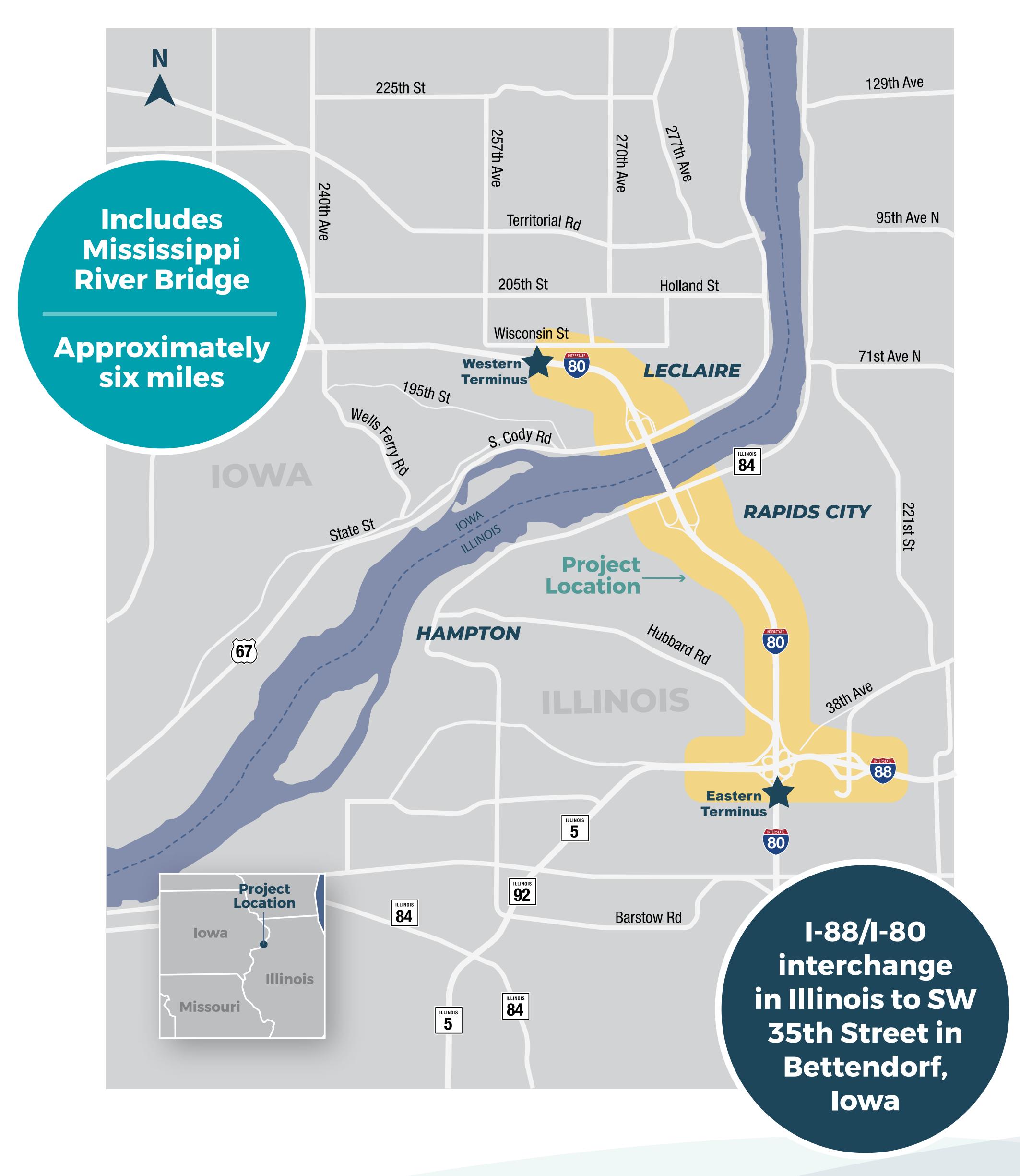




# STUDY LOCATION





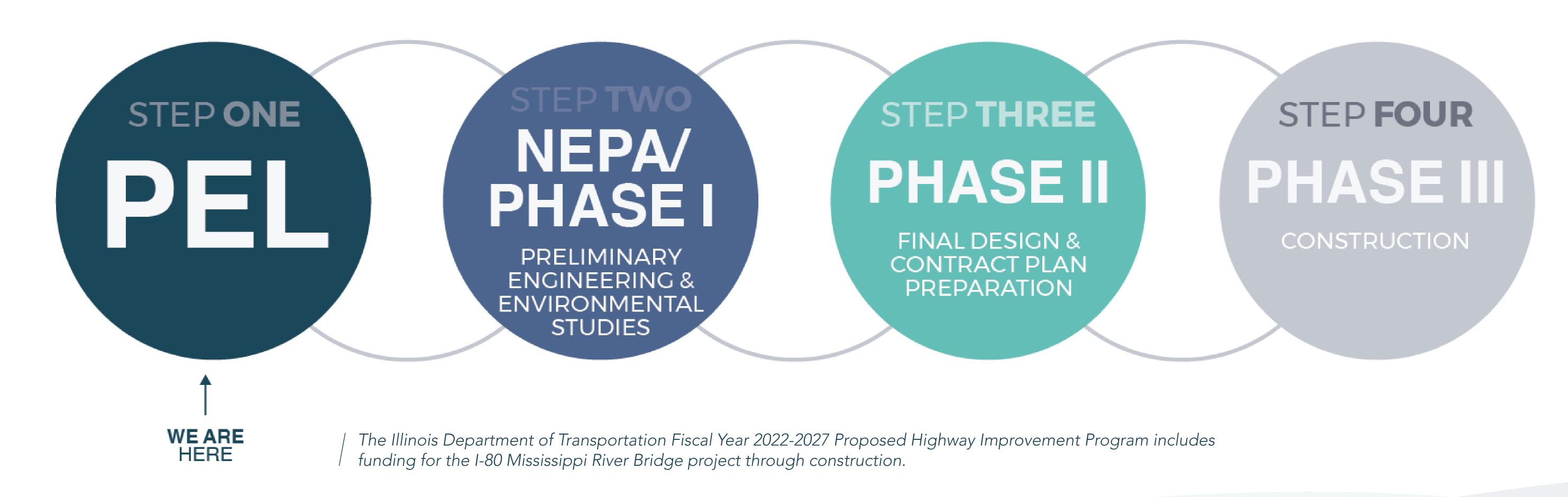






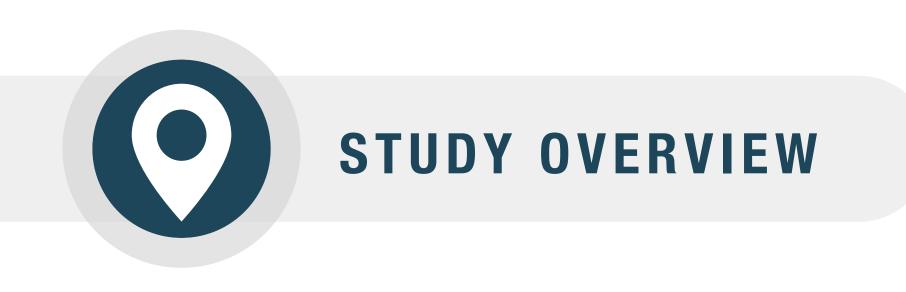
### PROJECT DEVELOPMENT & IMPLEMENTATION PROCESS

Launched in 2020, the Plannning and Environment Linkages (PEL) Study will complete preliminary tasks that comply with the National Environmental Policy Act (NEPA), allowing for an efficient transition into the project's preliminary engineering phase.











# STUDY TIMELINE











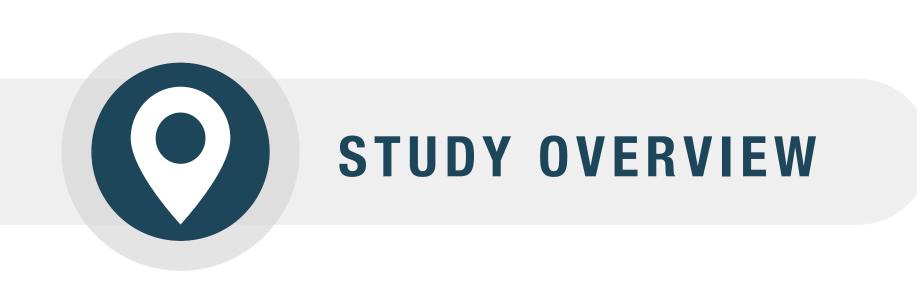
### STUDY DECISION-MAKERS

The I-80 Mississippi River Bridge study was initiated by the Illinois Department of Transportation, in conjunction with the Iowa Department of Transportation, under the jurisdiction of the Federal Highway Administration.











### WHAT WE HEARD AT THE PUBLIC MEETING

### **Public Meeting #1**

INITIAL STUDY FINDINGS
PRESENTED, PUBLIC
COMMENT RECEIVED



**APR 2020** 



### **PUBLIC MEETING #1 ENGAGEMENT:**

- ✓ More than 500 participants
- ✓ More than 125 questions and comments submitted with topics including:
  - » SUBSTANDARD SHOULDERS
  - » BRIDGE TOO NARROW
  - » NOT ENOUGH SPACE TO GET AROUND ACCIDENTS
  - » LOW SIDES OF BRIDGE ARE A PROBLEM
  - » LACK OF HEIGHT OF BRIDGE MAKES IT SCARY
  - » RAMPS TOO SHORT, DIFFICULT TO MERGE
  - » TOO MUCH TRUCK TRAFFIC

- EXPAND TO THREE LANES EACH WAY
- » MORE LANES
- SAFETY OF VEHICLES AND STRUCTURE
- PEDESTRIAN
  ACCOMMODATIONS
  NEEDED (MULTIPLE)
- » NO FUNDS FOR PEDESTRIAN ACCOMMODATIONS/CAR ONLY BRIDGE (MULTIPLE)
- SAFETY FOR PROPERTY
   OWNERS DURING
   CONSTRUCTION

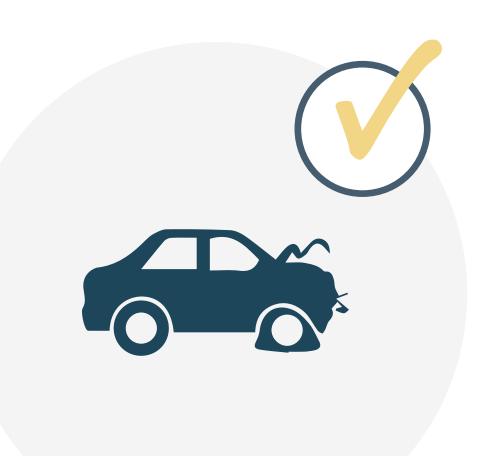
- » IMPACT OF CONSTRUCTION ON BUSINESS/ECONOMY
- » ACCESS TO LECLAIRE/ RAPIDS CITY DURING CONSTRUCTION
- EASE OF ACCESS
  A PROBLEM
- » NEED WELL-LIT EXITS ENTRANCES WITH CLEAR SIGNAGE
- » CONSIDER TOLLING





# PROJECT NEED











Bridge built in 1967

Crash trends
identified
at multiple
locations

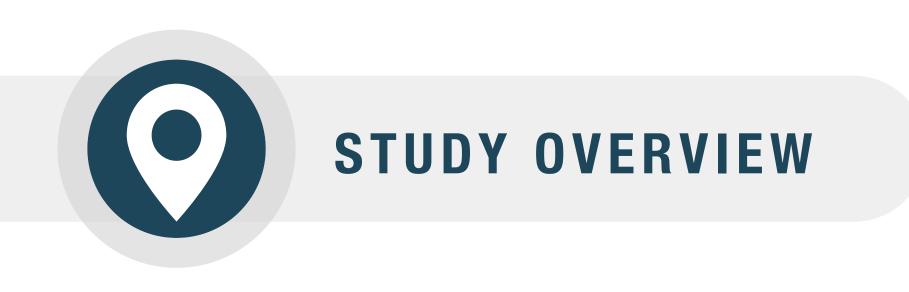
Costly bridge inspections necessary to assure integrity of bridge

Bridge deficiencies identified

Current design standards not met

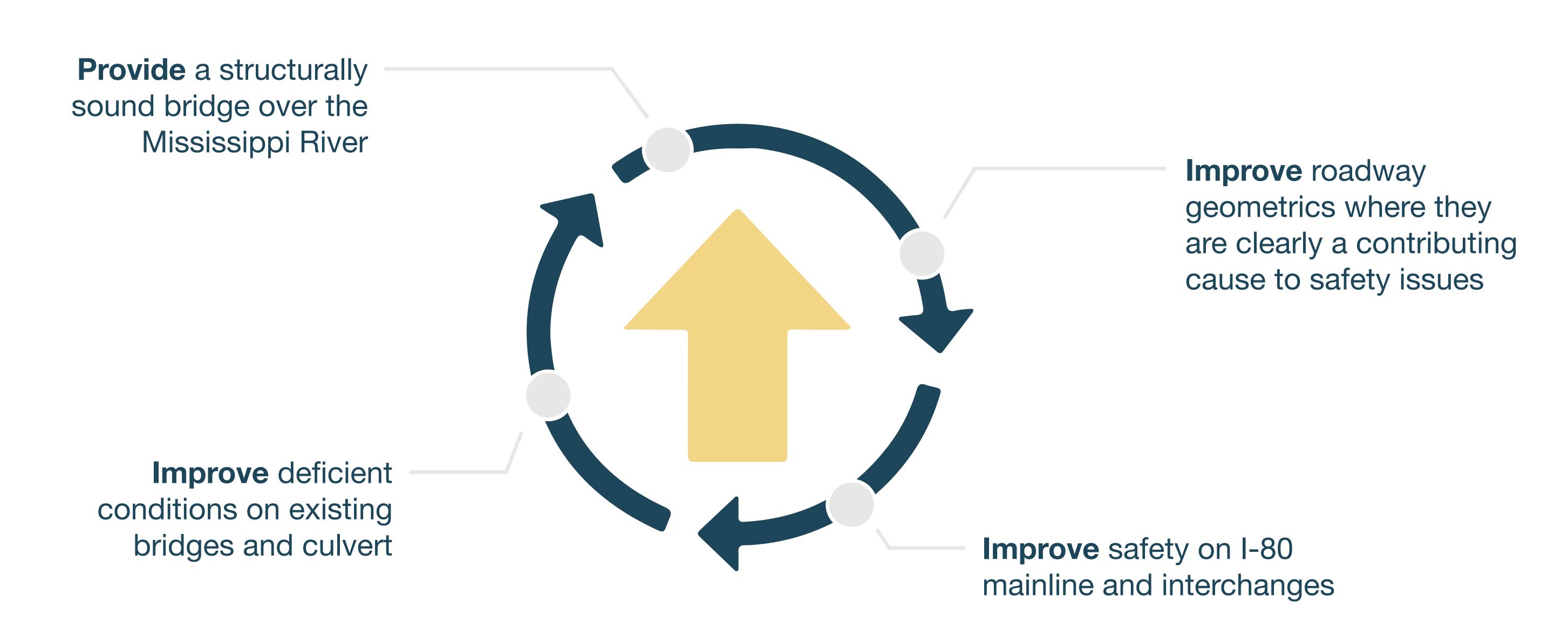








# PROJECT PURPOSE











# EVALUATION CRITERIA

### Alternatives to be evaluated based on the following criteria:



### **Address the Project** Purpose & Need

A structurally sound bridge over the Mississippi

Reduce existing bridge/culvert deficiencies within project study area

Eliminate or reduce roadway geometric deficiencies where they are a contributing cause to safety

Reduced crash rates on I-80 mainline and interchanges



### **Environmental Impacts**

Residential and commercial relocations

Right-of-way

Wetlands

Streams

Floodplains/Floodways

Potential Indiana bat and northern long-eared bat forested habitat

Public parks/recreation areas/Section 4(f) resources

Historic and archaeological resources/Section 106 resources

Special waste sites

Prime farmland soils

Community facilities and services

Environmental justice populations



### Engineering **Factors**

Constructability

Maintenance of traffic during construction



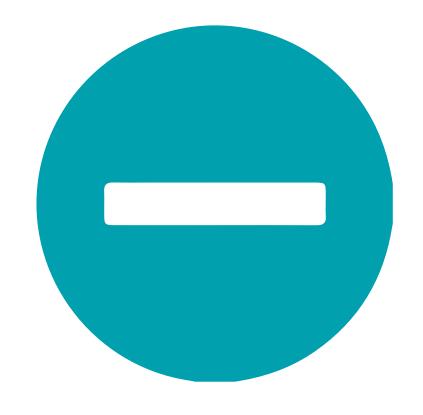








# RANGE OF REASONABLE ALTERNATIVES

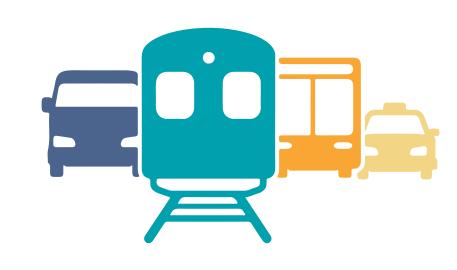


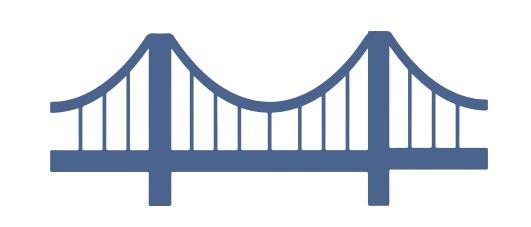


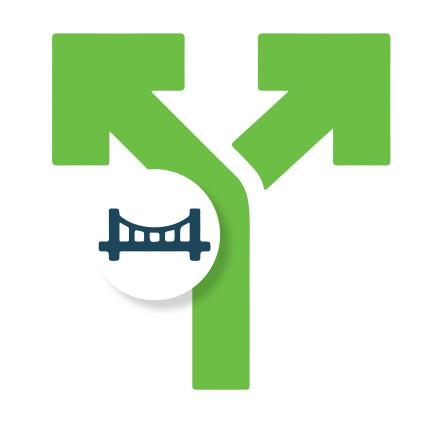
**TRANSPORTATION** 

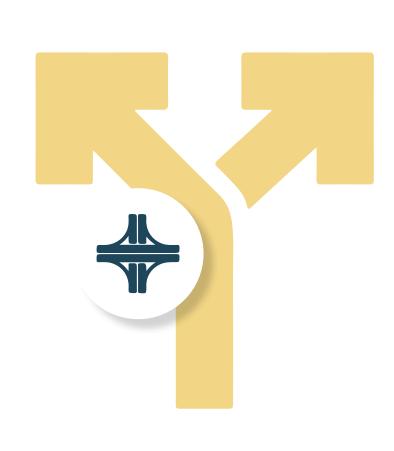
SYSTEM MANAGEMENT

**ALTERNATIVE** 









NO-BUILD ALTERNATIVE

No improvements other
than routine and emergency
repairs and maintenance
transportation facilities
including traffic signal timing,
ramp improvements, minor
geometric improvements

MASS TRANSIT ALTERNATIVE

Alternative would include expanding bus service with existing agencies

BRIDGE
RECONSTRUCTION USING
EXISTING SUBSTRUCTURE

Reconstruction of the existing bridge deck and existing piers widened and strengthened

MISSISSIPPI BRIDGE BUILD ALTERNATIVES

Complete replacement of the existing bridge on either the existing alignment or a new

7 potential options

alignment.

I-88 INTERCHANGE BUILD ALTERNATIVES

Improvements at the
I-80/I-88 interchange and the
I-88/Old IL 2 interchange
4 potential options

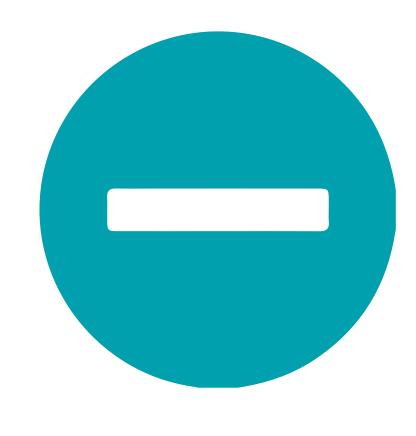








# RANGE OF REASONABLE ALTERNATIVES

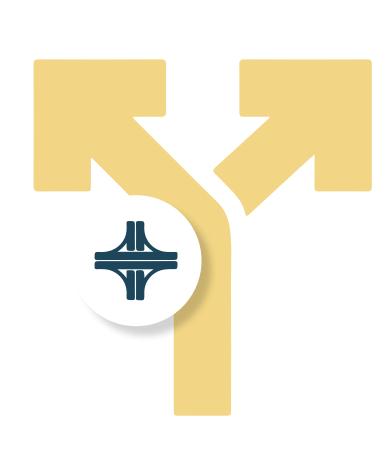












NO-BUILD ALTERNATIVE TRANSPORTATION
SYSTEM MANAGEMENT
ALTERNATIVE

MASS TRANSIT ALTERNATIVE

BRIDGE
RECONSTRUCTION USING
EXISTING SUBSTRUCTURE

MISSISSIPPI BRIDGE BUILD ALTERNATIVES

I-88 INTERCHANGE BUILD ALTERNATIVES

REMAINS: No-Build

Alternative carried forward

as a baseline comparison for

build alternatives

**DISMISSED:** Does not meet project Purpose & Need

**DISMISSED:** Does not meet project Purpose & Need

pismissed: Fatal Flaw - Not feasible to widen the bridge deck on the existing piers and the re-use of the existing piers was not recommended.

**REMAINS:** 7 potential options

**REMAINS:** 4 potential options









### ROLE OF STAKEHOLDERS



### Ask questions and present concerns

Typical concerns on any given project may include:

- » Traffic noise
- » Impacts to residential or commercial properties that neighbor the roadway
- » Maintaining reasonable access to these properties
- » Travel times

- » Speed limits
- » Drainage concerns
- » Landscaping/other aesthetic concerns
- » Impacts on the environment

The study process, conducted in accordance with NEPA guidelines, is designed to yield a preferred alternative that meets the project's Purpose and Need while minimizing impacts to the human and natural environment.

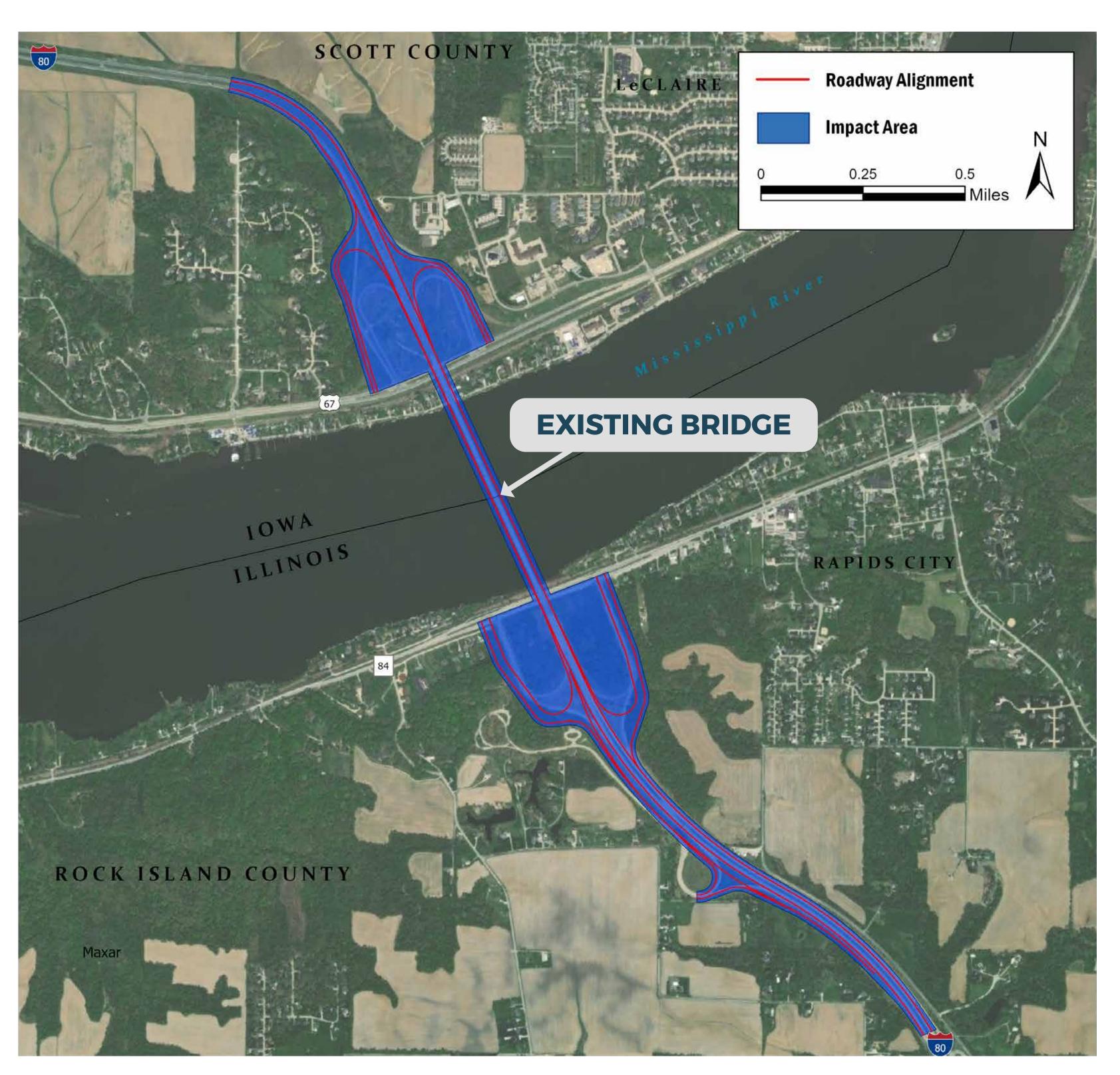








# Alternative 1: Bridge Replacement on Existing Alignment



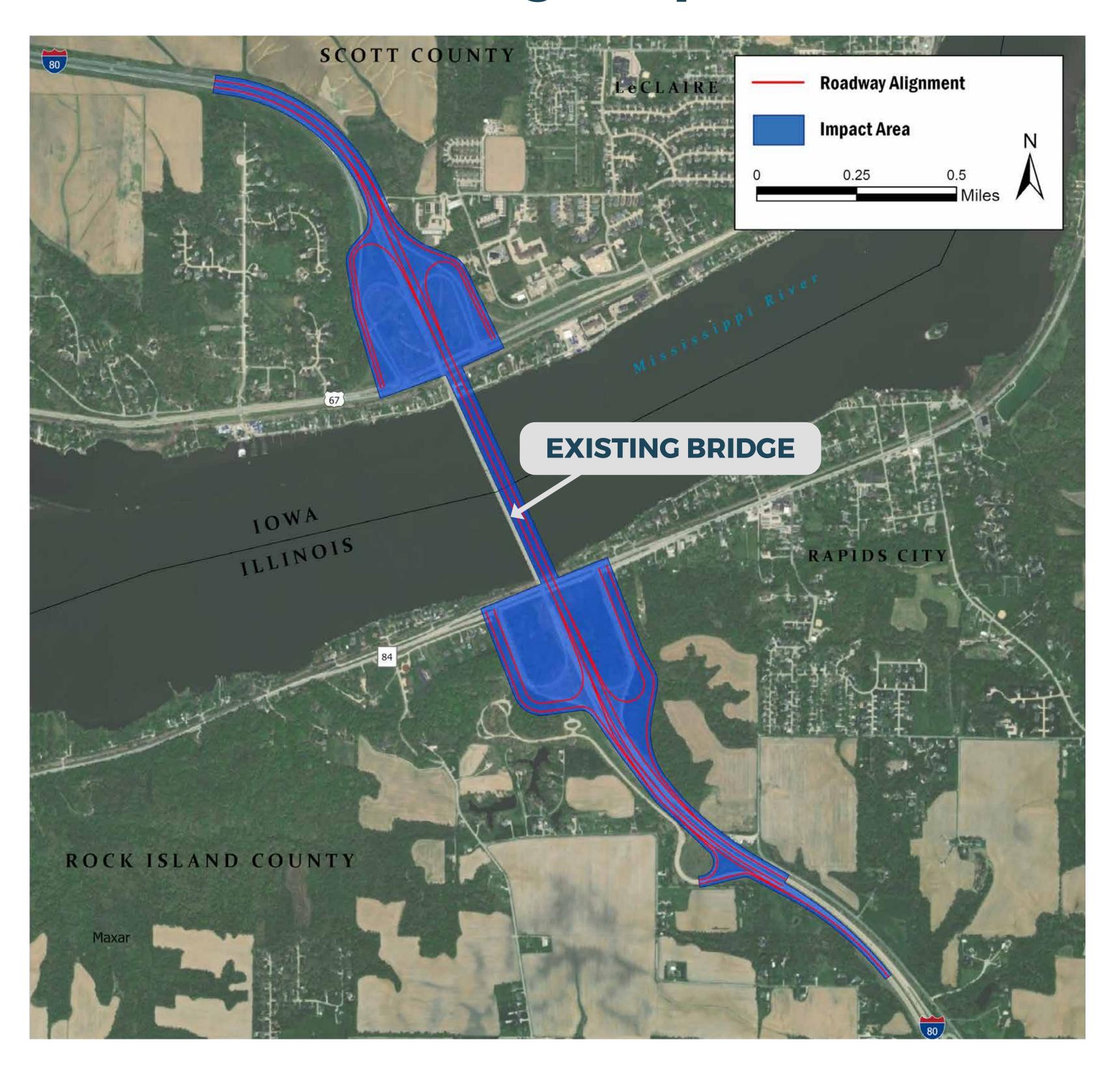
- Replace existing bridge on existing alignment
  - » Four 12-foot through lanes, two 12-foot auxiliary lanes, 12-foot outside and 6-foot inside shoulders
- US 67 & IL 84 interchanges reconstructed to meet current design standards
- Existing bridge demolished before replacement is built; four-year traffic detour required







### Alternative 2: Bridge Replacement East



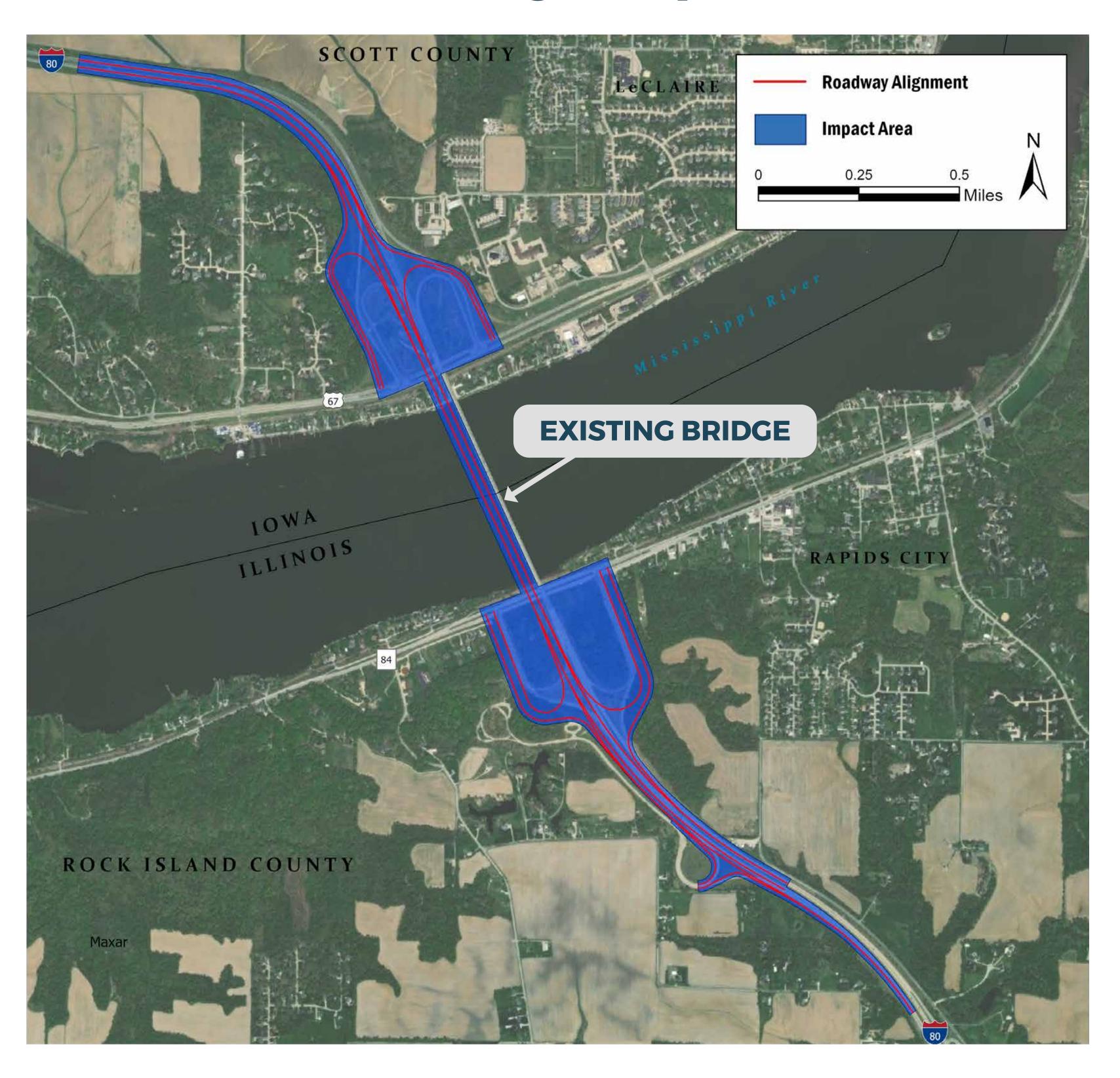
- Bridge replacement 50 feet east from existing alignment
  - » Four 12-foot through lanes, two 12-foot auxiliary lanes, 12-foot outside and 6-foot inside shoulders
- US 67 & IL 84 interchanges reconstructed to meet current design standards







### Alternative 3: Bridge Replacement West



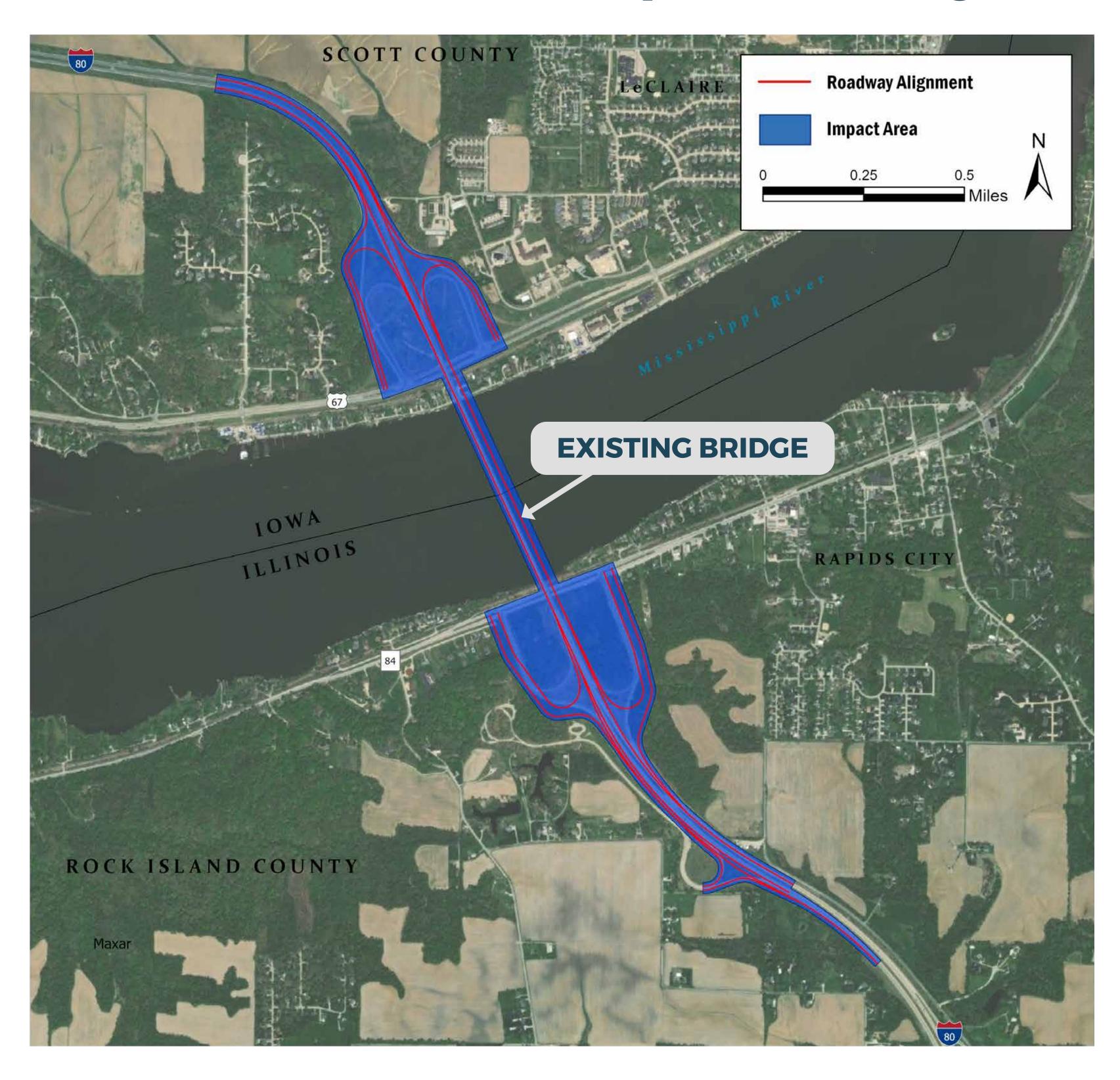
- Bridge replacement 50 feet west from existing alignment
  - » Four 12-foot through lanes, two 12-foot auxiliary lanes, 12-foot outside and 6-foot inside shoulders
- US 67 & IL 84 interchanges reconstructed to meet current design standards







### Alternative 4: New Companion Bridge East & Replacement of Existing Bridge



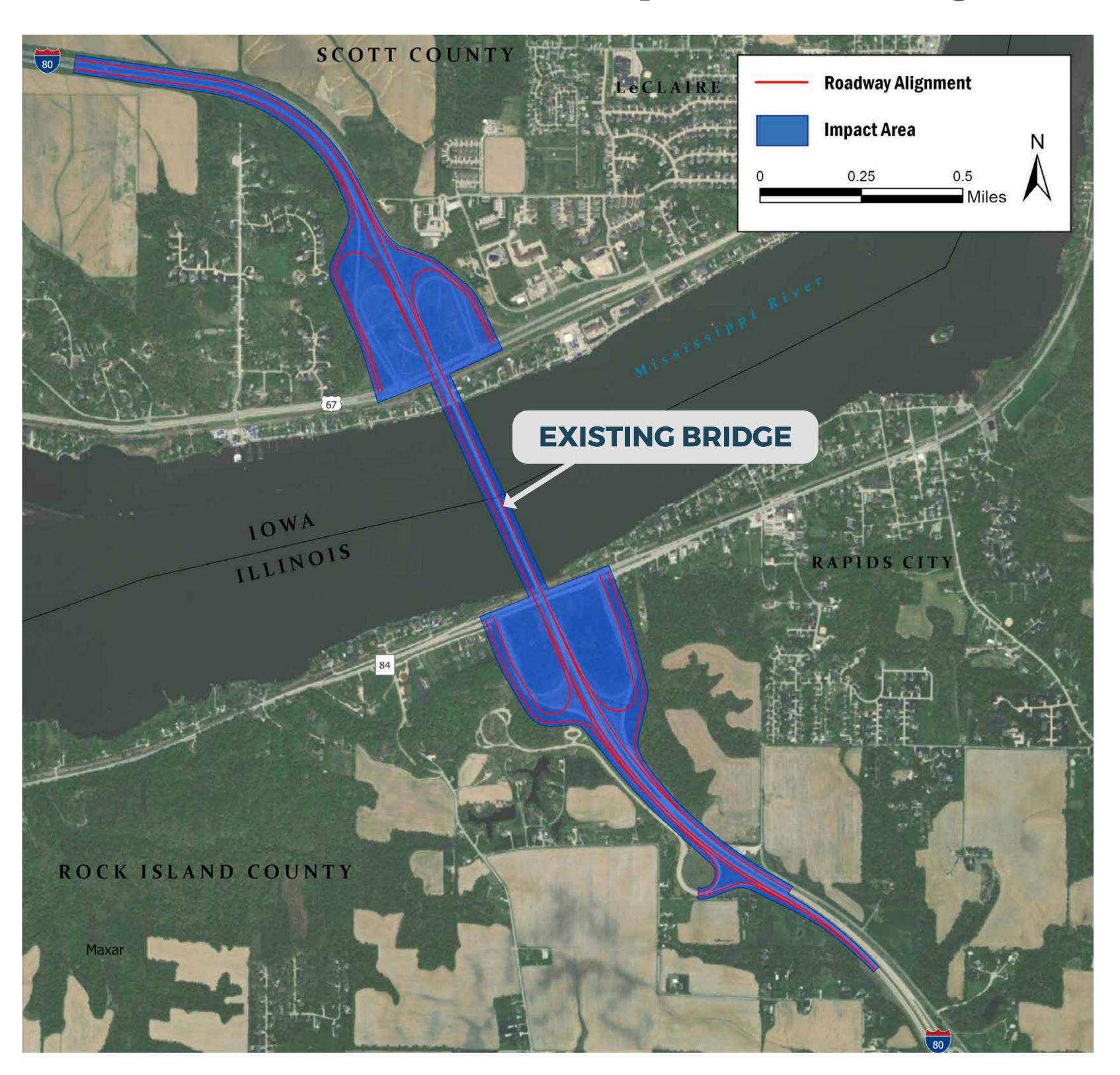
- Companion Bridge constructed 20 feet east from existing bridge
  - » Two 12-foot through lanes, one 12-foot auxiliary lane, 12-foot outside and 6-foot inside shoulders
- Traffic moves to companion bridge as existing bridge is replaced
- Results in two side-by-side bridges
- US 67 & IL 84 interchanges reconstructed to meet current design standards







### Alternative 5: New Companion Bridge West & Replacement of Existing Bridge



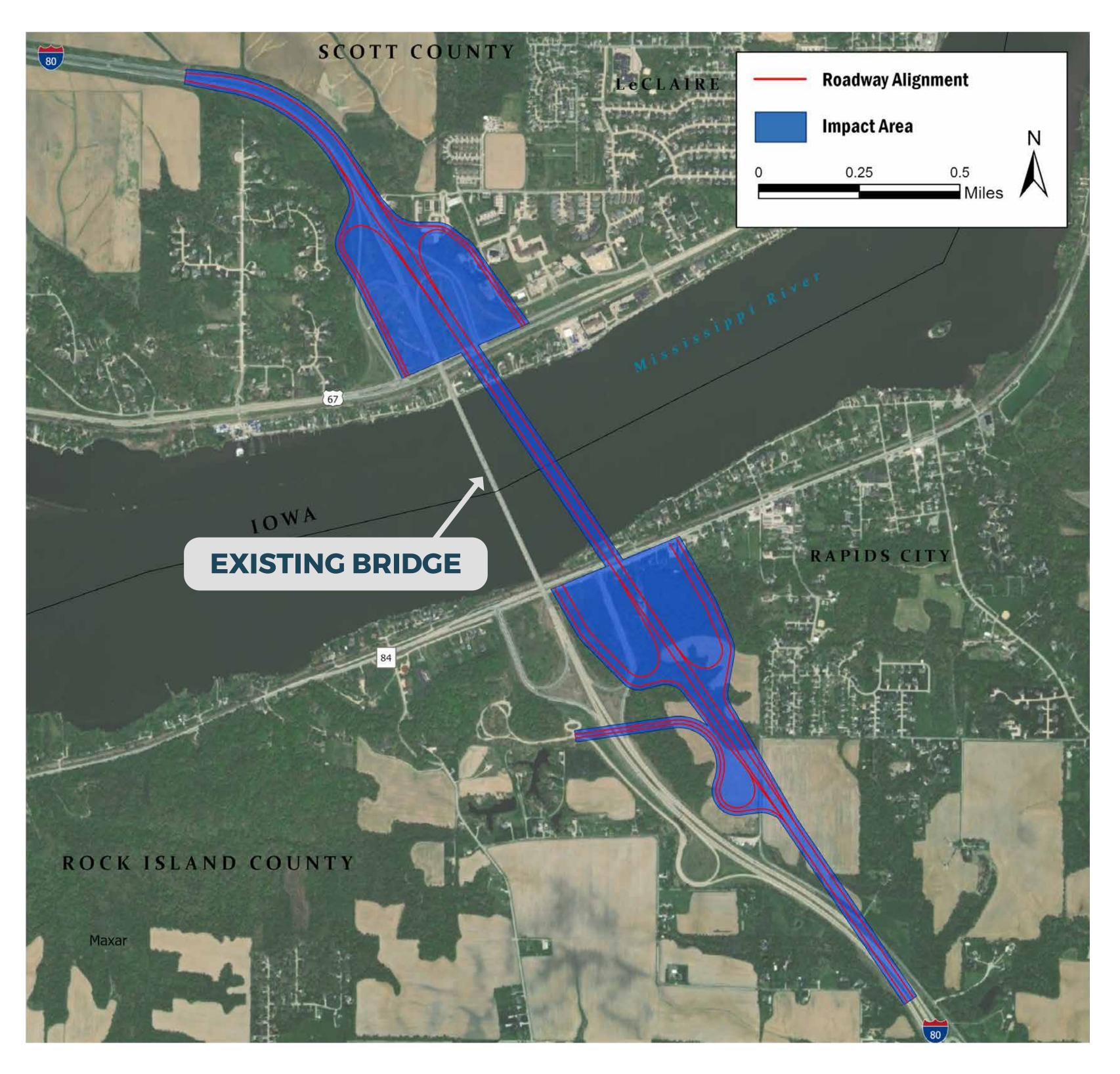
- Companion Bridge constructed 20 feet west from existing bridge
  - » Two 12-foot through lanes, one 12-foot auxiliary lane, 12-foot outside and 6-foot inside shoulders
- Traffic moves to companion bridge as existing bridge is replaced
- Results in two side-by-side bridges
- US 67 & IL 84 interchanges reconstructed to meet current design standards







# Alternative 6: Bridge Replacement East on New Alignment



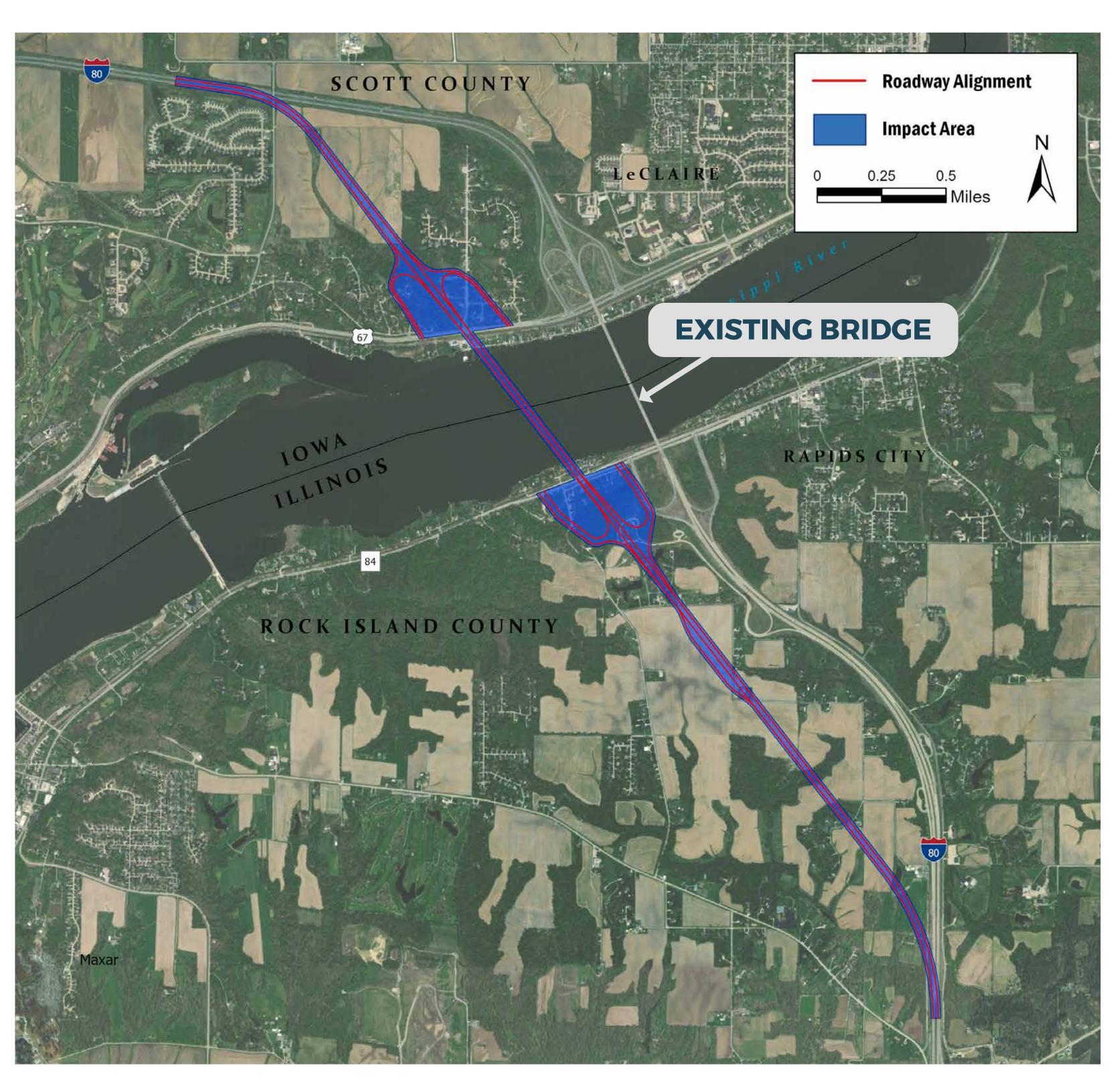
- Bridge replacement approximately 600 feet east of existing alignment
  - » Four 12-foot through lanes, two 12-foot auxiliary lanes, 12-foot outside and 6-foot inside shoulders
- US 67 & IL 84 interchanges reconstructed to meet current design standards
- Access to the Mississippi Rapids Rest Area modified







# Alternative 7: Bridge Replacement West on New Alignment



- Bridge replacement approximately 2,100 feet west of existing alignment
  - » Four 12-foot through lanes, two 12-foot auxiliary lanes, 12-foot outside and 6-foot inside shoulders
- US 67 & IL 84 interchanges reconstructed to meet current design standards
- Impacts Mississippi Rapids Rest Area; new Rest Area provided







### MARK PETERSON (Parsons) & TONY PAKELTIS (Parsons)

# IMPACT ANALYSIS MISSISSIPPI RIVER BRIDGE BUILD ALTERNATIVES

### Purpose and Need

Each of the Mississippi River Bridge build alternatives meet the criteria presented in the project's Purpose and Need.

	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5	ALT 6	ALT 7
Environmental Impacts	Replace on Existing	Replace 50 ft East	Replace 50 ft West	Companion Bridge East	Companion Bridge West	New Alignment East	New Alignment West
Relocations (number)	1	3	5	1	1	15	<u>53</u>
Right-of-way (acres)	3	6	8	1	4	95	<u>157</u>
Wetlands (acres)	0	0	0	0	0	0	0
Streams (number/linear feet)	4/3,965	4/3,800	<u>5/4,756</u>	4/3,920	5/4,575	3/2,084	9/4,208
Floodplains/Floodways (acres)	<u>15/2</u>	15/2	17/3	17/2	<u>18/3</u>	15/3	<u>15/2</u>
Potential Indiana bat and northern long-eared bat forested habitat (acres)	<u>31</u>	38	40	<u>31</u>	32	66	<u>70</u>
Public parks/recreation areas/Section 4(f) resources (number)	1	1	1	1	1	1	1
Historic and archaeological resources/Section 106 resources (number)	1	1	1	1	1	1	<u>O</u>
Special waste sites (number)	<u>O</u>	<u>O</u>	<u>O</u>	<u>o</u>	<u>O</u>	<u>o</u>	<b>2</b>
Prime farmland soils (acres)	3	4	11	2	4	91	<u>128</u>
Community facilities and services (number)	<u>O</u>	<u>O</u>	<u>O</u>	<u>O</u>	<u>O</u>	<u>O</u>	<b>2</b>
Environmental justice populations (number of EJ census block groups)	1	1	1	1	1	<u>O</u>	1

Most impacts Moderate impacts Least impacts

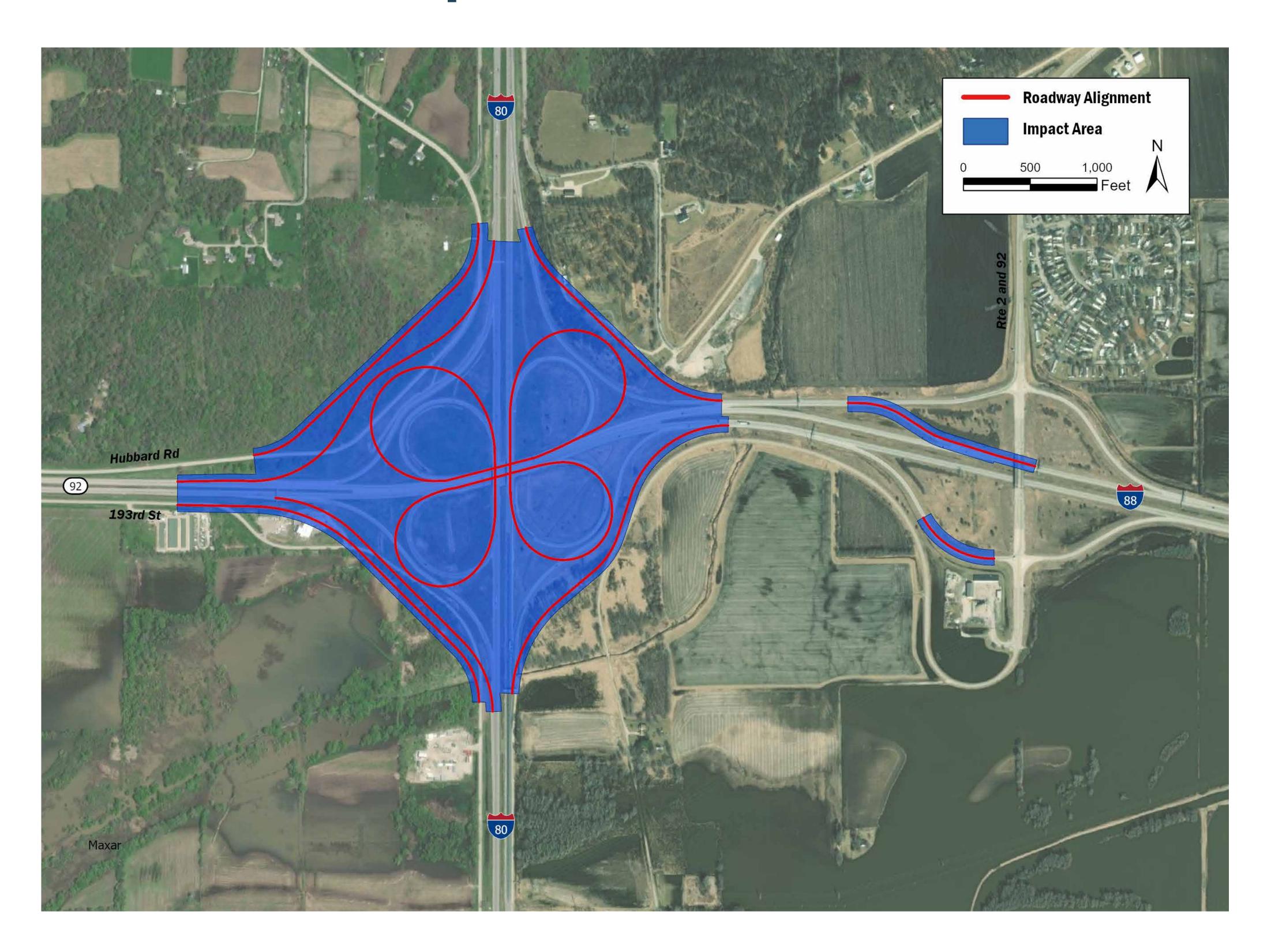
	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5	ALT 6	ALT 7
Engineering	Replace on Existing	Replace 50 ft East	Replace 50 ft West	Companion Bridge East	Companion Bridge West	New Alignment East	New Alignment West
Constructability							
Maintenance of traffic during construction							



# 180 Mississippi RIVER BRIDGE

I-88 INTERCHANGE BUILD ALTERNATIVES

# Alternative A: Expanded Cloverleaf



- Maintain and expand all four cloverleaf interchange loop ramps at the I-80/I-88 interchange
- Minor ramp modifications at the Old IL 2 interchange to correct geometric deficiencies

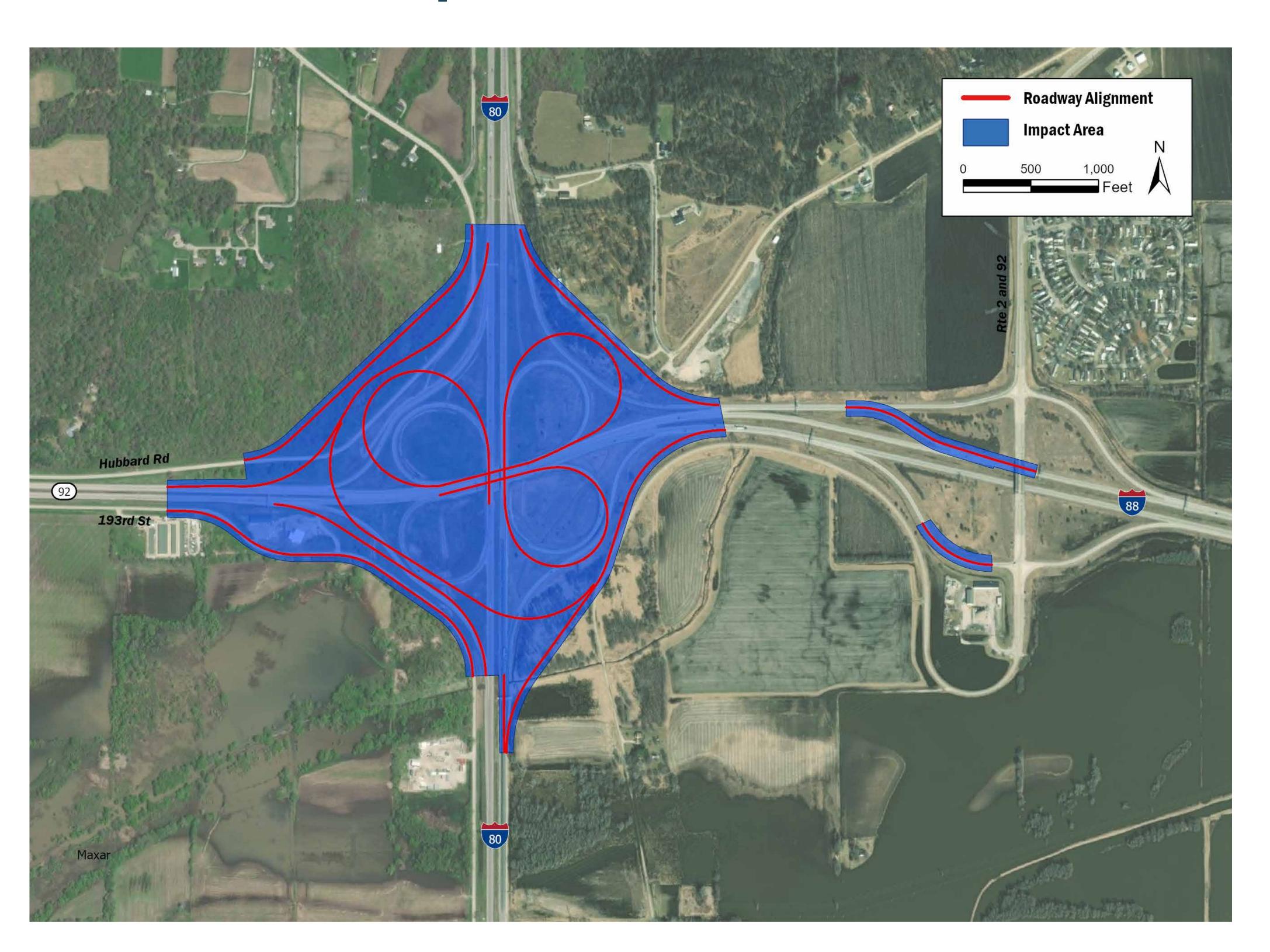






I-88 INTERCHANGE BUILD ALTERNATIVES

### Alternative B: Expanded Cloverleaf with Outer Direct Ramp



- Maintain and expand 3 of 4 cloverleaf ramps (NW, NE, SE)
- Construct directional ramp in SW quadrant to improve safety
- Minor ramp modifications at the Old IL 2 interchange to correct geometric deficiencies

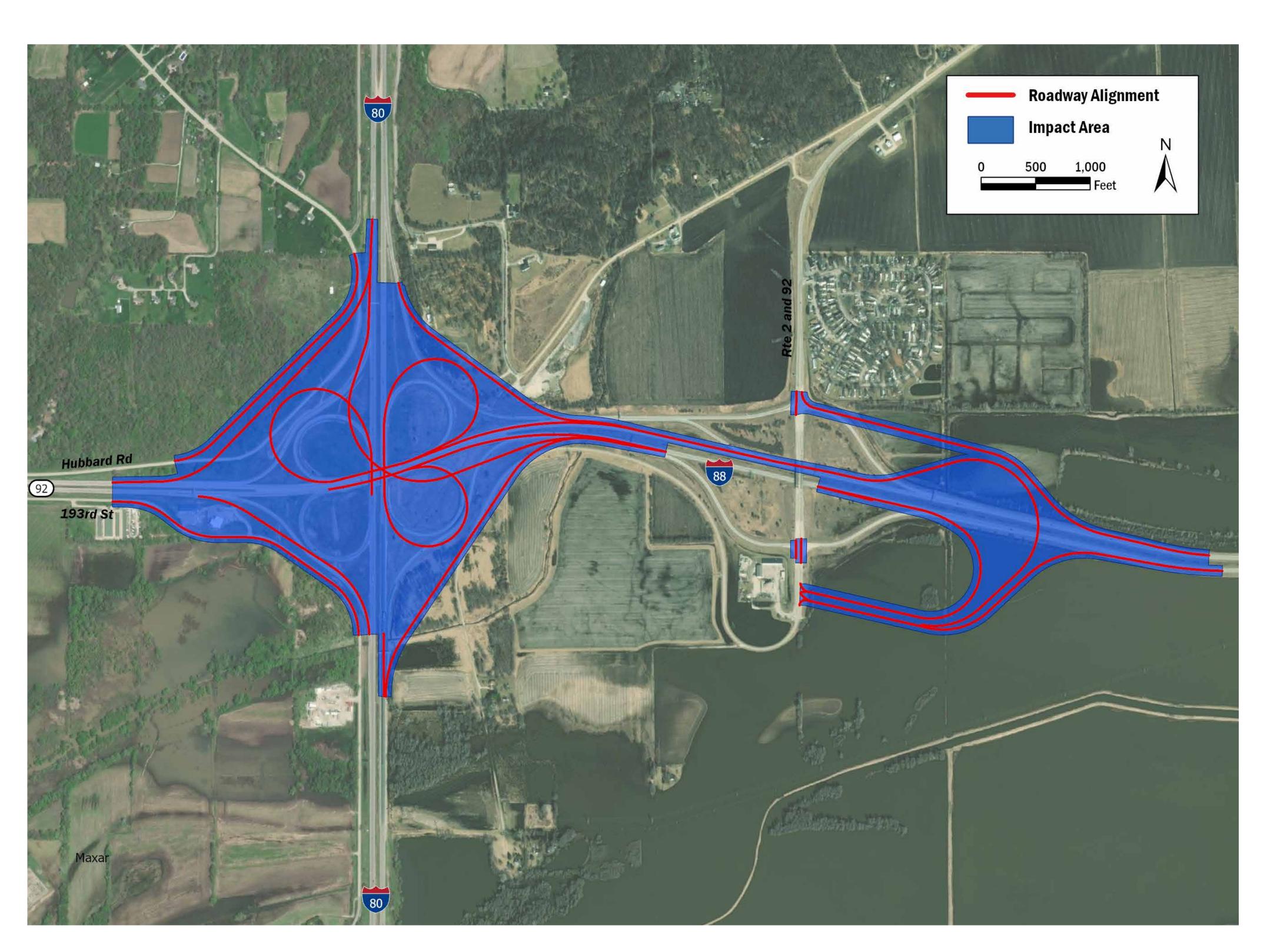






I-88 INTERCHANGE BUILD ALTERNATIVES

# Alternative C: Expanded Cloverleaf with Outer Direct Ramp and Old IL 2



- Maintain and expand 3 of 4 cloverleaf ramps (NW, NE, SE)
- Construct directional ramp in SW quadrant to improve safety
  - » Ramp located to be retained in future interchange modifications
- Complete modification of the Old IL 2 interchange

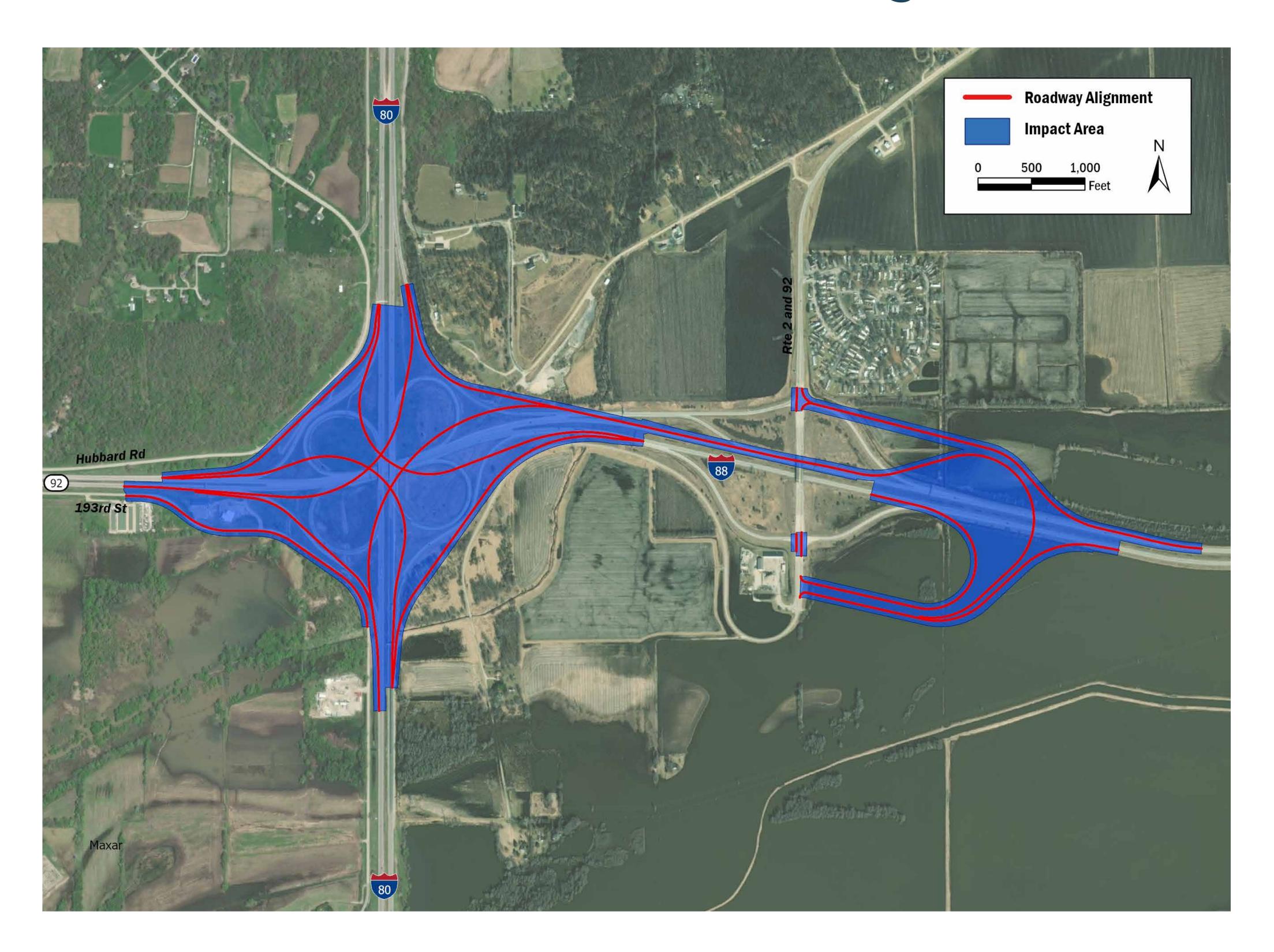






I-88 INTERCHANGE BUILD ALTERNATIVES

### Alternative D: Four-Level Interchange and Old IL 2



- Remove all loop ramps and replace with fully directional, four-level interchange
- Completely modified I-88 interchange at Old IL 2







### MARK PETERSON (Parsons) & TONY PAKELTIS (Parsons)

# IMPACT ANALYSIS 1-88 INTERCHANGE BUILD ALTERNATIVES

### Purpose and Need

Each of the I-88 Interchange build alternatives meet the criteria presented in the project's Purpose and Need.

Environmental Impacts	<b>ALT A</b> Full Cloverleaf	<b>ALT B</b> 3/4 Cloverleaf, Outer Ramp	<b>ALT C</b> 3/4 Cloverleaf, Outer Ramp & Old IL 2	ALT D 4-level Interchange, Old IL 2	
Relocations (number)	<u>3</u>	<u>3</u>	<u>3</u>	2	
Right-of-way (acres)	<u>21</u>	23	<u>55</u>	36	
Wetlands (acres)	<u>4</u>	3	3	1	
Streams (number/linear feet)	1/391	1/298	3/1,591	3/2,016	
Floodplains/Floodways (acres)	7/0	11/0	<u>32/0</u>	30/0	
Potential Indiana bat and northern long-eared bat forested habitat (acres)	14	13	<u>15</u>	<u>6</u>	
Public parks/recreation areas/Section 4(f) resources (number)	1	1	<u>1</u>	<u>O</u>	
Historic and archaeological resources/Section 106 resources (number)	0	0	0	0	
Special waste sites (number)	2	2	2	2	
Prime farmland soils (acres)	<u>21</u>	23	<u>55</u>	36	
Community facilities and services (number)	0	0	0	0	
Environmental justice populations (number of EJ census block groups)	0	0	0	0	

Most impacts Moderate impacts Least impacts

Engineering	ALT A Full Cloverleaf	<b>ALT B</b> 3/4 Cloverleaf, Outer Ramp	<b>ALT C</b> 3/4 Cloverleaf, Outer Ramp & Old IL 2	ALT D 4-level Interchange, Old IL 2
Constructability				
Maintenance of traffic during construction				





# NEXT STEPS

Consideration of Public Comment

Additional Evaluation & Study

Narrowing of Alternatives

Public Comment

Final Report in Late 2023

To include recommendation of Preferred Alternative

Comments received by May 25, 2022 become part of public record









### PUBLIC INVOLVEMENT



Public Meeting #2: May 11, 2022

✓ Comments received through May 25, 2022 become part of public meeting record



Future Public Meetings



### 180MississippiBridge.com

- Public comment
- Study news, reports and information
- Subscribe for updates



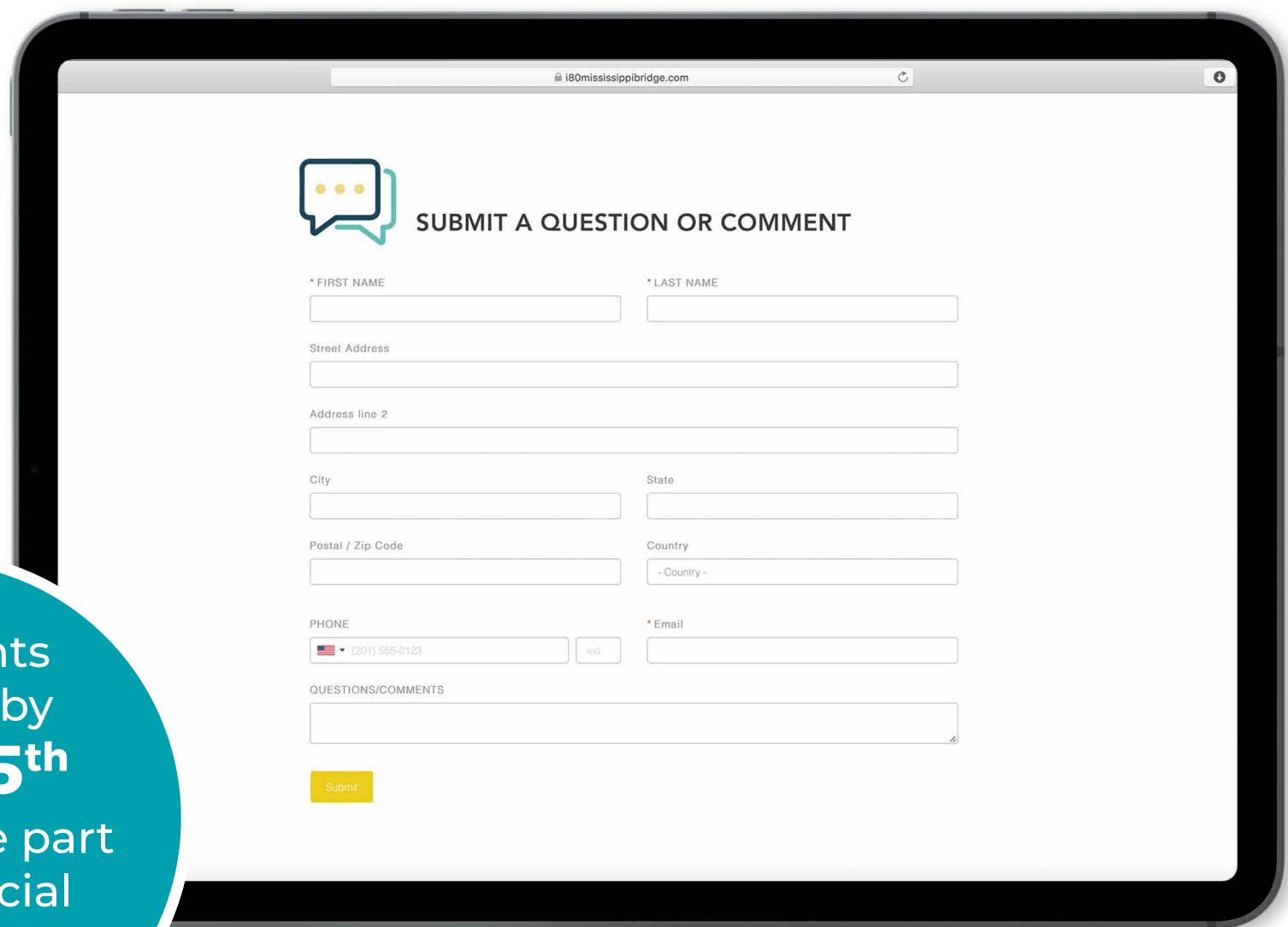




# PUBLIC COMMENTS



Comments received by May 25<sup>th</sup> will become part of the official meeting record.









# Thank you.

# Next Steps.



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