

# Proposed Historic Bridge Alternatives Analysis Layout



# Proposed Historic Bridge Alternatives Analysis Layout

- Historic Bridges are Section 4(f) properties
- Must determine no “prudent and feasible” alternatives to use of the resource



# Purpose

- Comply with Historic Bridge Programmatic Section 4(f) Evaluation
- Comply with *Programmatic Agreement among the Federal Highway Administration, the Indiana Department of Transportation (INDOT), the Indiana State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) Regarding Management and Preservation of Indiana's Historic Bridges* (Historic Bridge PA)



# Benefits

- Expectations are Clear
- Consistency
- Quality Control
- Streamline Review Process
- Improve Consultation Process



# Suggested Components

- COVER SHEET/TITLE PAGE
- TABLE OF CONTENTS
- EXISTING STRUCTURE DATA
- EXISTING CONDITIONS
- PURPOSE AND NEED
- ALTERNATIVES

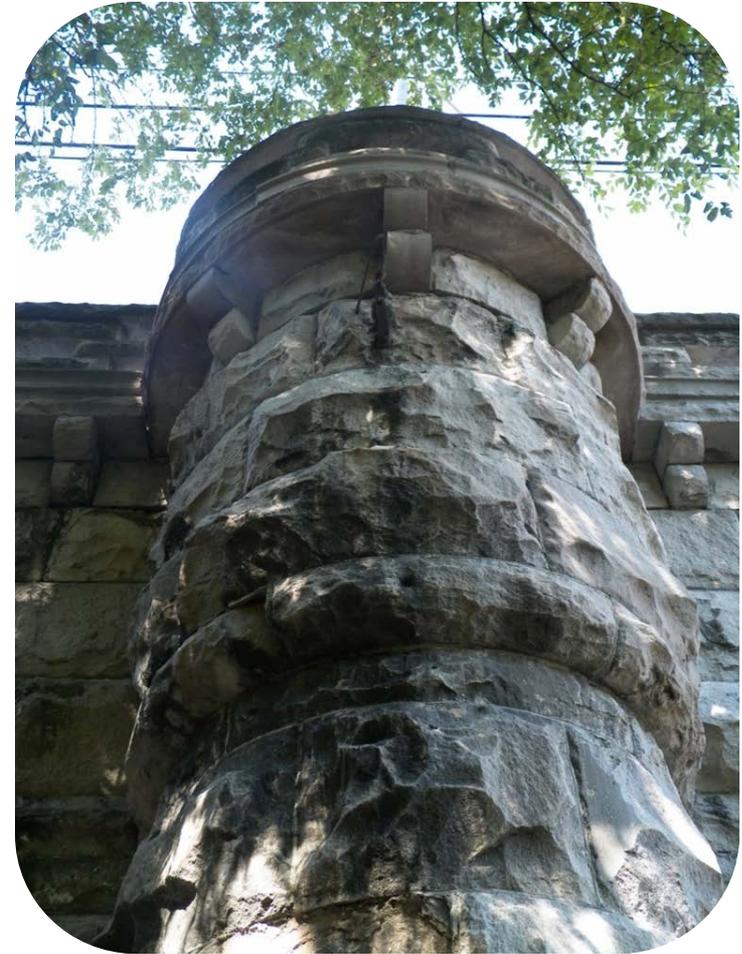


- MINIMIZATION AND MITIGATION
- PRELIMINARY PREFERRED ALTERNATIVE
  - MAPS
  - PHOTOGRAPHS
  - DRAWINGS
- COST ESTIMATES



# Suggested Components

- EXISTING STRUCTURE DATA
  - Identification/History
  - Structure/Dimensions
  - Appurtenances
  - Approaches
- EXISTING CONDITIONS
  - Bridge Deck
  - Superstructure
  - Substructures and Foundations
  - Approaches
  - Slopewalls



# Suggested Components

- PURPOSE AND NEED
- ALTERNATIVES



- No Build/Do Nothing
- Rehabilitation for Continued Vehicular Use (two-lane or one-lane option) Meeting Secretary of Interior's Standards for Rehabilitation
- Rehabilitation for Continued Vehicular Use (one-way pair option) Meeting Secretary of Interior's Standards for Rehabilitation
- Bypass (non-vehicular use)/Build New Structure without Affecting the Historic Integrity
- Relocation of Historic Bridge and New Bridge Construction
- Replacement --Demolition of Historic Bridge and New Bridge Construction



# Suggested Components

- MINIMIZATION AND MITIGATION

- Minimization
- Bridge Marketing
- Mitigation

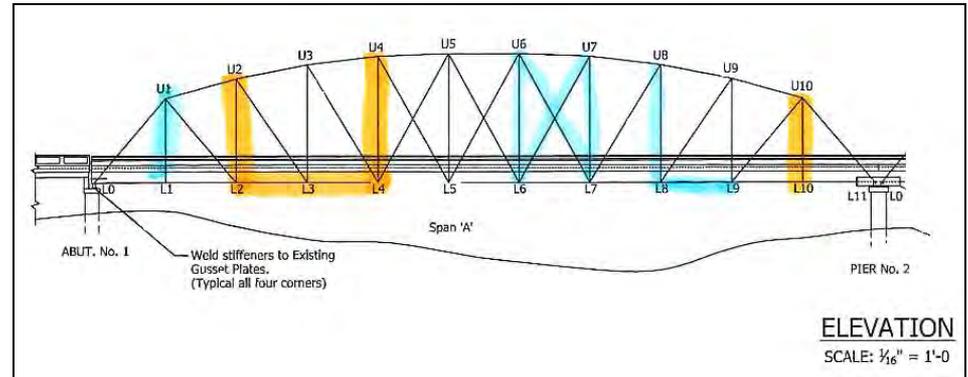


- PRELIMINARY PREFERRED ALTERNATIVE



# Suggested Components

- MAPS
- PHOTOGRAPHS
- DRAWINGS
- COST ESTIMATES



Item No.	Item Code	Description	Quantity	Unit	Unit Price	Item Total
1	105-06845	CONSTRUCTION ENGINEERING	1	LS	\$30,000.00	\$30,000.00
2	110-01001	MOBILIZATION AND DEMOBILIZATION	1	LS	\$60,000.00	\$60,000.00
3	201-01015	CLEARING AND GRUBBING	1	LS	\$2,000.00	\$2,000.00
4	202-02241	GUARDRAIL, REMOVE	1,400	LFT	\$6.00	\$8,400.00
5	202-XXXX	TEMP. TRAFFIC SIGNALS AND EQUIPMENT, REMOVE	1	LS	\$3,000.00	\$3,000.00
6	207-08263	SUBGRADE TREATMENT, TYPE IA	425	SYS	\$10.00	\$4,250.00
7	303-01180	COMPACTED AGGREGATE, NO. 53	60	TON	\$25.00	\$1,500.00
8	402-07433	HMA SURFACE, TYPE B	35	TON	\$75.00	\$2,625.00
9	402-07438	HMA INTERMEDIATE, TYPE B	46	TON	\$65.00	\$2,990.00
10	402-07441	HMA BASE, TYPE B	185	TON	\$55.00	\$10,175.00
11	406-05520	ASPHALT FOR TACK COAT	0.1	TON	\$400.00	\$40.00
12	601-01522	GUARDRAIL TRANSITION TYPE TGB	4	EACH	\$2,000.00	\$8,000.00
13	601-02103	GUARDRAIL, W BEAM, SHOP CURVED, 6 FT. 3 IN. SPACING	200	LFT	\$60.00	\$12,000.00
14	601-94689	GUARDRAIL END TREATMENT, OS	4	EACH	\$3,000.00	\$12,000.00
15	601-99105	GUARDRAIL, W BEAM, 6 FT. 3 IN. SPACING	1,200	LFT	\$35.00	\$42,000.00
16	706-05732	CONCRETE BRIDGE RAILING TRANSITION, TBC	4	EACH	\$2,000.00	\$8,000.00
17	801-06775	MAINTAINING TRAFFIC	1	LS	\$30,000.00	\$30,000.00
18	609-XXXX	EXISTING BRIDGE REHABILITATION COST	14,220	SFT	\$85.00	\$1,208,700.00
<b>SUB TOTAL</b>						<b>\$1,445,680.00</b>
<b>CONTINGENCIES - 20%</b>						<b>\$289,136.00</b>
<b>TOTAL</b>						<b>\$1,734,816.00</b>



# Suggested Components

## ■ TABLES

- Summarize bridge's existing conditions, proposed conditions, and applicable design criteria
- Summarize alternatives analyzed

Design Element	Design Manual Section	Minimum Design Criteria	Existing Condition	Proposed Condition	Design Exception Required
Travel Lane	Chapter & Section/Figure No.	Ft.	Ft.	Ft.	Yes/No
Shoulder	Chapter & Section/Figure No.	Ft.	Ft.	Ft.	Yes/No
Structural Capacity	Chapter & Section/Figure No.	Load Rating	Load Rating	Load Rating	Yes/No
Clear Roadway Width	Chapter & Section/Figure No.	Ft.	Ft.	Ft.	Yes/No
Vertical Clearance	Chapter & Section/Figure No.	Ft.	Ft.	Ft.	Yes/No
Other elements as applicable	Chapter & Section/Figure No.	Measurement	Measurement	Measurement	Yes/No

Alternative	Meets Project Purpose & Need?	Construction Cost	ROW Amount & Cost	Total Cost	Other Factors	Feasible & Prudent?
No Build	Yes/No	Cost	ROW in acres & Cost	Cost	If applicable, explain	Yes/No. If no, explain.
Rehabilitation for Continued Vehicular Use (two-way or one-way option)	Yes/No	Cost	ROW in acres & Cost	Cost	If applicable, explain	Yes/No. If no, explain.
Rehabilitation for Continued Vehicular Use (one-way pair option)	Yes/No	Cost	ROW in acres & Cost	Cost	If applicable, explain	Yes/No. If no, explain.
Bypass (non-vehicular use)	Yes/No	Cost	ROW in acres & Cost	Cost	If applicable, explain	Yes/No. If no, explain.
Relocate	Yes/No	Cost	ROW in acres & Cost	Cost	If applicable, explain	Yes/No. If no, explain.
Replacement	Yes/No	Cost	ROW in acres & Cost	Cost	If applicable, explain	Yes/No. If no, explain.



# Comment Period

- Document available on INDOT website:
  - <http://www.in.gov/indot/2531.htm>
- Comment period until September 21, 2012
- Comments to Mary Kennedy:
  - [mkennedy@indot.in.gov](mailto:mkennedy@indot.in.gov)

