

# US 20 at Shales Parkway Phase I Engineering Study

Virtual Public Outreach #1  
September 29 – October 20, 2021



Illinois Department of Transportation

Welcome to the first virtual public outreach opportunity for the US 20 at Shales Parkway Phase I Engineering Study presented by the Illinois Department of Transportation. This study is in the early stages of Preliminary Engineering for improvements of the US 20 at Shales Parkway intersection in the City of Elgin.

We are seeking your input regarding the transportation needs and the issues and concerns within the study area. Your participation will help shape the future improvements and we look forward to your involvement throughout this study.



# Agenda

- Study Overview
- Study Planning Process
- Recent Studies
- Existing Conditions
- Public Outreach
- Next Steps

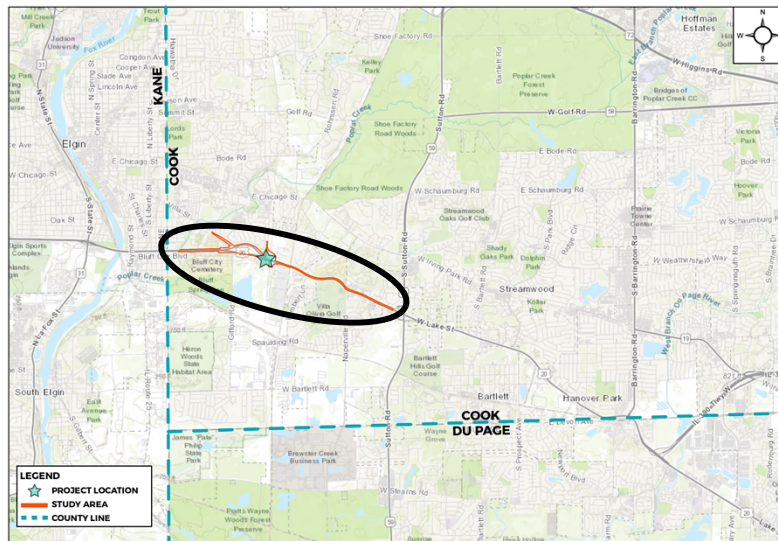


Illinois Department of Transportation

The purpose of this first virtual public outreach is to introduce and provide you with information about the US 20 at Shales Parkway Phase I Engineering Study, the study planning process and to provide an opportunity for the public to provide input on transportation issues and concerns related to this study.

We will begin the presentation with a study overview and location, followed by details on previous corridor-wide studies, and a review of existing conditions within the study area. Then, we will review public outreach components and provide instructions on how you can provide comments on the study. Finally, we will conclude the presentation with information about next steps in the study.

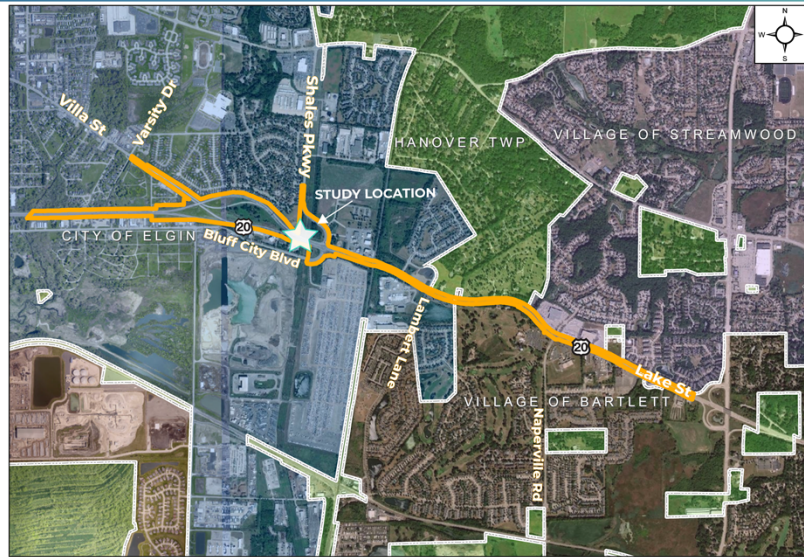
# Study Area



The study is located along US 20 in northern Cook County, Illinois, near both Kane and DuPage counties. US 20 is a major east-west highway owned by the Illinois Department of Transportation and provides connections to the City of Elgin to the west and Illinois Route 390 to the east.

Major north-south roadways near the study include Illinois Route 31 to the west and Illinois Route 59 to the east.

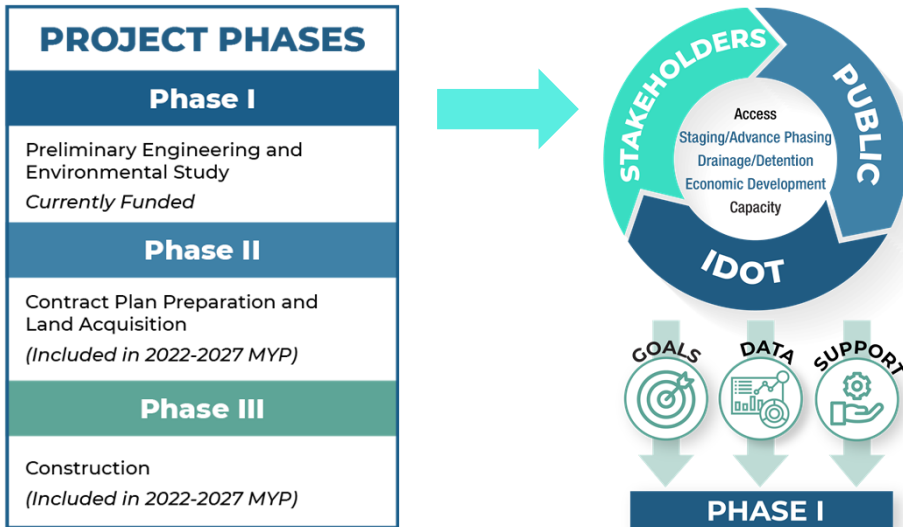
# Study Area



The study area is located mainly in the City of Elgin with sections extending into the Villages of Bartlett and Streamwood and Hanover Township. The study area focuses on potential improvements at the US 20 at Shales Parkway intersection and the existing interchange at Villa Street.

Additionally, in order to identify and capture potential impacts of alternatives, the study extends west along US 20 to Poplar Creek and east along US 20 to Illinois Route 59.

# Study Process



Illinois Department of Transportation projects are organized into three distinct phases.

Phase I includes preliminary engineering and environmental studies. During this phase, issues and concerns are identified, solutions are presented, and the public is engaged. This phase involves studying existing conditions and future demands, defining the project's Purpose and Need, and evaluation of any potential improvements.

This phase includes the involvement of the public through meetings and other public outreach efforts to provide an opportunity for those interested to offer their input and ask questions about the project. Near the end of Phase I, a preferred alternative will be presented for public comment. This study is currently starting the Phase I process. Phase II includes the detailed design and development of contract plans to be used during construction of the proposed improvement. Land acquisition, if needed, is included during this phase. Phase III is the construction of the study.

Phase I of this study is fully funded. Phases II and III are included in the Department's Fiscal Year 2022-2027 Multi-Year Improvement Program. Phases II and III are contingent upon plan readiness, potential land acquisition, if needed, and future legislative funding. We anticipate Phase I to be complete in 2023. Phase II and Phase III will each take 24-36 months to complete.

# Phase I Elements & Steps



The Phase I process can be divided into several different elements. Each of these elements include obtaining public input and feedback. The first element is to identify and document existing conditions to determine issues and concerns within the study area. This information is then utilized to develop the study's Purpose and Need, which guides the remainder of the Phase I process.

The Purpose and Need helps to identify key evaluation criteria for the study and focuses the study improvements to meet these standards.

After the Purpose and Need is developed, the study will develop alternatives and define criteria for which each alternative will be evaluated against. Once the alternatives are evaluated, results will be presented to the public, and a preferred alternative is recommended for the overall study.

Once, the preferred alternative is approved, the alternative is then carried forward into Phase II.

# National Environmental Policy Act (NEPA)

- Federal guidelines to help protect the environment
- Considers impacts to both physical and human environment
- This study is being processed as a Federally Approved Categorical Exclusion (CE)



The Phase I study process will be developed in accordance with the National Environmental Policy Act of 1969, commonly referred to as NEPA.

NEPA is a federal law that provides guidance on how transportation studies must consider environmental elements. Under NEPA, the study's improvements will undergo a comprehensive environmental review that focuses on avoiding, minimizing, and mitigating environmental impacts. The environmental impacts include both the physical and human environments. NEPA also requires the review of a "do nothing" alternative. Public involvement with formal documentation is also essential under NEPA. Per NEPA classifications, this study is being processed as a Federally Approved Categorical Exclusion and is not anticipated to have significant impacts.

The study will also consider both the environmental and community resources, as well as the impacts to both resources. These include areas related to environmentally sensitive sites, drainage, traffic noise, parks, traffic, and local businesses. The team is aware of the human and natural resources that currently exist near US 20. These resources will be considered and evaluated during the alternative analysis with the goal to avoid, minimize, or mitigate impacts.

This will help to ensure the alternatives not only meet mobility and capacity needs of the

area, but also fit within the context of the current environment. The resources include several existing cemeteries, local businesses, and the Bluff City Fen located to the south of US 20.

## Recent Studies

### **US 20 Elgin Phase I Study (Completed 2021)**

- Improvements up to Poplar Creek
- Noise barriers extended to interchange



The current study location has recently been involved in several other past corridor-wide studies. A recent study to note is the US 20 Elgin Phase I Study to the west.

The US 20 Elgin Phase I Study was completed for the Illinois Department of Transportation in cooperation with the Federal Highway Administration. The study prioritized roadway and bridge rehabilitation along 6.8 miles of US 20 from approximately west of Randall Road, ending east of Shales Parkway to improve safety and mobility along the corridor. This study resulted in improvements to US 20 west of Poplar Creek and several noise barriers near the US 20 and Villa Street interchange. The noise barriers identified previously will not be impacted by this current study.

This study at US 20 and Shales Parkway looks to focus on the Shales Parkway area, address the safety and mobility concerns at this specific location, and provide more detailed evaluation at this location than past corridor-wide studies.

## Existing Conditions



**Existing Roadway**



**Land Use**



**Crash History**

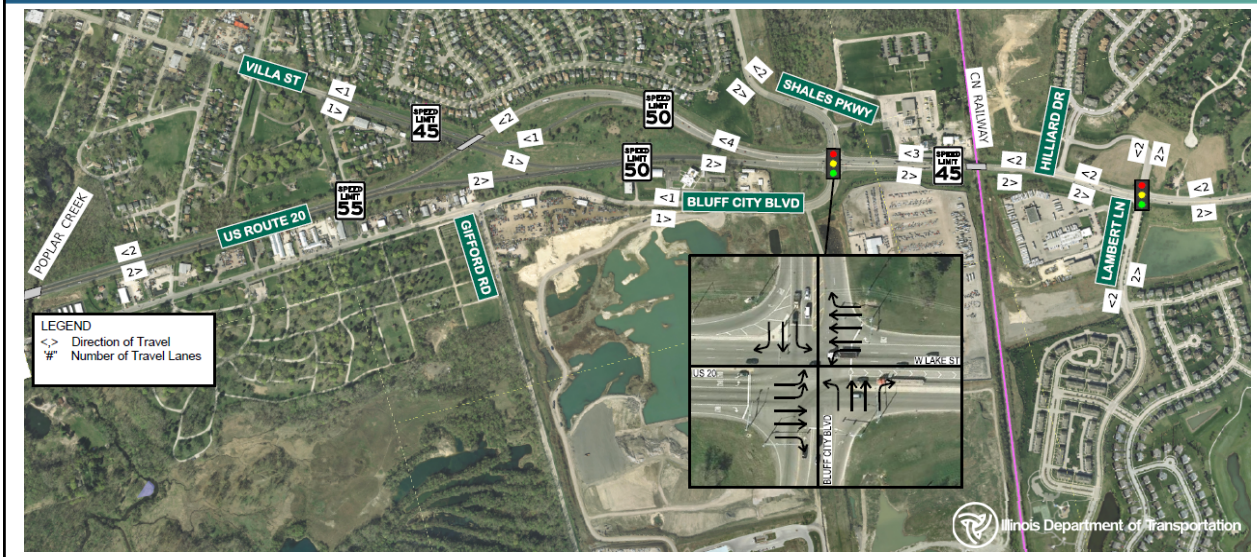


**Existing & Future Traffic**



Next, we will present the existing conditions within the US 20 at Shales Parkway study area including current roadway conditions and lane configurations, the study area's land use, an overview of historical crash data, as well as existing and future traffic.

## Existing Roadway – US 20 & Shales Parkway

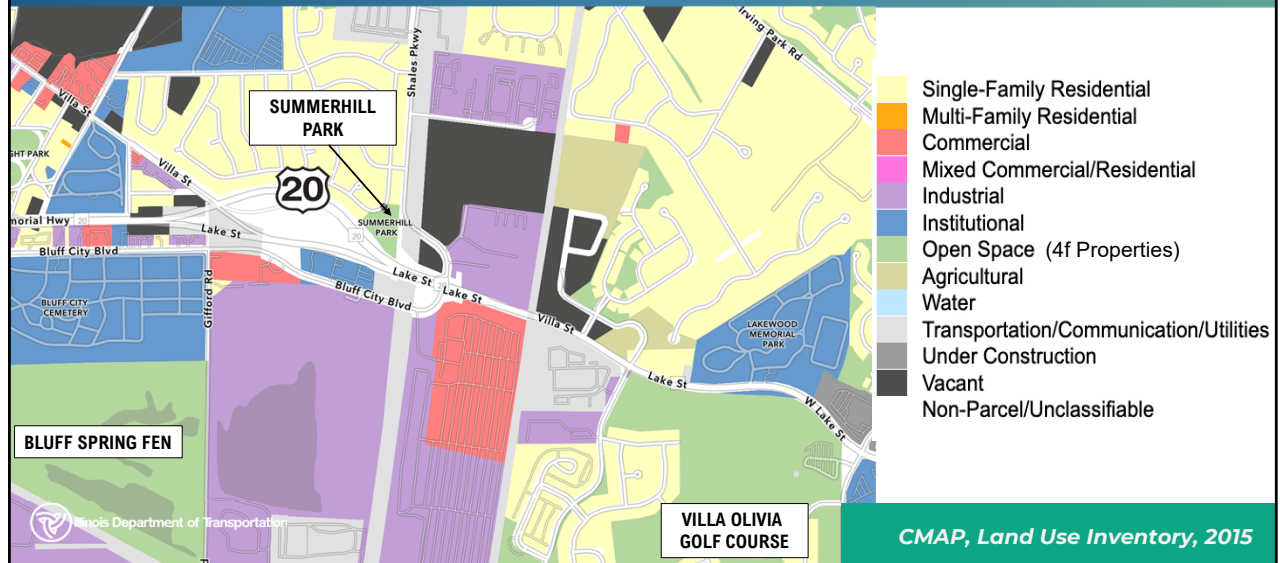


US 20 is classified as an expressway or freeway west of Shales Parkway and a Principal Arterial east of Shales Parkway. The posted speed limit for US 20 transitions between 55 miles per hour at the west, 50 miles per hour at the interchange, and 45 miles per hour from Shales Parkway to the east.

US 20 is identified by Illinois Department of Transportation as a Strategic Regional Arterial. The Illinois Department of Transportation defines this type of roadway as, systems intended to carry a larger volume of traffic at higher speeds as a complement to the region's expressway system.

The typical section of US 20 between Poplar Creek to Shales Parkway consists of two, 12-foot travel lanes per direction separated by a concrete barrier median. East of Shales Parkway to Illinois Route 59, the typical section transitions to a closed drainage urban cross section with curb and gutter. This section consists of two, 12-foot travel lanes per direction separated by either a painted or mountable median.

# CMAP Land Use



[Map Source: <https://www.cmap.illinois.gov/data/land-use/inventory>]

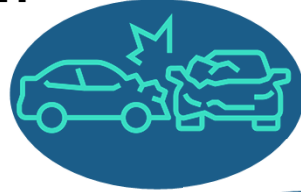
This map shows the 2015 Land Use Inventory produced by the Chicago Metropolitan Agency for Planning (CMAP) near the US 20 at Shales Parkway intersection. As depicted on the map, the primary land uses in this area are a mix of industrial, residential, commercial, and institutional.

Additionally, the study area includes several 4(f) properties including Summerhill Park, Bluff Spring Fen, and Villa Olivia. Under NEPA, Section 4(f) properties are defined as publicly owned parks, recreation areas, and historic sites that require additional consideration during the Phase I process.

# Crash History

## Safety Tier Critical Intersection

- US 20 at Shales Parkway is classified as **Safety Tier Critical**
- Meaning, the location has the highest potential for safety improvements when compared to other signalized intersections

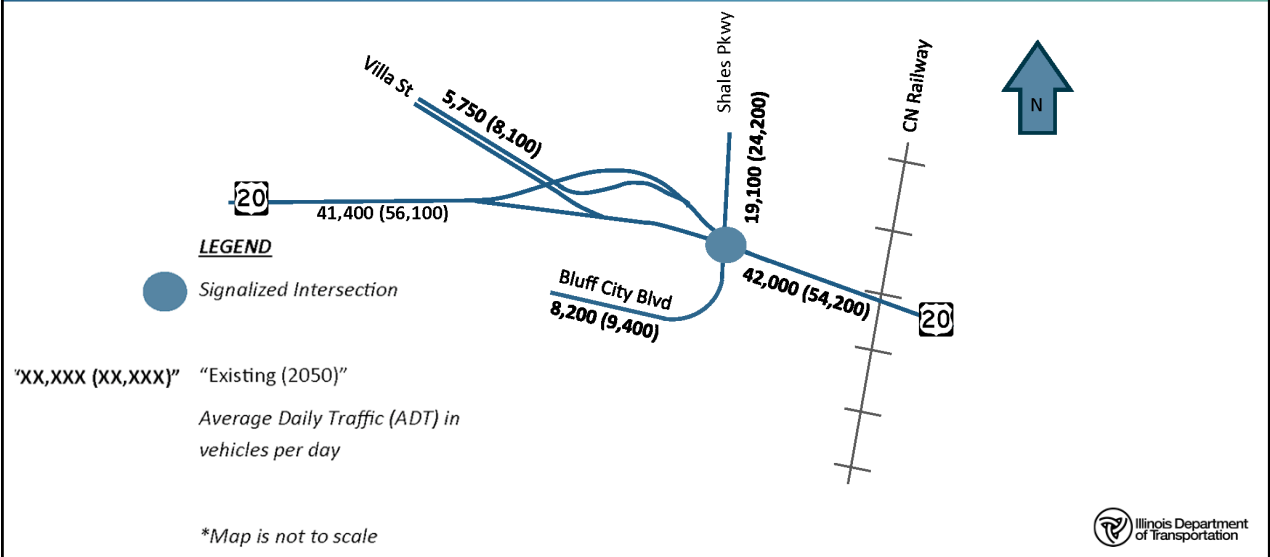


The US 20 at Shales Parkway intersection is identified as Safety Tier Critical by the Illinois Department of Transportation. The Safety Tiers categorize roadway segments and intersections in Illinois based on their level of safety performance and opportunity for improvement, providing a rating for relative comparison. Safety Tier Critical indicates the US 20 at Shales Parkway intersection has a higher crash rate and more crashes resulting in an injury when compared to other signalized intersections.

A majority of crashes were rear end type crashes. Probable causes of rear end type crashes include heavy congestion and queuing at the intersection, unexpected stops on approaches, and speed variability. Nearly one-third of all crashes resulted in an injury.

Eastbound US 20, just west of the intersection, quickly transitions from a high-speed expressway to an urban signalized arterial corridor. East of the intersection, westbound moving traffic traverses a steep grade over the railroad, which is located only 1,000 feet away from the intersection and may inhibit visibility of the conditions or queuing at the intersection.

# Existing & Future Traffic

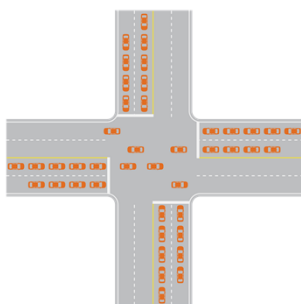


As part of this study, traffic data will be collected and analyzed to understand existing travel patterns and operations of the US 20 and Villa Street interchange and the US 20 and Shales Parkway intersection. The results of this analysis will guide the development of alternatives for the location of the existing US 20 at Shales Parkway intersection.

In the study area US 20 carries over 42,000 vehicles per day. By 2050 it is expected that US 20 will carry over 56,000 vehicles per day.

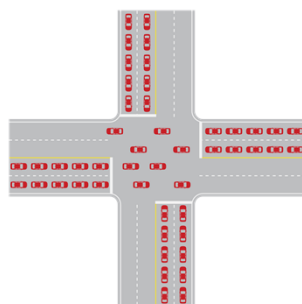
# Existing & Future Traffic

## Existing Operations - Failing



**LOS E**  
Maximum capacity of the intersection.  
Average vehicle delays are 55 to 80 seconds.

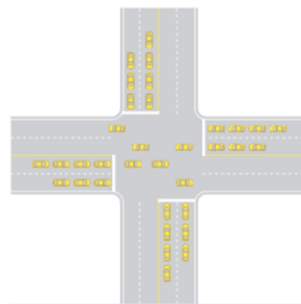
**AM Peak Hour – LOS E**



**LOS F**  
Jammed conditions where the intersection is over capacity. Average delays exceed 80 seconds.

**PM Peak Hour – LOS F**

## Acceptable Operations



**LOS D**  
Delays to approaching vehicles may be substantial during short periods, but excessive backups are negligible. Average vehicle delays are 35 to 55 seconds.



In accordance with methodology defined by the Federal Highway Administration, the Illinois Department of Transportation defines and measures traffic delays by a Level of Service or LOS rating using a scale from A to F, with free flow or no congestion rated as Level of Service A and heavy congestion rated as Level of Service F.

Level of Service D is considered acceptable along state highways in the Chicago metropolitan area.

Traffic congestion is a common occurrence at the intersection of US 20 and Shales Parkway. If no roadway improvements are made, traffic volumes will continue to increase over the years and so too, will congestion. During the AM peak hour, it was found that this intersection operates at maximum capacity, or Level of Service E, and in the PM peak hour it operates at over capacity, or Level of Service F, which is not acceptable.

## Slide 14

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**KR119**    [@Andrea Barnish] - please rerecord slide  
Kristen Robinson, 9/1/2021

# Public Outreach



**Context Sensitive Solutions (CSS)**



**Stakeholders**



**Community Advisory Group (CAG)**



**Next Steps**



**How To Leave A Comment**



Next, we will review the study's public outreach components including the Context Sensitive Solutions process, or CSS, study stakeholders, the Community Advisory Group, also referred to as CAG, and how to get involved with the study.

# Context Sensitive Solutions (CSS)

*The US 20 at Shales Parkway Study follows the CSS process to garner public input and feedback.*



 Illinois Department of Transportation

This study follows the Context Sensitive Solutions process to garner public input and feedback. The Context Sensitive Solutions process ensures stakeholders are not only engaged, but their views are considered in the development process of recommended alternatives.

Additionally, the Context Sensitive Solutions process ensures the resulting study improves safety and mobility for the traveling public, while also preserving and enhancing the scenic, economic, historic, and natural qualities of the setting through which it passes.

# Stakeholders

Several stakeholder meetings are planned throughout the study process including:

- **Public** meetings to share information and garner input from the broader community
- **One-on-one** meetings as needed with city and state agencies, local elected officials, businesses and property owners



Anyone that lives or works within, owns property, has vested interest in, or travels through the study area is a study stakeholder. This includes local communities, organizations, elected officials, businesses, property owners, city and state agencies, and the general public. The role of the stakeholders is to advise the Illinois Department of Transportation on issues related to the study throughout the entire study process.

All input from participants is valued and will be considered by the Department. To help facilitate this engagement with stakeholders, the Department will hold several public, Community Advisory Group, and one-on-one meetings as needed with local agencies, elected officials, businesses and property owners.

# Community Advisory Group (CAG)

The **Community Advisory Group (CAG)** is made up of representatives of diverse community interests to provide feedback to the study team

Register Today!  
Become a  
CAG Member!



The Community Advisory Group, or CAG, is a group of volunteer stakeholders that represents the community and functions as a liaison between the Illinois Department of Transportation and the public. The Community Advisory Group will convene throughout the study to share issues and concerns, as well as identify and evaluate potential alternatives and solutions.

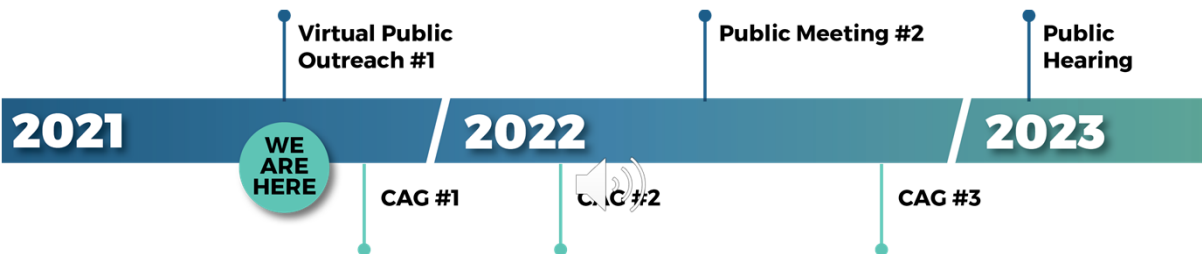
If you are interested in learning more or joining this study's Community Advisory Group, please visit the Community Advisory Group page under the Get Involved tab on the study website. Once on the Community Advisory Group page, scroll down to the application section to access an online or mailing form.

## Slide 18

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**KR121**    [@Andrea Barnish] - please rerecord slide  
Kristen Robinson, 9/1/2021

## Phase I Next Steps



- Analyze existing conditions and deficiencies
- Gather and consider public input
- Assemble Community Advisory Group
- Develop study problem statement and purpose and need



Following the virtual public outreach and closure of the public comment period, the study will gather and analyze the existing conditions, as well as review issues and concerns identified through the public involvement process. The study team will also assemble the Community Advisory Group and convene with members to kick off the first of three Community Advisory Group meetings.

The next steps in Phase I include developing the study's problem statement, purpose and need, and alternatives based on information received from stakeholders, which will be presented during the next public outreach period.

Updates will be published throughout the course of the study to share news and alert the public of future meetings and progress. To sign up for these updates, visit the Contact Us page on the website and select the "Click Here for More Information" button to complete the sign up form.

# How To Leave A Comment

**Submit comments by mail, email or the study website**



**[Info@US20atShalesStudy.org](mailto:Info@US20atShalesStudy.org)**



**[US20atShalesStudy.org](http://US20atShalesStudy.org)**



**Illinois Department of Transportation  
Attn: Bureau of Programming, Lori Brown  
201 West Center Court, Schaumburg, IL 60196-1096**



PRINTED FORM



ONLINE FORM



Public comments are encouraged and welcomed at any time during this study. Comments received by **October 20, 2021**, will become part of the official Phase I public outreach record. To provide your feedback at this time, we ask that you complete the comment form and either mail it to the study team or submit it online through the website.

Visit the Contact Us page on the website to access both the online form and printed form for mailing.

The contact information listed on this slide can also be found on the study website on the Contact Us page.

# THANK YOU!



Website: [US20atShalesStudy.org](https://US20atShalesStudy.org)  
Email: [Info@US20atShalesStudy.org](mailto:Info@US20atShalesStudy.org)



Illinois Department of Transportation

We want to thank you for being part of this virtual public outreach for the US 20 at Shales Parkway Study.

Explore the website to view more information about this study or to fill out a comment form. You can also share your comments and feedback via the project email, [Info@US20atShalesStudy.org](mailto:Info@US20atShalesStudy.org).

As a reminder, comments received by **October 20, 2021**, will be included as part of the official Phase I public outreach record.