



Citizens Advisory Group Meeting #5



IL 100-106 River Crossing
Project
Florence Bridge -
Phase I Study

August 27, 2019

Agenda



River Crossing Project

- ▶ Project Update
- ▶ New Preferred Alternative Recommendation
- ▶ Agency Coordination
- ▶ Next Steps
- ▶ Project Funding
- ▶ Scheduled Bridge Repairs

Project Update



River Crossing Project

- ▶ Submitted Alternative 4C as our recommended preferred alternative to FHWA - December 2018
 - ▶ NEPA Merger Meeting scheduled - February 2019
- ▶ Received results from a visual archeological survey of Alt 4C - January 2019
 - ▶ Identified a potential archeological sensitive site within the limits of Alt 4C
- ▶ Project was removed from the February 2019 meeting agenda
 - ▶ Coordinate additional archeological investigation
 - ▶ Determine if the identified site could be avoided

Project Update (Cont'd)



River Crossing Project

- ▶ Re-Engineered Alternative 4C to potentially avoid the site
 - ▶ Introduced the need for retaining walls
 - ▶ Complex staging
 - ▶ Increased construction costs
- ▶ Re-evaluated each of the alternatives carried forward (4A, 4C, 4C/D & 5B)
 - ▶ Each alternative carried a potential for impacting archeological resources
 - ▶ Alternative 4C/D was determined to provide the “most flexibility”

Project Update (Cont'd)



River Crossing Project

- ▶ Began coordination with adjacent land owner to complete additional archaeological surveys (Alts 4C & 4C/D)
 - ▶ Remote sensing (non-invasive surface scans)
 - ▶ Ground truthing (test excavations/digging)
- ▶ Confirmed an ***unavoidable sensitive resource*** within Alternative 4C ROW
- ▶ Further testing identified no sensitive sites within Alternative 4C/D ROW
- ▶ Follow-up archaeological study will be done in advance of construction

Cultural Resources (Section 106/Section 4(f)) (Number of Known Eligible Sites)			
4A	4C	4C/D	5B
4	3	2	10

New Preferred Alternative Recommendation

Revised Impacts (August 2019)



River Crossing Project

- A. The term “uneconomic remnant” means a property in which the owner is left with an interest after the partial acquisition of the owner’s property, and which IDOT has determined has little or no value or utility to the owner.
- B. “Constructability” refers to difficulty of construction, subjectively rated, with 1 being the most difficult and 4 being the least difficult.
- C. Wetlands evaluated by field verified delineations (Illinois Natural Heritage Survey (INHS), July and August, 2017). Wetland totals may not sum due to rounding.
- D. Water Features Crossed distinguishes the Illinois River, Ferry Lake, tributary crossings, and the unnamed body of water east of Ferry Lake.
- E. Floodplains evaluated by the 2016 files maintained by the Federal Emergency Management Agency (FEMA).
- F. Forest Land evaluated by aerial photographs.
- G. Prime Farmland evaluated by available data from previous studies.
- H. Inventoried Natural Areas are from the Illinois Heritage Database (IHD, 2016).
- I. Regionally Noteworthy Botanical Resource Area report area assessed by the INHS (September 2018). No state or federal listed threatened or endangered species were found.
- J. Decurrent False Aster reports area of plant habitat assessed by the INHS as surveyed (June 2017).
- K. Displacements are based on available photographs and parcel boundaries from Pike and Scott counties (2016).

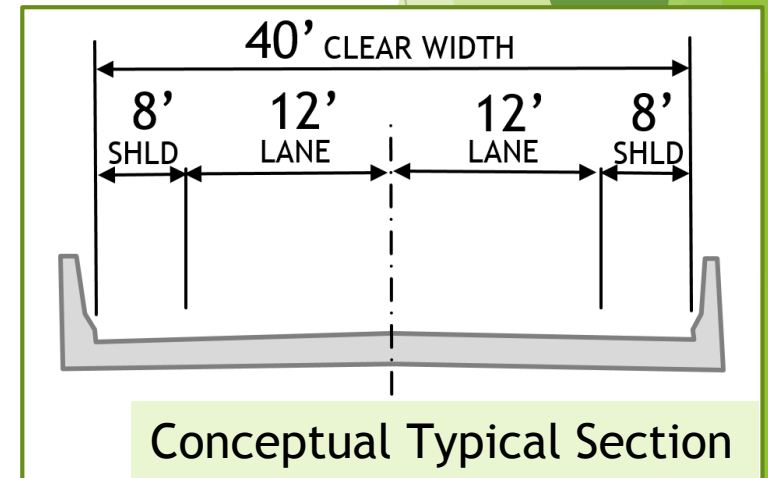
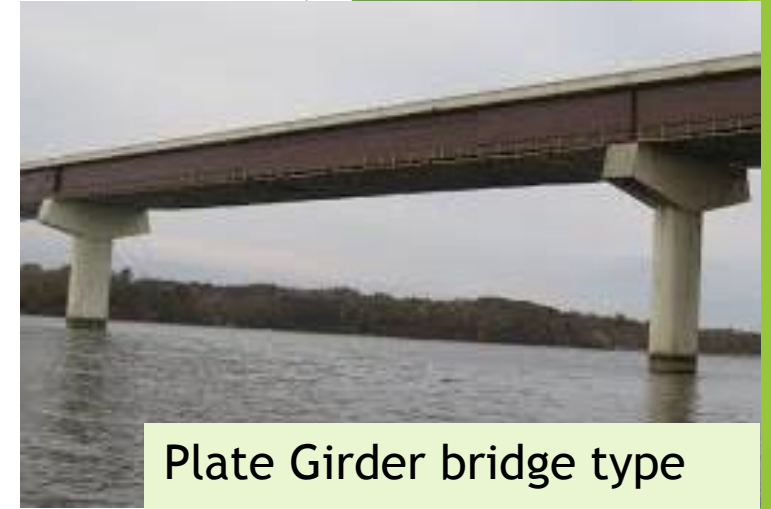
Resource or Engineering Feature	Measure	4A	4C	4C/D	5B	Notes
		100 feet north	100 feet south	300 feet south	4,500 feet south	
New Right-of-Way ^A	Acres	36.3	32.9	63.5	90.1	Includes land outside the anticipated construction limits which has been identified as preservation area and/or uneconomic remnant: Alt 4A - 9.0 acres Alt 4C/D - 14.9 acres
Estimate of Probable Construction Cost	Current (Millions of Dollars) \$ M	\$70.7M	\$77.6M	\$75.5M	\$72.1M	
Adverse Travel (Florence)	User Delay Cost (\$/yr.)	\$7K	\$10.5K	\$8.8K	\$59.7K	
Constructability ^B	Subjective (described)	1	2	2	4	
Wetlands ^C	Acres	26.6	17.0	27.8	16.8	Wetland impacts include acreage within new construction, bridge removal, and/or uneconomic remnants
Wet Floodplain Forest	Acres	9.8	10.4	20.6	9.8	
Wet Forbland	Acres	4.7	4.7	4.7	4.7	
Wet Meadow	Acres	11.5	1.9	2.3	2.1	
Wetland Pond	Acres	0.6	0.0	0.2	0.2	
Water Feature Crossed ^D	Each	2	4	5	5	
River Crossing (Illinois)	Each	1	1	1	1	
Lake Crossing (Ferry)	Each	0	1	1	0	
Tributary Crossing	Each	1	1	2	4	
Other	Each	0	1	1	0	
Floodplain ^E	Acres	32.0	29.7	47.2	55.5	Floodplain impacts include acreage within new construction, bridge removal, and/or uneconomic remnants
Floodplain	Miles	0.97	0.97	1.02	1.75	
Forest Land ^F	Acres	19.7	32.9	51.1	32.3	Forest impacts include acreage within new construction, bridge removal, preservation area, and/or uneconomic remnants
Prime Farmland Acquired ^G	Acres	14.0	7.3	22.4	59.0	
Inventoried Natural Areas ^H	Acres	4.0	3.9	5.8	2.6	INAI impacts include acreage within new construction, bridge removal, and/or uneconomic remnants
Regionally Noteworthy Botanical Resource Area ^I	Acres	0.2	1.9	2.7	0.0	RNBRS impacts include acreage within new construction and/or uneconomic remnants
Threatened & Endangered Species Presence						
Decurrent False Aster ^J	Present - Acres	1.78	1.87	2.59	1.51	Decurrent False Aster impacts include acreage within new construction, bridge removal, and/or uneconomic remnants
Cultural Resource Database Review (Section 106/ Section 4(f))	# of Known Eligible Sites	4	3	2	10	
Sensitive Archaeological Sites		Likely Impacted	Impacted	Avoided	Likely Impacted	Alternative 4C unavoidably encroaches on a sensitive site
Displacements (Residential) ^K	Each	0	0	0	6	
Displacements (Commercial)	Each	1	0	0	0	
Parcels with Right-of-Way Impacts	Each	7	9	11	31	

River Crossing Design

- ▶ Rural principal arterial facility
- ▶ 60 MPH design speed for IL 100/106
- ▶ 400 ft. navigation span (coordinated with USCG)
 - ▶ *Existing navigation span: 202 ft.*
- ▶ 55-ft. vertical clearance above 2% flow line (USCG)
- ▶ Assumes a plate girder bridge type
- ▶ Bridge Typical Section - 40-foot clear width
 - ▶ Will accommodate farm implements, pedestrian/bicycle use & staging for future rehabilitation



River Crossing Project

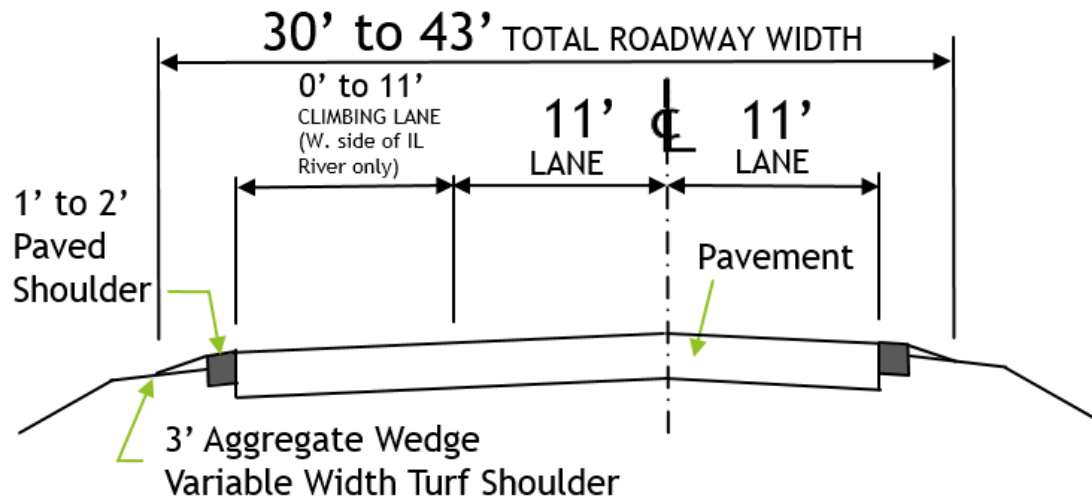


New Preferred Alternative Recommendation Roadway Design

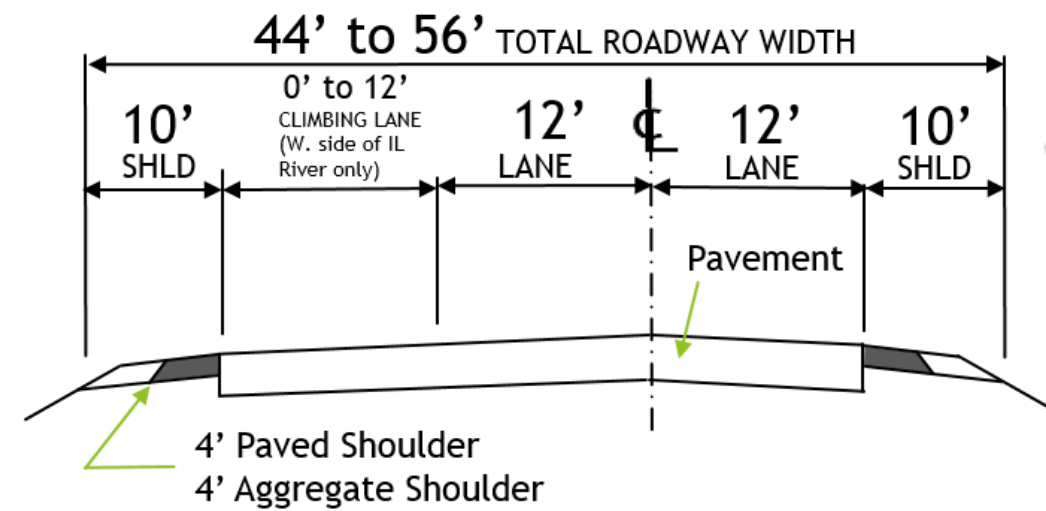


River Crossing Project

EXISTING



PROPOSED



Conceptual Typical Sections

New Preferred Alternative Recommendation

Public Involvement Review



River Crossing Project

December 7, 2017 Public Meeting #2

- ▶ No public support for Alternative 5B; adverse impacts to farmland and farm operations cited
- ▶ Most support for Alternative 4C, as well as alternatives other than 5B
- ▶ Comments and concerns: pavement maintenance, flooding, property-specific concerns, drainage/levee district, archaeological impacts

April 25, 2018 CAG Meeting #3

- ▶ Some support for each Alternative as first preference
- ▶ Strongest support for Alternatives 4C and 4C/D
- ▶ Comments and concerns: archaeological impacts, loss of tax revenue with 4A, traffic impact to Florence for 5B, favor local connection of 4C/D, favor shorter bridge of 5B, concern with bridge shutdown during construction, favor adding an I-72 interchange to project

October 16, 2018 CAG Meeting #4

- ▶ Preliminary recommendation of Preferred Alternative 4C

Shortlisting of Alternatives Remaining

(Updated from October 2018 CAG #4 Meeting)



River Crossing Project

Recommend 4C to be ***DROPPED***

- ▶ Unavoidable impact to sensitive archaeological site

Recommend 5B to be ***DROPPED***

- ▶ Least support by stakeholders
- ▶ Requires the most right-of-way and agricultural land
- ▶ Displaces six residences
- ▶ Highest floodplain impact
- ▶ Likelihood of impacts to sensitive archaeological resources
- ▶ Highest local adverse travel

Shortlisting of Alternatives Remaining



River Crossing Project

Recommend 4A to be ***DROPPED***

- ▶ Likelihood of impacts to sensitive archaeological resources
- ▶ Displaces a commercial property
- ▶ Potential construction conflicts with the existing pier protection cell foundations
- ▶ Located 400' closer to the upstream river bend than Alternative 4C/D, which is worse for river navigation
- ▶ Alternative 4A has more impacts to floodplains than Alternative 4C/D within construction limits
- ▶ Alternative 4A has more impacts to wetlands than Alternative 4C/D within construction limits

New Preferred Alternative Recommendation



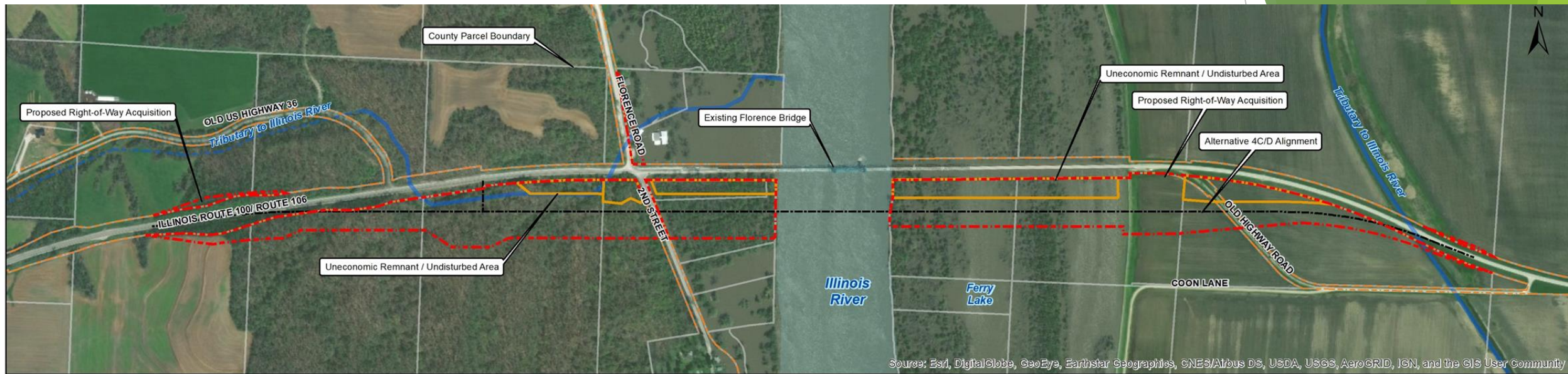
River Crossing Project

Alternative 4C/D (300' south of existing bridge)

- ▶ Satisfies the project's purpose and need statement
- ▶ Does not impact a sensitive archaeological resource
- ▶ Does not displace any residential, commercial, or industrial properties
- ▶ Located further downstream than Alternatives 4A and 4C - better for river navigation
- ▶ 2nd favorite alternative of CAG #3
- ▶ Eliminates potential conflicts with the existing pier protection cell foundations when compared to Alternative 4A

New Preferred Alternative Recommendation

Alternative 4C/D



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- Proposed Right-of-Way Acquisition
- Uneconomic Remnant / Undisturbed Area
- Existing Right-of-Way
- Alternative 4C/D Alignment
- County Parcel Boundary
- Permanent Stream
- Intermittent Stream

IL 100/106 River Crossing Project
Florence, Illinois
Pike and Scott Counties

Disposition of Right-of-Way
for the Preferred Alternative

Alternative 4C/D

August 26, 2019

0 750 1,500 Feet

- ▶ Right-of-way needed for Construction - 48.6 Acres
- ▶ Uneconomic Remnant / Undisturbed Area - 14.9 Acres
- ▶ Estimated Cost - \$75.5 million
- ▶ River Bridge length - 3,167 feet
- ▶ New roadway length - 1.2 miles

**Total Acquisition
Area 63.5 Acres**
**Preliminary*

Historic Bridge Coordination

- ▶ Eligible for National Register of Historic Places
- ▶ Complete Section 106/Section 4(f) documentation of Adverse Effect
- ▶ Public Notice for Advertisement
 - ▶ No responses received as of April 15
 - ▶ Measures to minimize harm where existing bridge will be demolished
- ▶ Memorandum of Agreement between IDOT, FHWA and SHPO



River Crossing Project



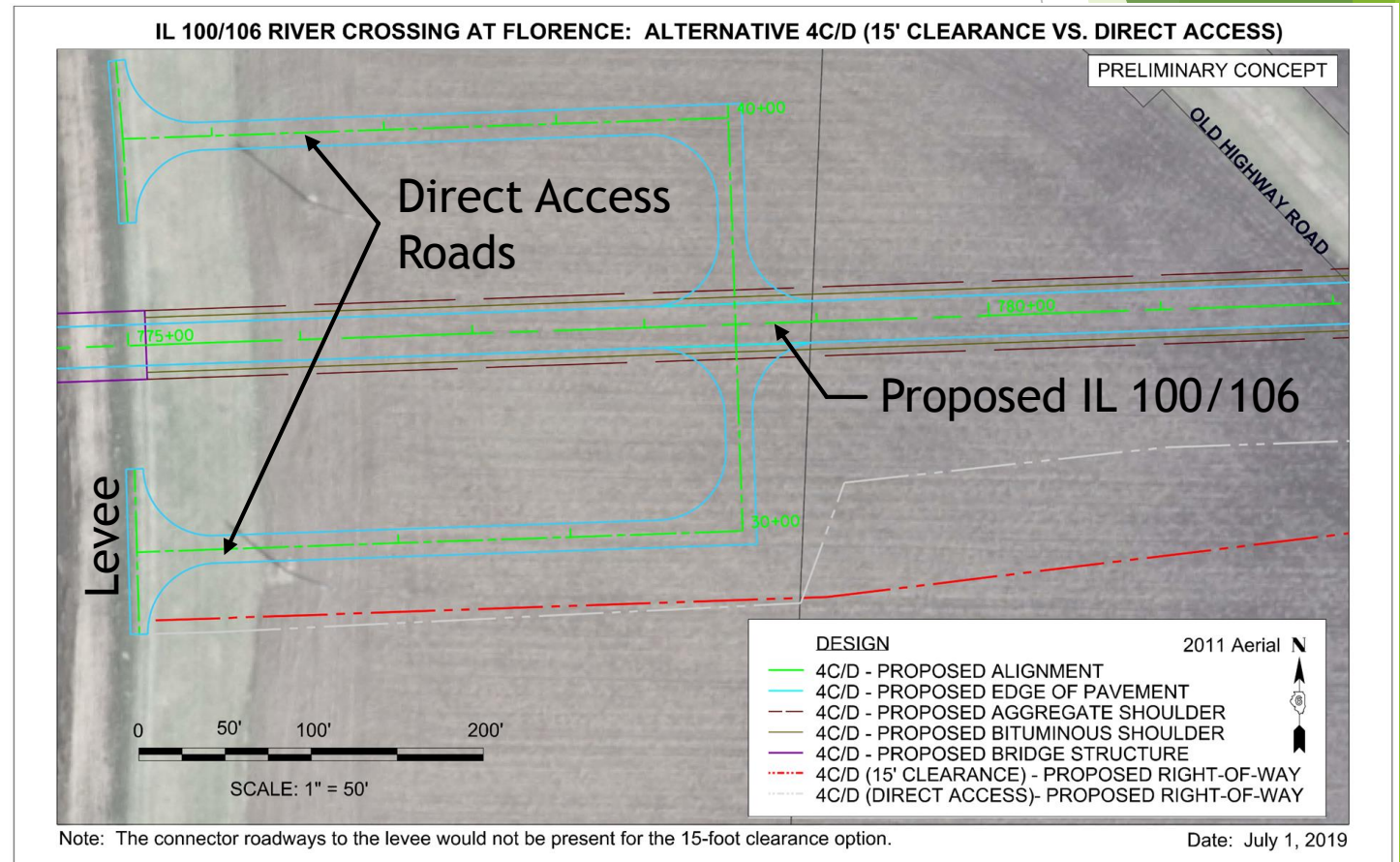
USACE Section 408 Permit Required



► Levee Access

- 15' vertical clearance; or
- Adequate direct access to levee from both sides
- Levee District prefers vertical clearance but will consider direct access
- June 2018 Alternatives do not provide 15' clearance (except Alt. 5B)

Preliminary Concept



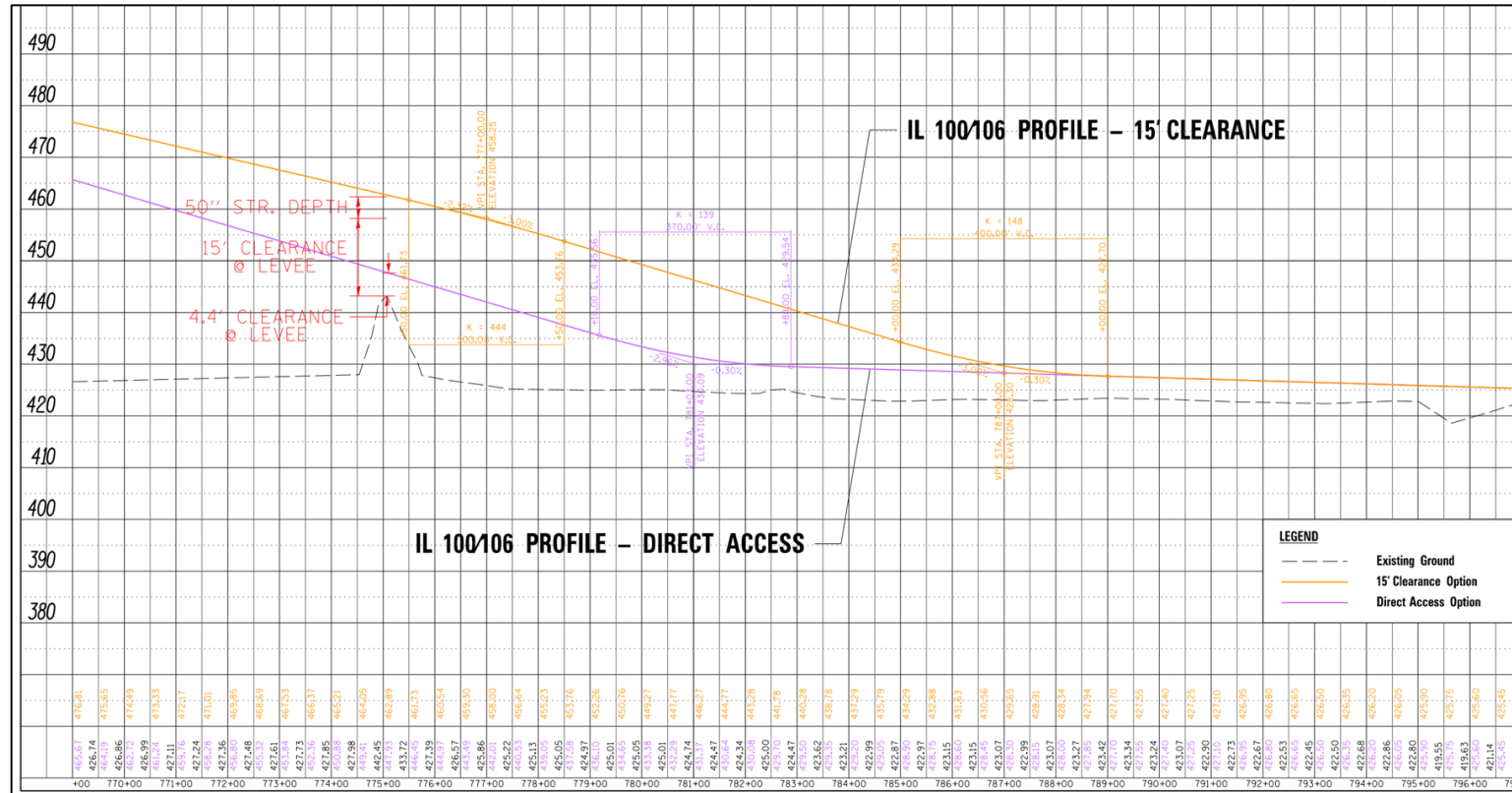
Big Swan Levee & Drainage District (Levee Access options)



River Crossing Project

Roadway profile with levee access options (Alt. 4C/D)

Preliminary Concept



► 15' Clearance

- 2.3% and 3% approach grades
- Assumes a 50" approach span superstructure depth over the levee

► Direct Access

- 3% approach grade
- Mainline roadway approx. 4 feet higher than levee

Big Swan Levee & Drainage District

(Levee Access options)



River Crossing Project

Cost and Right-of-Way Differential 15' Clearance vs. Direct Access

- ▶ Relatively small additional impacts and costs for levee access
- ▶ Comparison of 15' Clearance with Direct Access:
 - ▶ Direct Access adds \$500k cost; 15' Clearance adds \$900k cost
 - ▶ Direct Access adds 0.5 Acres right-of-way; 15' Clearance adds 0.8 Acres right-of-way

Big Swan Levee & Drainage District

(Levee Access options)



Impact Comparison of 4C/D with levee access

Category	Measure	4C/D	4C/D w/ Direct Access	4C/D w/ 15' Clearance
New Right-of-Way	Acres	63.5	64.0	64.7
Estimate of Probable Construction Cost	Current (Millions of Dollars) \$ M	\$75.5M	\$76.0M	\$76.4M
Floodplain	Acres	47.2	47.7	48.0
Prime Farmland	Acres	22.4	22.9	23.2

- ▶ Both levee access options have slight increase in impacts to floodplain and prime farmland
- ▶ Very minor differences in impacts to other resources
- ▶ Direct Access has slightly less resource impacts than 15' Clearance

*compared to Base Alternative 4C/D

Office of Water Resources Floodway Permit Required

- ▶ Additional fill in the floodplain
 - ▶ Not a concern east of the levee
- ▶ Potential to shorten bridge by adding fill west of levee
 - ▶ Could reduce bridge costs
 - ▶ Worst-case analysis required
 - ▶ Existing and proposed bridge, temporary causeways in place during construction
- ▶ Bridge opening must avoid making properties more flood-prone

Next Steps



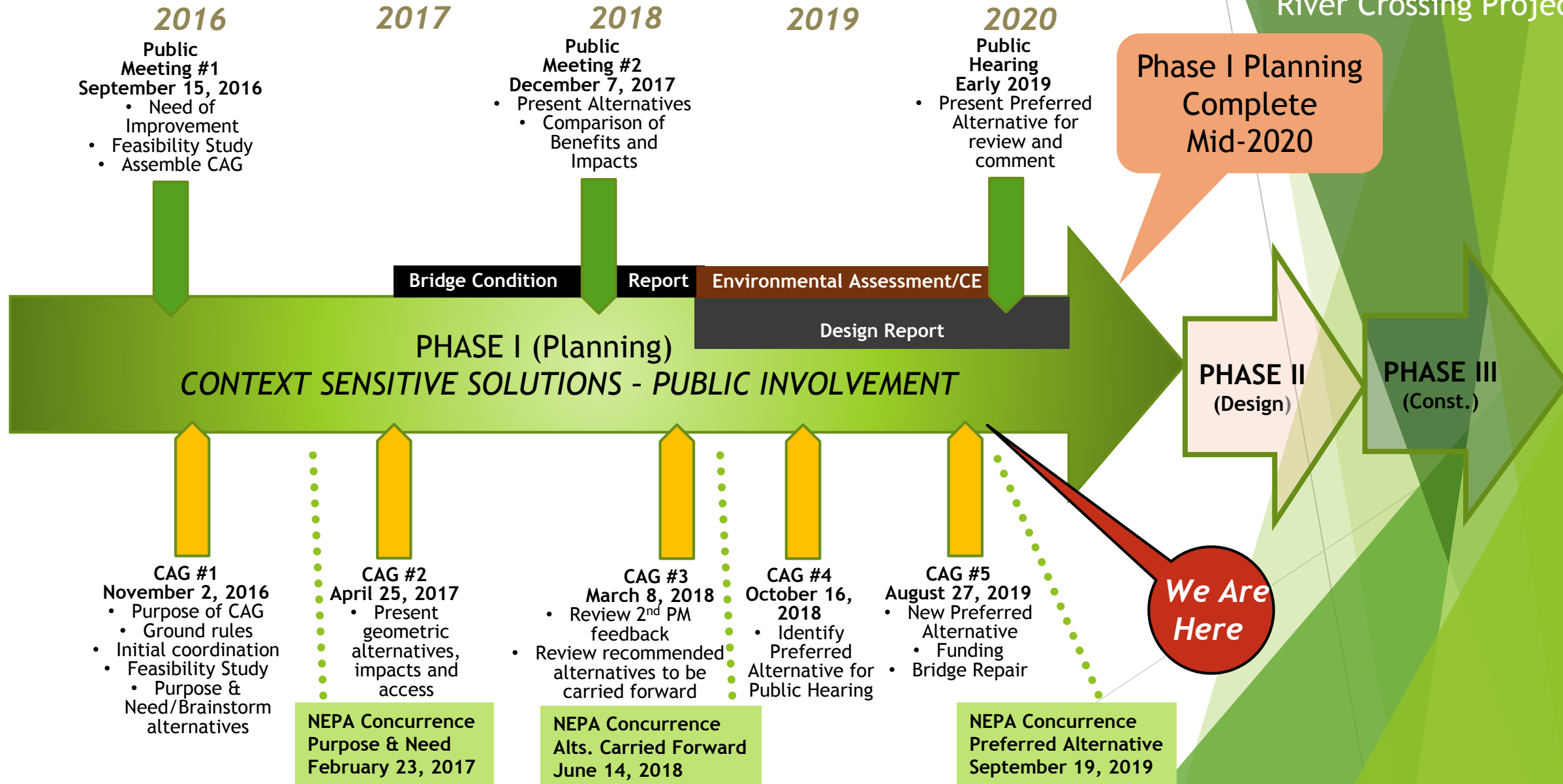
River Crossing Project

- ▶ Merger Team Meeting (September 2019)
 - ▶ Concurrence with Preferred Alternative
- ▶ Initiate Environmental Assessment (EA)
- ▶ Complete Section 106/Section 4(f) documentation on the existing bridge
- ▶ Continue environmental coordination
 - ▶ Levee District and State/Federal permit coordination
 - ▶ Pre-Construction Archaeological Survey
- ▶ Public Hearing (Early 2020)
 - ▶ Present Preferred Alternative for public comment
- ▶ Obtain Federal approval (FONSI) and complete Design Report (mid 2020) - Phase I Complete

Project Timeline



River Crossing Project



Florence Bridge Replacement Funding



River Crossing Project

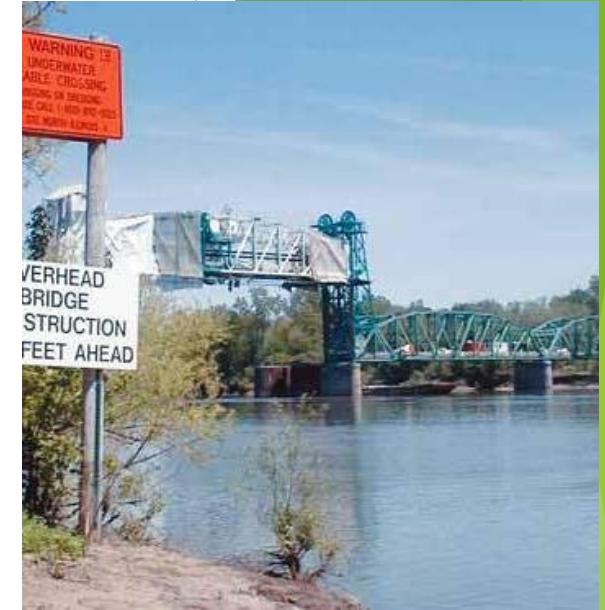
- ▶ Gov. Pritzker recently announced \$84.2 M for replacing Florence Bridge
- ▶ Cost includes:
 - ▶ Engineering (Preliminary & Construction)
 - ▶ Land acquisition
 - ▶ Utility relocations
 - ▶ Construction
- ▶ Phase I Study - Scheduled for completion in June 2020
 - ▶ WSP
- ▶ Phase II Design - Scheduled to begin in Fall 2019
 - ▶ Parsons

Scheduled Bridge Repairs



River Crossing Project

- ▶ Scope of work to include:
 - ▶ Bridge joint repairs
 - ▶ Concrete deck patching (Truss spans)
 - ▶ New concrete wearing surface (Approach spans)
- ▶ Maintains legal load posting (40 Tons)
- ▶ Keeps the existing bridge open to traffic
- ▶ November 2019 Letting
- ▶ Construction - Summer 2020
- ▶ Bridge closed to traffic between June 1st - August 15th
 - ▶ Contractor incentive provided to shorten project duration
- ▶ Additional repair contracts may be required
 - ▶ Based on the annual inspection findings



CAG #5 Comments



River Crossing Project

- ▶ Your written comments are welcome!
- ▶ Comment form included in handout
- ▶ Please submit your comments by Tuesday, September 10, 2019 to:

Mr. Jeffrey Myers, P.E.

Region 4 Engineer

Illinois Department of Transportation

126 East Ash Street

Springfield, Illinois 62704-4792

Attention: Jay M. Wavering, P.E.

Or email to contact@florencebridgestudy.com