned procurements have been negotiated by the two states and are included in a March 5, 2012 Memorandum of Understanding between the two states. While the MOU establishes that most Project activities are related to only one of the contracts and will be the responsibility of one state or the other, there are several Project-wide activities that will continue to be jointly managed by the Bi-State Management Team during project delivery. The specific Project-wide roles and responsibilities that will be jointly managed by the BSMT are detailed in the Bi-State Development Agreement, which was approved on October 16, 2012.

The duties and responsibilities of the BSMT are to provide oversight of the Project by monitoring the progress and status of the Project, assisting in resolving certain disputes as provided for in this plan, and reporting to and coordinating with FHWA as necessary or as requested.

The BSMT shall:

1. Monitor, and approve as necessary, appropriate actions and measures designed to avoid, minimize or mitigate effects to historic properties.
  2. Monitor, and approve as necessary, that consultant services include professionals with experience in architecture, landscape architecture, historic preservation, archaeology, anthropology, landscape history, as well as highway, bridge and tunnel design.
  3. Prepare and provide progress reports:
    - A. Every six months, a report detailing measures required by the First Amended Memorandum of Agreement (FAMOA) and providing advance notice of milestones, scheduled letting dates, and initiation of construction

- B. The report shall identify the status of activities for each stipulation in the FAMOA and of associated documents, such as HPPs, treatment plans, late discoveries and acquisition and preservation of historic properties.
- C. The report shall identify the status of activities for each stipulation in the January 4, 2013 Settlement Agreement between the National Trust for Historic Preservation, River Fields, Inc., FHWA, KYTC and INDOT (the Settlement Agreement).
  - 4. The BSMT shall give full consideration to the recommendations of the BSHCT for incorporation into the final plans, to the extent reasonable, feasible and prudent.
  - 5. Participate in the resolution of disputes as set forth in this PMP.

The East End Crossing and Downtown Crossing contracts were awarded through the appropriate IFA / INDOT (Indiana) or KYTC standard or alternative project delivery contracting processes (see Chapter 6). A contract was awarded for the Downtown Crossing to Walsh Construction (DBT) on December 28, 2012. For the East End Crossing, WVB East End Partners (Developer) was selected as the Preferred Proposer by IFA on November 16, 2012, conditions for Commercial Close were satisfied on December 27, 2012 and conditions for Financial Close were satisfied on March 28, 2013. Project management services for each construction contract are provided by the respective contracting entities and their Technical Teams. Construction contract project management oversight and integration into the overall Project is provided by the respective State Transportation Agency (STA) Construction Management personnel, supplemented as required by their Technical Teams.

#### GENERAL ENGINEERING CONSULTANT

The General Engineering Consultant (GEC) will serve as requested and as authorized by the BSMT.

#### STATE TRANSPORTATION AGENCY PERSONNEL

The BSMT utilizes State Transportation Agency (STA) Personnel from each state to help fulfill the duties assigned to the respective STAs. Additionally, STA subject matter experts may be solicited for guidance in their areas of expertise.

#### SECTION DESIGNERS

There were six section design consultants who were selected to perform preliminary and final design, one for each of the six key sections of the Project. KYTC contracted for Sections 1, 2, 4 and 5. INDOT contracted for Sections 3 and 6. KYTC paid the full cost

for Sections 1 and 4. INDOT paid the full cost for Sections 3 and 6. KYTC and INDOT shared the cost for Sections 2 and 5 on a 50%/50% basis.

When the states changed their initial contracting plan to include the potential for an alternative delivery type design-build or P3 - contract, they gave their current section designers the option to either participate in the alternative delivery procurement by limiting their efforts to preliminary design, or they could continue to assist the states in development of plans and specifications for the alternative delivery procurements. Two of the section designers chose to complete the preliminary design for their section and to remain eligible to participate on a proposer team in the procurements. Four of the six section designers chose to continue to assist the states during the alternative delivery procurements. KYTC added contracts for these four section design firms to the GEC contract to aid in KYTC's review of the project plan development by the DBT and the Developer. Additional roles for the CTS team members specific to the Kentucky review process have also been separated from the overall work activities established for CTS. This portion of the GEC contract is now designated as the Kentucky Technical Review Team (KTRT), whose scope is solely a portion of KYTC's contract with CTS.

#### TOLL SYSTEM INTEGRATOR/OPERATOR

As established in the Bi-State Development Agreement, the Bi-state Joint Board selected, through a procurement of the Indiana Finance Authority, Kapsch Trafficom to serve as the Toll System Provider to design, develop, integrate, deliver, install, test, operate, maintain, repair, and manage the all-electronic toll collection system. Kapsch was provided a Notice To Proceed in May of 2015. Kapsch aided the states in the development of the Business Rules that will govern the system's day to day operations. Parsons Transportation Group is assisting the Joint Board in overseeing Kapsch as Interim Toll System Advisor through INDOT's East End Crossing Technical Team contract.

Through a separate contract with KYTC, the Joint Board is receiving communications and public outreach support. The marketing firm New West was selected to provide tolling communications and education at a Joint Board meeting on August 20, 2014. C2 Strategic is also aiding communications for the Joint Board.

Toll commencement is currently expected to occur in December 2016 when cross-river capacity is increased.

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#### TECHNICAL TEAMS

Each state has established a Technical Team for their respective procurements, and procured consultants to serve on the Technical Team to assist their staff with contract

administration and oversight of their respective alternative delivery contracts. The Technical Teams will supplement and assist STA personnel with design review, contract administration, construction inspection, quality control and quality assurance activities as designated by each state. Each state may appoint a representative to serve on the other state's Technical Team in order to assist in the review and development of those portions of the Project (Sections 3 and 4) that are to be constructed within the jurisdiction of the appointing state.

#### STANDING ADVISORY TEAMS

There are several standing advisory teams with specific historical and environmental functions that also serve as information outlets. These include a Bi-State Historic Consultation Team, two Historic Preservation Advisory Teams, four Area Advisory Teams, and a Regional Advisory Committee.

These advisory teams have varying duties which include: providing recommendations to the BSMT during development of contract provisions regarding design of the Project to respect the historic qualities, landscapes, historic buildings and features within the Area of Potential Effect; providing feedback on plans with the specific needs of their communities in mind; and providing comments with a focus on the region.

#### OMBUDSMEN

Two Project Ombudsmen are responsible for communicating with the public and investigating reported problems on all aspects of the Project during the development and delivery of the Project. The Ombudsmen report recommendations, complaints and their findings to the BSMT. The Ombudsmen also provide responses of any findings, decisions or resolutions. In addition to regular reports, each Ombudsman files an annual report that documents the contacts and issues that were received in the previous year. This report is provided to the BSMT for their information and any necessary follow-up action. The Ombudsmen are to be retained until substantial completion of both crossings of the Bridges project occurs, currently scheduled in mid-December 2016.

#### BI-STATE DEVELOPMENT AGREEMENT

On October 16, 2012, IFA, KPTIA, KYTC, and INDOT completed a Bi-State Development Agreement governing the duties, authorities and responsibilities of the parties with respect to development of the Project. The terms of the Bi-State Development Agreement shall control in the event of any discrepancy with the terms of the PMP.

## Cost, Budget & Schedule

An Initial Financial Plan was approved for the Project in 2008. Updated Financial Plans were submitted to FHWA in December 2010, June 2012, September 30, 2013, September 30, 2014 and September 30, 2015. In January 2011 the leaders of Kentucky and Indiana determined that the Project was not financially feasible and asked the BSMT to look for cost savings options, to consider the use of tolls as part of the financing options, and to prepare a Supplemental Environmental Impact Statement (SEIS) as required by the National Environmental Policy Act (NEPA). The 2011 Supplemental Draft Environmental Impact Statement (SDEIS) and 2012 Supplemental Final Environmental Impact Statement (SFEIS) evaluated a Modified Selected Alternative that demonstrated more than \$1.5 billion in cost savings. The 2013 Annual Financial Plan Update was developed in conjunction with the 2013 Update of the PMP, recognizing approximately \$300 million in additional savings based on the new alternative delivery procurements. The 2014 Annual Financial Plan Update is a comprehensive document that reflects the Project's current cost estimate, revenue structure, and continues to provide a reasonable assurance that there will be sufficient financial resources available to implement and complete the Project as planned. The 2015 Annual Financial Plan Update further updated cost estimates and actual expenditures through June 2015 and updates to the project delivery and financing status for the Project. The 2016 Annual Financial Plan update will provide updated costs and schedule through June 2016.

### DISPUTES PROCEDURE

Disputes with respect to issues covered by this Project Management Plan shall be resolved as follows:

- 1.) Disputes between Kentucky and its Design Build Team shall be resolved pursuant to the procedures outlined in the RFP, RFQ, the most current version of the Kentucky Specifications for Road and Bridge Construction, and the contract between KYTC and DBT and any addenda thereto. For disputes involving the proper application or interpretation of the Record of Decision or federal issues, FHWA shall be consulted as part of the resolution.
- 2.) Disputes between Indiana and its Developer shall be resolved pursuant to the procedures outlined in the Public-Private Agreement (PPA) between IFA and the Developer and any addenda thereto. For disputes involving the proper application or interpretation of the Record of Decision or federal issues, FHWA shall be consulted as part of the resolution.
- 3.) Disputes between Indiana and Kentucky shall be resolved pursuant to the terms of the Bi-state Development Agreement, which provides a structure by which any States' Party may alert the other States' Parties to a conflict, call a meeting to attempt resolution, and then escalate the dispute to the Joint Board if the dispute remains unresolved.

- 4.) The Parties shall use their best efforts to resolve any disputes among them. The parties shall follow the terms of the Bi-state Development agreement regarding compliance of committing to response times to the other state for review and comment in order to meet the procuring State's schedule. The parties shall consult and negotiate in good faith recognizing their mutual interest in achieving a just and equitable solution.

This table shows the estimated costs broken out by each Project Section per the 2016 Update of the Financial Plan:

<b>Project Segment</b>	<b>Total Project Costs in Year of Expenditure Dollars (in millions)</b>
Section 1 – Kennedy Interchange	\$600.3
Section 2 – Downtown River Bridge	\$339.3
Section 3 – Downtown IN Approach	\$196.1
KY Other Costs	\$138.5
<b>Total Downtown Crossing</b>	<b>\$1,274.2</b>
Section 4 – KY East End Approach	\$486.1
Section 5 – East End River Bridge	\$242.4
Section 6 – IN East End Approach	\$228.0
IN Other Costs	\$96.3
<b>Total East End Crossing</b>	<b>\$1,052.8</b>
<b>Project Total Cost</b>	<b>\$2,327.0</b>

The cost revisions provided in the 2016 Update of the Financial Plan reflect a total cost which is \$3.4 million more than was reported in the 2015 Update.

The current design and construction schedules, broken out by each Project Procurement, are shown in the table below:

State Fiscal Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Downtown Crossing</b>																
Environmental																
Design																
Right-of-Way																
Utilities																
Construction																
Other																
<b>East End Crossing</b>																
Environmental																
Design																
Right-of-Way																
Utilities																
Construction																
Other																

## Project Reporting and Tracking

Project Controls and Reporting Procedures that define schedule update and cost reporting timeframes and formats, communication protocol, and overall project administration procedures have been established. Project Controls and Reporting procedures are contained in the Bi-State Development Agreement, the procurement documents for the East End Crossing and the Downtown Crossing, and in the PMP.

## Management Controls

Management Controls have been developed with regards to Risk and Opportunity, scope of work and schedule, value engineering, partnering, change, disputes and claims, design process, hazardous materials, construction, and maintenance and operations, quality assurance/quality control, environmental monitoring, safety and security, and traffic management. Management Controls procedures are contained in the Bi-State Development Agreement, the procurement and construction documents for the East End Crossing and the Downtown Crossing, and in the PMP.

## Project Communications

A comprehensive communications program to address public involvement in all phases of the Project has been established. The program established media and public communications processes and requires all Project team members to be accurate and forthright, and to respond in a professional and timely manner.

## Civil Rights Program

The Disadvantaged Business Enterprise (DBE) program is a federally mandated component of the Project. A program for the Project, which details the principles and procedures for enhancing the involvement and participation of DBEs, minority

businesses, women-owned businesses, and small businesses in planning, design, and construction has been developed as reflected in the Bi-State Development Agreement and the procurement and construction documents for the Downtown Crossing and the East End Crossing. In general, it includes guiding principles, organizational involvement and oversight responsibilities, descriptions of the methodology for regulatory compliance, and proposed key initiatives. See Chapter 16 for more information.

## **1.0 OVERVIEW**

### **1.1 Overview**

The Project Management Plan (PMP) defines the Louisville-Southern Indiana Ohio River Bridges Project (Project) management control processes. The PMP documents the mechanisms to provide timely information to effectively manage the Project including control of the scope, budget, schedule, and quality of the Project to ensure the public's trust and confidence.

The PMP is a comprehensive, living document including the latest information available to assist the Bi-State Management Team (BSMT) comprised of members from the Federal Highway Administration (FHWA), Indiana Department of Transportation (INDOT), and Kentucky Transportation Cabinet (KYTC). The PMP will be updated as required with formal updates, at a minimum, on an annual interval to reflect current Project conditions and procedures and a table of revisions will be included as changes are made. The responsibility to maintain the PMP lies with the BSMT. The General Engineering Consultant (GEC), will maintain the files of the PMP as directed by the BSMT.

## **2.0 PROJECT DESCRIPTION & SCOPE OF WORK**

### **2.1 Background and History**

The Louisville-Southern Indiana Ohio River Bridges Project addresses current and future mobility across the Ohio River between Jefferson County, Kentucky and Clark County, Indiana. The need for improvements in cross-river mobility in the Louisville Metropolitan Area (LMA) was initially identified through the congressionally mandated metropolitan transportation planning process, as set forth in the United States Code, Title 23, Section 134. Proposals to improve the cross-river mobility through the construction of one or more additional bridges over the Ohio River have been in every long-range transportation plan prepared for the LMA since 1969.

In December, 1997, the INDOT and the KYTC agreed, through a Memorandum of Agreement, to jointly pursue needed improvements to cross-river mobility.

This initiated the preparation of the Environmental Impact Documents and Preliminary Engineering Reports for improving cross-river travel in the LMA.

## 2.2 Purpose and Need

The overall purpose of the Project, as defined in the Final Environmental Impact Statement (FEIS), Supplemental Final Environmental Impact Statement (SFEIS) and Federal Highway Administration's 2012 Revised Record of Decision (ROD) for the Project, is to improve cross-river mobility between Jefferson County, Kentucky and Clark County, Indiana. Several specific factors demonstrate the need for action, including:

- Inefficient mobility for existing and planned growth in population and employment in the Downtown area and in eastern Jefferson and southeastern Clark Counties;
- Traffic congestion within the Kennedy Interchange and on the Kennedy Bridge;
- Traffic safety problems within the Kennedy Interchange and on the Kennedy Bridge and its approach roadways;
- Inadequate cross-river transportation system linkage and freeway rerouting opportunities in the eastern portion of the LMA; and
- Locally approved transportation plans that call for two new bridges across the Ohio River and the reconstruction of the Kennedy Interchange.

Specific objectives and supporting documentation are further described in the FEIS, SFEIS and the Revised ROD including the First Amended Section 106 Memorandum of Agreement. The FEIS, SFEIS and Revised ROD are incorporated into this document by reference.

## 2.3 FEIS, SFEIS and Revised ROD

The FEIS chronicles the selection of the Project alignments from a reasonable range of alternatives. The SFEIS documents revisions to the FEIS selected alternative that resulted in a Modified Selected Alternative. The Revised ROD details specific strategies and enhancements to minimize or mitigate the environmental impacts associated with the Modified Selected Alternative. As described in greater detail in the FEIS, SFEIS and Revised ROD, the Modified Selected Alternative is the feasible and prudent alternative that sufficiently addresses the purpose and need for action while balancing important environmental, community and economic considerations. The Modified Selected Alternative also incorporates extensive measures to avoid, minimize, and mitigate potential harm to the region's rich natural and human environment. The FEIS was signed on April 8, 2003, the SFEIS was signed on April 20, 2012 and the Revised ROD was signed on June 20, 2012.

The modified selected alternative is a combination of Alternative C-1, Alternative A-15 and the Kennedy Interchange Reconstruction. These alternatives and reconstruction are described as follows:

- Modified Alternative C-1 provides for construction of a new six lane I-65 Bridge to accommodate the I-65 northbound movement. The FEIS Alternative C-1 included a 17-foot bicycle and pedestrian path on the upstream side of the bridge. The pedestrian/bicycle path was removed from the Modified Selected Alternative because a separate project, which is currently under construction, will provide a 22-foot-wide pedestrian/bicycle path across the river on the Big Four Bridge. The existing I-65 Bridge will be reconstructed to accommodate the six lane I-65 southbound movement.
- Modified Alternative A-15 provides for a four lane expressway from I-71 in Kentucky to SR 62 in Indiana, connecting I-265/KY841 (Gene Snyder Freeway) in Kentucky with SR 265 (Lee Hamilton Highway) in Indiana. The EIS provided for a six-lane facility. The modified A-15 alignment still will accommodate six lanes in the future when traffic warrants widening by only restriping the East End Crossing bridge and the pavement through the tunnel. Also included is a 13-foot bicycle and pedestrian path on the downstream side of the bridge extending from River Road in Kentucky to Salem Road in Indiana. A significant feature of this alternative is the construction of a twin bore tunnel under the historic Drumanard property to avoid negative impacts on the community of Prospect and on important historic properties in the area. Tunnel construction using drill and blast or mechanical methods, rather than a “cut and cover” construction method, avoids any Section 4(f) use of the Drumanard Historic Property.
- The Kennedy Interchange Reconstruction includes the reconstruction of the existing Kennedy Interchange in place, rather than to the south as originally planned in the FEIS.
- Electronic tolls would be added on both the downtown I-65 river crossings (i.e., the Kennedy Bridge and the new downtown bridge) and the new East End Bridge. The use of electronic tolls does not require toll booths/plazas.

The region’s Metropolitan Planning Organization, which is supported by the Kentuckiana Regional Planning and Development Agency (KIPDA), amended Horizon 2030: The Metropolitan Transportation Plan for the Louisville (KY-IN) Metropolitan Planning Area (the region’s fiscally constrained, “conforming,” long-range transportation plan) to include the Modified Selected Alternative.

## 2.4 Scope

The Project scope is comprised of all aspects of project delivery for the identified alternatives including but not limited to: design, environmental issues including archaeology, biological assessments, hazardous materials identification and treatment, and all required permits; environmental mitigation required by the Record of Decision; right of way; utilities; construction; and construction inspection. These various tasks will be performed by the Design Builder, Developer, consultant Technical Teams, the General Engineering Consultant and State Transportation Agencies as described in the Bi-State Development

Agreement, the procurement and construction documents for the East End Crossing and the Downtown Crossing, and/or the PMP.

The combination of alternatives selected as a result of the NEPA process has been divided into segments, the Downtown Crossing and/or the East End Crossing, described as follows:

### DOWNTOWN CROSSING

The Downtown Crossing will be funded, procured, and constructed using the KYTC contracting processes. Project Sections 1 and 2 will be designed and constructed to KYTC standards and specifications. Although KYTC will serve as the lead contracting agency, INDOT specifications will be used in connection with Section 3.

- **Kennedy Interchange [Section 1]** – This Section includes reconstructing the Kennedy Interchange in downtown Louisville, at the convergence of I-64, I-65 and I-71.
- **Downtown Bridge [Section 2]** – This Section includes a new Ohio River bridge located east of the existing I-65 Kennedy Bridge. The new bridge will provide six northbound I-65 lanes. The existing I-65 bridge will be reconstructed to serve southbound only traffic. This Section also includes the approach bridges on the Indiana side.
- **Indiana Downtown Approach [Section 3]** – This Section includes approximately 1 mile of reconfigured I-65 and associated ramps north of the Ohio River Bridges. The section includes new and improved access to Clarksville and Jeffersonville, Indiana via Court Ave, 6th St and 10th St.



*Project Design Section Map*

## EAST END CROSSING

The East End Crossing will be funded, procured, and constructed following the IFA's and INDOT's P3 contracting processes. Although the IFA will serve as the lead contracting agency, such specifications as KYTC shall agree to will be used in connection with Section 4. Section 5 & 6 will be designed and constructed to INDOT standards and specifications.

- **East End Kentucky Approach [Section 4]** - This Section includes approximately 3.5 miles of reconstruction and new terrain road on KY841. The section includes reconstruction of the half diamond interchange at US 42 and KY 841, twin two-lane tunnels under the historic Drumanard property, and a four lane approach to the new East End river bridge.
- **East End Bridge [Section 5]** - This Section includes a new four lane Ohio River bridge that connects the East End Kentucky Approach Section with the East End Indiana Approach Section. A 13 foot wide pedestrian/bicycle path is included on the downstream side of the bridge.
- **East End Indiana Approach [Section 6]** – This Section includes construction of a new roadway from the existing SR 265 – SR 62 – Port Road Interchange to the new East End River Bridge for a total length of approximately four miles. It also includes the reconstruction of **the** SR62/Port Rd/SR265 Interchange which provides, in part, access to the Indiana Port Authority located adjacent to the Ohio River and the River Ridge Commerce Center on SR62.



East End Crossing – Indiana Section 6

## 3.0 GOALS AND OBJECTIVES

The Project goals and objectives of the Louisville-Southern Indiana Ohio River Bridges Project are to:

- Meet the Project purpose and need while avoiding, minimizing, or mitigating adverse impacts to the environment, including adverse effects to historic properties to the extent reasonable, feasible, and prudent. Avoidance of adverse effects is the preferred treatment. *This objective will be accomplished by implementation of an approved Environmental Compliance and Mitigation Plan (ECMP) for each Crossing. An Environmental Management Team will address all environmental commitments from the FAMOA, RROD, and the Settlement Agreement. Stipulations from permits will also be checked for conformity.*

Metric – Improve cross-river mobility and reduce crashes and congestion on I-65 and in the Kennedy Interchange. Minimize impacts to the historic districts.

Status – Construction is occurring in accordance with the ECMP. Non-work zones in historic districts are fenced or otherwise marked. Monitors are used to assure that excessive noise or vibration is not occurring around the historic districts and other sensitive areas.

- Complete the Project safely for both the workers and the traveling public. *The DBT and Developer shall comply with all applicable state, federal, and local laws governing safety, health, and sanitation. The DBT shall provide all safeguards, safety devices, and protective equipment and take all other actions that are reasonably necessary to protect the life and health of all employees and personnel on the project, provide for the safety of the public, , and protect all property affected by the performance of the work covered by the Contract, and as the engineer directs. Proactive training of all staff will occur before they start active field work. Incidents will be tracked and measures implemented to reduce the possibility of repeat accidents. It is intended that crashes will be below state-wide averages and no public injuries occur during the construction.*

Metric – Construction incidents are lower than the statewide average for both Kentucky and Indiana. No public injuries occur during the construction. Worker safety is better than similar construction projects.

Status:

### I. TRAINING:

Each employee working on the project is required to complete New Employee Orientation. The orientation training provides a detailed outline of the safety programs, support systems and expectations utilized on the project. Each employee working on the site must first complete the Orientation before being allowed to access the site. All subcontractor employees must also complete this level of training provided by the contractor at the site prior to access.

Recurring training consists of Rigging (Basic and Advanced), Confined Space, Aerial Lifts, ATSSA (Maintenance of Traffic Tech and Supervisor), 1st Aid/CPR, Excavation, Scaffold, Signal Person, Flagger (traffic), Water Safety, Truck Driver Training and OSHA 30. Many of these classes are competent person level training classes which all foreman and supervisors are required to maintain on a 4 year cycle.

## II. INITIATIVES:

OSHA Partnership: Both the Downtown Crossing and the East End Crossing entered into a project specific partnership with the Kentucky Labor Cabinet Division of Occupational Health and Safety (KYOSHA) which provides KYOSH Education and Training Consultants quarterly access to the site. All contractors on the project are expected to participate in safety program reviews and site inspections. The partnership is unique in that, this partnership has been recognized by Indiana OSHA as they have jurisdiction within Indiana and been recognized by Federal OSHA which has jurisdiction over maritime safety. This arrangement allows KYOSH to inspect all portions of the project and interact with the entire workforce benefiting Walsh through a “third party” type of inspection process.

## III. Project Safety Statistics Summary (July 1, 2014 – June 30, 2015 ):

Downtown Crossing Hours Worked: 1,017,042

East End Crossing Hours Worked: 1,655,402\*

-Project Recordable Injury Rates are in line with current national, Kentucky and Indiana averages for Heavy Highway NAICS 237/2373. Rates are trending downward/improving.

-Project Severity (Lost Time Case) Rates are in line with current national and Indiana rates and below Kentucky rates. Rates are trending downward/improving.

-Project Days Away Restricted or Transferred (DART) case rates are below national, Indiana and Kentucky averages. Rates are trending downward/improving.

\*Hours worked include only the contractor and their sub-contractors.

- Provide proactive public relations and maintain the public trust, support, and confidence throughout the life of the Project. *The DBT and Developer have implemented an approved Public Involvement Plan. Each will work closely with staff designated by KYTC, INDOT, and IFA as the communications lead for each state. The goal will be to provide up-to-date information on construction activities, including traffic restrictions, to the public. A project web-site is maintained to provide a broad range of information about the Project. Traffic information updates will be posted on the web site and on social media, such as Facebook and Twitter. Meetings will be held with community leaders and emergency personnel and newsfeeds will be provided to local television, radio, and newspapers.*

Metric – Public notifications of all construction activities and traffic restrictions are provided in a timely manner in accordance with the contract requirements of the Downtown and East End Crossings.

Status – The public is informed by timely e-mail blasts, social media, and text messaging. Regular media advisories are issued and meetings are held with the media and public officials to assure that the public is well-informed in advance of major changes in traffic patterns and construction schedule. Road closings are identified in advance of their closure.

- Complete the Project in a timely manner. *Primavera software will be used by the DBT and Developer to develop a Critical Path Method (CPM) schedule for each crossing. Monthly CPM schedule updates are required and will be used to determine if there is slippage in the schedule and to determine what corrective actions may be appropriate to assure that the planned schedule is met. In each instance, the DBT and Developer has bid the completion of the work to be completed prior to the required substantial completion dates. In the case of the Downtown Crossing, the DBT bid to substantially complete construction in December 2016, 18 months sooner than required. The Developer for the East End Crossing bid to substantially complete construction in October 2016, eight months sooner than required. An extension of time on the East End has also shifted their completion to December 2016.*

Metric – The project is completed on schedule.

Status – Work on both Crossings is scheduled for substantial completion in December 2016.

- Complete the Project within the budget. *Bids were received from the DBT in the amount of \$860 M for the Downtown Crossing and from the Developer in the amount of \$763 M for the East End Crossing. An FHWA Risk Management Workshop was held in advance of procurement and risks were passed on to the DBT and Developer at the level appropriate for the contracting methods. Risks that are retained by the states are covered in contingency funding established for each crossing. Risk management techniques will be utilized to limit the states' obligations that might occur beyond the bid costs. An Earned Value Management reporting system will incorporate the Primavera scheduling with actual expenditures and will compare those elements to planned expenditures. This will allow for managers to make adjustments if over-budget trends are identified.*

Metric – Project is completed within the budgets bid and within any additional costs approved by the STA.

Status – In accordance with the 2016 Updated Financial Plan, the current estimated cost for the entire Project is \$2.327 billion, an increase in cost of \$3.4 million over the costs shown in the 2015 Updated Financial Plan. Design for the Downtown Crossing is currently 95% complete and construction is approximately 88% complete. The new Downtown Ohio River Bridge, now named the Lincoln Bridge, had an official opening in a “Walk The Bridge” ceremony on December 5 and was opened to traffic on December 7. That bridge is now being utilized for two way traffic while the existing I-65 Kennedy Bridge is being rehabilitated. Design on the East End is currently 90% complete. The construction on the East End Kentucky section is 78% complete, the main span

construction over the Ohio River is approximately 83% complete, and the Indiana section is approximately 97% complete .

- Complete the Project with a high degree of quality. *Each Crossing has a QA/QC Plan that includes both internal and external oversight. The technical teams will provide oversight for all design features for both Crossings. The consultant review will utilize checklists for design as well as for project commitments from the environmental documentation. Reports will be generated that will summarize activities and identify any outstanding deficiencies with a plan for correcting the deficiency. The QA/QC Plan identifies the construction standards that are to be utilized for performing the construction and inspection for the project. These standards define materials to be certified, materials to be tested, sampling and testing procedures, record keeping and reporting procedures, and establishment of a nonconformance plan. The responsibilities of the contractor and the states for each of these procedures are clearly identified in the QA/QC Plan. The QA/QC Plan further provides for the level and frequency of inspections to identify and correct deficiencies and for the level and frequency of audit and oversight constructions reviews. Procedures are established for the documentation and submission procedures to ensure that the established QA/QC procedures have been followed.*

Metric – Design revisions are identified early and create no construction delays. All corrective actions are identified using the established QA/QC procedures.. Ultimately all construction must meet the requirements established in respective contract documents.

Status – The construction Quality Control for the Downtown Crossing is KYTC’s responsibility except for those items that require the producer to perform the QA/QC according to the Standard Specifications. KYTC in conjunction with an independent assurance team associated with CTS is also providing independent Assurance for materials sampling and testing.

On the East End Crossing, the QA/QC is provided by the Developer with quality verification by IFA’s Technical Team. The standards in the QA/QC plans determine the materials that are to be certified, materials to be tested, the sampling and testing frequencies and procedures, the reporting and record keeping procedures, and the non-conformance procedures. The QA/QC plans provide for the level and frequency of the project inspection and for project audits and oversight reviews. If a conflict or field conditions during construction warrants a design change, the QA/QC Plans establishes a process to do so. The QA/QC plans also establish procedures for documentation and submissions to verify that the QA/QC procedures have been followed.

- Meet all Federal and state statutory and regulatory requirements. *Checklists will be prepared that identify KYTC and INDOT standards or processes that are to be followed. The checklists will also list stipulations from the permits received from regulatory agencies.*

Metric – All Federal and state statutes and permit stipulations are met.

Status – An up-to-date list of all permits is provided in Appendix D of this PMP. Meetings are held regularly with the DBT and the Developer to assure that all requirements are being followed and met. A checklist is used to verify that permits are being kept current and stipulations are met.

- Meet the Disadvantaged Business Enterprise (DBE) contract goals as set by KYTC for the Downtown Crossing and as set by INDOT for the East End Crossing. *KYTC established an 8% goal for the for Disadvantaged Business Enterprises (DBEs).INDOT similarly established a 9% goal for the East End Crossing. The DBT and Developer are required to meet or exceed these goals or show that good faith efforts were made if the goals are not met. The teams on each crossing have developed a DBE Project Plan. This Plan describes how the teams plan to meet the goals. This plan will be updated annually to assure compliance and the STA will verify that the goals are met.*

Metric – All DBE goals are met or exceeded.

Status through June 30, 2016:

Downtown – DBE contractual goal is 8.22%. 8.36% is the current utilization rate.

- The Design Build Team (DBT) currently has totals of 15% Minority and 5% Female towards attainment of the workforce goals. A monthly employment goal of 15% minorities and 10% female is contractually established. The Federal requirements are 11.2% Minority and 6.9% Female. The DBT is therefore currently below the contract and Federal requirements for female employment.

East End - DBE goal is 9.23%. 109.18% of that goal has been awarded or committed and 92.4% has been paid. A monthly employment goal of 15% minorities and 10% female is also established for the East End. WVC reported their own workforce in June 2016 was 18.4% minority and 6.7% female, and the overall workforce including subs was 17.1% minority and 6.1% female. Project-to-date is 16.3% minorities and 6.4% female.

- Complete the Project in accordance with the commitments made in the ROD. *Each Crossing will develop an Environmental Compliance Plan which will address all commitments from the Revised ROD or from the Settlement Agreement. It further will address how compliance will be met for all permits issued for the project. Monitoring of the DBT's report will occur on a regularly scheduled basis determined by the type of commitment that is being checked for conformity.*

Metric – All environmental commitments are met.

Status – AN ECMP has been prepared and is followed for each Crossing. In accordance with the First Amended Memorandum of Agreement (FAMOA), a bi-annual environmental Progress Report is prepared to evaluate the status of every stipulation of the ROD. The report is reviewed and recommended for approval by the Bi-State Historic Consulting Team (BSHCT) and is approved by the Bi-State Management Team (BSMT). The report is subsequently sent to all members of the Historic Preservation Advisory Teams (HPAT's) for their information. A regular checklist of stipulations is maintained and reviewed on a regular basis to assure timely completion.

- Encourage design and construction solutions that respect environmental concerns beyond those included in the Revised ROD (RROD). *Context Sensitive Solutions (CSS) will be considered in the development of final plans. Details of the plans will be generated as the project progresses. Meetings with the Bi-State Historic Consultation Team (BSHCT), the Historic Preservation Advisory Teams (HPATs), the communities and Area Advisory Teams have been held as appropriate to share conceptual CSS designs and to determine community preferences.*

Metric – Final designs incorporate CSS solutions that have been vetted by the BSHCT and the HPATs. The communities’ and AAT’s preferences have been taken into account in the final designs.

Status – Initial designs and elements that would affect the historic districts or properties have been presented to the BSHCT and HPAT’s for their comments and recommendations. Additional presentations will occur as design elements, particularly the development of streetscapes as required by the FAMOA, are introduced. KYTC has initiated a separate larger contract for streetscaping of Market Street which incorporates the area within the project corridor. Presentations on that project were made to the BSHCT and KHPAT this spring.

*Minimize disruptions to existing traffic and local businesses and communities. A Transportation Management Plan (TMP) is developed for each Crossing that identifies project phases of construction and identifies strategies to minimize disruption of the flow of traffic through the construction corridors. Local emergency services, schools and other public agencies are involved in development of the TMP. Strategies include implementing temporary traffic control measures, public outreach and information, and using operational strategies such as traffic incident management. Temporary traffic control strategies are reviewed regularly and adjusted as possible to improve traffic flow.*

Metric – Traffic delays are minimized to the extent possible. Public is informed of traffic restrictions in advance of when and where delays might be expected.

Status –

General – As noted previously, local officials and public agencies are engaged at all levels of the maintenance of traffic to assure an awareness of the traffic strategies and to provide input into the implementation of the traffic control. Media advisories and public outreach is an important element of the traffic operations.

Downtown – From July 1, 2015 through June 30, 2016, the DBT reports that there have been 999 total crashes within the project limits resulting in 119 injuries and one fatality. 183 Crashes occurred on I-65, 146 crashes were on I-64, and 29 were on I-71. The remaining crashes occurred on surface streets or other locations within the project limits not directly

recorded in the incident reports. The one fatality occurred on Jefferson Street as the result of a rear end collision.

East End – From July 1, 2015 through July 1, 2016, eight crashes including one injury occurred on the Kentucky side of the East End Crossing. 155 crashes were reported on the Indiana side on the East End resulting in six injuries.

## **4.0 ORGANIZATION AND RESPONSIBILITIES**

### **4.1 Organizational Structure**

#### **GENERAL**

Updated organizational charts for the Project are shown in Section 20, Appendix A.

#### **JOINT BOARD**

The Joint Board acts as the appeal authority for conflict resolution for the Bi-State Management Team. Members of the Board include the Secretary of the Kentucky Transportation Cabinet (KYTC), the Chairman of KPTIA, the Commissioner of the Indiana Department of Transportation (INDOT), and the Public Finance Director of IFA.

#### **THE TOLLING BODY**

The Tolling Body is responsible for developing tolling policies that will be the basis for determining future toll rates. The Tolling Body consists of the members of the Joint Board, plus one additional representative from IFA and one additional representative from KPTIA.

#### **BI-STATE MANAGEMENT TEAM**

Overall project management is performed by the Bi-State Management Team (BSMT), as described in this Project Management Plan (PMP). The BSMT is comprised of representatives from the KYTC and INDOT, as well as the FHWA as a non-voting, ex-officio member.

## KYTC

KYTC, supported by its Technical Team, is responsible for all aspects of the Downtown Crossing contract(s). KYTC also provides a liaison and advisory support to INDOT and IFA for the portions of the East End Crossing being constructed in Kentucky.

## INDOT AND IFA

INDOT and IFA, supported by their Technical Team, are responsible for all aspects of the East End Crossing contract(s). INDOT also provides a liaison and advisory support to KYTC for the portions of the Downtown Crossing being constructed in Indiana.

## GENERAL ENGINEERING CONSULTANT

The General Engineering Consultant (GEC) acts as directed and requested by the BSMT.

## TECHNICAL TEAMS

Each state has established a Technical Team which includes consultants to assist the STA staff with contract administration and oversight of their respective alternative delivery contracts. The Technical Teams supplement and assist STA personnel with design review, contract administration, construction inspection, quality control and quality assurance activities. Each state has appointed a liaison to advise in the design review and construction of those portions of the Project (Sections 3 and 4) that are to be constructed within their jurisdiction.

## DOWNTOWN CROSSING DESIGN-BUILDER

KYTC issued a Draft RFP in April 2012 for a Design-Builder to design and construct the Downtown Crossing portion of the Project, Sections 1, 2 and 3. Contracts were awarded for the Downtown Crossing to the Walsh Construction Team on December 28, 2012. Design was subsequently started and construction began in July 2013.

## EAST END CROSSING DEVELOPER

IFA issued a Draft RFP in May 2012 for a developer to design, construct, and finance the East End Crossing portion of the Project, Sections 4, 5 and 6, and to operate and maintain portions of that crossing for a period of 35 years. WVB East End Partners (WVB) was selected as the Preferred proposer by IFA on November 16, 2012, conditions for Commercial Close were satisfied on December 27, 2012 and conditions for Financial Close were satisfied on March 28, 2013. Design was subsequently started in January 2013 following Commercial Close and construction began in June 2013.

## SECTION DESIGN CONSULTANTS

There were six Section Design Consultants (SDCs) who were responsible for preliminary design, right of way, and utility engineering, including plan development; environmental investigations including archaeology, biological assessments, hazardous materials identification and treatment, and permits; and environmental mitigation required by the ROD. They were selected after issuance of the original ROD in 2004 and worked up to the start of the procurement process for the two major alternative delivery contracts. Four of the six SDCs continued to provide assistance to the states with their procurement. The work has been further extended for these four section design firms to aid KYTC in the review of the project plan development performed by the DBT and the Developer. This portion of the GEC contract is now designated as the Kentucky Technical Review Team (KTRT), whose scope is solely a portion of KYTC's contract with CTS.

## STANDING ADVISORY TEAMS

There are several standing advisory teams with specific historical and environmental functions that also serve as information outlets. The following standing advisory teams are included in the Project communications processes.

### *Bi-State Historic Consultation Team (BSHCT)*

The Bi-State Historic Consultation Team consists of representatives of FHWA, INDOT, KYTC, the Indiana Division of Historic Preservation and Archeology and the Kentucky Heritage Council.

### *Historic Preservation Advisory Teams (HPAT)*

An Indiana Historic Preservation Advisory Team (IHPAT) and a Kentucky Historic Preservation Advisory Team (KHPAT) have been established. Each of the Advisory Teams is co-chaired by a representative of the respective State Transportation Agency (STA) and State Historic Preservation Office (SHPO).

In addition to the STA and SHPO co-chairs, the IHPAT is comprised of members who represent:

- City of Jeffersonville Historic Preservation Commission
- Clark County Commissioners
- City of Jeffersonville
- Town of Utica
- Jeffersonville Main Street Association
- Clarksville Historical Society
- Town of Clarksville
- Clark County Historian

- Rose Hill Neighborhood Association
- Indiana Landmarks
- Jeff -Clark Preservation Inc.
- The National Trust for Historic Preservation

In addition to the STA and SHPO co-chairs, the KHPAT is comprised of members who represent:

- Louisville/Jefferson County Metro Government Historic Preservation Office
- Louisville/Jefferson County Metro Government
- Butchertown Neighborhood Association Inc.
- City of Prospect
- Phoenix Hill Association Inc.
- River Fields, Inc.
- The National Trust for Historic Preservation
- Preservation Louisville
- Preservation Kentucky
- Neighborhood Planning and Preservation, Inc.
- Wolf Pen Preservation Association

#### *Area Advisory Teams (AAT)*

Four geographic-based teams, two on each side of the river at each bridge location, form the AATs. These teams are comprised of stakeholders from environmental organizations, government agencies, neighborhood associations and preservation groups. Membership can change as new stakeholders are identified or request membership. Representatives from the following entities comprise the AATs.

#### Section 1: Kennedy Interchange

- Butchertown Neighborhood Association
- Clifton Community Council
- Downtown Development Corporation
- East Downtown Business Association
- East Market District
- Louisville Central Community Center
- Louisville Downtown Management
- Louisville Metro Government
- Louisville Metro Councilman David Tandy's Office (District 4)
- Louisville Metro Councilwoman Tina Ward-Pugh's Office (District 9)
- Louisville Metro Housing Authority
- Louisville Metro Planning and Design Services
- Louisville Waterfront Development Corp.
- Main Street Association
- Phoenix Hill Neighborhood Association
- South Broadway Business Association

#### Section 3: Downtown Indiana

- City of Jeffersonville
- Clark County Fire Department
- Clarksville Community School Corp.
- Clarksville Parks Department
- Clarksville Town Council
- Jeffersonville City Council
- Jeffersonville City Pride
- Jeffersonville Main Street, Inc.
- Jeffersonville Redevelopment Commission
- Riverside Neighborhood Association
- Rose Hill Neighborhood
- Southern Indiana Realtors Association
- Southern Indiana Transit Advisory Group

#### Section 4: East End Kentucky

- Bridgepointe Neighborhood Association
- Brownsboro Road Area Defense, Inc.
- City of Prospect
- Committee to Save Harrods Creek
- Fox Harbor Neighborhood Association
- City of Green Spring
- Harrods Creek Fire Protection District
- Ken Carla Vista Neighborhood Association
- Louisville Metro
- Louisville Metro Councilman Kenneth C. Fleming's Office (District 7)
- Louisville Metro Councilman Kelly Downard's Office (District 16)
- Louisville Metro Councilman Glen Stuckel's Office (District 17)
- Louisville Metro Department of Neighborhoods
- Louisville Metro Development Authority
- Louisville Metro Public Works
- Prospect/Harrods Creek Neighborhood Association
- Saint Francis in the Fields Episcopal Church
- Shadow Wood Homeowners Association
- The Harbor at Harrods Creek
- Transylvania Avenue Neighborhood Association
- Transylvania Beach Neighborhood Association
- Wolf Creek Homeowners Association
- Wolf Pen Preservation Association
- Wolf Pen Woods Community Association

#### Section 6: East End Indiana

- City of Charlestown
- City of Jeffersonville
- Charlestown Chamber of Commerce
- Clark County Highway Department
- Clark Maritime Center
- Crystal Springs Homeowner's Association
- Fox Run Homeowners Association

- Greater Clark County Schools
- Old Stoner Place Neighborhood Association
- River Ridge Commerce Center
- Stony Brooke Neighborhood Association
- Utica Historical Society
- Utica Town Council
- Utica Township Fire Department

*Regional Advisory Committee (RAC)*

The RAC is a bi-state team represented by members of government, civic and community groups. Research and interviews were conducted to update stakeholder lists and identify appropriate representatives for the RAC. Representatives from the following entities comprise the RAC:

- African American Heritage Foundation
- Air Pollution Control District
- City of Jeffersonville
- Clark County Commissioners
- Clark-Floyd Counties Convention & Tourism Bureau
- Clark County Emergency Management
- Clark County Planning, Zoning & Bldg. Commission
- Coalition for the Advancement of Regional Transportation
- Community Leadership Alliance
- Greater Louisville Inc.
- Hoosier Environmental Council
- Indiana Motor Truck Association
- Jefferson County Public Schools
- Jeffersonville Parks Department
- Kentuckiana Regional Planning and Development Agency
- Kentuckians for Better Transportation
- Kentucky Homebuilders Association
- Kentucky Minority Business Council
- Kentucky Motor Transport Association, Inc.
- Kentucky Resources Council
- Kentucky Waterways Alliance
- Knob & Valley Audubon Society
- Louisville Association of Realtors
- Louisville Audubon Society
- Louisville Bicycle Club
- Louisville Central Labor Council
- Louisville Convention and Visitors Bureau
- Louisville Enterprise Group
- Louisville Metro
- Louisville Metro Emergency Management
- Louisville Metro Government Mayor's Office
- Louisville Metro Metropolitan Sewer District (MSD)
- Louisville Metro Parks

- Louisville Metro Planning Commission
- Louisville Metro Planning & Design Services
- Louisville Metro Public Works Department
- Louisville Regional Airport Authority
- Louisville Sailing Club
- Louisville Urban League
- Ohio River Greenway Commission
- One Southern Indiana
- Regional Leadership Coalition
- River Fields, Inc.
- Sierra Club
- South Central Indiana Central Labor Council
- Transit Authority of River City

#### OMBUDSMEN

Per the Revised ROD, two Project Ombudsmen were retained for the duration of the project. The ombudsmen will continue to be responsible for communicating with the public and investigating reported problems on all aspects of the Project. Details of the roles and responsibilities of the Ombudsmen are contained in Chapter 19 of the PMP. The Ombudsmen are to be retained until substantial completion of both crossings of the Bridges project occurs, currently scheduled in mid-December 2016.

## 4.2 Responsibilities

#### JOINT BOARD

The Joint Board acts as the appeal authority for conflict resolution for the Bi-State Management Team. Members include the Secretary of the Kentucky Transportation Cabinet (KYTC), the Commissioner of the Indiana Department of Transportation (INDOT), the Chairman of KPTIA and the Public Finance Director of IFA.

The Joint Board meets as required to stay informed on the Project and to maintain the spirit of partnership and to resolve disputes as provided for in this Project Management Plan and the Bi-State Development Agreement.

#### THE TOLLING BODY

The Tolling Body is responsible for developing tolling policies that will be the basis for determining future toll rates. The Tolling Body consists of the members of the Joint Board, plus one additional representative from IFA and one additional representative from KPTIA.

## BI-STATE MANAGEMENT TEAM – GENERAL

Overall project management is to be performed by the Bi-State Management Team (BSMT), as described in this Project Management Plan (PMP). The BSMT is comprised of one representative each from KYTC and INDOT, as well as the FHWA as a non-voting, ex-officio member. The duties and responsibilities of the BSMT are to provide oversight of the Project by monitoring the progress and status of the Project, assisting in resolving certain disputes as provided for in this plan and reporting to and coordinating with FHWA as necessary or as requested.

The BSMT shall:

1. Monitor, and approve as necessary, appropriate actions and measures designed to avoid, minimize or mitigate effects to historic properties.
2. Monitor, and approve as necessary, that consultant services that include professionals with experience in architecture, landscape architecture, historic preservation, archaeology, anthropology, landscape history, as well as highway, bridge and tunnel design.
3. Prepare and provide progress reports:
  - A. Every six months, a report detailing measures required by the First Amended MOA and providing advance notice of milestones, scheduled letting dates, and initiation of construction.
  - B. The report shall identify the status of activities for each stipulation in the First Amended MOA and of associated documents, such as HPP's, treatment plans, late discoveries and acquisition and preservation of historic properties.
  - C. The report shall identify the status of activities for each stipulation in the January 4, 2013 Settlement Agreement between the National Trust for Historic Preservation, River Fields, Inc., FHWA, KYTC and INDOT (the Settlement Agreement).
4. The BSMT shall give full consideration to the recommendations of the BSHCT for incorporation into the final plans, to the extent reasonable, feasible and prudent.
5. Participate in the resolution of disputes as set forth in this plan.

The East End Crossing and Downtown Crossing contracts were awarded through the appropriate IFA / INDOT (Indiana) or KYTC (Kentucky) standard or alternative project delivery contracting processes (see Chapter 6). Project management services for each contract will be provided by the respective

contracting entities and their Technical Teams. Construction contract project management oversight and integration into the overall Project will be provided by the respective STA Construction Management personnel, supplemented as required by their Technical Teams. The Bi-state Joint Board selected, through a procurement of the Indiana Finance Authority, Kapsch Trafficom to serve as the Toll System Provider to design, develop, integrate, deliver, install, test, operate, maintain, repair, and manage the all-electronic toll collection system. Kapsch was provided a Notice To Proceed in May of 2015, and is currently working with the states to develop the Business Rules that will govern the system's day to day operations. Parsons Transportation Group is assisting the Joint Board in overseeing Kapsch as Interim Toll System Advisor through INDOT's East End Crossing Technical Team contract. Through a separate contract with KYTC, the Joint Board is receiving communications and public outreach support.

East End actions that affect Section 4 and Downtown actions that affect Section 3, that cannot be resolved at the Technical Team level will be addressed as set forth in the Dispute Procedures (see Section 4.3). BSMT membership is a full time assignment and the roles of the individual BSMT members are derived from their parent organization as indicated in the following sections. A Bi-State Development Agreement was prepared and approved on October 16, 2012 that further defines and governs the relationships between the states and their respective roles and responsibilities for the Project.

The actions taken by the BSMT are on a consensus basis. If consensus cannot be reached by the BSMT, the issue is handled pursuant to the Dispute Procedures in Subsection 4.3.

The actions taken by the BSMT are done so with consideration to current state policies and processes. When Project actions or policy decisions require approvals of others within the respective STA, the BSMT forwards the issue to the appropriate organization for decision. The BSMT is proactive with regard to scheduling time for known decisions required of organizations outside the BSMT in order to minimize schedule disruption.

Project issues are kept up to date through the project's Project Management Documentation Systems. In the Downtown Crossing, the system uses SharePoint to document the issue, keeps track of issues' resolution, and who is responsible for securing its resolution. In the East End Crossing, the system is E-Builder. In this system the issue is documented according to its process such as Request for Information (RFI), Field Design Change (FDC), Non-Conformance Reports (NCR), etc. The process for the issue's resolution is documented which includes who is responsible for its completion and its completion schedule. Each of these systems are available to the BSMT members.

## BSMT – KENTUCKY

The State of Kentucky roles and responsibilities are exercised through the KYTC representative on the BSMT. Generally the KYTC representative:

- Partners with FHWA and INDOT BSMT representatives to reach a consensus on Project issues.
- Provides a technical liaison for the East End Crossing to serve in a supporting and consulting capacity in the review of plans, proposals, reports and related documents as necessary or helpful to facilitate the procurement.
- Makes decisions on behalf of Kentucky at the BSMT level.
- Administers the GEC Contract for the Project
- Provides technical direction and validates GEC and Technical Team work on the Downtown Crossing contract(s).
- Coordinates KYTC support, as needed.

KYTC has provided two staff positions, for the duration of the Project, including a Project Manager and a Construction Manager. The Project Manager is the designated Kentucky decision making authority on the BSMT. This decision authority may be delegated to the Construction Manager in the Project Manager's absence.

KYTC provides additional Project staff support, as required, either through state forces or consultants.

## BSMT – INDIANA

The State of Indiana roles and responsibilities are exercised through the INDOT representative on the BSMT. Generally the INDOT representative:

- Partners with FHWA and KYTC BSMT representatives to reach consensus on Project issues.
- Assists IFA, the contracting agency for the East End Crossing sections.
- Provides a technical liaison for the Downtown Crossing to serve in a supporting and consulting capacity in the review of plans, proposals, reports and related documents as necessary or helpful to facilitate the procurement.
- Makes decisions on behalf of Indiana at the BSMT level.
- Administers the GEC contract for the Project.
- Provides technical direction and validates GEC and Technical Team work on the East End Crossing section.
- Coordinates INDOT support, as needed.

INDOT has provided three staff positions including a Senior Project Manager, Deputy Project Manager, and a Construction Director. The Senior Project Manager is the designated Indiana decision making authority on the BSMT. This decision authority may be delegated to the Deputy Project Manager in the Senior Project Manager's absence.

INDOT provides additional Project staff support, as required, either through state forces or consultants.

### BSMT – FHWA

The FHWA Project responsibilities are exercised through the FHWA Project Manager who is the primary FHWA representative on the BSMT. The FHWA Project Manager is responsible for Project actions and approvals, in coordination with the respective FHWA Divisions and Headquarters staff. Each element of this mega-project is managed as an oversight project. Most FHWA regulations are contained in 23 CFR and 49 CFR. Many implementing policies and guidance documents are compiled on the FHWA public internet website: <http://www.fhwa.dot.gov>. Generally the FHWA Project Manager:

- Actively participates as a member of the BSMT.
- Partners with the KYTC and INDOT BSMT representatives to reach consensus on Project issues.
- Participates in reviews and coordinates FHWA review and approvals with the respective FHWA Division and Headquarters staff. Such review and approvals include but are not limited to: Interchange Justification, consultant contracts/supplements/claims, Headquarters TS&L approval for unusual structures (tunnels, bridges greater than 500 feet, and all cable-stayed, truss, suspension, arch, segmental concrete, and moveable bridges), PS&E approval, etc.
- Participates in public involvement activities, as necessary.
- Keeps current on Project prosecution, progress, and other issues.
- Provides briefings for, and otherwise, coordinates with FHWA Division Administrators, Major Projects Team, and other program offices.
- Provides technical assistance and guidance to BSMT in development of the Project Finance Plan and annual updates.
- Is apprised of and assists with any changes affecting the NEPA approval and assures mitigation commitments are implemented.
- Coordinates between the BSMT and other federal agencies as required.
- Coordinates audits between the respective STAs, FHWA, and other Federal agencies.
- Provides technical assistance and guidance to the BSMT in developing and updating the PMP to ensure that the BSMT has implemented processes and procedures to efficiently and effectively complete the Project.
- Arranges for FHWA project risk assessments to identify strengths and improvement areas for the implementation of Federal-aid funds and prioritizes FHWA oversight activities based on the risks involved in the activity and the benefits obtainable in improving the processes and procedures.
- Provides technical guidance to the BSMT in the review of preliminary and final roadway and bridge plans.

FHWA has provided a Project Manager who serves as the Agency's lead for overall project administration and oversight in analyzing information concerning the status of the Project, in the review and acceptance of FHWA required

submissions, and in providing status reports to FHWA Headquarters. The FHWA Resource Manual for Oversight Managers provides necessary guidance to assist the Project Manager in effectively carrying out these duties and is included in this PMP by reference.

The FHWA Project Manager draws on additional FHWA resources, as required, from the Kentucky and Indiana FHWA Division offices, the FHWA Resource Center, the FHWA Major Projects Team in the Office of Infrastructure, and other program offices. The FHWA Project Manager hosts Quarterly FHWA Meetings with Division and Major Projects Team staff to discuss Project status and upcoming function-specific issues. The FHWA Project Manager organizes meetings with Division and Headquarter specialists to address specific issues as required.

#### GENERAL ENGINEERING CONSULTANT (GEC)

Community Transportation Solutions is the GEC for the project. Some of the project-wide responsibilities of the GEC include:

- Provides Staff support for the BSMT on an as needed basis.
- Communicates with and directs communications to the BSMT as needed. Meetings will be held on a regular basis as determined by the BSMT. The GEC will provide the meeting agenda and minutes for all meetings.
- Coordinates and implements Project wide activities as directed by BSMT.
- Monitors the project for compliance with the SFEIS and RROD, assuring that all environmental stipulations are met, including permits.
- Prepares or participates in the preparation of project wide reports including, but not limited to, the 6-month Environmental Progress Report, annual updates of the PMP, annual update of the Financial Plan, and the general LSIORBP Annual Project Report.
- Aids in project-wide communications, including the maintenance of a Project website.
- Provides for the engagement of the ombudsmen and provides necessary facilities for their independent operation.
- Provide necessary Project Controls for the overall GEC contract.

Starting with the 2013 amended contract, INDOT and KYTC agreed that certain roles of the GEC would be pertinent only to functions of KYTC. Those activities were identified and segregated into a separate contract specific only to KYTC.

The scope for those activities is now referenced as the Kentucky Technical Review Team (KTRT). Those activities associated with the KTRT include:

- Aids KYTC in the review of plans and specifications for the Downtown Crossing.
- Aids KYTC in communications for the Downtown Crossing
- Provides a liaison to the East Crossing to advise KYTC on issues that might arise and review staff to further make the liaison aware of items that would warrant discussion

- Provides evaluation and reports to aid in the payment of the DBT invoice
- Prepares invoice materials and reports for the KTRT Team
- Provides specific environmental elements associated with the Downtown Crossing
- Provides for additional services as required by KYTC
- Aids KYTC in DBE and Workforce Services as directed
- Provides property management for properties owned by KYTC and not turned over to the DBT or Developer for their use.

### SECTION DESIGN CONSULTANTS

Each SDC was responsible in a previous project phase for preliminary design, right of way, and utility engineering, including plan development; environmental investigations including archaeology, biological assessments, hazardous materials identification and treatment, and permits; and environmental mitigation required by the ROD.

Two of the section designers chose to complete the preliminary design for their section and to remain eligible to participate on a proposer team in the procurements. Four of the six section designers chose to continue to assist the states during the alternative delivery procurements. The work has been further extended for these four section design firms to aid in the review of the project plan development performed by the DBT and for the Developer as part of the KTRT, which is discussed above.

### TECHNICAL TEAMS

INDOT and KYTC established technical teams that oversee the design and construction of their respective procurements; INDOT for the East End and KYTC for Downtown. Each State is responsible for ensuring that contract requirements are met for their specific contracts through the establishment of a team of project managers, design reviewers and construction inspectors. As stated previously, the four original section design firms have joined as part of the CTS contract to provide oversight of the design of the Downtown Crossing and for the Kentucky portion of the East End Crossing. In addition, KYTC selected a team led by HDR for construction oversight assistance of the Downtown Crossing. INDOT selected Parsons Transportation Group to lead the East End Crossing Technical Team for support in oversight of the P3 contract.

### DOWNTOWN CROSSING DBT AND EAST END CROSSING DEVELOPER

The DBT and Developer are responsible for final design and construction of their respective portions of the Project as defined in the contracts entered into by each state.

#### TOLL SYSTEM INTEGRATOR / OPERATOR

The LSIORB Toll Project will use open-road electronic tolling technology. Tolls will be collected either by means of prepaid accounts via transponders or thru billings based on license plate recognition. The Toll Project system for the three bridges will consist of four mainline and two ramp Toll Zones. The new East End Crossing Bridge will consist of two mainline sets of gantries spanning two travel lanes and two shoulders in each north and south direction located on the Kentucky side of the Ohio River. The Kennedy Bridge carrying southbound traffic, will have one mainline set of gantries spanning five travel lanes and two shoulders and one ramp set spanning one travel lane and two shoulders. The Downtown Crossing Bridge, carrying northbound traffic, will have one mainline set of Toll Zone gantries spanning six travel lanes and two shoulders and one set of ramp toll gantries spanning two travel lanes and two shoulders. Toll zone gantries for the Kennedy Bridge and Downtown Crossing Bridge are located on the Indiana side of the Ohio River.

The Bi-state Joint Board selected, through a procurement of the Indiana Finance Authority, Kapsch Trafficom to serve as the Toll System Provider to design, develop, integrate, deliver, install, test, operate, maintain, repair, and manage the all-electronic toll collection system. Kapsch was provided a Notice To Proceed in May of 2015. , Kapsch worked with the states to develop the Business Rules that govern the system's day to day operations. Parsons Transportation Group is assisting the Joint Board in overseeing Kapsch as Interim Toll System Advisor through INDOT's East End Crossing Technical Team contract. Through a separate contract with KYTC, the Joint Board is receiving communications and public outreach support.

The TSP contractor will be responsible for the installation and construction of any necessary tolling equipment, including detection devices and toll zone structures to house toll collection equipment and for providing emergency generator power. The TSP will be required to coordinate with the DBT and Developer on the construction of any necessary gantries, tolling signage, building pads, access, conduit runs and other infrastructure items as required for the toll collection system.

The TSP contractor is responsible for all back office toll operations, including office space, facility management, maintenance and operations of customer service center(s) and potential future storefronts. The TSP contractor will collect all tolls for the Project, as authorized by the Joint Board, for the benefit of the STAs and may authorize the collection of tolls and other user fees by a third party, such as a Joint Board approved collection agency. The Joint Board has selected E-Z Pass for its base tolling system to be interoperable with other

systems in the United States. In addition, a local transponder designated as RiverLink is available for users who want a transponder that only services the local bridges. The TSP contract includes a customer service center with video image review and seven years of operation and maintenance. A web site, [www.RiverLink.com](http://www.RiverLink.com) has also been opened to provide information to the public.

The ETC contractor is responsible for the provision of all equipment and transponders necessary to integrate into the roadside tolling system. The ETC contractor will be required to work in a cooperative manner with the TSP contractor.

The marketing firm New West was selected to provide tolling communications and education at a Joint Board meeting on August 20, 2014. C2 Strategic is also aiding communications for the Joint Board.

Toll Commencement is currently expected to start whenever cross-river capacity increases.

#### STANDING ADVISORY TEAMS

There are several standing advisory teams, which have roles identified in the First Amended Section 106 Memorandum of Agreement (MOA). The following identifies and summarizes the roles of each of the teams:

##### *Bi-State Historic Consultation Team (BSHCT)*

The BSHCT consists of representatives of FHWA, INDOT, KYTC and the respective SHPOs. The BSHCT provided recommendations to the BSMT in the development of Contract Provisions that are related to commitments of the First Amended Memorandum of Agreement (FAMOA) and continues to provide recommendations in support of the BSMT's fulfillment of those commitments. The BSHCT considers input of the HPATs when making such recommendations to the BSMT. The FAMOA establishes the following specific roles for the BSHCT:

1. The BSHCT may make final recommendations as delegated by the BSMT.
2. The BSHCT shall convene to consider the recommendations provided by the HPATs and prepare recommendations for the BSMT.
3. The BSHCT will ensure that the comments and recommendations of the HPATs are given full consideration in preparing its recommendations to the BSMT or in reaching its final recommendations.

##### *Historic Preservation Advisory Teams (HPAT)*

Prior to December 31, 2003, FHWA and the respective STA convened both the IHPAT and the KHPAT to promote procedures for the Project to be designed in a

manner that respects the historic qualities, landscapes, historic buildings and features within the Alternative Specific APE. Representatives for each of the HPAT teams are identified in Section 4.1. The Amended Section 106 MOA establishes the following specific roles for the KHPAT and IHPAT:

1. The HPATs assisted the BSHCT and the BSMT in developing Project Contract Provisions relating to historic preservation issues to implement the measures stipulated in this First Amended MOA.
2. Each of the HPATs is co-chaired by a representative of the respective STA and SHPO. The Co-chairs are responsible for convening meetings of the HPATs, preparing and maintaining a summary of meetings, and preparing and submitting HPAT recommendations to the BSHCT for further action. Separate HPAT's have been formed for Kentucky and Indiana.
3. Additional participants may be invited to participate on the HPATs at the discretion of the HPAT Co-chairs.
4. The Advisory Council on Historic Preservation (ACHP) may participate as it sees fit on an ad-hoc basis.
5. Following execution of the original Section 106 MOA, the respective co-chairs convened the HPATs for an initial organizational, kick-off meeting to establish process and procedure for operation of the HPATs.
6. The respective Co-chairs will continue to convene additional meetings with the HPATs to review Project information and provide design/construction status updates. Coordination will occur at the following times until all commitments in this First Amended MOA have been fulfilled:
  - a. Every three months (quarterly); or
  - b. At the request of the Co-chairs
7. Due to the accelerated schedule, review materials for the HPATs will be provided as soon as possible prior to scheduled meetings. Due dates for comments will be identified when materials are distributed.
8. Based on comments provided by the HPATs, the co-chairs will develop recommendations, which they will submit to the BSHCT for consideration and action.

#### *Area Advisory Teams (AAT)*

The AATs provide feedback on design and aesthetic plans with the specific needs of their communities in mind.

#### *Regional Advisory Committee (RAC)*

The RAC is a committee with focus on the entire region. Meetings with the RAC will occur at the discretion of the BSMT. These meetings may be held to keep the RAC members informed about the progress on the Project to ensure the overall purpose and need is reflected, and that the plans mesh with regional goals and objectives for local economics, quality-of-life, and the environment.

#### **OMBUDSMEN**

The Ombudsmen provide property owners, neighborhood associations, and other groups and individuals with a mechanism for addressing concerns or issues raised

during the further development of the Project, including during the construction phase. For more information on the Ombudsmen and their duties, see Chapter 19.

### 4.3 Disputes Procedures

#### DISPUTES PROCEDURE

Disputes with respect to issues covered by this Project Management Plan shall be resolved as follows:

- 1.) Disputes between Kentucky and its Design Build Team shall be resolved pursuant to the procedures outlined in the contract between KYTC and the DBT and any addenda thereto. For disputes involving the proper application or interpretation of the Record of Decision or federal issues, FHWA shall be consulted as part of the resolution.
- 2.) Disputes between Indiana and its Developer shall be resolved pursuant to the procedures outlined in the Public – Private Agreement (PPA) contract between IFA and the Developer and any addenda thereto. For disputes involving the proper application or interpretation of the Record of Decision or federal issues, FHWA shall be consulted as part of the resolution.
- 3.) Disputes between Indiana and Kentucky shall be resolved pursuant to the terms of the Bi-state Development Agreement, which provides a structure by which any States' Party may alert the other States' Parties to a conflict, call a meeting to attempt resolution, and then escalate the dispute to the Joint Board if the dispute remains unresolved.
- 4.) The Parties shall use their best efforts to resolve any disputes among them. The parties shall follow the terms of the Bi-state Development agreement regarding compliance of committing to response times to the other state for review and comment in order to meet the procuring State's schedule. The parties shall consult and negotiate in good faith recognizing their mutual interest in achieving a just and equitable solution.



DOWNTOWN CROSSING — NEW LINCOLN BRIDGE OPEN TO TWO-WAY TRAFFIC WHILE EXISTING KENNEDY BRIDGE IS BEING REHABILITATED

## 5.0 PROJECT PHASES

Due to the alternative delivery type contracts that both states are using for the Downtown Crossing and the East End Crossing, the normal four project phases: Design, Right of Way, Utilities, and Construction are not in the typical sequential order of events, but instead are occurring simultaneously in many instances. The sequence for the Project has generally been:

- Preliminary Design (begun in 2003)
- Right of Way Acquisition (begun in 2003)
- Utility Coordination and Relocation (begun in 2003)
- Contract Procurement (2012)
- Completion of Right of Way Acquisition (2013)
- Design Completion by the DBT and Developer (2013 to current)
- Construction (begun in 2013)
- Remaining Utility Relocation included in scope of work for the DBT and Developer

### 5.1 Final Design

The Final Design Phase consists of all activities necessary to prepare the project plans and specifications. The DBT and the Developer are responsible for the final design of their respective contracts, with oversight and direct management by the respective STA and their Technical Team. These final design activities include but are not limited to:

- Surveying
- Photogrammetry
- Data Collection
- Property Entry
- Existing Right of Way Monumentation
- Geotechnical Investigations
- Environmental Compliance
  - Air quality
  - Aesthetics
  - Cemeteries
  - Cultural resources
  - Endangered species
  - Federal lands
  - Floodplains
  - Groundwater resources
  - Hazardous materials and underground storage tanks
  - Noise
  - Section 4(f) resources
    - Cultural resources

- Recreational parks
- Wildlife refuges
- Section 6(f) resources
- Socioeconomic concerns and environmental justice
- Streams
- Wetlands
- All appropriate permits and/or certifications
- Geometric Design
- Drainage Design
- Pavement design
- Structure Design
- Tunnel Design
- Access management
- Roadway Lighting
- Traffic Signals
- Signing
- Intelligent Transportation Systems
- Tolling System Infrastructure and Signing

While design elements will continue to be introduced as construction progresses, as of June 2015 much of the final design has already been reviewed and approved. The designs are compiled into buildable units that are then used to construct the specific phases of the Project.

## 5.2 Right of Way

The Right of Way phase includes the acquisition, management, and disposal of real property in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended (The Uniform Act; the Uniform Government-wide Regulations (49 CFR Part 24); and Right of Way and Real Estate (23 CFR Part 710).

Some Right-of-Way (ROW) Engineering and Acquisition was started following the original 2003 ROD after completion of approved Right-of-Way plans. The ROW phase and acquisition process was interrupted in 2011, pending the completion of the Supplemental EIS and issuance of a new Revised ROD.

Right-of-way plans were prepared by Section Design Consultants in the earlier 2004-2011 ROW phase in accordance with current STA right of way design standards and criteria (see Chapter 12). Each SDC was also responsible for preparing or performing all or part of the following: title reports, appraisals, review appraisals, negotiations, payment packets for acquisitions, relocation assistance, payments, closings, and condemnation documents.

The GEC provides oversight, and performs reviews and approvals for all of the functions performed by the SDCs and serves as the liaison between the SDCs and the STAs. The GEC is also responsible for property management and preparing

project reports for KYTC. INDOT is responsible for property management in Indiana.

Each STA was responsible for final approval of appraisals, acquisition payments, relocation assistance, and closings. Additionally, each STA was responsible for hardship acquisitions, protective buying acquisitions, condemnations, environmental mitigation actions, relocation of human remains, sale and disposal of surplus real property.

Rights-of-entry or the acquisition of all properties necessary for the construction of both Crossings is complete. The DBT or Developer has now accepted the maintenance or has initiated construction on all properties to be utilized as part of the construction. KYTC utilizing staff from CTS continues to maintain a small number of properties; i.e. – Mellwood Inc, and Cold Ice and Storage in the Downtown Crossing, and Drumanard, Rosewell, Nemec and Vincent properties in the East End Crossing, all of which have buildings on them. In addition, a few excess properties without buildings are also still maintained through the General Engineering Consultant. KYTC has formed a Surplus Property Team to enable transfer of the properties with buildings. The Cold Ice and Storage, Drumanard and Rosewell each have Preservation Easements placed on them in accordance with the FAMOA and processes that will be used for the transfer of the property to others will be in accordance with procedures established in the FAMOA. KYTC has made the decision to demolish the Vincent home as numerous structural deficiencies were identified. The demolition is scheduled to occur in mid-summer 2016 and the remaining lot is then to be sold through a bid process.

KYTC has made two attempts to sell the Grocers Ice property, but received no acceptable bids in either effort. KYTC is continuing to work with the SHPO to determine additional steps to sell the property. The sale of Rosewell and Drumanard is expected to occur in the summer of 2016.

### 5.3 Utilities

The Utilities phase includes all measures required to relocate utilities affected by the Project. The Utilities phase for Kentucky contracts is described in the *KYTC Utilities and Rail Guidance Manual*. The utilities phase for Indiana contracts is described in the *Indiana Design Manual*.

INDOT and KYTC both assigned responsibility for completion of utility coordination and relocation to the DBT and Developer through their respective procurements. The DBT and Developer have continued their coordination through each of the utility companies and have facilitated or directly provided for the relocation of the involved utilities.

## 5.4 Construction

Construction activities include but are not limited to:

- Contract Administration
- Pre-Construction Activities
- Project Plans
- Field Check Structures
- Field Books
- Staking
- Personnel
- Vehicles
- Signing
- Encroachment on the STA Right of Way
- Project Engineer's Diary
- Traffic Control
- Work on Railroad Right of Way
- Construction Surveying
- Environmental Protection and Landscaping
- Nuclear Density Testing
- Roadway and Structure Construction
- As-built Plans

Construction officially began on June 3, 2013 for East End Crossing and on June 18, 2013 for the Downtown Crossing. As of June 30, 2016, design for the Downtown Crossing is 95% complete and construction is 88% complete. Design on the East End is approximately 78% complete. The construction on the East End Kentucky section is 78 % complete, the main span construction over the Ohio River is approximately 83% complete, and the Indiana section is approximately 97% complete .



EAST END CROSSING ROUNDABOUT CONSTRUCTION AT PORT ROAD

## DOWNTOWN CROSSING

In the construction phasing, the Downtown Crossing's Design Build Team (DBT), Walsh Construction Company, maintained the existing three project sections. Section 1 is the Kennedy Interchange and the southern approach to the new river crossing. Section 2 consists of the new Ohio River Bridge, rehabilitation of the existing Kennedy Bridge, and the construction of the Indiana approach bridges. Section 3 is the northern or Indiana approach and the associated ramps and city streets. Each of the sections is phased independently with coordination between each of the section's phasing in order to have a smooth transition from one section to another and to maintain traffic. The coordination is controlled by the CPM Schedule on the project.

Walsh's Section 1 construction is divided into 5 major phases. These phases have sub phases based upon the complexity of the work in that phase. Since traffic is a major concern in this section, the Maintenance of Traffic Plan controls the degree to which the areas can be worked; consequently the construction phasing is based upon the MOT. The following is a construction summary of the Phases:

## Phase 1

- I-65
  - Construction of Ramp 10
  - The first part of Ramp 21
  - Ramps 3 and 4 and parts of I-65 Southbound Collector-Distributor Lanes
  - Bridge A019 and part of Ramp 10
  - Bridge A012, Ramp 10 and 21-1 over Witherspoon, Ramp 11 and parts of I-64 EB
  - Bridge A007, Ramp 3 and 21 over East Main Street
  - Bridge A006, Ramp 3 over E. Market Street
  - Bridge A004, Ramp 3 and 4 over E. Jefferson Street
  - Bridge A005 Ramp 3 over Jackson
  - Bridge A002, Ramp 4 over Liberty Street
  - Bridge A001, Ramp 4 over Floyd Street
- I-64
  - Adams Street Relocation
  - Ramp 12 and Temporary Diversions
  - Ramp 2 and 23, between Bridges A029 and A034
  - I-64 EB (East and West of Bridge A031
  - Bridge A030, Ramp 12 over Witherspoon, Ramp 8, Ramp 23 and the RR
  - Bridge A031, I-64 EB, Ramp 8 over Witherspoon
  - Bridge A029, Ramp 2 over Witherspoon St., Adams Street, and the RR
  - Bridge A018, Ramp 2 and 12 over I-64 EB, Ramps 8, 11, and 13
- I-71
  - I-71
  - Ramp 18
  - Ramp 22
  - Bridge A034, Ramp 23 over I-64 EB, Ramp 15, 17, and I-64 WB
  - Bridge A035, Ramp 22 over I-64 WB
  - Bridge over Frankfort Ave.

## Phase 2A

- I-65 SB
  - Bridge A008, I-65 SB over Main Street
  - Bridge A006, I-65 SB over E. Market Street
  - Bridge A005, I-65 SB over E. Jackson
  - Bridges A004-2 and A004-5, I-65 over S. Preston St., and E. Jefferson St.
  - Bridge A002, I-65 over Liberty Street
  - Bridge A001, I-65 over Floyd Street
  - Bridge A018, I65 SB over Ramp 8
- I-64/I-71
  - Ramps 8/12/13, North of Bridge A015
  - Ramp 12/I-64, Pier East of Bridge A030
  - Ramp 23/I-71, East and West of Bridge A034

- Bridge A034, Ramp 23 over I-64 EB, Ramp 15, 17, and I-64 WB
- Bridge A015, Ramp 8 over E. Witherspoon Street

#### Phase 2B

- I-64
  - Ramp 15
  - Ramps 16 and 17, either side of Bridge A037
  - Bridge A037, Ramp 17
  - Bridge A039, I-64 over Mellwood
  - Bridge A038, I-64 WB over Story Ave.
- I-65
  - Bridge A014, I-65 NB, Ramp 5
  - Bridge A003-1, Ramp 6 over East Liberty Street
  - A003-2, Ramp 6 over S. Preston Street
  - Bridge A004-3, A004-5, I-65, Ramp 5
  - Bridge A005, I-65, Ramp 6, Ramp 8
  - Bridge A006, I-65, Ramp 8
  - Bridge A009, Ramp 7, Ramp 8
  - Bridge A011, Ramp 7, Ramp 9 over Hancock St.
  - Bridge A017, Ramp 7
  - Bridge A016, Ramp 9
  - Phase 2B Local Street Restoration
  - Bridge A020 Ramp 9 ober 21-1
  - Bridge A019 Ramp 1
  - Bridge A008 I65 NB over E. Main St.
  - Bridge A014 I65 NB over I64 EB, Witherspoon & Ramps 2,9,11
  - Bridge A010 Part width Construction

#### Phase 3A

- I-64
  - Ramp 15, East of Witherspoon Street
  - Ramps 19, 15, 20, From Witherspoon to Bridge A026
  - Ramp 14 & I64 EB
  - I-64 WB, East and West of Witherspoon St.
  - Bridge A032, Ramp 15 over Witherspoon Street
  - Bridge A033, Ramp 20, Ramp 21, I-64 WB over Witherspoon St.
  - Bridge A026, Ramp 15 over I-64 WB and Ramp 21
- I-65
  - Ramp 11 (A025)
  - Bridge A016, Ramp 9 over I-64 EB, Ramp 11 and 8
  - Bridge A024, I-65 NB over I-64 WB and Ramps 19, 21
  - Bridges A028-1 and A028-2, I-65 NB, Ramp 11, Ramp 15 over River Road
  - Bridge A025, Ramp 11 over I-64 WB and Ramps 19,21

Phase 3B

- I-64
  - Ramps 20, 21, 22
  - Ramp 6 Part-width
  - Bridges A033, Ramp 20, Ramp 21 over Witherspoon St.
  - I64 WB

Phase 4A

- I-64
  - Ramp 22
- I-65
  - Ramp 21-1 and Ramp 2 (A022)
  - Ramp 9 and 1, Bridges A016, A019, A020
  - Ramp 1
  - Ramp 6 (part-width)
  - Bridge A027
  - Bridge A021, Ramp 1 over I-64 WB
  - Bridge A022, Ramp 2 over I-64 WB, River Road, and Ramp 21
  - Bridge A023, I-65 SB over I-64 WB, Ramp 19, 21
  - Bridge A010, Ramp 3
  - Bridge A013, I-65 SB over I-64 EB, Ramps 2,9,11 and E. Witherspoon (4A and 4B)

Phase 4B

- I-65
  - Ramp 11
  - Ramp 19
  - Bridge A027, I-65 Approach

Phase 5

- I-64 EB, West End
- I-64 WB, East End

The section that ties the project together is Section 2, Ohio River Crossing for the Downtown Crossing project. Walsh's phasing for this section is to construct the new crossing, move bi-directional traffic onto the new structure, and perform the repair work on the Kennedy Bridge. The following is a summary of the Construction Phases.

Phases 1, 2, 3

- Construct I-65 NB Ohio River Bridge
- Indiana Approach

Phase 4A

- I-65 SB Indiana Approach
- JFK River Span

Phase 4B

- I-65 SB Indiana Approach
- JFK River Span

Section 3 is the Indiana approach to the project. The construction of this section is divided into 6 stages. The work in the stages is being controlled by the maintenance of traffic through I-65 and the adjacent surface streets. The following is a summary of the Construction Stages (Phasing) in this section:

#### Stage 1

- I-65
  - I-65 NB Station 106+65 to 113+00
  - Ramp 1
- US 31
  - Ramp 17
  - Ramp 18

#### Stage 2A

- I-65
  - Ramp 9
  - I-65 NB Station 108+00 to 125+00
  - Ramps 13, 14
  - Ramp 5
  - Ramp 19
  - Bridge B17, I-65 NB over Court Ave.
  - Bridges B12A and B12B, Ramp 5 over 6th
  - Bridge B01, Ramp 9 over 9th
- US 31
  - Ramps 20, 21
  - Bridge B02, Ramp 12 over 9<sup>th</sup> St.
  - Bridge B20, Ramp 20/21 over Stansifer

#### Stage 2B

- US 31
  - US 31 Station 18+00 to 24+00
  - Ramp 10 and 11
- Local Streets
  - Missouri Avenue
  - Court Avenue

#### Stage 3

- I-65
  - I-65 NB Station 126+00 to 162+00
  - Bridge B07 NB over 6th
  - Bridge B04, I-65 NB over 9th

- Bridge B14, I-65 NB/ Ramp 12 over 10th
- US 31
  - US 31 Ramps 6 and 7
  - US31 6th to North Project Limits
  - Bridge B19, US 31 over Court Ave.
  - Bridge B10, Ramp 6 over 6th
  - Bridge B11, Ramp 7 Flyover
  - Bridge B03, Ramp5/7 over 9th
  - Bridge B13,Ramp5/13 over 10th
  - .

#### Stage 4A

- US 31
  - US 31 SB North Limits to Court Ave.
  - Bridge B16, Ramp 6 over 10th
  - Bridge B06, Ramp 6 over 9th
  - Bridge B09, Ramp 8A over 6th

#### Stage 4B

- I-65
  - I-65 SB 112+75 to Bridge B08 over Court
  - I-65 SB 123+00 to 133+00
  - I-65 SB 136+50 to Bridge B15 over 10<sup>th</sup> Street
  - I-65 SB 150+50 to 162+00
  - Bridge B15, I-65 SB over 10<sup>th</sup>
  - Bridge B05, I-65 over 9<sup>th</sup>
  - Bridge B08, I-65 SB over 6<sup>th</sup>
  - Bridge B18, I-65 over Court Avenue
- Local Streets
  - LSR-1
  - East Half of 6<sup>th</sup> Street

#### Stage 4C

- US 31
  - US 31 B North limits to Court Avenue
  - Bridge B16, Ramp 6 over 10<sup>th</sup>
  - Bridge B06, Ramp 6 over 9<sup>th</sup>
  - Bridge B09, Ramp 8A over 6th
- Ramp and Local Streets
  - 10<sup>th</sup> St. and Ramp 19

- Ramp 4
- West half of 6<sup>th</sup> St.

#### Stage 5A and 5B

- I-65
  - I-65 SB Market St. to 112+75
  - I-65 SB Bridge B08 over Court to 123+00
  - I-65 SB 146+50 to 150+25
- Ramp and Local Streets
  - Ramps 2 and 4
  - Ramp 15 and 10<sup>th</sup> St.
  - Bridge B18, Ramp 2/4 over Court Avenue

#### Stage 6

- ITS
- I-65 SB, 133+00 to 136+50
- Complete misc. median and ramp work

### EAST END CROSSING

Due to the nature of the East End Crossing, WVB has divided the construction phasing among the three defined Project Sections: the Kentucky approach (Section 4), the Ohio River Crossing (Section 5), and the Indiana approach (Section 6).

The Kentucky approach, Section 4, is further divided into six sub-sections. Each of the sub-sections is then divided into phases to accommodate the construction. The phases for each of the sections are coordinated with the others so that one section will not delay the other.

The Section 4 subsections are as follows:

- Subsection 4-1: I-71 to Wolf Pen Branch Road will be constructed in 5 phases so that traffic can be maintained in both directions on KY 841 at all times.
- Subsection 4-2: Wolf Pen Branch Road to the south portal of the tunnel/US 42 will be constructed in 4 phases to maintain traffic while excavating for the south portal of the tunnel.
- Subsection 4-3: North portal of the tunnel to Harrods Creek will be constructed in one phase since there is no traffic to maintain in this subsection.
- Subsection 4-4: Harrods Creek to the Kentucky approach structure will be constructed in one phase since there is no traffic to maintain in this subsection.
- Wolf Pen Branch Road: This subsection will be constructed in three phases in order to maintain existing traffic in at least 1 lane at all times.
- Tunnel: The tunnels bores, both NB and SB, will be constructed in 8 steps which include, Temporary Support excavation in 4 drifts, temporary support and initial

liner, the drainage system, the waterproofing membrane, the invert slab, the final concrete liner, the mechanical equipment and the completion and commissioning protocol.

The other structures, Ramp A (KY 841 NB to US 42 over KY 841), Harrods Creek Bridge, and the Kentucky Approach Structure will each be constructed in a series of steps with minimal maintenance of traffic required.

The main spans structure over the Ohio River will be constructed in a series of steps: from both the Kentucky and Indiana shores. The tower foundations will be placed followed by tower construction and construction of the back spans. Pre-fabricated deck sections will be erected toward the center of the river from each tower as cable stays are placed and the final driving surface will be placed.

The Indiana approach, Section 6, is subdivided into 2 subsections. These subsections are:

- Section 6 South – The Mainline from Section 5 to north of Utica – Sellersburg Road including the Salem Road Interchange
- Section 6 North – The Mainline from north of Utica-Sellersburg Road to south of Jeffersonville-Charleston Road, including the SR265/SR62/Port Road Interchange

There are 15 bridges to be constructed in Section 6. The majority of the work in Section 6, other than the SR 265/SR 62/Port Rd interchange and Utica/Sellersburg Rd overpass, do not require significant traffic maintenance. The SR 265/SR 62/Port Road Interchange is being constructed in 4 phases to maintain traffic on all approaches during construction. The Salem Road interchange overpass bridge was constructed under a separate contract. The ramp tie-ins are being completed as part of the Section 6 South segment.

## **Tolling**

See Section 4.2 for a discussion of the proposed contracts for this operation.



East End Tunnel Construction

## **6.0 PROCUREMENT & CONTRACT MANAGEMENT**

### **6.1 General**

The Downtown Crossing procurement and contract was executed by KYTC using alternative delivery procedures, as defined in the Downtown Crossing RFP. KYTC and INDOT used standard consultant selection processes for selecting their respective Technical Teams. The P3 procurement for the East End Crossing was completed through IFA, as per Indiana's P3 enabling legislation. All official procurement documents were released by the respective STA, or other designated contracting agencies within each state.

### **6.2 Downtown Crossing Procurement Process**

#### **DOWNTOWN CROSSING**

The selection of design-build contractors for the Downtown Crossing was made based on a two-step best value design-build procurement process, which included a Request for Qualifications (RFQ) and a Request for Proposals (RFP). The RFPs were prepared by KYTC with the assistance of INDOT as appropriate. KYTC evaluated all Statements of Qualifications submitted by prospective design-build contractors and short-listed 3 qualified teams who participated in the RFP phase. Short-listed proposers separately submitted a technical proposal and a lump-sum price proposal. After all of the technical proposals were evaluated and scored, the state opened the price proposals. The best value utilized the formula from the RFP to combine the technical scores and bid price to arrive at a best value score. Upon receiving and evaluating bids for the contract, KYTC's awards committee reviewed the best value score and recommended to award the contract to the Walsh Design Build Team. The Walsh DBT was awarded the contract for the Downtown Crossing to Walsh on December 6, 2012.

### **6.3 East End Crossing Procurement Process**

The IFA was the lead Indiana agency for the East End Crossing procurement process.

#### **EAST END CROSSING**

The selection of a Public Private Partnership (P3) Developer was made based on a two-step best value, availability payment type, P3 procurement process, which included a Request for Qualifications (RFQ) and a Request for Proposals (RFP)

which included instructions to Proposers defining the procurement procedures. The RFP was prepared by IFA and INDOT with the assistance of KYTC as appropriate. IFA and INDOT evaluated all Statements of Qualifications submitted by prospective proposers and short-listed 4 qualified teams, all who then participated in the RFP phase. Short-listed proposers submitted a technical proposal and a financial proposal. The best value evaluation was made using a formula defined in the RFP to determine and combine the technical and financial proposal scores to arrive at a score indicating the Preferred Proposer. The execution of the Public Private Agreement (PPA) Contract was the responsibility of IFA with the support of INDOT. Commercial Close was accomplished by the selected proposer, WVB East End Partners, LLC., on December 27, 2012 and Financial Close was achieved on March 28, 2013.

## 6.4 Special Materials and Equipment Procedures

The BSMT does not anticipate the need for any material procurement contracts outside of the two major procurements.

## 6.5 Right of Way Acquisition

All Right of Way (ROW) was acquired or right of entry provided for all properties by the respective states as described in the Bi-State Development Agreement was completed so as not to delay construction for either Crossing.

## 6.6 Utility and Public Agency Agreements

INDOT and KYTC will utilize existing agreements with utility owners and public agencies, wherever practical. Obtaining many of the final utility agreements will be the STA's responsibility. The RFP for both Crossings established that the DBT and Developer are responsible for several of the utility agreements and the final coordination and completion of the utility relocations and protections.

## 6.7 Federal Procurement Requirements

The FHWA requires review and approval for all design, construction and materials procurement contracts that utilize FHWA funds in accordance with Title 23 of the Code of Federal Regulations, unless otherwise delegated. The FHWA representative on the BSMT facilitates any required FHWA review processes.

The role of the BSMT in the project development process is to monitor project objectives, cost control, schedules, risk management, and issues that are common

to both States and to assist in resolving disagreements as provided for in this plan. The BSMT is responsible for investigating and complying with all FHWA procurement requirements. The BSMT requested and received from FHWA review and concurrence with each RFQ and the RFP for each of the two Crossing procurements.

## 6.8 Contract Award Protest Procedures

Protest procedures follow the requirements stipulated in the individual RFPs and any applicable STA procurement regulations for the procuring state.

## 6.9 Contract Management

The core contract management process used for each construction contract follows the requirements stipulated in the individual RFPs and any applicable STA contracting processes. Each major procurement is managed by a combination of state staff from INDOT and KYTC and consultants from their Technical Teams, with project level oversight as described in this PMP. For the Downtown Crossing managed by Kentucky, these processes are described in their RFP and the Kentucky Standard Specifications for Road and Bridge Construction, Current Edition. For the East End Crossing managed by Indiana, these processes are described in the PPA.

Contract changes referred to in this section are different than the management of changes in the scope of work, budget and schedule discussed elsewhere in this document. These contract changes relate to changes to the standard form of contract used in the procurement of design and construction services.

The execution of any changes during the procurement process was governed by the respective RFP and procurement regulations of the procuring state. Proposed changes consisted of a description, justification and an assessment of the effect of the proposed change on the Project.

## 6.10 Warranty Management

If warranties are utilized, a warranty management database for all warranties under each contract will be developed by KYTC or INDOT as appropriate. A warranty management database will facilitate timely and effective transfer to the appropriate INDOT and KYTC operations and maintenance entities.

## 7.0 COST, BUDGET & SCHEDULE

The Project Financial Plan is incorporated by reference. Per FHWA requirements, the Financial Plan will be updated, at a minimum, on an annual basis upon the start of construction.

The year-of-expenditure cost estimate reflects the current Project schedule and reasonable assumptions for future inflation. Both STAs will continuously monitor and adjust the cost estimate and Project schedule based on new project-specific information as well as information on economic conditions that will affect both cost and schedule.

In accordance with the 2016 Updated Financial Plan, the current estimated cost for the entire Project is \$2.327 billion, an increase in cost of \$3.4 million from the costs shown in the 2015 Updated Financial Plan. The table below shows the current estimated cost broken out by each Project Section:

<b>Project Segment</b>	<b>Total Project Costs in Year of Expenditure Dollars (in millions)</b>
Section 1 – Kennedy Interchange	\$600.3
Section 2 – Downtown River Bridge	\$339.3
Section 3 – Downtown IN Approach	\$196.1
KY Other Costs	\$138.5
<b>Total Downtown Crossing</b>	<b>\$1,274.2</b>
Section 4 – KY East End Approach	\$486.1
Section 5 – East End River Bridge	\$242.4
Section 6 – IN East End Approach	\$228.0
IN Other Costs	\$96.3
<b>Total East End Crossing</b>	<b>\$1,052.8</b>
<b>Project Total Cost</b>	<b>\$2,327.0</b>

The Project is scheduled to be complete by the end of SFY 2017. The East End Crossing is expected to reach substantial completion by October 31, 2016 and the Downtown Crossing is expected to reach substantial completion by December 9, 2016. The current design and construction schedules, broken out by each crossing, are shown in the table below.

State Fiscal Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Downtown Crossing</b>																
Environmental																
Design																
Right-of-Way																
Utilities																
Construction																
Other																
<b>East End Crossing</b>																
Environmental																
Design																
Right-of-Way																
Utilities																
Construction																
Other																

## 7.1 Financial Plan

FHWA provided guidance regarding the content and format of the Initial Financial Plan (IFP) required by Section 1904(h) of SAFETEA-LU. FHWA Final Major Projects, Project Management Plan and Financial Plan Guidance, dated January 2007, is incorporated by reference. In accordance with this guidance, a Financial Plan is required for any project with an estimated total cost of \$500 million or more. The FHWA Financial Plan Guidance presents an outline for the "Initial Financial Plan" and for the required annual updates. The Bi-State Management Team (BSMT) prepared the initial Project Financial Plan in 2008, which estimated the total Project cost at \$4,067.7 million. A Financial Plan Update was submitted to FHWA in 2010, which detailed progress on the Project and changes made since 2008, with a total Project cost of \$4,083.2 million.

The 2012 Financial Plan Update detailed several major changes to the Project that reduced the total Project cost to \$2,583.9 million. The FHWA Major Projects Group conducted a comprehensive Cost Estimate Review (CER) in December 2011 and January 2012, which reviewed the states detailed construction cost estimates, costs to date and risk elements. The 2012 Financial Plan's \$2,583.9 million total Project cost estimate met or exceeded the 70<sup>th</sup> percentile cost in the 2012 FHWA CER.

The 2013 Annual Financial Plan Update updated the Financial Plan to reflect actual bid costs and to make further refinements. The estimated project cost in that plan was \$2.34 billion, exclusive of financing and interest costs. The 2014 Updated Financial Plan, which was submitted concurrently with the 2014 Updated Project Management Plan,

further refined the costs based on actual expenditures to date. Costs shown in the 2014 Financial Plan showed a total project cost of \$2.32 billion or \$20.7 million less than the previous plan. The 2015 Annual Financial Plan Update updated cost estimates and actual expenditures through June 2015 and updates project delivery and financing status for the Project. The cost shown in the 2015 Financial Plan Update was also \$2.32 billion, but based on rounding of the figures was shown to be \$0.6 million less than the totals shown in the 2014 Financial Plan Update. The 2015 update was prepared in accordance with FHWA's Financial Plan Guidance, including the January 2007 Financial Plan Guidance and additional Interim Guidance issued by FHWA September 24, 2012. The current cost provided in the 2016 Financial Plan Update is \$2,327.0, an increase of \$3.4 M over that reported in the 2015 Financial Plan Update.

The Financial Plan provides information on the immediate and longer-term financial implications resulting from Project initiation. The annual updates of the Financial Plan provide information on actual cost, expenditure, and revenue performance in comparison to initial estimates as well as updated estimates of future year's obligations and expenditures. The annual updates provide information on cost and revenue trends, current and potential funding shortfalls and the financial adjustments necessary to assure completion of the Project. The Financial Plan and its subsequent Annual Updates provide assurance that the Project's impact on the States' transportation capital improvement programs has been assessed. The projected uses of funding for the Project must meet the fiscal constraint requirements for the States' planning processes.

The Financial Plan is a comprehensive document that reflects the Project's cost estimate and revenue structure and provides a reasonable assurance that there will be sufficient financial resources available to implement and complete the Project as planned. It provides a description of how a project will be implemented over time by identifying project costs and the financial resources to be utilized in meeting those costs. It explains the assumptions about both cost and revenue upon which the plan is based. In addition, the annual updates to the plan will enable decision makers to track the financial progress of the Project over time by highlighting significant deviations from the Initial Financial Plan and the subsequent annual updates and explaining the mitigating actions taken to adjust for those deviations.

The Initial Financial Plan and each Annual Update is submitted to the FHWA Division Office for review and acceptance.

The plan consists of five main sections:

- Cost Estimate - in which the total cost and cost-to-complete for major project elements are presented in year of expenditure dollars
- Implementation Plan - in which the project schedule is presented and the cost-to-complete is presented in annual increments in year of expenditure dollars
- Financing and Revenues - presented by funding source as annual amounts available for project obligations
- Cash Flow - an annualized presentation of cash income and outgo to illustrate how periodic bills will be paid

- Risk Identification and Mitigation Factors

Annual Updates to the Initial Financial Plan will include revisions to the five main sections mentioned above and will also include data covering:

- The cost history (initial estimate versus actual expenditures) of the Project
- A presentation and analysis of cost and revenue trends that may result in additional funding needs or cost reductions
- A discussion of additional funding increases or cost reductions necessary in the coming year to meet funding shortfalls which have become known since the last submission, including a discussion of their cash flow implications (this discussion will include a projection of any potential funding shortfalls in future years, including those based on the cost trends identified in the previous section)
- A discussion of any significant reductions in cost during the past year and the potential for such reductions in future years
- An identification of significant increases in project costs of \$10 million or more as compared to the original estimated costs both in the past year and projected for the future. The cost changes reported may be for any reason including changes in project scope, design, right of way, construction, and/or changes to financing estimates.

The Financial Plan includes a narrative describing the assumptions used to develop the project cost estimates. All assumptions for the revenue forecasts and cash flow are also included. The narrative descriptions include the sources of information for the forecasts, the methodology used for developing the forecasts, and identify whether there has been any independent validation of the forecasts or sensitivity testing.

Any documentation that provides the basis for projected costs/revenues (e.g. revenue studies, feasibility studies, economic forecasts) is either referenced or included as attachments to the Financial Plan. They will also be referenced or included in the annual updates if they represent material changes from those referenced in the IFP.

## DESIGN AND CONSTRUCTION FINANCING

The strong commitment of Indiana and Kentucky to the Project has been evidenced by their continued funding for the Project on a pay-as-you-go basis since the Project's inception, as well as by the states' continued cooperation through the Bi-State Management Agreement. At the end of state fiscal year 2015, the states have expended \$2.129 billion - \$1,211.7 million by Kentucky and \$917.4 million by Indiana for the Project, exclusive of financing and interest costs. In April, 2015, IFA entered into a TIFIA Loan Agreement with USDOT in the amount of \$162 million to be used to fund future milestone payments.

Both Kentucky and Indiana have historically used federal-aid resources for the Project and have committed specific funding from their respective near-term federal-aid highway funding programs, as described further below. Federal-aid formula funds provided to the Project have been and will continue to be matched by a combination of state road funds and toll credits (credits unrelated to the Project) in Kentucky and by state funds in

Indiana. Both states have a demonstrated track record of meeting their state match obligations with a variety of state funding sources, including state-imposed fuel taxes and a variety of transportation-related fees.

The current financial strategy provides for the Project's funding by a combination of conventional state and federal transportation program funds and toll-based Project revenues. In the case of Kentucky's design-build contracting approach, these funding sources will be leveraged to provide the necessary up-front capital for construction through a combination of Kentucky's state and federal funding commitments, toll revenue bonds, TIFIA financing (application submitted), and GARVEE bonds.

In the case of Indiana's intended availability payment P3 approach, private sector financing, including private equity and debt, will be secured by the Developer to support its obligations to deliver the East End Crossing, and the milestone and availability payments under the PPA will be supported by Indiana's funding commitments, its TIFIA loan and its share of the toll-based revenues from the Project. The alternative delivery methods selected by the states have further reduced Project costs and enhanced the overall Project finance strategy. Federal discretionary program funds may also continue to be utilized by the Project to the extent additional discretionary funds become available and are obtained by the states.

The states have reasonable expectations for a reauthorized federal surface transportation program at levels that are commensurate with current funding levels. Based on those expectations, as well as reasonable expectations regarding the availability of corresponding state transportation funds, an estimated \$1.5 billion of federal-aid highway formula and discretionary fund and state transportation funds is reasonably expected to be available to the Project.

## OPERATIONS

In the case of the East End Crossing, the PPA defines portions of work that will be operated and maintained by the Developer for a 35 year period with hand-back requirements at the end of term. The portions that are included in the operations and maintenance term include Sections 5 & 6 and a portion of Section 4, designated as Section 4B as defined in the Bi-State Development Agreement.

Long term operations and maintenance of the other portions of the East End Crossing and the entire Downtown Crossing will be the responsibility of the two states after Project completion. It is anticipated that the Project sections will be transferred after substantial completion of each contract, and will then be incorporated into each STA's existing operations and management system. The STAs will develop a Memorandum of Agreement regarding operations and maintenance of the two new river bridges, including operations and maintenance of the East End Bridge after handback by the Developer at the end of the operations and maintenance term.



New Bridge Construction – Downtown Crossing

## 8.0 PROJECT REPORTING AND TRACKING

### PROJECT REPORTING METHODOLOGY

Project Controls and Reporting Procedures that define schedule update timeframes and formats, cost reporting timeframes and formats, communication protocol, and overall Project administration procedures have been established. Project controls procedures have been integrated with the document control systems for each procurement.

#### *Internal Reports*

All pertinent data including current costs, earned value and schedule information for the Project as well as a summary on the status of each Crossing are collected and published in the monthly project status report, which is included as part of the invoice. Data is presented in graphical and tabular forms. The narrative portion addresses the status of each work element deliverable that is scheduled for activity during the report period and progress to date, milestones reached, and near and long-term trends. Unresolved issues are identified and required actions presented. The resulting report package is reviewed and approved monthly by the appropriate STA.

#### *External Reports*

The GEC will develop external reports and a bi-annual Environmental Progress Report as directed by the BSMT.

#### *Progress Reports*

Per the MOA, a bi-annual progress report detailing implementation of the measures stipulated within the Section 106 First Amended Memorandum of Agreement and providing advanced notice of milestones, such as Plans, Specifications, and Estimates approval, scheduled letting dates, and initiation of construction activities is prepared by the GEC as directed by BSMT for the BSMT to submit to signatories, concurring parties and HPAT members. These reports chronicle the Project's environmental commitment activities and include a detailed tracking table. The bi-annual report is issued during the first and third quarters of each year and tracks the activities from the previous January to June or July to December.

#### *BSMT Meetings*

The BSMT holds bi-weekly meetings to discuss the project progress, communications issues, and project activities. An action list is maintained and reviewed at each meeting to assure that long term commitments of the project are being met or long-term issues are evaluated for progress. These commitments are items from the Revised Record of Decision for which the STA has responsibility for oversight or completion.

Other progress reports might be added at the request of the BSMT to insure that all project activities are fully and openly communicated. If such reports are developed, the PMP will be modified to identify the type of report and its intent.



**Downtown Crossing – Section 3 Construction**

## 9.0 MANAGEMENT CONTROLS

### 9.1 General

The East End Crossing and Downtown Crossing contracts were awarded through the respective procuring entities, IFA / INDOT and KYTC (see Chapter 6). Project management services for each construction contract are provided by the respective contracting entity and their Technical Teams. Construction contract project management oversight and integration into the overall Project is provided by the respective STA Construction Management personnel, supplemented as required by their Technical Teams. Indiana and Kentucky will jointly contract with a Toll System Integrator/Operator for design, construction, operations and maintenance of the electronic toll collection system for both crossings.

#### WORK BREAKDOWN STRUCTURE

With the states' decision to procure this Project through two large alternative delivery contracts, the design and construction of the three downtown sections, Sections 1, 2 and 3 were combined into the Downtown Crossing segment. Sections 4, 5 and 6 were combined into the East End Crossing segment. A hierarchal structure of segment sections, phasing and construction elements was defined by the DBT and Developer through a Work Breakdown Structure (WBS) that is consistent with the Project schedule and budget.

#### BASELINE WORK BREAKDOWN STRUCTURE – DESIGN AND CONSTRUCTION

A baseline WBS system that provides the framework for establishing Project milestones has been established. Construction start and completion milestone dates have been established with each procurement package. See Section 9.5 for more detail.



## 9.2 Risk and Opportunity Management

Risk and opportunity management provides the BSMT with a method to analyze activities to provide a specific response to the inherent risks and opportunities of a Project of this magnitude. Risk and opportunity management seeks to identify potential problems and favorable opportunities before they occur and to develop strategies that increase the likelihood of a favorable outcome.

Potential risks and opportunities to both the Project budget and schedule have been identified and assessed in the Project's Risk Register as incorporated in the 2012 FHWA CER. The probability of occurrence and potential cost impact to the Project of each risk and opportunity is assigned to each risk and opportunity.

All risks and opportunities identified can affect the Project budget or schedule; however, the Risk Register affords Project Management a tool to identify strategies for managing the risk and assigning responsibility through contract provisions to the entity most able to control the risk, thereby reducing contingencies and potential cost or schedule impact of the particular risk.

The strategies and actions for managing risks and opportunities include:

- Avoidance/Optimization - The BSMT or STA for the respective construction contract may change the Project plan to eliminate the risk or ensure the opportunity to positively maximize the Project objectives with regards to an event's impact, as approved at the sole discretion of the applicable STA. This process is outlined in the Bi-State Development Agreement Sec. 10.6.
- Risk/Opportunity Sharing – During the development of the RFP's for each Crossing, the BSMT determined that it was appropriate to transfer many of the project's risks and opportunities to the proposers. As the project progresses, the BSMT may elect to optimize the impact from additional risks or opportunities by transferring those responsibilities to the contractor.
- Mitigation - The BSMT or STA may seek to reduce the probability or impact of a risk event and to increase the probability or impact of an opportunity event to an acceptable threshold. Although a compromise to a definitive solution, mitigation may still be preferable to going forward with an unmitigated risk or opportunity.
- No Action - The BSMT or STA may decide to accept certain risks. Some risks and opportunities may be accepted without changing the Project plan or developing any response strategy other than agreeing to address the event if it occurs.

The risks and opportunities are reviewed quarterly by the BSMT. Risks and opportunities are placed in new ratings categories, as required, removed from the list when resolved, and added to the list when new risks and opportunities are identified.

## 9.3 Scope of Work Management

Management of the Scopes of Work for final design and construction by the STA involves review by the BSMT, with much of the review work being performed by the

Technical Teams. Monitoring the conformance of the work to that defined in the respective contracts is part of the function of the Technical Teams. Scope creep is kept to a minimum through the use of Change Control Procedures (See Section 9.7).

## 9.4 Schedule Management

### MASTER PROJECT SCHEDULE

A master design and construction schedule has been established and has been reviewed and accepted for both crossings. The schedule includes the elements of the current Financial Plan Update, the proposer's preliminary schedule and the overall cost estimate. This detailed schedule prioritizes design and construction sections, as well as identifies critical path elements such as right of way acquisition, utilities coordination, and other schedule dependent activities.

### SOFTWARE

The BSMT develops Project schedules to track, store and report on the status of the Project with respect to financial and schedule status. The master schedules for the environmental work and procurements are stored and maintained by the BSMT. The DBT and Developer are using Primavera P6 software for the critical path method schedule during design and construction.

**SCHEDULE UPDATING** CPM schedule updates are provided monthly by the DBT and Developer.

### SCHEDULE ASSUMPTIONS

Both CPM schedules include all schedule assumptions that drive the baseline schedule such as assumed start dates, durations, funding profiles, etc. As project planning and execution progresses, changes to the schedule and budget are documented using the change control process.

### DOWNTOWN CROSSING AND EAST END CROSSING

#### SCHEDULE MANAGEMENT

Final design and construction CPM schedules are being maintained by the DBT and Developer. Monthly updates will include progress against the approved baseline schedules.

## 9.5 Cost Tracking

### BUDGET AND COST MANAGEMENT

The budget and cost structure are monitored as described in this section to determine that all participants in the process are operating with cost targets assigned for each piece of

the work. The evaluation of risks and the assignment of contingency schedules and budgets are managed to minimize unforeseen obstacles.

#### BASELINE BUDGET AND SCHEDULE

A detailed baseline and budget schedule for completion of the work has been submitted for approval by the DBT and Developer. The baseline schedules are cost loaded and will be the basis for Earned Value Calculations.

#### EARNED VALUE METHODOLOGY

Earned value management is a system that allows managers to have visibility into cost and schedule progress on their respective procurements. The implementation of an Earned Value Management System (EVMS) is widely recognized as a key component of program and project management to ensure that cost, schedule and technical aspects of the contract are integrated.

An EVMS has been developed for this Project. The EVMS conforms to the industry standard as defined by ANSI/EIA 748-A-1998, Earned Value Management Systems. The standard has built-in flexibility to suit management needs.

#### ECONOMIC ANALYSIS/MARKET COST FACTORS

Cost factors have been continuously evaluated and were evaluated in the 2012 FHWA CER, for purposes of assessing the impact of project spending on the regional marketplace for construction and related supplies to estimate demand-driven inflation, potential labor shortages, or other similar risks for the Project and associated costs. Market conditions that affect the construction market place locally and nation-wide were reviewed periodically to assess the impact of variations in construction material price indices to confirm and update Project cost forecasts. The BSMT is responsible for monitoring and controlling shared Project costs. Methods for estimating and monitoring the value of Project costs and the associated risk of potential variances in cost have been developed. These costs include project administration and management activities. In addition, environmental/historical studies and issues arising with respect to permits are shared by the two states. Public relation activities including Environmental Justice research are also shared costs. The method for estimating and monitoring the value of these Project costs and the associated risks is via the established Trend Program. This program documents changes and acquires approval from both states for any costs that will be shared.

Costs that are specific to each section are managed by each of the states as appropriate. Systems have been established to track these costs and identify project changes with respect to scope and project schedules. Identified risks and opportunities and their potential cost impacts are reviewed at least monthly so that limits and assumptions of the estimate are better understood as the project proceeds.

For the Downtown Crossing, Primavera updates are submitted each month with the invoice and reports have been developed to identify the earning for that month and posted so the Section Managers can review and approve actual progress against what the contractor has invoiced.

For the East End Crossing, fully cost loaded monthly progress Primavera updates are submitted, including an earned value report that tracks the schedule performance index (SPI) for design and construction activities. The only payments to the Developer during construction, other than payments related to change orders, are fixed Milestone payments, which are fixed amounts for completion of eight portions of the overall work defined in the PPA, that total \$392 M. The balance of the construction cost is paid after substantial completion as part of the availability payments to the Developer over the 35-year Operations and Maintenance period.

As part of the cost control process, a risk and opportunity plan to address potential cost overruns and savings project-wide and within each Project section has been developed (See Section 9.2). This information is used to develop strategies to reduce risk and cost and streamline the Project schedule. Identified risks and opportunities and their potential cost impacts are reviewed so that limits and assumptions of the estimate are better understood as the Project proceeds.

#### CONTINGENCY MANAGEMENT

Contingencies are included in the budget and are managed as part of the States' respective procurements.

#### FUNDS ACCOUNTING

Funds accounting procedures have been developed to comply with Federal and State accounting system requirements. The system is responsive to both Indiana and Kentucky requirements as appropriate.

#### CASH FLOW MANAGEMENT

Cash flow requirements are derived from the Project Master Schedule on a quarterly basis and are included in the Annual Financial Plan Updates. The projected cash flows are analyzed against the anticipated funding availability and programmatic adjustments to optimize the Project schedule are considered.

#### VALUE ENGINEERING

The effectiveness of the VE efforts of the two states has been demonstrated by the \$1.5 billion reduction in the Project's overall construction cost estimate, which was validated by the 2012 FHWA Cost Estimate Review. From this point forward, VE cost proposals may be proposed by the DBT or Developer during final design and construction.

## MATERIALS AND EQUIPMENT ACQUISITION

The BSMT does not anticipate the need for any material procurement contracts outside of the two major procurements.

## 9.6 Partnering

Partnering is an objective for the LSIORB Project. This includes both internal partnering by Project team members and partnering with the DBT and Developer.

## 9.7 Change Control

### OBJECTIVES OF CHANGE CONTROL

Change control has been implemented to ensure that Project changes are identified, evaluated, coordinated, controlled, reviewed, approved, and documented to avoid negative effects on the Project's technical, scope, schedule, and cost baseline, as well as effects on safety, risk, quality, and products. These controls are described in the respective procurement and construction documents and the Bi-State Development Agreement.

The impact of a change is properly coordinated with all affected Project sections and that the Project cost and schedule baselines properly reflect the changed conditions.

For both the KYTC and the IFA administered alternative delivery contracts, modifications are performed per the change procedures included in their respective contract documents.

### ADMINISTRATION OF CONTRACT CHANGES

The appropriate STA's change process will be followed, including any specific requirements in the contract documents.

### BASELINE CHANGE CONTROL

Changes to the design and construction schedules are documented with respect to their impact on the Project baseline. Baseline change requests are prepared by the DBT or Developer will be submitted to the STA for approval.

### CHANGE PROCESS AND DOCUMENTATION

The initiator of a change proposal prepares the change proposal describing the change and identifying the amount of budget required or to be credited. The initiator must also describe the scope of the change, the schedule impact resulting from the change, provide a detailed cost analysis, and provide a comprehensive analysis of the change including evaluation of other alternatives considered. Also included is an analysis of potential

impact on safety, quality, procurement, performance, personnel, training, traffic operations, etc. The analysis is to be all-inclusive and thorough.

Change requests are evaluated with respect to the overall Project cost and schedule baselines. Requests are fully addressed, and an independent cost or schedule impact estimate is developed. The impact on other Project activities is evaluated, other viable alternatives investigated, and, if acceptable, the change request is approved in writing and the required contract adjustment is made. If the proposed change is not acceptable, the request is denied. In both cases, the action taken is fully documented with regards to the deliberations and reasoning behind the action taken. The STA will formally document all approved change.

The State Transportation Agencies (STA), with the assistance of their Technical Teams, have established and maintain change control logs for their respective alternative delivery contracts in which a specific number is assigned to each change request, and the title, scope, and cost of the change is recorded, along with the disposition of the change and any assigned action items.

## 9.8 Claims Management

### DISPUTES AND CLAIMS MANAGEMENT

For both STA administered alternative delivery contracts, disputes and claims will be handled per the procedures included in their respective contract documents.

## 9.9 Design Management

### GENERAL

The final design for the Project is provided by the DBT and Developer. The STA's contracted with a Toll System Integrator/ operator for installation and operation of the electronic toll collection system. (See Section 4.2) The design requirements and QA/QC processes for both crossings are fully described in the RFPs for final design and construction. The STAs used their Technical Teams to assist in the quality assurance of the design. The states agreed that final design will follow the KYTC's normal design requirements for work in Kentucky and INDOT's normal design requirements for work in Indiana.

### RELEVANT DESIGN REQUIREMENTS

Special final design requirements will be listed in the RFPs for final design and construction. KYTC's normal design requirements include:

- KYTC Bridge Design Guidance Manual
- KYTC Drainage Design Manual

- KYTC Highway Design Guidance Manual, 2006 Edition
- KYTC Standard Drawings, 2012 Edition
- KYTC Pavement Design Guidance Manual
- KYTC Geotechnical Guidance Manual
- KYTC Permits Guidance Manual
- KYTC Traffic Operations Guidance Manual
- KYTC CADD Standards
- Highway Capacity Manual
- AASHTO Green Book and Bridge Book, 2011 Edition
- Manual of Uniform Traffic Control Devices, 2009 Edition
- Design-Specific Memoranda issued by the KYTC

INDOT's normal design requirements include:

- Indiana Design Manual, 2012 Edition
- INDOT Standard Specifications, 2012 Edition
- INDOT Standard Drawings
- INDOT Erosion and Sediment Control Handbook
- INDOT OES Waterway Permit Manual
- INDOT Right-of-Way Procedure Manual
- Highway Capacity Manual
- AASHTO Green Book and Bridge Book, 2011 Edition
- Manual of Uniform Traffic Control Devices, 2009 Edition
- Design-Specific Memoranda issued by INDOT

#### CONTEXT SENSITIVE DESIGN

The roadways, bridges, and other Project elements where applicable will be designed and constructed with sensitivity to aesthetic values, historic cultural landscapes, and the historic context, utilizing the services of professionals with experience in areas related to historic preservation. Final Design includes aesthetic treatments to surfaces, structures, portals, appurtenances, land contours, and landscaping that complement the historical contexts of historic properties in accordance with the HPPs for those areas. The DBT and Developer have prepared Aesthetics and Enhancement Implementation Plans that have been reviewed in consultation with the BSHCT and the appropriate HPAT.

#### CONTROL OF DESIGN STANDARDS DOCUMENTS

The version of the procuring state's design standards referenced above shall be interpreted as the current edition adopted by KYTC and INDOT prior to June 2012 for the Downtown Crossing or prior to September 11, 2012 for the East End Crossing. Should these standards be updated by the states during the design process, the potential impact of the changes will be determined and addressed as necessary. Design standards developed specifically for this Project will be controlled through the document control processes.

#### SPECIAL STUDIES

Should the BSMT determine that additional studies are required, the BSMT will arrange for those studies to be accomplished in a timeframe that minimizes impacts to the master schedule and cost. In accordance with the First Amended Memorandum of Agreement (FAMOA) stipulation II.Q.4, a post-construction traffic monitoring study shall commence no sooner than 12 months after the completion of construction and conclude no more than 15 months after the completion of construction. The BSMT will consult with the BSHCT and HPAT's on this study within 3 months following the conclusion of the study.

### 9.10 Geotechnical Investigation

#### INDIANA PROJECT SECTIONS – PRELIMINARY DESIGN

INDOT forces and consultants with state-wide contracts have provided geotechnical services for the Indiana Project sections. The Developer is responsible for geotechnical investigations and recommendations required for final design and construction.

#### KENTUCKY PROJECT SECTIONS – PRELIMINARY DESIGN

The Kentucky SDCs, KYTC personnel and other consultants have performed various geotechnical investigations within their planned sections. Detailed geotechnical investigations and reports have been developed for most areas, including bridge piers, abutments, retaining structures, and the proposed East End tunnel. The DBT is responsible for any additional geotechnical investigations and recommendations required for final design.

## FINAL DESIGN AND CONSTRUCTION

All available geotechnical studies have been provided as reference information with the RFPs for final design and construction. For the East End Crossing tunnel, the RFP included a Geotechnical Baseline Report that will be used for establishing limits beyond which claims for changed conditions will be considered. The DBT and Developer are responsible for any geotechnical investigations required for final design and construction within their contract limits.

### 9.11 Design Review

Design review requirements were included in the RFPs for the final design and construction phase of each Crossing. The DBT and Developer submitted Quality Plans listing all of the various design plan submittals required by the contracts. Design reviews will be coordinated by the state with responsibility for each Crossing, with design review being provided by KYTC, INDOT and their respective Technical Teams. The other state may be asked to review and comment on any elements of the design that are physically located within their state, or for which they will have initial or future maintenance responsibility.

### 9.12 Constructability Reviews

Constructability reviews have been performed as part of the preliminary plan development, and formed the basis for the requirements that were issued in the RFPs for final design and construction. Further constructability reviews are the responsibility of the DBT and Developer and are performed in conjunction with the appropriate STA and the Technical Team.

### 9.13 Regulatory Compliance Reviews

The RFPs for final design and construction included provisions to ensure compliance with all NEPA commitments that are included in the SFEIS, the Revised ROD and the Section 106 FAMOA. The states have received permits from the key federal regulatory agencies including the US Coast Guard, the US Army Corps of Engineers, and the Federal Aviation Administration. Permits have also been received from the State regulatory agencies. The DBT and Developer have obtained a number of additional required permits and permit modifications for construction and will obtain any necessary additional permit modifications or updates of permits prior to their expiration. The DBT and Developer are required to report monthly on progress made in achieving and complying with all NEPA commitments and regulatory permit requirements.

## 9.14 Security/Emergency Preparedness

The RFPs for final design and construction included design, construction and performance requirements for security and emergency preparedness to minimize the potential security and disaster risks to the completed facilities throughout their life cycles. The DBT and Developer included measures in their proposed construction strategies to respond to potential security and emergency situations in circumstances of threat to the facilities under construction, and other regional threats requiring changes to the normal traffic maintenance provisions. See Chapter 13 for additional information on Security/Emergency Preparedness.

## 9.15 Survey Control

A Project-wide GPS survey control network is maintained. Each SDC installed and maintained their GPS survey controls and monuments. The DBT and Developers have contractual requirements for installation and validation of secondary survey controls and documentation.

## 9.16 Hazardous Materials Management

Each SDC followed the appropriate STA's procedures and requirements for conducting hazardous materials investigations during the preliminary design phase and for developing specifications for the alternative delivery contracts required for the Downtown Crossing and the East End Crossing. In Kentucky, the process that was followed is described in the *KYTC Division of Environmental Analysis Environmental Procedures Manual*. The investigation procedures in Indiana followed the process detailed in the *Indiana Design Manual and the Hazardous Material Unit Operating Manual*. The RFPs for final design and construction included requirements for additional investigations, if necessary, and for avoiding, handling and disposing of hazardous or contaminated materials per state and federal regulations that are encountered as part of the work.

## 9.17 Permitting

The states have applied for a number of permits with key federal regulatory agencies. Any additional permits that were not obtained by the states became the responsibility of the DBT and Developer to obtain. Permit application, and receipt milestones are included in the master schedule. All support material and permit literature is maintained in Document Control. A list with the status of all permits is provided in Section 20, Attachment D.

## 9.18 Historic Preservation

Historic preservation commitments for the Project are listed in the 2012 Section 106 First Amended MOA. In consultation with the SHPOs and appropriate local governments, Historic Preservation Plans (HPPs) for historic properties and districts as identified in the MOA have been prepared for the following historic areas:

- Old Jeffersonville Historic District (Update)
- Township of Utica Historic Lime Industry
- Butchertown Historic District
- Phoenix Hill Historic District (Update)
- Country Estates of River Road/River Road Corridor (Update)
- Ohio River Camps

In several cases the states have moved forward with directly implementing several of the key preservation commitments based on the FAMOA and the relevant HPPs. The RFPs for final design and construction incorporated other specific historic preservation requirements that will be the responsibility of the DBT and Developer.

As required by the First Amended Memorandum of Agreement (FAMOA), Preservation Easements were prepared for three of the historic properties that were acquired by KYTC – Drumanard, Rosewell, and the Grocers Ice and Cold Storage. The preservation easement for Drumanard was approved on May 30, 2015, Rosewell was approved on February 19, 2015 and Grocer’s Ice and Cold Storage was approved on March 9 , 2015. These properties are to be sold at fair market value to a preservation organization or other party acceptable to the Bi-State Historic Consultation Team (BSHCT). Attempts to sell the Grocer’s Ice and Cold Storage occurred in December 2015 and June 2016 with no acceptable bids received with either attempt. KYTC is currently meeting with the KY SHPO on next steps for the potential sale of the building. The sale of the Drumanard Estate and Rosewell will occur in FY 2017.



Drumanard

In Indiana, the Spring Street Freight House in Jeffersonville was rehabilitated and a historic marker was installed. The Freight Office is currently being utilized as a Project Information Office. In accordance with the FAMOA, at the completion of the project, a preservation easement is to be placed on the property. A Draft Preservation Easement has been prepared for the property, which is currently being reviewed by INDOT Legal staff. It is also to be sold to parties acceptable to the BSHCT.

On the East End in Indiana, a draft Preservation Easement is currently being reviewed by INDOT legal staff for lime kilns IE-HC -48004.

## 9.19 Utilities/Public Agencies/Special Authorities

The states developed utility base plans for the Project, and transmitted those plans to the public and private utility agencies in Indiana and Kentucky for the purposes of early identification of utility conflicts. Points of contact within each utility agency were

established for communication and coordination, and easement requirements, responsibilities, costs and schedules for utility relocation have been established. The updated costs for utility relocation are included in the current update of the Financial Plan.

The RFPs for final design and construction included requirements for the DBT and Developer to negotiate utility relocation agreements and to coordinate directly with the utility companies to protect and relocate their utilities or allow their contractors access to do so, as required.

## 9.20 System-wide Elements

### INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

This Project includes substantial regional and local traffic management technologies that will connect to and enhance the existing traffic management infrastructure. Design and development of ITS Project elements requires strong regional coordination and cooperation, and will require comprehensive systems integration activity for installation, test, commissioning, operation and maintenance.

INDOT, KYTC, and the DBT and Developer are working with TRIMARC in Kentucky and the INDOT Traffic Management Center in Indiana to ensure that the Project's ITS requirements were appropriately addressed in the respective procurements.

### LIGHTING

The lighting design is in accordance with INDOT and KYTC Standards. Kentucky standards are defined in the Traffic Operations Guidance Manual. Indiana standards are defined in the Indiana Design Manual, Indiana Manual for Uniform Traffic Control Devices, and INDOT Standard Drawings.

The DBT and Developer are responsible for final design and construction of the lighting system within their respective Project Crossing segment. Final design and construction will require that lighting design and construction within the view shed of historic properties and environmentally sensitive areas and resources employ state-of-the-art systems and techniques to minimize light trespass beyond the highway right of way. Final design and construction will also require that lighting systems not interfere with navigation or aviation in the area.

### TRAFFIC SIGNALS

The DBT and Developer are responsible for final design and construction of new traffic signals and coordination with existing signal systems within their respective Project segments. Traffic signal design will be in accordance with INDOT and KYTC Standards, AASHTO and other local jurisdiction criteria as appropriate. Kentucky

standards are defined in the *Traffic Operations Guidance Manual*. Indiana standards are defined in the *Indiana Design Manual, Indiana Manual for Uniform Traffic Control Devices, and INDOT Standard Drawings*. Any new signals required for the Project will be coordinated into the existing signal systems.

#### PAVEMENT MARKINGS

The DBT and Developer are responsible for final design and construction of pavement markings within their respective Project Crossing segment. The pavement marking design is in accordance with INDOT, KYTC and FHWA Standards as appropriate. Kentucky standards are defined in the *Traffic Operations Guidance Manual*. Indiana standards are defined in the *Indiana Design Manual, Indiana Manual for Uniform Traffic Control Devices, and INDOT Standard Drawings*.

#### SIGNING

The DBT and Developer are responsible for final design and construction of all required signing within their respective Project Crossing segment, including ground mounted signs, overhead signing, advance signing along the approaches outside the Project area and any required way finding signage along the adjacent local roadways.

Signing design will be in accordance with FHWA, AASHTO, INDOT and KYTC standards. Kentucky standards are defined in the *Traffic Operations Guidance Manual*. Indiana standards are defined in the *Indiana Design Manual, Indiana Manual for Uniform Traffic Control Devices, and INDOT Standard Drawings*.

#### TOLLING

The DBT and Developer are responsible for design and construction of certain portions of the tolling system infrastructure and toll system signage. Generally, the toll system infrastructure consists of tolling gantries, foundations, electrical cabinets and connecting conduit.

### 9.21 Construction Management (CM)

Construction coordination, management, engineering, and inspection services are the direct responsibility of the contracting state, Kentucky for the Downtown Crossing and Indiana for the East End Crossing. However, while not being in direct charge of the work, Kentucky will provide assistance in Kentucky on the East End Crossing, and likewise Indiana will provide assistance in Indiana on the Downtown Crossing. Both states are utilizing consultant Technical Teams to supplement state forces and assist with Construction Management.

## CONSTRUCTION PROJECT CONTROLS

The DBT and Developer submitted a cost loaded baseline construction schedule that incorporates both design and construction operations. Monthly progress reports submitted by the DBT and Developer include actual progress by activity. Variances from the approved baseline schedule will require explanation, and variances that affect the Project critical path will require corrective actions.

## FEDERAL CONSTRUCTION MANAGEMENT OVERSIGHT

FHWA will have limited CM oversight of the Project. A Responsibility Matrix is provided in Section 20, Appendix B.

## REGULATORY COMPLIANCE

The BSMT has developed a master list of regulatory requirements, with specific strategies identified that will be included as mitigation measures in the individual regulatory permit applications.

## VALUE ENGINEERING CHANGE PROPOSALS (VECP)

VECP submittals during construction (also referred to as Design Alternates or Cost Reduction Incentive Proposals) will be encouraged; however, the VECP process will be controlled by strict guidelines. Reviews of any VE proposals will be conducted by the STA, the Crossing Technical Team, or the GEC as designated by the STA. The appropriate process for VECP submission, tracking, review, and disposition will be in accordance with each State's policies and the respective RFPs for final design and construction.

The states responsible for each major contract may consider proposals that may potentially result in savings without damaging essential functions of the facility. The state with responsibility for the contract will decide whether or not to accept a VECP; subject to the terms and conditions of their contracts and the Bi-state Development Agreement. A basis for proposal rejection may include requirements for excessive review, evaluation, and/or investigation; the proposal is inconsistent with Project design policies or criteria; or the proposal violates design guidance or design elements developed through the Context Sensitive Design process.

## 9.22 Final Acceptance, Operations and Maintenance

### FINAL ACCEPTANCE – GENERAL

The final acceptance of the work will be the responsibility of the state that holds the contract, and will be performed in accordance with the final acceptance procedures included in the RFP for final design and construction. For portions of the work on a contract that are within the other state, the non-contracting state will participate in final walk-through inspections and may submit comments to the contracting state to be considered for the final punch list.

### FINAL ACCEPTANCE – RIVER BRIDGES AND TUNNEL

Special attention will be given to the final acceptance of the Ohio River Bridges, and to the East End Tunnel which will require the following as part of the commissioning and final acceptance:

- A Commissioning Plan for the Tunnel
- An Operations and Maintenance Manual for the structures and the tunnel structure, fire/life safety and surveillance systems
- An emergency response plan for any incidents that may occur on the Bridges or in the Tunnel
- Training of maintenance, operation and emergency response personnel – The FHWA-NHI 130110, Tunnel Inspection Safety training course is scheduled to be held in Louisville on February 6 – 10, 2017.

### ACCEPTANCE SCHEDULE

The baseline design and construction schedule will include milestones for final acceptance of each element.

### WARRANTY TRANSFERS

If warranties are utilized, a warranty management database for all warranties under each contract will be developed by KYTC or INDOT as appropriate. A warranty management database will facilitate timely and effective transfer to the appropriate INDOT and KYTC operations and maintenance entities.

### TRAINING

Training of INDOT, KYTC and emergency response teams is part of the DBT and Developer's responsibility during the construction phase and will be completed prior to final acceptance of the work.

## TESTING

Materials' testing follows the respective State Transportation Agencies' practices and includes multiple levels of testing to demonstrate both compliance with specifications and conformance to performance requirements. For Kentucky Contracts, this testing is described in the *KYTC Materials Guidance Manual* and in the alternative delivery contract RFP, which are incorporated by reference. For Indiana contracts, the testing procedures are described in the *INDOT Materials and Testing Frequency Manual* and in the alternative delivery contract RFP, which are also incorporated by reference.

## CERTIFICATIONS

Legal and regulatory requirements for certifications will follow the respective STA's practices.

## OPERATION AND MAINTENANCE

Upon completion of the final acceptance process, the maintenance and operation of the constructed elements of the Downtown Procurement will become the responsibility of the Maintenance and Operation departments of each respective State. As described in Section 7.1 above, certain elements of the East End Crossing are included in a 35 year operations and maintenance agreement with the P3 Developer.

## 10.0 QUALITY ASSURANCE/QUALITY CONTROL

Indiana and Kentucky have the direct responsibility for Quality on their respective contracts, the East End Crossing (EEC) and the Downtown Crossing (DT). Both states developed their own criteria for the developer, contractors, designers, subcontractors, producers, suppliers, and consultants involved in every aspect of the project to produce a product or service that meets the quality standards of the contracts. The states required in their respective contracts a Quality Management plan that includes both Quality Assurance and Quality Control for the design, construction and, for Indiana's method of procurement, the operations and maintenance of the facilities.

As per the respective RFP's requirements, the Technical Proposals and Quality Management Plan for each of the projects provided the following:

- The DBT's and Developer's QA/QC for the design process and an internal audit procedure to confirm that the plan designs conform to the respective RFP's.
- The construction standards to be adhered to for performing the construction inspection. This included a list of the documents that are to be used. This will define QA/QC inspection methods, the materials that are to be certified and/or to be tested, the sampling procedure, the testing methods, and the recording and reporting procedures for the documentation that is generated, and steps to be taken when the product is nonconforming.
- The designation of the responsible parties for all the aspects of the QA/QC.
- The frequency of the QA/QC reviews, documentation requirements, and the jobsite personnel responsible for its implementation with their qualifications.
- The procedures for coordinating with permitting agencies, utility companies, and railroad companies during the construction of the project such that the project is not delayed.
- The level of QA/QC audits and the commitment of the Design Builders to support these audits.
- The procedures for rectifying and correcting construction quality issues.
- The documentation method with an applicable software program with a commitment from the design builder to make it available to both states and their agents.

### DOWNTOWN CROSSING

In the Downtown Crossing Project, the DBT, Walsh Construction Company, performs the following items in the Design Quality Plan:

- A. Manages the Quality Plan for the design and construction phases of the project;
- B. Coordinates with and obtains the necessary approvals from authorities having jurisdiction for temporary road diversions and detours, utilities, land acquisition as necessary, environmental compliance and permits, aesthetics, public information and communications, railroads, temporary sidewalk closures, and pedestrian/bicycle detours;
- C. Ensures that proper checks are conducted of the work product for the Project and that Quality Control Procedures were used in accordance with the Contract and Quality Plan; and

- D. Provides all materials and documents necessary to deliver the project according to the Contract and Quality Plan.
- E. Walsh establishes and maintains documented procedures for planning and implementing internal quality audits to verify whether quality activities and related results comply with planned arrangements and to determine the effectiveness of the quality system.
- F. Walsh has established a document management system, *Filehold*, to support the electronic submission of all Project related documentation. It serves as a single point of reference for all documentation related to this Project.
- G. Walsh maintains documented procedures to ensure that materials or work that does not conform to specified requirements is prevented from unintended use or installation. This control provides for identification, documentation, evaluation, segregation (when practical), disposition of nonconforming product, and for notification to the functions concerned.

Due to the nature of the Design Build Project, the design plans for the project were not complete prior to the initiation of construction. Therefore the project is divided into Buildable Units. Each Buildable Unit is comprised of parts of the Project that can be checked and reviewed as self-contained packages. The plans for these Buildable Units are developed in the following stages: Conceptual Plans, Interim Plans, Pre-Released for Construction, Released for Construction, and As-built Plans. Each stage of submittal is subject to an internal Quality Audit by Walsh with review and concurrence by KYTC.

The DBT and KYTC follow current KYTC Standard Specifications for the inspection, testing, sampling, and acceptance of the materials and work. The DBT is solely responsible for the quality of all construction and materials, especially for those items that require the Producer/DBT to provide QC as outlined in the 2012 KY Standard Specifications for Road or Bridge Construction and/or as applicable in the 2012 Indiana Standard Specifications. The steps that the DBT follows are outlined in the Quality Plan (QP). The Quality Plan also establishes a coordination process between the DBT, the material suppliers, and KYTC to ensure work is completed in conformance with the Plans and Specifications.

KYTC or its authorized representatives will be responsible for all the Quality Control on the project except for those listed in the project specifications..

Part of the quality plan is the establishment of Dispute Resolution Procedures. This procedure will be used when KYTC and Walsh disagrees in the testing of materials, quality of work, etc.

## EAST END CROSSING

WVB has provided a detailed Project Management Plan that defines how they are developing and delivering a finished product in accordance with the contract requirements. WVB established a Quality Assurance/Quality Control Plan as part of this requirement. Through a series of audits, stage reviews, and approvals, WVB provides the design and construction documents that allows them to begin construction. Due to the nature of a P3 project, the project plans were not complete at the beginning of construction. Therefore the project is divided into packages, or Design Units that are developed containing design, drawings, and other related documents for various aspects of the project. Construction activity begins after these design units are completed, signed by the Engineer-of-Record and Released for Construction. WVB manages the design and coordinates and obtains necessary Government Approvals that were not provided by IFA. They also manage the Design's QA/QC work for the project WVB's Design QA Manager certifies that the Quality Control Procedures for each of the Design Units are in accordance with the PPA Documents and the QA/QC plan. The review stages with WVB's internal audit system allow the package to be released for construction. Since WVB is responsible for delivering the QA/QC for , the QA/QC requirements are outlined in WVB's QA/QC Plan. This plan ensures that procurement, shipping, handling fabrication, installation, cleaning, inspection, construction, testing, storage, examination, repair, maintenance, and required modifications of all materials, equipment and elements of the Work complies with the requirements of the contract. The plan includes the Quality Control sampling, testing, measurements, and documentation of their conformity. WVB confirms that the materials incorporated into the work performs satisfactorily for the purpose intended. WVB provides for the inspection of all construction processes, procedures, and workmanship to see that they conform to the requirements of the contract. WVB's QC inspection and documentation is performed in conformance with the documents and standards required by IFA in the contract. The work provided by WVB, which includes their QA/QC, is subject to IFA's Quality Assurance Oversight. Periodically, IFA and/or their designated representatives audits WVB's QA/QC activities which includes conducting independent verification sampling and testing. The Quality Plan also requires WVB to document and track all QA/QC testing and inspections results.

Since part of this project is in Kentucky, KYTC may perform audits, as well as inspection and material sampling and testing for their information. Per the Bi-State Development Agreement, INDOT and KYTC are afforded the opportunity to observe work in Section 3 and Section 4, respectively.

## 11.0 ENVIRONMENTAL MONITORING

### ENVIRONMENTAL COMPLIANCE MANAGEMENT

The environmental compliance requirement resulted from the FEIS, SFEIS, RROD, FAMOA and the Settlement Agreement processes. An Environmental Compliance Monitor is required to ensure that the stated mitigation measures are incorporated into the Project design and construction.

### ENVIRONMENTAL COMPLIANCE MONITOR

The DBT and Developer have each designated an environmental compliance monitor to ensure compliance during construction with all applicable environmental protection measures, approved plans, permits, and conditions. Staff from each Crossing's Technical Teams will review the materials provided by the DBT and Developer for compliance for all mitigation measures, permits, and design requirements. The environmental compliance monitor is responsible for:

- Monitoring compliance for all non-design and non-construction environmental mitigation activities specified in the RROD, FA MOA and SA. Monitoring DBT and Developer activities for compliance with environmental mitigation commitments in the RROD, FA MOA and SA.
- Reviewing final design plans to monitor that permit conditions are met
- Monitoring highway construction to assure that permit conditions are met including the implementation and monitoring of mitigation.
- Informing Walsh/WVB, the US Army Corps of Engineers, the Indiana Department of Environmental Management (IDEM), the Kentucky Department of Water (KDOW) and other involved agencies concurrently of any problems regarding non-compliance permit conditions or other activities in waters of the United States, including jurisdictional wetlands.
- Monitoring construction to verify that the work is in compliance with Project authorizations, including construction impacts to aquatic resources, riparian buffer areas, forests, placement of staging areas, land clearing, other disturbances, storm water management, sediment and erosion controls, spills, sediment plumes, time-of-year restrictions, and other Project related environmental impacts.
- Recommending measures to bring the Project into compliance with permit conditions.
- Attending construction partnering sessions to assess anticipated construction schedules and activities.

As mentioned in Chapter 7, a semi-annual progress report detailing implementation of the measures stipulated within the Section 106 FAMOA, SA and Technical Provisions. The progress report will provides advanced notice of milestones, such as Plans, Specifications, and Estimates approval, scheduled letting dates, and initiation of construction activities is prepared and submitted by the BSMT to signatories, concurring parties and HPAT members. These reports chronicle the Project's environmental commitment activities and include a detailed tracking table.



**East End - New Ohio River Bridge Construction**

## **12.0 RIGHT OF WAY**

The right of way management process regarding appraisals, acquisitions, relocations, demolitions, construction and utility easements, scheduling and reporting used for each section followed each State Transportation Agency's process and the Bi-State Development Agreement. The ROW acquisition was governed by the Uniform Relocation and Acquisition Act of 1970 and the respective State manuals, as amended. The process included in the act is highly proscriptive and leaves little room for interpretation. Both Indiana and Kentucky have state documents that implement the provisions of the act. Kentucky processes are described in the *KYTC Right-of-Way Guidance Manual* and Indiana procedures are described in the *INDOT Right-of-Way Manual*.

The state processes are almost identical and cover which organization performs which tasks. The ROW acquisition process was monitored for general schedule as well as long range impacts to all Project sections. Schedule requirements for acquisitions were incorporated into the Project schedule.

Real estate acquisitions and easement requirements were determined during the course of preliminary design. Real Estate acquisition and easement requirements related to historic preservation activities are in accordance with the respective State agencies and the ROD.

Location plan sheets were developed as needed to identify the affected properties. The impact on the affected properties is documented and properties that require a total, partial, temporary, or permanent acquisition are identified. Consultants or Design-Builders who prepared the ROW Engineering documents certified the location plan sheets and property descriptions as sufficient to construct, maintain, and operate the Project facilities.

All properties required for the construction of both Crossings have now been acquired or rights-of-entry obtained.

## **13.0 SAFETY AND SECURITY**

### **13.1 Safety**

System Safety and Security requirements were included in the RFPs for final design and construction of the two crossings. These requirements included detailed safety and security requirements for construction, project acceptance, and operation. The requirements were developed with input from the regional emergency responders for safety and security incidents. Because the plan may include sensitive information, portions required a restricted distribution as determined by the STAs and the BSMT. The *Sector-Specific Plan for Transportation Systems* developed as part of the National Infrastructure Protection Plan provided a framework for developing the safety and security plan. Louisville Metro Fire, Police, EM, and EMS and others will be consulted to get input into response needs for the Project.

The plan includes the *United States Department of Homeland Security Characteristics and Common Vulnerabilities Infrastructure Category: Highway Bridges* which describes potential threats, highway bridge characteristics, common vulnerabilities, standards and regulations, consequences of events, and general vulnerabilities and the *United States Department of Homeland Security Protective Measures Infrastructure Category: Highway Bridges* that describes potential threats, available protective measures, and implementation of protective measures. These documents are “For Official Use Only” publications.

Security for this Project will involve an assessment of vulnerabilities and threats to the completed Project infrastructure, especially the two long-span bridges over the Ohio River and the East End tunnel. The assessment will consider the first responder requirements for natural and man-made disasters, for system failures for emergency situations, such as, tunnel fire suppression, and the potential for terrorist activity. Additionally, the Kentucky Department of Homeland Security is currently working on assessments to other transportation infrastructure using the Automated Critical Asset Management System (ACAMS).

## FINAL DESIGN AND CONSTRUCTION PHASE

Final Design and Construction Safety and Security follow the respective STA practices. For Kentucky contracts, these practices are described in the *Kentucky Standard Specifications for Road and Bridge Construction, Current Edition*. For Indiana contracts, these practices are described in the INDOT Standard Specifications and *INDOT Employee Safety Manual*. The Contractor for each construction contract submitted a Safety Plan that satisfies the safety requirements detailed in the RFPs for final design and construction. The Safety Plans address these key features:

- OSHA Safety measures and procedures
- Incident Management Plan to include emergency response measures to construction sites
- Construction Site Security
- Traffic Control Safety measures and procedures
- Review Schedule for Traffic Control Plans to confirm adherence to safety procedures

During construction, the DBT and Developer is responsible for reporting any incident occurring on the construction sites, preparing detailed contact lists and personnel accounting procedures, and implementing incident response procedures as part of their everyday construction management. The DBT and Developer have included measures in their construction strategy to be able to react to potential security and emergency situations in circumstances of threat to the facilities under construction and other regional threats that may require changes to the normal traffic maintenance provisions.

## 13.2 Security Threat Assessment

An assessment of potential threats included an examination of probabilities, vulnerabilities and impacts. Mitigation measures to counter any identified threats were identified and assessed. The DBT and Developer are preparing their designs to minimize the security and disaster risks to the completed structures throughout their life cycles. An Accident and Terrorist Vulnerability Workshop was held on April 16 through 18, 2013 to provide an evaluation of the Downtown Crossing Bridge and the East End Crossing Bridge and Tunnel.

The Kentucky Intelligence Fusion Center has worked with the United States Department of Homeland Security on a statewide threat assessment.

### SECURITY SYSTEMS TESTING

The testing protocols and certification process will require completion of at least one pertinent safety and security simulation of the tunnel and bridge facilities. Fire in the tunnel or explosives on the bridges are potential scenarios for testing the management and response systems and resources. These tests must be planned and coordinated with the local responders. The plan will include the types and locations of tests and the level of Project completion required for the optimum test. Each test will have a written testing plan fully coordinated with the local responders and local disaster officials.

### OPERATIONS AND MAINTENANCE PHASE

Implementation of the System Safety and Security Plan will require training and drills with all pertinent stakeholders participating (first responders, emergency management teams, transportation management teams, etc.). Simulations will be organized and scheduled in conjunction with state emergency management officials. Much of this planning will be accomplished by the local responding agencies; however, the BSMT will participate in the planning efforts and will coordinate during the opening and initial operations of the facilities. Local agencies will collaborate on development of the System Safety and Security Plan to understand the specific vulnerabilities and their various responsibilities for responding.

### MONITORING

Because threats and risks change over time, the Plans will be regularly updated throughout the life of the facilities.



East End - US 42 and Tunnel Construction

## 14.0 TRAFFIC MANAGEMENT

### TRAFFIC MANAGEMENT STRATEGY

Limiting impacts to the public and local communities while focusing on safety, and efficiently completing construction activities are very important to the Project.

The DBT and the Developer for the Downtown Crossing and the East End Crossing have developed Transportation Management Plans (TMP). These plans were developed with input from local jurisdictions and other affected entities (such as EMS and law enforcement) so that pre-planned procedures will be immediately put into action should an incident cause congestion during construction. Construction plans include Maintenance of Traffic Plans (MOT).

The Downtown Crossing and the East End Crossing both have a Public Information Officer (PIO) responsible for public communications regarding current and planned construction activities related to their Project Crossing. (See Chapter 15). Both of the Crossing's Public Information Officers coordinate with the BSMT's Public Information Officer to ensure that both the Project theme and messages are consistently communicated. Public communications include media campaigns and radio commercials regarding closures and other significant traffic impacts during construction. Also, print media and web and internet-based services are used to convey construction and traffic management activities.

The PIOs will work with the KYTC, INDOT and IFA and other entities to program specific messages on the Highway Advisory Radio (HAR) sites in Louisville and Indiana, on the KY statewide 511 system, INDOT's dynamic message boards, and on the INDOT and KYTC websites.

The EEC Developer has a Maintenance of Traffic (MOT) Manager and the Downtown Crossing a Traffic Control Engineering Manager (TCEM) to inspect and manage the maintenance of traffic operations.

### ROAD TRAFFIC MANAGEMENT

Services and systems emphasized in the congestion and incident management plans include enhancements to the current Louisville Metro TRIMARC system (including Freeway Service Patrol operations) and the Hoosier Helper program in Indiana to facilitate mobility during and after construction. The Transit Authority of River City (TARC) has also been engaged to identify transit and rideshare enhancements that can be implemented during and after construction.

In accordance with Section 4.3.2 of the RROD, "KYTC and INDOT will provide \$20 million for capital investments and public awareness programs related to enhanced bus service during the life of project construction." An agreement between INDOT, KYTC, and TARC for the transfer of the funds was approved on May 2, 2013 and the funds were

subsequently transferred to TARC from each state. Funds were established to be used for:

- Constructing and/or expanding park and ride facilities.
- Purchasing buses and vans for express and shuttle bus service during construction.
- Purchasing and rehabilitating additional facilities to accommodate the increased fleet.
- Improving and consolidating existing bus stops and constructing new bus stops.
- Developing a public awareness and communications program, including advertising, using emerging technology to communicate with the public to encourage ridership, and informing low-income populations of the enhanced bus services.

The BSMT will evaluate the existing area-wide traffic plan to identify potential traffic diversion routes in Indiana and Kentucky. An area-wide incident management plan was developed for the Project in accordance with the current emergency management plans in effect in Indiana and Kentucky through coordination with INDOT, KYTC and TRIMARC.

A public traveler information program, utilizing Intelligent Transportation System field elements adaptable to Indiana and Kentucky system architectures has been established including variable message signs, web site information and revised signal timings as appropriate during each phase of the work. Travel time information is made readily available to the public both prior and during construction. Any major capacity disturbances in the form of lane reductions during construction are communicated to the public as a part of the aggressive community information outreach program.

#### RAILROAD TRAFFIC MANAGEMENT

The DBT and Developer are responsible for railroad coordination within their work zone. Railroad traffic managers were contacted and plans developed for management of design and construction activities that affect active rail lines.

#### RIVER TRAFFIC MANAGEMENT

The Project has coordinated with the US Coast Guard and river traffic managers to develop plans for management of construction activities around river traffic and to secure the necessary permits are secured. The US Coast Guard modeled both of the new Ohio River Bridges at the Seamen's Church Institute maritime simulator, and has approved the span arrangement and pier locations for both bridges.



**Lincoln Bridge, Kennedy Bridge & Interchange Construction**

## 15.0 PROJECT COMMUNICATIONS

### 15.1 Public Involvement

#### COMMUNICATIONS PROGRAM OVERVIEW

A comprehensive communications program to address the importance of public involvement in all phases of the Project has been developed. The Downtown Crossing's DBT developed Walsh Construction's Community Outreach Plan, and the East End Crossing's Public Private Partnership developed the WVB East End Partners Public Involvement Plan. These programs established media and public communications processes and requires all Project Team members to be as accurate and forthright as possible, and to respond in a professional and timely manner. These characteristics have helped create the high level of information communication needed to successfully maintain the media and public's trust, support, and confidence.

The successes of the Project efforts will be built upon these proactive and comprehensive public involvement communication programs. The goals are to develop and maintain open lines of communication with all interested and affected agencies, communities and organizations and generate a broad understanding of and support for the Project. The Project endeavors to maintain consistent messages and Project themes to reduce public confusion and avoid misinterpretation. Functionality and ease of use of all communication formats are consistently reviewed and updated to better serve the intended audiences.

Some of the key strategies that are included in the communication programs developed by the DBT and Developer are:

- Maintain a proactive Project Public Information staff. These staffs, in conjunction with the STAs public information offices are responsible for all public information and media efforts for the Project. All external communication is coordinated by these teams in order to maintain consistent information and allows the Project delivery teams to effectively speak with "one voice". Each DBT and Developer will have public information staff, for information specific to that Crossing. The BSMT will also maintain a PI staff that coordinates bi-state messages, announcements of major milestones, etc.
- Collaborate with INDOT and KYTC and other state public relations offices to ensure that media and public inquiries about the Project are routed to the appropriate staff, so that sufficient and timely information on the Project is provided to these and other contact points where the public and media expect good information.
- Provide Project status information to the media and public, including scheduled milestone completion dates; significant contracts advertised, awarded, or completed; and total cost projections.
- Convey updated commuter and traffic information, including traffic pattern changes, periods of lane closures, traffic delays, work zone accidents, alternate routes available, and alternate forms of transportation available.
- Provide timely responses to media and public questions and requests for information.

- Provide assistance to the communities and other stakeholders in developing ownership and pride in the Project, by building awareness and helping them understand the benefits of the Project.

## PUBLIC INVOLVEMENT AND COMMUNICATIONS

The processes and procedures to execute the communication programs strategies have been developed. The program plans for each crossing includes requirements for both external and internal communications. These Processes and procedures are documented in each of the DBTs Public Involvement and Communications Programs. The BSMT also developed a *Communications Program Strategies Guidance Document*.

## EXTERNAL COMMUNICATIONS OVERVIEW

The Project team integrates public involvement in all activities, including design, right-of-way acquisition, and construction. Public involvement has been actively used to identify, define and refine solutions as design decisions have been made. Public involvement for right-of-way and pre-construction has also followed a similar approach. The BSMT considers, directly or indirectly as appropriate, input from elected officials, government agencies, representatives of the public involvement groups, historic preservation advisory teams, and the public are all considered in the decision making processes.

## EXTERNAL COMMUNICATIONS TOOLS

A variety of communications tools are used to gather and distribute information, with changes to address the new focus of work including:

### **Media Relations and Access**

A media relations and access strategy, which identifies known media outlets and includes media relations strategies and processes for providing information to the media, has been developed. Media relations strategies and procedures are included regarding spokespersons. Protocol has been established for the PI Teams to responding to media inquiries, including coordinating the responses with the Project Teams, the BSMT, state transportation agency public affairs divisions, and local, state, and federal, executive and legislative offices. Procedures for monitoring/tracking coverage, media briefings or conferences including regular briefings of editorial boards have been developed. Strategies that link media relations with Project processes that have direct public contact such as procurement and human resources have been developed and implemented.

The PI Teams work closely with the BSMT and the Project Technical Teams to coordinate media interviews and to ensure that the media receives accurate, clear and concise information. A Project media list is regularly updated and includes:

- Contact information, telephone and fax numbers, and e-mail addresses for major print and electronic media in Indiana and Kentucky.
- Contact information for major media outlets in neighboring markets.
- A thorough listing of publications in the metropolitan areas on both sides of the river, including weekly and small daily community newspapers, and newsletters for civic, government, neighborhood, and non-profit organizations and groups.

Because of the magnitude and visibility of a federally funded mega-project, the States are also prepared to provide information to national and specialized media and respond to their requests for information.

### **Targeted Individual/Group Meetings**

The DBT and Developer take a proactive approach in reviewing issues and collecting and disseminating information to affected individuals and groups, and to interact with community groups and make presentations to interested community organizations. Since receiving the Notice to Proceeds for their individual Crossing contracts, the DBTs and Developers have already held many public meetings and directly with individual Homeowner's Associations. Meetings have also occurred with the Area Advisory Teams and the Historic Preservation Advisory Teams.

### **Local Communities**

Local community leaders and officials are updated as requested by the STAs and BSMT. A contact list of these officials, as well as state and federal legislators, is maintained to ensure they are included in distributed information as appropriate. The PIOs endeavor to provide information in advance of any potential opportunity for public comment and inform these individuals prior to any release of information that may generate a request for comment on by the media.

### **Minority Communities**

Specific communication issues concerning the minority communities in the Louisville Metropolitan Area (LMA) are documented and addressed as required by the Project's Kentucky DBE Program Manager and the INDOT Office of Economic Development. Public meetings and informational contacts have been held to address Environmental Justice issues associated with the proposed tolling on the bridges.

### **Public Meetings**

Public meetings and open houses with stakeholders are held, as appropriate. The DBT and Developer are responsible for meeting preparations and logistics during the final design and construction phase. The BSMT may also arrange public meetings or open houses as necessary.

### **Storefronts – Open Door/Documents Review**

A project information center has been located in the rehabilitated Spring Street Freight House in Jeffersonville. Currently INDOT staff are housed at the location to provide general information about the Project to the public and direct questions and concerns to appropriate responders.

### **Project Website and e-mail**

A Project website has been created, <http://kyinbridges.com/> . This website is updated regularly to provide up-to-date travel information and other details for the public. Web cams have been installed that feed to the website to allow viewers the opportunity to observe the project's progress..

The website allows access to real-time Project information including construction progress photos, traffic updates, trip planning, project maps, project history, new technological accomplishments, and contact information. Emphasis is placed on what lies ahead for design and construction, and how the public can get information and make comments. The site also provides visitors with information for all aspects of work, including bridge design, right-of-way, and pre-construction activities. Links are prominently displayed on the home page to gain access to DBE special assistance programs for the Project. During construction a "what's new" link is regularly updated to advise about the latest developments, anticipated traffic contacts, and alternative routing. Use of Live traffic camera links showing construction activities has been implemented.

E-mail and direct mail databases have been compiled and are regularly updated. The website, e-mail and direct mail are used to inform stakeholders about Project developments and upcoming public events and comment opportunities.

### **Project Hot Line**

A hot line to accept calls from constituents regarding the Project has been established by the DBT and Developer. The hotline number is shown at the top of the contacts list on the website and on project signs in the construction zone.

### **Speakers' Bureau**

Various speaking opportunities arise during the course of design and construction. Project team members develop presentations tailored for specific audience interests and topics.

### **White Papers**

Team members prepare white papers when requested by the BSMT to address specific issues of concern to the public or the team.

### **Informational Tools**

Brochures are developed as information sharing tools to explain the design and construction work, the schedule, and how to get information. These are distributed to stakeholders, elected officials, government agencies, town halls, libraries, and other community gathering spots for further widespread public distribution.

Progress bulletins, or one-page "announcements," are also developed as stand-alone documents or used as inserts into other materials (newsletters, brochures) to report, "what's new" and advise on Project developments, specific issues, and upcoming public events.

A Project logo, shown here, has been developed to help brand/identify the Project.



### **Targeted Messages**

Public service announcements using local media outlets are used to alert people to upcoming publications, the web site, and other avenues to obtain information.

### **Traffic Response and Incident Management Assisting the River Cities (TRIMARC)**

Information will be provided to TRIMARC concerning traffic management, diversions and lane closures during construction.

## 15.2 Internal Communications

### INTERNAL COMMUNICATIONS TOOLS

#### **Project Management Meetings**

Project management meetings with BSMT members, the GEC, DBT, Developers and others are held as required. These meetings are used to update the status of ongoing Project issues as well as provide a forum for new business.

#### **Coordination**

A master meeting schedule that includes all scheduled meetings requiring BSMT attendance or input has been established. Meeting minutes are provided to all attendees and the BSMT.

#### **Project Reports**

Internal reports are developed as required to inform the Project team, satisfy directed reporting requirements, and generally manage the Project. To the greatest extent possible, these reports are electronic and serve dual purposes to limit the number of printed reports required.

### 15.3 Project Ombudsmen Communications

Two ombudsmen are engaged for this Project (See Chapter 19 for details of their responsibilities).



**East End Crossing – Harrods Creek Bridge Construction**

## 16.0 CIVIL RIGHTS PROGRAM

### DISADVANTAGED BUSINESS ENTERPRISE, WORKFORCE AND EEO

The DBE program provides a vehicle for increasing the participation of minority owned and women owned small businesses in state DOT assisted procurements. Title 49 CFR part 26 requires states as recipients of DOT federal financial assistance to establish goals for the participation of DBE's. On this project the goal is to ensure the DBT and Developers comply with the stated goals and objectives in the respective contracts. The DBT and Developer are required to implement a proactive DBE program that is consistent with the Projects DBE Program and which will achieve each procurement's respective Project DBE expenditure goal. On an annual basis, KYTC and INDOT will verify that the DBT has met its cumulative DBE participation goal. To assist in reaching those goals, Kentucky and Indiana have a reciprocity agreement whereas certified DBEs from either state can be utilized.

The Mission Statement for the Project's DBE program is to:

- Communicate all areas of information and opportunity to DBEs and respective community stakeholders.
- Address the need to develop, nurture and engage disadvantaged business enterprises for the Ohio River Bridges Project.
- Cite the opportunity presented by the Ohio River Bridges Project for DBE firms, as well as, minority and female laborers to master new skills, grow and prosper, resulting in a more skilled work force and a stronger economic base for years to come.
- Articulate the commitment of KYTC, INDOT and FHWA to provide meaningful participation by qualified DBEs, minority and female businesses.

Status through July 1, 2015 – June 30, 2016:

Downtown – DBE contractual goal is 8.22%. 8.1836% is the current utilization rate. • The Design Build Team (DBT) currently has totals of 15% Minority and 5% Female towards attainment of the workforce goals. and 8.52% is currently projected. A monthly employment goal of 15% minorities and 10% female is also contractually established. The Federal requirements are 11.2% Minority and 6.9% Female. The DBT is therefore currently below the contract and Federal requirements for female employment. The current reported percentages are 22.1% and 10.3% respectively.

East End - DBE goal is 9.23%. 109.18% of that goal has been awarded or committed and 92.4% has been paid. A monthly employment goal of 15% minorities and 10% female is also established for the East End. WVC reported their own workforce in June 2015 2016 was 18.4% minority and 6.7% female, and the overall workforce including

subs was 16.71% minority and 6.1% female. Project-to-date is 16.3% minorities and 6.4% female.

Specific elements of the plan for Workforce/EEO include:

- Training will be provided to develop full journeymen in the type of trade or classification involved.
- The DBT and the Developer will insure the EEO goals are made applicable to each subcontractor utilized on the project.
- The DBT and the Developer must make every effort to enroll minority and women trainees to the extent that such persons are available within a reasonable area of recruitment.
- No employee may be employed as a trainee in any classification in which he or she has successfully completed a training course leading to journeyman status or in which he or she has been employed as a journeyman.
- Trainees must be paid at least 60 percent of the applicable minimum journeyman's rate specified in the Project's required wage rates for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation apply to all trainees being trained for the same classification.
- It is expected that a trainee will begin his training on the Project as soon as feasible after the start of work utilizing the skill involved and will remain on the Project as long as training opportunities exist in his or her work classification or until he or she has completed the training program.
- The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor must make a good faith effort to employ minorities and women evenly on each of its projects.

## 16.1 Kentucky DBE Program

The Kentucky DBE program is managed by the KYTC Office for Civil Rights and Small Business Development (OCRSBD). The OCRSBD is committed to ensuring equal employment opportunities, a diverse workforce and promoting equitable business opportunities throughout the Commonwealth of Kentucky. OCRSBD is the responsible for oversight and monitoring of the DBT and subcontractors to ensure full compliance with all of the goals and regulatory requirements of the Project. OCRSBD also monitors the DBT to ensure that DBE's participating on the project are performing a commercially useful function as described in 49 CFR 26.55.

KYTC and DBT representatives from the Project will present updated information and will interact directly with business owners, stakeholder groups and the community at large. The Kentucky DBE Program helps qualifying firms:

- Secure DBE certification status - The Project represents an unprecedented employment and workforce development resource for the community. Minority-owned, women-owned and small businesses must obtain DBE certification before pursuing many of the opportunities presented by the Project.
- Foster partnering and mentoring relationships with the DBT and other firms employed on the Project and explore professional development opportunities for companies in engineering, construction and related disciplines.

## 16.2 Indiana DBE Program

The Indiana DBE program is managed by INDOT's Economic Opportunity Division. The Indiana DBE program for the Ohio River Bridges Project is part of INDOT's federally approved comprehensive DBE program for the State of Indiana. INDOT is committed to building on the successes of its existing DBE program and ensuring a quality DBE program is included as part of this Project.

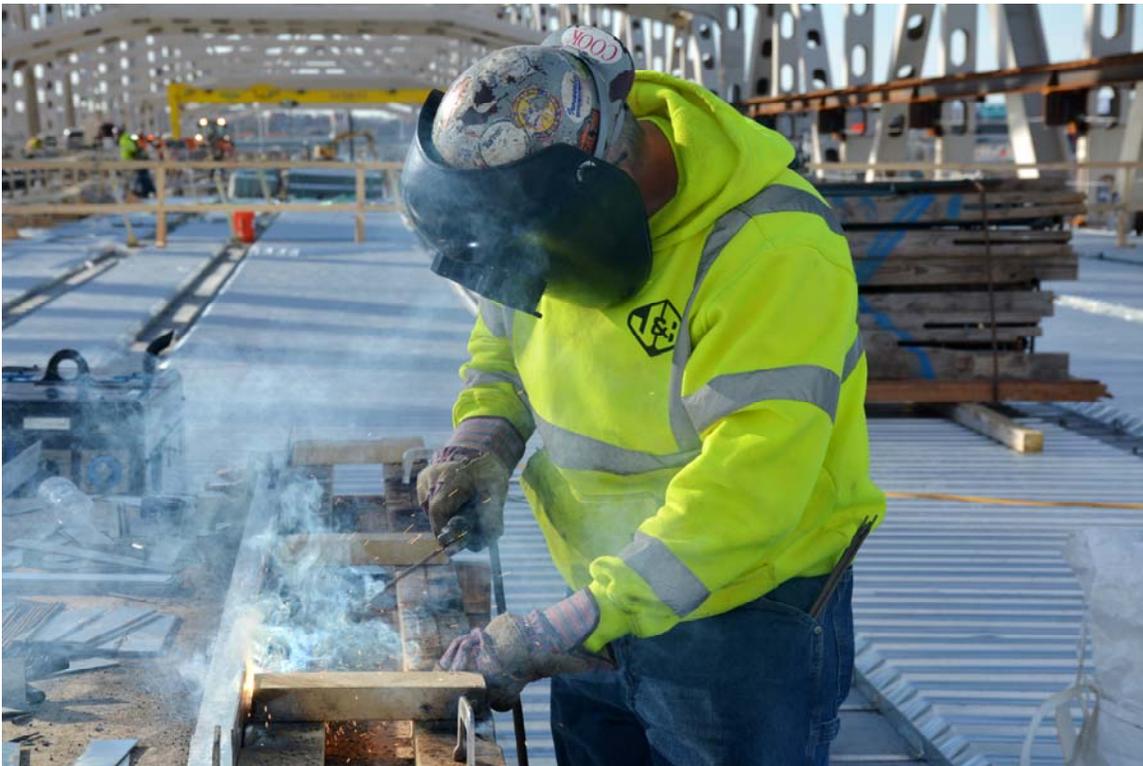
INDOT's DBE program for this Project will:

1. Ensure INDOT certifies qualified DBEs in a timely manner. INDOT's DBE certification staff will make every effort to maintain the integrity of the DBE program by:
  - a. Reviewing certification applications carefully to ensure only qualified DBEs are certified into the DBE program.
  - b. Reviewing annual affidavits and certified firms to ensure only qualified firms remain certified.
2. Ensure Project participants comply with DBE requirements, including ensuring DBEs perform commercially useful functions on the Project and proper DBE credit is assigned to each DBE.
3. Provide DBE capacity building through supportive services programs and outreach efforts, including:
  - a. INDOT's Entrepreneurial Development Institute (EDI), which provides intensive managerial and technical training for construction contractors and professional services providers.
  - b. INDOT's Statewide Indiana DBE Initiative (SINDI), which provides DBE and program eligible firms with state-of-the art continuing education programs that address construction management and engineering topics that will help DBEs better sustain their operations in an unprecedented economic environment.
  - c. New DBE Orientation, which provides DBEs with an overview of how to do business with INDOT.

## 16.3 Building Bridges to Opportunities

KYTC established “Building Bridges to Opportunities” to act as a feeder or pipeline program that provided assessment and supportive services to help develop a qualified and capable workforce for the LSIORB Project and other regional construction projects.

“Building Bridges to Opportunities” served as a resource for the DBT to identify individuals ready, willing, and able to work on the LSIORB Project. “Building Bridges to Opportunities” acted as a vehicle through which a participant could seek out the various training programs administered by union and non-union entities in the following trades: operators, carpenters, laborers, iron workers, electricians, and truck drivers. These trades were identified as those that would be needed throughout the life of the Project.



Construction Worker on Downtown Crossing

## 17.0 CONSTRUCTION CLOSEOUT PLAN

The final construction acceptance process will occur in accordance with the October 2012 *Bi-State Development Agreement Concerning the Louisville Southern Indiana Ohio River Bridges Project* Subsection 10.11. KYTC shall use “reasonable discretion” in determining whether the Downtown Crossing Final Acceptance has been achieved and

INDOT shall use “reasonable discretion” in determining whether the East End Crossing Final Acceptance has been achieved. Both shall consider input from the other State in making their determination. Any disputes shall be resolved in accordance with Development Agreement Subsection 16.6.

## 17.1 Kentucky

KYTC will not consider the work complete and will not make final payment until DBT clears the right-of-way, borrow pits, and all ground DBT occupies in connection with the work of all rubbish, equipment, excess materials, and temporary structures. DBT shall place rubbish and all waste materials of whatever nature, other than hazardous materials, on either public or private property in a location out of view from the roadway and in a manner acceptable to KYTC that does not present an unsightly appearance. DBT shall restore in an acceptable manner all property, both public and private, that was damaged in the prosecution of the work. DBT shall drain all ditches and all borrow pits where practical, and leave all space under structures unobstructed and in such condition that drift shall not collect and induce scouring.

DBT shall follow the procedures for Substantial Completion in Section 8.1 of the Design Build Agreement. Following the attainment of Substantial Completion, DBT shall proceed with the completion of punch list and other items such as striping, seeding, tree planning and any remaining work necessary for Final Completion, and shall notify the Engineer when the Project is near Final Completion. The Engineer will then advise in writing all punch list or other items that remain unsatisfactory. When these items are complete to the Engineer’s satisfaction, the Engineer will call the Project complete and issue a Project Completion Notice. When the Project is called complete and a Project Completion Notice has been issued, it is ready for KYTC’s final inspection.

KYTC and other appropriate agencies, such as FHWA, will complete final inspections on all items of work for Formal Acceptance within 90 Calendar Days of the date of issuance of the Project Completion Notice. The Department will make individual final inspections on particular groups of work items such as structures, electrical, grade and drain, and surface. KYTC may, at its election, make final inspections before the Project is called complete on items of work that have been completed. KYTC’s Engineer will issue written final inspection reports for items of work upon completion of each final inspection. The reports will include a list of all uncompleted work and required corrective work. The Engineer will issue a Comprehensive Final Inspection Report that will include all inspection reports. DBT shall complete all items of uncompleted work and all required corrective work listed in the final inspection reports within 90 Calendar Days of receiving the Engineer’s Comprehensive Final Inspection Report.

When the following occur, DBT shall substitute the deferral date for the date of the Engineer's Comprehensive Final Inspection Report when determining the above time limits for completion of uncompleted work and corrective work:

1. The Contract specifies deferral of payment,
2. The Project is complete before the date the Department can make payment (deferral date), and
3. The deferral date is later than the date of the Engineer's Comprehensive Final Inspection Report.

DBT shall submit required as-built drawings, project documentation, and required information on materials incorporated into the Project, considering them as uncompleted work or required corrective work. If there is a dispute regarding any of the items listed as uncompleted work or required corrective work on any of the final inspection reports, submit in writing a letter of dispute to the Engineer within 30 days of receipt of the report. The Department will respond back in writing to the letter of dispute within 21 days of receiving the letter. If there is still a dispute, proceed according to Article 12. When the dispute does not apply to all items of work in the report, complete the items not in dispute.

Subject to Section 15.8, KYTC will make Formal Acceptance of the Project when KYTC has determined that DBT has completed all Work, including required corrective work, has complied with all obligations of the Contract and the bonds, and the Commissioner has accepted the Project. Formal Acceptance shall not be construed as a waiver by KYTC of any legal rights should DBT's performance of the design and construction duties performed under the Contract be found to be defective.

## 17.2 Indiana

### SUBSTANTIAL COMPLETION

IFA will issue a written certificate of Substantial Completion at such time as Substantial Completion occurs for all Project Sections.

In order for Substantial Completion to occur for all Project Sections the following criteria must be satisfied:

- a. Developer has completed the design and construction of all Project Section(s) in accordance with the PPA Documents;
- b. The need for temporary traffic controls or for Closures at any time, (except for any that are required for Planned Maintenance);
- c. The relevant systems and equipment installed by Developer comply with applicable Laws, are operational and functional, and have passed the fire marshal and any other inspections and tests required under the PPA Documents,; and

- d. The Parties have completed preparation of the applicable Punch List (other than resolution of items included under protest).

The Parties shall disregard the status of landscaping and non-structural aesthetic features included in the Final Design Documents in determining whether Substantial Completion has occurred, except to the extent that it's later completion will affect public safety or satisfaction of the criterion in Section 5.8.1.2(b) of the PPA.

Developer shall provide IFA with 270, 180, 120 and 20 Days' advanced Notice of the date of expected Substantial Completion, in each case to afford the Toll Systems Integrator the opportunity to plan, mobilize and test the Toll Collection System.

## FINAL ACCEPTANCE

Promptly after achieving Substantial Completion for all Project Sections, Developer shall perform all remaining Construction Work, including completion of all Punch List items, all landscaping, and non-structural aesthetic features. Developer shall prepare and adhere to a timetable for planting and establishing the landscaping for the East End Crossing, if any, taking into account weather conditions necessary for successful planting and growth, which timetable shall in any event provide for landscaping to be planted and established by 12 months after Substantial Completion for the applicable Project Section(s).

In accordance with the appropriate sections of the PPA, IFA will issue a written certificate of Final Acceptance for all East End Crossing Sections at such time as all of the following have occurred for all Project Section(s):

- All requirements for Substantial Completion have been satisfied and all punch list items have been completed
- A complete set of Record Drawings and as-built surveys are received by IFA
- All jurisdictional certifications has been delivered to the appropriate Governmental Entities and copies provided to IFA
- All utility adjustment work performed for third parties is completed and has been accepted by the third parties or Developer has paid for all obligated work performed by third parties
- Developer has made all required deposits to the Intellectual Property Escrow(s) and Financial Escrow

The Developer will provide a written Notice when the Developer determines it has achieved Final Acceptance for all project sections. IFA will then either issue a certificate of Final Acceptance or will notify the Developer in writing why it is believed that Final Acceptance has not been achieved. If IFA and the Developer cannot agree to the date of Final Acceptance, such dispute shall be resolved according to the Dispute Resolution Procedures.

The Developer will assume the responsibility of operation and maintenance of the East End Crossing as per the contract except for the Kentucky portion from the north end of KY 841's bridge over Harrods Creek and River Road to the KY 841 / I-71 interchange, which will be operated and maintained by Kentucky.

## **18.0 DOCUMENT CONTROL**

### **18.1 Downtown Crossing**

The Downtown Crossing DBT, Walsh Construction Company, uses a document control system known as "Filehold". This system is maintained by Walsh and provides read accessible folders to KYTC and other project players. This program will contain folders that will contain meeting notes, correspondence, material testing documents, inspector daily reports, and all other project file documentations. KYTC or their representatives and the DBT share the ability to upload and edit various part of the program.

KYTC's design review team maintains a SharePoint program site that is a document repository for administration documents, design review, DBT submittals, and other administrative and design documents.

### **18.2 East End Crossing**

The East End Crossing uses the eBuilder document management system to track and maintain records of all submittals, reviews, approvals and required project documents. The Developer's Quality Control and Quality Assurance program and the all resulting documentation are uploaded to IFA's E-quality management system, QMOST, to manage and track quality observations and records

## **19.0 OMBUDSMAN**

### **19.1 Kentucky and Indiana Ombudsmen**

Specific language in the First Amended MOA Stipulation I.D.1 provides for the inclusion of an Ombudsman for each crossing. The Ombudsmen's roles are to provide property owners, neighborhood associations, and other groups and individuals with an independent and impartial channel for addressing concerns or issues raised during the Project. The Ombudsmen are responsible for investigating reported problems and responding to the public inquiries they receive.

The Ombudsmen are independent and impartial points of contact for the Project. They do not provide any legal counsel nor is information provided by their Offices intended to substitute for legal advice. The Ombudsmen are to be retained until substantial

completion of both sections of the Bridges project occurs, currently scheduled in mid-December 2016.

## 19.2 Roles of the Ombudsman

- The Ombudsman serves as an independent advocate and impartial source of information regarding the Project. The Ombudsman assists citizens who have questions and concerns associated with the Project. The Ombudsman helps citizens understand the Project, how the Project is being implemented, how questions and information requests can best be answered, and how concerns and complaints can be addressed and brought to resolution.
- The Ombudsman reviews comments and complaints and advises as to the most appropriate resolution.
- The Ombudsman responds to information requests, comments and complaints regarding the Project by appropriate means and within appropriate timeframes. The Ombudsman communicates issues, comments, complaints, findings and recommendations to the BSMT for consideration and resolution.
- The Ombudsman provides citizens with a neutral process of conflict resolution and a means by which constructive recommendations may be made. The Office of the Ombudsman, by providing a direct and informal avenue for mediation is intended to enhance the relationship between citizens and Project implementers, and ultimately improve the administration of the Project itself.
- The Ombudsman must demonstrate the highest level of professional ethics and integrity. When making recommendations, the Ombudsman suggests actions or policies that will be fair to all parties.

## 19.3 Responsibilities of the Ombudsman

- Execute their roles in accordance with ethics, standards and criteria promulgated by professional Ombudsmen associations as important guideposts.
- Work with the BSMT to set up and maintain the Office of the Ombudsman.
- Work with the BSMT to develop roles, responsibilities and policies for the execution of duties by the Ombudsman and for the operation of the Office of the Ombudsman.
- Work with the BSMT to develop policies for the interface and methods of communication between the Ombudsman and the BSMT.
- Continue to develop conflict resolution skills, through affiliation with professional Ombudsman organizations and through professional Ombudsman training.

## 19.4 Response to Public Inquiries and Concerns

- Develop and maintain a thorough working knowledge of the Project by reviewing appropriate documents, attending pertinent meetings and conferring with knowledgeable individuals, organizations and government agency and Project staff.

- Utilize the BSMT as an important resource regarding Project information and government policies and processes.
- Respond to public and private requests for information regarding the Project that are appropriate to the Ombudsman role, and in a manner recognizing the Project's public involvement activities as an important information resource.
- Develop and maintain a data and information system with appropriate procedures, criteria, formats and timeframes for receiving, reviewing, tracking and responding to public and private information requests, comments and complaints regarding the Project.
- Address Project-related citizen concerns and complaints as a neutral information broker between parties, by facilitating constructive interaction and meetings between stakeholders, and by making recommendations to the BSMT for the resolution of any conflicts.

## 19.5 Project Interface

- Communicate regularly with the BSMT regarding public and private interest, comments and complaints regarding the Project by way of BSMT meeting attendance and agenda item reports, as requested by the BSMT.
- Communicate with the BSMT to develop and determine equitable and appropriate solutions regarding concerns and complaints communicated to the Office of the Ombudsman.
- Work with the BSMT to further define and continually update the roles and responsibilities of the Ombudsman and the functions of the Office of the Ombudsman throughout the duration of the Project as warranted, for purposes of the Project Management Plan.
- Prepare, and communicate to the BSMT, monthly reports regarding pertinent information and activities of the Office of the Ombudsman and the status of issues brought to the Ombudsman for assistance or resolution.
- Prepare, and communicate to the BSMT, an Annual Report regarding activities of the Office of the Ombudsman along with pertinent information, findings and recommendations.

## 19.6 Policies of the Ombudsman Office

- The Ombudsman uses the provisions and stipulations in the Project ROD as primary points of reference and guideposts in executing the duties of the Ombudsman and in operating the Office of the Ombudsman.
- The BSMT supports, as provided and stipulated in the ROD, the purpose, roles, responsibilities and policies of the Ombudsman.
- The BSMT and the Ombudsman have determined the roles, responsibilities and policies of the Ombudsman for purposes of the Project Management Plan and for the execution of duties by the Ombudsman.
- The Ombudsman communicates with the BSMT as requested at BSMT meetings and by contact with individual members of the BSMT when as needed.

- The Ombudsman contacts and meets with individuals, organizations, associations and government agencies when appropriate and as needed for the purposes of executing the duties of the Ombudsman.
- The Ombudsman observes communication protocol, established by the BSMT and the Ombudsman, when requesting information and answers to questions from Project staff.
- The Ombudsman submits all complaints regarding the Project to the BSMT for review and recommendation of appropriate response.
- The Ombudsman makes every reasonable effort to ensure confidentiality regarding questions, comments, information requests and complaints when requested, but the Ombudsman cannot guarantee confidentiality of public records.
- The Ombudsman submits to the BSMT for review and determination, any request for records, documents and/or files of the Ombudsman or the Office of the Ombudsman.
- The Ombudsman makes every reasonable effort to respond promptly, completely and efficiently to all inquiries and complaints received by the Ombudsman.
- The Ombudsman has established and maintains a reliable, efficient and appropriate inquiry and response system for the purpose of executing the duties of the Ombudsman.
- The Ombudsman attends, as needed for the purpose of executing the duties of the Ombudsman, any appropriate meetings where public attendance is permitted.
- The Kentucky Ombudsman communicates and interacts constructively with the Indiana Ombudsman, who does the same, for the purpose of executing the duties of their respective Ombudsman Offices.
- The Ombudsman, with the support of the BSMT, continues to develop professional skills and to associate with professional organizations that will enhance the Ombudsman abilities and capacity to execute the duties of the Ombudsman with regard to mediation and conflict resolution.

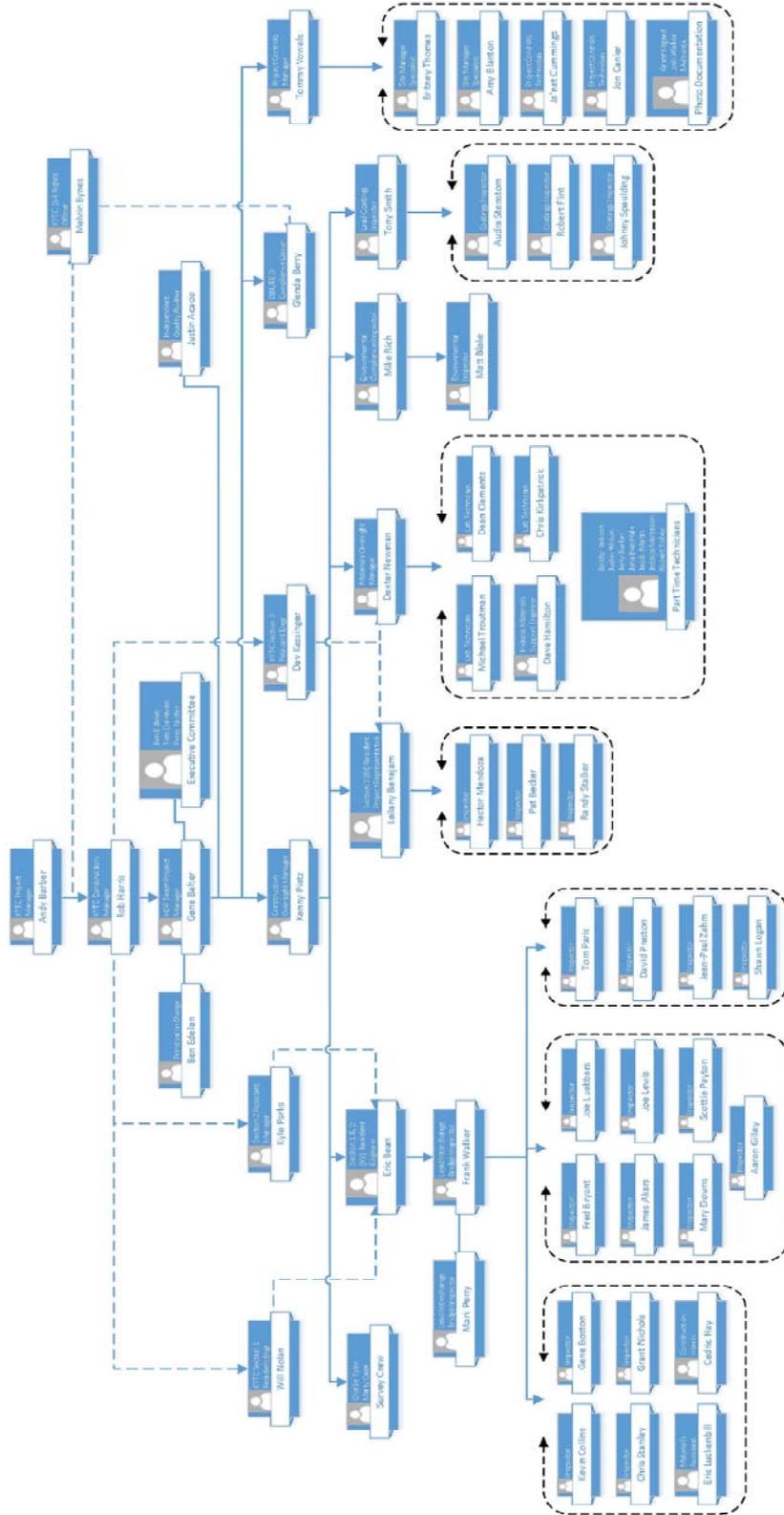
## 19.7 BSMT Oversight of the Ombudsman

The BSMT has the authority and oversight responsibility of the Ombudsman Offices to ensure they are fulfilling their roles and responsibilities. The ombudsmen are to be retained until substantial completion of both crossings of the Bridges project occurs, currently scheduled for mid-December.

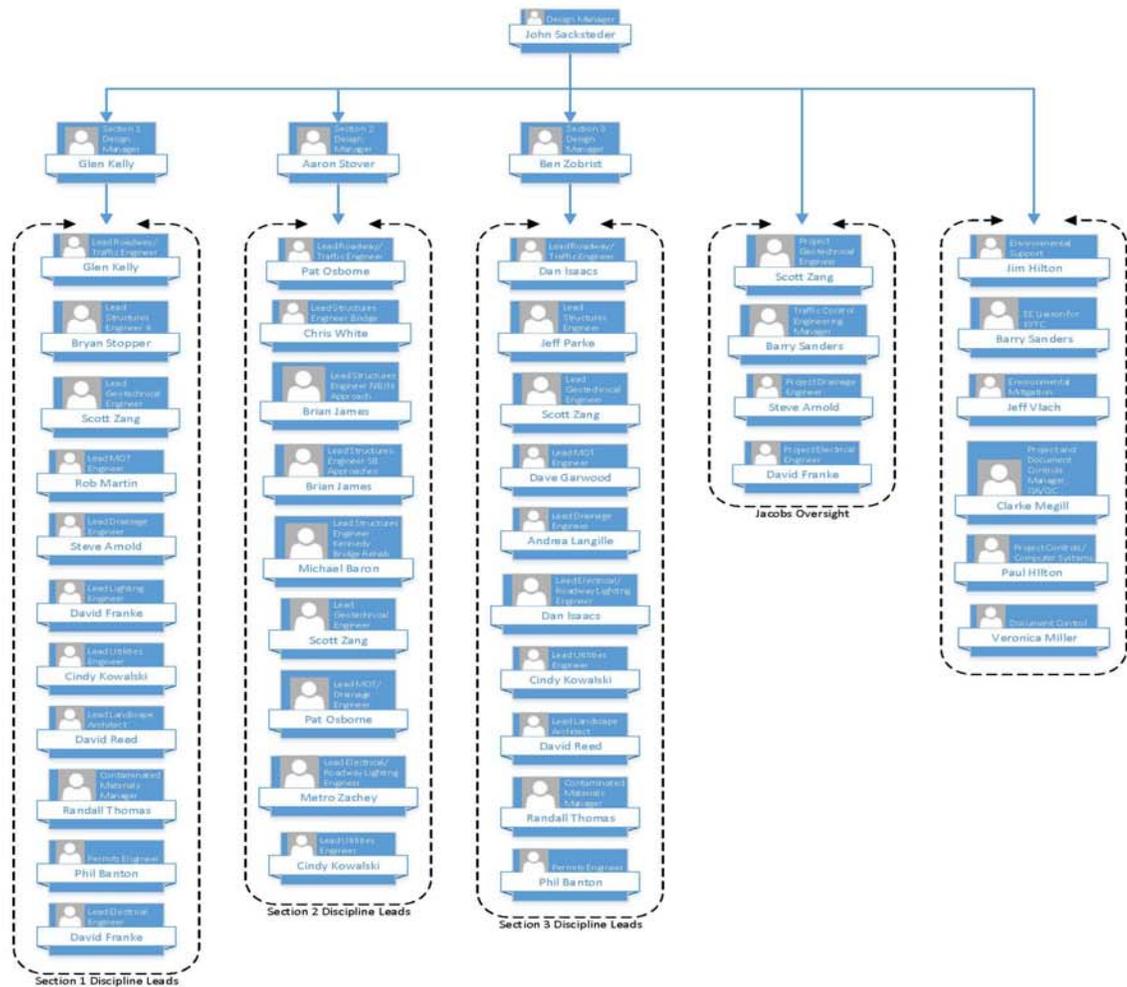
## **20.0 APPENDICES**

### **Appendix A — Organizational Chart**

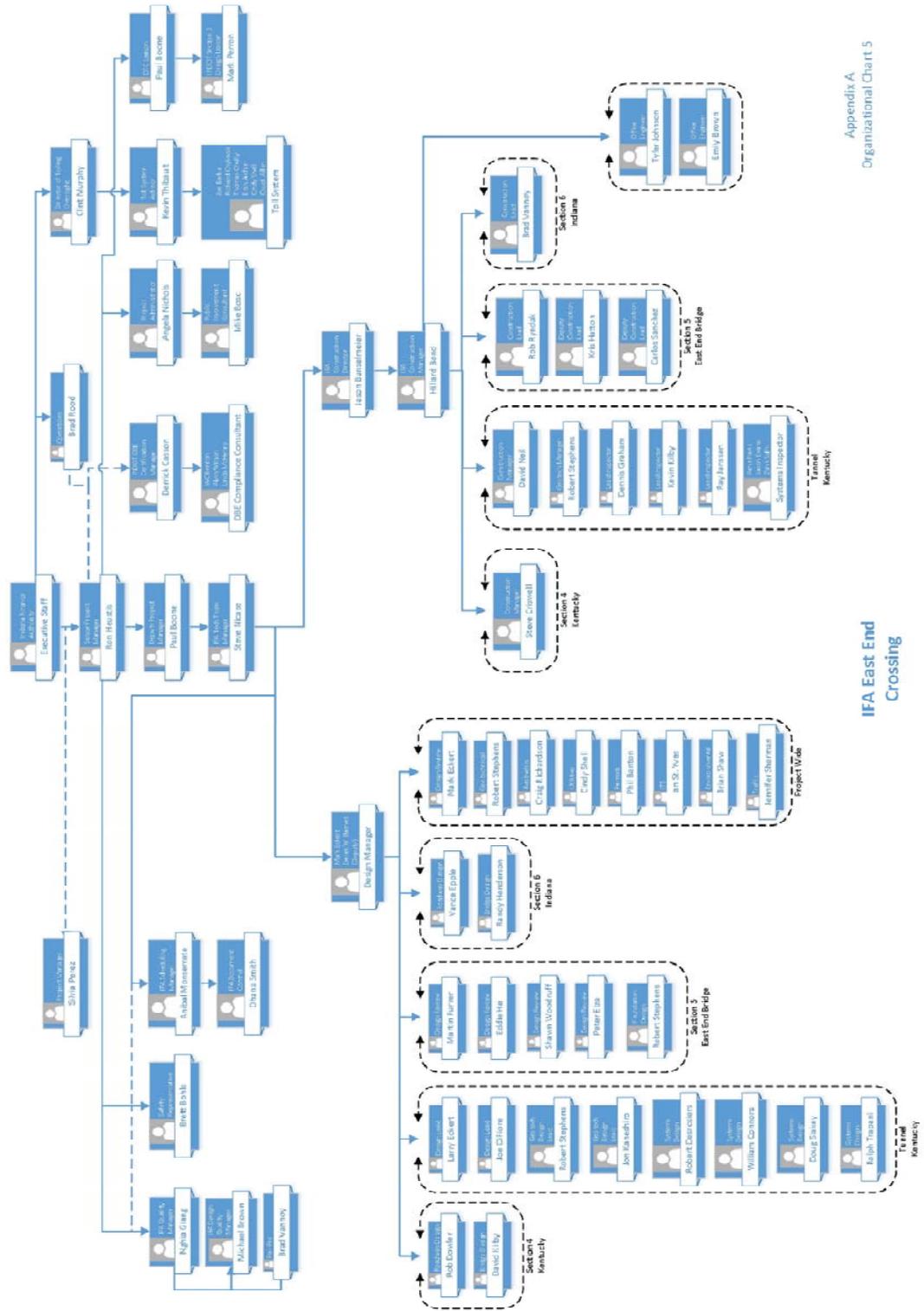
The current Project Organizational Charts are shown on the following pages.



Oversight Assistance  
Downtown Crossing  
HDR



**Design Review  
Sections 1, 2 & 3  
KTRT**



Appendix A  
Organizational Chart 5

IFA East End Crossing





## Appendix B — FHWA Responsibilities Matrix

#	Activity	Authority (23 CFR Section unless designated otherwise)	Action	Frequency	Delegated To
<b>R = Review, A = Approve, C = Compliance</b>					
<b>SP</b>	<b>Statewide Planning</b>				
1.	20 yr Statewide transportation plan	450.214	R for C	As updated	Community Planner
2.	3 yr STIP & amendments	450.216, 220	R & A w/ FTA	As requested by State -at least biennially	Community Planner
3.	Interstate additions & access revisions	470.111, 115(a)	R & A or Recommend action to HQ for system to system or new	As requested by State	HQ and/or Des. Eng.
4.	NHS revisions	470.113, 115(a)	Review & Recommend action to HQ	As requested by State	HQ
<b>MP</b>	<b>Metropolitan Planning</b>				
1.	Transportation plan for non-attainment metropolitan areas	450.322	R & A	Every 3 years	Community Planner
2.	Transportation plan for attainment metropolitan areas	450.322	R for C	Every 5 years	Community Planner
3.	TIP and corollary STIP amendments for non-attainment areas	450.324 - 330(b)	R & A	As requested by State - at least biennially	Community Planner
<b>AQ</b>	<b>Air Quality</b>				
1.	Transportation plan conformity determination for non-attainment areas	450.322(d)	R & A	Every 3 years	Community Planner
2.	TIP conformity determination for non-attainment	450.330(b)	R & A	Every 2 years	Community Planner
<b>E</b>	<b>Environment</b>				
1.	Environmental document determination (all other projects)	771.113	R & A	As submitted by State	Proj. Mgr.
2.	Final EIS	771.125	R & A	As submitted by State	Div. Admin.
3.	Record of Decision	771.127	R & A	30 days after	Div. Admin.

				publishing FEIS	
4.	EIS written re-evaluations	771.129	R & A	If no action is taken within 3 years after FEIS as submitted by State	Proj. Mgr.
5.	Section 4(f) individual	771.135	R & A	As submitted by State	Proj. Mgr.
6.	Section 106 actions	36 CFR 800	R & A	As submitted by State	Proj. Mgr.
7.	Implement Mitigation Commitments during PS&E Review	635.309(3)(j)	R & A	Project by Project	Proj. Mgr.
<b>DCM</b>	<b>Design, Construction, &amp; Maintenance</b>				
1.	Consultant Agreements, Supplements, and Settlements for Megaproject	172.5	R & A	As needed	Proj. Mgr.
2.	Projects Near Airports	620.103	R	As requested	Proj. Mgr.
3.	Highway Facility Relinquishment	620.203	R & A	As needed	Proj. Mgr.
4.	Design Exception Request	625.3	R & A	As needed	Proj. Mgr. w/ Des. Eng.
5.	Plans, Specifications, & Estimates (PS&E)	630B, 633.102 23 USC 106	R & A	Project by project	Proj. Mgr.
6.	Competitive Bidding	635.104 23 USC 112	R & A	As requested	Proj. Mgr.
7.	Use of Public Owned Equipment	635.106	R & A	As needed	Proj. Mgr.
8.	Changed Conditions	635.109	R & A	As needed	Proj. Mgr.
9.	Concurrence in Award	635.114 23 USC 112(d)	R & A	Project by project	Proj. Mgr.
10.	Changes and Extra Work	635.120	R & A	As needed	Proj. Mgr.
11.	Claims	635.124	R & A	As needed	Proj. Mgr.
12.	Statement of Materials and Labor (NHS projects of \$1 million or more) (form FHWA-47)	635.126	Periodically R for C (State prepares and submits to HQ)	Project by project	Proj. Mgr.
13.	Public Agency Furnished Material	635.407	R	As needed	Proj. Mgr.
14.	Utility Agreement	645.113	R & A	Project by project	Proj. Mgr.
15.	Railroad Agreement	646.216	R & A	Project by project	Proj. Mgr.
16.	Construction Inspection	FAPG G	R for C	As needed	Proj. Mgr.

		6042.8			
17.	Project Authorizations/Agreements (PE, Final Design, ROW, Utilities, RR, Force Account)	630 Subpart C	Accept	As needed	Proj. Mgr. w/Fin. Mgr.
18.	Authorization to Advertise	630.106 635.309	R & A	Project by project	Proj. Mgr.
19.	Advanced Construction (all projects)	630.705	R & A	As needed	Proj. Mgr.
20.	Payroll (all projects)	635.118	R	As needed	Proj. Mgr.
21.	Termination of Contract	635.125	R & A	As needed	Asst. Div. Admin.
22.	Value Engineering (NHS and \$25 million or more)	627 P.L. 104-59 Sec 303	R for C (State conducts study)	Project by project	Proj. Mgr. w/ Des. Eng.
23.	Bid Opening/Tabulations	635.113	Periodically R for C (State takes action)	Per letting	Proj. Mgr. & Project Delivery Team Leader (w/ADA)
24.	Utility Agreement Alternate Procedure	645.119	R & Accept	One time	Proj. Mgr. & Project Delivery Team Leader (w/ADA)
25.	Utility Accommodation Policy	645.215	R & A	When changes occur	Proj. Mgr. & Project Delivery Team Leader (w/ADA)
26.	Railroad Agreement Alternate Procedure	646.220	R & A	One time	Proj. Mgr. & Project Delivery Team Leader (w/ADA)
<b>PM</b>	<b>Pavement &amp; Materials</b>				
1.	Buy America	635.410	R & A	As Needed	Proj. Mgr.
2.	Proprietary Materials	635.411	R & A	As Needed	Proj. Mgr.
3.	Warranties	635.413	R & A	As Updated	Proj. Mgr.
4.	Convict Produced Materials	635.417	R & A	As Needed	Proj. Mgr.
5.	Materials Acceptance	637.207	R & A	As Updated	Proj. Mgr.
6.	Quality Control/Quality Assurance Programs	637.207	R & A	As Updated	Proj. Mgr.

7.	Sampling and Testing of Materials	637.207	R & A	As Updated	Proj. Mgr.
<b>B</b>	<b>Bridge</b>				
1.	HBRRP eligibility determinations	650 Subpart D	R & A	Project by project	Finance
2.	HBRRP discretionary candidate submittals	650 Subpart D	R & A	Annually by July 1	Bridge Engineer
3.	TS & L and PS&E reviews	630, 23 USC 106, and W.O. 11/13/98 memo	R & A	Project by project	Proj. Mgr. w/ Bridge Eng.
4.	Innovative Bridge Research and Construction Program eligibility determination	23 USC 503(b)	R & A and submit to HQ	Annually (date varies)	Bridge Eng.
5.	Construction inspections	FAPG G 6042.8	R for C	As needed	Proj. Mgr. w/ Bridge Eng.
<b>M</b>	<b>Mobility/ITS</b>				
1.	Congestion management system	500.109	R for C	As needed/ revised by MPO/State	Proj. Mgr. (w/ ITS Eng.
2.	Conformity with National ITS Architecture	FHWA Final Rule dated January 8, 2001	R for C	As needed w/PS&E submission (full oversight projects that affect regional integration)	Proj. Mgr. (w/ ITS Eng.
3.	ITS Life Cycle Cost (>\$3 million) and ITS Financing and Operations Plan	TEA-21 Section 5210	R for C	As needed for projects funded by TEA-21 Sections 5208 and 5209	Proj. Mgr. (w/ ITS Eng.
4.	ITS Service Plan	TEA-21 Section 5207	Develop	As needed	ITS Eng.
<b>FM</b>	<b>Financial Management</b>				
1.	Finance Plan & Annual Updates for Mega projects	TEA-21 Section 1308, and associated FHWA Guidance	Review & Accept	Prior to authorization of construction, and annually thereafter.	Div. Admin.
2.	Project Agreements - including drug free work place and other provisions	630 Subpart C	Accept	As needed	Fin. Mgr. w/ Proj. Mgr.
3.	Fed-aid billing reimbursement of eligible expenditures	140, 635.122	R & A	Weekly	Fin. Mgr.

4.	Transfer of funds as requested by State	23 USC 104 (c) and 119 (f)	R & A	As needed	Fin. Mgr.
<b>S</b>	<b>Safety</b>				
1.	Work Zone Safety Process review of effectiveness	630.1010	R & A	Annually by Sept. 30	Safety Eng.
<b>R/W</b>	<b>Right-of Way</b>				
1.	State R/W Manual changes	710.201	R & A	Jan. 1, 2001 & every 3 years thereafter	ROW
2.	Uniform Relocation Assistance and Real Property Acquisition Report - (OMB Form 2125-0030)	49 CFR 24.9(c) and Appendix B	R	Every 3 years	Proj. Mgr. w/ ROW
3.	Requests for waivers	49 CFR 24.204(b)	R & A	As submitted by State	Proj. Mgr. w/ ROW
4.	Use of R/W Air Space authorization request (on Interstate system)	710.405	R & A	Project by project	Proj. Mgr. w/ ROW
5.	Access Break / R/W Disposal authorization request (if on Interstate system or fair market value not charged)	710.401, 409	R & A	Project by project	ROW
6.	Functional Replacement	710.509	Periodically R for C (State takes action)	As needed	ROW
7.	Lead Agency Uniform Act monitoring activities	24.603	R for C	As needed	ROW
8.	Develop R/W oversight agreement	710.201(i)	R & A	By Jan. 1, 2001 and updated as needed	ROW
<b>CR</b>	<b>Civil Rights</b>				
1.	Title VI Plan accomplishments and next year's goals	200.9	R & A	Annually by Oct. 1	Civil Rights
2.	Title VI Plan update	200.9	R & A	As needed or requested by State	Civil Rights
3.	EEO Contract Compliance review reports (form FHWA 86)	230.409 230.413	R & A	As submitted by State	Civil Rights
4.	Disadvantaged Business Enterprise (DBE) Program revisions	49 CFR 26.21(b)	R & A	As needed or as requested by State	Civil Rights
5.	State's DBE program goals	49 CFR 26.41	R & A	Annually by Aug 1	Civil Rights
6.	Supportive services funds requests	230.113	R & A	As requested by State	Civil Rights
7.	Annual Contractor	230.121(a)	R for C and	Annually by	Civil Rights

	Employment Report (Construction Summary of Employment Data (form PR-1392))		send to HQ	Sept 25	
<b>8.</b>	Report on supportive services (On-the-Job Training (OJT) & DBE)	230.121(e)	R for C and send to HQ	Quarterly by April 15, July 15, Oct 12, and Jan 15	Civil Rights
<b>9.</b>	OJT goals & accomplishments	230.111(b)	R for C	Annually by Jan 30	Civil Rights
<b>10.</b>	Report on supportive services (OJT & DBE)	230.111, 113	R for C	Quarterly	Civil Rights
<b>11.</b>	Americans with Disabilities Act Review complaint	Voluntary agreement with Justice Dept.	Conduct evaluation & correct or recommend action to HQ	As requested by HQ	Proj. Mgr.

## Appendix C — Publications and Documents cited in the PMP incorporated by reference

1. *FHWA Resource Manual for Oversight Management*
2. *FHWA Major Projects Financial Plans Guidance*
3. *FHWA Major Projects Project Management Plans Guidance*
4. *Louisville-Southern Indiana Ohio River Bridges Project Final Environmental Impact Statement - 2003*
5. *Louisville-Southern Indiana Ohio River Bridges Project Supplemental Environmental Impact Statement - 2012*
6. *Louisville-Southern Indiana Ohio River Bridges Project Record of Decision - 2003*
7. *Louisville-Southern Indiana Ohio River Bridges Project Record of Decision - 2012*
8. *Louisville-Southern Indiana Ohio River Bridges Project Initial Financial Plan – 2008*
9. *Louisville-Southern Indiana Ohio River Bridges Project 2012 Financial Plan Update*
10. *Louisville-Southern Indiana Ohio River Bridges Project Right of Way Acquisition Strategic Plan*
11. *Louisville-Southern Indiana Ohio River Bridges Project Communications Program Strategies Guidance Document*
12. *Louisville-Southern Indiana Ohio River Bridges Project Bi-annual Master Progress Reports*
13. *Louisville-Southern Indiana Ohio River Bridges Project Disadvantaged Business Enterprise Program*
14. *KYTC Professional Services Guidance Manual*
15. *KYTC Structure Design Guidance Manual*
16. *KYTC Drainage Design Guidance Manual*
17. *KYTC Highway Design Guidance Manual*
18. *KYTC Geotechnical Guidance Manual*
19. *KYTC Permits Guidance Manual*
20. *KYTC Traffic Operations Guidance Manual*
21. *KYTC Contract Procurement Guidance Manual*
22. *KYTC Pavement Design Guidance Manual*
23. *KYTC Materials Guidance Manual*
24. *KYTC Right of Way Guidance Manual*
25. *KYTC Utilities and Rail Guidance Manual*
26. *KYTC Division of Environmental Analysis Environmental Procedures Manual*
27. *KYTC Computer Aided Design and Drafting Standards*
28. *Design-Specific Memoranda issued by the Kentucky Transportation Cabinet*
29. *Kentucky Standard Specifications for Road and Bridge Construction, Current Edition*
30. *Indiana Design Manual*
31. *INDOT Standard Specifications Book, Current Edition*
32. *INDOT Standard Drawings*
33. *INDOT Erosion and Sediment Control Handbook*
34. *INDOT Office of Environmental Services Waterway Permit Manual*
35. *INDOT Right-of-Way Procedure Manual*
36. *INDOT Procurement Manual*
37. *INDOT Partnering Handbook*
38. *INDOT Materials and Testing Frequency Manual*
39. *Design-Specific Memoranda issued by Indiana Department of Transportation*
40. *Highway Capacity Manual*
41. *American Association of State Highway and Transportation Officials Green Book and Bridge Book*
42. *Manual of Uniform Traffic Control Devices*

## Appendix D – Status of Permits

The status of the permits and approvals required for the Downtown Crossing and for the East End Crossing are outlined in the following list. Permits are renewed or modified as construction requires.

### SECTION 1

#### DOWNTOWN KENNEDY INTERCHANGE AND APPROACHES – KENTUCKY

- Floodplain Construction Permit  
*Louisville and Jefferson County Metropolitan Sewer District (MSD)*  
*Applicant: KYTC*
  - Application not required by MSD due to state regulations.
- Conditional Letter of Map Revisions (CLOMR)  
*Flood Emergency Management Agency (FEMA) / Louisville MSD*  
*Applicant: KYTC*
  - Application approved by MSD, will be updated with new bridge design and embankment and submitted to FEMA by September, 2016.
- Erosion and Sediment Control Plan  
*Louisville MSD*  
*Applicant: Contractor*
- Risk Management Plan  
*Kentucky Division of Waste Management*  
*Applicant: Contractor*
- National Pollution Discharge Elimination System (NPDES) permit  
*Kentucky Department for Environmental Protection, Division of Water (KDOW)*  
*Applicant: Contractor*
- Section 401 Water Quality Certification  
*Kentucky Division of Water (KDOW)*  
*Applicant: KYTC*
  - I-64 crossing at Beargrass Creek for temporary impacts was approved under General Water Quality certification for Nationwide Permit #14 by KDOW on February 10, 2014.
- Section 404  
*US Army Corps of Engineers(USACE) – Louisville District*  
*Applicant: KYTC*
  - I-64 crossing at Beargrass Creek of temporary bridge and additional fill was approved by USACE on June 10, 2014 based on Nationwide Permit.

- **Levee System Modification Permit**  
*US Army Corps of Engineers – Louisville District*  
*Applicant: KYTC*
  - Approved by USACE on September 17, 2013 for proposed I-65 bridge over the Louisville – Metro Levee System at Station 95+50. Permit duration is 2 years.
  - Approved by USACE on July 3, 2014 for proposed I-65 bridge over the Louisville – Metro Levee System from Station 91+00 to 96+00. Permit duration is 2 years.
  - As-built drawings required at completion of work.

## SECTION 2

### DOWNTOWN BRIDGE – INDIANA AND KENTUCKY

- **Construction in a Floodway Permit**  
*Indiana Department of Natural Resources (IDNR)*  
*Applicant: KYTC*
  - Construction in a Floodway permit (FW-26742) approved by IDNR Division of Water on October 31, 2012. Permit duration is for 5 years.
  - Waiver for in-channel work date restriction granted by IDNR Division of Fish and Wildlife on March 28, 2013.
- **Indiana Navigable Waterways Act**  
*Indiana Department of Environmental Management (IDEM) – Office of Water Management*  
*Applicant: KYTC*
  - Approved by IDEM on October 31, 2012. Permit duration is for 5 years.
- **Conditional Letter of Map Revision (CLOMR)**  
*FEMA / Indiana Department of Natural Resources (IDNR)*  
*Applicant: KYTC*
  - Revised application to be updated with bridge design and embankment and sent to IDNR and FEMA by September, 2016.
- **Section 401 Water Quality Certification**  
*Kentucky Division of Water(KDOW)*  
*Applicant: KYTC*
  - Approved by KDOW on December 19, 2012 (AI No. 82191).
- **Section 401 Water Quality Certification**  
*IDEM – Office of Water Management*  
*Applicant: KYTC*
  - Approved by IDEM on November 15, 2012. Effective December 18, 2012. Permit duration is 5 years, one(1) year extension if requested.
  - Modification approved by IDEM Sept. 12, 2013.
- **Section 404**  
*US Army Corps of Engineers (USACE) – Louisville District*  
*Applicant: KYTC*

- USACE approved placement of temporary rock fill on April 24, 2013. Permit (LRL-2011-375-cmh).expires March 18, 2017
  - USACE approved July 30, 2014 the after-the-fact installation of 7 temporary mooring piles under Nationwide Permit 33. Permit expires March 18, 2017.
- Section 10 of the Rivers and Harbors Act for Work in Navigable Waters of the US – Bridge Permit  
*US Army Corps of Engineers – Louisville District*  
*Applicant: KYTC*
  - Not required because application has been made for Coast Guard Section 9 permit (see below).
- Section 9 of the Rivers and Harbors Act for Work in Navigable Waters of the US – Bridge Permit  
*US Coast Guard (USCG)*  
*Applicant: KYTC*
  - Approved by US Coast Guard on March 20, 2013. Permit duration is 3-5 years. The Contractor maintains contact with the USCG on permit modifications and on navigation coordination as construction progresses.
  - Proposed Cofferdam and other temporary structures approved by USCG on April 23, 2013.
  - Proposed work barge locations approved by USCG on August 13, 2014.
- Floodplain Construction Permit  
*Louisville MSD*  
*Applicant: KYTC*
  - Application not required by MSD due to state regulations.
- Conditional Letter of Map Revisions (CLOMR)  
*FEMA / Louisville MSD*  
*Applicant: KYTC*
  - Revised application to be updated with latest design and sent to FEMA by September, 2016.
- National Pollutant Discharge Elimination System (NPDES) permit for stormwater system construction.  
*City of Jeffersonville, Indiana*  
*Applicant: Contractor*
- NPDES Stormwater - Post Construction  
*City of Jeffersonville, Indiana*  
*Applicant: Contractor*
- Erosion and Sediment Control Plan  
*Louisville MSD*  
*Applicant: Contractor*
  - Risk Management Plan  
*Kentucky Department for Environmental Protection, Division of Waste*

*Management (DWM)*  
*Applicant: Contractor*

- National Pollution Discharge Elimination System (NPDES) permit  
*Kentucky Division of Water*  
*Applicant: Contractor*
- Aviation Lighting Determination (Bridge Tower and Temporary Crane)  
*Kentucky Airport Zoning Commission (KAZC)*  
*Applicant: KYTC*
  - Approved by KAZC on April 19, 2012. Determination is valid for 3 years until start of construction.
- Tall Structure Determination (Tower Crane)  
*Federal Aviation Administration (FAA)*  
*Applicant: KYTC*
  - Approved by FAA on February 16, 2012. Duration 18 months until tower crane completion.
  - Extension granted by FAA on January 10, 2014. Duration 18 months until tower crane completion.
- Tall Structure Determination (Bridge Tower)  
*FAA*  
*Applicant: KYTC*
  - Approved by FAA on February 16, 2012. Duration 18 months until tower completion.
  - Extension granted by FAA on September 4, 2013. Duration 18 months until tower completion.

### SECTION 3

#### I-65 INDIANA APPROACHES FOR THE DOWNTOWN CROSSING

- Section 401 Water Quality Certification  
*IDEM – Office of Water Management*  
*Applicant: KYTC*
  - Approved by IDEM on November 15, 2012. Effective December 18, 2012. Permit duration is 5 years plus a one-year extension, if requested.
  - Permit modification for new stream relocation approved by IDEM on September 12, 2013. Effective September 30, 2013. Monitor for two years after completion.
- Section 404  
*US Army Corps of Engineers – Louisville District*  
*Applicant: KYTC*
  - Approved by US Army Corps of Engineers on November 21, 2012 (LRL-2011-375-cmh).
  - Permit modification for new stream relocation approved by USACE September 25, 2013.
  - 2<sup>nd</sup> Modification for stream (Cane Run) approved July 10, 2014.

- Section 10 of the Rivers and Harbors Act for Work in Navigable Waters of the US – Bridge Permit  
*US Army Corps of Engineers – Louisville District*  
*Applicant: KYTC*
  - Approved by US Army Corps of Engineers on November 21, 2012. Permit duration is 3 years.
  
- Rule 5 Pollution Discharge Elimination System  
*IDEM*  
*Applicant: Contractor - 5 years*
  - *Notice of Intent for Stage 0 approved May 21, 2013. Subsequent stages are submitted by the Contractor as construction progresses.*
  
- NPDES Stormwater Construction  
*City of Jeffersonville, Indiana*  
*Applicant: Contractor*
  
- NPDES Stormwater - Post Construction  
*City of Jeffersonville, Indiana*  
*Applicant: Contractor*
  
- Tall Structure Determinations (Numerous bridge cranes, high-mast light poles, and associated cranes)  
*Federal Aviation Administration (FAA)*  
*Applicant: KYTC*
  - Most applications approved June, 2013. Six (6) light pole applications revised and approved by FAA on September 25, 2013. Durations of all determinations are 18 months or until completion of construction. The Contractor manages the permits as construction progresses.
  
- Levee System Modification Permit  
*US Army Corps of Engineers – Louisville District*  
*Applicant: KYTC*
  - Approved by USACE on May 30, 2013 for redirected and detained storm water flow on Cane Run in Jeffersonville, IN.
  - Approved by USACE on August 20, 2013 for the new NB I-65 bridge at Floodwall Station 85+50 and a new SB I-65 bridge at Floodwall Station 87+00 in Jeffersonville.
  - As-built drawings required.

## SECTION 4

### THE KENTUCKY APPROACH FOR THE EAST END CROSSING

- Floodplain Construction Permit  
*Louisville MSD*  
*Applicant: INDOT*
- Application not required by MSD due to state regulations.

- **Conditional Letter of Map Revisions (CLOMR)**  
*FEMA / Louisville MSD*  
*Applicant: INDOT*
  - Revised application to be updated with latest bridge and approach design and submitted to FEMA by September, 2016.
  
- **Section 401 Water Quality Certification**  
*Kentucky Division of Water*  
*Applicant: INDOT*
  - Approved by KDOW on March 7, 2013. Permit duration is 1 year, extended to November 7, 2015.
  - Modification to extend pipe culvert at Sta 171+50 approved by KDOW on July 31, 2014.
  
- **Stream Construction Permit**  
*Kentucky Division of Water*  
*Applicant: INDOT*
  - Approved by KDOW on February 11, 2013. Permit expires November, 7, 2015.
  - Temporary structures approved by KDOW on September 11, 2013.
  - Modification of East End bridge design approved February 24, 2015.
  - Modification for temporary end bents approved August 20, 2015. Expires August 20, 2016.
  
- **Section 404**  
*US Army Corps of Engineers – Louisville District*  
*Applicant: INDOT*
  - Approved by US Army Corps of Engineers on May 16, 2013.
  - Modification to extend pipe culvert at Sta 171+50 approved by USACE on August 4, 2014.
  
- **Section 9 of the Rivers and Harbors Act for Work in Navigable Waters of the US – Bridge Permit**  
*US Coast Guard*  
*Applicant: INDOT*
  - Crossing of KY 841 over Harrods Creek approved by US Coast Guard on April 24, 2013. Permit duration is 5 years.
  - Temporary cofferdam plan approved May 21, 2013.
  - Modification of horizontal clearance to 68' approved by USCG on February 20, 2014.
  
- **Federal Permit for Eagle Take**  
*US Fish and Wildlife (USFWS) and Kentucky Division of Fish and Wildlife (KDFWR)*  
*Applicant: INDOT*
  - Approved by US Fish & Wildlife on November 21, 2012. Permit duration is 3 years.

USFWS concurred in July, 2014 with KDFWR's approval (May 27, 2014) of contractor's request to extend time period and reduce distance restriction for pile driving.

- Erosion and Sediment Control Plan  
*Louisville MSD*  
*Applicant: Contractor*
- Risk Management Plan  
*Kentucky Division of Waste Management*  
*Applicant: Contractor*
  - Spill Prevention/Response Plan and Hazardous Material Management Plan submitted May 7, 2013.
- National Pollution Discharge Elimination System (NPDES) permit for construction.  
*Kentucky Division of Water*  
*Applicant: Contractor*
  - Notice of Intent approved by KDOW on April 8, 2013 (AI ID: 115698).
- Indiana Bat Conservation MOA in association with LSIORBP.  
*US Fish and Wildlife Service*  
*Applicant: KYTC*
  - Original MOA approved February 17, 2012 for 42.45 acres of habitat within the Section 4 permitted area.
  - First Amendment, additional 0.77 acres on Parcel 121 approved May 10, 2013
  - 2<sup>nd</sup> Amendment, additional 0.45 acres of habitat, May 17, 2013
- Section 402 NPDES permit for permanent storm drainage system from Harrods Creek to the Indiana side of the East End crossing.  
*Kentucky Division of Water (KDOW)*  
*Applicant: Indiana Finance Authority/INDOT*
  - On January 12, 2016 KDOW determined that a Section 402 was not required for this project.

## SECTION 5

### THE EAST END BRIDGE

- Construction in a Floodway Permit  
*Indiana Department of Natural Resources (IDNR), Division of Water*  
*Applicant: INDOT*
  - Application FW-26660 approved by IDNR on October 31, 2012. Permit duration is for 5 years.
  - Modification for placement of temporary fill on Indiana side approved by IDNR on December 16, 2013.
  - Modification of design of towers 3 and 4 approved on December 19, 2014.
- Indiana Navigable Waterways Act  
*Indiana Department of Environmental Management (IDEM) Office of Water Management*  
*Applicant: INDOT*
  - Approved by IDEM on October 31, 2012. Permit duration is for 5 years.

- Conditional Letter of Map Revisions (CLOMR)  
*FEMA / IDNR*  
*Applicant: INDOT*
  - Revised application to be updated with latest bridge and approach design and submitted to IDNR and FEMA by September, 2016.
  
- Section 401 Water Quality Certification  
*Kentucky Division of Water*  
*Applicant: INDOT*
  - Approved by KDOW on March 7, 2013. Permit duration is 2 years.
  - Modification for tower leg redesign approved by KDOW on April 7, 2014
  - Second modification of temporary tower works approved February 24, 2015. Permit extended to November 7, 2015.
  
- Stream Construction Permit  
*Kentucky Division of Water*  
*Applicant: INDOT*
  - Approved by KDOW on September 11, 2013. Permit duration is 1 year.
  
- Section 401 Water Quality Certification  
*IDEM*  
*Applicant: INDOT*
  - Approved by IDEM on August 14, 2012. Permit duration is 2 years.
  - Modification for placement of temporary fill on Indiana side approved by IDEM on November 26, 2013.
  
- Section 404  
*US Army Corps of Engineers – Louisville District*  
*Applicant: INDOT*
  - Approved by US Army Corps of Engineers on May 16, 2013.
  - Modification for placement of temporary fill on Indiana side approved by USACE on December 9, 2013. Effective to March 18, 2017.
  - Modification for bridge tower design approved by USACE on February 13, 2014.
  
- Section 10 of the Rivers and Harbors Act for Work in Navigable Waters of the US - Bridge Permit  
*US Army Corps of Engineers – Louisville District*  
*Applicant: INDOT*
  - No Section 10 permit required because application has been made for Coast Guard Section 9 permit.
  
- Section 9 of the Rivers and Harbors Act for Work in Navigable Waters of the US – Bridge Permit  
*US Coast Guard*  
*Applicant: INDOT*
  - Approved by US Coast Guard on May 8, 2013. Permit duration is 3-5 years.

Modification for placement of temporary fill on Indiana side approved by USCG on December 9, 2013.

- Floodplain Construction Permit  
*Louisville MSD*  
*Applicant: INDOT*
  - Application not required by MSD due to state regulations.
- Erosion and Sediment Control Plan  
*Louisville MSD*  
*Applicant: Contractor*
- National Pollution Discharge Elimination System (NPDES) permit  
*Kentucky Division of Water*  
*Applicant: Contractor*
  - Notice of Intent approved by KDOW on April 8, 2013.
- Aviation Lighting Determination (Bridge Towers and Tower Cranes)  
*KAZC*  
*Applicant: INDOT*
  - Approved by KAZC on April 18, 2013. Permit duration is 3 years.
- Tall Structure Determination (Tower Crane)  
*Federal Aviation Administration (FAA)*  
*Applicant: INDOT*
  - Approved by FAA on September 12, 2012. Duration: 18 months.
  - Modification approved by FAA on March 20, 2013.
  - Modification for revised crane heights approved by FAA on December 20, 2103.
- Tall Structure Determination (Bridge Tower)  
*FAA*  
*Applicant: INDOT*
  - Approved by FAA on September 12, 2012. Duration: 18 months.  
Modification approved by FAA on March 20, 2013.
- Section 402 NPDES permit for permanent storm drainage system from Harrods Creek to the Indiana side of the East End Crossing.  
*Kentucky Division of Water (KDOW)*  
*Applicant: Indiana Finance Authority (IFA)/INDOT*
  - January 12, 2106: KDOW determined that a Section 402 was not required for this project.

## SECTION 6

### THE INDIANA APPROACH FOR THE EAST END BRIDGE

- Construction in a Floodway Permit (for the Lentzier Creek crossing, FW-26753)  
*Indiana Department of Natural Resources (IDNR), Division of Water*  
*Applicant: INDOT*
  - Approved by IDNR on February 8, 2013. Permit duration is for 5-years. The Contractor is responsible for permit modifications that he may need.

- Modification for I-265 and Brookhollow Way bridges approved by IDNR on May 30, 2014.
- Modification for sediment dikes and pumps at Brookhollow Way was approved April 10, 2015.
- Section 401 Water Quality Certification
  - IDEM*
  - Applicant: INDOT*
    - Approved by IDEM on August 14, 2012. Permit duration - 2-years.
    - Modification for 7 temporary crossings approved by IDEM on September 11, 2013.
    - Modification for utility crossings approved by IDEM on February 25, 2014.
- Section 404
  - US Army Corps of Engineers – Louisville District*
  - Applicant: INDOT*
    - Approved by the US Army Corps of Engineers on September 4, 2012. Permit duration – 3 years. The Contractor is responsible for permit modifications that he may need.
    - Modification for 7 temporary crossings approved by USACE on September 20, 2013.
    - Modification for an additional 355 feet of temporary culvert at Brookhollow Way approved by USACE on July 10, 2014.
- Rule 5 Pollution Discharge Elimination System
  - IDEM*
  - Applicant: Contractor – 5 years*
    - Notice of Sufficiency issued by IDEM on July 17, 2013.
    - Contractor manages subsequent stages as work progresses.
- Tall Structure Determinations (High-mast lighting, ITS towers and associated cranes)
  - FAA*
  - Applicant: INDOT*
    - During November and December of 2013, applications for 20 high-mast light poles and associated cranes, 51 bridge cranes, and 2 ITS towers were submitted by CTS to FAA and approved. The duration for these determinations is 18 months or upon the completion of the structure. Walsh-Vinci Construction now maintains these permits and any others as needed.

## 14.0 EXECUTIVE LEADERSHIP ENDORSEMENT

We, as executive leadership of the Federal Highway Administration, Indiana Department of Highways, and Kentucky Transportation Cabinet for the Louisville-Southern Indiana Ohio River Bridges Project, endorse this Project Management Plan and are committed to actively supporting it. We accept responsibility for fulfilling any aspect of the plan that applies to us, including providing resources, actively participating, and effectively communicating. Our endorsement is an active and positive statement that we are committed to fulfilling the project objectives and responsibilities designated in this plan. The effectiveness of this Project Management Plan will be continuously evaluated, and revisions will be issued as the project progresses in order to generate the most effectively managed project while meeting the Project objectives.

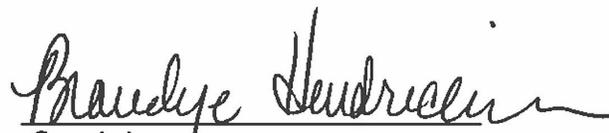
**Greg Thomas**



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Secretary  
Kentucky Transportation Cabinet

**Brandye Hendrickson**



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Commissioner  
Indiana Department of Transportation