

Welcome

Public Open House

6/5/2019



- Welcome everyone, and thank you for making the time to attend today's public meeting for IDOT's US 20 Phase I study in Elgin.

Meeting Agenda

Project Schedule

Project Overview

IL 31 Update

Roadway Improvements

Other Project Components



This presentation includes an update on the project schedule, background information about the project area, the recommended design alternatives throughout the US 20 corridor, and other project components such as noise analysis, property needs, and cost estimates.

Project Schedule

Phase I ●

- Preliminary engineering and environmental studies

Phase II

- Final Design / Contract plan preparation
- Right-of-way acquisition

Phase III

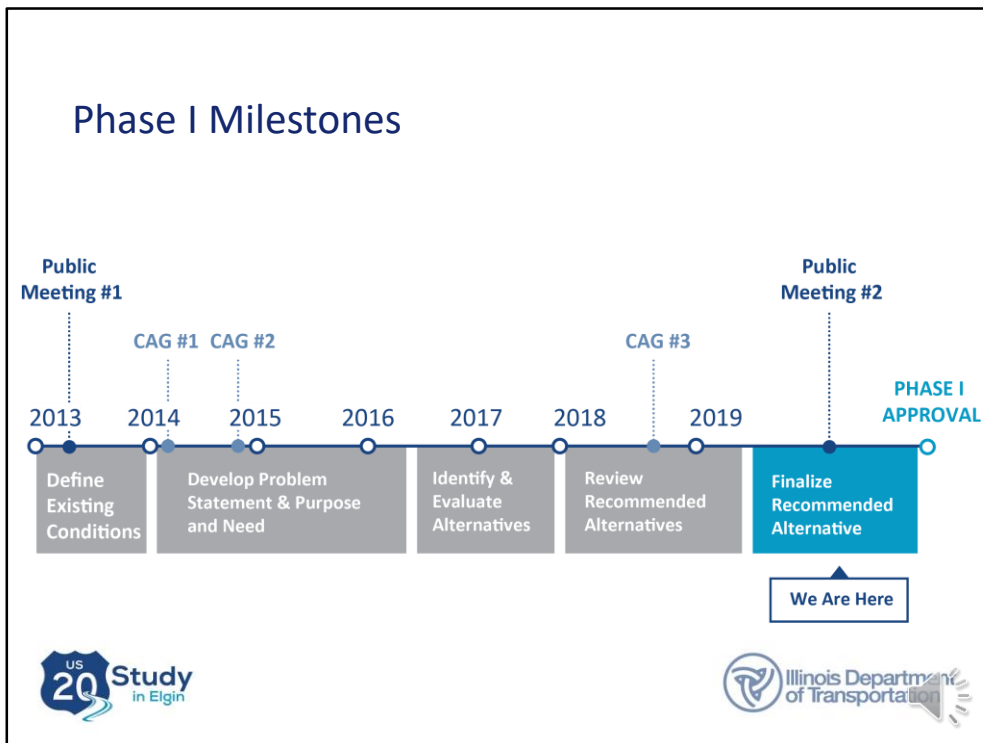
- Construction



● = We Are here



- IDOT divides roadway projects into three phases:
 - Phase I – Preliminary Engineering and Environmental Studies
 - Phase II – Final Design and ROW Acquisition, and
 - Phase III – Construction
- The US 20 project is currently nearing the end of Phase I.



- This is our second public meeting for the US 20 Phase I study.
- The first public meeting was held in October 2013 to learn about existing conditions in the corridor.
- We have also held three Community Advisory Group (or CAG) meetings, with the first meeting in February 2014.
- Based on the input received at the first public and CAG meetings, we developed a Problem Statement and a Purpose and Need Statement.

PROBLEM STATEMENT

Transportation problems along US 20 from Randall Road to Shales Parkway include safety, mobility, and access for all transportation modes. There is a lack of efficient access for emergency vehicles, and there are limited non-motorized crossings and connections. Providing opportunity areas for aesthetic treatments to enhance economic opportunities is also important. Improvement alternatives are limited to maintenance activities.



The Problem Statement defines the existing issues in the corridor. The full statement can be seen on the screen. Key elements include:

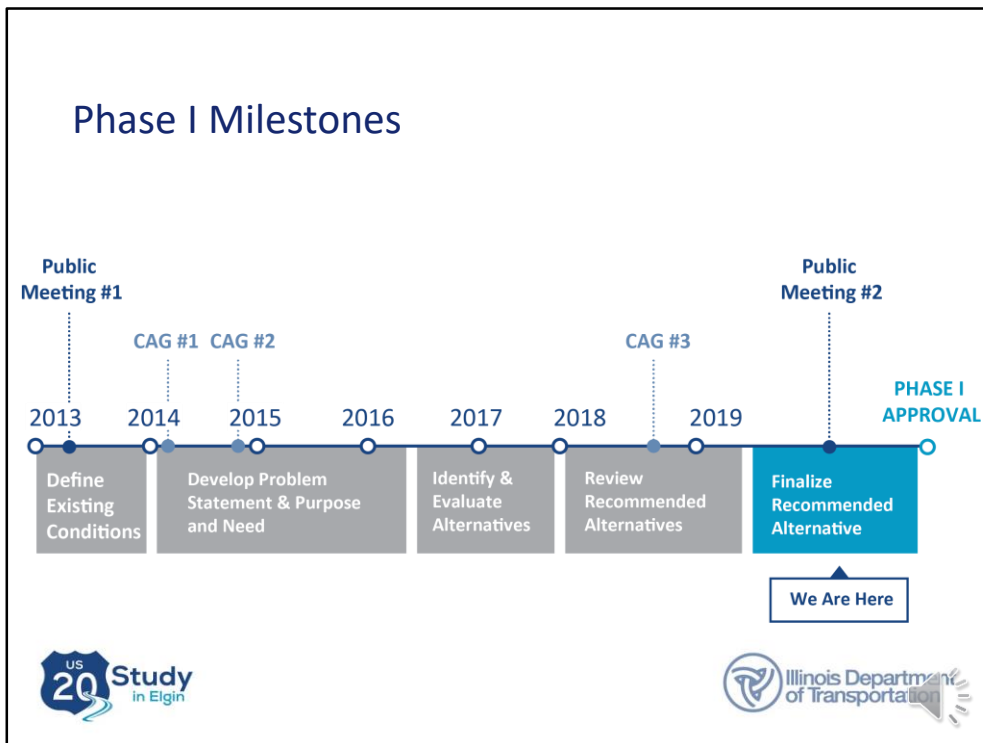
- Safety, mobility, and access for all transportation modes
- Emergency vehicle access
- Opportunities for non-motorized modes of transportation to cross the US 20 corridor and the Fox River
- Aesthetics, and
- Economic development

The scope of the US 20 project is mostly limited to activities that include resurfacing, restoration, and rehabilitation.

PURPOSE AND NEED STATEMENT

The purpose of the proposed improvement is to extend the service life of the US 20 mainline and bridges, enhance safety, and address mobility issues. In addition to serving the motoring public, the proposed action will also address the need for emergency vehicle access and safe access for pedestrians and bicyclists crossing the US 20 corridor.



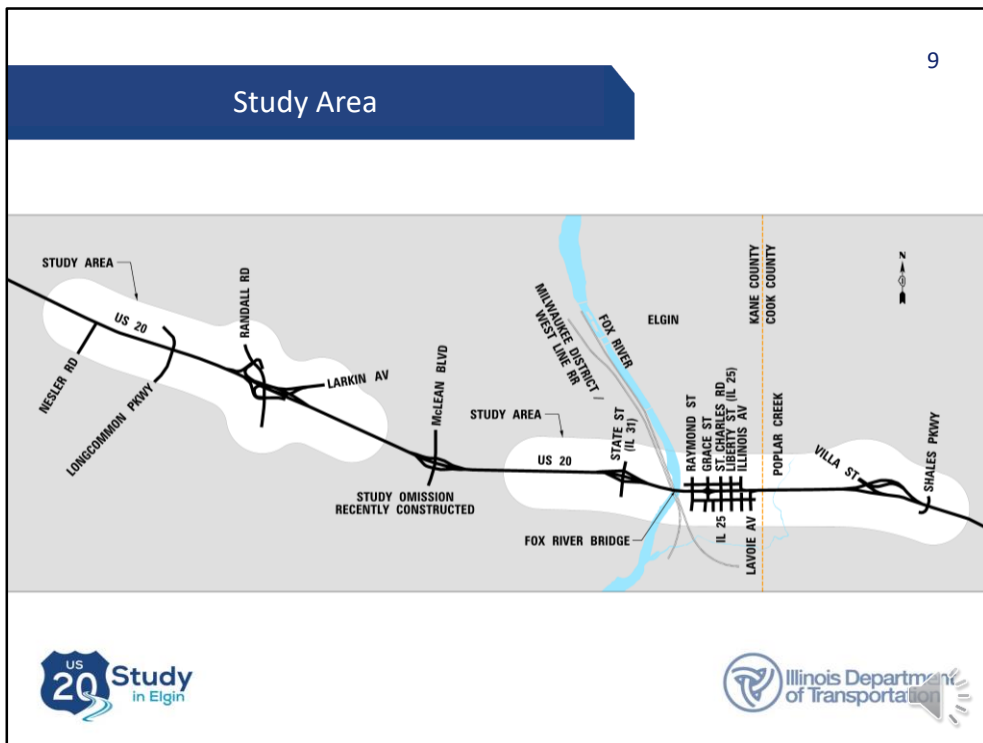


- At the second CAG meeting in December 2014, we presented the Problem Statement and the Purpose and Need Statement, and discussed potential alternatives to address the existing issues.
- From 2015 to 2018,
 - We completed Phase I preliminary engineering for the IL 31 (State Street) bridge over US 20 with design approval in late 2017. IDOT is now beginning Phase II.
 - We developed concepts for a new US 20 Bridge over the Fox River. This is a new development, as we were previously only looking at alternatives to repair the bridge.
 - We completed a draft noise study for the entire project area as a result of comments from the previous meetings.
 - We made minor design revisions throughout the study area and provided geometrics for preferred alternatives.
- We presented the recommended design alternatives at a third CAG meeting in September 2018, and are presenting the current recommendations here tonight.

Project Overview

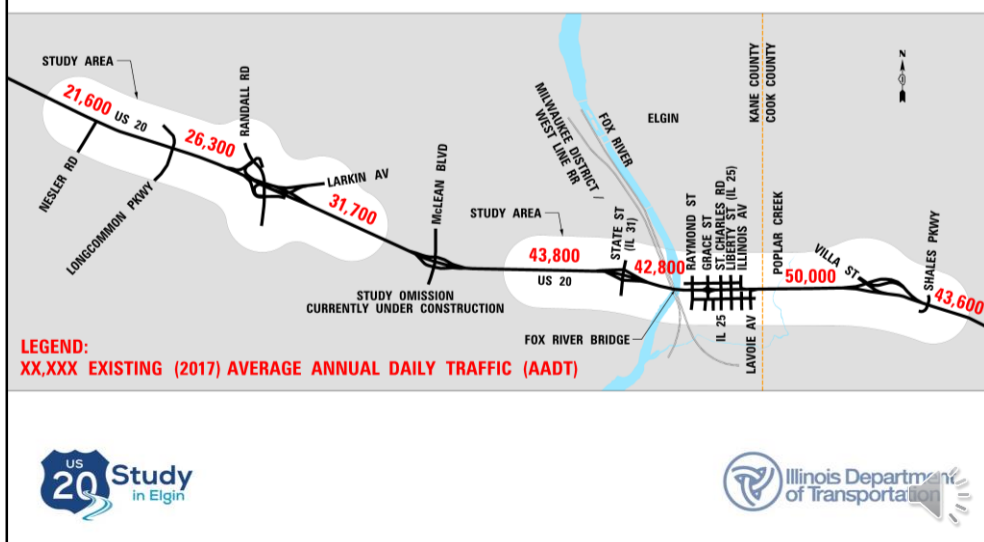


Now, let's review some general background information about the project.



- The US 20 project study area extends from Nesler Road on the west to Shales Parkway on the east.
- The corridor is 7 miles long, with a 1.3-mile omission near the McLean Blvd interchange, where reconstruction was finished in 2016.

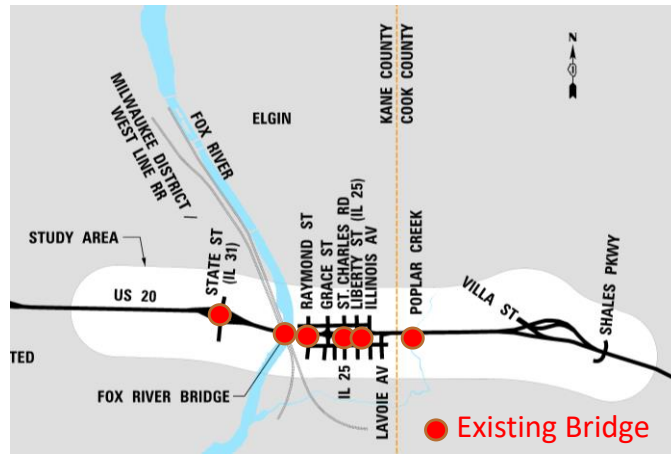
Existing Traffic Volumes (Vehicles per Day)



Traffic volumes vary from 21,600 vehicles per day at the west end of the study area near Nesler Road to 50,000 vehicles per day at the east end of the study area.



Existing Conditions: Bridges



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- There are several existing bridges in the study area, including Illinois 31 over *US 20*; and *US 20* over the Fox River, Raymond Street, St. Charles Street, Liberty Street, and Poplar Creek.

Existing Conditions: Bridges



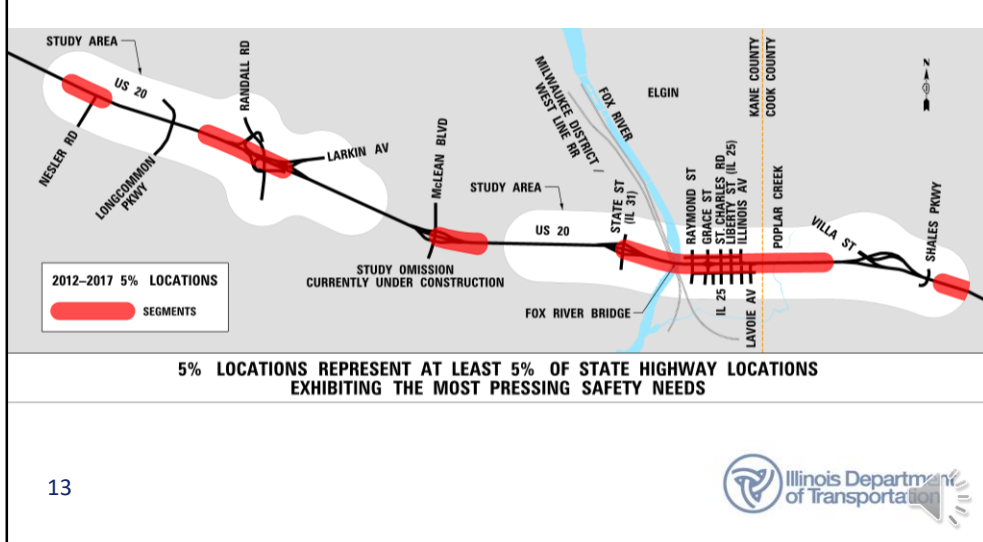
Bridge Location	Deck	Beams	Other Superstructure	Substructure
Il 31 over US 20	Poor	Fair	Good	Good
US 20 over Fox River	Poor	Fair	Fair/Good	Good
US 20 over Raymond St	Satisfactory	Fair	Good	Good
US 20 over Liberty St	Fair	Good	Good	Good
US 20 over St. Charles St	Satisfactory	Fair	Good	Good
US 20 over Poplar Creek	Fair	Poor	Fair	Satisfactory

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- While the *substructure* of the bridges are all in good or satisfactory condition, several other bridge elements are in poor or fair condition.
- *For example*, the decks for the IL 31 bridge over US 20 and the US 20 bridge over the Fox River are both in poor condition; and the decks for the bridges over Liberty Street and Poplar Creek are in fair condition.
- Also, the beams for five bridges are in poor or fair condition.

Crash History: Five Percent Locations

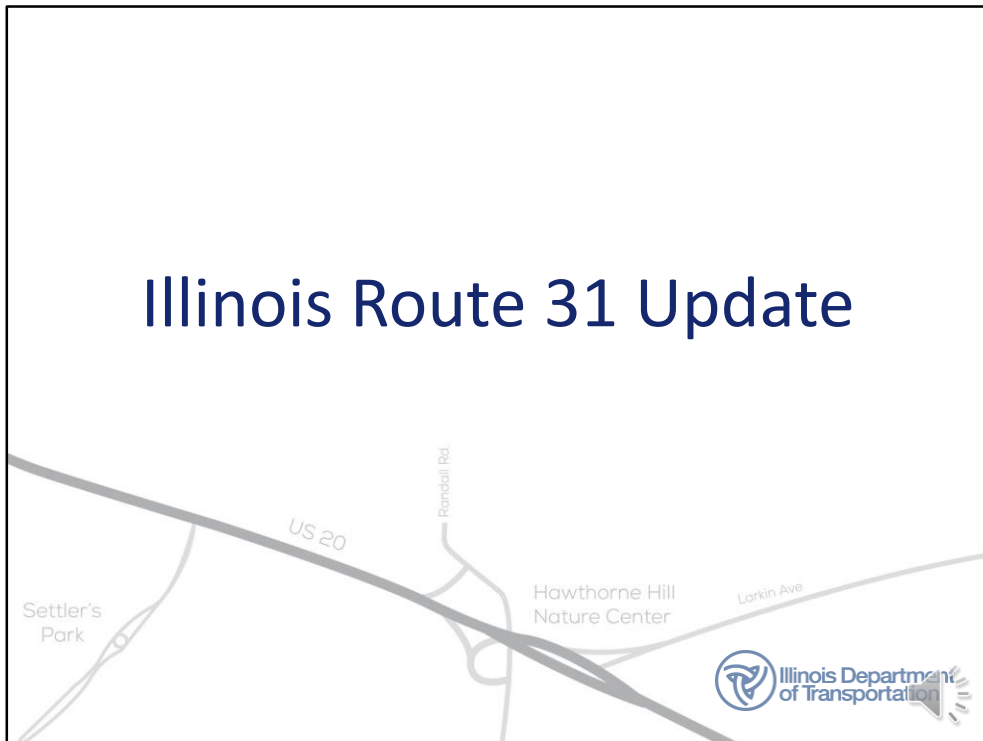


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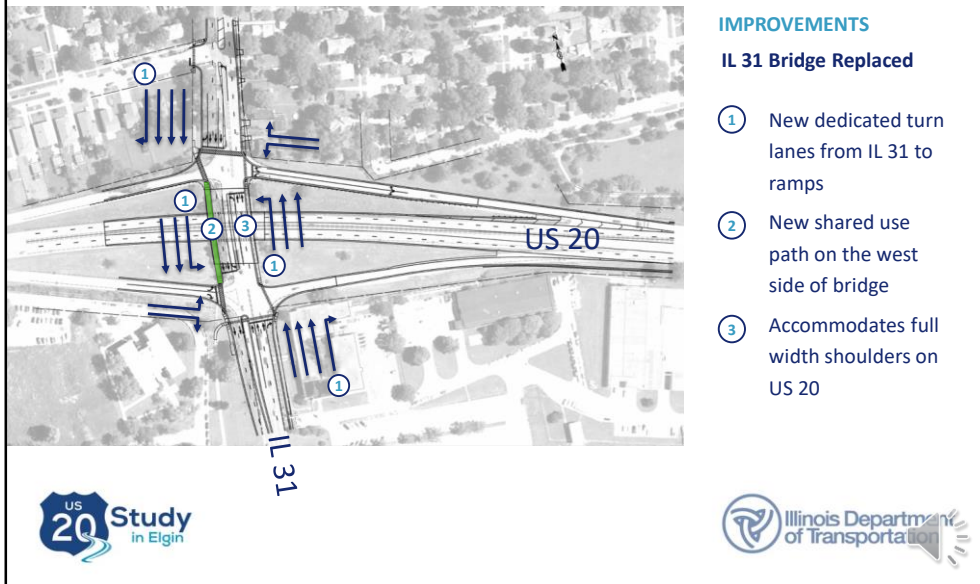


- IDOT reviews crashes statewide to identify the 5% of locations exhibiting the most pressing safety needs.
- The US 20 corridor is considered a 5% location from Nesler Road to Longcommon Parkway at the west end of the study area and from Illinois 31 to Shales Parkway at the east end of the study area.
- A review of crash data found clusters of crashes near the Illinois Route 31 interchange and near the ramps to and from Grace Street.
- You can view more detailed exhibits showing crash history in the adjacent room.

Illinois Route 31 Update



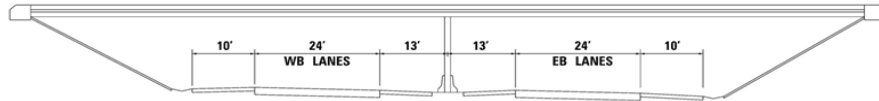
The Illinois 31 bridge replacement was advanced as a separate project from the US 20 corridor. The Phase I design was approved in October 2017. The project is funded for Phase II and III, and is currently in Phase II final design.



The preferred alternative at the Illinois Route 31 interchange will replace the existing Illinois 31 bridge with a new two-span bridge over US 20.

On Illinois 31, the proposed bridge will include:

- New left turn lanes and right turn lanes onto the US 20 ramps,
 - A new shared use path on the west side of the bridge and full sidewalk on the east side of the bridge,
 - Countdown pedestrian signals, and
 - Concrete pads for Pace passengers.
- The new turn lanes on the bridge allow northbound and southbound traffic to go concurrently instead of separately, which frees up time to give to other traffic movements entering and exiting US 20. Therefore delay is decreased at the intersections and fewer vehicles back up on the ramps. You can view a video simulation of the proposed traffic conditions in the adjacent room.



**Alternative 3,
presented at CAG #2,
is the approved
alternative.**

The project is included in the Department's FY 2019-2024 Proposed Highway Improvement Program.

ESTIMATED CONSTRUCTION COST \$10.6 M



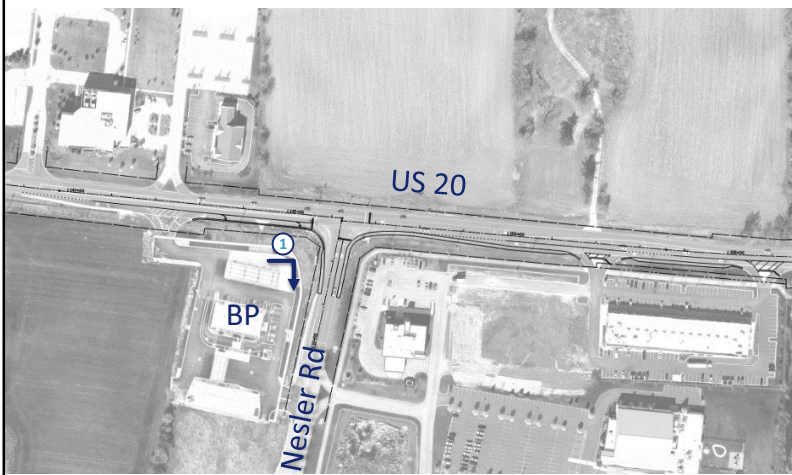
- There will be room for full width shoulders on both sides of US 20 under Illinois 31 and the height of the bridge over the roadway will be increased.
- The estimated construction cost of the Illinois Route 31 bridge replacement is approximately \$10.6 million dollars.

US 20 Roadway Improvements



Now we will review the proposed improvements in the remainder of the US 20 corridor.

Nesler Rd. to Old Barn Rd.



IMPROVEMENTS

- 1 Right turn lane from US 20 to Nesler Rd



- At the west end of the study area, a right turn lane is proposed from eastbound US 20 to southbound Nesler Road to improve traffic operations.

Longcommon Pkwy./Weld Rd.



IMPROVEMENTS

- ① Right turn only from SB Weld Rd. to US 20
- ② "Restricted Crossing U-Turn" (RCUT) for SB to EB traffic. Also known as "Michigan Left."
- ③ Free flow right turn lane from Longcommon Pkwy. to EB US 20

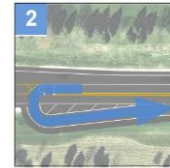


- At the Weld Road / Longcommon Parkway intersection, we understand it is hard to make southbound left turns to eastbound US 20.
- The design team investigated the option of installing a traffic signal at this location. Analysis determined that a traffic signal is not warranted per the applicable federal and state guidelines.
- Between 80% to 90% of SB vehicles currently turn right at the intersection, so IDOT is proposing to restrict southbound Weld Road to right turns only.
- This configuration is similar to the existing northbound traffic on Longcommon Parkway.
- There would then be a U-turn lane available west of the intersection in order to go east on US 20.
- Additionally, the northbound right turn lane from Longcommon to eastbound US 20 would be improved to reduce delays.

Longcommon Pkwy./Weld Rd.

Benefits of proposed Restricted Crossing U-Turn (RCUT) movement

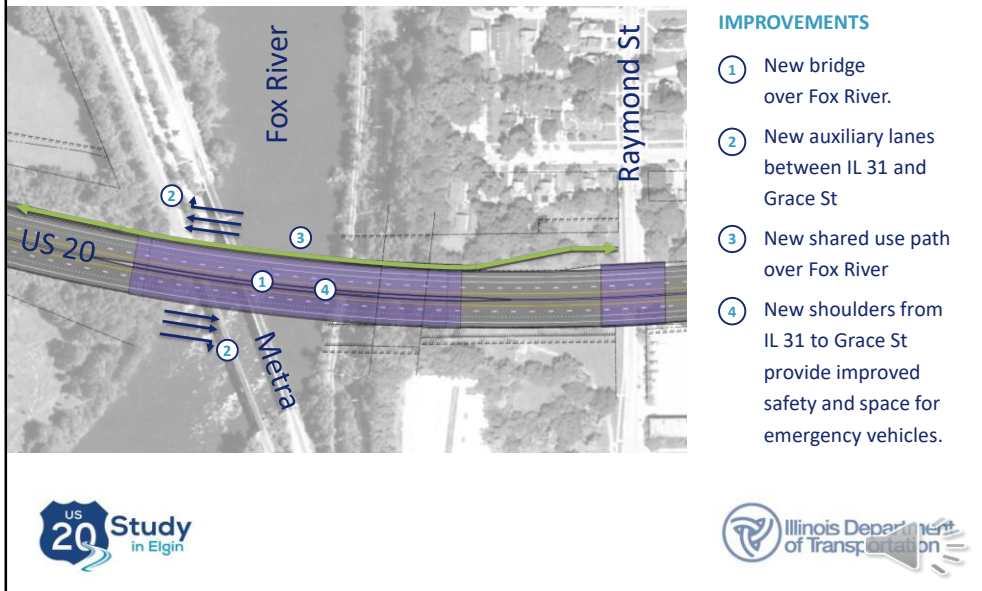
- The design improves safety and access by separating turning conflicts into two parts:
 1. Right turn from SB Weld only requires gaps in WB traffic
 2. U-turn to EB US 20 only requires gaps in EB traffic
- Maintains traffic flow on US 20
- Between 80% to 90% of SB vehicles currently turn right at the intersection



This type of design is called a Restricted Crossing U-Turn movement, or an RCUT. This design improves safety and access by separating turning conflicts into two parts:

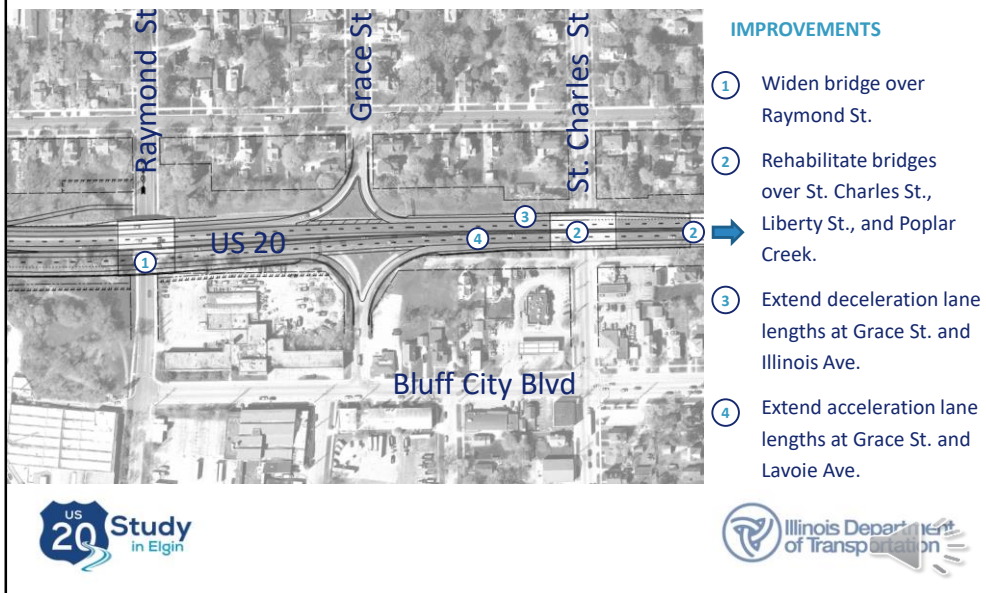
- Making a right turn from SB Weld only requires gaps in WB traffic
- Making a U-turn to EB US 20 only requires gaps in EB traffic

The design also maintains traffic flow on US 20.



- The biggest component of the US 20 project is a proposed replacement of the existing 58-year old bridge over the Fox River.
- A new bridge would improve mobility across the Fox River for cars as well as for bicycles, pedestrians, and emergency vehicles.
- The new bridge would include two through lanes in each direction plus auxiliary lanes between Illinois Route 31 and Grace Street.
- The auxiliary lanes would improve safety by:
 - Allowing eastbound traffic entering US 20 from Illinois 31 to not have to merge right away. The lane would continue until the Grace Street exit.
 - The same would be true for westbound traffic entering US 20 from Grace Street. The lane would not end until Illinois 31.
- The new bridge would also have a barrier-separated shared use path for bicycles and pedestrians, and provide inside and outside shoulders for improved safety and emergency access.
- Another benefit of the project is that it will allow two lanes of traffic to be maintained in each direction during construction, which was not possible by rehabilitating or widening the existing bridge in place.

Grace St. Interchange



- East of the Fox River, the bridge over Raymond Street will be replaced and widened to accommodate the auxiliary lanes and the new roadway geometry for the Fox River crossing.
- The bridges over St. Charles Street, Liberty Street, and Poplar Creek will also be rehabilitated, with many individual elements of the bridges being replaced.
- To the east of Grace Street, longer acceleration and deceleration lanes will improve safety by giving drivers more time to reach the appropriate speed.
- Right-of-way acquisition is not required at Grace Street as part of this alternative

Other Project Components



Now we will discuss a few other components of the project.

Noise Analysis



- One of the concerns from previous Community Advisory Group and public meetings was about traffic noise.

Noise Analysis



11 noise walls were found to be reasonable and feasible for the corridor.

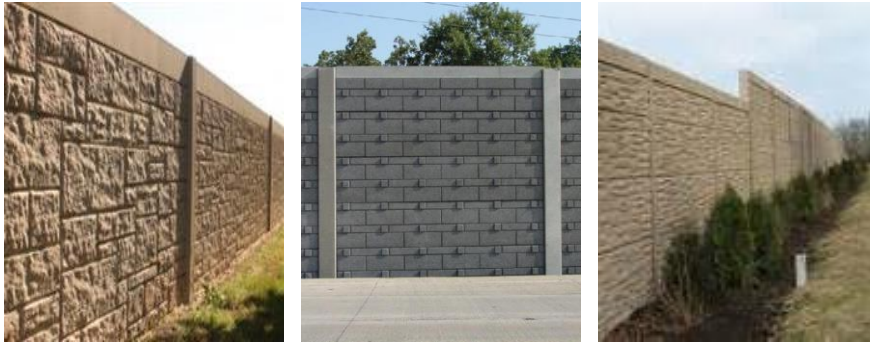
- See exhibit for potential locations



- IDOT completed a noise study for US 20 following federal guidelines.
- We measured existing noise levels at 13 locations in the study area and predicted future noise levels based on projected traffic volumes and the proposed roadway design.
- In the analysis, 11 noise walls were considered to be reasonable and feasible, meaning they reduce traffic noise by at least 5 decibels at two locations, they can be constructed, and have a cost per benefited noise receptor below a certain threshold.

Noise Analysis

Sample noise walls



- Here are some examples of what a typical noise wall may look like.
- IDOT will mail letters to affected residents and stakeholders to solicit opinions on the 11 identified noise walls as part of Phase II final design.
- Exhibits showing potential locations of noise walls can be viewed in the adjacent room.

Shared Use Path



Another concern from previous meetings was about bicycle and pedestrian access along and across the US 20 corridor.

Multi-use Trail

The City of Elgin identified several priority bike routes as part of their Bicycle Master Plan.

Bikeway Route 4

A 5.4-mile long route connecting the southwest side of the City, to the Elgin Sports Complex, and downtown.

The IL 31 Bridge will create a connection to Marie Groelich Park and new US 20 Bridge over the Fox River.



- In addition to the proposed shared use path on the new Fox River Bridge, the Illinois 31 bridge replacement project will help to address the need for improved bicycle crossings of the corridor, and will help implement a portion of the City of Elgin's Bikeway Master Plan.
- Bikeway Route 4 from the Master Plan, shown with the yellow line, was identified as a priority bikeway to connect the southwest quadrant of the City to downtown.
- Route 4 received federal Congestion Mitigation and Air Quality (or CMAQ) funding for implementation, but engineers working on it were having a hard time finding a good place to cross US 20.
- The Illinois 31 bridge project will provide a path over US 20 on the west side of the bridge, which will connect to Bikeway Route 4, as well as the future bikeway along US 20 over the Fox River.

Right-of-Way Acquisition and Easements



Now we will discuss right-of-way and temporary construction easements needed in the US 20 corridor for the recommended alternative.

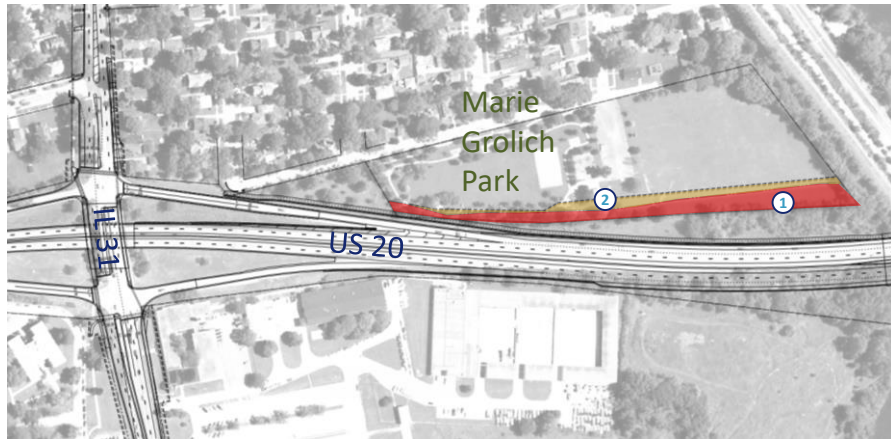
Three types of land acquisition:

- Fee Simple
 - Acquisition of all rights and interest
- Permanent Easement
 - Ownership retained by property owner
 - IDOT allowed permanent use of property to construct and maintain facilities
- Temporary Easement
 - Ownership retained by property owner
 - Temporary use to construct minor improvements



- There are three types of land acquisition:
 - Fee simple acquisition, where IDOT buys property from the owner;
 - Permanent easements, where the property owner maintains ownership but IDOT is allowed permanent use of the property; and
 - Temporary easements, where the property owner maintains ownership, but IDOT temporarily uses the property during construction.
- Not including the work at IL 31, the US 20 project will require a total of 1.20 acres of fee simple acquisition, 0.3 acres of permanent easements, and 1.75 acres of temporary easements.

Right-of-Way and Easements



IL 31 to Fox River

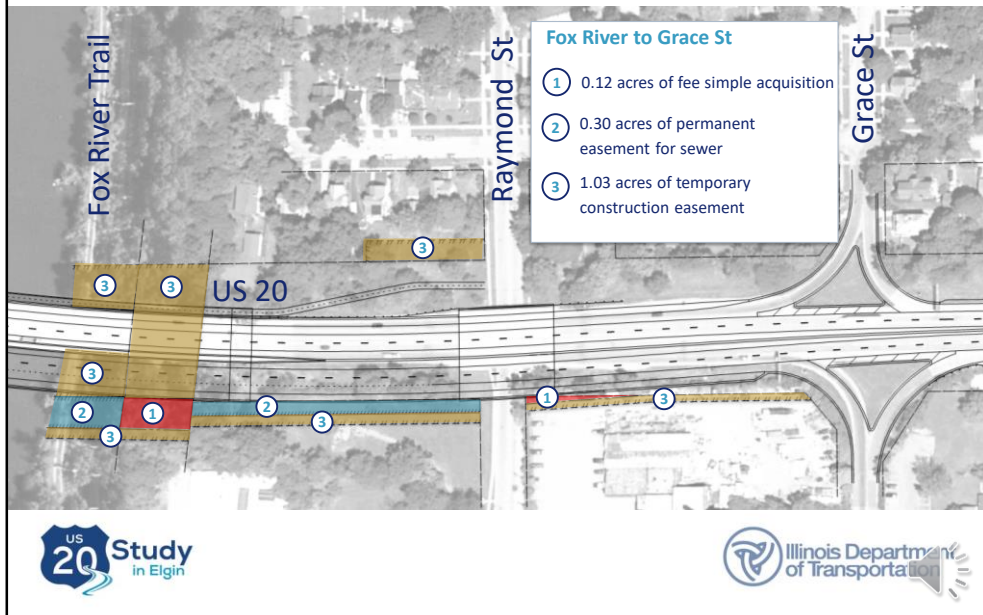


- ① 0.97 acres of fee simple acquisition for embankment in Marie Grolich Park
- ② 0.41 acres of temporary construction easement



- Some of the land acquisition needs are located in parks, which are protected by Section 4(f) of the US Department of Transportation Act of 1966, and requires additional analysis and coordination.
- On the north side of US 20 at Marie Grolich Park, 0.97 acres of right-of-way is required for the embankment for the new bridge, and an additional 0.41 acres of temporary construction easement are needed in the park.
- However, the new bridge also has a recreational benefit by providing a safe bicycle and pedestrian crossing of the Fox River.
- These property needs have been coordinated with the City of Elgin Park District.

Right-of-Way and Easements



- *East of the Fox River, the new US 20 bridge would require 0.05 acres of permanent easement and 0.15 acres of temporary easement from the Kane County Forest Preserve District, which maintains the Fox River Trail under US 20.*
- The permanent easement would accommodate maintenance access to a new storm sewer to be constructed under the trail, while the temporary easement would allow IDOT to construct the bridge and the sewer.
- Additional acquisition and easements are needed from other property owners east of the Fox River as well.
- There would be no building displacements
- The Section 4(f) reports are available in the adjacent room for review.

Cost Estimate



Lastly, we will discuss the construction costs of the project.

Construction Cost Estimate

The proposed roadway improvements include the replacement of the Fox River Bridge, and rehabilitation of other bridges.

ESTIMATED CONSTRUCTION COST

\$84.0 M Total

\$10.6 M IL 31

\$43.5 M US 20 Bridges

\$20.1 M US 20 Roadway

\$9.8 M Noise Abatement Walls

FUNDING

Phase II and III are currently not funded for the full US 20 corridor

- Costs have not been finalized for the project yet, but a rough order of magnitude is \$84 million dollars.
- This cost estimate includes the \$10.6 million estimated for the Illinois Route 31 bridge replacement project, \$43.5 million for US 20 bridges, \$20.1 million for US 20 roadway work, and \$9.8 million for noise abatement walls.
- As noted earlier, Phase II and III are currently funded for Illinois 31, but not for the remainder of the US 20 project.

Project Schedule

Phase I ●

- Preliminary engineering and environmental studies

TIMELINE
2013-2019

Phase II*

- Contract plan preparation
- Right-of-way acquisition

TIMELINE
The IL 31 bridge replacement project over US 20 is currently in Phase II.

Phase III*

- Construction

TIMELINE
Construction of the IL 31 bridge over US 20 is currently scheduled to begin in the middle years of IDOT's FY 2019-2024 Proposed Highway Improvement Program

* *Contract Plan Preparation and Land Acquisition (Phase II) and Construction (Phase III) for the US 20 corridor is not currently included in the IDOT's FY 2019-2024 Proposed Highway Improvement Program. However, this project will be included in the IDOT's priorities for future funding consideration among similar improvement needs throughout the region.*

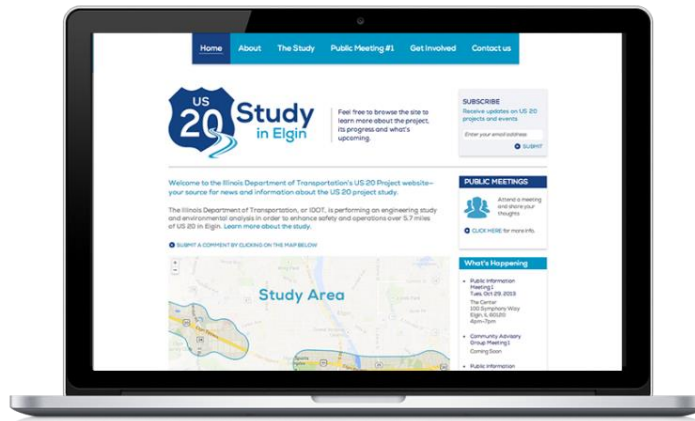


● = We Are here



- The US 20 project is currently nearing the end of Phase I. The next step for the project is to enter Phase II to prepare contract plans for construction.
- Phase II for the Illinois Route 31 bridge replacement over US 20 began in 2018 and is currently programmed for construction in the middle years of IDOT's 2019-2024 Proposed Highway Improvement Program.

Resources



Website: us20elginstudy.com



- You can find additional information about the US 20 in Elgin study, including summaries of previous meetings, on the project website: us20elginstudy.com.
- You can also submit comments through the website or at this meeting.
- All comments received by July 5, 2019 will become part of the public record for the project.

Thank You



Thank you for attending tonight's open house. You can view additional exhibits and talk with the project team in the adjacent room.