

## APPENDIX E:

### Meeting Minutes

## **FINAL Meeting Minutes**

**Project:** AA Highway Improvements Study  
**Subject:** Project Team Meeting No. 1  
**Date:** Tuesday, January 14, 2020, 9:30 AM (Eastern Time)  
**Location:** Buffalo Trace ADD Office

### **Attendees:**

Stephen De Witte	KYTC Central Office, Division of Planning
Jacob Huber	KYTC Central Office, Division of Planning
Jay Balaji	KYTC Central Office, Division of Planning
Kevin Sandefur	KYTC Central Office, District 6 Location Engineer
Randy Turner	KYTC Central Office, District 9 Location Engineer
Mike Bezold	KYTC District 6, Project Development & Design Branch Manager
Dane Blackburn	KYTC District 6, Planning Supervisor
Craig Walker	KYTC District 6
Donald Imfeld	KYTC District 6, Planning
Steve Gunnell	KYTC District 9, Chief District Engineer
Darrin Eldridge	KYTC District 9, TEBM for Project Development
Karen Mynhier	KYTC District 9, Environmental Coordinator
Matt Dillon	KYTC District 9, Planning
Michael Read	KYTC District 9, Planning
Missy Hardy	BTADD
Amy Kennedy	BTADD
Lindsay Walker	HMB
Jarrod Johnson	HMB
Joey Mosley	HMB
John Callihan	AECOM

### **Agenda / Handouts:**

To facilitate the meeting the following materials were provided as handouts and are included as an attachment to these meeting minutes.

- Agenda
- Existing and Committed Projects Map
- Existing and Committed Projects Matrix
- Presentation Slides

## **Meeting Comments / Summary:**

Stephen DeWitte of KYTC Central Office (CO) Planning began the meeting with introductions, and then turned the meeting over to Lindsay Walker of HMB to begin the discussion which was facilitated by a PowerPoint presentation and handouts. The following are comments / discussion items for each agenda item.

### I. Study Background

- HMB presented the study area, study objective and goals, tasks, and schedule.
- KYTC District 9 (D9) noted that Joe Callahan, previously the D9 Planning Supervisor, is now the D9 Engineering Support Branch Manager. Matt Dillon and Michael Read will now be filling in to assist with D9's planning duties for this project.
- KYTC D9 stated that one of their goals for this study was ultimately to get information that would go on a CHAF.
- KYTC CO Planning noted that the study schedule would need to be amended to reflect that initial traffic forecasting methodology would be completed in January 2020 with a final traffic forecast report prepared later in the process (April 2020).
- HMB noted that they see this study as a large-scale Small Urban Area (SUA) study / combination large-scale Highway Safety Improvement Program (HSIP) project. The project team concurred with this assessment. Ultimately individual project locations will be identified and evaluated as stand-alone project sheets.

### II. Existing Conditions

- HMB presented the existing conditions of data gathered thus far including existing and committed projects, typical sections, traffic conditions, freight network and major industries, crash analysis, and the preliminary field review.

#### a) Existing and Committed Projects

- KYTC D9 commented that the project team should ensure all the identified project descriptions and estimates are accurate and up to date. KYTC will update HMB with all changes to project descriptions and estimates.
- There was discussion on the existing and committed projects about which projects were authorized, sponsored, and the probabilities of certain projects moving forward. KYTC D6 noted they had several CHAFs that are currently not listed in the table / map as they have not been sponsored or rated in the prioritization process. Both KYTC D6 and D9 will review the table / map and

update HMB on the most up to date status of all identified projects directly impacting the study corridor.

- There was a discussion on the terminology used for the identified study area projects. HMB will change the terminology from “Existing and Committed Projects” to “Identified and Committed Projects”.
- HMB noted that there is a Small Urban Area (SUA) study that just started for the Boyd-Greenup area. It was noted that the Boyd-Greenup SUA Study area does not overlap with this study area based on initial review of online mapping.

b) Typical Sections

- HMB presented the existing typical section of the study corridor. This included percentages of two-lane, four-lane, and two-lane with climbing lanes.
- HMB asked when the rumble strips were installed along the study corridor. KYTC answered that the rumble strips were initially installed over a decade ago.
- HMB discussed the recently widened section of KY 9 in Mason County. KYTC D9 stated that this project was Item No. 9-169 which began construction in September 2015 and ended October 2017. KYTC CO commented that the KYTC FTP client is working now and will coordinate with KYTC D9 to provide HMB with the construction documents for 9-169. KYTC CO warned the project team that KYTC's FTP has sometimes been flagged as spam.

c) Traffic Overview

- HMB presented the existing traffic in the study area including AADT, AADTT, DHV, and LOS for all identified count stations along the study corridor.
- HMB noted that most counts are recent, with one exception (Station 081782 in Mason County last counted in 2013). KYTC D9 noted that they could potentially supplement HMB with any intersections counts beyond what HMB is scoped to do if necessary.
- KYTC CO Planning asked about their role regarding traffic forecasting and when HMB would need the information. HMB explained what was necessary from KYTC. KYTC CO noted that since the traffic model could change based on newly authorized projects on the study corridor, the final traffic forecasting should be moved from January to later in the study such as April or May to ensure correct forecasting.
- There was a discussion about growth rates and new potential developments affecting the study area. KYTC D9 surmised that the only cause to warrant widening to a four-lane would be new local development since the current growth rates do not support need for more capacity. HMB asked if the project team knew of any potential development in Ohio as well that could

affect the study. HMB will bring this topic up at Local Official / Stakeholder (LO/S) Meeting No. 1 to confirm any new development.

- KYTC CO Planning asked how growth rates should be applied to the study corridor (i.e. one growth rate for entire corridor or separate ones based on growth areas). HMB will continue to coordinate with the project team to determine growth rates and application through the corridor and intersections.

d) Freight Network and Major Industries

- HMB presented a map showing the Kentucky Highway Freight Network along with locations of any employers in the study area counties that have 100 or more employees.
- KYTC D9 noted to the project team that there is an existing freight study for Boyd and Greenup counties. KYTC CO Planning informed attendees that it is just beginning and HDR is the consultant. KYTC stated that Jeremy Edgeworth would be a good point of contact and would get HMB in touch to determine any overlap between these projects.

e) Crash Analysis

- HMB presented the crash history analysis for the study corridor including crash history statistics, EEC analysis results, CRF analysis results, and crash density.
- There was discussion about the effectiveness of crash prediction methods amongst the project team and the difference in the CRF and EEC analysis. KYTC D9 expressed that the project team should be cautious when evaluating the study corridor with respect to these methods since the facility is not being used the way it was designed. Currently, speeds are observed to be higher than the design speed and this may have implications with crash prediction models. KYTC CO noted that the EEC analysis is used mainly as a screening tool. HMB will coordinate with KYTC to examine high crash locations and crash prediction results in further detail to ensure the needs stemming from crash data for the project are accurately achieved. EEC segments (where possible) should match with the identified study segments for the CRF analysis.
- There was a discussion on the importance of severity and intensity when it comes to analyzing crash data at this study's scale. The KABCO crash severity identification method was explained by HMB. KYTC CO Planning noted that they would like to see A's as well as K's in future maps. Also, KYTC D9 commented that they would like to see a weight given to injury severities to enhance the crash analysis. HMB will coordinate with KYTC to analyze the crash data in other meaningful ways such as those described.

- HMB presented crash density maps to the project team. It was noted that the data could potentially be normalized to reflect differences in AADT or other factors due to the scale of this study. HMB will re-evaluate the crash density maps to determine if they could be more inferential.
- Focus for presentation of crash data for the LO/S meeting will be graphically oriented. Presenting EEC and CRF numbers is too detailed for this type of meeting.

f) Field Review

- HMB discussed their preliminary field review including observations and concerns.
- KYTC D6 noted one of their primary concerns is turn lanes and identifying where they are warranted. KYTC D6 expressed concern that LO/S expectations may be that turn lanes are required everywhere and the project team needs to clearly convey that turn lanes will be considered where warrants are met.
- Both KYTC D6 and D9 voiced concerns over where auxiliary lanes end and their potential for impacts to safety.
- KYTC D9 noted that LO/S attendees may be focused on widening projects for the existing two-lane segments. The project team should be prepared to show data to inform regarding the effectiveness of this potential improvement concept.
- There was a discussion about Park and Rides and Park and Pools. KYTC D6 stated that they reserve the term “Park and Ride” only if there is bus service involved with it.
- There was a discussion about lighting along the study corridor and payment for the lighting. KYTC D9 stated that the study should make recommendations for lighting while noting the responsibilities associated with all entities (i.e. KYTC and local jurisdictions).
- There was a discussion about existing and future repaving along the study corridor. KYTC will provide HMB with the latest resurfacing schedule and ranking for the study corridor.
- BTADD stated that they were working on a socioeconomic inventory on part of the study area and will provide HMB with results once they are complete.

III. Preliminary Discussion of Improvement Concepts

- HMB began a discussion on preliminary improvement concepts and listed a preliminary set of concepts to consider that provide high value/low impact/low cost solutions to address identified project locations. HMB will continue to evaluate improvement concepts based on the need in the study corridor.

#### IV. Local Official / Stakeholder Meeting Preparation

- HMB began discussing preparation for LO/S Meeting No. 1. It was noted that there would be two meetings held during this time with the same meeting content given the size of the study area to lessen the travel required for attendees.
- KYTC D9 suggested that a good method to conduct the LO/S Meeting No. 1 would be to focus on presenting information. Also, KYTC D9 suggested that it would be good to present what has been implemented from the previous AA Highway study and show the effectiveness of those items including rumble strips, lighting, law enforcement. etc. HMB will coordinate with KYTC to determine these implementations and their effectiveness.
- There was a discussion about the list of invitees the LO/S Meeting No. 1. The project team agreed that they did not want the meetings to become unmanageable and ineffective and will be prudent in determining a list of invitees. BTADD stated that they have a list of names such as Planning and Zoning Commission members that they can provide. KYTC will coordinate with the ADDs to determine a list of invitees for LO/S Meeting No. 1.
- KYTC CO Planning stated they will create a draft letter to send for the upcoming LO/S Meeting No. 1. There was a discussion about who would sign the LO/S letters since it spans two districts. The project team decided that both KYTC D6 and KYTC D9 Chief District Engineers will both sign the letter.
- BTADD commented that February is a busy month for elected officials and is during the 2020 legislative session. BTADD noted good potential dates would be the same day as BTADD AND FIVCO board meetings. FIVCO meets at 2 PM on the 3<sup>rd</sup> Monday of the month, and BTADD meets at 3PM on the 3<sup>rd</sup> Tuesday of the month. BTADD suggested it would be good to schedule both LO/S Meeting No. 1s directly before or after these board meetings.

The meeting concluded at approximately 11:40 AM (Eastern Time).

#### **List of Follow-Up / Action Items by Responsible Party:**

A list of follow-up / action items from Project Team Meeting No. 1 include:

- KYTC will update HMB with all changes to project descriptions and estimates.
- KYTC to provide HMB with the construction documents for Item No. 9-169.
- HMB will contact Jeremy Edgeworth (KYTC) for information relating to the freight study in Boyd and Greenup Counties.

- HMB to provide KYTC a list of necessary counts needed for the project (HMB will collect up to 10 with KYTC D9 potentially able to help with any others that may be needed).
- KYTC to develop a draft LO/S Meeting No. 1 letter and schedule the LO/S Meeting No. 1s.
- KYTC will coordinate with BTADD, FIVCO, and KYOVA to determine a list of invitees for the LO/S Meeting No. 1.
- KYTC to provide a list of previously implemented projects related to the previous AA Highway Study to present at the LO/S Meeting No. 1.
- KYTC to provide HMB with the latest resurfacing schedule and ranking for the study corridor.
- BTADD to provide HMB results from the socioeconomic study.
- HMB will prepare materials to be presented at the LO/S meeting No. 1. These will be submitted at a minimum two weeks prior to the meeting date to allow project team review.

**Attachments:**

*Meeting Agenda*

*Handouts*

*Presentation*

## **AGENDA**

### **AA Highway Improvements Study**

#### **Project Team Meeting No. 1**

**January 14, 2020, 9:30 AM**

**Buffalo Trace Area Development District**

**Maysville, Kentucky**

- I. Study Background
  - A. Study Area
  - B. Study Objective / Goals
  - C. Schedule
- II. Existing Conditions
  - A. Existing and Committed Projects
  - B. Roadway Geometrics
  - C. Traffic Volumes
  - D. Crash Analysis
  - E. Field Review Information
- III. Preliminary Discussion of Improvement Concepts
- IV. Local Official / Stakeholder Meeting Preparation
  - A. Schedule / Locations
  - B. Invitees
  - C. Meeting Materials / Activities
- V. Next Steps / Wrap Up



## SIGN-IN SHEET

### AA Highway Improvements Study Project Team Meeting No. 1

#### Attendees:

Name	Agency	Email	In Attendance?
Stephen DeWitte	KYTC – CO	Stephen.DeWitte@ky.gov	SGD
Beth Niemann	KYTC – CO	Elizabeth.Niemann@ky.gov	
Jacob Huber	KYTC – CO	Jacob.Huber@ky.gov	
Steve Ross	KYTC – CO	Steve.Ross@ky.gov	
Jay Balaji	KYTC – CO	Jayalakshmi.Balaji@ky.gov	JJB
Kevin Sandefur	KYTC - Highways	Kevin.Sandefur@ky.gov	KS
Randy Turner	KYTC - Highways	Randy.Turner@ky.gov	RT
Scott Schurman	KYTC – Env.	Scott.Schurman@ky.gov	
Adam Michels	KYTC – Env.	Adam.Michels@ky.gov	
Robert Yeager	KYTC – D6	Robert.Yeager@ky.gov	
Mike Bezold	KYTC – D6	Mike.Bezold@ky.gov	GMB
Dane Blackburn	KYTC – D6	Dane.Blackburn@ky.gov	EDB
Nikki Hill	KYTC – D6	Nikki.Hill@ky.gov	
Steve Gunnell	KYTC – D9	Steve.Gunnell@ky.gov	
Darrin Eldridge	KYTC – D9	Darrin.Eldridge@ky.gov	
Joe Callahan	KYTC – D9	Joe.Callahan@ky.gov	JCE
Karen Mynhier	KYTC – D9	Karen.Mynhier@ky.gov	KM
Matt Dillon	KYTC – D9	Matt.Dillon@ky.gov	MD
Jeff Thelen	NKADD	Jeff.Thelen@nkadd.org	
Missy Hardy	BTADD	mhardy@btadd.com	MH
Luke Stapleton	FIVCO	luke@fivco.org	
Lindsay Walker	HMB	lwalker@hmbpe.com	
Brad Johnson	HMB	bcjohnson@hmbpe.com	
Jarrod Johnson	HMB	jjohnson@hmbpe.com	JJM
Joey Mosley	HMB	jmosley@hmbpe.com	JM
John Callihan	AECOM	john.callihan@aecom.com	JEC
Michael Read	KYTC D-9	michael.read@ky.gov	MR
Jacob Huber	KYTC CO	Jacob.Huber@ky.gov	
Craig Walker	KYTC D6	Craig.Walker@ky.gov	CW
Donald Infeld	KYTC D6	Donald.Infeld@ky.gov	DI



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## SIGN-IN SHEET

### AA Highway Improvements Study Project Team Meeting No. 1

#### Attendees:

Name	Agency	Email	In Attendance?
Amy Kennedy	Buffalo Trace ADO	akennedy@btadd.com	✓



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# AA Highway Improvements Study

Bracken, Carter, Greenup, Lewis, Mason, Pendleton Counties

Project Team Meeting No. 1

January 14, 2020, 9:30 AM EDT



# AGENDA

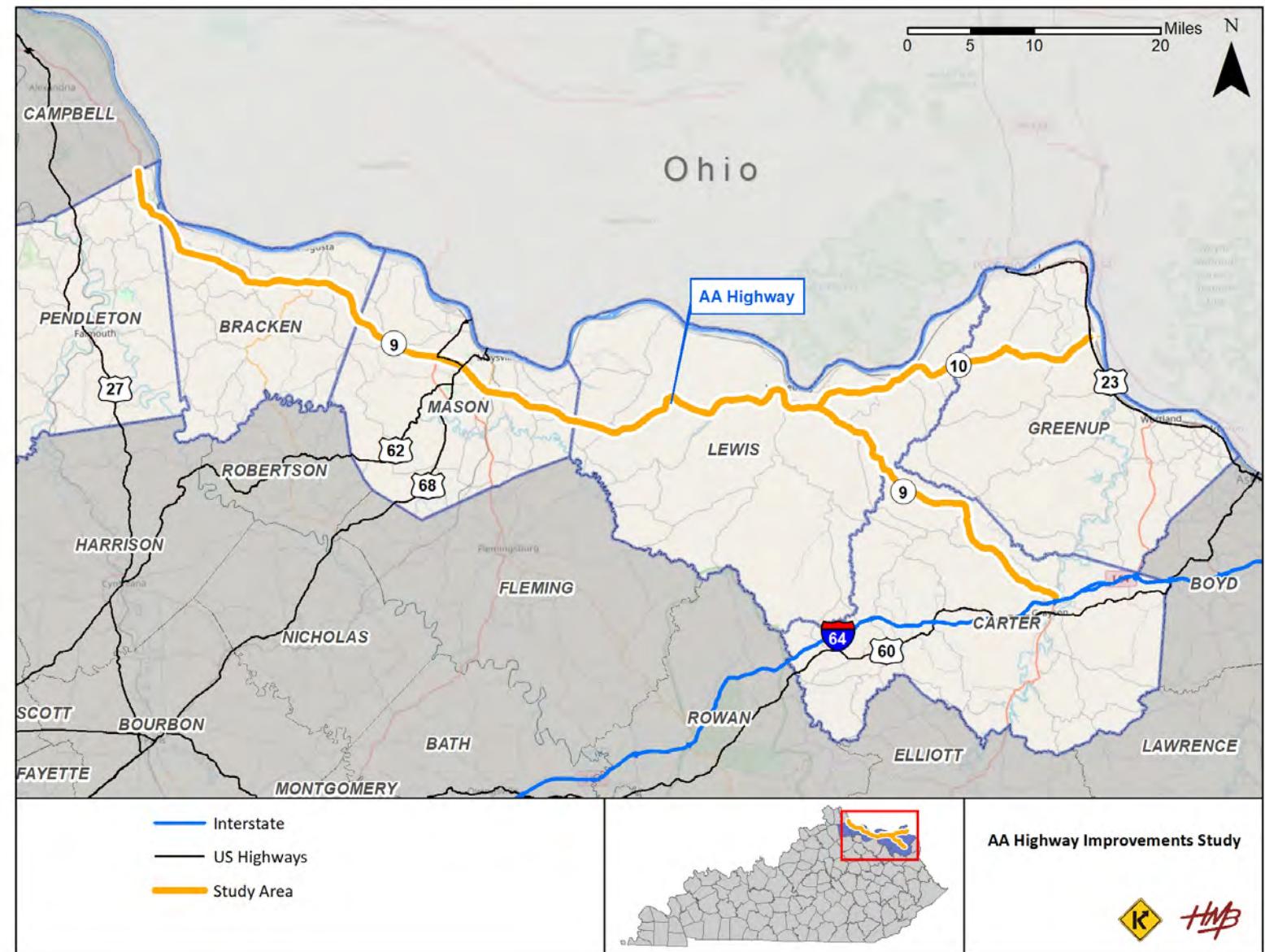
1. Study Background
2. Existing Conditions
3. Preliminary Discussion of Improvement Concepts
4. Local Official / Stakeholder Meeting Preparation
5. Next Steps / Wrap Up

# STUDY BACKGROUND



# Study Background

## Study Area



# Study Background

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## Study Objective

- Identify and evaluate potential improvement concepts to improve overall safety and operational performance of the AA Highway including KY 9 from the Campbell / Pendleton County line to Grayson (KY 1) and KY 10 from Vanceburg to US 23 in Greenup County.

# Study Background

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## Study Goals

- Identify Project Locations
- Develop / Evaluate Improvement Concepts
- Prepare Prioritized List of Improvement Concepts

# Study Background

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## Study Tasks

- Compile Existing Conditions Information
- Prepare Traffic Forecasts (Year 2045)
- Perform Environmental Overview
- Develop Improvement Concepts
- Refine Improvement Concepts
- Prioritize Recommended Improvements

# Study Background

## Schedule

August 2019	Study Initialized
Sept. – Dec. 2019	Scoping / Data Gathering / Existing Conditions Analysis
January 2020	Project Team Meeting No. 1 / Traffic Forecasting
February 2020	LO/S Meeting No. 1 / Develop Improvement Concepts
March 2020	Project Team Meeting No. 2 / Evaluate Improvement Concepts
April 2020	LO/S Meeting No. 2 / Refine Improvement Concepts
May 2020	Develop Recommendations
June 2020	Project Team Meeting No. 3
July 2020	Prepare Draft Report
August 2020	Address Comments / Finalize Report



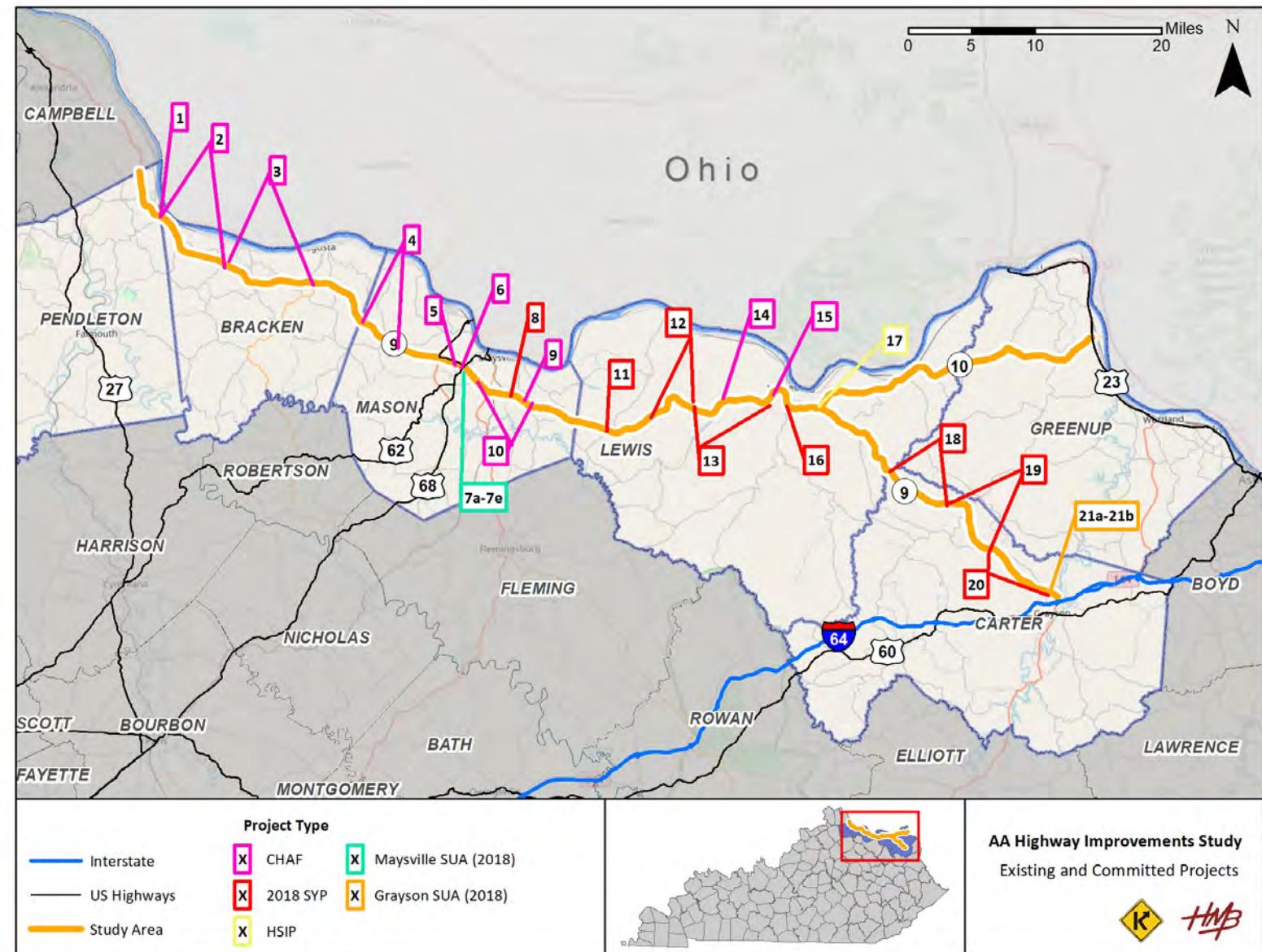
# EXISTING CONDITIONS





# Existing Conditions

## Existing and Committed Projects





# Existing Conditions

## Typical Section



62% Two-Lane  
(73.3 miles)



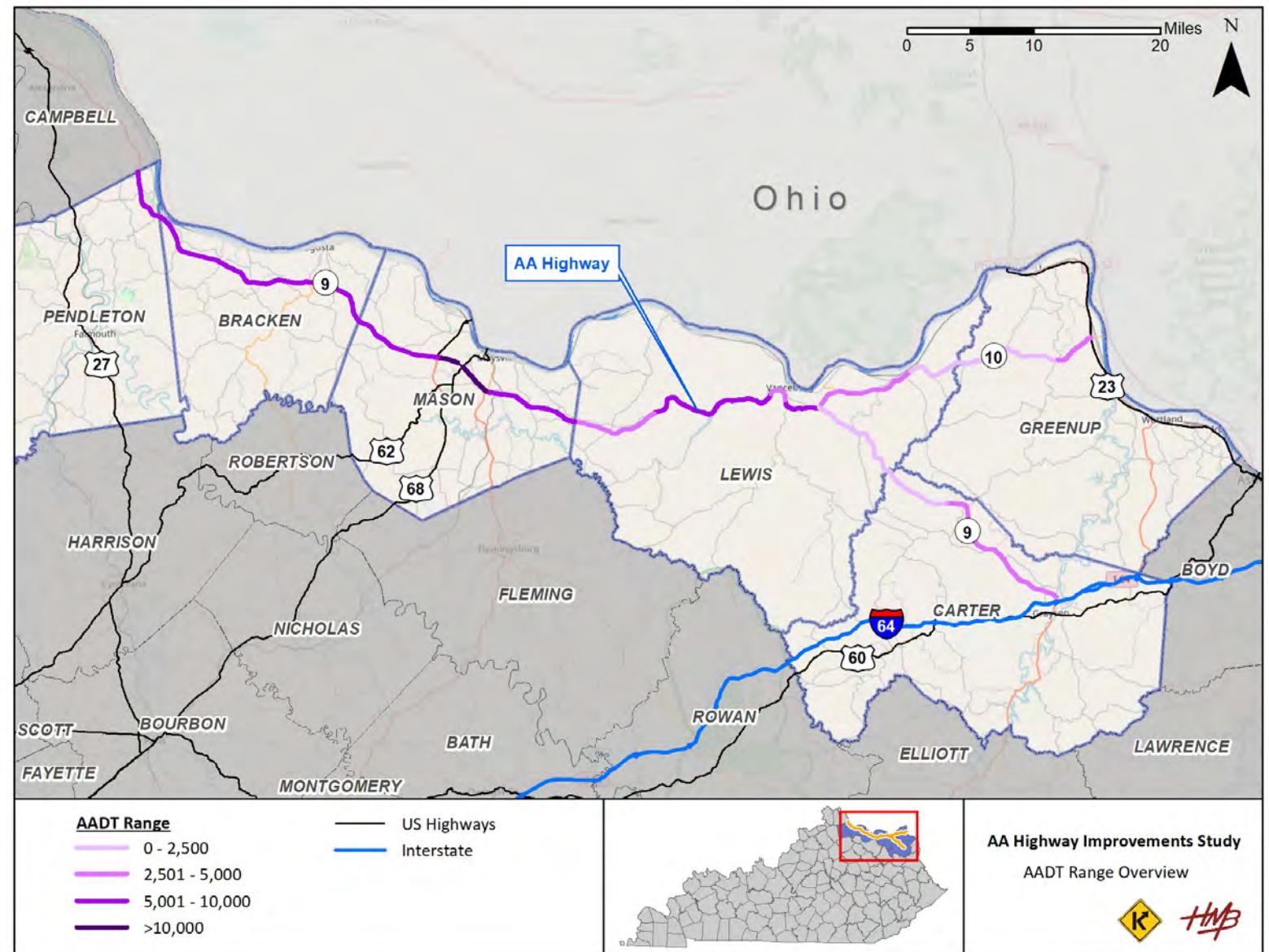
26% Two-Lane  
with Truck  
Climbing Lane



12% Four-Lane  
(14.3 miles)

# Existing Conditions

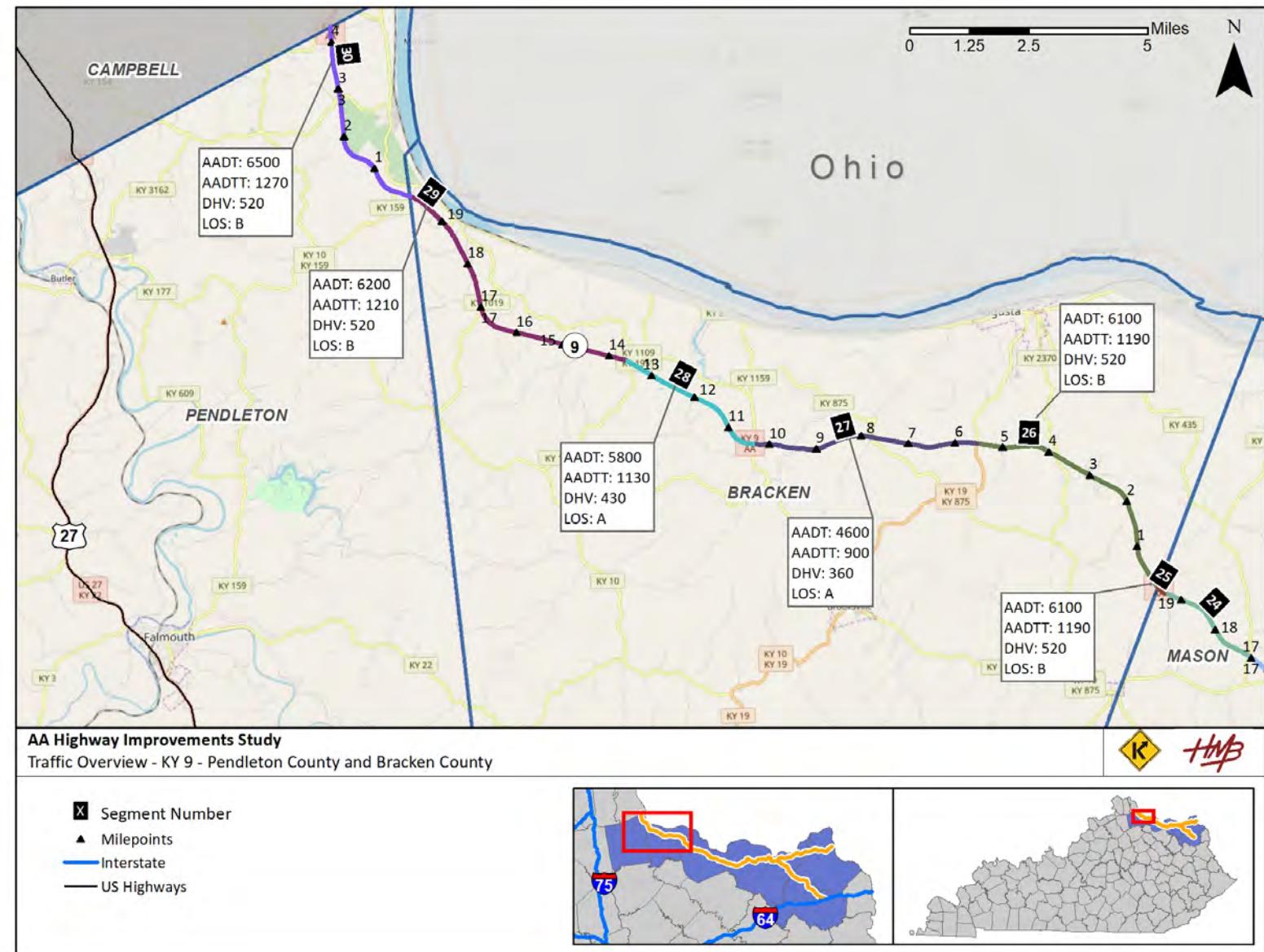
AADT



# Existing Conditions

# Traffic Overview

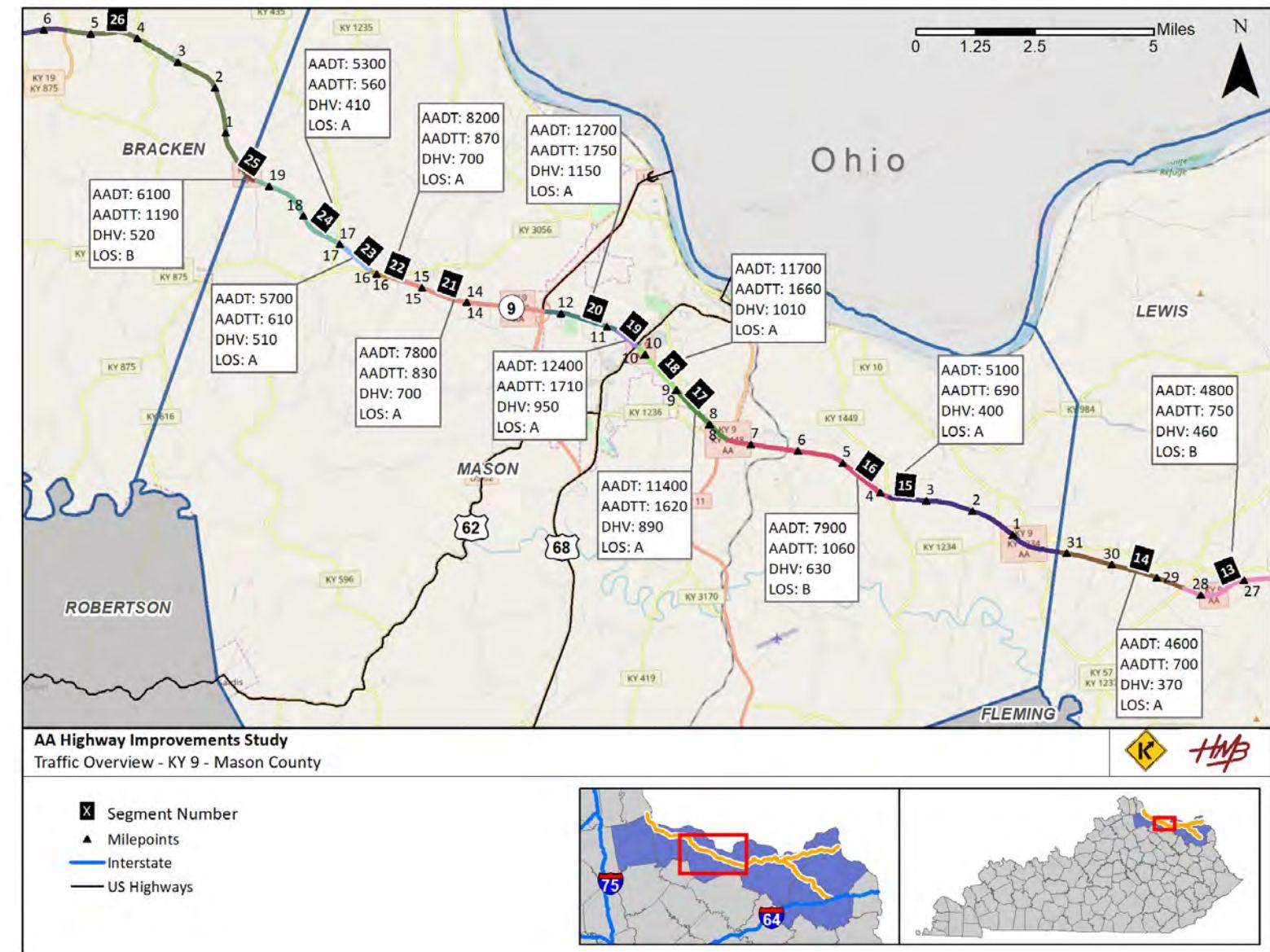
# Pendleton Bracken County



# Existing Conditions

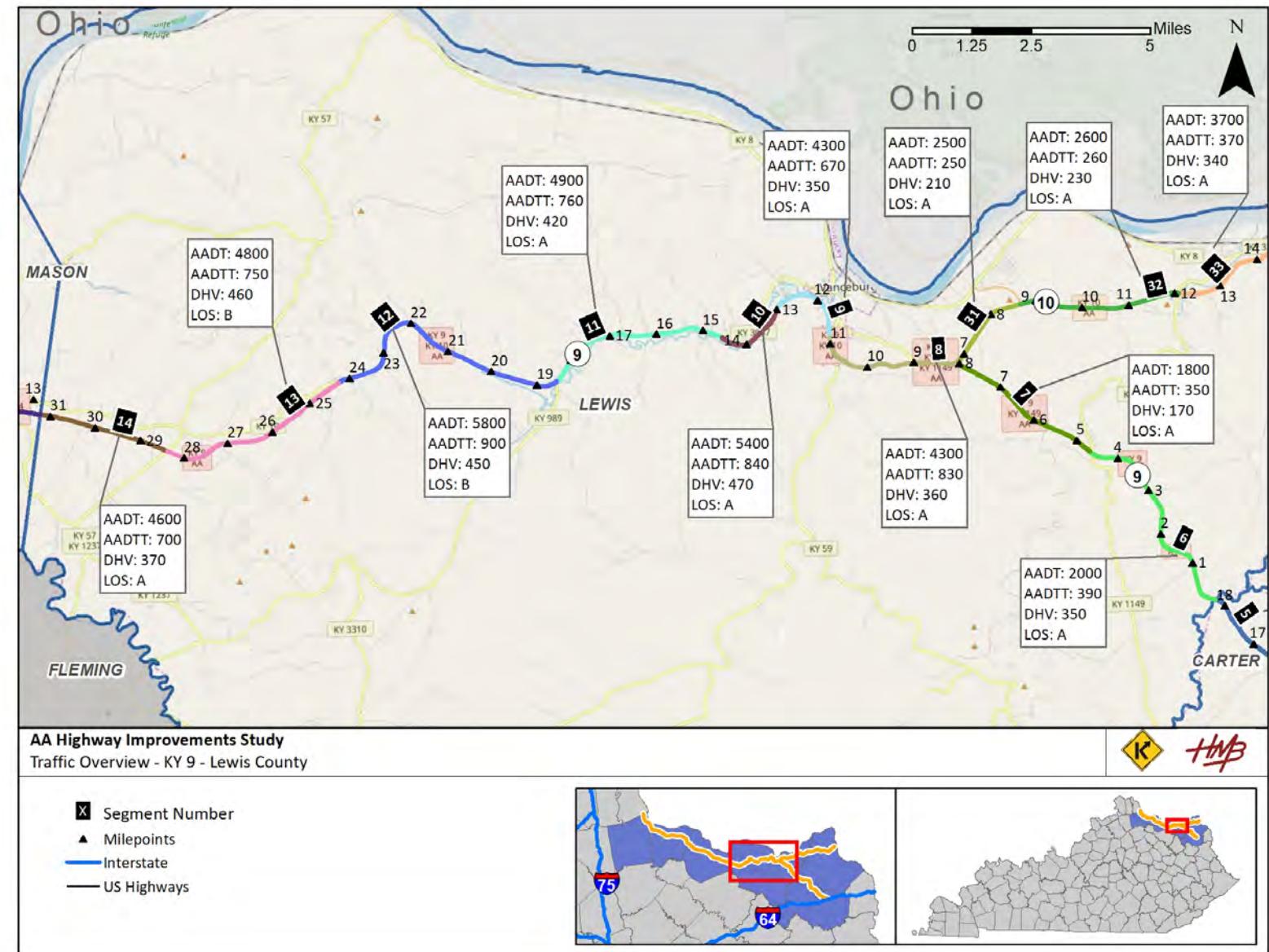
# Traffic Overview

# Mason County



# Existing Conditions

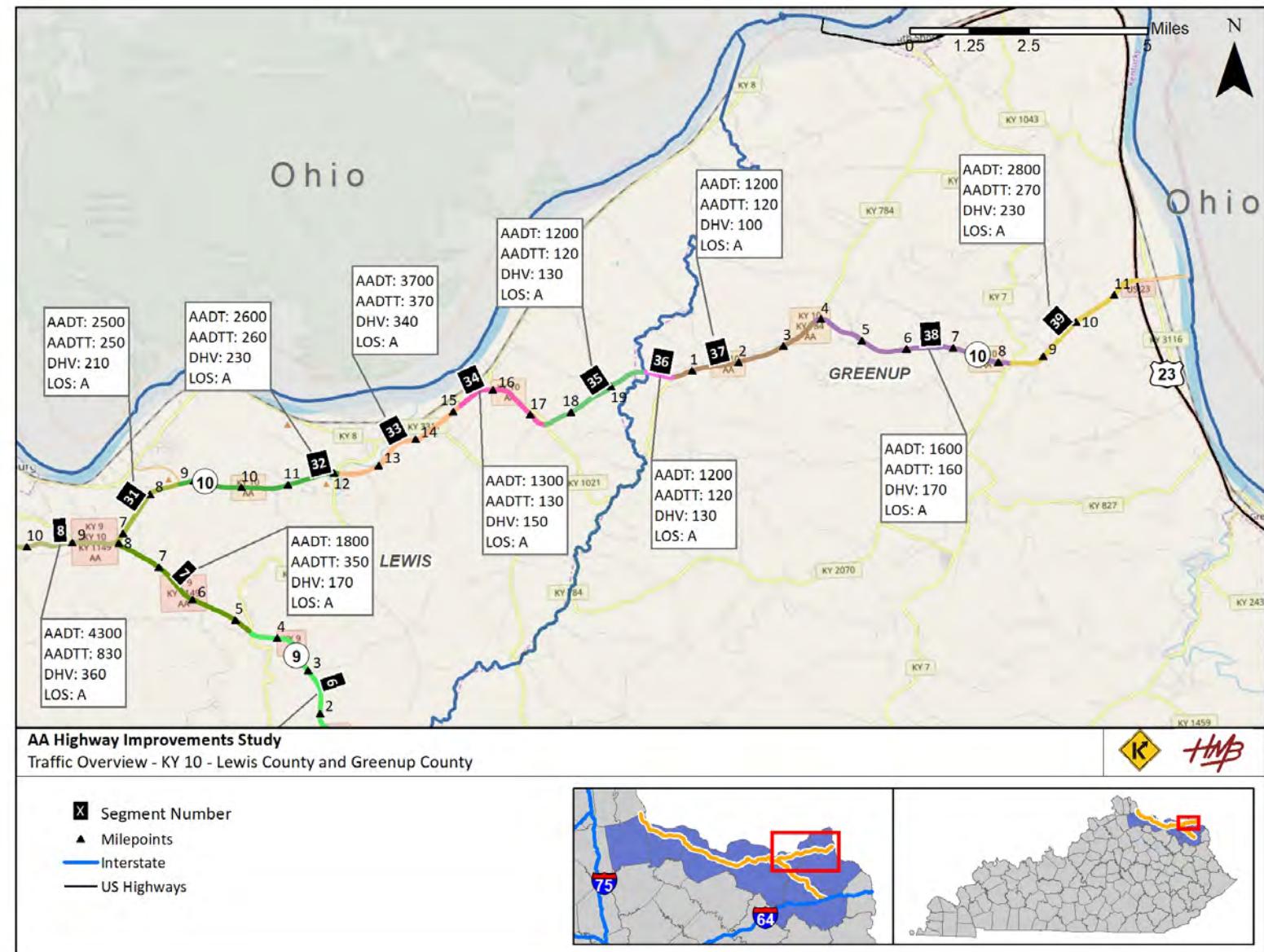
## Traffic Overview Lewis County



# Existing Conditions

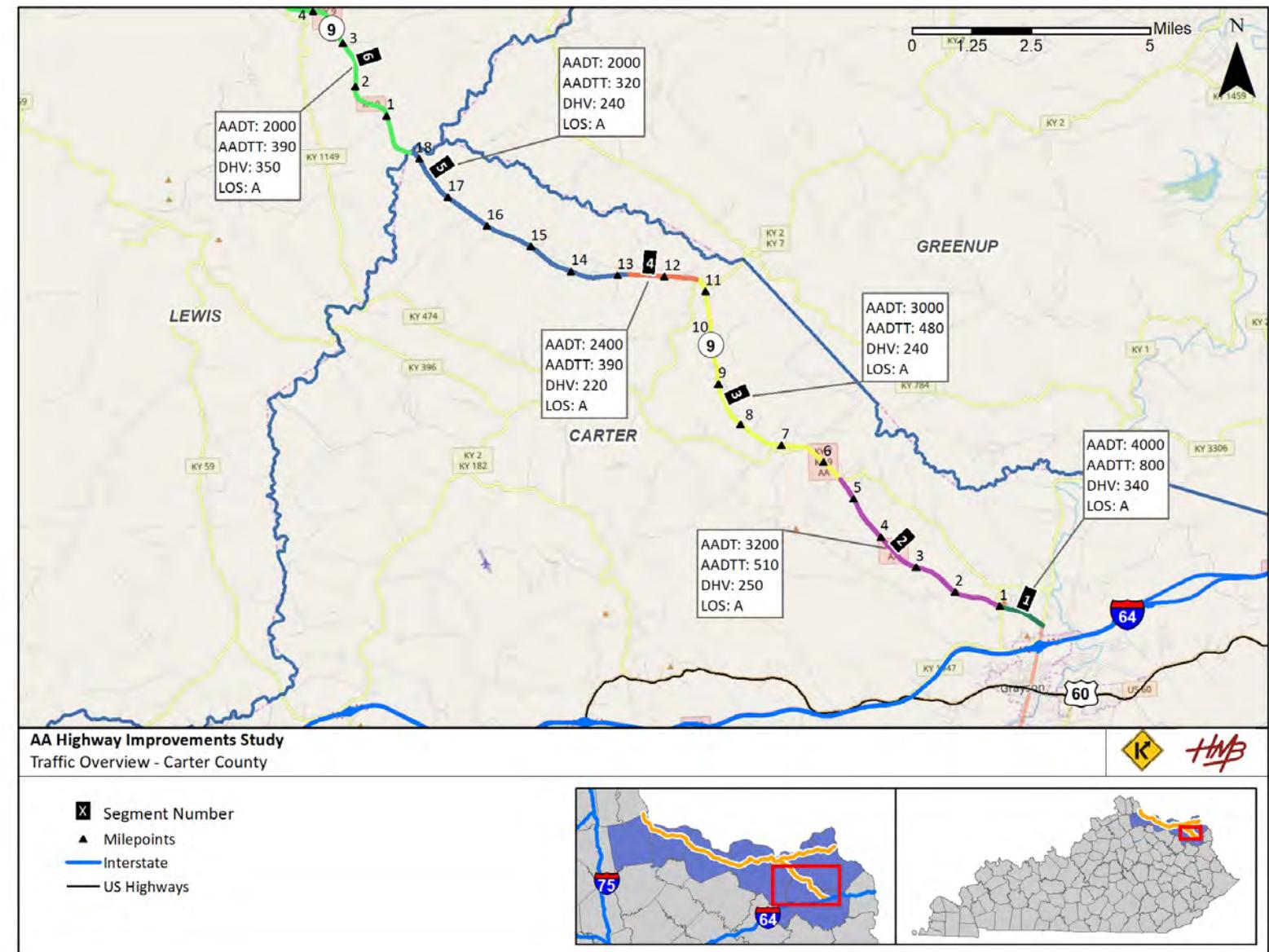
# Traffic Overview

## Lewis / Greenup County



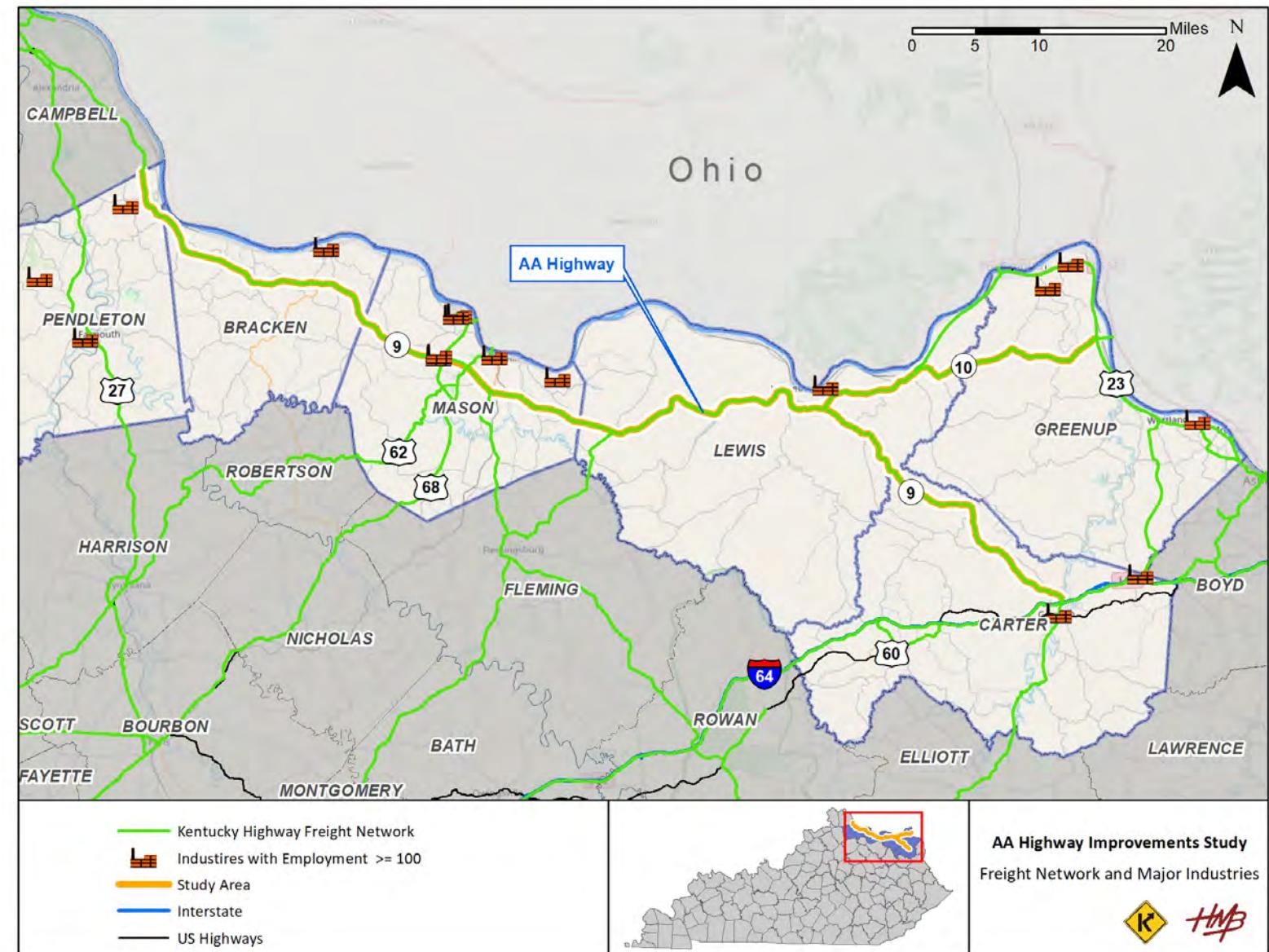
# Existing Conditions

## Traffic Overview Carter County



# Existing Conditions

## Freight Network and Major Industries



# Existing Conditions

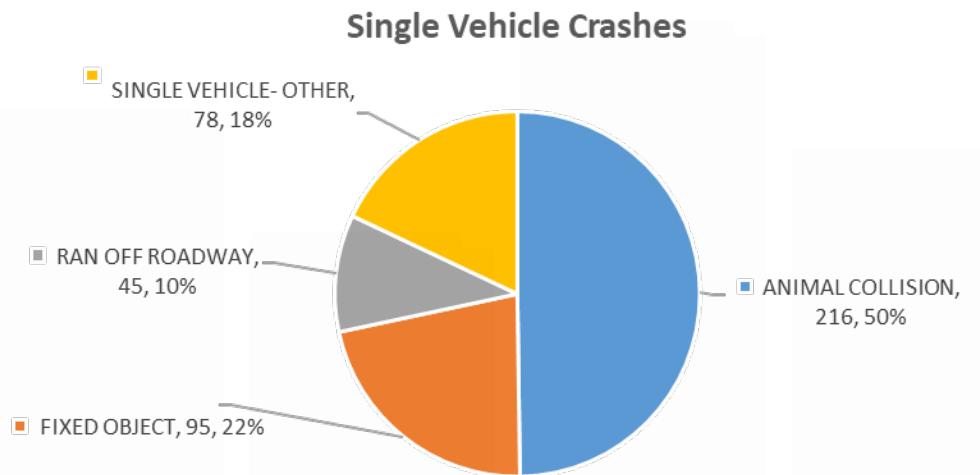
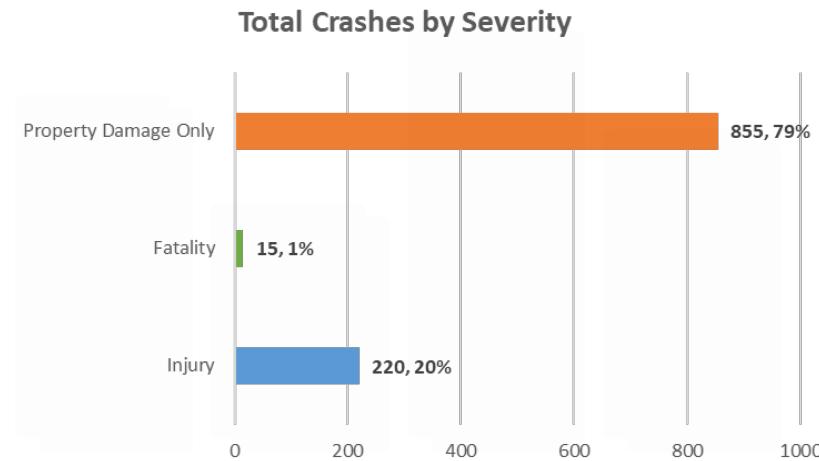
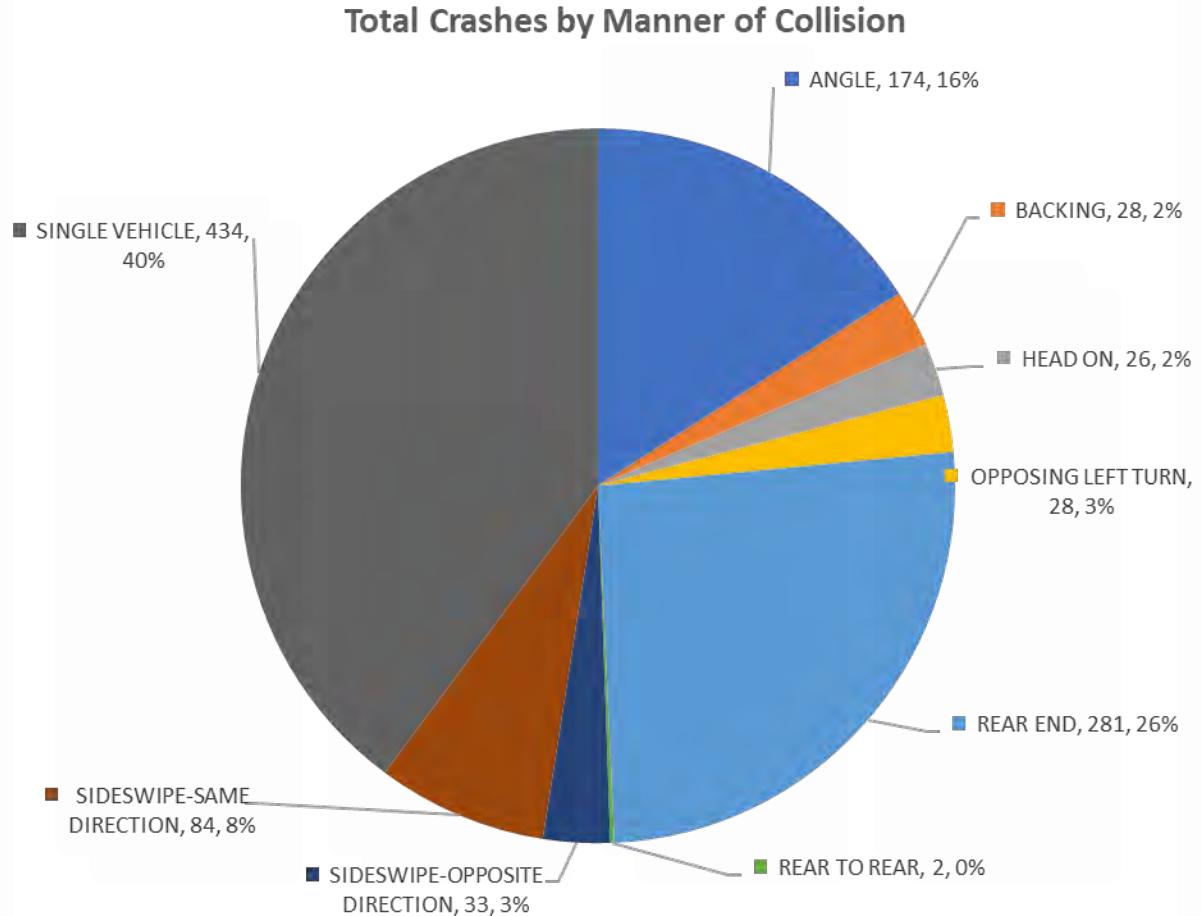
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## Crash Analysis

- 5 Years of Data Were Analyzed (November 2014 to October 2019)
  - 1090 Total Crashes (218/year)
- 28 High Crash (0.3 Mile) Spots Were Evaluated Using the CRF Method
  - Majority Occurred in Mason County (16)
- Highest Number of Fatal Crashes Occurred in Lewis County
  - 9 of 15 crashes

# Existing Conditions

## Crash Analysis





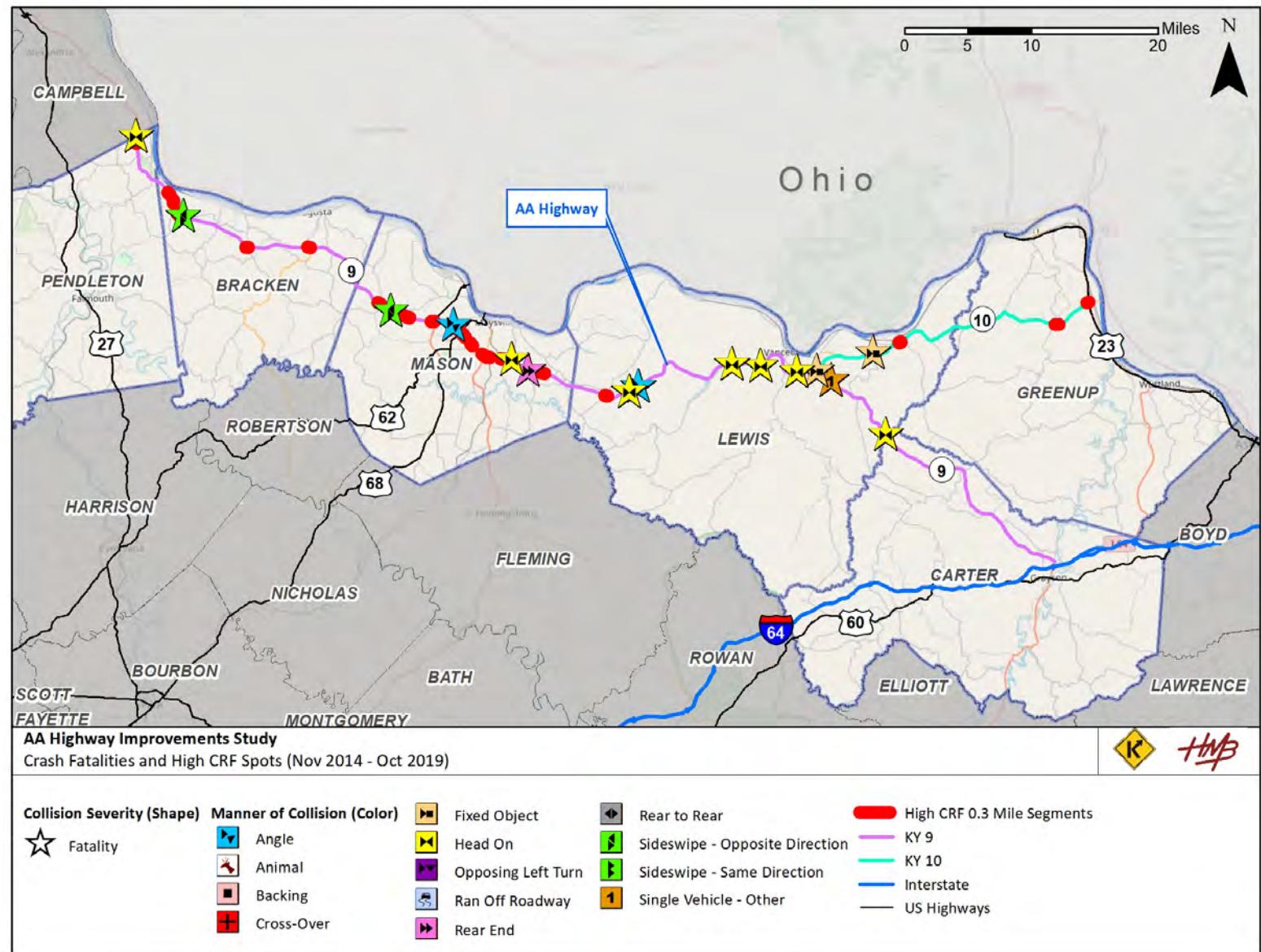
# Existing Conditions

## Excess Expected Crashes

County	ID	BMP	EMP	Length	AADT	K	A	B	C	O	Total	EEC
Carter	1-5	0.000	18.262	18.262	2,210 – 4,530	0	1	3	7	43	54	-8.73 to -34.71
Lewis	6-14	0.000	31.218	31.218	2,280 – 6,110	7	7	6	16	81	117	-14.40 to -72.53
Mason	15-25	0.000	19.541	19.541	5,700 – 13,720	5	16	35	49	386	491	-20.53 to 55.36
Bracken	26-29	0.000	19.857	19.857	5,460 – 7,160	0	8	10	14	145	177	-22.19 to -54.62
Pendleton	30	0.000	4.339	4.339	7,610	1	1	6	1	31	42	-46.33
Lewis	31 - 35	6.788	19.834	13.046	1,120 – 4,510	1	1	0	5	24	31	-6.74 to -29.85
Greenup	36 – 39	0.000	11.582	11.582	1,120 – 2,860	0	0	2	8	32	42	-1.69 to -13.28

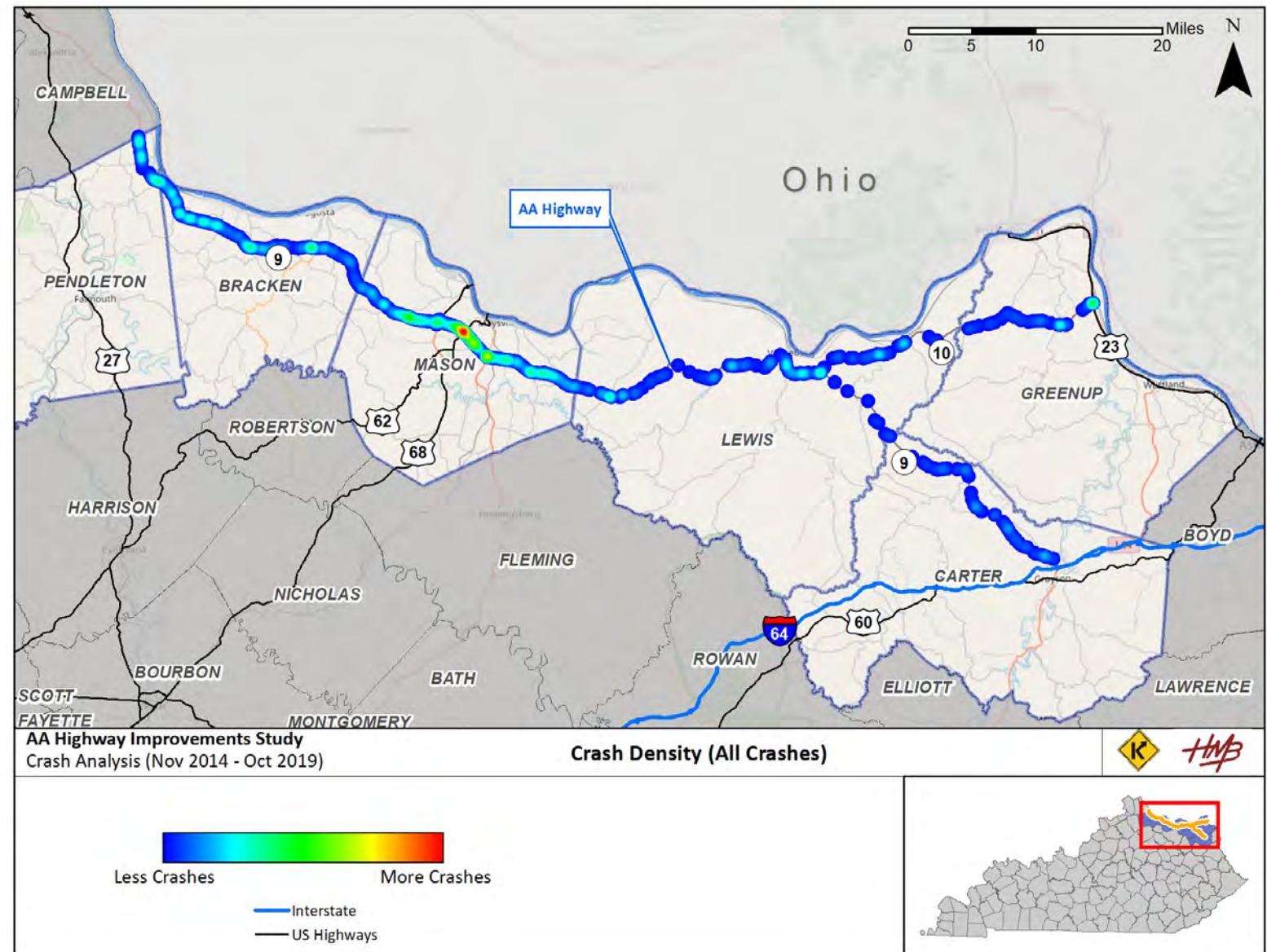
# Existing Conditions

# High Crash Spots and Fatalities



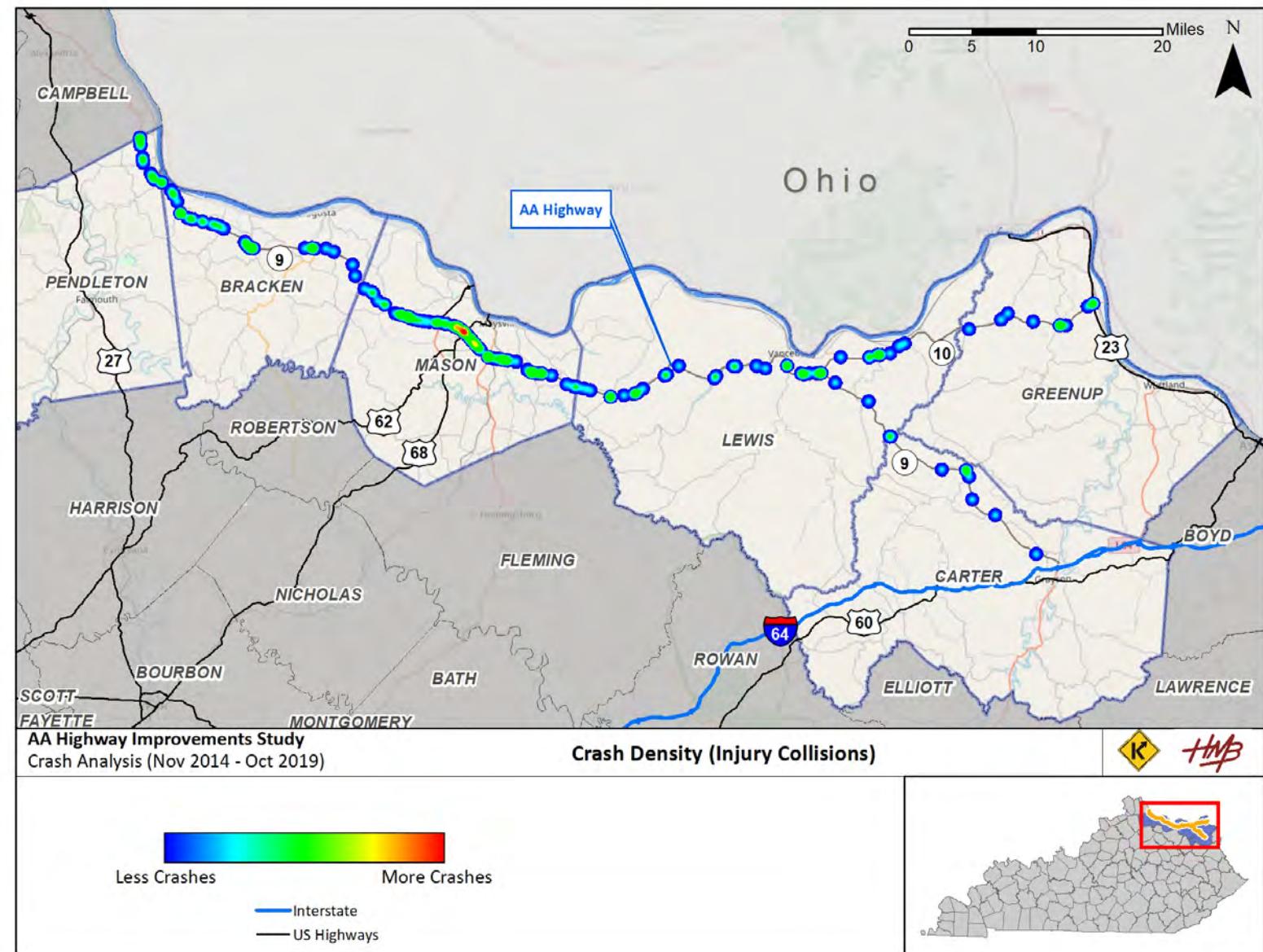
# Existing Conditions

## Crash Density (All)



# Existing Conditions

# Crash Density (Injury / Fatal Collision)





# Existing Conditions

## Field Review



Park and Rides



Lighting



Center / Shoulder  
Rumble Strips



Typical Section  
Transitions



Guardrail



Intersection  
Operations



Pavement

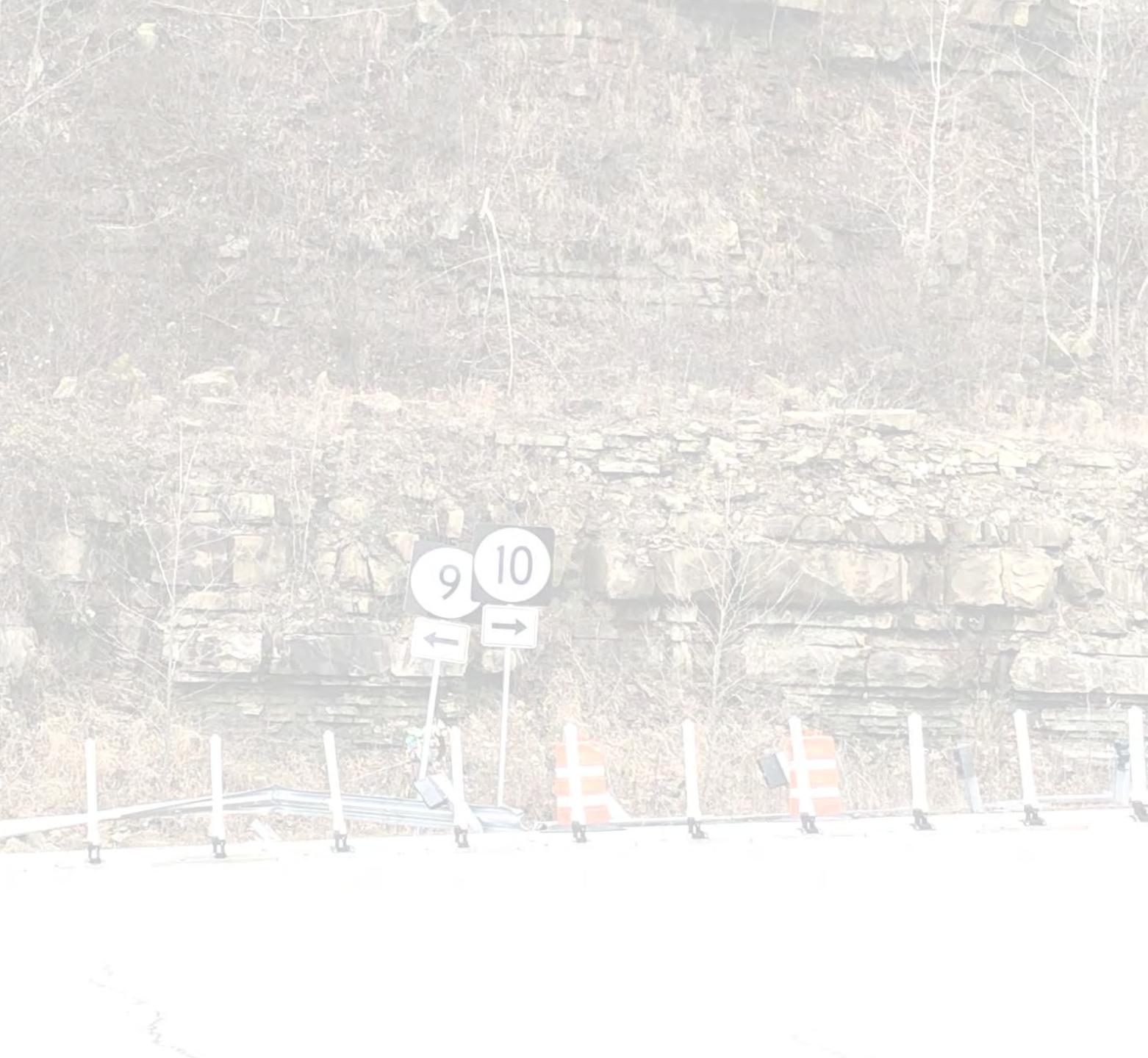


# Existing Conditions

## Field Review

- Western portion high speed; wider typical section feel.
- Eastern portion more curves; requires more focus of drivers.
- Curb and gutter along guardrail sections; draining issues?
- Large signage.
- Multiple intersections had safety enhancements such as advance warning signals / signage; oversized / dual STOP signs.
- Consistency expectations with climbing lanes adding / dropping in vicinity of intersections.

# PRELIMINARY DISCUSSION OF IMPROVEMENT CONCEPTS



# Preliminary Improvement Concepts

## Concept Categories to Consider

- Turn Lanes
- Widening (Major / Minor)
- Reconstruction
- Pavement / Striping
- Lighting

**High value/low impact/low cost concepts that offers significant corridor safety and congestion improvement**

# LOCAL OFFICIAL / STAKEHOLDER MEETING PREPARATION





# Local Official / Stakeholder Meeting Preparation

- Schedule
  - Two rounds of meetings; two meetings per round
  - First meeting held to discuss existing conditions and initial range of potential improvements
  - Second meeting held to discuss recommendations and prioritization
- Invitees
- Meeting No. 1 Objectives
  - Present Study Purpose and Background
  - Present Data Collected
  - Exercise No. 1 – Review Identified Existing and Committed Projects
  - Exercise No. 2 – Identify Strong Places / Weak Places
  - Exercise No. 3 – Identify Existing Major Traffic Generators / Future Planned Development

# NEXT STEPS



# QUESTIONS?

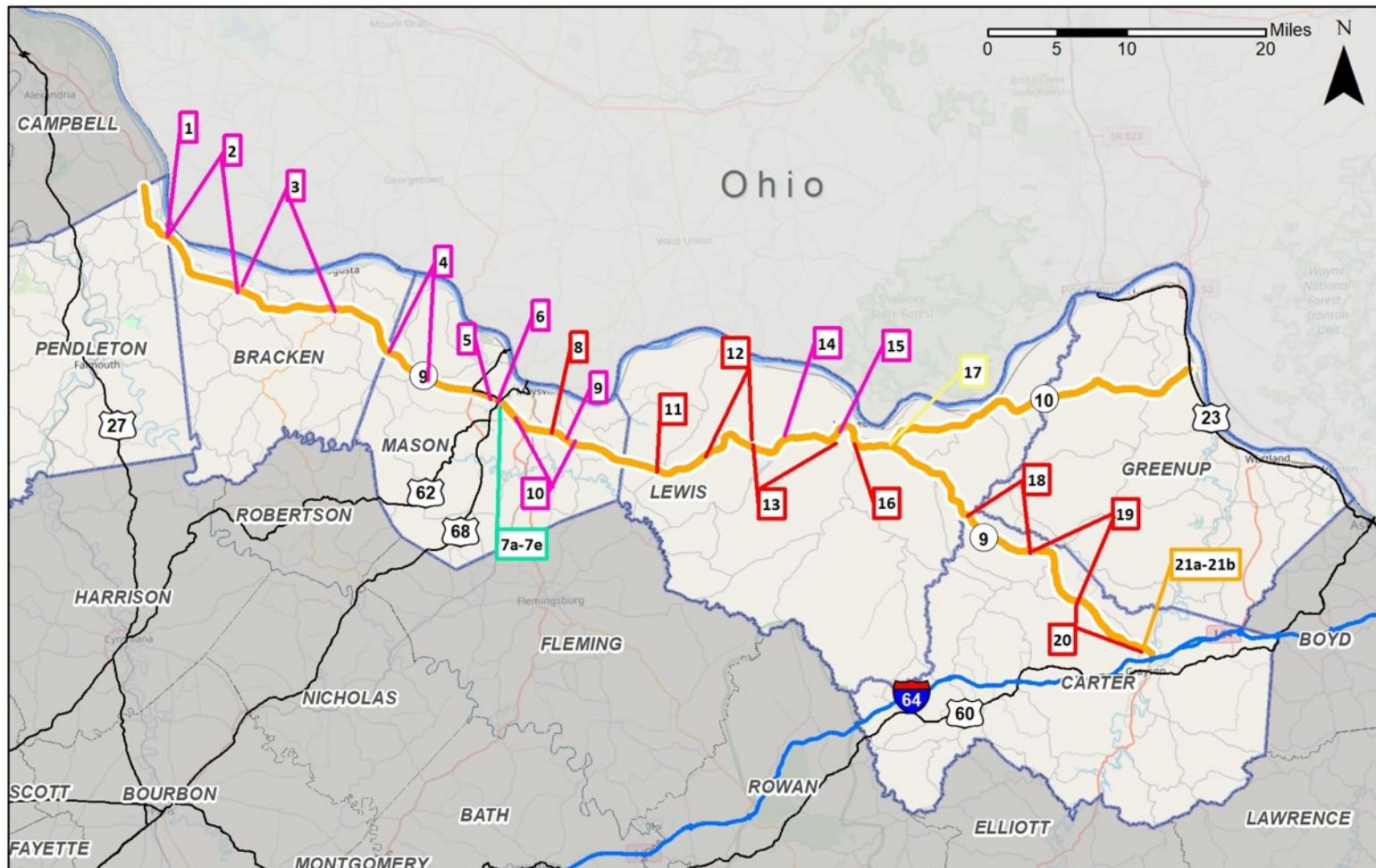


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**AA Highway Improvements Study**  
**Existing and Committed Projects Matrix**

Map ID	Main County	District	ADD/MPO	Project Type	CHAF ID	Item #	Description	Main Route	Mile Points	Length	Work Type	Improvement Type	SUA Project ID	SUA Priority	SUA Local, Short-Term or Long-Term	Region	Rank	Score	Funding	D	R	U	C	Total / Estimate
1	Bracken	6	Buffalo Trace ADD	CHAF	IP20110118	6-8901	IMPROVE SAFETY ALONG KY 2228 FROM KY 9 TO KY 8. (16CCN)	KY 2228	0.000 - 0.287	0.287	SAFETY(P)	Modernize Roadway-Rural	-	-	-	North	-	17.2		-	-	-	-	\$770,000
2	Bracken	6	Buffalo Trace ADD	CHAF	IP20070207		Reduce congestion on KY 9 from KY 1109 in Bracken County to KY 159 in Pendleton County.	KY 9	13.590 - 19.857	6.267	Major Widening	2 Lane to 4 Lane Divided - Rural	-	-	-	North	243	26.4		-	-	-	-	\$110,732,000
3	Bracken	6	Buffalo Trace ADD	CHAF	IP20080277		Reduce congestion on KY 9 in Bracken County from KY 19 to KY 1109.	KY 9	5.546 - 13.590	8.044	Major Widening	2 Lane to 4 Lane Divided - Rural	-	-	-	North	-	24.0		-	-	-	-	\$126,258,000
4	Mason	9	Buffalo Trace ADD	CHAF	IP20080553	9-8907	WIDEN KY 9/A A HIGHWAY TO 4 LANES FROM KY 435 TO KY 2370 IN BRACKEN CO. (16CCN)	KY 9	17.343 - 19.541	2.198	MAJOR WIDENING(O)	2 Lane to 4 Lane Divided - Rural	-	-	-	East	153	29.5		\$4,160,000	\$3,650,000	\$5,850,000	\$56,940,000	\$66,440,000
5	Mason	9	Buffalo Trace ADD	CHAF	IP20160298		Construct right turn lane on NB KY 9 (AA) at intersection of Kenton Station Drive (one of the hospital entrances) to improve safety	KY 9	10.600 - 10.900	0.300	Safety-Haz-Elm	Improve Intersection	-	-	-	East	133	31.8		-	-	-	-	\$1,566,000
6	Mason	9	Buffalo Trace ADD	CHAF	IP20170079		Improve safety and operational efficiency of the intersection of KY 9 (AA) and US 62 located in Maysville.	KY 9	10.256 - 10.398	0.142	Safety-Haz-Elm	Improve Intersection	-	-	-	East	8	75.6		-	-	-	-	\$2,680,000
8	Mason	9	Buffalo Trace ADD	2018 SYP		9-147.60	NEW FULLY CONTROLLED ACCESS ROUTE FROM KY 11 NORTHEAST TO KY 9 (AA HWY) INCLUDING NEW I-CHNG AT KY 9. (2004BOPC)(06CCR)(18CCN)	-	-	2.900	NEW ROUTE (O)	-	-	-	-	-	-	SPP	\$780,000 (2021)	\$1,580,000 (2022)	\$1,820,000 (2022)	\$33,750,000 (2024)	\$37,750,000	
9	Mason	9	Buffalo Trace ADD	CHAF	IP20150186		CONSTRUCT RIGHT TURN LANE (SB) INTO CLARKSON SHERMAN ROAD (LANDFILL, 4.740) TO PROVIDE SAFETY FOR MOTORISTS TRAVELING ALONG THE AA HIGHWAY. (MP 4.6 TO MP 4.9)(14CCN) Replaces 09 081 D0009 1.50	KY 9	4.600 - 4.900	0.300	Safety-Haz-Elm	Modernize Roadway-Rural	-	-	-	East	99	40.0		-	-	-	-	\$395,000
10	Mason	9	Buffalo Trace ADD	CHAF	IP20160183	9-8908	WIDEN THE AA HIGHWAY TO 4 LANES FROM KY 1449 TO KY 11. (16CCN)	KY 9	3.781 - 7.560	3.779	MAJOR WIDENING(O)	2 Lane to 4 Lane Divided - Rural	-	-	-	East	1	80.4		\$2,710,000	\$1,950,000	\$4,100,000	\$31,590,000	\$37,640,000
11	Lewis	9	Buffalo Trace ADD	2018 SYP		9-8807.00	RECONSTRUCT KY-57 FROM KY-9 TO FLEMING/LEWIS COUNTY LINE. (14CCN)(16CCR)(18CCN)	KY 57	0.500- 4.557	4.057	RELIABILITY / RECONSTRUCTION (O)	-	-	-	-	-	-	SPP	\$2,100,000 (2022)	\$5,200,000 (2023)	\$3,400,000 (2023)	\$20,000,000 (2024)	\$30,700,000	
12	Lewis	9	Buffalo Trace ADD	2018 SYP		9-20010.00	ADDRESS PAVEMENT CONDITION	KY 9	21.027 - 25.532	4.505	ASSET MANAGEMENT / AM-PAVEMENT (PRI)(P)	-	-	-	-	-	-	PM	\$210,000 (2021)	-	-	\$2,100,000 (2021)	\$2,310,000	
13	Lewis	9	Buffalo Trace ADD	2018 SYP		9-20017.00	ADDRESS PAVEMENT CONDITION ON KY-9 FROM MILEPOINT 15.77 TO MILEPOINT 21.03	KY 9	15.770 - 21.030	5.260	ASSET MANAGEMENT / AM-PAVEMENT (PRI)(P)	-	-	-	-	-	-	PM	-	-	-	\$1,070,000 (2022)	\$1,070,000	
14	Lewis	9	Buffalo Trace ADD	CHAF	IP20110025		Construct right and left turn lanes at the intersection of KY 989 (MP 18.553) to improve safety and decrease collisions. This intersection has a high volume of turning movements and is located in a long sweeping curve. A Park and Ride is located at	KY 9	18.200 - 18.800	0.600	Safety-Haz-Elm	Improve Intersection	-	-	-	East	143	30.2		-	-	-	-	\$1,798,000
15	Lewis	9	Buffalo Trace ADD	CHAF	IP20080547	9-8808	RECONSTRUCT INTERSECTION AT KY-9 AND KY-2523. (14CCN)	KY 9	12.709 - 12.789	0.080	RECONSTRUCTION(O)	Improve Intersection	-	-	-	East	173	26.1		-	-	-	-	\$1,700,000
16	Lewis	9	Buffalo Trace ADD	2018 SYP		9-231.00	RECONSTRUCT KY-59 FROM KY-9 (AA) IN VANCEBURG TO JUNCTION OF KY-344 MP 18.1 TO MP 23.19.(16CCN)(18CCN)	KY 59	18.100 - 23.190	5.090	RECONSTRUCTION(O)	-	-	-	-	-	-	SPP	\$6,000,000 (2021)	\$5,000,000 (2022)	\$3,000,000 (2023)	\$40,000,000 (2024)	\$54,000,000	
17	Lewis	9	Buffalo Trace ADD	HSIP		9-9007..20	CONSTRUCT A RIGHT TURN SLIP LANE AND RECONSTRUCT THE FLASHING BEACON AT THE INTERSECTION OF KY 9 & KY 10 EAST OF VANCEBURG. (2018BOP)	KY 9	7.900 - 8.200	0.300	Safety-Haz-Elm	-	-	-	-	-	-	-	-	-	-	-	\$150,000 (Letting 9/20/2019, Completion by 6/30/2020)	
18	Carter	9	FIVCO	2018 SYP		9-20007.00	ADDRESS PAVEMENT CONDITION	KY 9	14.980 - 18.262	3.282	ASSET MANAGEMENT / AM-PAVEMENT (PRI)(P)	-	-	-	-	-	-	PM	\$150,000 (2021)	-	-	\$1,500,000 (2021)	\$1,650,000	
19	Carter	9	FIVCO	2018 SYP		9-20008.00	ADDRESS PAVEMENT CONDITION	KY 9	6.980 - 14.985	8.005	ASSET MANAGEMENT / AM-PAVEMENT (PRI)(P)	-	-	-	-	-	-	PM	\$350,000 (2021)	-	-	\$3,500,000 (2021)	\$3,850,000	
20	Carter	9	FIVCO	2018 SYP		9-20006.00	ADDRESS PAVEMENT CONDITION	KY 9	0.000 - 6.980	6.980	ASSET MANAGEMENT / AM-PAVEMENT (PRI)(P)	-	-	-	-	-	-	PM	\$320,000 (2021)	-	-	\$3,200,000 (2021)	\$3,520,000	
21a	Carter	9	FIVCO	Grayson SUA (2018)			District 9 will review signage/striping for KY 9 in advance of the intersection with KY 1, but no improvement project is recommended.	KY 9	-	-	-	-	H	High	Short-Term	-	-	-	-	-	-	-	-	\$0
21b	Carter	9	FIVCO	Grayson SUA (2018)			Construct a new 0.360-mile-long, two-lane roadway connecting CW Stevens Boulevard north to KY 9 at KY 1. (Section 1 of 3.)	-	-	-	-	J	High	Long-Term	-	-	-	-	-	-	-	-	\$3,000,000	
7a / 5*	Mason	9	Buffalo Trace ADD	Maysville SUA (2018)			1. Add right-turn lane on KY 9 at hospital entrance, and/or 2. Extend 45 mph speed limit.	KY 9	-	-	-	-	M	High	Long-Term	-	-	-	-	-	-	-	-	\$1,190,000
7b / 6	Mason	9	Buffalo Trace ADD	Maysville SUA (2018)			Reduce lane widths and add turn lanes where possible at the intersection of KY 9 and US 62. PIF No. 09 081 B0062 1.00	KY 9 / US 62	-	-	-	-	EE	High	Long-Term	-	-	-	-	-	-	-	-	\$2,568,000
7c	Mason	9	Buffalo Trace ADD	Maysville SUA (2018)			Improve KY 9 transition from four lanes to two lanes between KY 11 and Strodes Run Pike.	KY 9	-	-	-	-	L	High	Short-Term	-	-	-	-	-	-	-	-	\$20,000
7d	Mason	9	Buffalo Trace ADD	Maysville SUA (2018)			Reconfigure Market Square Drive/Tucker Drive/Walmart Way intersection. Eliminate left turns from Tucker Drive to KY 9, and relocate Market Square Drive 500 feet west	-	-	-	-	T	Medium	Local	-	-	-	-	-	-	-	-	\$830,000	
7e / 10	Mason	9	Buffalo Trace ADD	Maysville SUA (2018)		9-8908.00	Widen KY 9 to four lanes from KY 1449 to KY 11. SP (State funds: 2017 Design funds on hold)	KY 9	-	-	-	-	X	Medium	Long-Term	-	-	-	-	-	-	-	-	\$31,600,000

\* Part 1 of Maysville SUA Project M (7a) is listed in the CHAF system as IP20160298 (5). Part 2 (Extend 45 mph speed limit) is TBD



**AA Highway Improvements Study**  
Existing and Committed Projects





## FINAL Meeting Minutes

Project: AA Highway Improvements Study

Subject: Local Officials / Stakeholder Meeting No. 1

**Note: The Local Officials / Stakeholder Meeting No. 1 was split into two consecutive meetings due to the length of the study corridor. The date, location, and list of attendees are shown for each. However, the summary and input from both is summarized together due to similarity between the meetings and the method of input received.**

### First Meeting:

Date: Monday, February 17, 2020, 9:00 AM (Eastern Time)

Location: FIVCO Area Development District Office

#### Attendees:

Beth Niemann	KYTC Central Office Planning
Steve Ross	KYTC Central Office Planning
Steve Gunnell	KYTC District 9 Chief District Engineer
Darrin Eldridge	KYTC District 9 Project Development
Karen Mynhier	KYTC District 9 Environmental
Matt Dillon	KYTC District 9 Planning
Michael Read	KYTC District 9 Planning
Vicki Green	FIVCO
Gayle D Smith	FIVCO
Jacob Perkins	FIVCO
Kelly Ward	FIVCO
Carley Carver	FIVCO
Sherry McDavid	FIVCO
Eric Patton	FIV7 CO
Terri Sicking	KYOVA
Tom Bradley	Vaughn & Melton
Taylor Duncan	City of Olive Hill
Duane Suttles	City of Grayson
Ronnie Cooley	Carter County Schools
Erica Kiser	Knott County Schools
Chris Perry	Carter Caves State Park
Garth Wireman	Greenup County Public Safety
Bobby Carpenter	Greenup County Judge Executive
Mike Malone	Carter County Judge Executive
Willis C Johnson	City of Grayson (For George Steele, Mayor)
Buford Hurley	Greenup County 911
Jim Skaggs	Elliott County EM
Lindsay Walker	HMB
Brad Johnson	HMB
Jarrod Johnson	HMB
John Callihan	AECOM

**Second Meeting:**

**Date:** Tuesday, February 18, 2020, 1:00 PM (Eastern Time)

**Location:** Buffalo Trace Area Development District Office

**Attendees:**

Stephen De Witte	KYTC Central Office Planning
Kevin Sandefur	KYTC Central Office Design
Steve Gunnell	KYTC District 9 Chief District Engineer
Darrin Eldridge	KYTC District 9 Project Development
Karen Mynhier	KYTC District 9 Environmental
Michael Read	KYTC District 9 Planning
Dane Blackburn	KYTC District 6 Planning
Amy Kennedy	BTADD
Missy Hardy	BTADD
Earl Bush	Augusta-Brooksville-Bracken County IDA
Owen McNeil	Maysville-Mason County IDA
Bill Mitchell	Pendleton County IDA
Todd Ruckel	Lewis County Judge Executive
Joe Pfeffer	Mason County Judge Executive
Tina K Teegarden	Bracken County Judge Executive
Scotty Lippert, Jr.	Bracken County Magistrate
Clay Buser	Mason County EMS
Matt Wallingford	City of Maysville Manager
Charles T. Cotterill	City of Maysville Mayor
Craig Miller	Bracken County Fiscal Court
Joe McKay	Mason County Fiscal Court
Jeff Aulick	Bracken County Schools Superintendent
Joe Buerkley	Pendleton County Schools Superintendent
Mike Moore	Pendleton County EMA
David Fields	Pendleton County Judge Executive
Courtney Kleier	NKY Chamber of Commerce
Bill Shugars	Shugars Supply, BTADD
Stephanie Hopper	Hospice of Hope
Bill Boggs	BTADD – State Farm Insurance Agent
Craig A. Stanfield	BTADD – Real Estate & Auction Services
Lindsay Walker	HMB
Brad Johnson	HMB
Joey Mosley	HMB
John Callihan	AECOM

**Attachments:**

- *Meeting Agenda*
- *Handouts*
- *Presentation*



### **Agenda / Handouts:**

To facilitate the meetings the following materials were provided and are included as an attachment to these meeting minutes.

- Agenda
- Presentation Maps
- Presentation Slides

### **Meeting Comments / Summary:**

Lindsay Walker of HMB began the meeting with introductions, and then began the presentation facilitated by a PowerPoint presentation and handouts. The presentation concluded and HMB opened the floor to any questions or comments from attendees.

KYTC made a comment at both meetings regarding a project identified in a Small Urban Area (SUA) study in Grayson that was brought forth only 2.5 – 3 years ago and is almost ready to be let to construction. The point was that by considering smaller short-term type improvements, it is possible that projects identified in the AA Highway Improvements Study could be let relatively quick.

KYOVA asked if all presentation slides and not just those in the handout would be available to attendees. HMB will email attendees the presentation slides.

HMB segued the meeting into a group exercise with the purpose of gaining input via a web mapping application facilitated by project team members. HMB explained the application and began the exercise. Attendees were given until COB Tuesday, February 25, 2020 to provide further input themselves. HMB provided the web mapping application website link to attendees which is:

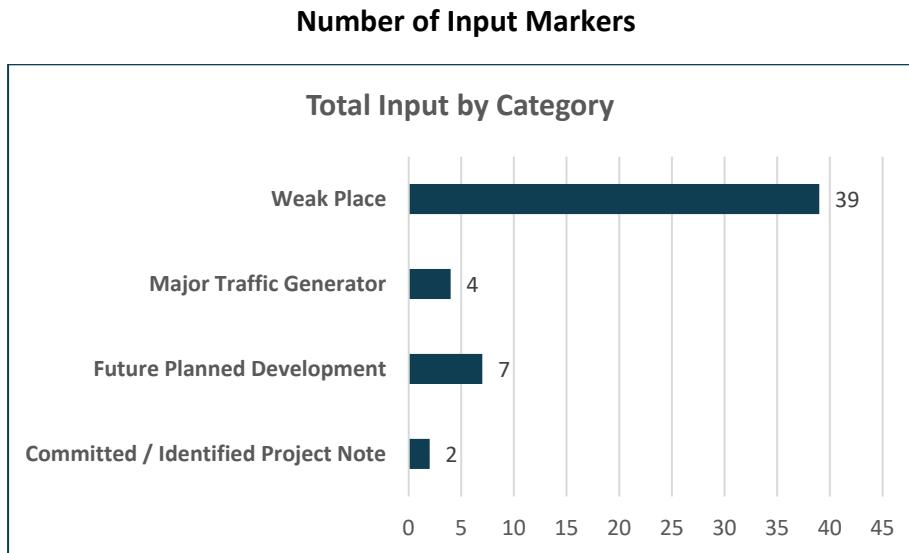
<https://hmbpe.maps.arcgis.com/apps/webappviewer/index.html?id=35910d0364ab47f0afb6327206b52291>

The link was also emailed to invitees that were not able to attend with the help of FIVCO and Buffalo Trace ADDs. Overall, 52 spots were identified with the tool. Results gathered from the input are presented as follows:

Location markers and comments were requested in the following categories:

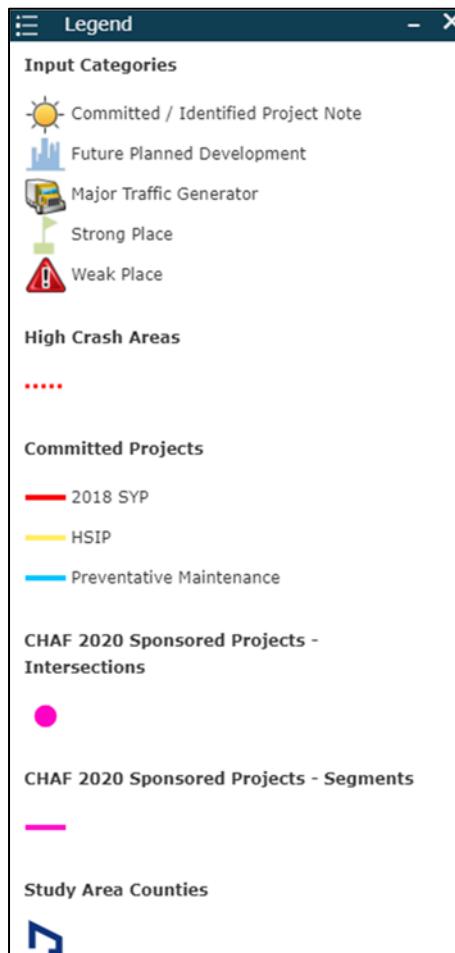
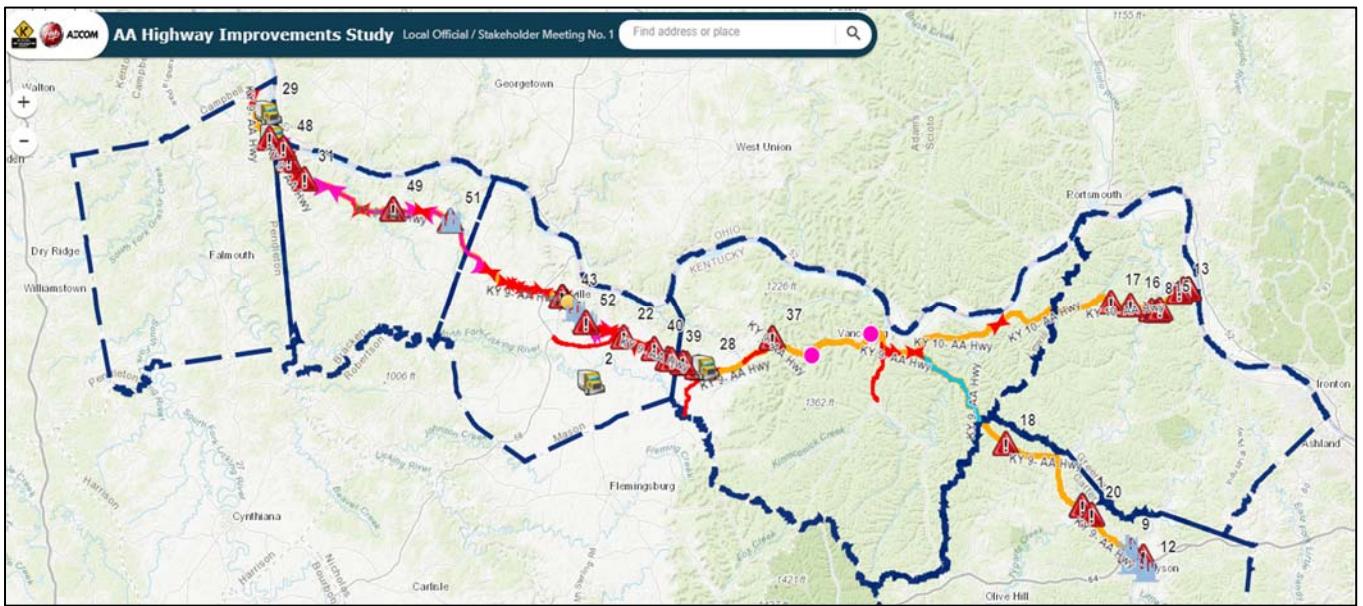
- Comments on Committed and Identified Projects
- Locations of Major Traffic Generators and Future Planned Development
- Location of Strong Places (Locations or transportation elements that work well)
- Location of Weak Places (Locations or transportation elements that need improvement)

The following graph shows the distribution of these markers. It should be noted that no Strong Places were identified.

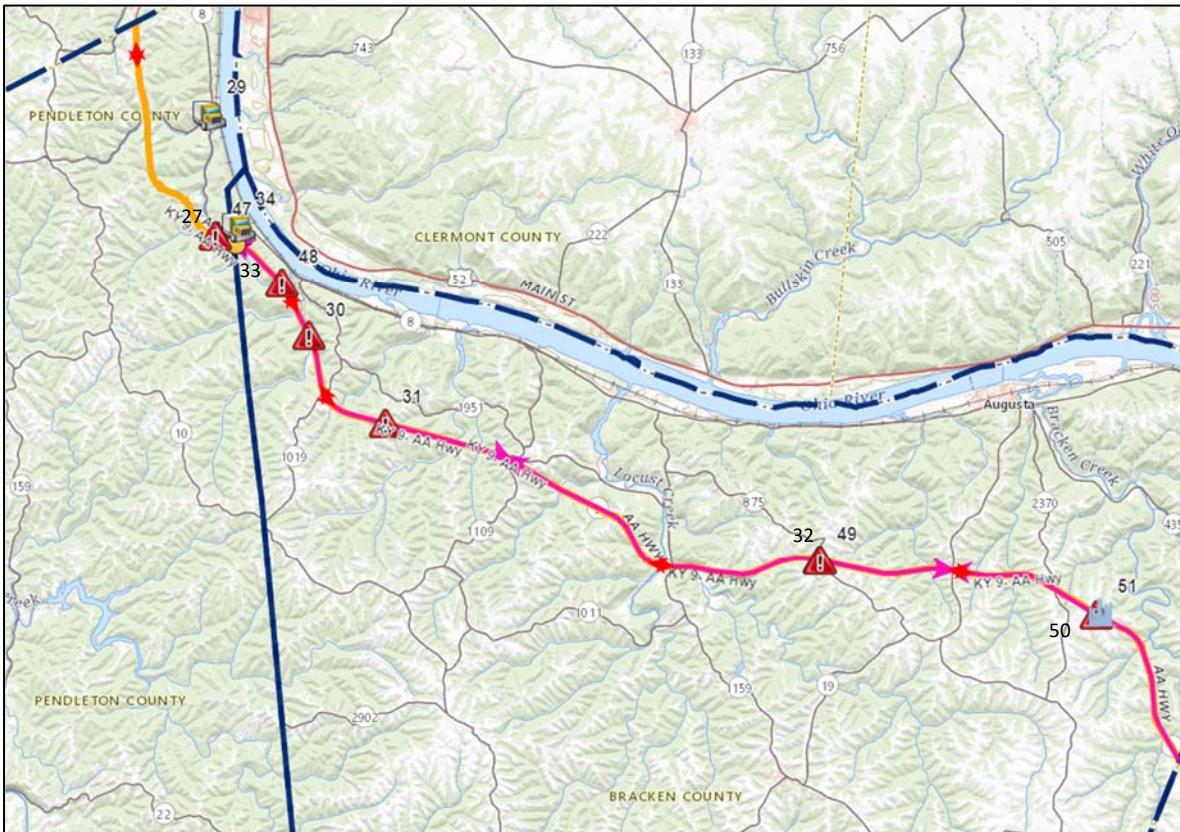


The screenshots on the following pages show the locations of these markers.

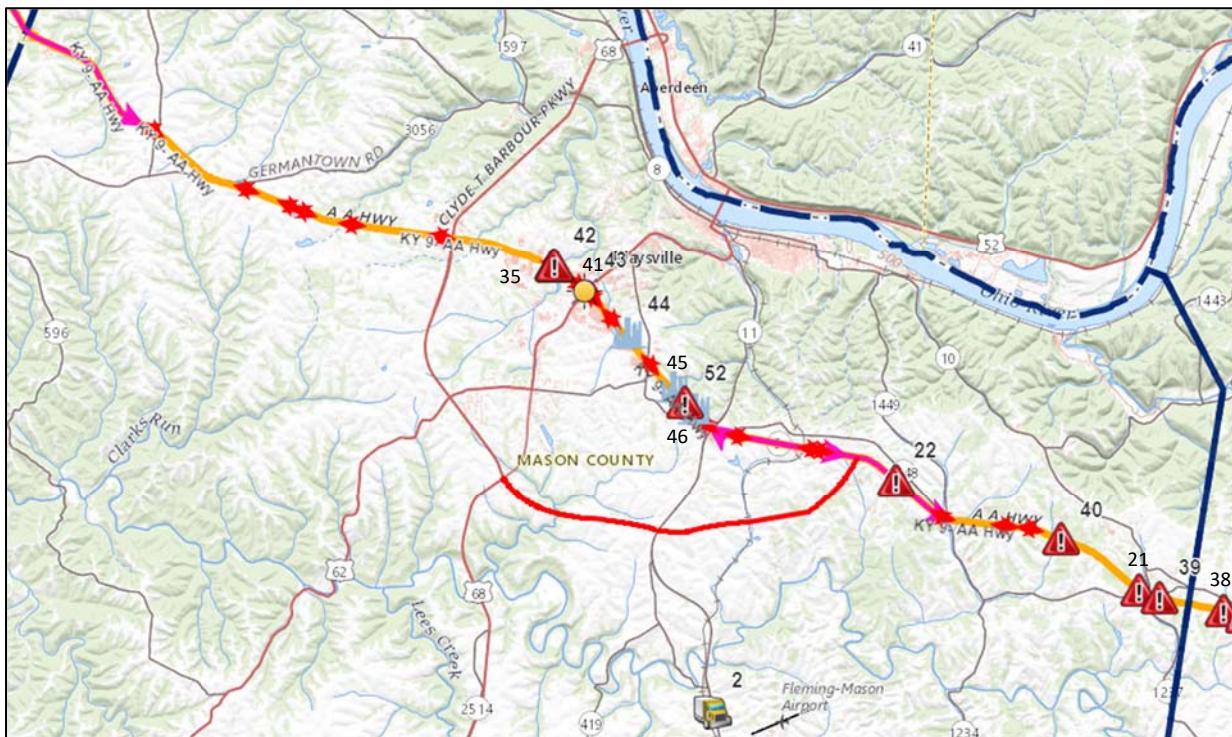
# Overview



## Pendleton and Bracken Counties



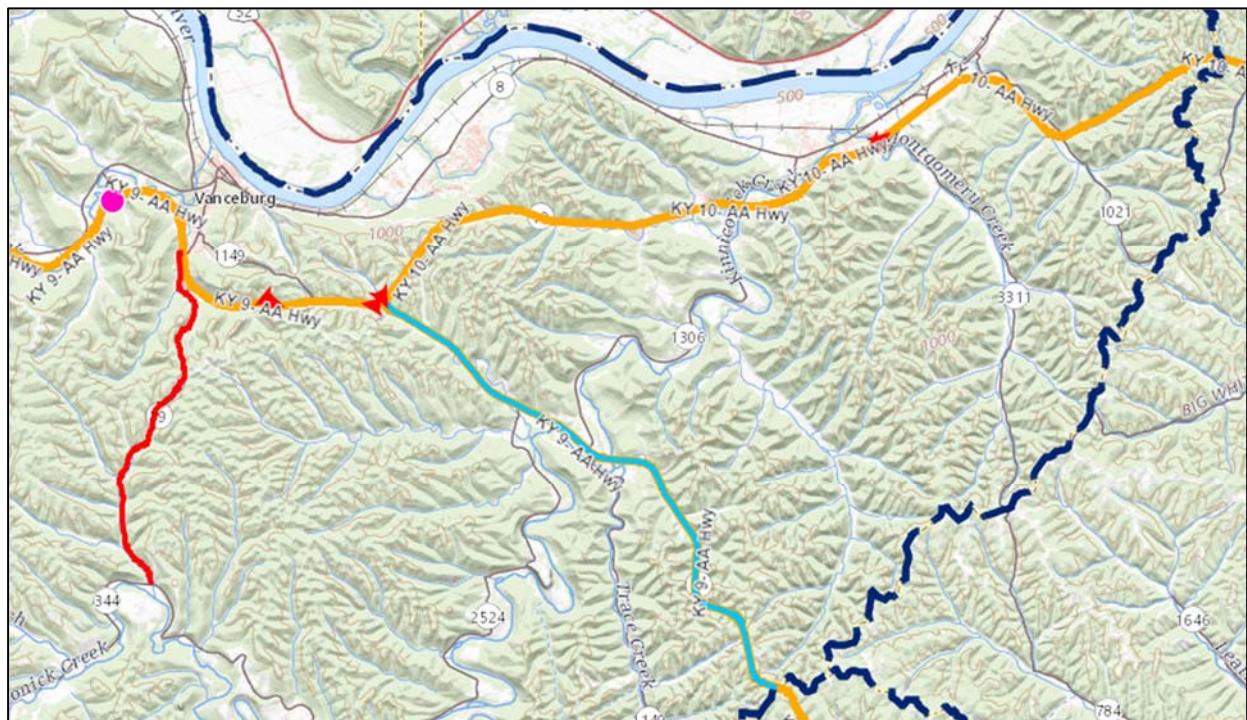
Mason County



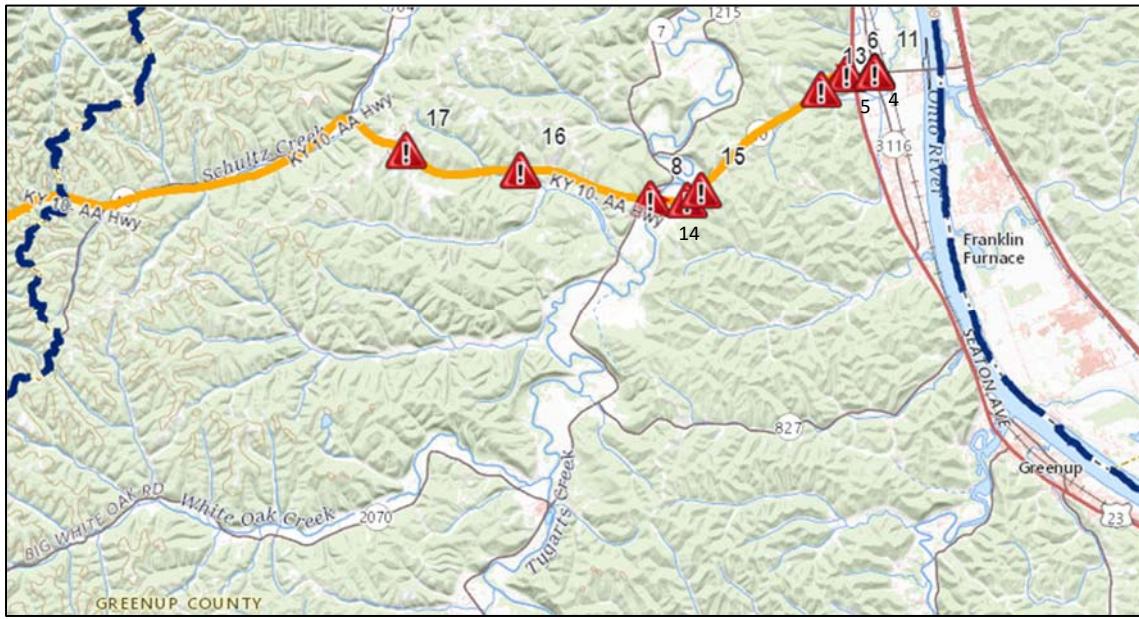
## Lewis County



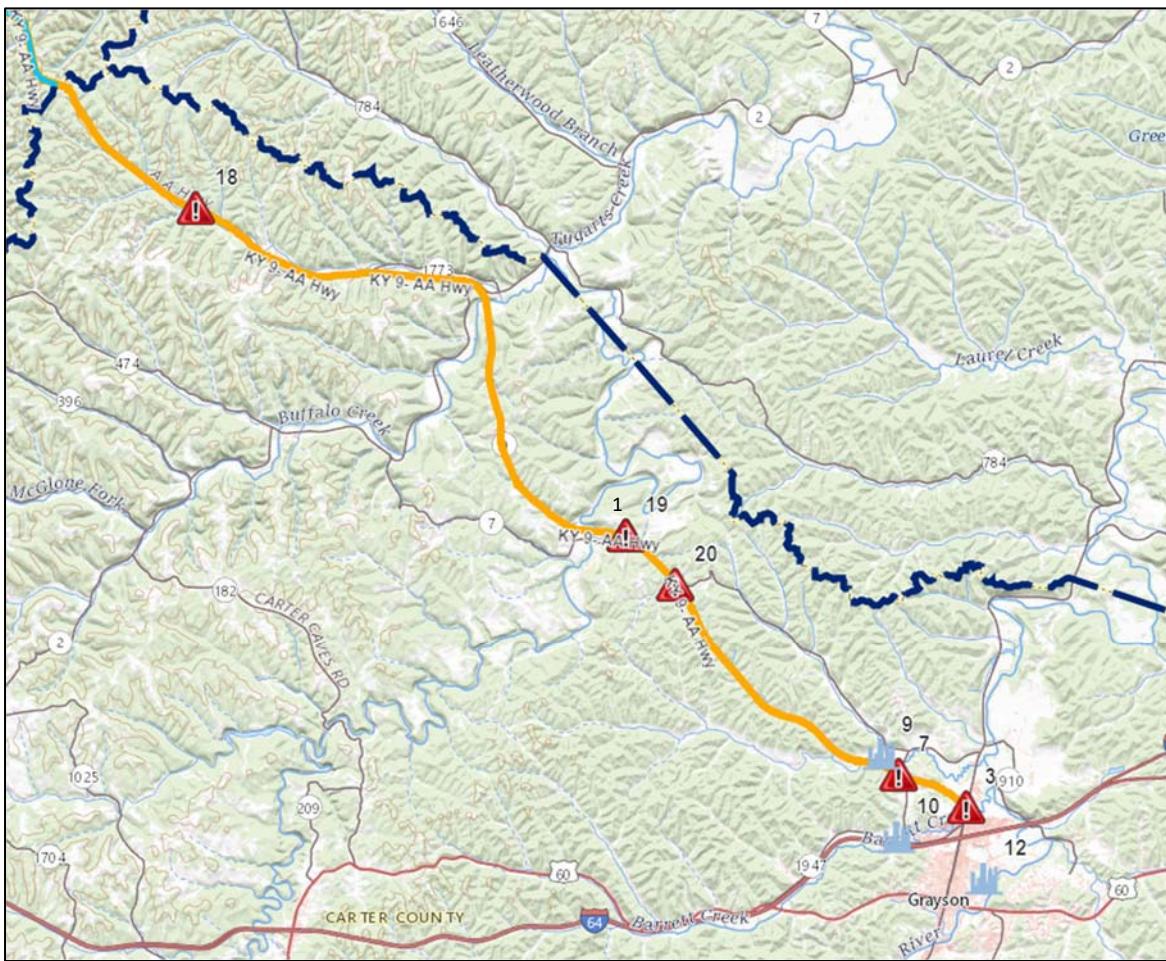
## Lewis County (cont.)



## **Greenup County**



# Carter County



The following table includes comments as they were written for each marker. ID's are listed by when they were placed.

### Detailed Input

ID	Category	Comment	Comment 2
33	Committed / Identified Project Note	D6 Taking Over - Add Turn Lanes	County getting 2228
43	Committed / Identified Project Note	Concentrate congestion and safety improvements to the US 62/KY 9 intersection.	Similar to above, make improvements to the entire corridor of KY 9 from US 62 to KY 11. This is where future commercial/industrial development will take place. Scratch the extended bypass project, and utilize those funds for existing corridor issues..
9	Future Planned Development	Potential Distillery	Discussion of Wal-Mart someday
10	Future Planned Development	Would be best for Walmart or similar	At city limits can be annexed
12	Future Planned Development	New sports complex	Opening Fall 2020
44	Future Planned Development	Future commercial development	
45	Future Planned Development	Future commercial/industrial development	
46	Future Planned Development	Existing industrial park	Focus encroachment and utility upgrades in this area.
51	Future Planned Development	Industrial Park Recruiting businesses. Hopefully by this year	Turn lanes each direction
2	Major Traffic Generator	Lot of people use this route (KY 11) to get to the AA Hwy from Morehead, West Carter County, Flemingsburg rather than 64	
28	Major Traffic Generator	Farm Center generates lots of truck traffic.	Fairgrounds generates lots of event traffic.
29	Major Traffic Generator	Mine	Truck Traffic
34	Major Traffic Generator	Truck Traffic	
1	Weak Place	Willis Johnson - collisions at this intersection. Fatalities - Coming down grade, curve, left turn onto KY 7, to turn lane.	
3	Weak Place	Right lane drops. Some trucks miss the left turn onto the AA. No good place for trucks turn around.	Sherry McDavid - FIVOC
4	Weak Place		
5	Weak Place	High crash location. consider overhead lighting. consider traffic signal. Something to address fog conditions.	
6	Weak Place	Coming down grade to US 23, something needed to alert drivers that traffic signal is ahead. Maybe rumble strips across road. Some kind of advance warning. Maybe flashing lights.	Fog is also an issue along US 23 near the river.
7	Weak Place	Transition from 1-lane to 2-lane, and turn lanes/merging	Lighting, no caution lights
8	Weak Place	Overhead lights. Many crashes at this intersection.	Greenup Co. Public Safety - Buford Hurlay

## Detailed Input (cont.)

ID	Category	Comment	Comment 2
11	Weak Place	CJE Bobby Carpenter considers this one of the county's worst areas. A study was done at one time about this. Traffic coming from Ohio is high speed. intersection is a problem	
13	Weak Place	Delineator posts - reflectors on posts to mark where side roads approach AA.	
14	Weak Place	Delineator posts - reflectors on posts to mark where side roads approach AA	
15	Weak Place	Delineator posts - reflectors on posts to mark where side roads approach AA	
16	Weak Place	Delineator posts - reflectors on posts to mark where side roads approach AA	
17	Weak Place	Delineator posts - reflectors on posts to mark where side roads approach AA	
18	Weak Place	Grayson Spur and this side of AA has smaller signage than elsewhere on the AA. Needs to be consistent.	
19	Weak Place	Sight distance issue. People passing. No truck lane	
20	Weak Place	Transition right at intersection from 2-lane	
21	Weak Place	Traveling west, it appears you have a turn lane for KY 1234, but you don't. This is a safety issue. Rear-end collisions. people cross onto the shoulder.	Craig Stanfield
22	Weak Place	Turn lanes needed on AA for landfill.	
23	Weak Place	coming from west, this is currently a passing zone. This needs to be changed to no passing zone due to intersection.	
24	Weak Place	Pavement issue - center rutting issue - related to pavement markers.	
25	Weak Place	throughout corridor, crack sealing covers pavement stripes causing safety issue especially at night	
26	Weak Place	Lack of Vehicle Enforcement - truck traffic enforcement. through whole corridor	
27	Weak Place	Transition issue? Extend Two NB Lanes?	
30	Weak Place	Turn Lanes	

### Detailed Input (cont.)

ID	Category	Comment	Comment 2
31	Weak Place	Turn Lanes	
32	Weak Place	Turn Lanes	
35	Weak Place	Intersection improvements needed at hospital. Advanced warning might not be effective because of queuing issue.	Trucks might not have time to stop, even though there is advanced warning, the back-up of traffic makes this ineffective.
36	Weak Place		
37	Weak Place	Short Passing Lane	
38	Weak Place	Simple fix. Simply make a no passing zone until AFTER the Garrad Road Turnoff (only needed for Eastbound Lane).	People plan to pass, maybe 2 or 3 cars back on this straight-stretch, speed up, pull into the left lane, only to then realize that the car 3 cars up is preparing to turn left (and they have already sped up and moved into the passing lane).
39	Weak Place	When traveling east, road widens for KY 1237 turns. HOWEVER when traveling west, road appears wide w/ a turning lane, but instead road narrows w/out turning lane for KY 1234. Many near miss rear end collisions, with cars moving to shoulder to avoid wreck	This road has quite a bit of traffic, access to Olivet Church/Cemetery and onto Orangeburg. A turn lane for east bound onto KY 1234 would improve safety.g lane.
40	Weak Place	Crack sealing great and economical way to lengthen effective life of pavement. However the cracks typically disrupt the lane paint, Painting the lanes after crack-sealing would improve visibility/safety.	At night, especially if rainy, the lanes are hard to make out after crack-sealing. Repainting the lines would be a big plus.
41	Weak Place	In addition to the comment about traffic queuing the the potential signal/AWS issues, this location needs a right turn lane. District Nine is going to survey the location and work up an estimate.	
42	Weak Place	add right turning lane to hospital/multiple MD offices/fire station/etc	
47	Weak Place	Extend truck lane	
48	Weak Place	Need turn lanes	
49	Weak Place	Tight Guardrail, trucks turn distr.	
50	Weak Place	Hook Lane - Fishing / Horse trails. Turning Horse Trailers	
52	Weak Place	Reduce speed limit on KY 9 from KY 11 to KY 3071 from 55mph to 45 mph	Just had another fatality of 2/24/20



## AGENDA

### **AA Highway Improvements Study**

#### **Local Official / Stakeholder Meeting No. 1**

**February 17, 2020, 9:00 AM**

**FIVCO Area Development District**

**Grayson, Kentucky**

- I. Presentation of Study
  - A. Study Background
  - B. Study Objective / Goals
  - C. Existing Conditions Overview
  - D. Improvement Concept Categories
- II. Focus Group Activities
  - A. Exercise No. 1 – Review of Committed and Identified Projects
  - B. Exercise No. 2 – Identify Existing Major Traffic Generators and Future Planned Development
  - C. Exercise No. 3 – Identify Strong Places / Weak Places
- III. Next Steps / Wrap Up
  - A. Questions
  - B. Next Meeting Date



**AECOM**

## SIGN-IN SHEET



### AA Highway Improvements Study

### Local Officials / Stakeholder Meeting No. 1 (February 17, 2020)

#### Attendees:

Name	Agency	Email	In Attendance?
Stephen DeWitte	KYTC – CO	Stephen.DeWitte@ky.gov	<i>✓</i>
Beth Niemann	KYTC – CO	Elizabeth.Niemann@ky.gov	<i>✓</i>
Jacob Huber	KYTC – CO	Jacob.Huber@ky.gov	
Steve Ross	KYTC – CO	Steve.Ross@ky.gov	<i>D&amp;R</i>
Jay Balaji	KYTC – CO	Jayalakshmi.Balaji@ky.gov	
Thomas Witt	KYTC – CO	Thomas.Witt@ky.gov	
Kevin Sandefur	KYTC - Highways	Kevin.Sandefur@ky.gov	
Randy Turner	KYTC - Highways	Randy.Turner@ky.gov	
Scott Schurman	KYTC – Env.	Scott.Schurman@ky.gov	
Adam Michels	KYTC – Env.	Adam.Michels@ky.gov	
Robert Yeager	KYTC – D6	Robert.Yeager@ky.gov	
Mike Bezold	KYTC – D6	Mike.Bezold@ky.gov	
Dane Blackburn	KYTC – D6	Dane.Blackburn@ky.gov	
Nikki Hill	KYTC – D6	Nikki.Hill@ky.gov	
Donald Imfeld	KYTC – D6	Donald.Imfeld@ky.gov	
Craig Walker	KYTC – D6	Craig.Walker@ky.gov	
Steve Gunnell	KYTC – D9	Steve.Gunnell@ky.gov	<i>✓</i>
Darrin Eldridge	KYTC – D9	Darrin.Eldridge@ky.gov	<i>OCE</i>
Karen Mynhier	KYTC – D9	Karen.Mynhier@ky.gov	<i>KLM</i>
Matt Dillon	KYTC – D9	Matt.Dillon@ky.gov	<i>MHD</i>
Michael Read	KYTC – D9	Michael.Read@ky.gov	<i>MR</i>
Jeff Thelen	NKADD	Jeff.Thelen@nkadd.org	
Amy Kennedy	BTADD	akennedy@btadd.com	
Missy Hardy	BTADD	mhardy@btadd.com	
Vicki Green	FIVCO	vicki@fivco.org	<i>VB</i>
Lindsay Walker	HMB	lwalker@hmbpe.com	<i>LAW</i>
Brad Johnson	HMB	bcjohnson@hmbpe.com	<i>BCJ</i>
Jarrod Johnson	HMB	jjohnson@hmbpe.com	<i>JM</i>
Joey Mosley	HMB	jmosley@hmbpe.com	
John Callihan	AECOM	john.callihan@aecom.com	<i>JEC</i>



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## **SIGN-IN SHEET**



## AA Highway Improvements Study

Local Officials / Stakeholder Meeting No. 1 (February 17, 2020)

## Attendees:



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## AGENDA

### **AA Highway Improvements Study**

#### **Local Official / Stakeholder Meeting No. 1**

**February 18, 2020, 1:00 PM**

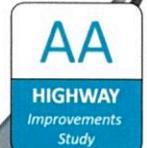
**Buffalo Trace Area Development District**

**Maysville, Kentucky**

- I. Presentation of Study
  - A. Study Background
  - B. Study Objective / Goals
  - C. Existing Conditions Overview
  - D. Improvement Concept Categories
- II. Focus Group Activities
  - A. Exercise No. 1 – Review of Committed and Identified Projects
  - B. Exercise No. 2 – Identify Existing Major Traffic Generators and Future Planned Development
  - C. Exercise No. 3 – Identify Strong Places / Weak Places
- III. Next Steps / Wrap Up
  - A. Questions
  - B. Next Meeting Date



**AECOM**



## SIGN-IN SHEET

### AA Highway Improvements Study

#### Local Officials / Stakeholder Meeting No. 1 (February 18, 2020)

##### Attendees:

Name	Agency	Email	In Attendance?
Stephen DeWitte	KYTC – CO	Stephen.DeWitte@ky.gov	SGD
Beth Niemann	KYTC – CO	Elizabeth.Niemann@ky.gov	
Jacob Huber	KYTC – CO	Jacob.Huber@ky.gov	
Steve Ross	KYTC – CO	Steve.Ross@ky.gov	
Jay Balaji	KYTC – CO	Jayalakshmi.Balaji@ky.gov	
Thomas Witt	KYTC – CO	Thomas.Witt@ky.gov	
Kevin Sandefur	KYTC - Highways	Kevin.Sandefur@ky.gov	KS
Randy Turner	KYTC - Highways	Randy.Turner@ky.gov	
Scott Schurman	KYTC – Env.	Scott.Schurman@ky.gov	
Adam Michels	KYTC – Env.	Adam.Michels@ky.gov	
Robert Yeager	KYTC – D6	Robert.Yeager@ky.gov	
Mike Bezold	KYTC – D6	Mike.Bezold@ky.gov	
Dane Blackburn	KYTC – D6	Dane.Blackburn@ky.gov	EDB
Nikki Hill	KYTC – D6	Nikki.Hill@ky.gov	
Donald Imfeld	KYTC – D6	Donald.Imfeld@ky.gov	
Craig Walker	KYTC – D6	Craig.Walker@ky.gov	
Steve Gunnell	KYTC – D9	Steve.Gunnell@ky.gov	✓
Darrin Eldridge	KYTC – D9	Darrin.Eldridge@ky.gov	DLE.
Karen Mynhier	KYTC – D9	Karen.Mynhier@ky.gov	KM
Matt Dillon	KYTC – D9	Matt.Dillon@ky.gov	
Michael Read	KYTC – D9	Michael.Read@ky.gov	MR
Jeff Thelen	NKADD	Jeff.Thelen@nkadd.org	
Amy Kennedy	BTADD	akennedy@btadd.com	Ogju
Missy Hardy	BTADD	mhardy@btadd.com	mht
Vicki Green	FIVCO	vicki@fivco.org	
Lindsay Walker	HMB	lwalker@hmbpe.com	LAW
Brad Johnson	HMB	bcjohnson@hmbpe.com	✓
Jarrod Johnson	HMB	jjohnson@hmbpe.com	
Joey Mosley	HMB	jmosley@hmbpe.com	
John Callihan	AECOM	john.callihan@aecom.com	JEC



AECOM

## SIGN-IN SHEET

### AA Highway Improvements Study

### Local Officials / Stakeholder Meeting No. 1 (February 18, 2020)



#### Attendees:

Name	Agency	Email
Earl Bush	Bracken Co Ind Auth	mbush589@windstream.net
Stephanie Hopper	Hospice of Hope	Shopper@hohope.org
Todd Ruckel	Lewis Co Judge Exec	todd.ruckel@lewiscountky.ky.gov
Jay Pfeffer	MASON Co. Judge Exec	masoncojudge@masoncountykentucky.us
Scotty Sippel	Bracken Magistrate	ScottyL@WindStream.net
Clay Bussey	Maysville/Mason Co. EM	MC_EM@Maysville.KY.US
Matt Wallingford	City of Maysville	mattwallingford@maysville.ky.net
Owen McNeill	Mays-Muslo Ind Dev Auth	owenmcneill@maysville.ky.us
Charles T. Coffey III	City of Maysville	c.t.coffeyIII@gmail.com
Craig Miller	Bracken Co. Fiscal Court	Craig.miller.07@Windstream
Jeff Auilich	Bracken Co Schools	jeff.auilich@bracken.ky.us
Mike Moore	PENDLETON CO FMA	pmoore@blueowl.net
David Fritsch	Pendleton Co/Judge Exec	PendletonCounty.judgeexec@gmail.com
Bill Shugars	Shugars Supply, BTADD	Shugars@maysville.ky.us
Amy Kennedy	BTADD	akennedy@btadd.com
Bud Boggs	BTADD Maysville KY	boggs@MaysvilleKY.us
Tina K Teegarden	Bracken Co Judge	brackenjudge@windstream.net



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## **SIGN-IN SHEET**



AA Highway Improvements Study

Local Officials / Stakeholder Meeting No. 1 (February 18, 2020)

## Attendees:

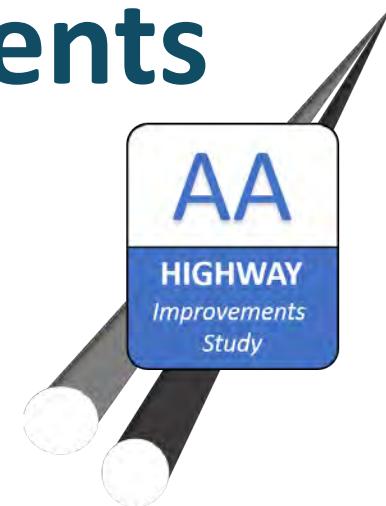
Name	Agency	Email
Courtney Kleier	NKY Chamber	cnelther@nkychamber.com
Joe Buerkley	Pendleton Co. Schools	joe.buerkley@pendleton.kyschools.us
Bell Mitchell	BTADD	Bell.Mitchell@BTADD.org
Joe McKay	Mason County Fiscal Court	Joe.McKay@mason.kyschools.us
Craig Stanfield	BTADD	info@stanfieldproperty.com



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# AA Highway Improvements Study

Bracken, Carter, Greenup, Lewis,  
Mason, Pendleton Counties



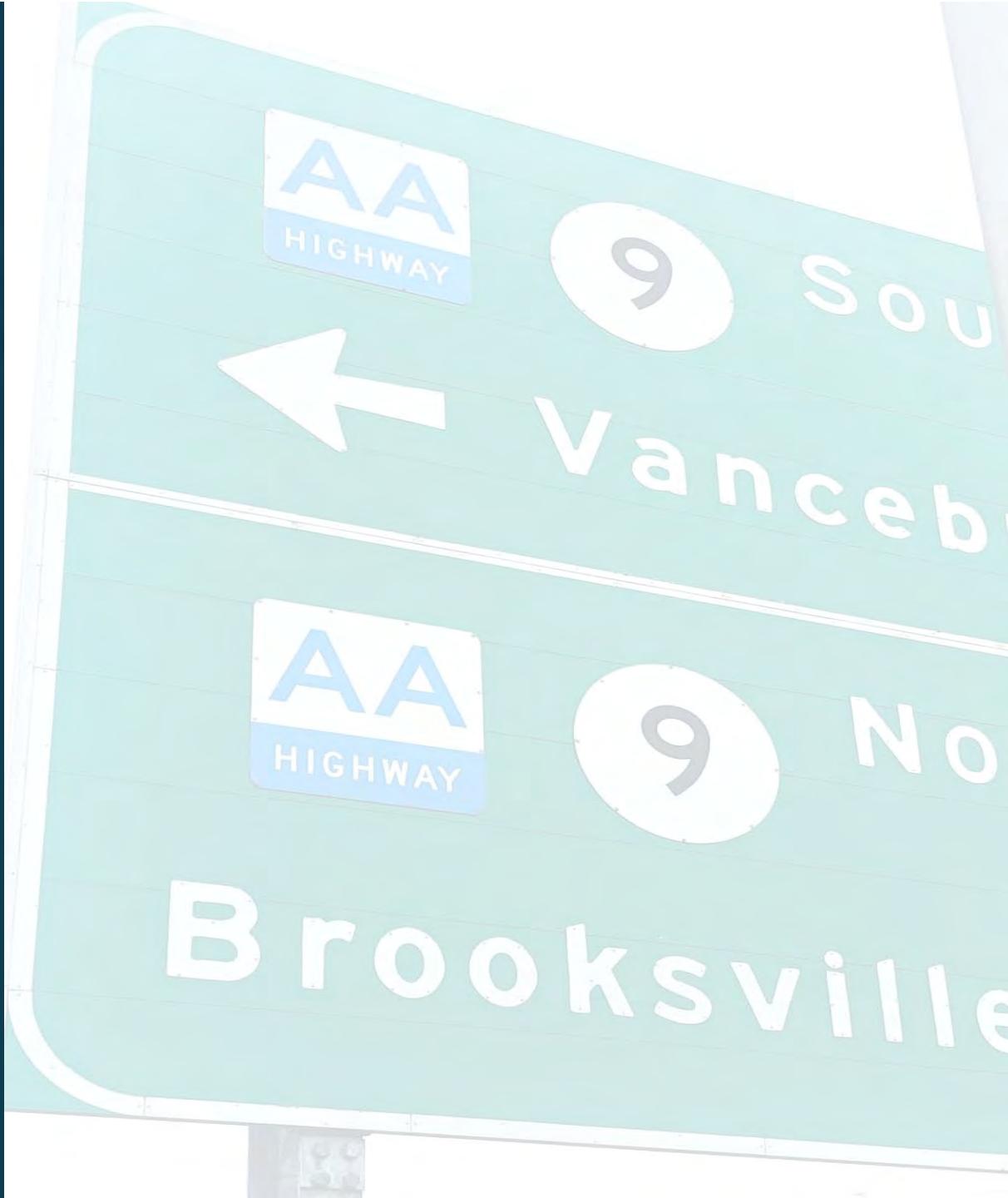
Local Official / Stakeholder Meeting No. 1  
February 18, 2020, 1:00 PM EDT

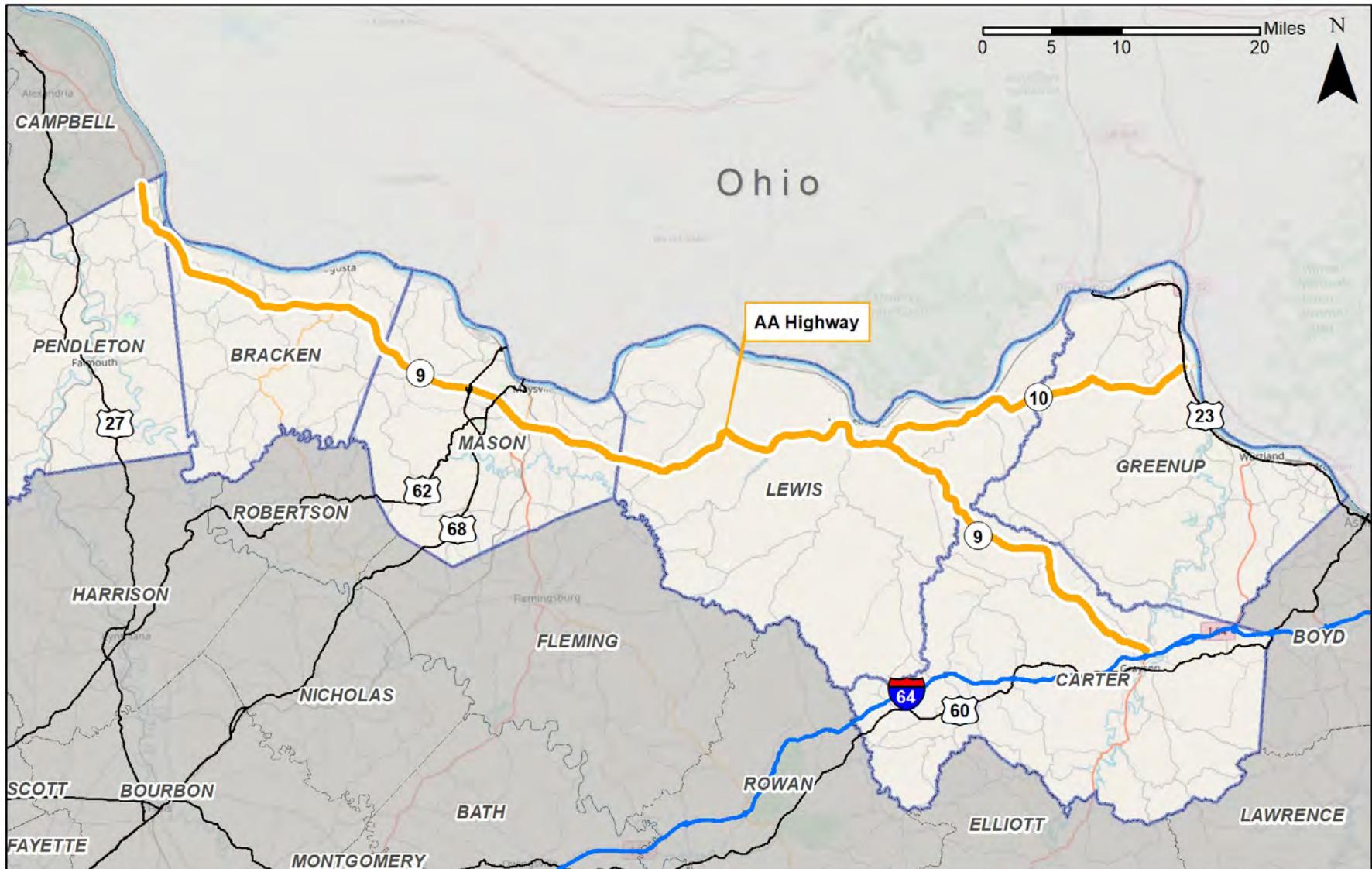


# Meeting Structure

1. Welcome / Introductions
2. Presentation of Study
3. Break out into Focus Groups for Discussion

# Study Background





Study Area      US Highways  
Interstate      Study Area County Line

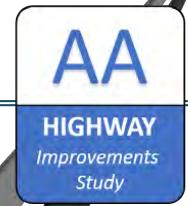


AA Highway Improvements Study



HMB

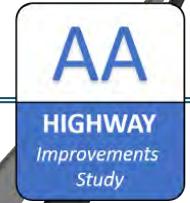
# Study Background



## Study Objective

- Identify and evaluate potential improvement concepts to improve overall safety and operational performance of the AA Highway including KY 9 from the Campbell / Pendleton County line to Grayson (KY 1) and KY 10 from Vanceburg to US 23 in Greenup County (total of approximately 120 miles).

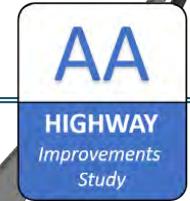
# Study Background



## Study Goals

- Identify Project Locations
- Develop / Evaluate Improvement Concepts
- Prepare Prioritized List of Improvement Concepts

# Study Background



## Study Tasks

- Compile Existing Conditions Information
- Prepare Traffic Forecasts (Year 2045)
- Perform Environmental Overview
- Develop Improvement Concepts
- Refine Improvement Concepts
- Prioritize Recommended Improvements

# Schedule

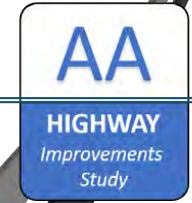
August 2019	Study Initialized
Sept. – Dec. 2019	Scoping / Data Gathering / Existing Conditions Analysis
January 2020	Project Team Meeting No. 1 / Traffic Forecasting
February 2020	LO/S Meeting No. 1 / Develop Improvement Concepts
March 2020	Project Team Meeting No. 2 / Evaluate Improvement Concepts
April 2020	LO/S Meeting No. 2 / Refine Improvement Concepts
May 2020	Develop Recommendations
June 2020	Project Team Meeting No. 3
July 2020	Prepare Draft Report
August 2020	Address Comments / Finalize Report

# Existing Conditions



# Existing Conditions

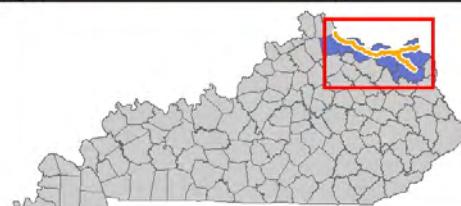
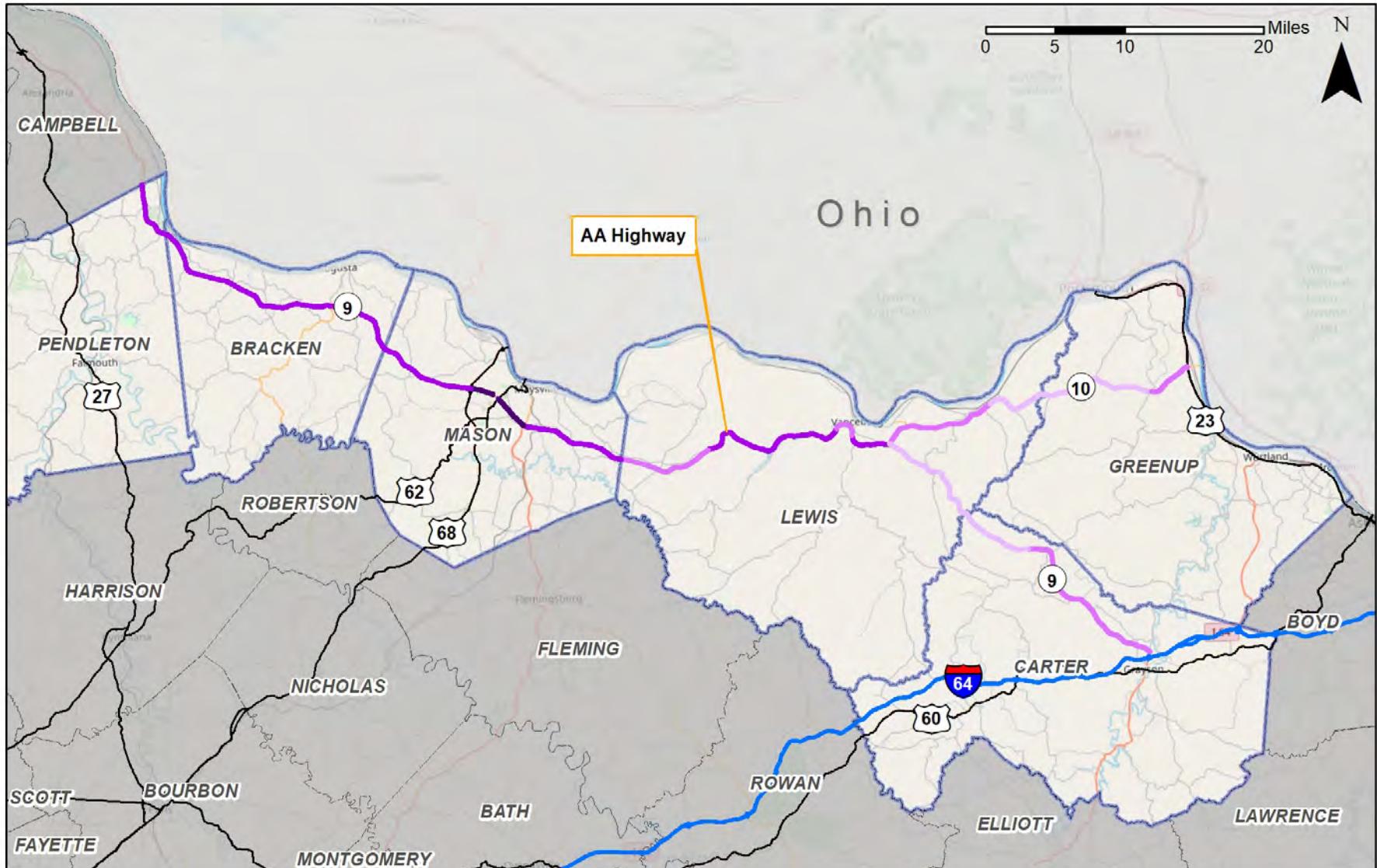
## Typical Sections



62% Two-Lane  
(73.3 miles)

26% Two-Lane  
with Truck  
Climbing Lane

12% Four-Lane  
(14.3 miles)

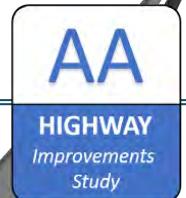


**AA Highway Improvements Study**  
**AADT Range Overview**

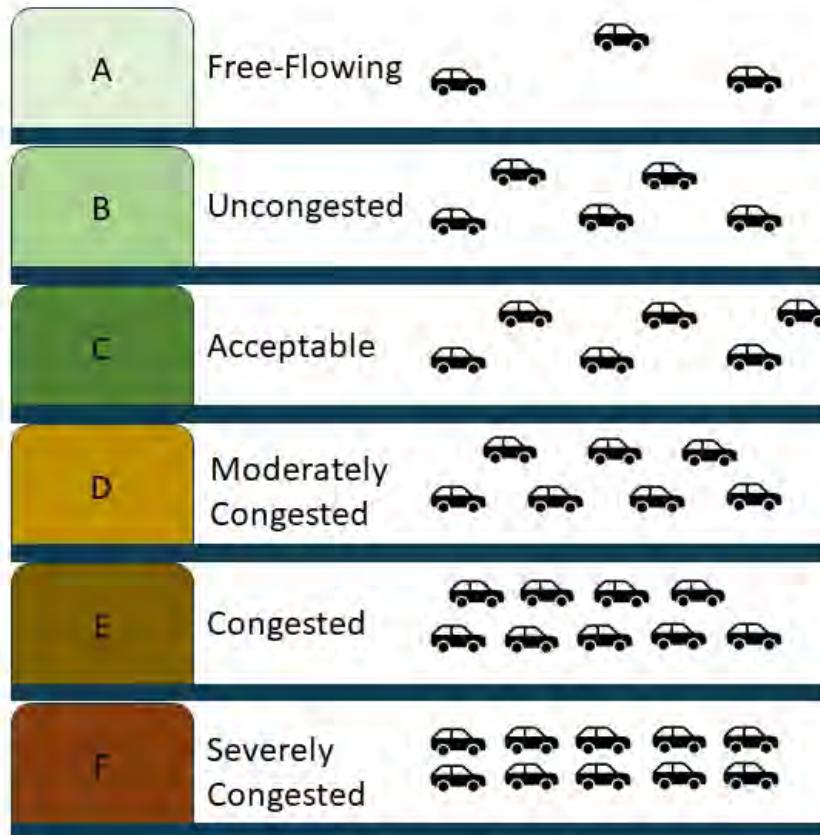


*HMB*

# Traffic Operations



## Level of Service (LOS) Chart



2020 LOS for All  
Segments = A/B



Industries with Employment >= 100  
Kentucky Highway Freight Network

Interstate  
US Highways  
Study Area  
Study Area County Line



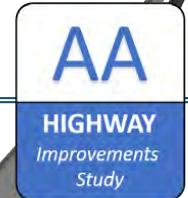
AA Highway Improvements Study  
Freight Network and Major Industries



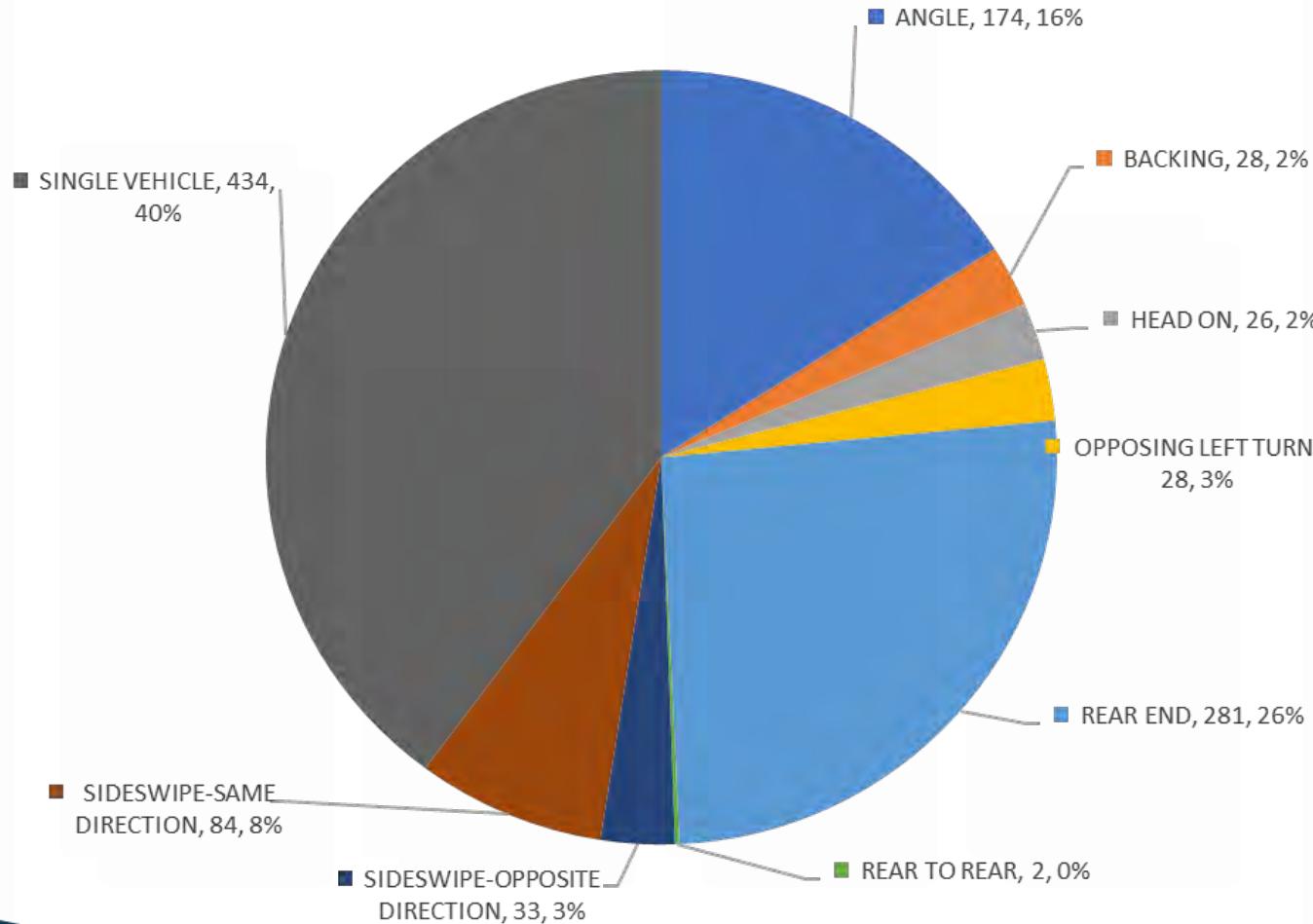
HNP

# Crash Analysis

2014-2019

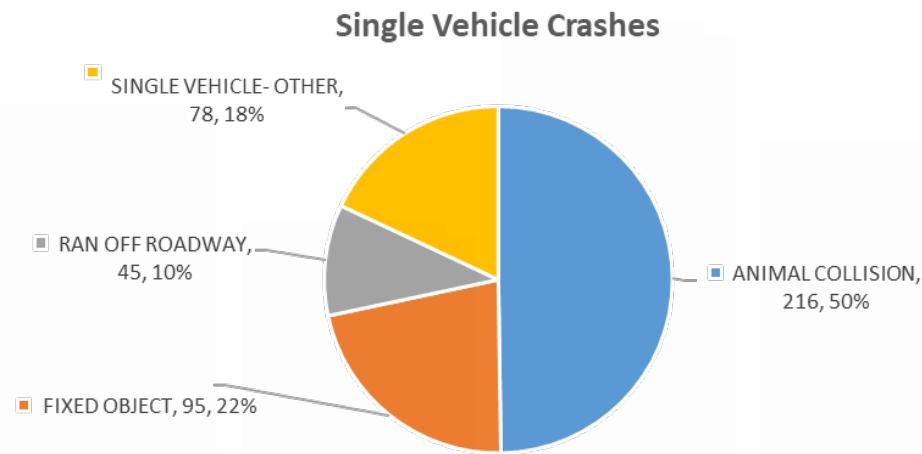
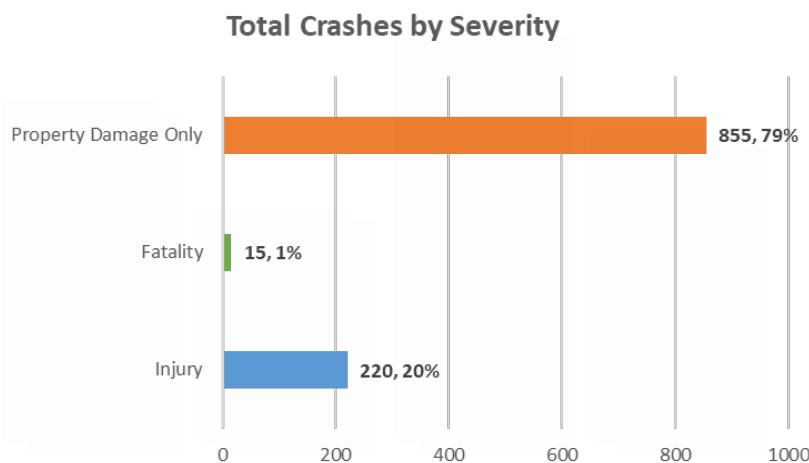
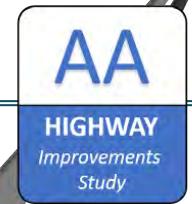


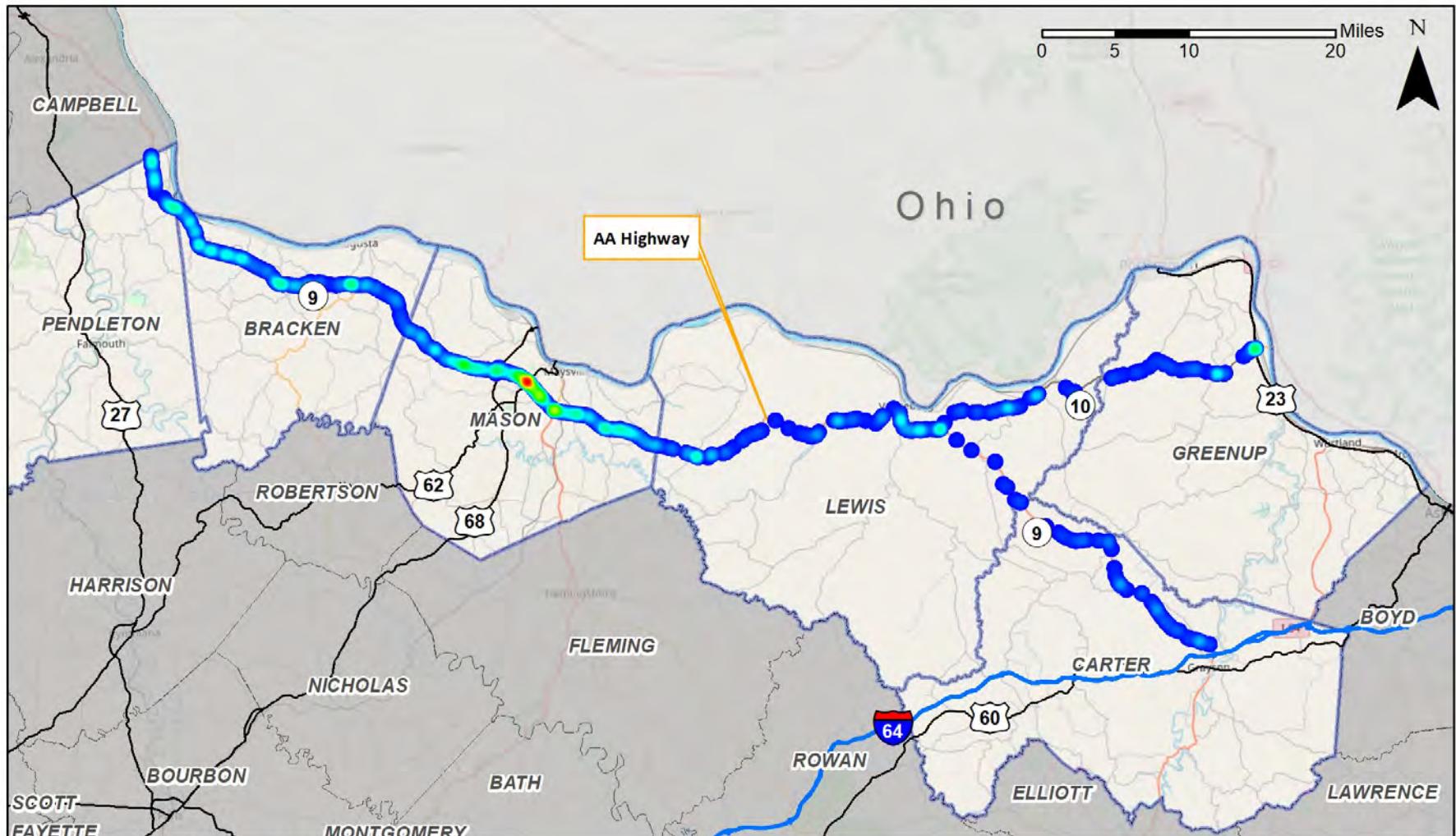
Total Crashes by Manner of Collision



# Crash Analysis

2014-2019





AA Highway Improvements Study  
Crash Analysis (Nov 2014 - Oct 2019)

Crash Density (All Crashes)



HMB

Less Crashes      More Crashes

- Interstate
- US Highways
- Study Area County Line





AA Highway Improvements Study  
Crash Analysis (Nov 2014 - Oct 2019)

### High CRF Spots (0.3 Mile Segments)

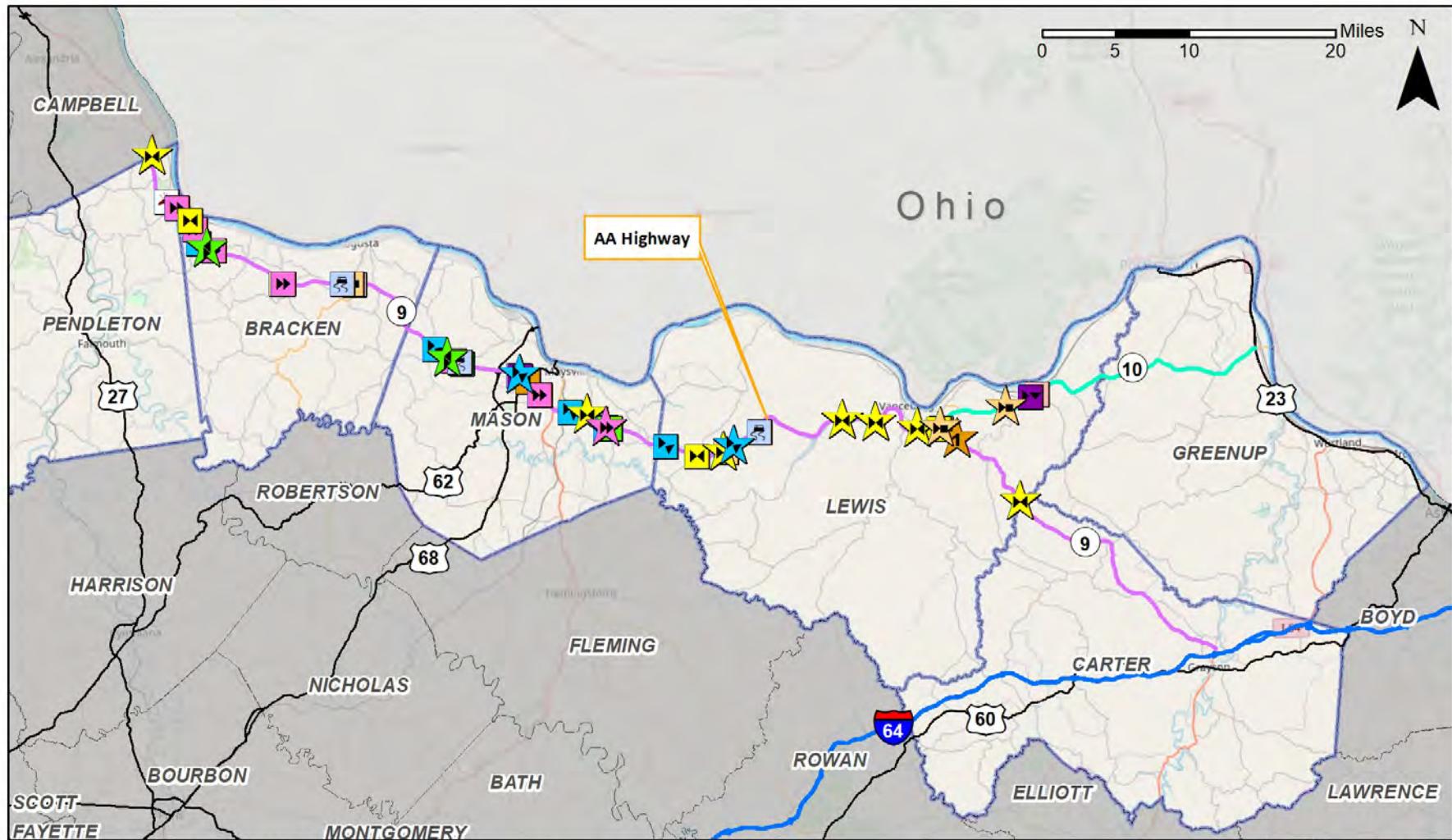


HAB

- Interstate
- US Highways
- Study Area
- Study Area County Line

■ High CRF Spots (0.3 Mile Segments)

Note: A high CRF is identified as a value 1.00 or greater and indicates crashes likely do not occur randomly at that location.



**AA Highway Improvements Study**  
Crash Analysis (Nov 2014 - Oct 2019)

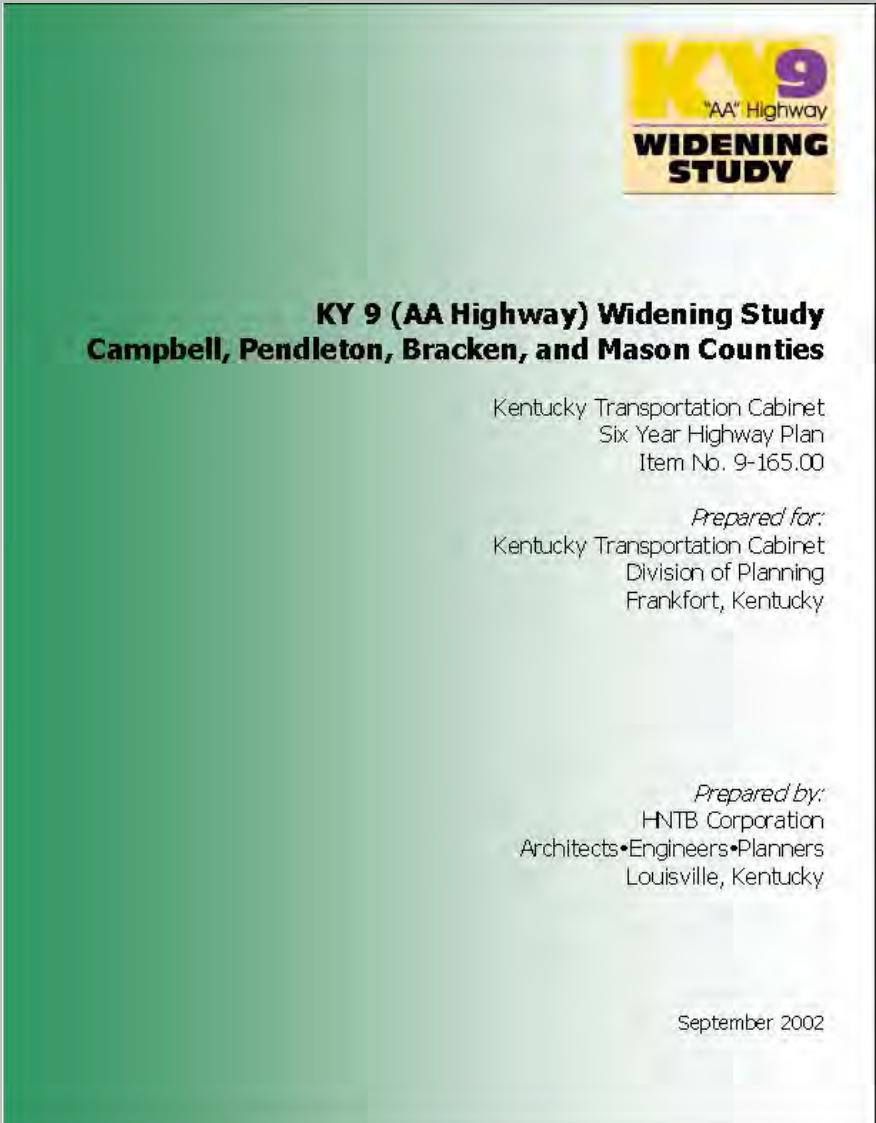
### Crashes by Manner and Severity (Fatal and Severe Injury)



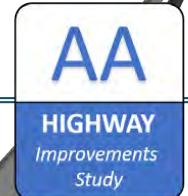
HAB

Manner of Collision (Color)	Fixed Object	Rear to Rear	KABCO Collision Severity (Shape)
KY 9	■ Fixed Object	◆ Rear to Rear	★ K: Fatal
KY 10	■ Angle	■ Head On	□ A: Severe / Incapacitating
Interstate	■ Animal	■ Opposing Left Turn	(severe lacerations, broken limbs, skull fracture, internal injuries, unconsciousness, inability to leave scene without assistance)
US Highways	■ Backing	■ Ran Off Roadway	
Study Area County Line	■ Cross-Over	■ Rear End	
		■ Sideswipe - Opposite Direction	
		■ Sideswipe - Same Direction	
		■ Single Vehicle - Other	

# Previous Study



# Previous Study



## KY 9 (AA Highway) Widening Study)

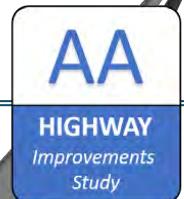
- Prepared in 2002 for KYTC for Campbell, Pendleton, Bracken, and Mason Counties
- Four Alternates Developed:
  - Do Nothing
  - Safety / Operational Improvements
  - Widening to 4-Lane, Limited Access
  - Widening to 4-Lane, Fully Controlled Access

# Previous Study

KY 9 Segments	Traffic Volumes and LOS by Segment					
	2000 AADT* (vpd)	2000 LOS*	2025 AADT* (vpd)	2025 LOS*	2020 AADT (vpd)	2020 LOS
Segment A: West Ivor Road to Campbell/Pendleton County Line (0.500 - 0.000)	8,420	E	18,100	F	Segment not in Current Study	
Segment B: Campbell Pendleton County Line to Pendleton/Bracken County Line (4.339 - 0.000)	7,630	E	16,400	F	6,500	B
Segment C: Pendleton/Bracken County Line to KY 1109 (19.857 - 13.585)	8,800	E	18,900	F	6,200	B
Segment D: KY 1109 to KY 1159 (13.585 - 10.259)	8,010	E	17,200	F	5,800	A
Segment E: KY 1159 to Augusta-Berlin Road (10.259 - 9.449)	7,360	D	15,800	F	4,600	A
Segment F: Augusta-Berlin Road to KY 19 (9.449 - 5.546)	8,490	E	18,200	F		
Segment G: KY 19 to Bracken/Mason County Line (5.546 - 0.000)	5,720	D	12,300	E	6,100	B
Segment H: Bracken/Mason County Line to Walton Pike (19.541 - 19.293)	5,720	D	12,300	E	6,100	B
Segment I: Walton Pike to KY 435 (19.293 - 17.049)	5,870	D	12,600	E	5,300	A
Segment J: KY 435 to KY 10 (17.049 - 16.179)	6,700	D	14,400	F	5,700	A

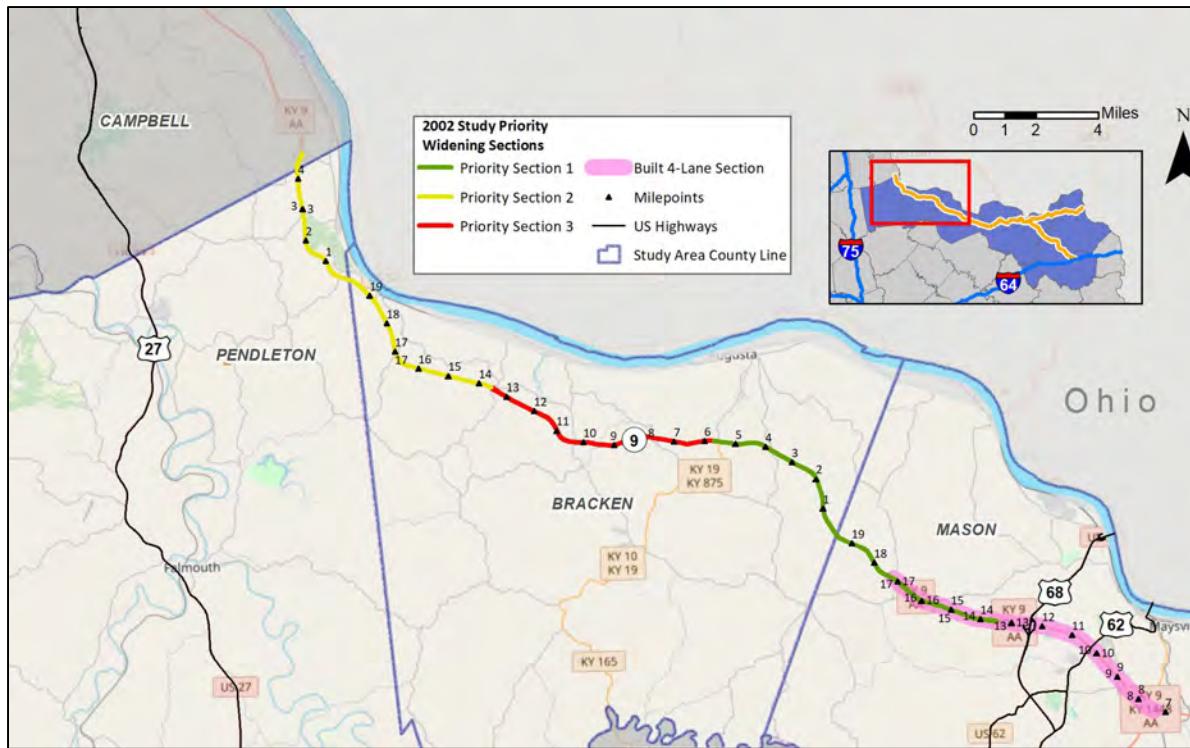
\*Values from previous KY 9 Widening Study

# Previous Study



## Preferred Alternate:

- Widening to 4-Lane, Limited Access
- Divided into 3 Priority Sections



# Previous Study

## Safety / Operational Improvements

Improvement	Deficiency to Address	Current Status
Rumble Strips	Inattentive driver, roadway departure, driver fatigue	Implemented
Field Entrances	30 noted; need access control	Access control addressed in reconstruction west of US 68
Driveways	Missing turn lanes, small turning radii, guardrail too close	Partially implemented
Guardrail Placement	Guardrail close to edge of pavement	Guardrail replaced west of US 68; Spot guardrail replacement projects in Highway Plan
Truck Climbing Lanes	Installations / modifications	Partially implemented
Signage Compliance	Inconsistent; evaluate compliance	Implemented but still some inconsistencies
Turn Flares	Improve turning radii	Partially implemented; Addressed in reconstruction west of US 68

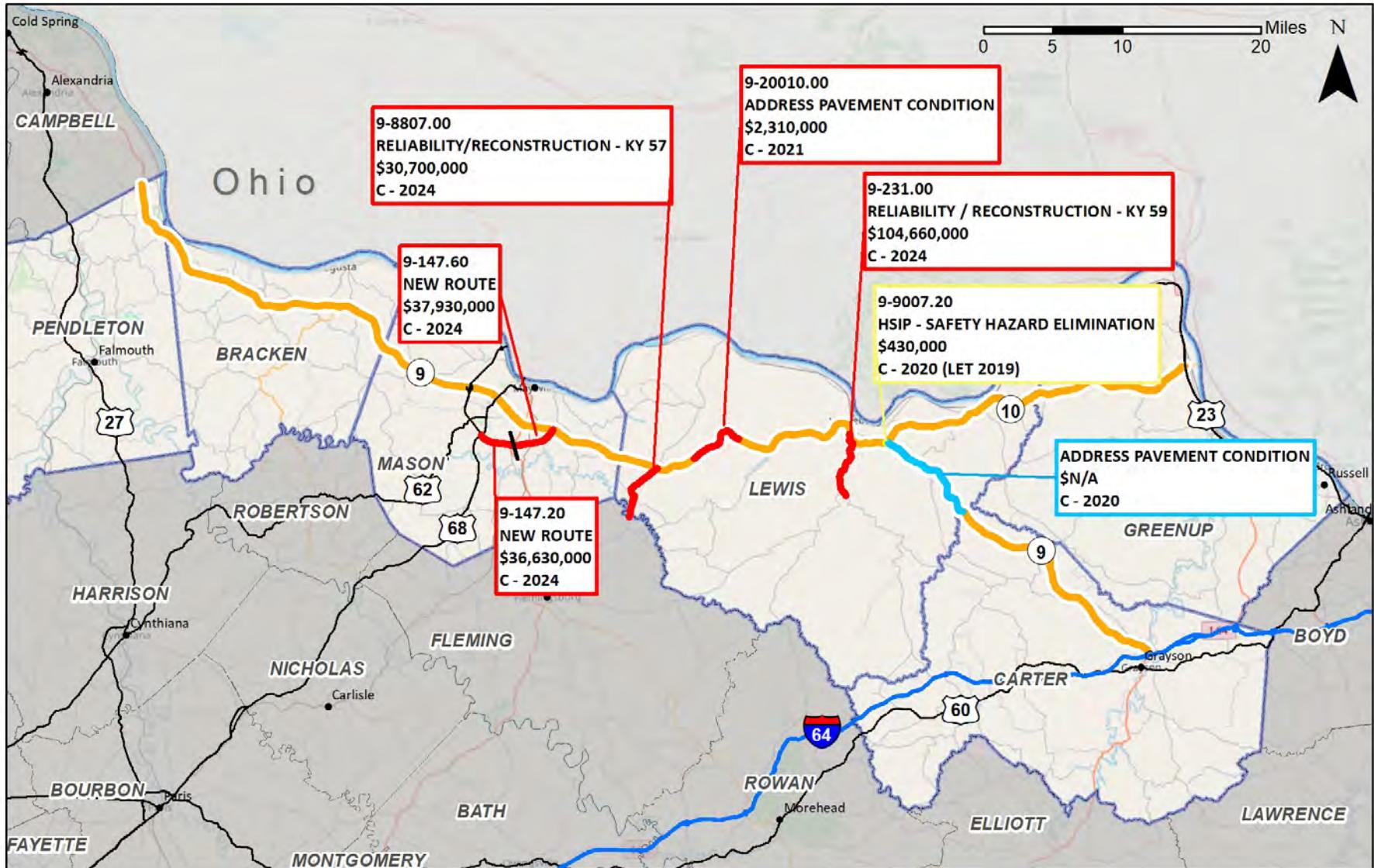
# Previous Study

## Safety / Operational Improvements

Improvement	Deficiency to Address	Current Status
T-Intersection Signage	Add double arrow black and yellow signs	Partially implemented
Fog	Public education campaign, visibility sensors, traffic enforcement, automated lane indication, rest areas	Partially implemented; Signage and Advanced Warning Systems for signals installed
Lighting	Crashes in dark	Most major intersections have lighting installed
Weigh Stations	Truck traffic	Not currently implemented
Deer Reflectors	Collisions with animals	Not implemented; Subsequent research found them not to be effective
Skip Reflectors	Intersection delineation	Not currently implemented, dotted extension lines used in some cases

# Committed and Identified Projects





- Interstate
- US Highways
- Study Area
- Study Area County Line

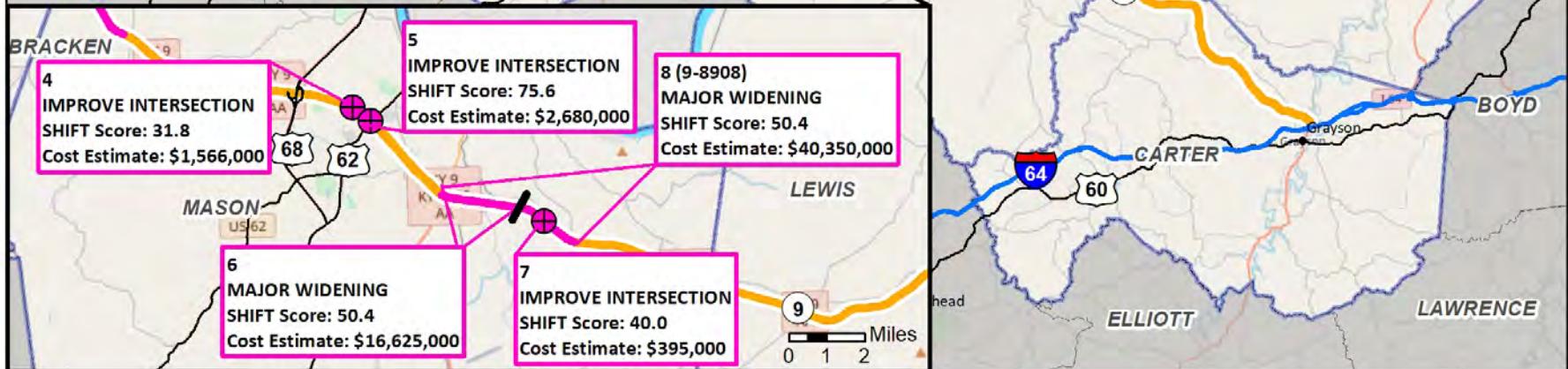
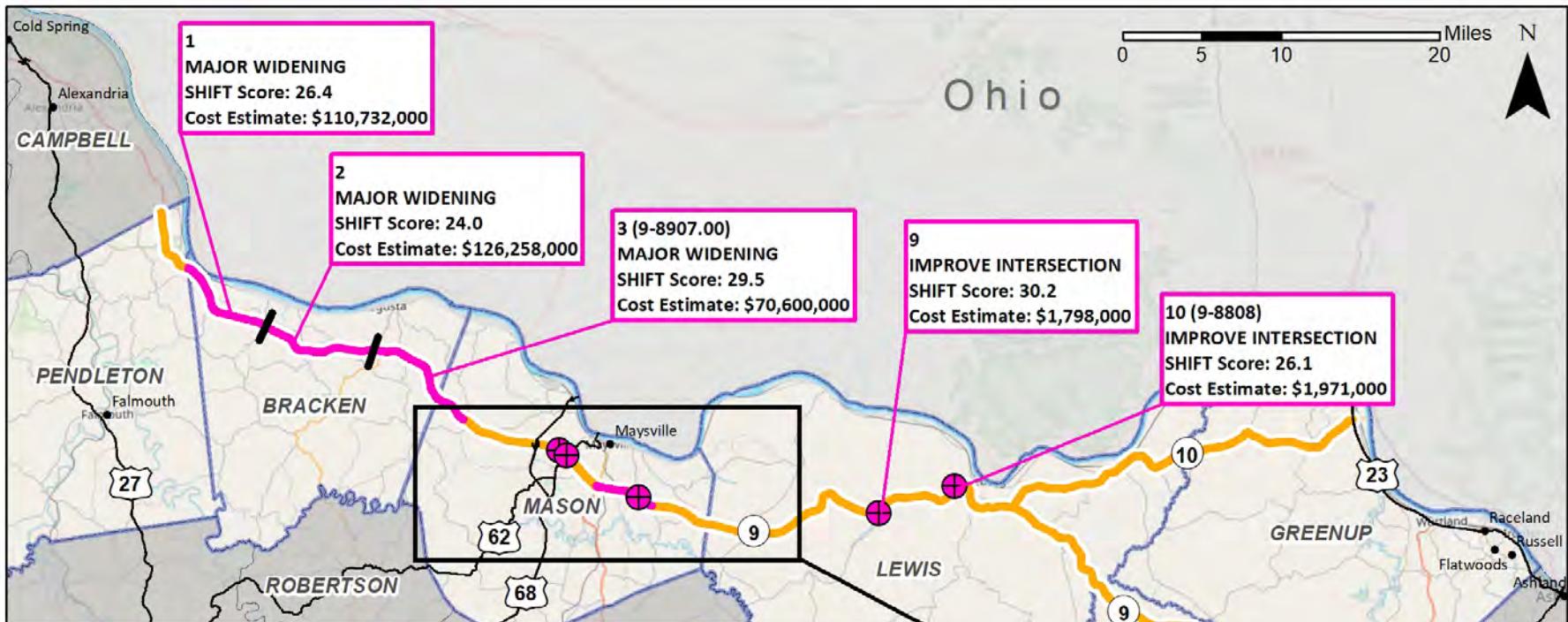
- | Project Type                        |                          |
|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | 2018 SYP                 |
| <input checked="" type="checkbox"/> | HSIP                     |
| <input checked="" type="checkbox"/> | Preventative Maintenance |



**AA Highway Improvements Study**  
Committed Projects



*HIP*



- Interstate
- US Highways
- Study Area
- Study Area County Line

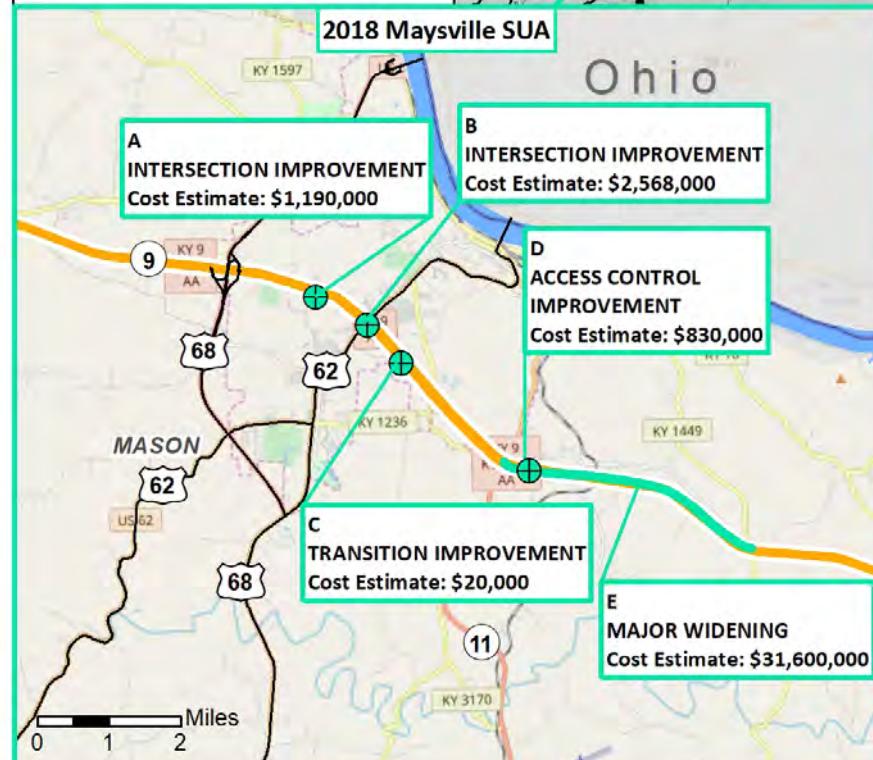
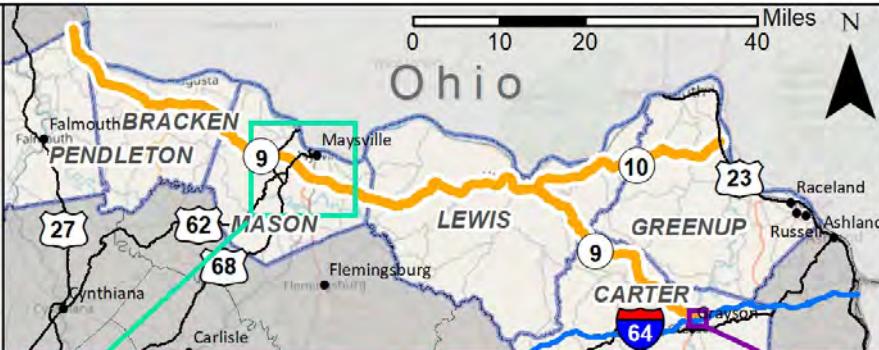
X 2020 Sponsored CHAF Project



**AA Highway Improvements Study**  
2020 Sponsored Identified Projects



HAB



- Interstate
- US Highways
- Study Area
- Study Area County Line

- X Maysville SUA (2018)
- X Grayson SUA (2018)

Note: Project A, B, and E have corresponding CHAFs which have all been sponsored, however, only Part 1 of Project A has a corresponding CHAF.

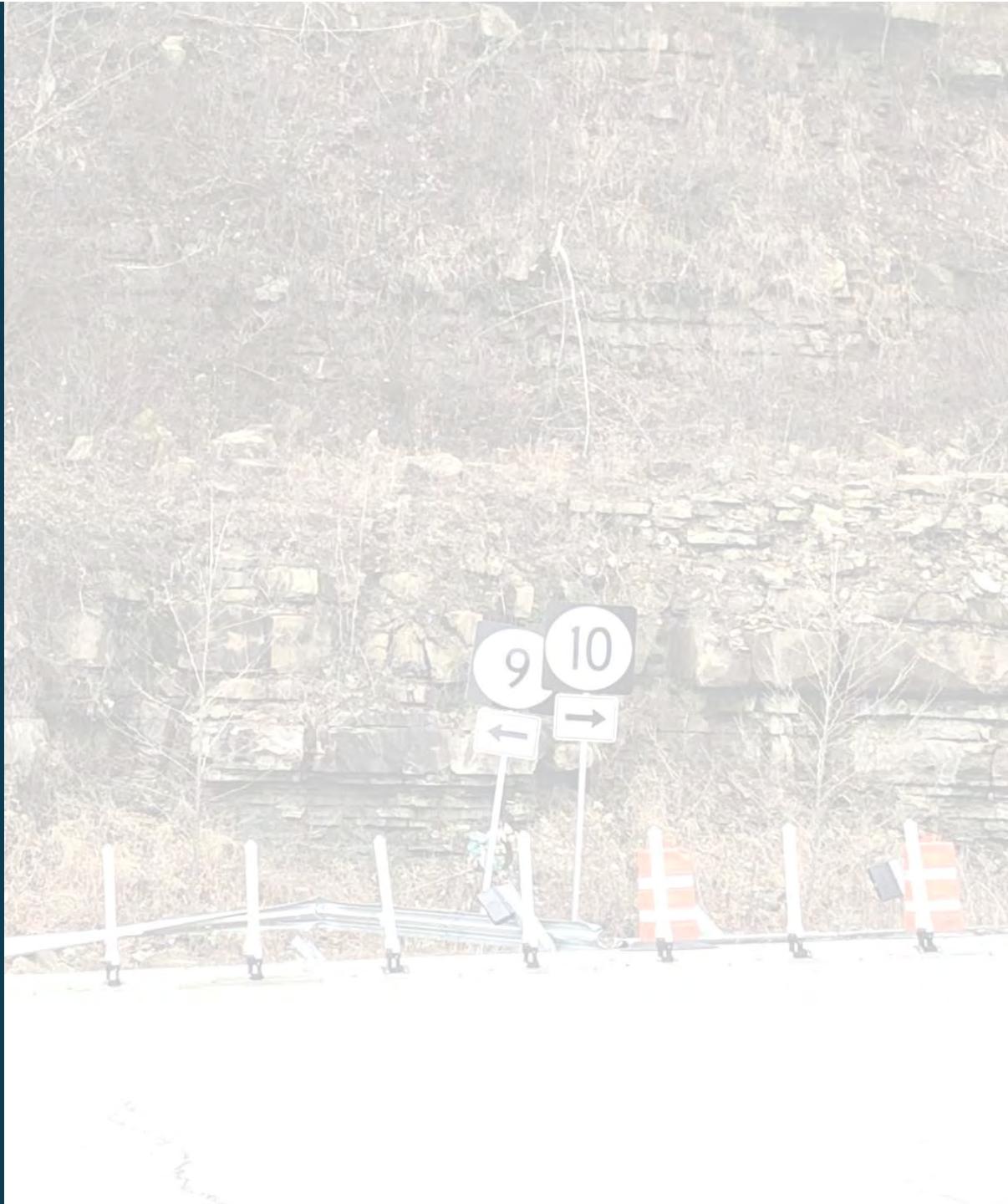


**AA Highway Improvements Study**  
Identified SUA Projects

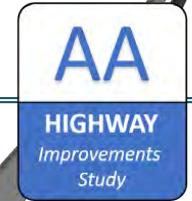


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# Improvement Concept Categories



# Improvement Concept Categories



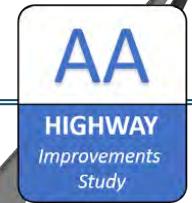
- Congestion
  - Signal Timing
  - Turn Lanes
- Safety
  - Sight Distance
  - Passing Lane Transitions
  - Speed
  - Lighting
- Access
  - Cross streets
  - Delineation
  - Intersection Reconfigurations
- Management
  - Signage
  - Parking Areas
  - Truck Traffic

**High value/low impact/low cost  
concepts that offer significant  
corridor safety and congestion  
improvement**

# Focus Group Activities



# Focus Group Activities



## Questions to Consider:

- Exercise No. 1 – Committed and Identified Projects
  - Please review committed and identified project locations and provide your input
- Exercise No. 2 – Traffic Generators
  - Please provide input on locations of existing major traffic generators or large areas of planned new development
- Exercise No. 3 – Strong Places; Weak Places
  - Strong Places - Please identify places you feel operate well or features you like
  - Weak Places – Please identify places you feel have safety or operational concerns

# Next Steps

1. Analyze Data
2. Develop Conceptual Improvements Range
3. Schedule Local Officials / Stakeholder Meeting No. 2 (April 2020)

# Contacts



**Dane Blackburn**  
**KYTC District 6 Project Manager**  
**Dane.Blackburn@ky.gov**

**Matt Dillon**  
**Michael Read**  
**KYTC District 9 Project Managers**  
**Matt.Dillon@ky.gov**  
**Michael.Read@ky.gov**



**AECOM**

## **FINAL Meeting Minutes**

**Project:** AA Highway Improvements Study

**Subject:** Project Team Meeting No. 2

**Date:** Wednesday, March 18, 2020, 10:00 AM (Eastern Time)

**Location:** Multiple Locations via Video Conference Call

**Note:** Due to the COVID-19 pandemic suppression guidelines to hold no gatherings of 10 or more people, the Project Team Meeting No. 2 was conducted via Skype videoconferencing with attendees joining online from multiple locations.

### **Attendees:**

Beth Niemann	KYTC Central Office, Planning
Steve Ross	KYTC Central Office, Planning
Jay Balaji	KYTC Central Office, Planning
Kevin Sandefur	KYTC Location Engineer, District 6
Mike Bezold	KYTC District 6, TEBM for Project Development
Dane Blackburn	KYTC District 6, Planning Supervisor
Craig Walker	KYTC District 6, Planning
Darrin Eldridge	KYTC District 9, TEBM for Project Development
Karen Mynhier	KYTC District 9, Environmental
Matt Dillon	KYTC District 9, Planning
Michael Read	KYTC District 9, Planning
Missy Hardy	BTADD
Amy Kennedy	BTADD
Vicki Green	FIVCO
Lindsay Walker	HMB
Jarrod Johnson	HMB
Joey Mosley	HMB
Brad Johnson	HMB

### **Agenda / Handouts:**

To facilitate the meeting, the following materials were provided prior to the meeting and are included as an attachment to these meeting minutes.

- Agenda
- Presentation Slides
- Draft Improvement Concept Sheets

## **Meeting Comments / Summary:**

Lindsay Walker of HMB began the meeting by sharing her screen with all those viewing the video conference call. The discussion was facilitated by a PowerPoint presentation that Lindsay went through. The following are comments / discussion items for each agenda item.

### I. Review of Study

- HMB presented a review of the study area, study objective and goals, outstanding and completed tasks, and schedule.
- There was a discussion about project scheduling given the circumstances related to COVID-19. KYTC Central Office (CO) Planning noted that KYTC District 5 (D5) is conducting a webinar for a different project on Thursday March 26, 2020 as a result of the COVID-19 regulations, and that a webinar could be a potential option to conducting the Local Official / Stakeholder (LO/S) Meeting No. 2. There was some logistical concern about the online connectivity of local officials / stakeholders related to this study. KYTC CO Planning will update HMB on a review of the D5 webinar.

### II. Local Official / Stakeholder Meeting No. 1 Review

- HMB presented the results of the data gathered from the LO/S Meeting No. 1 including attendance, participation, and online web app results.
- KYTC CO Planning asked what the perceived “bowtie” symbols were representing on the web app results map. HMB explained that these were actually two end-point arrows at the end of segments shown side-by-side due to the zoom extent of the map, and that these included high crash CRF 0.3-mile segments in red, and identified CHAF project segments in pink. HMB will make the symbology clearer in future iterations of online crowdsourcing web applications documentation.
- HMB pointed out that there were no comments related to widening from the LO /S meetings. KYTC D9 surmised that the perception from the local officials and stakeholders may be shifting towards the realization that widening is not the solution needed to address safety along the corridor.

### III. Review of Additional Data

- HMB presented a review of the data gathered from existing condition analysis including speed data, geometrics, truck climbing lane locations, signalized intersection locations, and study turning movement count (TMC) locations.
- a. Speed Data
  - HMB presented the speed data collected for the corridor. KYTC D9 suggested that labels be added to identify which direction each graph is exhibiting. HMB will add labels to the graphs.
  - KYTC D9 asked what the date range of the speed data was, and HMB responded that the data was from 2015-2017. This will be added to the graphs.
  - KYTC CO Planning asked if the speed data reflected Maysville, since there are so many signals that would interrupt flow through that section of KY 9. HMB responded that the speed data is for the entirety of the study area including the section of KY 9 through Maysville. HMB explained that they were aware of these

locations and will further analyze any of the disruptions in speeds along the corridor.

b. Geometric Review

- HMB presented the geometric deficiency map which identified locations with a geometric deficiency (i.e. horizontal or vertical curves).
- KYTC D9 asked for further information regarding the deficiencies shown. HMB explained that plan archives or LiDAR were used to evaluate whether the horizontal and vertical curves met a 55 mile per hour design speed. KYTC D9 requested that HMB send them more information so that they could be aware of these spots. HMB will send KYTC D9 the geometric analysis results.
- KYTC D9 suggested that horizontal curve warning signs should be evaluated for locations identified as a project and with noted horizontal curve deficiencies. HMB will evaluate warning signage for these locations and review crash data at these locations for contributing factors.

c. Future Year Traffic Forecast

- HMB presented the 2020 and 2045 traffic forecast overview results and noted that a 0.5% growth rate was agreed upon with KYTC CO Planning and used in the forecast.

d. Signal Timing

- HMB presented the signalized intersection locations and noted that the signal timing plans were collected from KYTC and would continue to be reviewed.

e. Turning Movement Counts

- HMB presented the TMC locations and noted the ones that are still pending.
- KYTC CO Planning asked when the counts were performed, with concern about the COVID-19 causing atypical counts. HMB responded that the counts had been completed before any major governmental COVID-19 suppression guidelines were enacted. HMB will confirm the dates of the COVID-19 regulatory suppression actions and what they were to ensure the counts used are accurately depicting typical traffic patterns.
- There was a discussion regarding the pending TMC locations including the landfill access intersection of KY 9 at Clarkson Sherman Road, and KY 9 at KY 59 / Fairlane Drive.
  - a. KYTC D9 commented that counts had been performed for the landfill intersection (Clarkson Sherman Road) but they did not see the amount of trucks they had anticipated and weren't entirely confident in using the counts for analysis. There was a question on whether the count was done on a peak day for landfill related truck traffic, and KYTC D9 stated that it was done on a Monday, but they had talked to the landfill representatives who said the traffic is typically steady throughout the week. KYTC D9 will continue to be in touch with the landfill to see if they can get more information and determine if another count is warranted.
  - b. It was determined that due to the uncertainty of the COVID-19 situation, the intersection of KY 9 and KY 59 / Fairlane Drive will remain pending until further notice. KYTC D9 stated that there may be counts available for the KY 9 at KY 59 / Fairlane Drive intersection from a KY 59 planning study that was

conducted approximately three years ago. KYTC D9 will check to see if there is an existing count at KY 9 / KY 59 and send to HMB.

IV. Improvement Concepts

- HMB presented the concept development process and the preliminary improvement concepts developed for the study.
- HMB requested that each attendee look over the draft concept sheets to offer any additional refinement in order to ensure that they meet the study goals which includes any formatting changes, additional locations, or the removal or modification of any concepts. Upon first review, the project team noted that the only thing needed to add to the concept sheets to meet the goals of the study are cost estimates and schedules which HMB will continue developing with coordination from KYTC. KYTC will continue to review the concept sheets and provide feedback to HMB within two weeks.
- KYTC D9 noted that the purpose of the project sheets is to provide information necessary to put into the CHAF database. Both KYTC D6 and D9 will have their CHAF coordinators review the layout sheets to ensure the appropriate information is included in the sheet.
- KYTC D9 suggested that based on experience, any access control involving the installation of a right-in / right-out should have a form of positive separation such as boards, flexible delineators, tubular markers, quick curb, etc. or otherwise drivers will not comply and it won't be effective. HMB will include positive separation when developing concepts involving any right-in / right-out intersection installations.
- KYTC D9 suggested that there is a new high visibility striping product made by 3M that would be a potentially effective countermeasure for spots that have a relatively high amount of crashes occurring in wet conditions where poor visibility may be the cause. It was noted that there may be more information than typically needed to acquire costs or development details of this countermeasure since it is proprietary to 3M, and HMB should ask KYTC D9 for more information if needed.

V. Local Official / Stakeholder Meeting No. 2 Preparation

- HMB presented an overview of the LO/S Meeting No. 2 planned preparation including the meeting dates and format. The plan for the format includes a presentation and an online input tool to gain input for prioritization of improvement concepts similar to the web interface used for the first LO/S meeting.
- There was a discussion on the meeting schedule regarding the COVID-19 circumstances. KYTC D9 proposed that the meetings be postponed in order to have a higher chance of conducting the meeting with the format as planned instead of through alternative social distancing methods which would be necessary due to the COVID-19 regulations if they were to be extended through the planned meeting dates. The project team had no issue with postponement of the meeting dates, and BTADD stated that there are board meetings in June like the first LO/S meeting in which the meetings could be scheduled. HMB will coordinate with BTADD and FIVCO to set up dates for the LO/S Meeting No. 2 in June 2020.
- There was a discussion about what would be the case if the COVID-19 circumstances extend through the new meeting dates in June. As the situation continues to evolve,

the meeting date / format will be reviewed prior to making any modifications. If in-person meetings continue to be delayed, the project team agreed that as a last resort, alternative methods such as mailed information, online only input, recorded presentations, webinars, etc. would take place rather than an in-person meeting.

#### VI. Wrap-Up / Next Steps

- HMB ended the meeting by reviewing the next steps in the study process including concept improvement refinement, cost estimate development, and prioritization input development for the LO/S meeting No. 2.

The meeting concluded at approximately 12:00 PM (Eastern Time).

#### **List of Follow-Up / Action Items by Responsible Party:**

A list of follow-up / action items from Project Team Meeting No. 2 include:

- KYTC CO Planning will update HMB on a review of the D5 webinar.
- HMB will send KYTC D9 the geometric curve analysis results.
- HMB will confirm the dates of the COVID-19 regulatory suppression actions and what they were to ensure the counts used are accurately depicting typical traffic patterns.
- KYTC D9 will continue to be in touch with the landfill near Clarkson Sherman Road to see if they can get more information about truck traffic.
- KYTC D9 will check to see if there is an existing turning movement count at KY 9 / KY 59 and send to HMB if there is.
- KYTC D6 and D9 will have CHAF coordinators review project sheet layouts.
- HMB will coordinate with BTADD and FIVCO to set up dates for the LO/S Meeting No. 2 in June.

#### **Attachments:**

*Meeting Agenda*

*Presentation Slides*

*Draft Improvement Concept Sheets*

*Google Earth KMZ of improvement concept locations*

*Recorded Video Conference Presentation*



## AGENDA

### **AA Highway Improvements Study**

#### **Project Team Meeting No. 2**

**March 18, 2020, 10:00 AM**

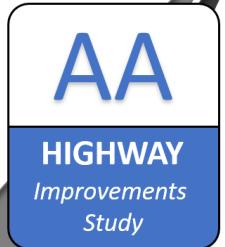
**Virtual Meeting**

- I. Review of Study
  - A. Study Objective / Goals
  - B. Study Schedule
  - C. Study Tasks
- II. Local Official / Stakeholder Meeting No. 1 Review
  - A. Meeting Statistics
  - B. Summary of Input
- III. Review of Additional Data
  - A. Speed Data
  - B. Geometric Deficiencies
  - C. 2045 Traffic Forecasts
- IV. Improvement Concepts
  - A. Development Process
  - B. Project Sheets
- V. Local Official / Stakeholder Meeting No. 2 Preparation
  - A. Logistics
  - B. Presentation & Input Tool
- VI. Wrap-Up / Next Steps



**AECOM**

# AA Highway Improvements Study



Bracken, Carter, Greenup, Lewis,  
Mason, Pendleton Counties

Project Team Meeting No. 2  
March 18, 2020, 10:00 AM EDT

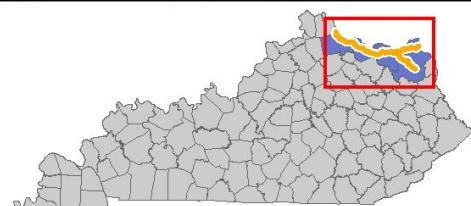


# AGENDA

1. Review of Study
2. LO/S Meeting No. 1 Review
3. Additional Data
4. Improvement Concepts
5. LO/S Meeting No. 2 Preparation
6. Wrap-Up / Next Steps



— Study Area    — US Highways  
— Interstate    □ Study Area County Line

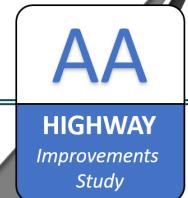


**AA Highway Improvements Study**



HMB

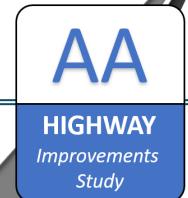
# Study Background



## Study Objective

- Identify and evaluate potential improvement concepts to improve overall safety and operational performance of the AA Highway including KY 9 from the Campbell / Pendleton County line to Grayson (KY 1) and KY 10 from Vanceburg to US 23 in Greenup County (total of approximately 120 miles).

# Study Background



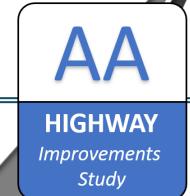
## Study Goals

- Identify Project Locations
- Develop / Evaluate Improvement Concepts
- Prepare Prioritized List of Improvement Concepts

# Schedule

August 2019	Study Initialized
Sept. – Dec. 2019	Scoping / Data Gathering / Existing Conditions Analysis
January 2020	Project Team Meeting No. 1 / Initial Traffic Forecasting
February 2020	LO/S Meeting No. 1 / Develop Improvement Concepts
March 2020	Project Team Meeting No. 2 / Evaluate Improvement Concepts
April 2020	Refine Improvement Concepts
May 2020	LO/S Meeting No. 2 / Develop Recommendations
June 2020	Project Team Meeting No. 3
July 2020	Prepare Draft Report
August 2020	Address Comments / Finalize Report

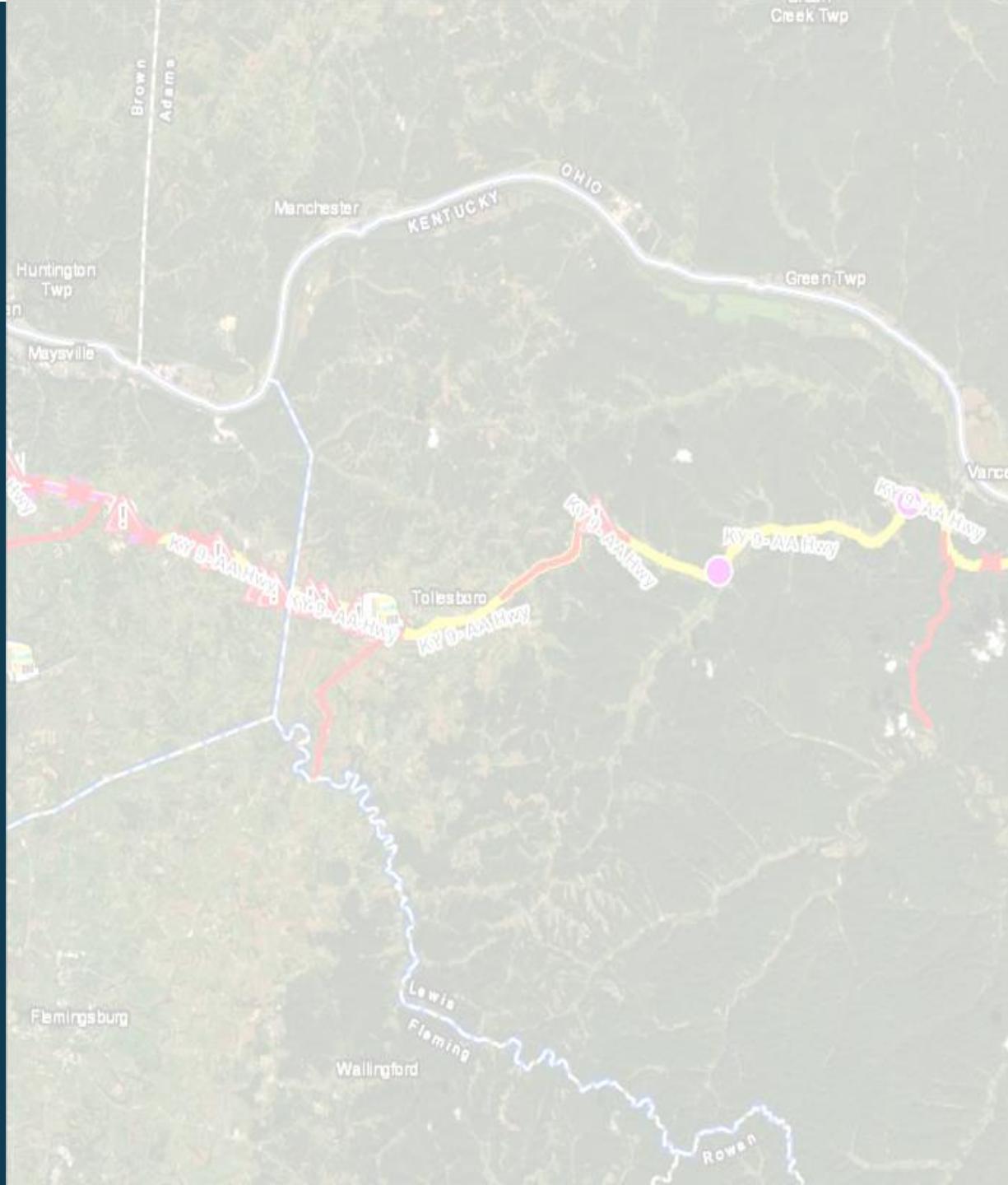
# Study Background



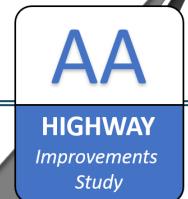
## Study Tasks

- ✓ Compile Existing Conditions Information
- ✓ Prepare Traffic Forecasts (Year 2045)
- Perform Environmental Overview
- ✓ Develop Improvement Concepts
- Refine Improvement Concepts
- Prioritize Recommended Improvements

# Local Officials / Stakeholder Meeting No. 1 Review



# LO/S Meeting Statistics



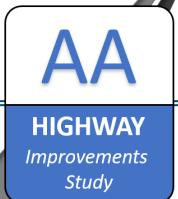
February 17, 2020



- 31 Attendees
- 11 Local Officials / Stakeholders
  - City of Olive Hill
  - City of Grayson
  - Carter Co. Schools
  - Greenup County Public Safety & 911
  - Carter Caves State Park
  - Carter County Judge Executive
  - City of Grayson
  - Elliot Co. Emergency Response
- 26 on Invitee List

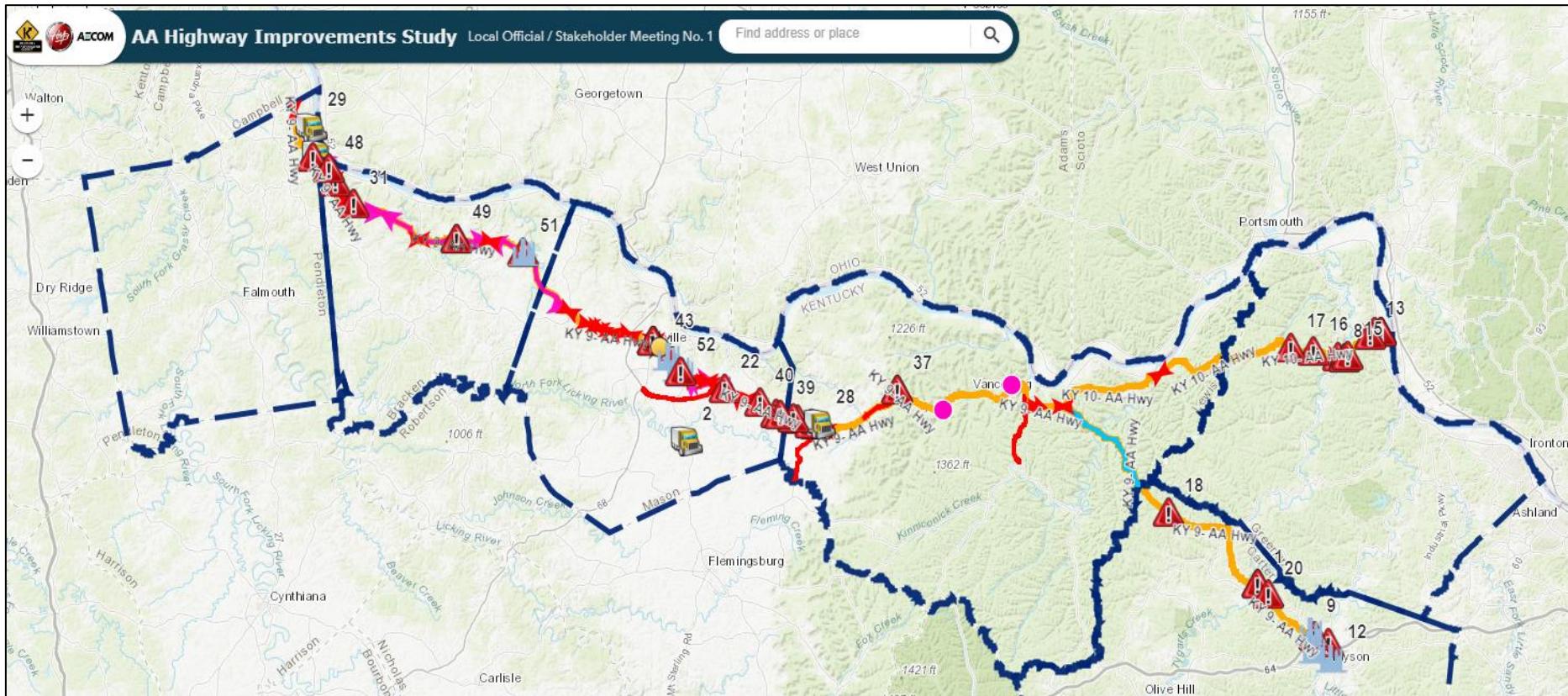
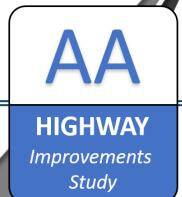
# LO/S Meeting Statistics

February 18, 2020

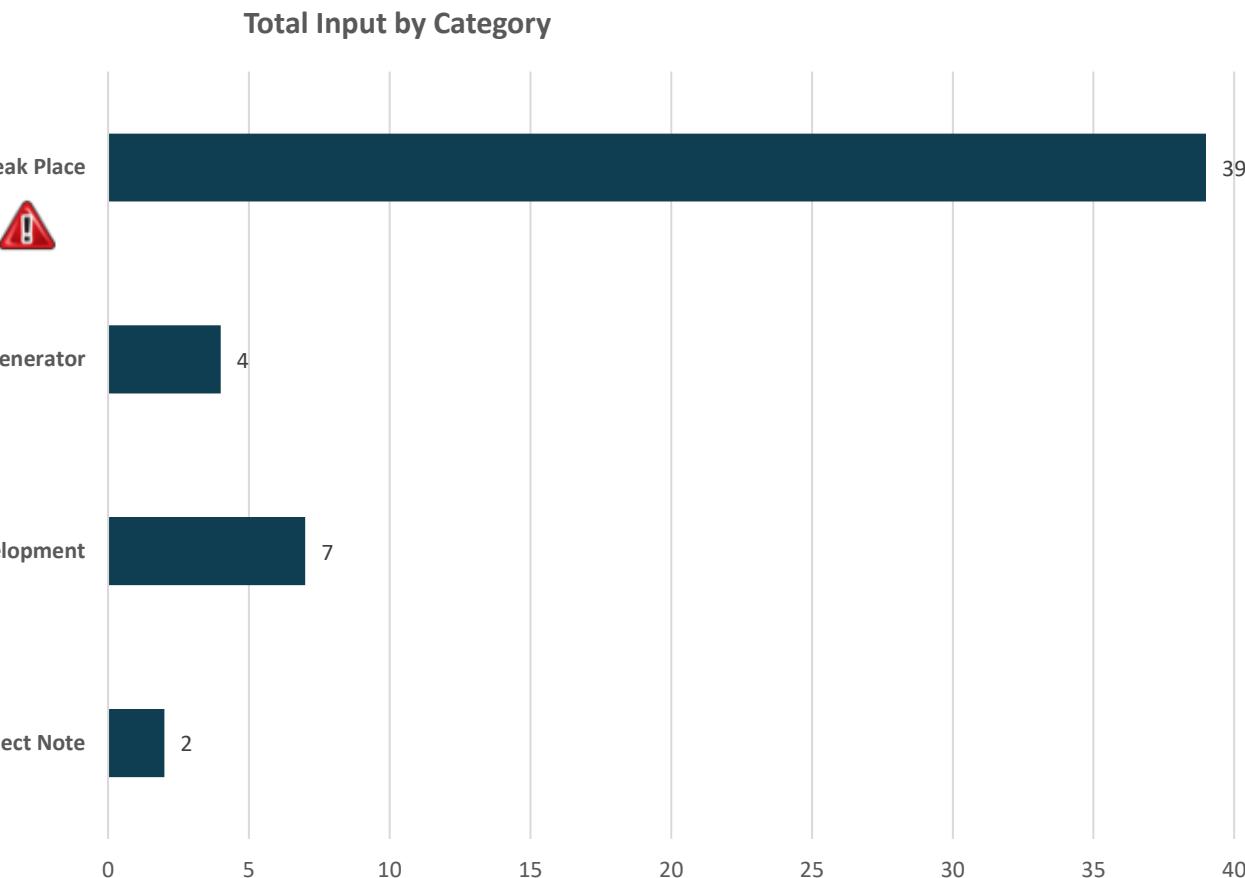


- 34 Attendees
- 20 Local Officials / Stakeholders
  - IDA
  - Lewis, Mason, Bracken Officials
  - Mason and Pendleton Co. Emergency Response
  - City of Maysville
  - Bracken and Mason Co. Fiscal Court
  - Bracken and Pendleton Co. Schools
  - NKY Chamber of Commerce
  - Hospice of Hope
- 27 on Invitee List

# LO/S Meeting Input



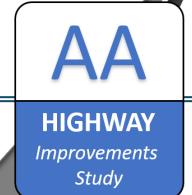
# LO/S Meeting Input



# Additional Data



# Additional Data



- Speed Data
- Geometric Review
- Future Year Traffic Forecast
- Signal Timing
- Turning Movement Counts

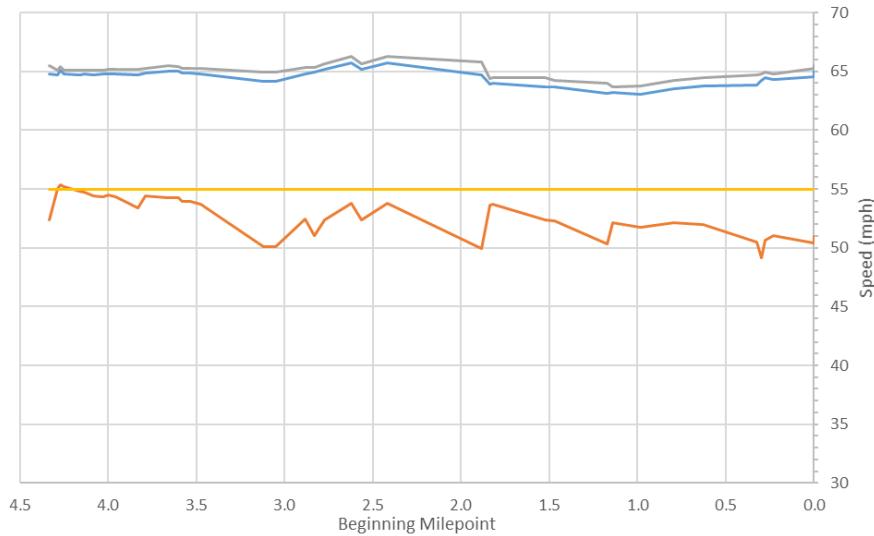
# Speed Data

AA

HIGHWAY  
Improvements  
Study

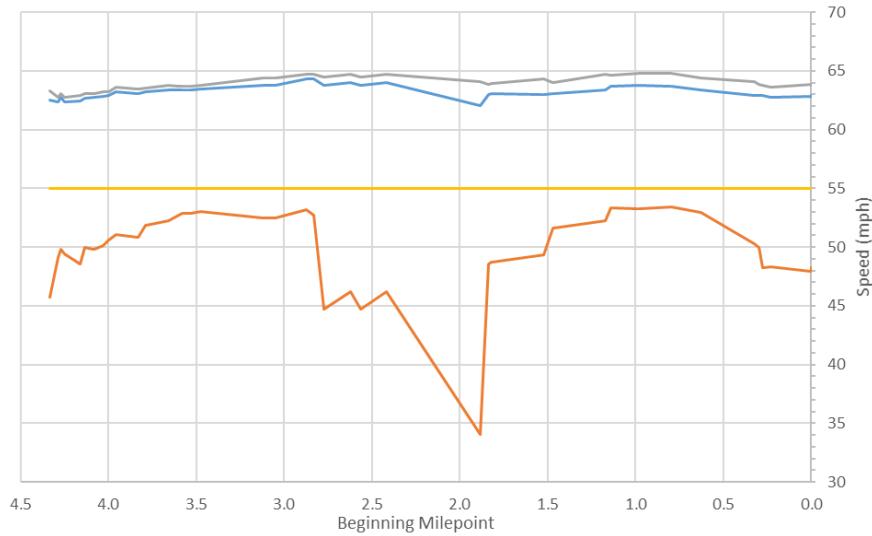
Pendleton County - KY 9

— 85th — Min — Max — Speed Limit



Pendleton County - KY 9

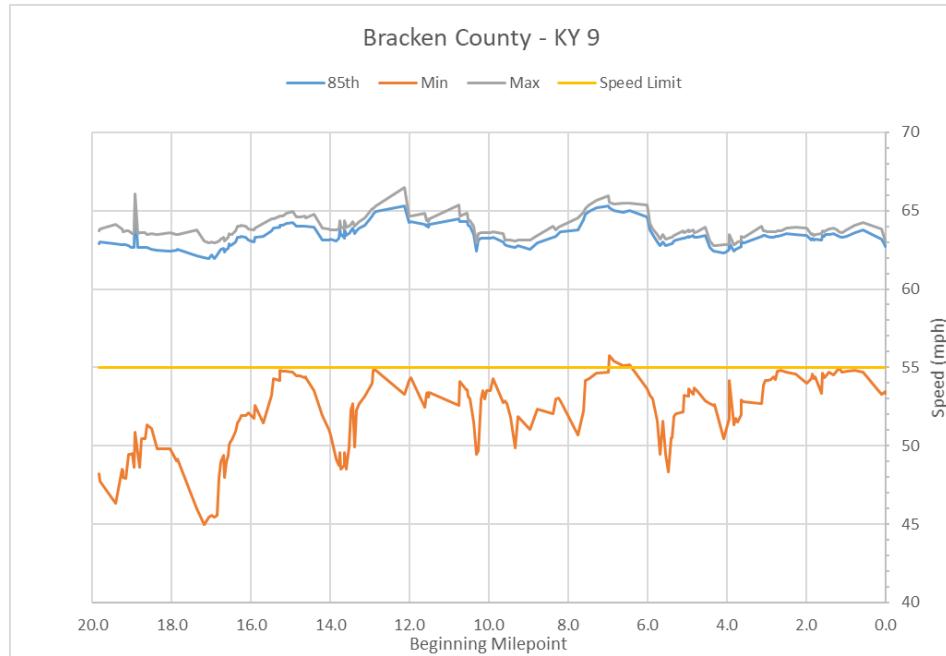
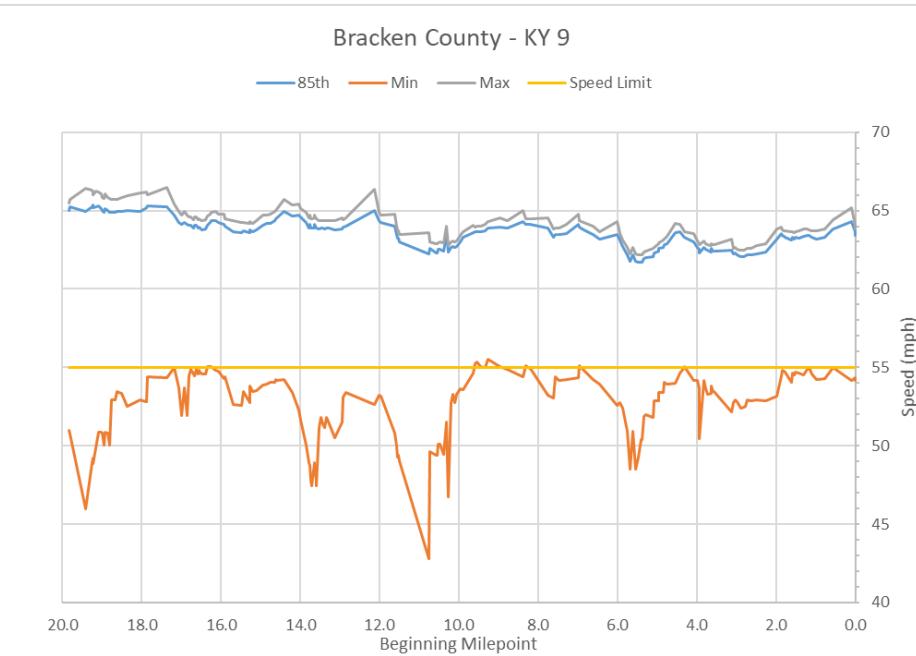
— 85th — Min — Max — Speed Limit



# Speed Data

AA

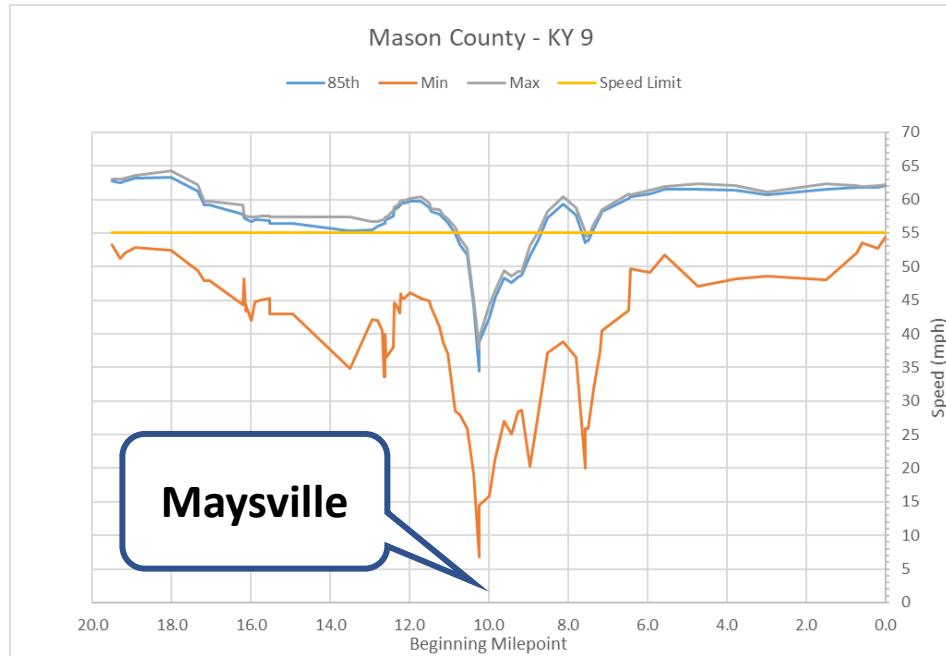
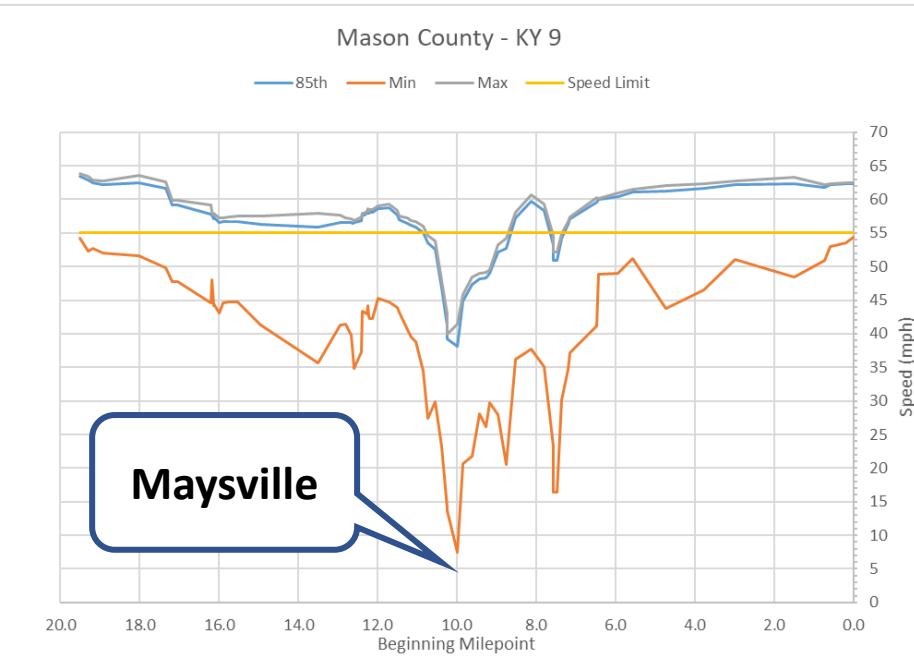
HIGHWAY  
Improvements  
Study



# Speed Data

AA

HIGHWAY  
Improvements  
Study



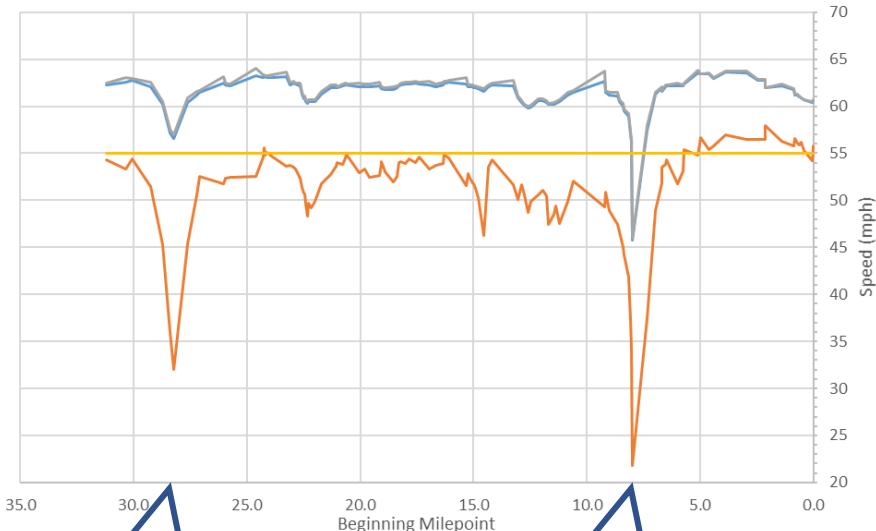
# Speed Data

AA

HIGHWAY  
Improvements  
Study

Lewis County - KY 9

— 85th — Min — Max — Speed Limit

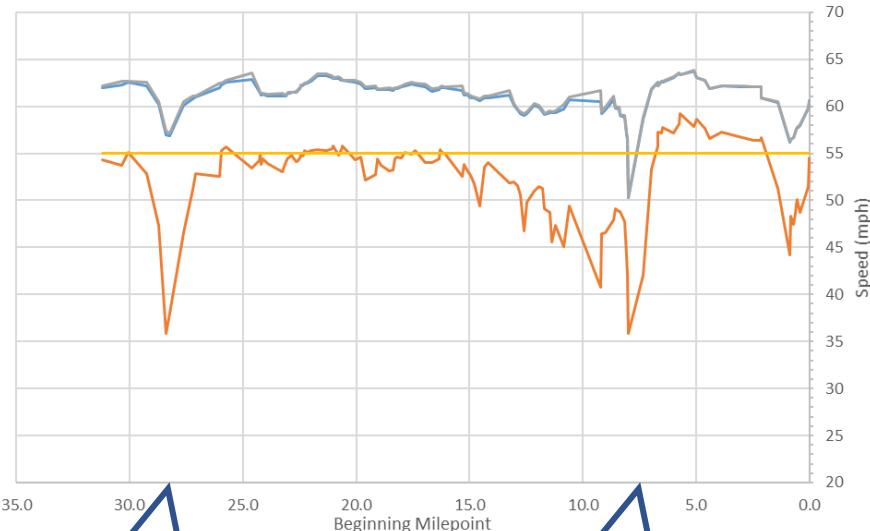


KY 57

KY 9 /  
KY 10 Split

Lewis County - KY 9

— 85th — Min — Max — Speed Limit



KY 57

KY 9 /  
KY 10 Split

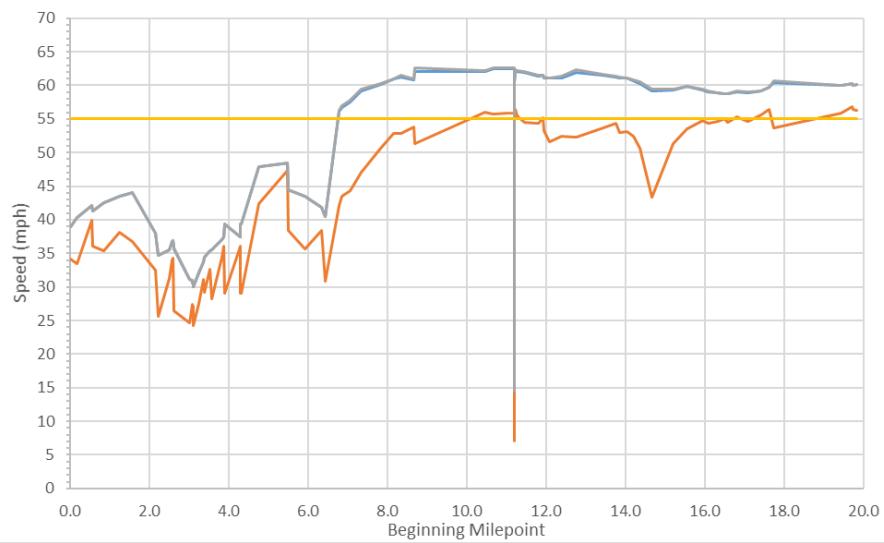
# Speed Data

AA

HIGHWAY  
Improvements  
Study

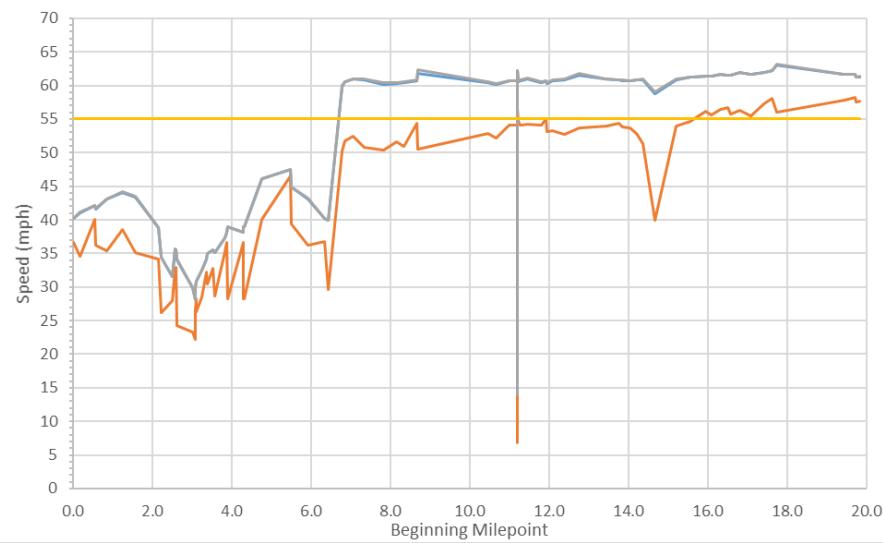
Lewis County - KY 10

— 85th — Min — Max — Speed Limit



Lewis County - KY 10

— 85th — Min — Max — Speed Limit



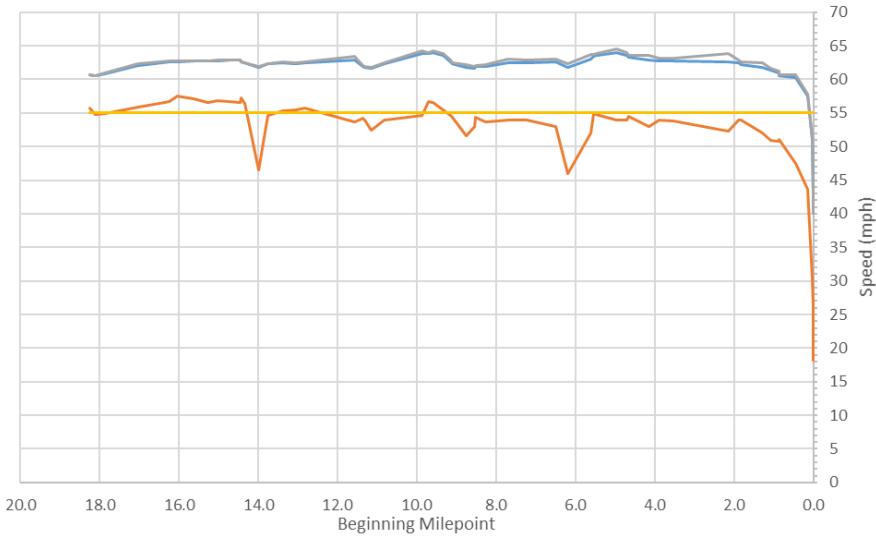
# Speed Data

AA

HIGHWAY  
Improvements  
Study

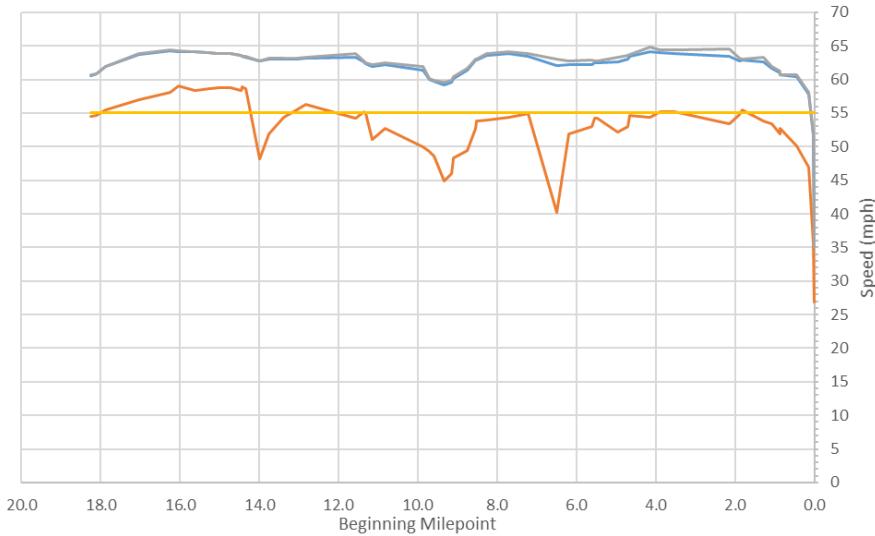
Carter County - KY 9

— 85th — Min — Max — Speed Limit



Carter County - KY 9

— 85th — Min — Max — Speed Limit



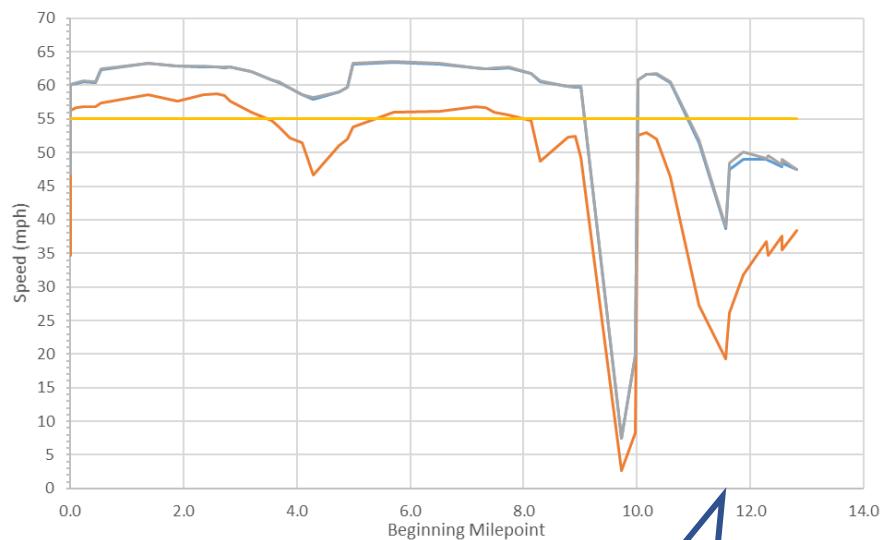
# Speed Data

AA

HIGHWAY  
Improvements  
Study

Greenup County - KY 10

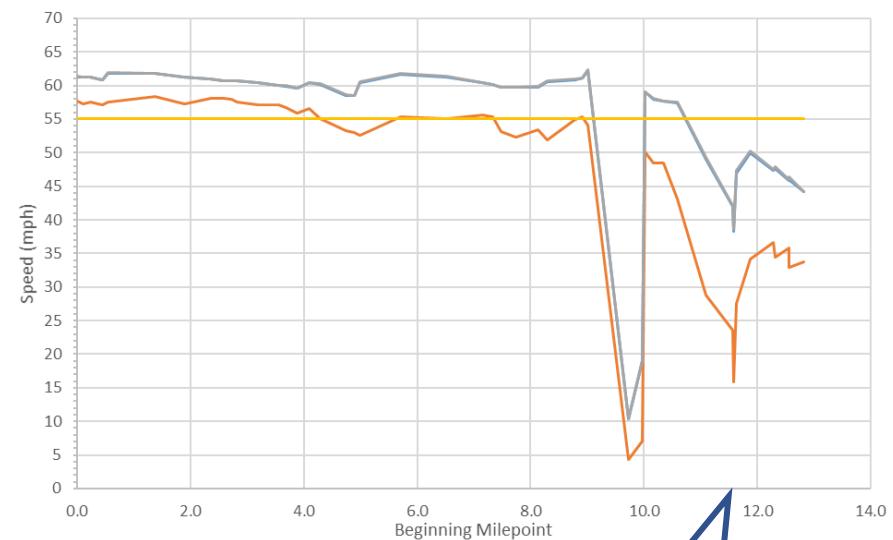
— 85th — Min — Max — Speed Limit



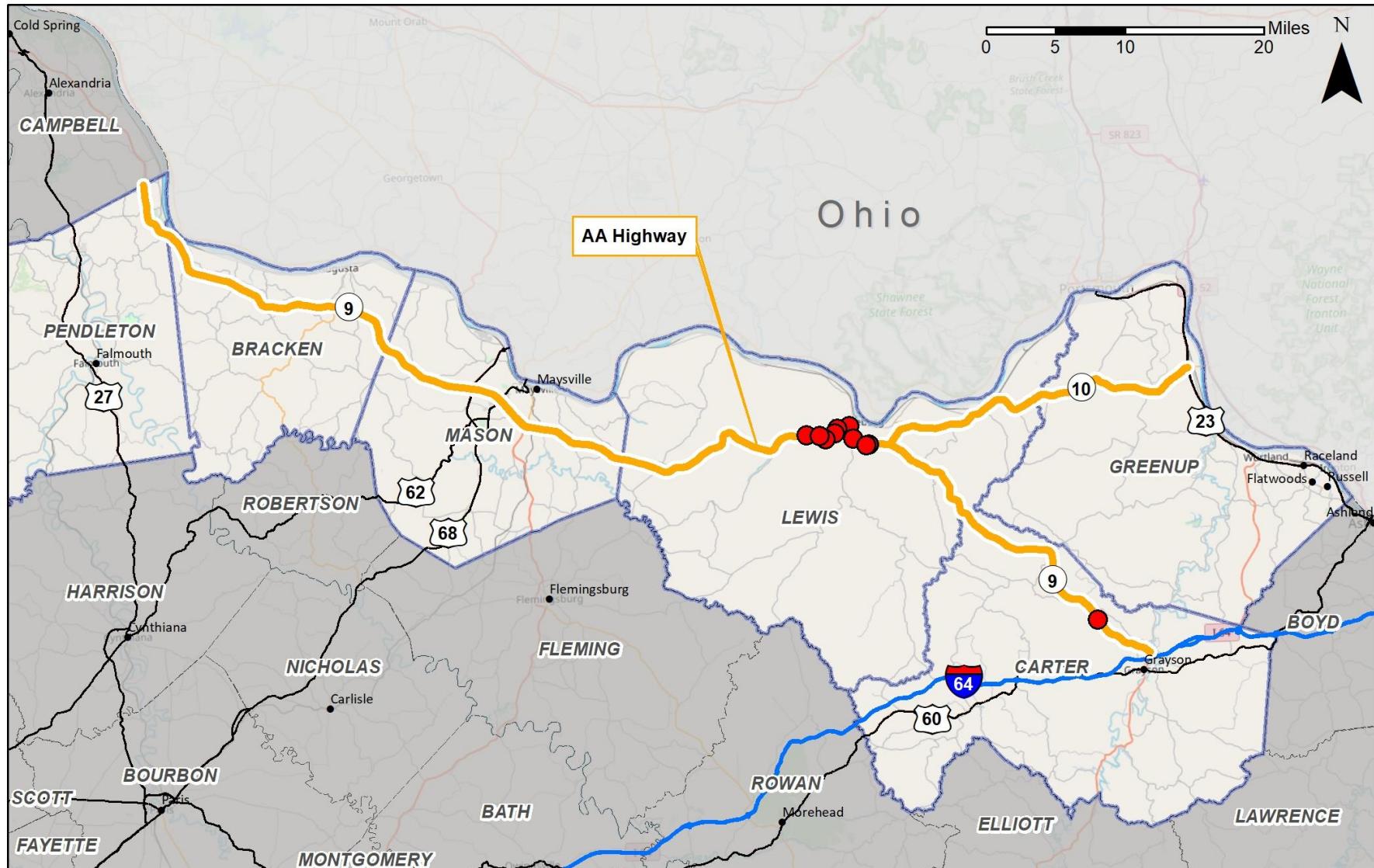
US 23

Greenup County - KY 10

— 85th — Min — Max — Speed Limit



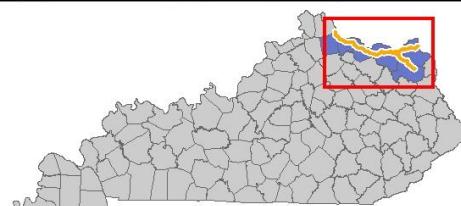
US 23



● Horizontal Deficiencies  
— Study Area

— US Highways  
— Interstate  
□ Study Area County Line

Note: No deficient vertical curves were identified through the analysis.



**AA Highway Improvements Study**  
Geometric Deficiencies

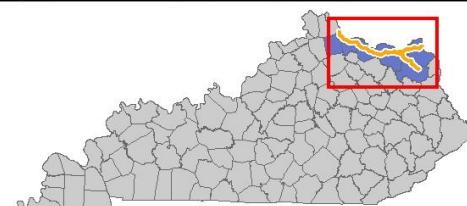


HMB



— Truck Climbing Lane  
— Study Area

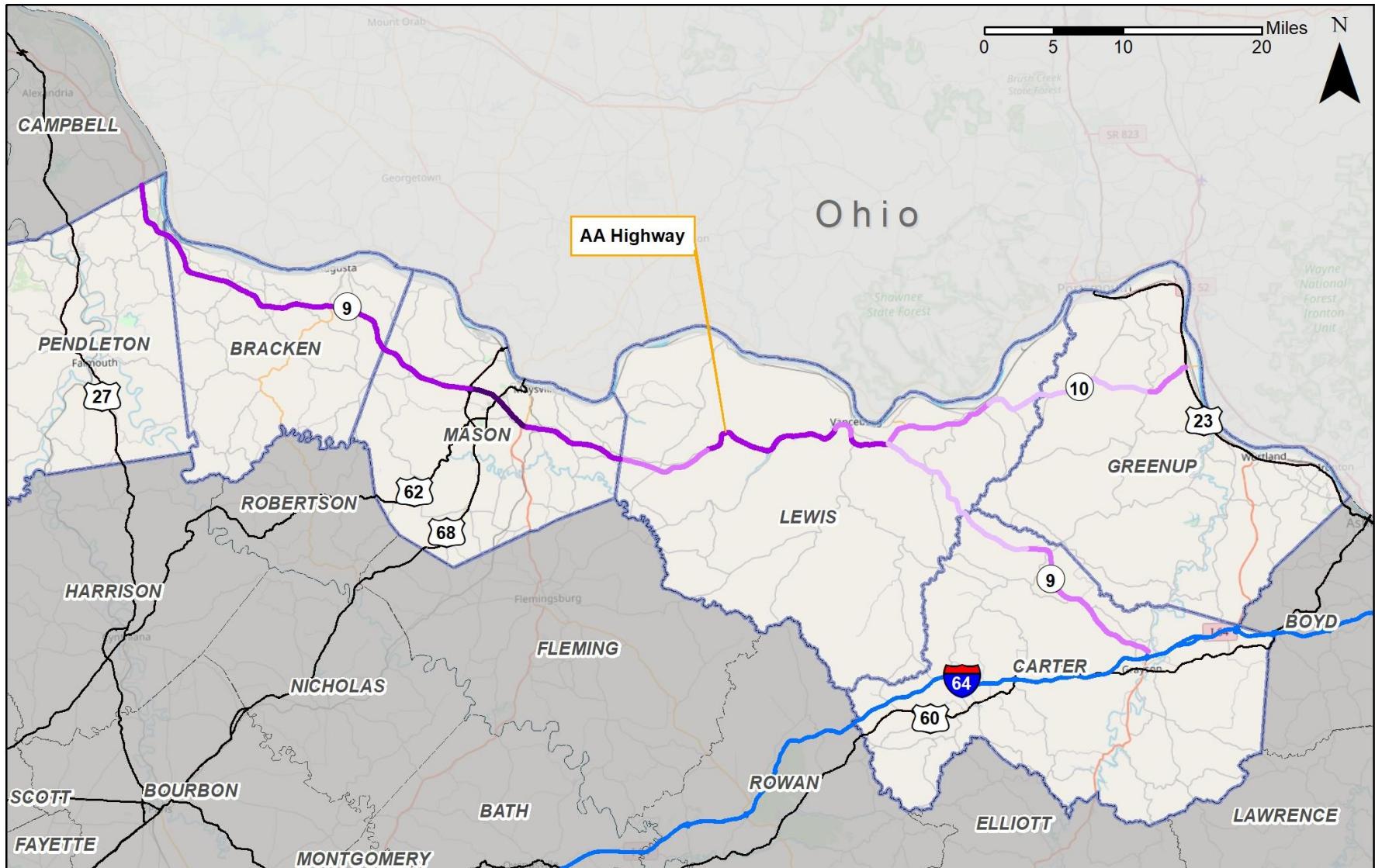
— US Highways  
— Interstate  
□ Study Area County Line

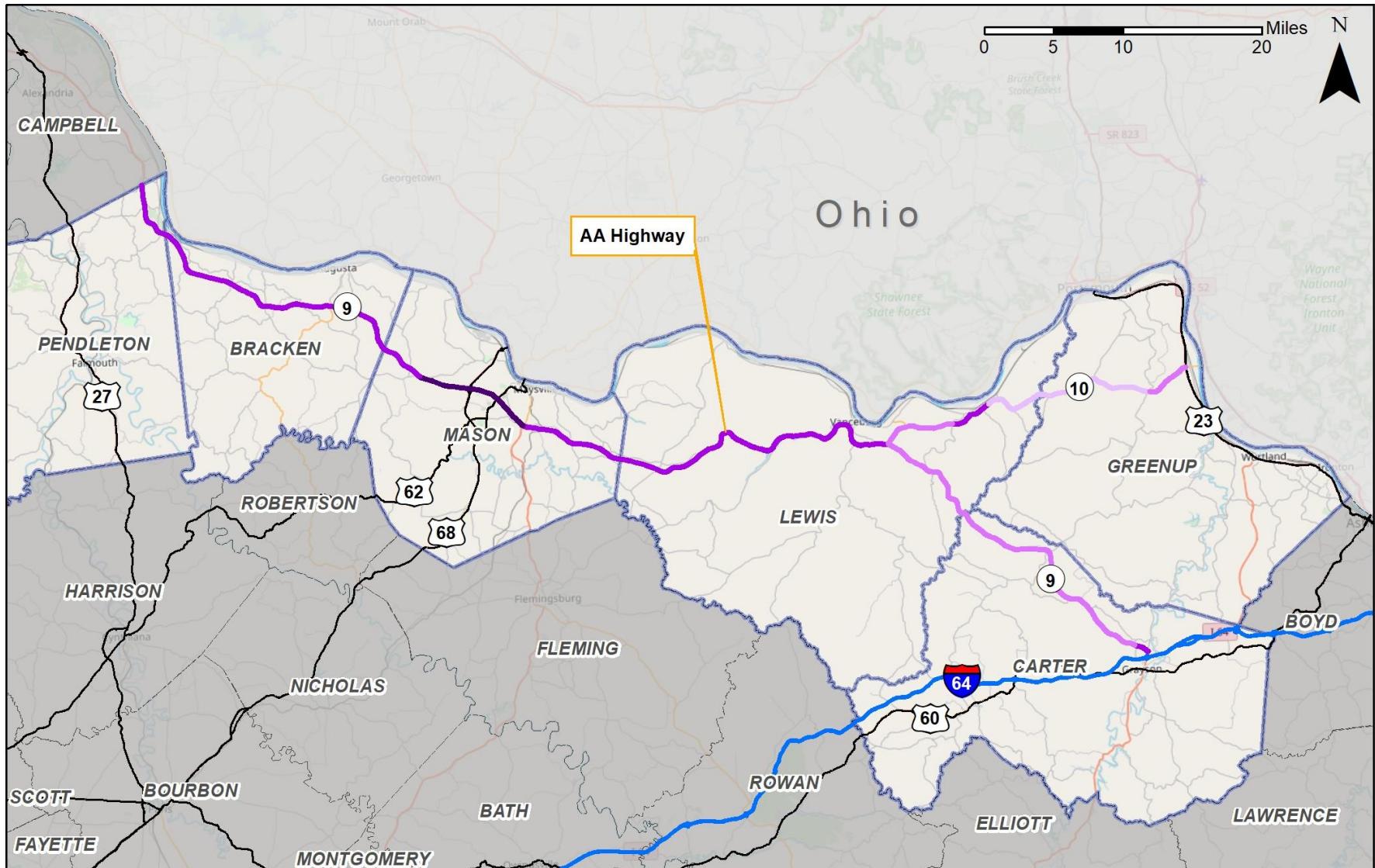


**AA Highway Improvements Study**  
Truck Climbing Lanes

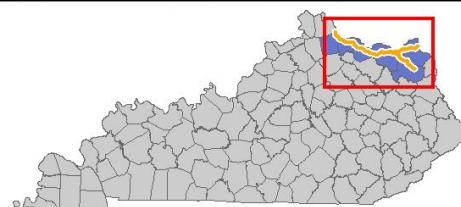


HMB





2045 AADT Range	
0 - 2,500	US Highways
2,501 - 5,000	Interstate
5,001 - 10,000	Study Area County Line
>10,000	



**AA Highway Improvements Study**  
2045 AADT Range Overview



HMB

# Signal Locations

Route	County	Intersecting Road	MP
KY 9	Mason	Downing Dr	12.394 - 12.694
KY 9	Mason	Kenton Station Dr	10.698 - 10.998
KY 9	Mason	US 62	9.962 - 10.567
KY 9	Mason	Market Square Dr	9.250 - 9.850
KY 9	Mason	Wal-Mart Way	
KY 9	Mason	Maple Leaf Rd	8.969
KY 9	Mason	KY 11	7.479 - 7.779
KY 9	Mason	KY 57	28.380
KY 10	Greenup	US 23	11.582
KY 9	Carter	KY 1	0.000

# Turning Movement Counts

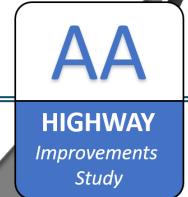
	Route	County	Intersecting Road	MP	Notes
HMB	1	KY 9	Bracken	Iler Rd	19.805
	2	KY 9	Bracken	Holts Creek Rd	17.878
	3	KY 9	Bracken	Eden Ridge Rd	15.687
	4	KY 9	Bracken	Mt. Zion Rd	7.751
Abbie Jones	1	KY 9	Mason	Downing Dr	12.620
	2	KY 9	Mason	Kenton Station Dr	10.860
	3	KY 9	Mason	US 62	10.260
	4	KY 9	Mason	Market Square Dr	9.850
	5	KY 9	Mason	Tucker Dr	9.610
	6	KY 9	Mason	Wal-Mart Way Entrance 1	9.430
	7	KY 9	Mason	Wal-Mart Way Entrance 2	9.270
KYTC D9	1	KY 9	Mason	KY 11	7.560
	2	KY 9	Mason	Clarkson Sherman Rd	4.740
	3	KY 9	Lewis	KY 59 / Fairlane Dr	11.210
	4	KY 9	Carter	KY 7 (North)	6.498
	5	KY 9	Carter	KY 7 (South)	5.486
	6	KY 9	Carter	KY 1959	1.078

Count Pending

# Improvement Concept Development Process



# Development Process



*High Crash Spots  
Local Official / Stakeholder Input  
Previous Studies  
Identified and Committed Projects*

*Review Crashes Locations in New Construction  
Remove HSIP Project  
Consolidate to Corridor Concept if Applicable  
Collect Detailed Crash Records  
Perform Turning Movement Counts*

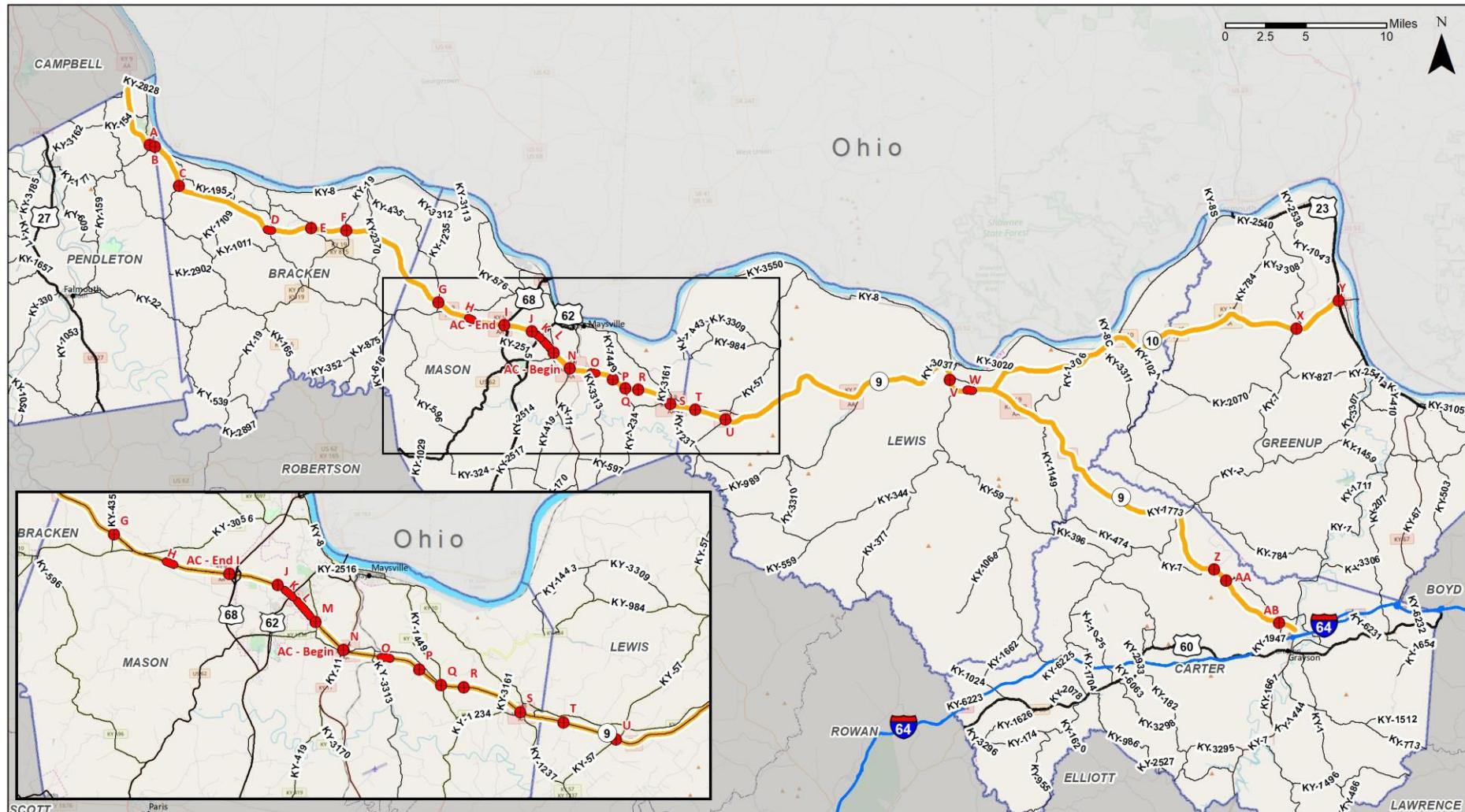
*29 Preliminary Improvement Spots  
5 Preliminary Improvement Corridors*

# Locations Not Further Studied

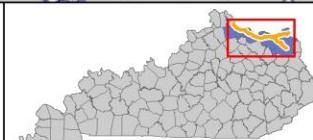
Location			High Crash Location?	LO/S Input			Reason for Dismissal for Further Consideration	
Route	County	Intersecting Route	Milepoints	Yes/No	CRF	# Responses	Comment	Notes
KY 9	Pendleton	Short Ivor Rd	3.628 - 3.928	Yes	1.06	0	-	On CRF threshold and no LO/S comments
KY 9	Bracken	Foster Rd	18.809	No	-	1	Need Turn Lanes	KY 2228 Going to County - Iler Road being evaluated for turn lanes
KY 9	Bracken	Kennon Rd	18.335 - 18.635	No	-	0		Just under CRF threshold - Exploring as part of corridor-wide evaluation of where to add or modify truck climbing lanes
KY 9	Bracken	Holts Creek Rd	17.612 - 17.912	No	-	1	Need Turn Lanes	Traffic counts show turn lanes not warranted
KY 9	Bracken	N/A	15.850 - 16.150	No	-	0		Just under CRF threshold - Exploring as part of corridor-wide evaluate of where to add or modify truck climbing lanes
KY 9	Bracken	Eden Ridge Rd	15.687	No	-	1	Need Turn Lanes	Traffic counts show turn lanes not warranted
KY 9	Bracken	Hook Ln	2.831	No	-	1	Turning Traffic with Trailers	Located in developing area. Recommend any further improvements occur as a result of development
KY 9	Mason	N/A	7.560 - 12.400	No	-	1	Reduce Speed	Included as part of larger project to look at speed limit reduction around Maysville
KY 9	Mason	Strodes Run Pike	6.990-7.425	Yes	1.02	0	-	Just at CRF threshold - Exploring as part of corridor-wide evaluation of where to add or modify truck climbing lanes
KY 9	Mason	N/A - Farm Entrance	5.200 - 5.400	No	-	0	-	Fatality involved alcohol
KY 9	Lewis	N/A	29.000	No	-	2	Pavement Issue - Pavement Markers	Including as part of corridor project for pavement work
KY 9	Lewis	Simmons Rd	27.175 - 27.475	No	-	0		Just under CRF threshold and no LO/S comments
KY 9	Lewis	N/A	21.200	No	-	2	Short Passing Lane	Exploring as part of corridor-wide evaluation of where to add or modify truck climbing lanes
KY 10	Lewis	KY 3311	14.183 - 14.483	No	-	0	-	Just under CRF threshold and no LO/S comments
KY 9	Carter	KY 1	0.000	No	-	1	Right Lane Drops; Truck Issues	Exploring as part of corridor-wide evaluation of signage

# Improvement Concepts



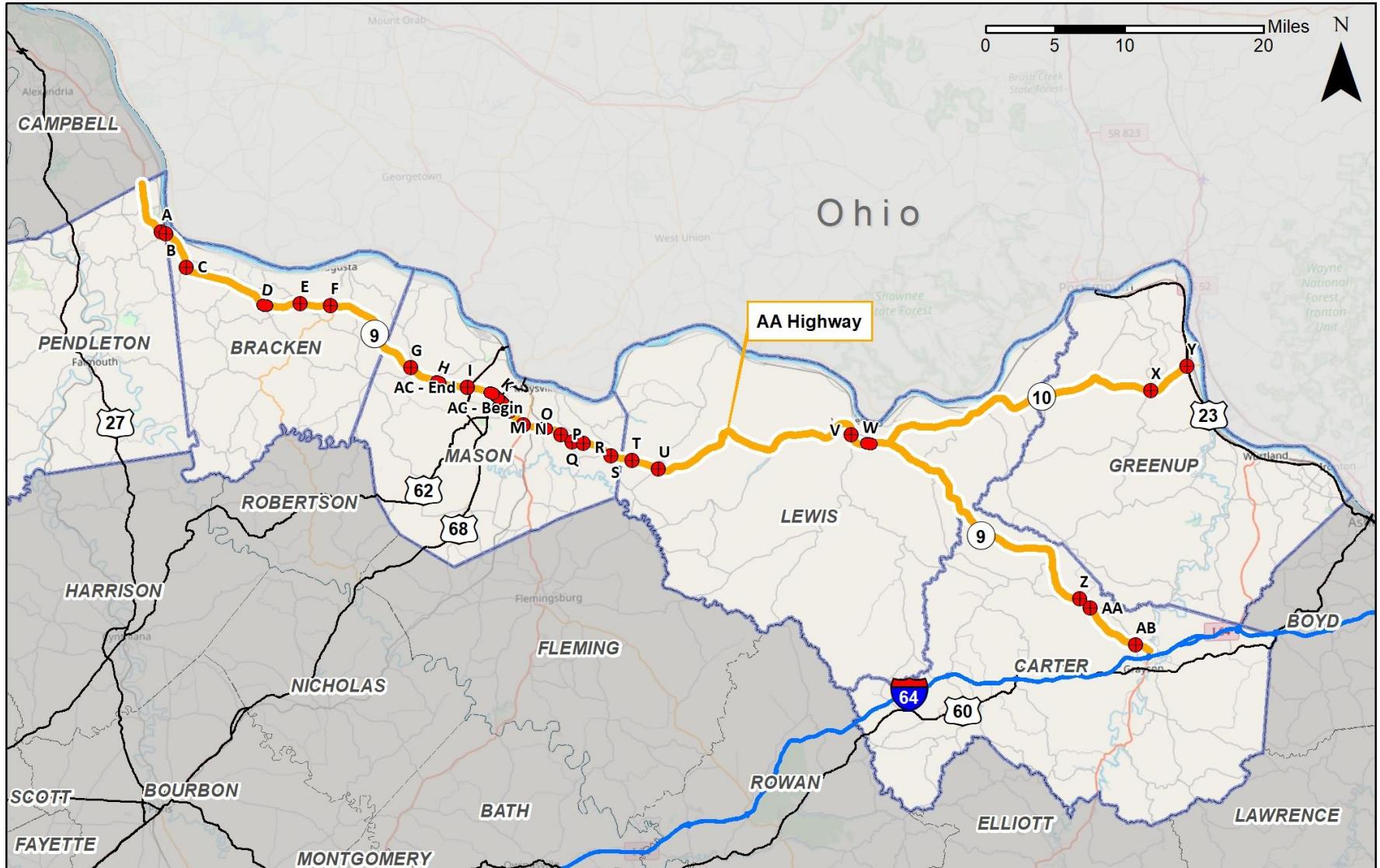


● Intersection Improvements — Segment Improvements ■ Study Area County Line



AA Highway Improvements Study  
Improvement Concept Locations

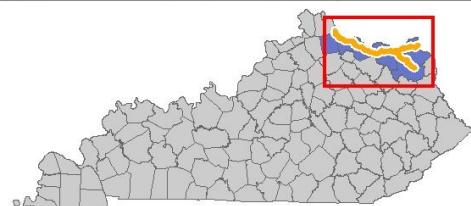




● Intersection Improvements  
■ Segment Improvements

— Study Area  
■ Study Area County Line

— Interstate  
— US Highways



**AA Highway Improvements Study**  
Spot Improvement Locations

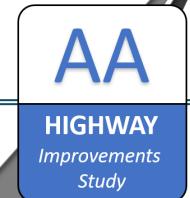


HMB

# LO/S Meeting No. 2 Preparation



# LO/S Meeting No. 2



- May Board Meeting Dates:
  - May 18, 2020 (FIVCO)
  - May 19, 2020 (BTADD) – Not available for LO/S Meeting
- Format:
  - Presentation
    - Quick Review of Study Elements
    - Summary of Meeting No. 1 Input
    - Process for Concept Improvement Development
    - Concept Improvement Overview
  - Prioritization Input Tool
    - Similar Web Interface as used in Meeting No. 1
    - Concept Improvements Identified on Map
    - Request Input on Type of Improvement and Priority (High, Medium, Low)

# Next Steps

1. Revise Locations / Conceptual Improvements
2. Develop Cost Estimates
3. Prepare Prioritization Survey Input Tool

# Contacts



**Dane Blackburn  
KYTC District 6 Project Manager  
Dane.Blackburn@ky.gov**

**Matt Dillon  
Michael Read  
KYTC District 9 Project Managers  
Matt.Dillon@ky.gov  
Michael.Read@ky.gov**



**AECOM**



## FINAL Meeting Minutes

Project: AA Highway Improvements Study

Subject: Local Officials / Stakeholder Meeting No. 2

**Note: The Local Officials / Stakeholder Meeting No. 2 was split into two meetings due to the length of the study corridor. The date and list of attendees are shown for each. However, the summary and input from both is summarized together due to similarity between the meetings and the method of input received.**

### First Meeting:

Date: Tuesday, July 14, 2020, 9:30 AM (Eastern Time)

Location: FIVCO Area Development District – Virtual Zoom Meeting

#### Attendees:

Beth Niemann	KYTC Central Office Planning
Steve Ross	KYTC Central Office Planning
Matt Lawson	KYTC Central Office Planning
Sadie Middleton	KYTC Central Office Planning
Kevin Sandefur	KYTC Central Office District 6 Location Engineer
Randy Turner	KYTC Central Office District 9 Location Engineer
Darrin Eldridge	KYTC District 9 Project Development Branch Manager
Karen Mynhier	KYTC District 9 Environmental
Matt Dillon	KYTC District 9 Planning
Michael Read	KYTC District 9 Planning
Allen Blair	KYTC District 9 Public Information Officer
Bob Yeager	KYTC District 6 Chief District Engineer
Mike Bezold	KYTC District 6 Project Development Branch Manager
Craig Walker	KYTC District 6
Stacee Hans	KYTC District 6
Vicki Green	FIVCO
Jeff Thelen	NKADD
Terri Sicking	KYOVA
George Steele	Mayor of Grayson
Cheryl Moore	Mayor of South Shore
Kathy Hinkle	Representative, 96 <sup>th</sup> District
Roger Dunfee	City of Grayson EM Director
Erica Kiser	Knott County Schools
Ron Fields	Mayor of Flatwoods
Lindsay Walker	HMB
Brad Johnson	HMB
Joey Mosley	HMB
Jarrod Johnson	HMB
John Callihan	AECOM



**Second Meeting:**

**Date:** Thursday, July 16, 2020, 1:30 PM (Eastern Time)

**Location:** Buffalo Trace Area & Northern Kentucky Area Development District  
Virtual Zoom Meeting

**Attendees:**

Stephen DeWitte	KYTC Central Office Planning
Beth Niemann	KYTC Central Office Planning
Steve Ross	KYTC Central Office Planning
Matt Lawson	KYTC Central Office Planning
Sadie Middleton	KYTC Central Office Planning
Kevin Sandefur	KYTC Central Office District 6 Location Engineer
Randy Turner	KYTC Central Office District 9 Location Engineer
Steve Gunnell	KYTC District 9 Chief District Engineer
Darrin Eldridge	KYTC District 9 Project Development Branch Manager
Karen Mynhier	KYTC District 9 Environmental
Matt Dillon	KYTC District 9 Planning
Michael Read	KYTC District 9 Planning
Blake Jones	KYTC District 9
Allen Blair	KYTC District 9 Public Information Officer
Mike Bezold	KYTC District 6 Project Development Branch Manager
Craig Walker	KYTC District 6
Amy Kennedy	BTADD
Missy Hardy	BTADD
Craig A. Stanfeild	BTADD – Real Estate & Auction Services
Jeff Thelen	NKADD
Owen McNeil	Maysville-Mason County IDA
Todd Ruckel	Lewis County Judge Executive
Tina Teegarden	Bracken County Judge Executive
Sen. Will Schroder	Kentucky State Senate – District 24 (Bracken, Pendleton)
Rep. Richard White	Kentucky State House – District 99 (Lewis)
Rep. John Sims Jr.	Kentucky State House – District 70 (Bracken, Mason)
Courtney Kleier	NKY Chamber of Commerce
Neider Reynolds	Bracken County EMS
Craig Miller	Bracken County Fiscal Court
Jamie Weddington	Lewis County Schools Superintendent
Joe Pfeffer	Mason County Judge Executive
Bob Hendrickson	Maysville Chamber of Commerce Interim Executive Director
Kristin Baldwin	Northern Kentucky Chamber of Commerce
Clay Buser	Mason County EMS
George Sparks	Lewis County EMS
Lindsay Walker	HMB
Brad Johnson	HMB
Jarrod Johnson	HMB
John Callihan	AECOM



## Attachments:

- *Improvement Concept Sheets*

## Agenda / Presentation:

To facilitate the meetings the following materials were used

- Interactive Online StoryMap
- Improvement Concept Sheets

## Meeting Comments / Summary:

For the second local officials / stakeholders (LO/S) meeting, an ArcGIS StoryMap format was used that presented information on the study background, previous input from the first LO/S meeting, improvement concept development and evaluation, and the improvement concepts. Survey polls were conducted throughout the meeting to provide opportunities for interaction along with time after each topic for opportunities for discussion.

HMB completed the meeting by demonstrating an input tool to collect feedback on the improvement concepts and prioritization. Darrin Eldridge requested that anyone that had any comments or suggestions on this new virtual meeting format and input to please let the project team know so that any improvements can be made for the future. HMB provided the web mapping application website link to attendees which is:

<https://arcg.is/1n9Cyu>

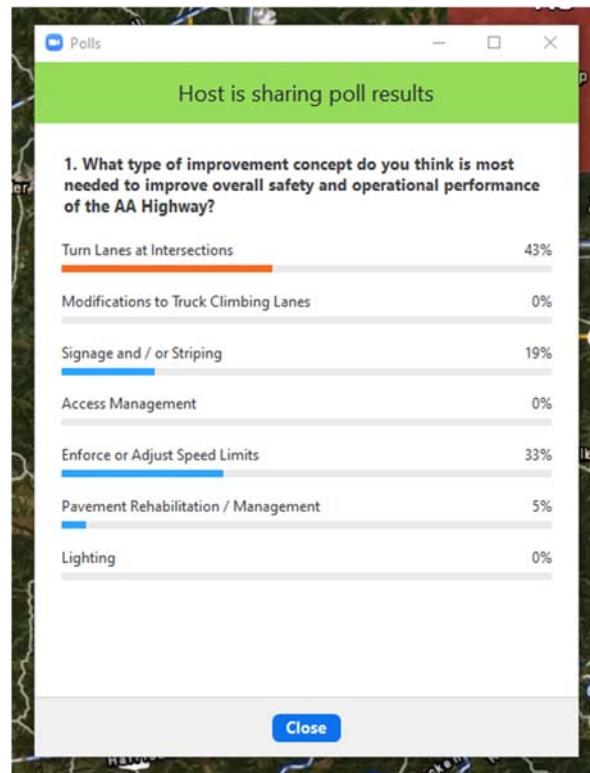
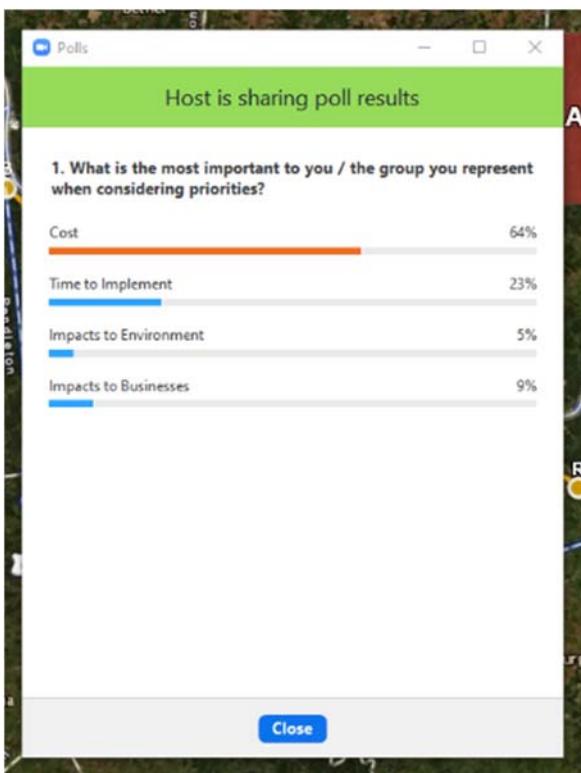
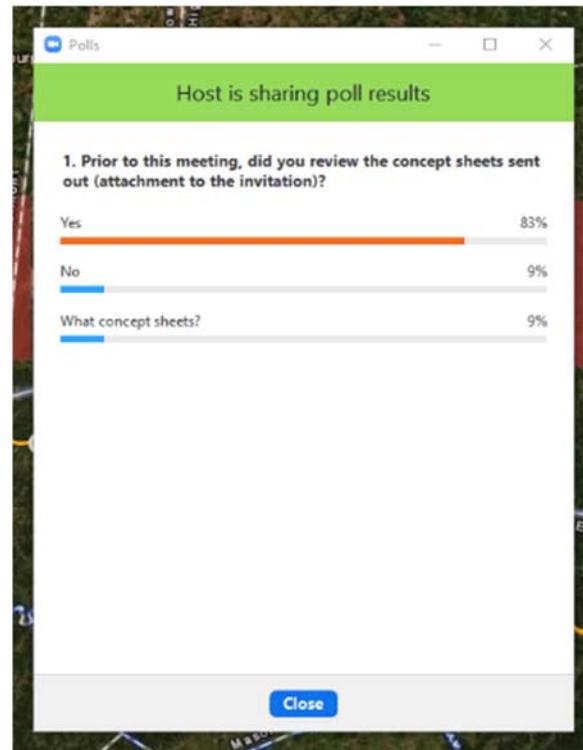
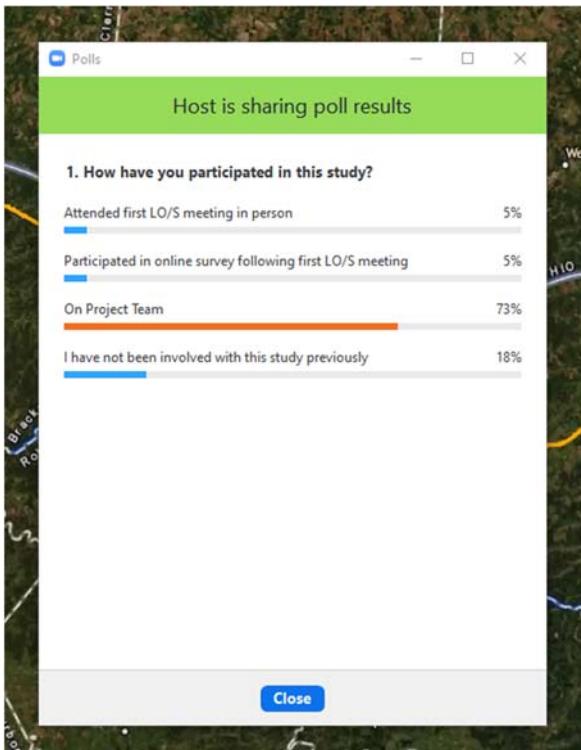
The results from the input received from this website are summarized at the end of this document. Comments and screenshots of the poll results posed during the meeting can be seen on the following pages for each meeting.

### July 14<sup>th</sup> Meeting (FIVCO ADD LO/S)

Darrin Eldridge with KYTC District 9 began the meeting by introducing KYTC project managers and the consultant project manager Lindsay Walker of HMB. He also provided a brief introduction and then turned the presentation over to Lindsay with HMB.

There were no comments made during this meeting. The poll results from the meeting can be seen on the following page:

## Poll Questions (July 14<sup>th</sup> Meeting)



## July 16<sup>th</sup> Meeting (BTADD/NKADD LO/S)

Steve Gunnell with KYTC District 9 began the meeting by introducing KYTC project managers and the consultant project manager Lindsay Walker of HMB. He also provided a brief introduction and then turned the presentation over to Lindsay with HMB.

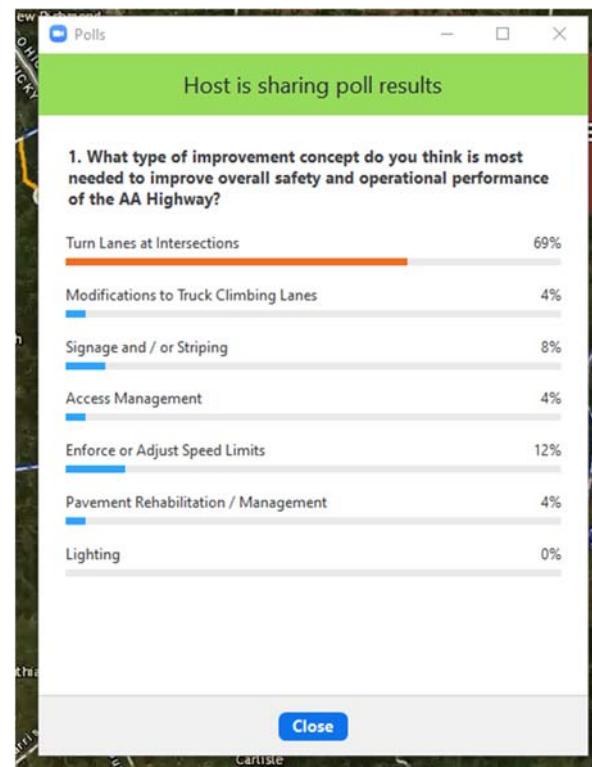
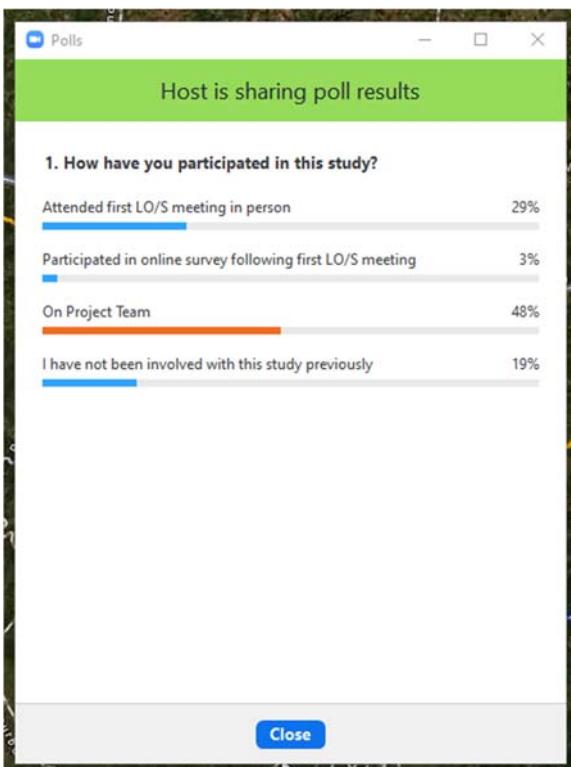
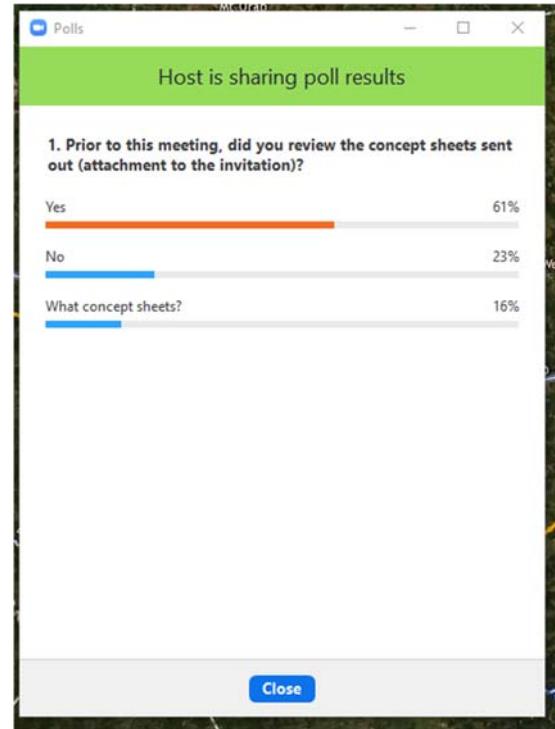
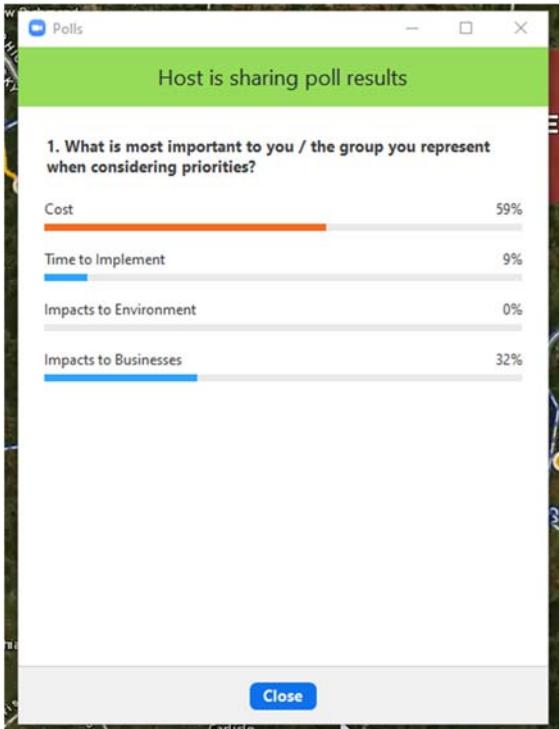
The following were comments made during the meeting:

- During the presentation of identified locations not further studied, Amy Kennedy of BTADD asked for more information about the reasons why they were removed, specifically at the intersection of Hook Lane. HMB responded that these areas were removed for various reasons including a combination of items shown below:
  - Number of crashes or absence of crashes
  - Turn lane warrants not met after traffic counts were conducted
  - Location was merged into a larger “Corridor-Wide” improvement such as truck climbing lane improvements and pavement condition improvements.
- **HMB will send more information regarding these locations.**
- There was a discussion initiated by Jamie Weddington, Lewis County Schools Superintendent, about the intersection of KY 9 (AA Highway) and KY 2523 (Lions Lane) and why it was not included. HMB responded that it had no crash history, and already had turn lanes, caution lights, and was not included by local officials and stakeholders as part of the first LO/S meeting input. Todd Ruckel seconded Mr. Weddington and both went into further detail about the need to include the intersection. It was stated that this intersection sees a large amount of school traffic including several young, inexperienced drivers since it provides access to Lewis County High School and Middle School. It was stated that this could lead to potential crashes, and with high speeds along the AA highway as well as the intersection sitting between two curves, there is a potential for injuries. It was also made known that a new medical facility is going to be built to the west of the intersection and may increase traffic in this location. HMB stated that they will add the Lions Lane intersection as an improvement concept area to evaluate and develop improvement options.
  - After the meeting, KYTC and HMB met with Mr. Weddington and other interested stakeholders regarding potential improvement options at this location. Potential modifications to the Lewis County Schools property was made aware to the project team to help coordinate any improvement options made at this intersection. Several ideas were presented such as adding a second turn lane to the southbound approach of Lions Lane, adding a second entrance to the east by using the Old KY 10 roadway, or closing / modifying access to Commonwealth Drive at the intersection of Lions Lane near the KYTC maintenance garage. HMB will continue to work with stakeholders and KYTC to determine potential improvement options. **KYTC will conduct traffic counts here once school is back in session to move forward with the evaluation.**
- There was a discussion about land use zone changes and future development near the Maysville / US 62 intersection which involves concepts J and K. Owen McNeil of the Maysville – Mason County IDA noted that another 43 acres has been zoned as commercial near the corner of Maple Leaf Drive and the AA Highway, and that this will bring major retailers that will generate significant traffic.

- It was also stated that there will be more tenants including a shopping center coming in along Tucker Drive causing an increase in traffic, and that drivers are currently using this corridor as a cut-through to US 62 which causes several crashes.
- There was a discussion about the intersection of KY 9 (AA Highway) and Clarkson Sherman Road. It was stated that this intersection has several large trucks that turn in and out of the intersection due to the Mason County Landfill. It was also stated that there is a floodwall project that will cause an increase in trucks as well. HMB stated that although KYTC had inconclusive turning movement counts at this intersection, it is included as an improvement concept involving the addition of turn lanes along KY 9 due to the extensive comments made by local officials and stakeholders.
- During the presentation of how the local officials and stakeholders could provide their priority ranking input for each improvement concept, there was a question from Craig Stanfield about how the priorities should be ranked. He asked if it is a low-cost improvement, but not particularly their favorite, what should it be ranked? HMB responded that it will differ for each individual and there are several approaches that may help rank a concept including cost, crash history, time to implement, impacts to businesses, or impacts to the environment. HMB detailed that it is important to note why you chose the priority for this reason. The results from this survey are summarized at the end of this document.
- Todd Ruckel asked if the project team was aware of a study completed at the intersection of the AA Highway and KY 59. Darrin Eldridge stated that he will also send **HMB the executive summary of the study done at this intersection.**
- Amy Kennedy stated that she can be the point of contact for anyone wanting to provide further comments or questions to the project team.

The poll results from the meeting can be seen on the following page:

## Poll Questions (July 16<sup>th</sup> – FIVCO ADD LO/S Meeting)

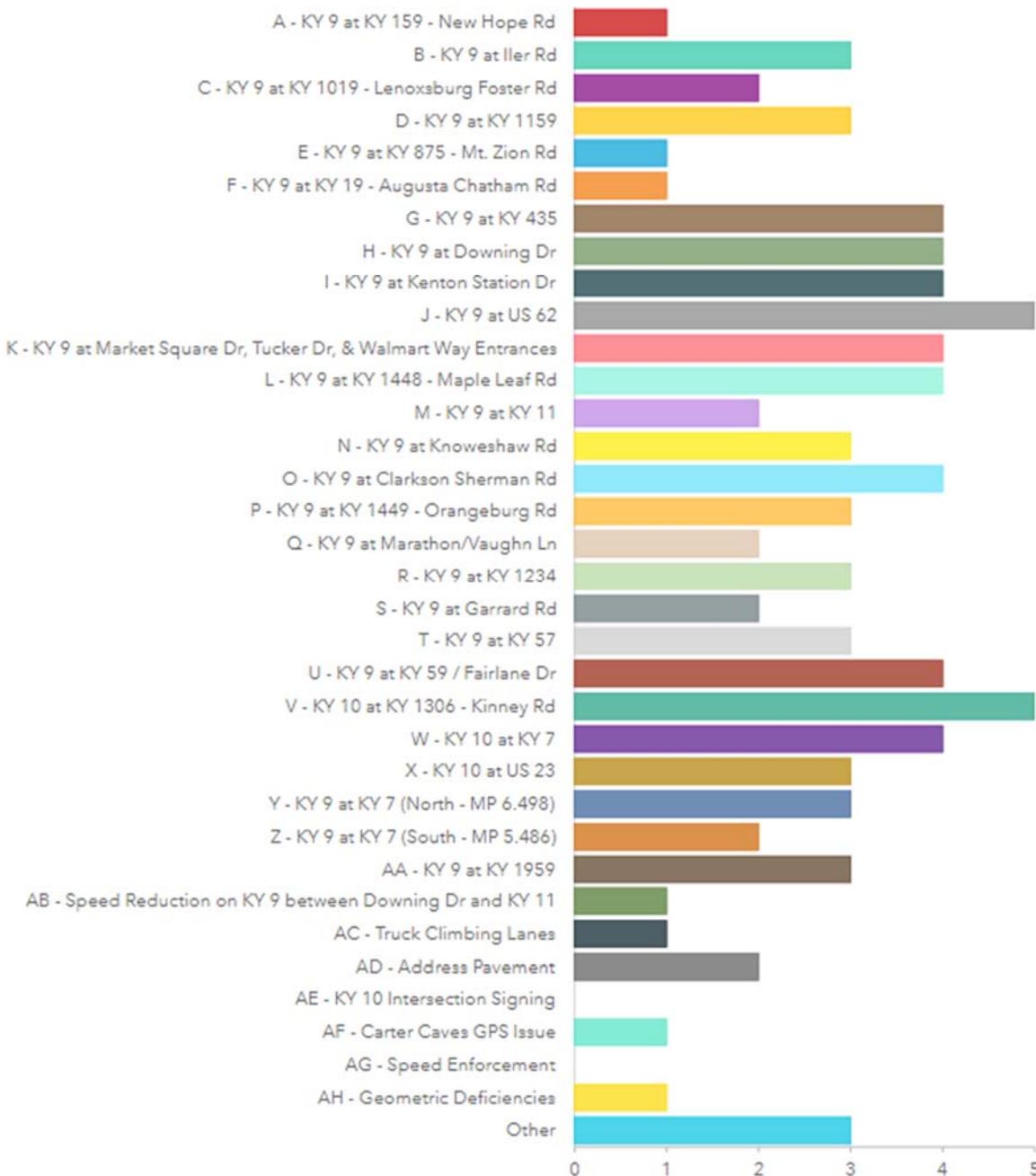


## Prioritization Survey Results Summary

Local Officials and Stakeholders (LO/S) had the opportunity to provide their priorities (high, medium, or low) and comments for each concept improvement presented. Overall, there were 91 submissions to the survey. Each submission corresponds to an individual improvement concept, unless the LO/S had an additional location or comment.

### Question 1: Which Concept do you want to choose a priority for?

The following chart and table show the amount of times each concept was selected to prioritize.



**Question 1: Which Concept do you want to choose a priority for? (Continued)**

Answers	Count	Percentage
A - KY 9 at KY 159 - New Hope Rd	1	1.1%
B - KY 9 at Iler Rd	3	3.3%
C - KY 9 at KY 1019 - Lenoxburg Foster Rd	2	2.2%
D - KY 9 at KY 1159	3	3.3%
E - KY 9 at KY 875 - Mt. Zion Rd	1	1.1%
F - KY 9 at KY 19 - Augusta Chatham Rd	1	1.1%
G - KY 9 at KY 435	4	4.4%
H - KY 9 at Downing Dr	4	4.4%
I - KY 9 at Kenton Station Dr	4	4.4%
J - KY 9 at US 62	5	5.49%
K - KY 9 at Market Square Dr, Tucker Dr, & Walmart Way Entrances	4	4.4%
L - KY 9 at KY 1448 - Maple Leaf Rd	4	4.4%
M - KY 9 at KY 11	2	2.2%
N - KY 9 at Knoweshaw Rd	3	3.3%
O - KY 9 at Clarkson Sherman Rd	4	4.4%
P - KY 9 at KY 1449 - Orangeburg Rd	3	3.3%
Q - KY 9 at Marathon/Vaughn Ln	2	2.2%
R - KY 9 at KY 1234	3	3.3%
S - KY 9 at Garrard Rd	2	2.2%
T - KY 9 at KY 57	3	3.3%
U - KY 9 at KY 59 / Fairlane Dr	4	4.4%
V - KY 10 at KY 1306 - Kinney Rd	5	5.49%

Answers	Count	Percentage
W - KY 10 at KY 7	4	4.4%
X - KY 10 at US 23	3	3.3%
Y - KY 9 at KY 7 (North - MP 6.498)	3	3.3%
Z - KY 9 at KY 7 (South - MP 5.486)	2	2.2%
AA - KY 9 at KY 1959	3	3.3%
AB - Speed Reduction on KY 9 between Downing Dr and KY 11	1	1.1%
AC - Truck Climbing Lanes	1	1.1%
AD - Address Pavement	2	2.2%
AE - KY 10 Intersection Signing	0	0%
AF - Carter Caves GPS Issue	1	1.1%
AG - Speed Enforcement	0	0%
AH - Geometric Deficiencies	1	1.1%
Other	3	3.3%

Responses to "Other":

- Intersection of KY 9 AA Hwy and KY 2370 Dutch Ridge Road
- In those areas of the AA Hwy where hot tar sealing is being used: Repaint the roadway striping after the sealant is applied. The tar severely impacts the visibility of the roadway markers, especially when driving at night during a rain or snow in winter.
- AA Hwy At Lions Lane

**Question 2-1: Please select a priority for this concept.**

The following is a summary of the amount of times each category of priority was chosen.



[Hide table](#) Other response  Empty categories Sort ↑↓

Answers	Count	Percentage
Low	17	18.68%
Medium	22	24.18%
High	48	52.75%
Other Comment - Please explain below	0	0%

Answered: 87 Skipped: 4

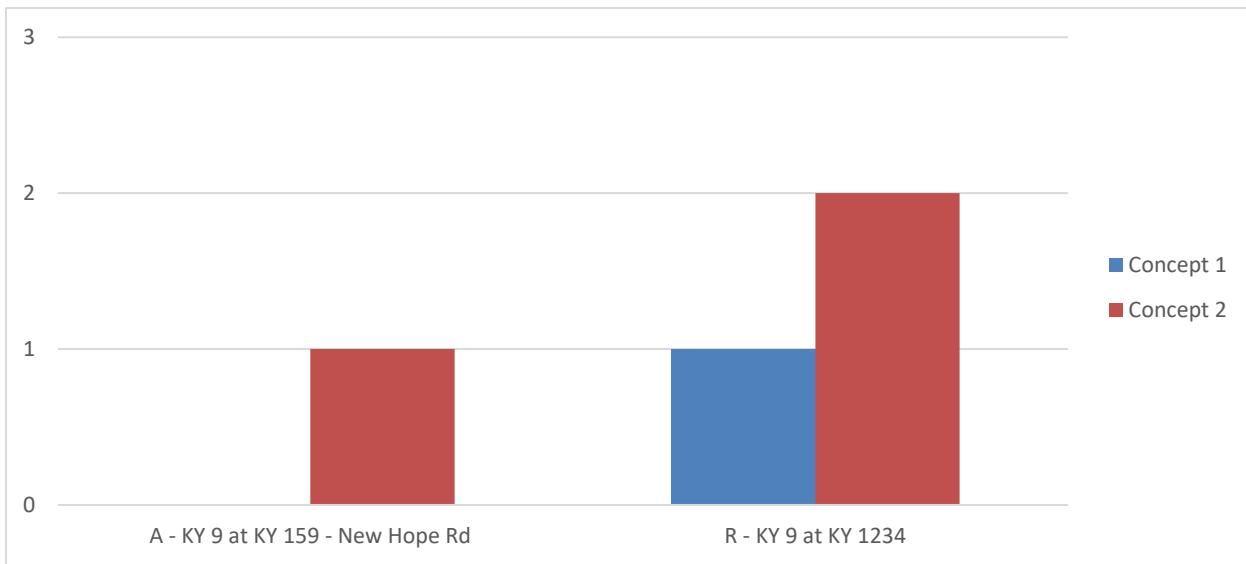
**Question 2-1: Please select a priority for this concept. (Continued)**

The following is a summary table showing the priorities selected for each Concept Improvement.

Location	Priority Responses						Total Count	% of Responses		
	High		Medium		Low					
	Count	%	Count	%	Count	%				
A - KY 9 at KY 159 - New Hope Rd	1	100%	-	0%	-	0%	1	1.15%		
B - KY 9 at Iler Rd	2	67%	1	33%	-	0%	3	3.45%		
C - KY 9 at KY 1019 - Lenoxsburg Foster Rd	-	0%	-	0%	2	100%	2	2.30%		
D - KY 9 at KY 1159	2	67%	1	33%	-	0%	3	3.45%		
E - KY 9 at KY 875 - Mt. Zion Rd	-	0%	1	100%	-	0%	1	1.15%		
F - KY 9 at KY 19 - Augusta Chatham Rd	1	100%	-	0%	-	0%	1	1.15%		
G - KY 9 at KY 435	1	25%	2	50%	1	25%	4	4.60%		
H - KY 9 at Downing Dr	2	50%	2	50%	-	0%	4	4.60%		
I - KY 9 at Kenton Station Dr	4	100%	-	0%	-	0%	4	4.60%		
J - KY 9 at US 62	5	100%	-	0%	-	0%	5	5.75%		
K - KY 9 at Market Square Dr, Tucker Dr, & Walmart Way Entrances	2	50%	-	0%	2	50%	4	4.60%		
L - KY 9 at KY 1448 - Maple Leaf Rd	2	50%	1	25%	1	25%	4	4.60%		
M - KY 9 at KY 11	1	50%	1	50%	-	0%	2	2.30%		
N - KY 9 at Knoweshaw Rd	1	33%	1	33%	1	33%	3	3.45%		
O - KY 9 at Clarkson Sherman Rd	3	75%	-	0%	1	25%	4	4.60%		
P - KY 9 at KY 1449 - Orangeburg Rd	1	33%	1	33%	1	33%	3	3.45%		
Q - KY 9 at Marathon/Vaughn Ln	-	0%	1	50%	1	50%	2	2.30%		
R - KY 9 at KY 1234	2	67%	-	0%	1	33%	3	3.45%		
S - KY 9 at Garrard Rd	1	50%	1	50%	-	0%	2	2.30%		
T - KY 9 at KY 57	2	67%	1	33%	-	0%	3	3.45%		
U - KY 9 at KY 59 / Fairlane D	3	75%	-	0%	1	25%	4	4.60%		
V - KY 10 at KY 1306 - Kinney Rd	2	40%	2	40%	1	20%	5	5.75%		
W - KY 10 at KY 7	-	0%	3	100%	-	0%	3	3.45%		
X - KY 10 at US 23	3	100%	-	0%	-	0%	3	3.45%		
Y - KY 9 at KY 7 (North - MP 6.498)	2	67%	1	33%	-	0%	3	3.45%		
Z - KY 9 at KY 7 (South - MP 5.486)	-	0%	1	50%	1	50%	2	2.30%		
AA - KY 9 at KY 1959	1	33%	1	33%	1	33%	3	3.45%		
AB - Speed Reduction on KY 9 between Downing Dr and KY 11	-	0%	-	0%	1	100%	1	1.15%		
AC - Truck Climbing Lanes	-	0%	-	0%	1	100%	1	1.15%		
AD - Address Pavement	2	100%	-	0%	-	0%	2	2.30%		
AE - KY 10 Intersection Signing	-	-	-	-	-	-	0	0.00%		
AF - Carter Caves GPS Issues	1	100%	-	0%	-	0%	1	1.15%		
AG - Speed Enforcement	-	-	-	-	-	-	0	0.00%		
AH - Geometric Deficiencies	1	100%	-	0%	-	0%	1	1.15%		
Other	-		-		-		0	0.00%		

### **Question 2 -2: Which concept do you prefer for this improvement concept?**

This question pertained to Concept A – KY 9 at KY 159 (New Hope Rd) and Concept R – KY 9 at KY 1234. Both locations had two alternate concepts shown, and users had the opportunity to choose which one they preferred for each. For Concept R, the user who selected Concept 1 said it was a high priority, and the users who said Concept 2 were split between it being a high priority and low priority as seen below.



The following is a comment related to this question for Concept A:

- To me, Concept 1 doesn't make travel safer for westbound travel needing to turn south onto New Hope Road (looks as though it is inviting a rear-end collision to someone turning south when a westbound driver wants to speed up so as to get around a semi-truck and who may be temporarily distracted looking in rear view mirror and thus doesn't notice the person in front of him has a turn signal on). Concept 2 is not only a much more economical fix, but to me appears safer as travelers intending to turn south have dedicated turn lane.

A summary table of all survey submissions are included as an attachment to this summary.

Concept Improvement ID	Other - Which concept do you want to choose a priority for?	Priority	Which concept do you prefer for this improvement concept?	Why did you choose this priority?	If you have any other comments or concerns, please enter them below:
A - KY 9 at KY 159 - New Hope Rd	-	High	Concept 2	To me, Concept 1 doesn't make travel safer for westbound travel needing to turn south onto New Hope Road (looks as though it is inviting a rear-end collision to someone turning south when a westbound driver wants to speed up so as to get around a semi-truck and who may be temporarily distracted looking in rear view mirror and thus doesn't notice the person in front of him has a turn signal on). Concept # 2 is not only a much more economical fix, but to me appears safer as travelers intending to turn south have dedicated turn lane.	-
B - KY 9 at Iler Rd	-	High	-	Personally, I am surprised that traffic counts indicated this a necessity and as there is only one concept to consider and I cannot argue with it, I made it a high priority based upon traffic counts and public official input.	-
B - KY 9 at Iler Rd	-	Medium	-	-	-
B - KY 9 at Iler Rd	-	High	-	St. Rt. #2228 is going to be shut down and Bracken County needs to transfer the maintenance of Iler Road to KDOT and the B.C. Fiscal Court take over #2228.	We honestly would like to see turn lanes at all of our major intersections, primarily Iler Rd., #1019, #1159 eastbound, #875/Mt. Zion Road, and improving #19.
C - KY 9 at KY 1019 - Lenoxsburg Foster Rd	-	Low	-	You have turning lanes already in place. Although I noted the injury reports, I don't think changing the signage will make people pay attention. And you are talking over half a million dollars. There are lots of things that cannot be fixed: Driver attention spans being one. Animals darting across the road another.	-
C - KY 9 at KY 1019 - Lenoxsburg Foster Rd	-	Low	-	-	-
D - KY 9 at KY 1159	-	High	-	Very low cost associated with improving this intersection. I am actually quite surprised that drains can be added for such a low cost. Therefore I marked this as a high priority, gaining significant improvement at limited cost investment.	-
D - KY 9 at KY 1159	-	High	-	crashes, cost	-
D - KY 9 at KY 1159	-	Medium	-	-	-
E - KY 9 at KY 875 - Mt. Zion Rd	-	Medium	-	The turning lanes on the AA Hwy to the Mt. Zion Road would be an improvement. I just don't know that the turning lanes from Mt. Zion are warranted. I would like to know the difference in cost between just adding turning lanes on AA versus the additional improvement of turning lanes on Mt. Zion Road and KKY 875. I know that Kern's Meats is on the south side on Mt. Zion Road and is probably a significant traffic generator. Is there any need to have them on the north side of AA Hwy on KY 875?	See above.
F - KY 9 at KY 19 - Augusta Chatham Rd	-	High	-	I can see the need for this improvement. This is a busy intersection.	-
G - KY 9 at KY 435	-	Medium	-	I marked this a medium as the expansion of this to a 4 lane takes care of most of the problems. I understand that drainage may be improved and it will require additional surveying to determine how to rectify the wet road scenario reported.	-
G - KY 9 at KY 435	-	High	-	crashes, cost	-
G - KY 9 at KY 435	-	Medium	-	-	-
G - KY 9 at KY 435	-	Low	-	Turn lanes were recently added here. Need crash data since then to re-evaluate.	-
H - KY 9 at Downing Dr	-	High	-	Low cost improvement. No argument. Thus high priority rating.	-
H - KY 9 at Downing Dr	-	High	-	crashes, cost	-
H - KY 9 at Downing Dr	-	Medium	-	-	-
H - KY 9 at Downing Dr	-	Medium	-	There was supposed to be another ramp at this interchange, but it wasn't built due to design considerations. Although it would cost more, the fourth ramp would make all turning movements right turns.	-
I - KY 9 at Kenton Station Dr	-	High	-	The need for a turning lane in the westbound lane is obvious and warranted. Significant traffic turning into the Hospital, Doctors Office, Pharmacy, Fire Dept. and other medical facilities (not to mention helipad and ambulances in and out) make this a high priority intersection.	-
I - KY 9 at Kenton Station Dr	-	High	-	2 foot shoulder, injury and fatal crashes	-

Concept Improvement ID	Other - Which concept do you want to choose a priority for?	Priority	Which concept do you prefer for this improvement concept?	Why did you choose this priority?	If you have any other comments or concerns, please enter them below:
I - KY 9 at Kenton Station Dr	-	High	-	-	-
I - KY 9 at Kenton Station Dr	-	High	-	This is much needed and is a pretty easy solution.	-
J - KY 9 at US 62	-	High	-	Another high traffic intersection with significant traffic from all four directions. I can't argue with the need for improvement. It is expensive but there was only concept provided. Significant traffic resulting in significant accidents.	-
J - KY 9 at US 62	-	High	-	high crash rate	-
J - KY 9 at US 62	-	High	-	crashes, cost	-
J - KY 9 at US 62	-	High	-	-	-
J - KY 9 at US 62	-	High	-	The delay is really bad at peak times.	Be careful with the reduced lane widths and adding the right turn lanes. This can create "doglegs" and cause side swipe collisions. We have looked at this scenario several times, but ultimately decided it was safer, although more expensive, to buy R/W for the right turn lanes.
K - KY 9 at Market Square Dr, Tucker Dr, & Walmart Way Entrances	-	High	-	Obviously a high traffic area.	Would a landscape area be the most beneficial fix? Could another lane be added in it's place specifically for those traveling through not intending to turn? Just thinking outside the box.
K - KY 9 at Market Square Dr, Tucker Dr, & Walmart Way Entrances	-	High	-	Over the next 12 months, we'll have significant changes to the retail makeup of this corridor increasing traffic.	-
K - KY 9 at Market Square Dr, Tucker Dr, & Walmart Way Entrances	-	Low	-	-	-
K - KY 9 at Market Square Dr, Tucker Dr, & Walmart Way Entrances	-	Low	-	Taxpayers should not foot the bill for developers.	-
L - KY 9 at KY 1448 - Maple Leaf Rd	-	High	-	I marked this as a high priority only because it should improve traffic at minimal cost. I don't know that it is really warranted, but for the limited cost, if it improves traffic and cuts down on accidents, I would recommend.	-
L - KY 9 at KY 1448 - Maple Leaf Rd	-	High	-	We are expecting significant development at this intersection over the next 18months. The 43 acres on the southern side will be sold to a big box retail anchor.	-
L - KY 9 at KY 1448 - Maple Leaf Rd	-	Medium	-	-	-
L - KY 9 at KY 1448 - Maple Leaf Rd	-	Low	-	This intersection was recently reconstructed. Data needs to be evaluated since the change.	-
M - KY 9 at KY 11	-	High	-	I use this intersection all the time. It has needed a turning lane to go from KY 9 to KY 11 towards downtown since it's inception (I am turning right using the shoulder while waiting behind a westbound semi several times a week).	-
M - KY 9 at KY 11	-	Medium	-	The turn lanes may help a little, but the major problem here is the grade of the intersection. However, that is an expensive problem to fix.	-
N - KY 9 at Knoweshaw Rd	-	Medium	-	I doubt that this intersection would warrant a nearly \$500K improvement ALTHOUGH I admit that I have witnessed several near misses where someone wasn't paying attention and come up too fast on a person turning ahead of them.	-
N - KY 9 at Knoweshaw Rd	-	High	-	Again, strictly due to the high incident count here in Mason County.	-
N - KY 9 at Knoweshaw Rd	-	Low	-	Right turn lane could help a little, but it also reduces sight distance for drivers on the side street.	-

Concept Improvement ID	Other - Which concept do you want to choose a priority for?	Priority	Which concept do you prefer for this improvement concept?	Why did you choose this priority?	If you have any other comments or concerns, please enter them below:
O - KY 9 at Clarkson Sherman Rd	-	High	-	This is an intersection that definitely needs improvement and would warrant the cost. Significant traffic into the Landfill requires the necessity of turning lanes both eastbound and westbound AA travel. Not to mention that sometimes the persons turning to go into the landfill are "wide loads" not so marked (where someone it taking a trailer load of tree limbs or landscaping to be disposed of, or a farm is taking a load of old fencing and other materials from his farm to be disposed of).	-
O - KY 9 at Clarkson Sherman Rd	-	High	-	-	-
O - KY 9 at Clarkson Sherman Rd	-	High	-	We have had several incidents here in Mason County with traffic entering and leaving the landfill.	-
O - KY 9 at Clarkson Sherman Rd	-	Low	-	The turn lanes could help, but right turn lanes also reduce sight distance for drivers on the side street.	-
P - KY 9 at KY 1449 - Orangeburg Rd	-	Medium	-	I go through this intersection often. Turning lanes already exist in eastbound and westbound lanes. I never have a problem turning right. Therefore I only marked this as a medium priority as the cost is nearly half a million dollars and I just don't see it as necessary.	Just improving the paint striping on the AA Hwy after you use the hot tar sealant would be a more benefit.
P - KY 9 at KY 1449 - Orangeburg Rd	-	High	-	injury and fatal crashes	-
P - KY 9 at KY 1449 - Orangeburg Rd	-	Low	-	The right turn lanes could help, but they also reduce sight distance for the drivers on the side streets.	-
Q - KY 9 at Marathon/Vaughn Ln	-	Medium	-	I do understand the need for a left turning lane for eastbound travel. I have witnessed several near misses in this area.	-
Q - KY 9 at Marathon/Vaughn Ln	-	Low	-	The turn lane could help, but we would be using taxpayer dollars to help a private development.	-
R - KY 9 at KY 1234	-	High	Concept 2	I personally am familiar with this intersection. You have a two lane westbound travel crossing KY 1237 suddenly narrowing to a single lane at the same location as a left hand turn onto KY 1234. While there probably is not an extremely heavy traffic pattern turning onto KY 1234, when someone needs to turn left onto KY 1234 (traveling west on AA), they are sitting ducks as traffic comes up behind them and they are waiting to turn with no place to go and no turning lane. I have witnessed MANY near misses at this location where the person traveling west behind a person turning onto KY 1234 takes the shoulder to avoid a collision. I hate the expense involved in improving the intersection, but it is warranted and needed.	-
R - KY 9 at KY 1234	-	High	Concept 1	safety and cost	-
R - KY 9 at KY 1234	-	Low	Concept 2	Doesn't seem to be a high crash rate here.	-
S - KY 9 at Garrard Rd	-	High	-	A high return improvement for not much cost!	I have personally witnessed eastbound traffic turning onto Garrad Road (usually in a line of 3 to 5 cars); someone back "in the pack" decides that, as it is a straight stretch and currently a passing zone, to pass, only to come upon the left turning driver ahead of him and have to put on his brakes to avoid a high speed collision that would be broadside into the north turning car turning onto Garrad Road. I think there has been at least one fatality here by just such an instance. Simply making this a no passing zone would make this much safer.
S - KY 9 at Garrard Rd	-	Medium	-	Looks like an easy fix eliminating the passing zone. However, I would move the stop bars on the side streets as close as possible to the intersection for sight distance.	-

Concept Improvement ID	Other - Which concept do you want to choose a priority for?	Priority	Which concept do you prefer for this improvement concept?	Why did you choose this priority?	If you have any other comments or concerns, please enter them below:
T - KY 9 at KY 57	-	High	-	Another intersection that I am intimately familiar with. Improvements made a few years ago (after several accidents, some of which had fatalities) that off-set the turning lanes to improve visibility has been a great improvement and is the cause of why more extensive improvements are not needed at this time. Spending \$25,000 as proposed on this intersection should be sufficient for many years to come.	-
T - KY 9 at KY 57	-	High	-	-	-
T - KY 9 at KY 57	-	Medium	-	We've worked on this intersection for years. The flashing yellow arrow might help reduce angle crashes. The red light running is hard to fix on the engineering side. I believe drivers know the intersection is there, they just don't care.	-
U - KY 9 at KY 59 / Fairlane D	-	High	-	Low cost improvement, thus I marked it a high priority.	-
U - KY 9 at KY 59 / Fairlane D	-	High	-	This intersections needs to be improved due to the number of crashes and the cost for implementation is only \$35K	-
U - KY 9 at KY 59 / Fairlane D	-	High	-	-	-
U - KY 9 at KY 59 / Fairlane D	-	Low	-	Sight distance is good at this intersection. Crashes seem to be caused by driver in-attention or taking risks. Intersection warning devices are generally for location with poor sight distance.	-
V - KY 10 at KY 1306 - Kinney Rd	-	Medium	-	I like the idea for turning lanes at this intersection provided that traffic counts warrant it. I personally have never noticed a problem at this intersection although I have use it several times a year and drive by it additional times.	-
V - KY 10 at KY 1306 - Kinney Rd	-	Medium	-	I like the idea for turning lanes at this intersection even though it is at significant cost due to the injuries and fatality indicated even though I personally have never noticed a problem at this intersection although I have use it several times a year and drive by it additional times.	-
V - KY 10 at KY 1306 - Kinney Rd	-	High	-	injury and fatal crashes	-
V - KY 10 at KY 1306 - Kinney Rd	-	Low	-	-	-
V - KY 10 at KY 1306 - Kinney Rd	-	High	-	The suggested improvement could help.	-
W - KY 10 at KY 7	-	Medium	-	While the cost was not prohibitive, there are already overhead lights and all the crashes were caused by persons coming off KY 7. There are going to be some things that just can't be fixed. Throwing money at all problems doesn't always result in an improvement and in this case I think it somewhat overkill.	-
W - KY 10 at KY 7	-	Medium	-	-	-
W - KY 10 at KY 7	-	-	-	-	-
W - KY 10 at KY 7	-	Medium	-	Suggested improvements could help.	-
X - KY 10 at US 23	-	High	-	A busy intersection that can be improved for \$30,000 equals a high priority. Numerous crashes reported at this site, high traffic area, so in my opinion the cost is warranted.	-
X - KY 10 at US 23	-	High	-	-	-
X - KY 10 at US 23	-	High	-	Suggested improvements could help. Biggest problem seems to be driver in-attention.	-
Y - KY 9 at KY 7 (North - MP 6.498)	-	High	-	safety, cost	-
Y - KY 9 at KY 7 (North - MP 6.498)	-	High	-	Traffic safety for school buses.	-
Y - KY 9 at KY 7 (North - MP 6.498)	-	Medium	-	-	-
Z - KY 9 at KY 7 (South - MP 5.486)	-	Low	-	-	-
Z - KY 9 at KY 7 (South - MP 5.486)	-	Medium	-	-	-

Concept Improvement ID	Other - Which concept do you want to choose a priority for?	Priority	Which concept do you prefer for this improvement concept?	Why did you choose this priority?	If you have any other comments or concerns, please enter them below:
AA - KY 9 at KY 1959	-	Medium	-	Only 1 crash reported. HOWEVER spending \$10,000 is a cost that could have made there 0 crash reports. Thus I gave what would otherwise be a low priority a medium priority rating.	-
AA - KY 9 at KY 1959	-	High	-	-	-
AA - KY 9 at KY 1959	-	Low	-	-	-
AB - Speed Reduction on KY 9 between Downing Dr and KY 11	-	Low	-	People tend to drive well above the speed limit on this section of highway and personally I am against lowering the speed limit. This is a straight stretch, great visibility, and will only result in a speed trap.	I have personally witnessed persons driving this section probably at least 75 miles an hour. I know that I have driven it above the posted speed limit (but not in excess of 70 mph like that which I have witnessed). I am not in favor of a 45 mph speed limit on this section of roadway.
AC - Truck Climbing Lanes	-	Low	-	-	-
AD - Address Pavement	-	High	-	I applaud the efforts to extend the life of blacktop by placing hot tar sealant. HOWEVER the roadways definitely do need to be repainted with regards to striping after the hot tar sealant has been placed as - especially during winter months when the roadways are wet during early evening or early morning when the sun is not out - visibility is already limited and to see the centerline and sidelines of the roadway requires additional concentration. This is as most of the breakdown is in the places where the striping is, ie: the centerline and where lanes meet during the blacktopping installation.	-
AD - Address Pavement	-	High	-	I applaud the efforts to extend the life of blacktop by placing hot tar sealant. HOWEVER the roadways definitely do need to be repainted with regards to striping after the hot tar sealant has been placed as - especially during winter months when the roadways are wet during early evening or early morning when the sun is not out - visibility is already limited and to see the centerline and sidelines of the roadway requires additional concentration. This is as most of the breakdown is in the places where the striping is, ie: the centerline and where lanes meet during the blacktopping installation.	-
AF - Carter Caves GPS Issues	-	High	-	Safety of our guest coming to the park. The current route they are taking them on is taking them through a creek and many of our campers have been getting stuck.	-
AH - Geometric Deficiencies	-	High	-	fatal crash site	-
Other	Intersection of KY 9 AA Hwy and KY 2370 Dutch Ridge Road.	-	-	-	I am surprised that no one commented on this intersection when there was so much concern with Iler Road and New Hope Road (and to some extent Mt. Zion/KY 875). Just surprised. If no one in Bracken Co. thinks it should be considered, then so be it. I drive it a little, not a lot,, but it is my preferred method of travel to Augusta (much rather take it than KY 19).
Other	In those areas of the AA Hwy where hot tar sealing is being used: Repaint the roadway striping after the sealant is applied. The tar severely impacts the visibility of the roadway markers, especially when driving at night during a rain or snow in winter.	-	-	-	-
Other	AA Hwy At Lions Lane	-	-	-	It was brought up during the meeting the need for improving this intersection at the School AND soon to be the site of a medical facility (confirmed to me today by an engineer who did not ask me to keep it confidential but who probably should have).

Overview

Study Review

LO/S Meeting No. 1 Review

Concept Development Process

Improvement Concepts

Prioritization Tool

Wrap-Up

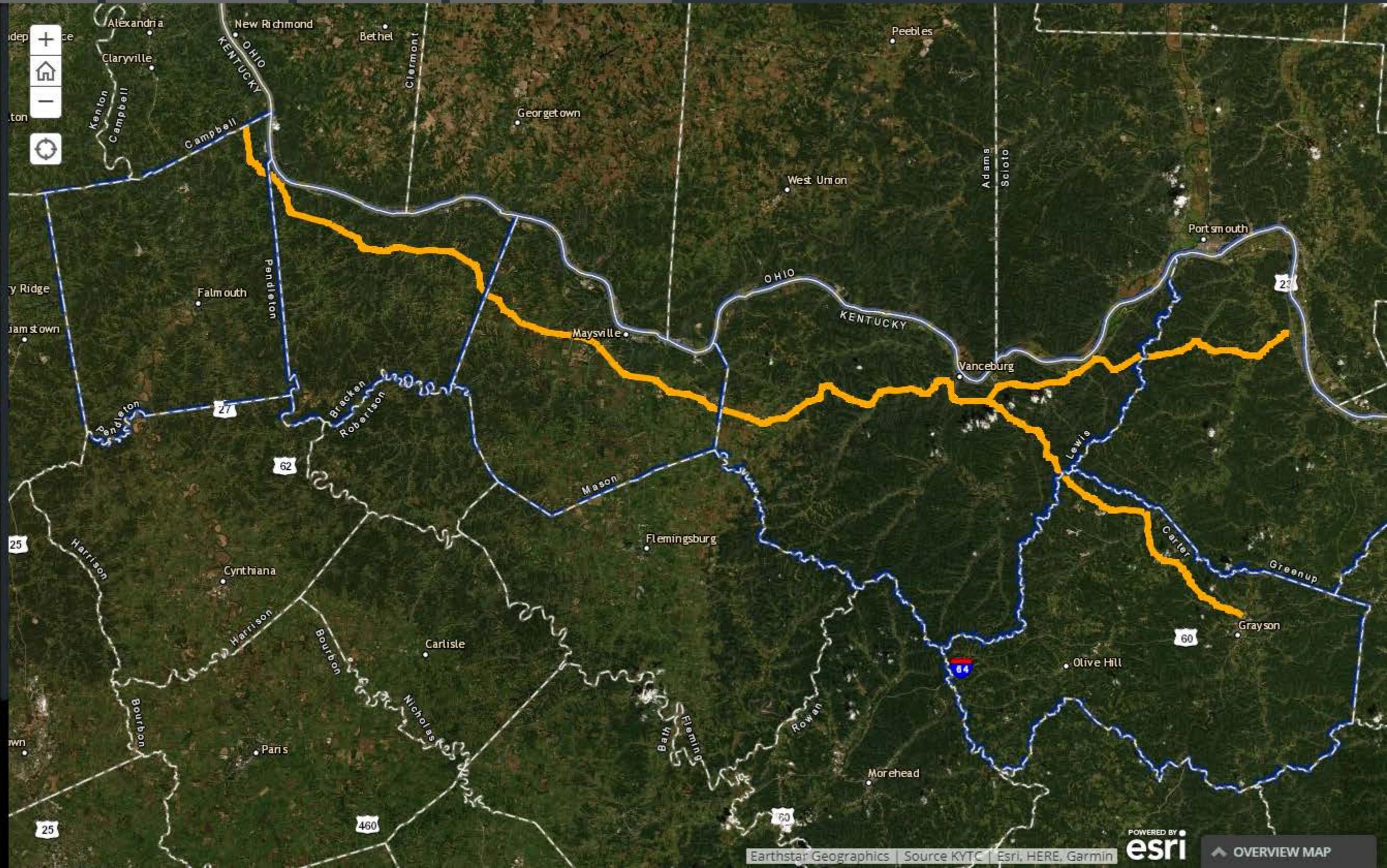
Interactive Map

# AA Highway Improvements Study

Pendleton, Bracken, Mason, Lewis, Greenup, and Carter  
Counties

Local Officials / Stakeholders Meeting No. 2

Tuesday, July 14, 2020 &  
Thursday, July 16, 2020



## Study Review

### Objectives

Identify and evaluate potential improvement concepts to improve overall safety and operational performance of the AA Highway including KY 9 from the Campbell / Pendleton County line to Grayson (KY 1) and KY 10 from Vanceburg to US 23 in Greenup County (total of approximately 120 miles).

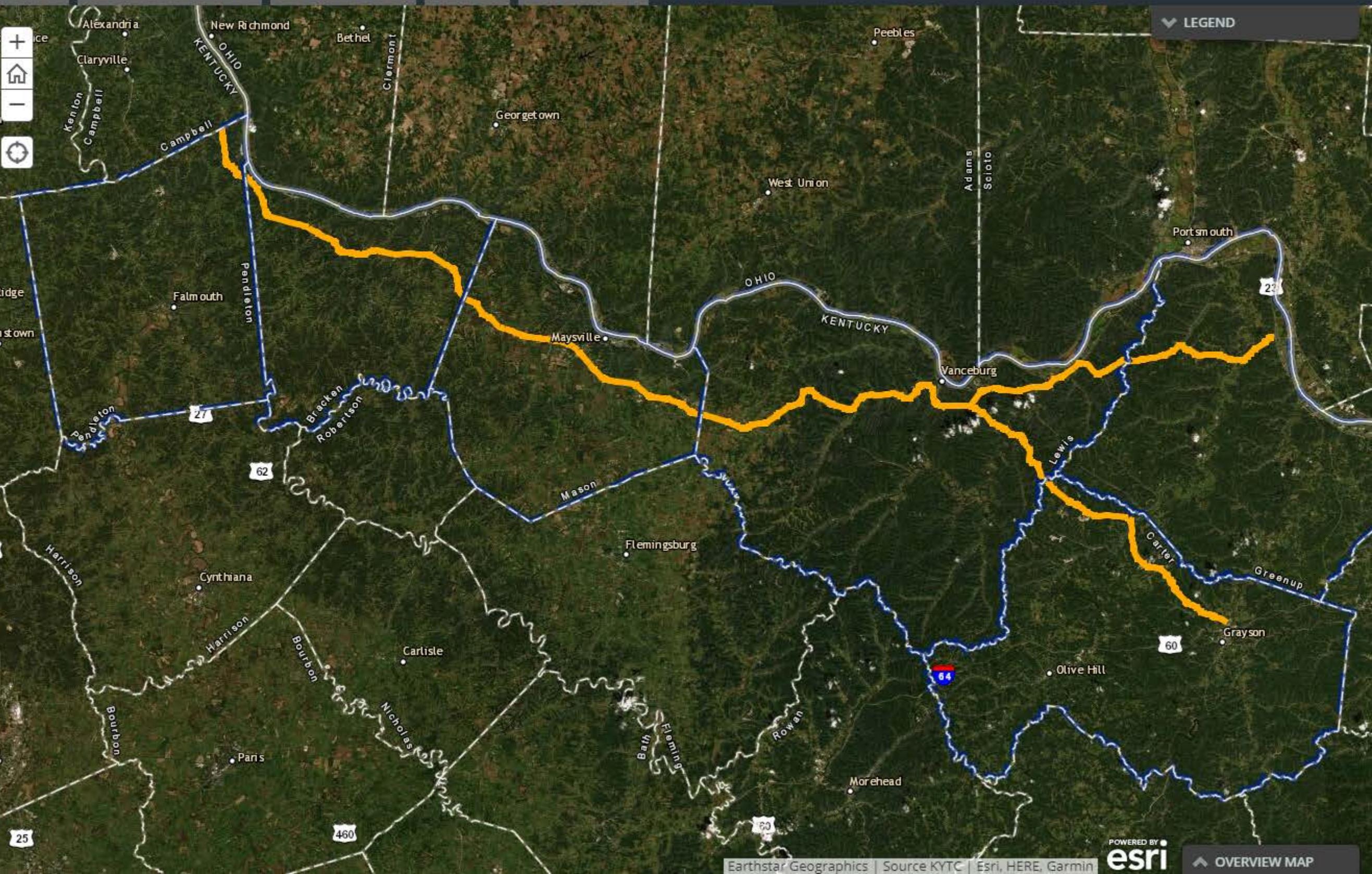
### Goals

- Identify Project Locations
- Develop / Evaluate Improvement Concepts
- Prepare Prioritized List of Improvement Concepts

### Schedule

## Schedule

August 2019	Study Initialized
Sept. – Dec. 2019	Scoping / Data Gathering / Existing Conditions Analysis
January 2020	Project Team Meeting No. 1 / Initial Traffic Forecasting
February 2020	LO/S Meeting No. 1 / Develop Improvement Concepts
March 2020	Project Team Meeting No. 2 / Evaluate Improvement Concepts
April - June 2020	Refine Improvement Concepts
July 2020	LO/S Meeting No. 2 / Develop Recommendations
August 2020	Project Team Meeting No. 3
September 2020	Prepare Draft Report
October 2020	Address Comments / Finalize Report



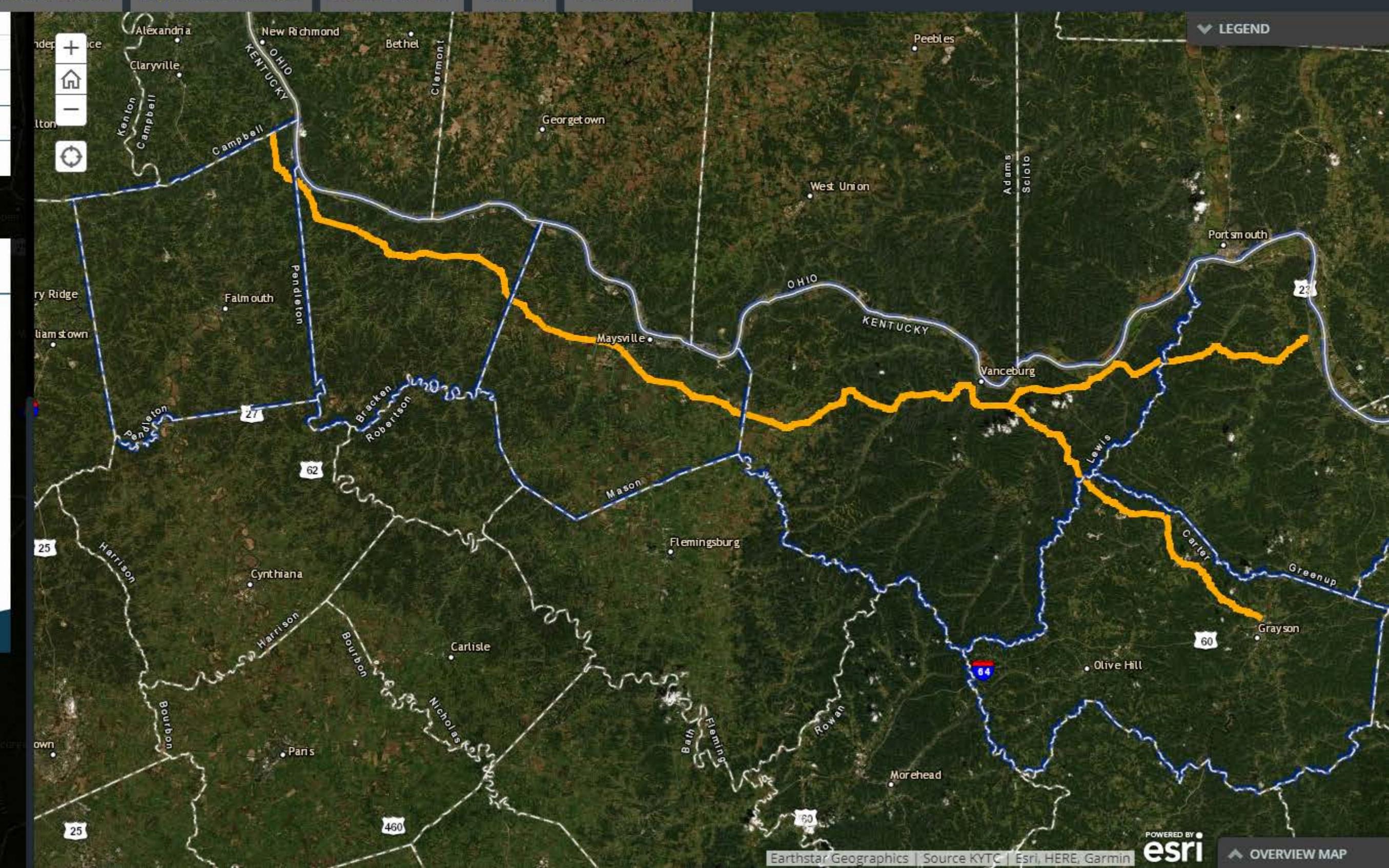
April - June 2020	Refine Improvement Concepts
July 2020	LO/S Meeting No. 2 / Develop Recommendations
August 2020	Project Team Meeting No. 3
September 2020	Prepare Draft Report
October 2020	Address Comments / Finalize Report

## Tasks

# Study Background

## Study Tasks

- ✓ Compile Existing Conditions Information
- ✓ Prepare Traffic Forecasts (Year 2045)
- ✓ Perform Environmental Overview
- ✓ Develop Improvement Concepts
- ✓ Refine Improvement Concepts
- Prioritize Recommended Improvements



## **LO/S Meeting No. 1 Review**

First LO/S Meeting No. 1

## LO/S Meeting Statistics

February 17, 2020



- 31 Attendees
  - 11 Local Officials / Stakeholders
    - City of Olive Hill
    - City of Grayson
    - Carter Co. Schools
    - Greenup County Public Safety & 911
    - Carter Caves State Park
    - Carter County Judge Executive
    - City of Grayson
    - Elliot Co. Emergency Response
  - 26 on invitee list

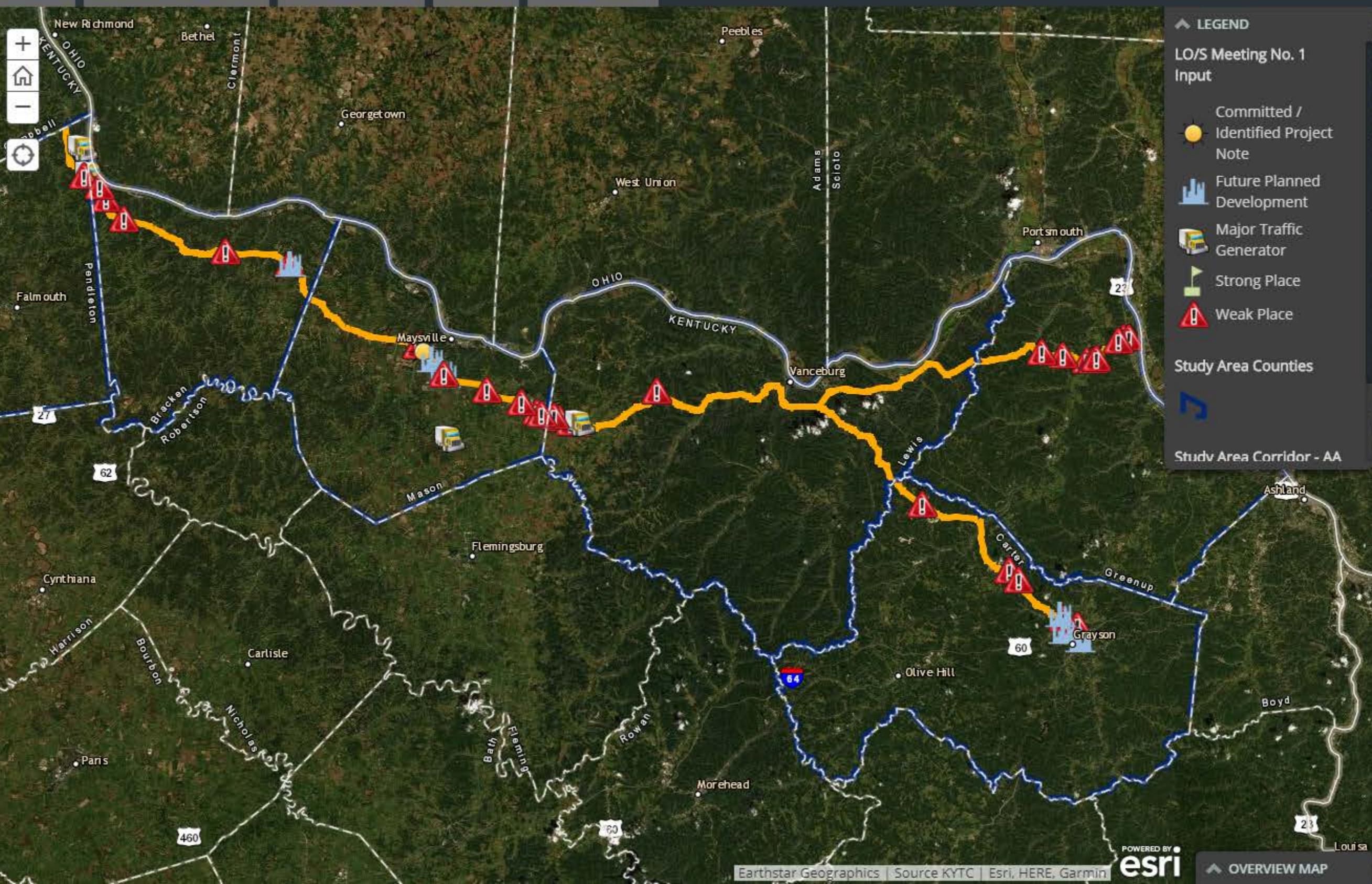
Second LO/S Meeting No. 1

## LO/S Meeting Statistics

February 18, 2020



- 34 Attendees
  - 20 Local Officials / Stakeholders
    - IDA
    - Lewis, Mason, Bracken Officials
    - Mason and Pendleton Co. Emergency Response
    - City of Maysville
    - Bracken and Mason Co. Fiscal Court
    - Bracken and Pendleton Co. Schools
    - NKY Chamber of Commerce

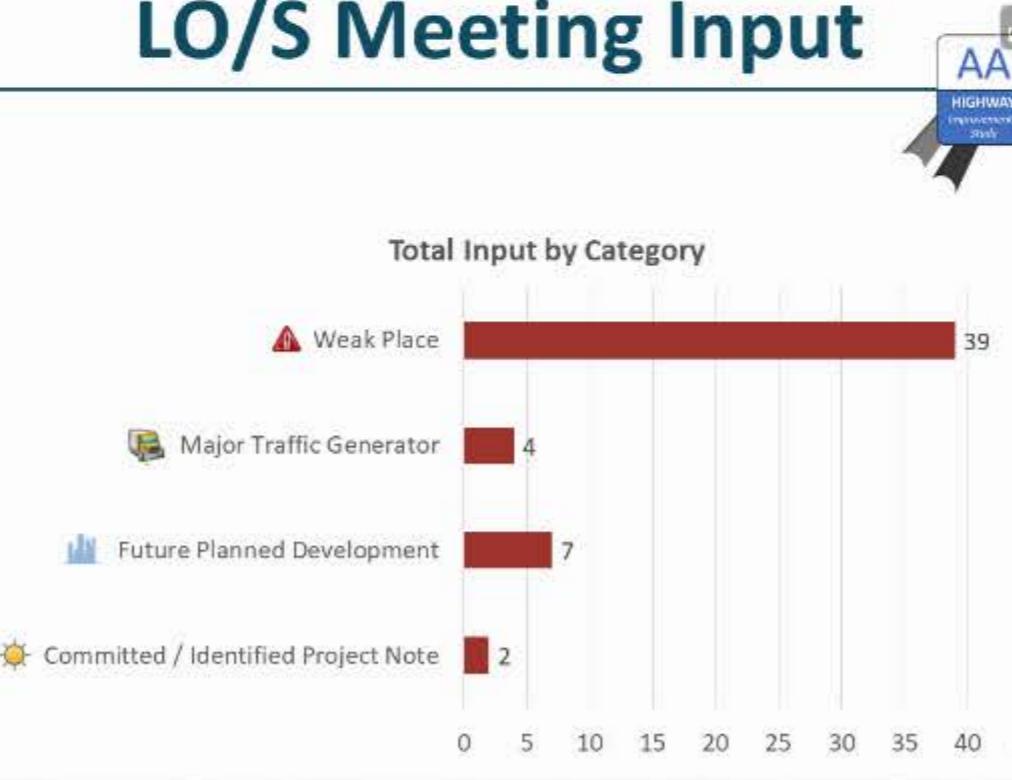


- 20 Local Officials / Stakeholders
  - IDA
  - Lewis, Mason, Bracken Officials
  - Mason and Pendleton Co. Emergency Response
  - City of Maysville
  - Bracken and Mason Co. Fiscal Court
  - Bracken and Pendleton Co. Schools
  - NKY Chamber of Commerce
  - Hospice of Hope
- 27 on Invitee List

### Interactive Input Tool Results

52 Total Responses

## LO/S Meeting Input



Note: No Strong Place category input was identified by the LO/S.



## Concept Development Process

### Development Process

**High Crash Spots**  
 Local Official / Stakeholder Input  
 Previous Studies  
 Identified and Committed Projects

Review Crashes Locations in New Construction  
 Remove HSIP Project  
 Consolidate to Corridor Concept if Applicable  
 Collect Detailed Crash Records  
 Perform Turning Movement Counts

22 Preliminary Improvement Spots  
 6 Preliminary Improvement Segments  
 6 Preliminary Corridor-Wide Improvements

### Locations Not Further Studied

- Additional locations were evaluated and dismissed for further consideration of improvements after exploring crashes in more detail, analyzing traffic data, evaluating future plans, and other considerations.
- [Link to Table](#)



## Concept Development Process

### Development Process

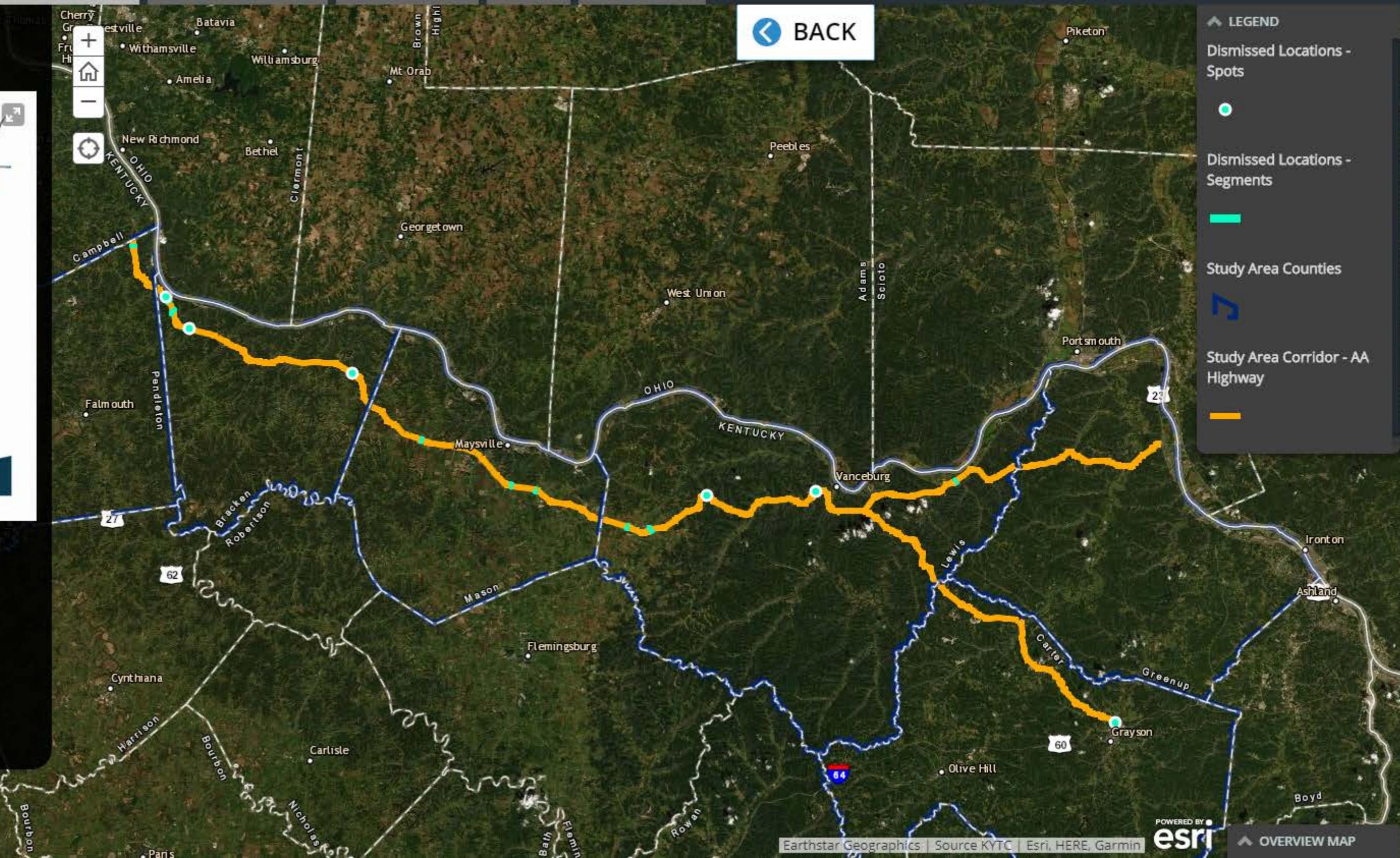
High Crash Spots  
Local Official / Stakeholder Input  
Previous Studies  
Identified and Committed Projects

Review Crashes Locations in New Construction  
Remove HSIP Project  
Consolidate to Corridor Concept if Applicable  
Collect Detailed Crash Records  
Perform Turning Movement Counts

22 Preliminary Improvement Spots  
6 Preliminary Improvement Segments  
6 Preliminary Corridor-Wide Improvements

### Locations Not Further Studied

- Additional locations were evaluated and dismissed for further consideration of improvements after exploring crashes in more detail, analyzing traffic data, evaluating future plans, and other considerations.
- [Link to Table](#)



## Improvement Concepts

34 Total Improvement Concept Locations - [Click Here for Link to All Concept Sheets](#)

- 22 Spots
- 6 Segments

AB



- 6 Corridor-Wide

AC



AD



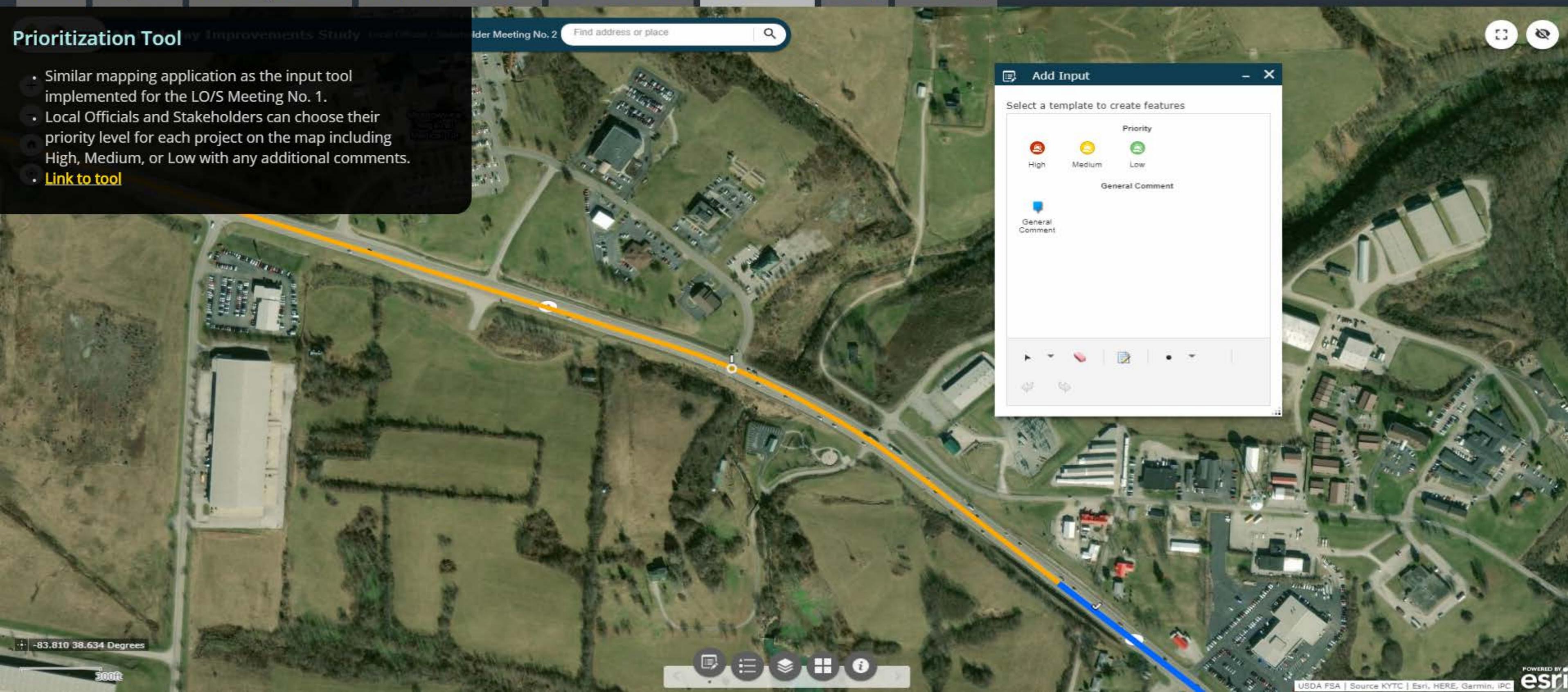
AE



[Overview](#)[Study Review](#)[LO/S Meeting No. 1 Review](#)[Concept Development Process](#)[Improvement Concepts](#)[Prioritization Tool](#)[Wrap-Up](#)[Interactive Map](#)

## Prioritization Tool

- Similar mapping application as the input tool implemented for the LO/S Meeting No. 1.
- Local Officials and Stakeholders can choose their priority level for each project on the map including High, Medium, or Low with any additional comments.
- [Link to tool](#)



The map shows a highway corridor with a yellow line indicating the study area. A callout box highlights the 'Prioritization Tool' feature, which is shown in a floating window. The window has a title bar 'Add Input' and a subtitle 'Select a template to create features'. It includes three priority levels: 'High' (red), 'Medium' (yellow), and 'Low' (green). Below the priority levels are sections for 'General Comment' and 'General Comment'. At the bottom of the window are various editing tools and a zoom slider.

-83.810 38.634 Degrees

300ft



[Overview](#)[Study Review](#)[LO/S Meeting No. 1 Review](#)[Concept Development Process](#)[Improvement Concepts](#)[Prioritization Tool](#)[Wrap-Up](#)[Interactive Map](#)

## Wrap-Up

### Next Steps

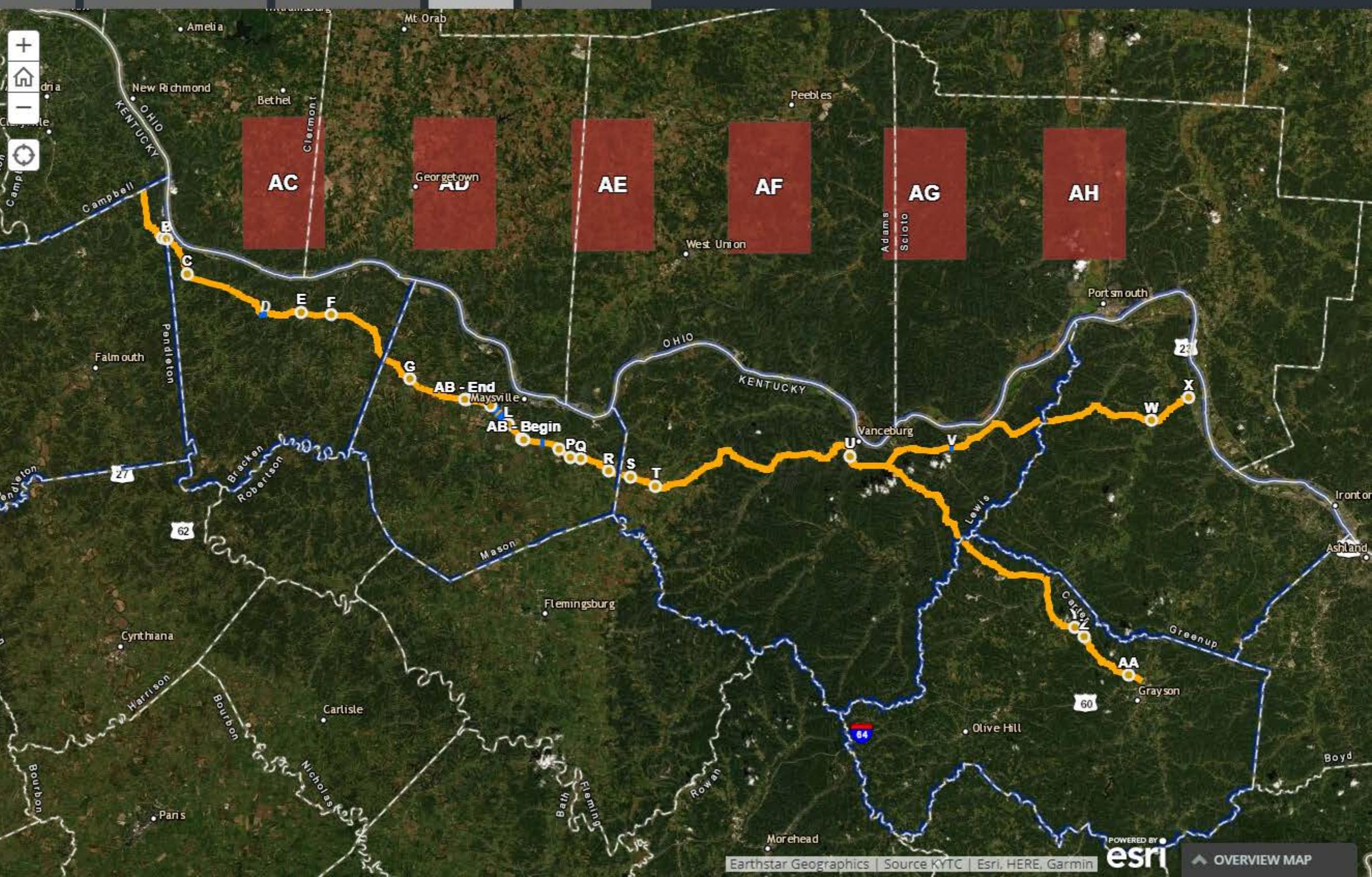
1. Collect LO/S Input through July 31, 2020
2. Perform Final Concept Adjustments
3. Finalize Prioritization List
4. Prepare Report

### Questions? Comments?

Dane Blackburn  
KYTC District 6 Project Manager  
[Dane.Blackburn@ky.gov](mailto:Dane.Blackburn@ky.gov)

Matt Dillon  
Michael Read  
KYTC District 9 Project Managers  
[Matt.Dillon@ky.gov](mailto:Matt.Dillon@ky.gov)  
[Michael.Read@ky.gov](mailto:Michael.Read@ky.gov)

### Contacts

KENTUCKY  
TRANSPORTATION  
CABINET

Overview

Study Review

LO/S Meeting No. 1 Review

Concept Development Process

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Interactive Map

**AA Highway Improvements Study** Local Official / Stakeholder Meeting No. 2

Find address or place 

**Legend**

**Priority**

- High
- Medium
- Low

**General Comment**

**Improvement Concepts - Spots**

**Improvement Concepts - Segments**

**Improvement Concepts - Corridor Wide**

-83.869 38.320 Degrees

Frankfort 6mi Georgetown Williamsburg

**Change the Basemap**

- Dark Gray Canvas
- Imagery
- Light Gray Canvas
- National Geographic
- Oceans
- OpenStreetMap
- Streets

**Turn Features On or Off**

- Improvement Concepts - Spots
- Improvement Concepts - Segments
- Improvement Concepts - Corridor
- Dismissed Locations - Spots
- Dismissed Locations - Segments
- LO/S Meeting No. 1 Input
- Geometric Deficiencies
- Turning Movement Counts (TMC) Locations
- High CRF Segments
- Approaching High CRF Segments
- Committed Projects
- CHAF 2020 Sponsored Projects

Williamsburg

Alexandria New Richmond Bethel Clermont Georgetown Peebles West Union Adams Scioti Jackson Falmouth Portsmouth 21 X W AA AA - End Maysville AB - Begin PQ R S T U V C L G E F D C B A C H I J K L M N O P Q R S T U V W X Y Z

Ohio Kentucky Indiana Campbell Boone Gallatin Falmouth Lewis Greenup Carter Rowan Morehead Boyd Olive Hill Rowan Hill Flemingsburg Frankfort

64 60

Earthstar Geographics | Source KYTC | Esri, HERE, Garmin

POWERED BY 

David

## Improvement Concept Priority Survey

### Welcome

Thank you for participating in this study. Please enter priorities for the improvement concepts below. From the drop down menu, select the improvement concept you would like to add a priority (low, medium, high) and then enter in any additional comments about the concept or the priority. The map to the right can be used as a reference to identify locations for selection from the menu. If you would like to view more map features, please use the Interactive Map tab.

### Which concept do you want to choose a priority for?

The concept sheet and a link to view the PDF will appear after making your selection.

A - KY 9 at KY 159 - New Hope Rd

### Concept A - KY 9 at KY 159 - New Hope Rd

[Link to PDF](#)



[Overview](#)[Study Review](#)[LO/S Meeting No. 1 Review](#)[Concept Development Process](#)[Improvement Concepts](#)[Prioritization Survey](#)[Wrap-Up](#)[Interactive Map](#)

David

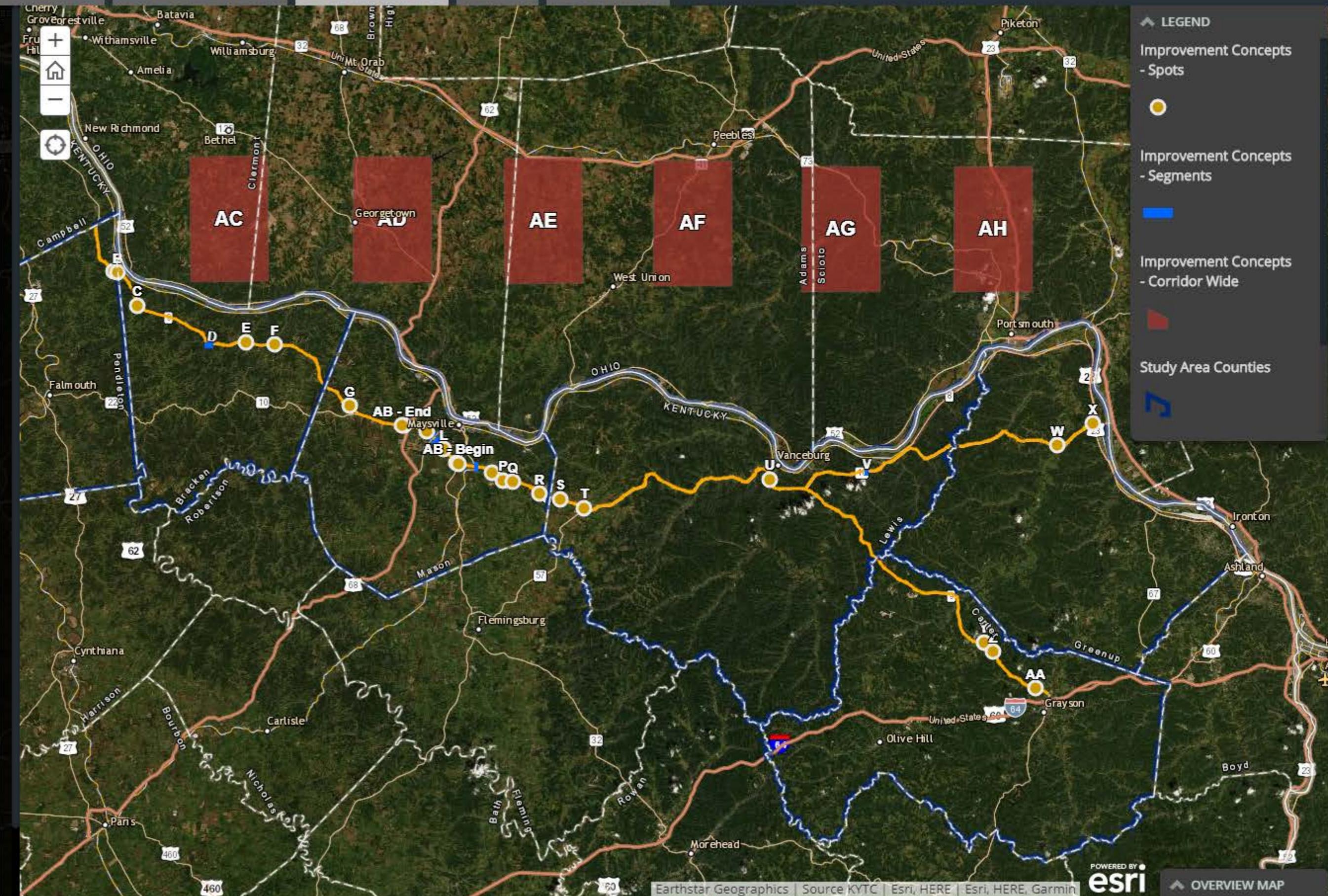
Which concept do you prefer for this improvement concept?

 Concept 1 Concept 2 Other

Please select a priority for this concept

 Low Medium High Other Comment - Please explain below

If you have any other comments or concerns, please enter them below:



[Overview](#)[Study Review](#)[LO/S Meeting No. 1 Review](#)[Concept Development Process](#)[Improvement Concepts](#)[Prioritization Survey](#)[Wrap-Up](#)[Interactive Map](#)

David

Other

Please select a priority for this concept

Low

Medium

High

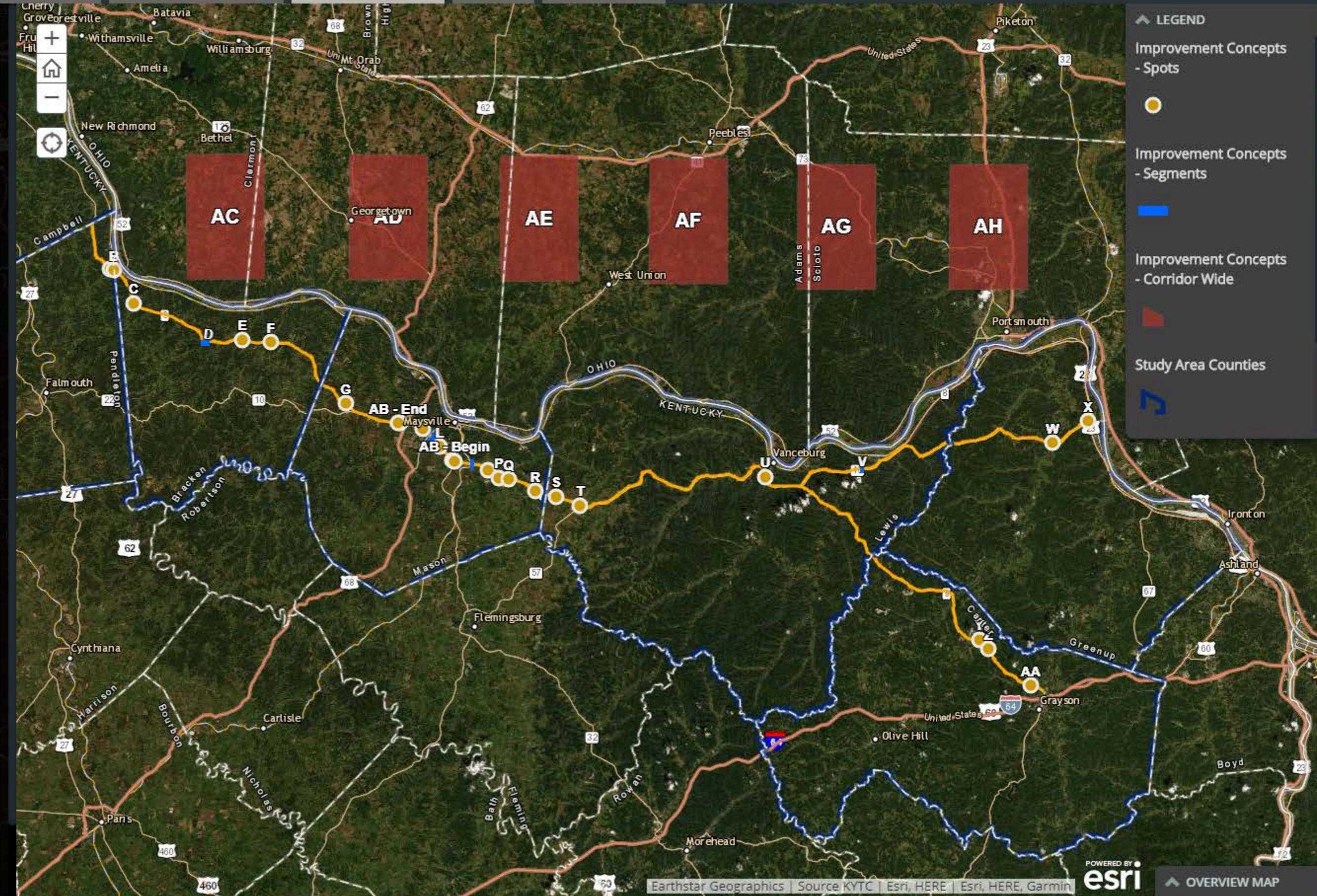
Other Comment - Please explain below

If you have any other comments or concerns, please enter them below:

1000

To select another improvement concept to prioritize and provide feedback, please submit the survey and a link to start a new survey will appear. Thank you!

[Submit](#)



## **FINAL Meeting Minutes**

**Project:** AA Highway Improvements Study

**Subject:** Project Team Meeting No. 3

**Date:** Thursday, September 3, 2020, 10:30 AM (Eastern Time)

**Location:** Multiple Locations via Video Conference Call (Microsoft Teams)

### **Attendees:**

Stephen De Witte	KYTC Central Office, Planning
Beth Niemann	KYTC Central Office, Planning
Steve Ross	KYTC Central Office, Planning
Jay Balaji	KYTC Central Office, Planning
Matt Lawson	KYTC Central Office, Planning
Mike Bezold	KYTC District 6, TEBM for Project Development
Dane Blackburn	KYTC District 6, Planning Supervisor
Stacee Hans	KYTC District 6
Darrin Eldridge	KYTC District 9, TEBM for Project Development
Karen Mynhier	KYTC District 9, Environmental
Matt Dillon	KYTC District 9, Planning
Michael Read	KYTC District 9, Planning
Kevin Sandefur	KYTC Central Office District 6 Location Engineer
Randy Turner	KYTC Central Office District 9 Location Engineer
Adam Michels	KYTC Central Office, Environmental Analysis
Allen Blair	KYTC District 9 Public Information Officer
Blake Jones	KYTC District 9
Scott Shurman	KYTC Central Office, Environmental Analysis
Courtney Kleier	NKADD
Missy Hardy	BTADD
Vicki Green	FIVCO
Terri Sicking	KYOVA
Lindsay Walker	HMB
Jarrod Johnson	HMB
Brad Johnson	HMB
John Callihan	AECOM

### **Agenda / Handouts:**

To facilitate the meeting, the following materials were provided prior to the meeting and are included as an attachment to these meeting minutes.

- Improvement Concept Sheets
- Presentation Slides

## **Meeting Comments / Summary:**

Lindsay Walker of HMB began the meeting by sharing her screen with those viewing the video conference call. The discussion was facilitated by a PowerPoint presentation. The following are comments / discussion items for each agenda item.

### I. Review of Study

- HMB presented a review of the study area, study objective and goals, outstanding and completed tasks, and schedule.
- Related to the Schedule, it was noted that the draft report may be delayed because of pending information for the KY 9 / Lions Lane Improvement Concept. The draft report will be prepared as determined in the schedule with the additional information related to this concept added when completed.

### II. Local Official / Stakeholder (LO/S) Meeting No. 2 Review

- HMB presented the results of the data gathered from the LO/S Meeting No. 2 including attendance, participation, and online web app results.
- Related to the slide that presents the input for the concepts with multiple options (A and R) – Lindsay posed the question on whether to select a preferred concept or leave both as feasible options for the final report. District 6 noted that they would prefer for both to be presented and District 9 deferred to District 6 as most were in that District.

### III. Additional Improvement Concept

- HMB presented an additional improvement concept at KY 9 and Lions Lane. This additional concept was developed in reaction to the expressed need for evaluation and improvements at this location during the second LO/S meeting.
- HMB participated in additional discussion with the Lewis County Schools Superintendent regarding the location and potential improvements. Initially, the addition of a turn lane to southbound Lions Lane was examined and put forth on the concept sheet with the concern noted that sight distance for turning vehicles would need to be further evaluated.
- Additional concepts will be evaluated that consider traffic flow / routing at the Lions Lane intersection as well as the Old KY 10 intersection to the west and the potential connection of Old KY 10 to the east.
- A large-scale medical facility is planned west of the Lions Lane intersection with access on Old KY 10. KYTC is requiring a traffic study be completed. District 9 provided the developer a list of pre-approved consultants that could perform the study along with HMB's contact information.

- The results of the traffic impact study will be used in conjunction with information from this study to assess the Lions Lane and adjacent intersection / potential intersection to determine the most optimal way to address operations and safety.
- Given the level of interest and current work at this location, KYTC noted it is reasonable to assume the priority of this location is high.

#### IV. Prioritization Discussion

- HMB presented a draft process and data for prioritizing the improvement concepts.
- KYTC Central Office noted that if the improvement can be addressed with FD04 funds, then it does not need to be prioritized. This procedure was applied to the Boyd-Greenup Small Urban Area (SUA) Study. Prioritization would need to take place for improvement concepts only that would need to be put into the SHIFT process / Highway Plan.
- Improvement concepts that focus on striping do not need to be prioritized. Typically, these are addressed as part of the next resurfacing program unless it is something that needs to be addressed immediately.
- The project team agreed that prioritization is not an exact science. HMB noted that through their experience and research, prioritization for area studies such as SUAs tends to rely heavily on local official / stakeholder / public input. KYTC agreed that for a study of this size and length, modifications to the prioritization process are necessary.
- KYTC Central Office suggested to potentially shift improvement concepts that are listed as “medium” or “low” to “high” if they have a critical rate factor (CRF) above one. The example that was noted was to move Improvement Concepts F and K from “medium” to “high”.
- HMB presented a chart that showed the study scoring of the improvement concepts with their 2020 SHIFT score if applicable. The SHIFT scores were not initially used as a scoring component for this study’s prioritization process. Looking at the distribution on the chart, it was noted by KYTC Central Office that Improvement Concept E could possibly move from “low” to “medium” as it has a SHIFT score and therefore previously a project of consideration. The same was noted for Improvement Concept O, moving from “medium” to “high”.
- District 6 noted they did not think prior SHIFT scores should be used as part of this prioritization process. District 9 was ambivalent about including them and noted that during the next SHIFT iteration / prioritization for the Highway Plan, the projects that are important at the time will be scored and boosted. Most likely the only improvement concept that received a boost

from the 2020 process was J – KY 9 at US 62. It was ultimately determined that previously scored projects in SHIFT would not be a prioritization factor for this study but would be noted following updates to the priority.

- KYTC Central Office Planning asked the question regarding if the prioritization process for this study places additional emphasis or “doubling” the effect of crashes by including the CRF and Benefit-Cost. The objective of this study has been to identify, evaluate and prioritize improvements that address safety and operational issues. The Benefit-Cost analysis is an important factor in helping determine the priority of a concept. KYTC Central Office will review the Benefit-Cost process and provide comments.
- HMB requested input as to whether the higher-level corridor-wide improvement concepts should be prioritized. They scored in the “low” priority in part due to not having data directly comparable to the spot locations. It was decided to put these improvement concepts in an “Other” category and leave them unprioritized.
- The end result of the prioritization discussion was five categories would be used: 1) Short-Term Priority; 2) High Priority; 3) Medium Priority; 4) Low Priority; 5) Other

#### V. Wrap-Up / Next Steps

- HMB ended the meeting by reviewing the next steps in the study process including concept improvement refinement for KY 9 at Lions Lane, updating the prioritization process from this discussion, and preparing the draft document. Updates to the improvement concept at KY 9 at Lions Lane may not be completed at the draft report stage depending on the timeline of the traffic impact study. As a result, the draft report can be submitted with a placeholder for the final concept sheet.

The meeting concluded at approximately 12:00 PM (Eastern Time).

#### **List of Follow-Up / Action Items by Responsible Party:**

A list of follow-up / action items from Project Team Meeting No. 2 include:

- HMB to send detailed calculation sheets for benefit-cost analysis to KYTC.
- KYTC will review methodology for benefit-cost analysis and provide comments to HMB.
- HMB will update the priority list of improvement concepts per the discussion into five categories.
- HMB will update the KY 9 at Lions Lane concept pending traffic impact study information.
- HMB will prepare the draft study document for KYTC review.

# AA Highway Improvements Study



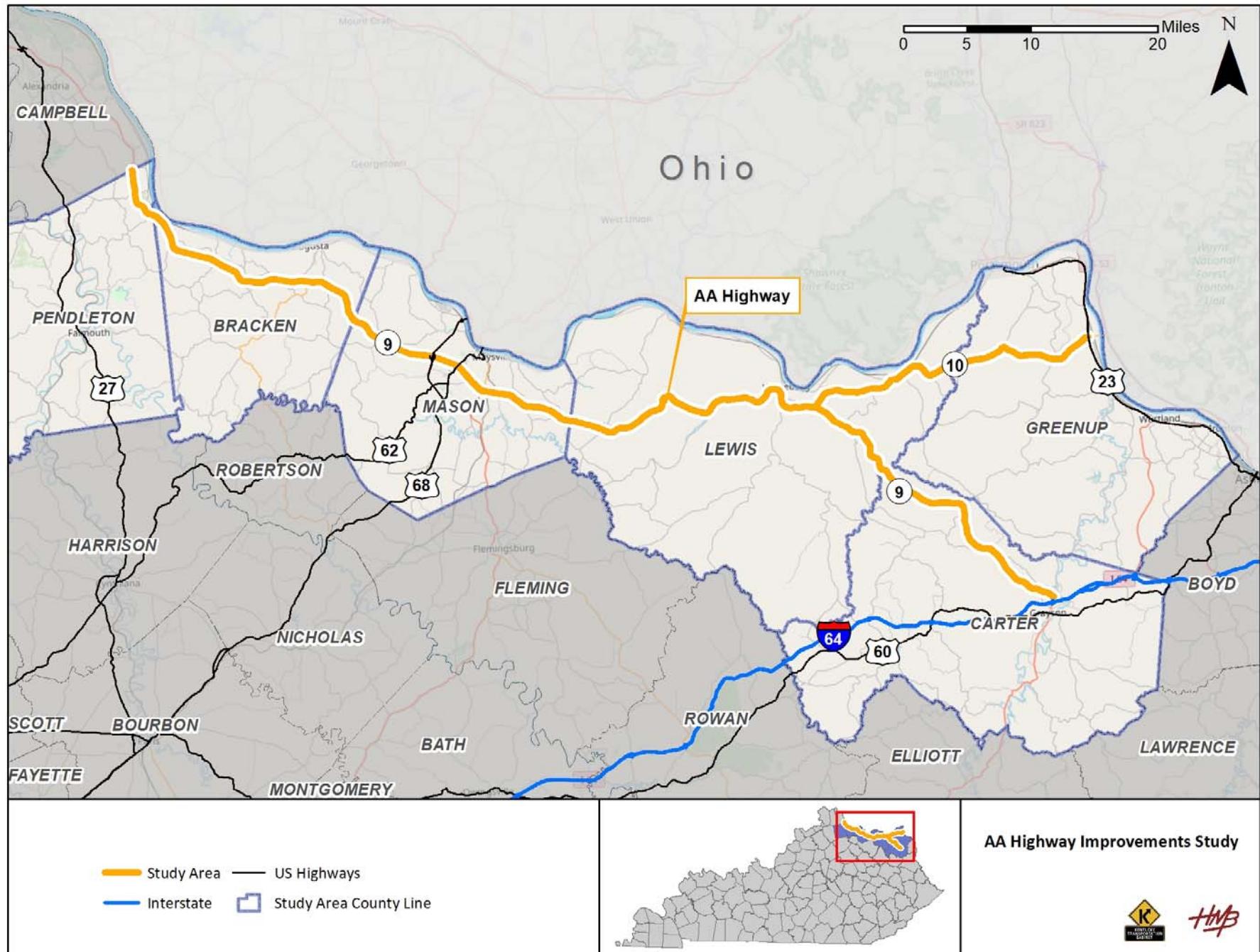
Bracken, Carter, Greenup, Lewis,  
Mason, Pendleton Counties

Project Team Meeting No. 3  
September 3, 2020, 10:30 AM ET

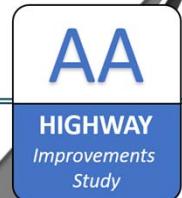


# AGENDA

1. Review of Study
2. LO/S Meeting No. 2 Review
3. Additional Concept
4. Prioritization Discussion
5. Wrap-Up / Next Steps



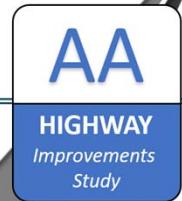
# Study Background



## Study Objective

- Identify and evaluate potential improvement concepts to improve overall safety and operational performance of the AA Highway including KY 9 from the Campbell / Pendleton County line to Grayson (KY 1) and KY 10 from Vanceburg to US 23 in Greenup County (total of approximately 120 miles).

# Study Background



## Study Goals

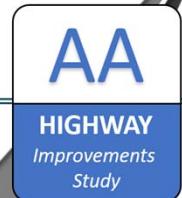
- Identify Project Locations
- Develop / Evaluate Improvement Concepts
- Prepare Prioritized List of Improvement Concepts

# Schedule

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August 2019	Study Initialized
Sept. – Dec. 2019	Scoping / Data Gathering / Existing Conditions Analysis
January 2020	Project Team Meeting No. 1 / Initial Traffic Forecasting
February 2020	LO/S Meeting No. 1 / Develop Improvement Concepts
March 2020	Project Team Meeting No. 2 / Evaluate Improvement Concepts
April – June 2020	Refine Improvement Concepts
July 2020	LO/S Meeting No. 2 / Develop Recommendations
September 2020	Project Team Meeting No. 3
October 2020	Prepare Draft Report
November 2020	Address Comments / Finalize Report

# Study Background



## Study Tasks

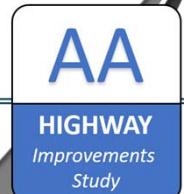
- ✓ Compile Existing Conditions Information
- ✓ Prepare Traffic Forecasts (Year 2045)
- ✓ Perform Environmental Overview
- ✓ Develop Improvement Concepts
- ✓ Refine Improvement Concepts
- Prioritize Recommended Improvements

# Local Officials / Stakeholder Meeting No. 2 Review



# LO/S Meeting Statistics

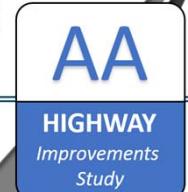
July 14, 2020



- 29 Attendees
- 6 Local Officials / Stakeholders
  - Mayor of Grayson
  - Mayor of South Shore
  - Mayor of Flatwoods
  - Representative 96<sup>th</sup> District
  - City of Grayson EM Director
  - Knott County Schools

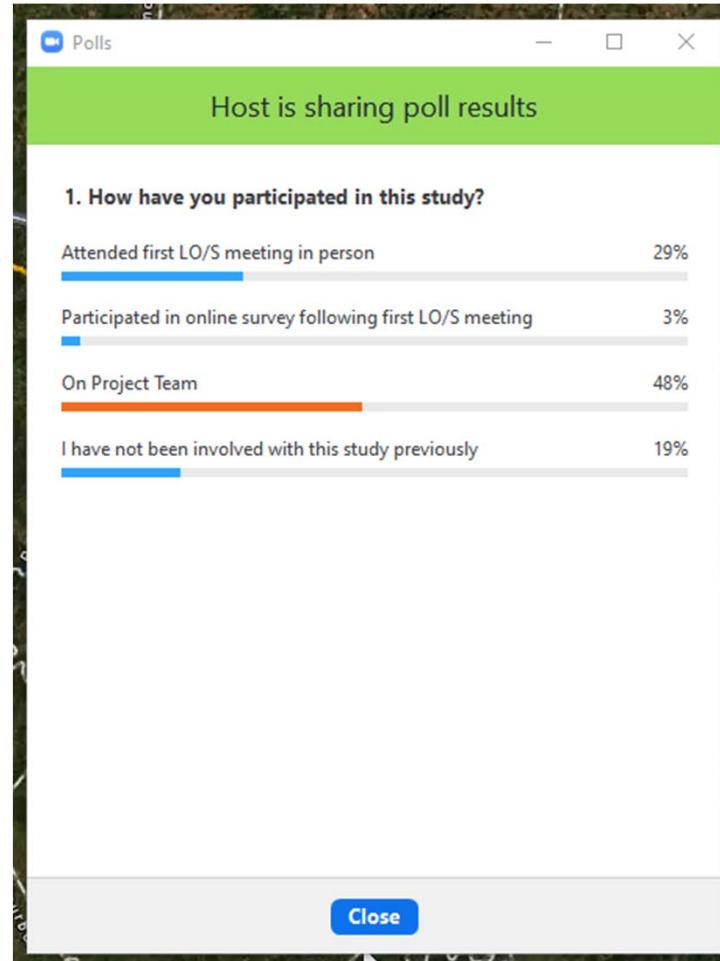
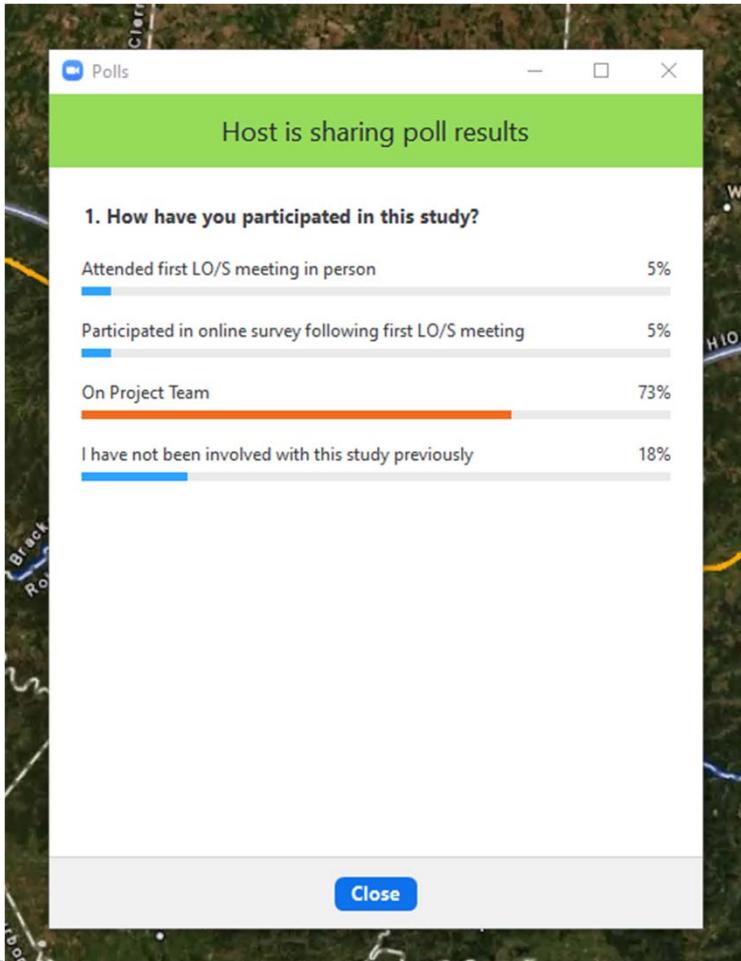
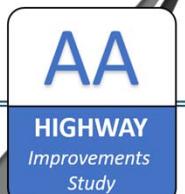
# LO/S Meeting Statistics

July 16, 2020

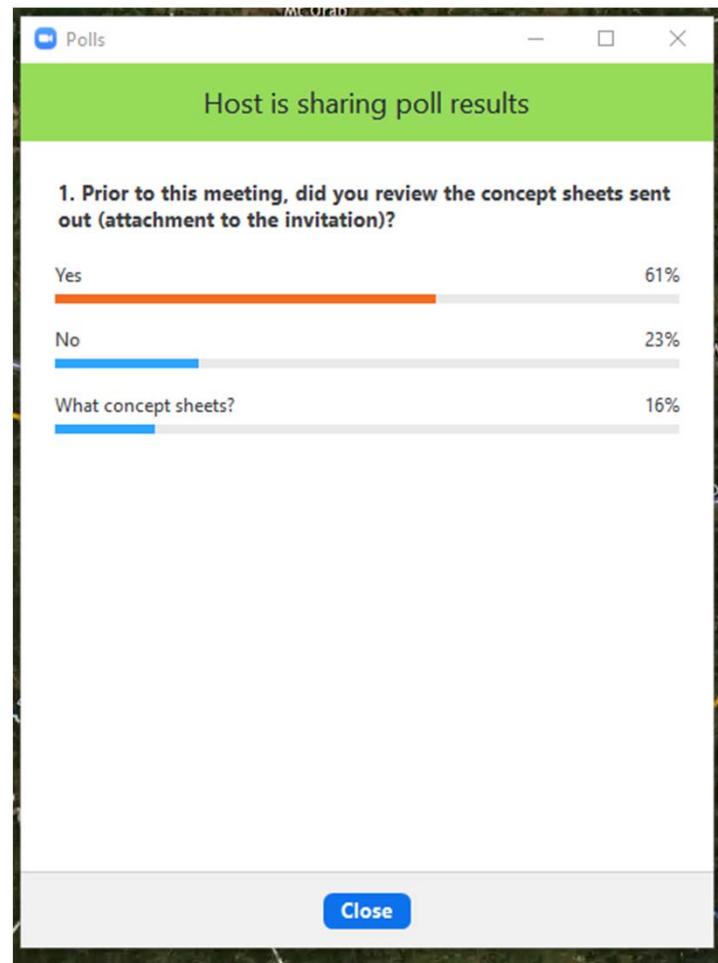
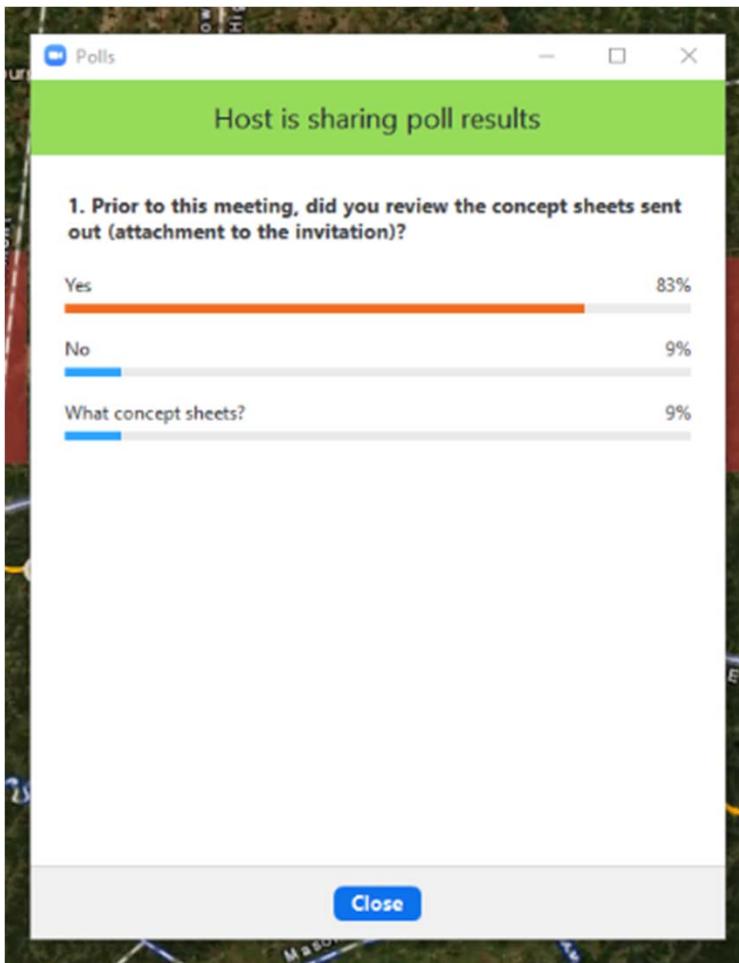
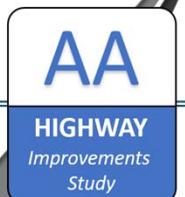


- 39 Attendees
- 15 Local Officials / Stakeholders
  - IDA
  - Lewis, Mason, Bracken Co. Judge Executives
  - Kentucky State Senate – District 24
  - Kentucky State House – Districts 70 and 99
  - Bracken, Mason, Lewis Co. EMS
  - Bracken Fiscal Court
  - NKY Chamber of Commerce (2)
  - Maysville Chamber of Commerce
  - Lewis Co. Schools Superintendent

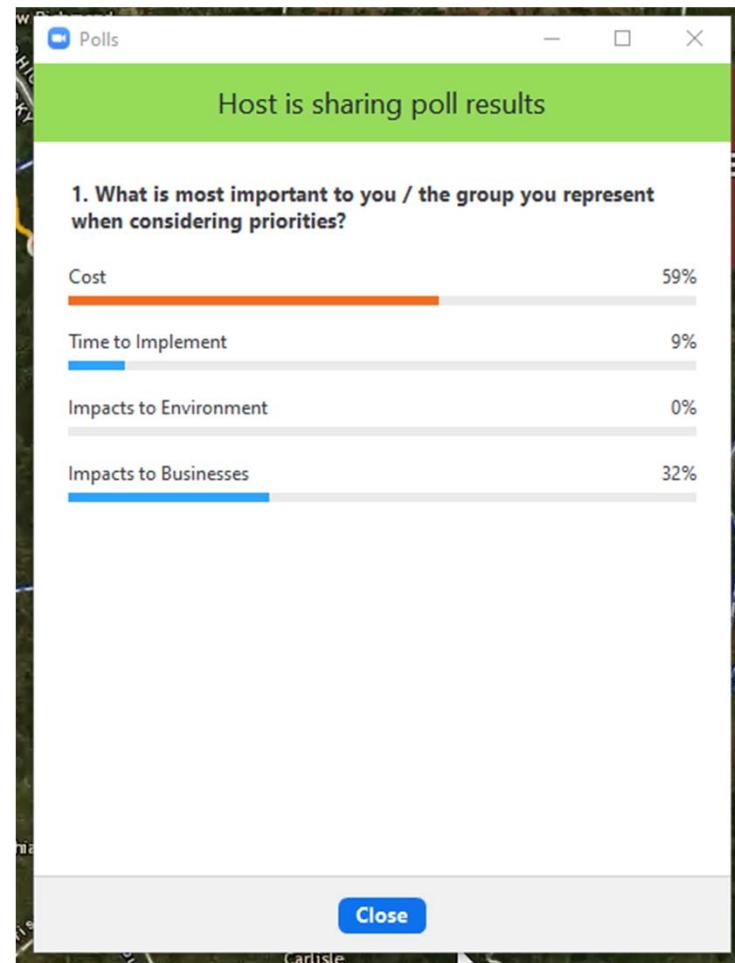
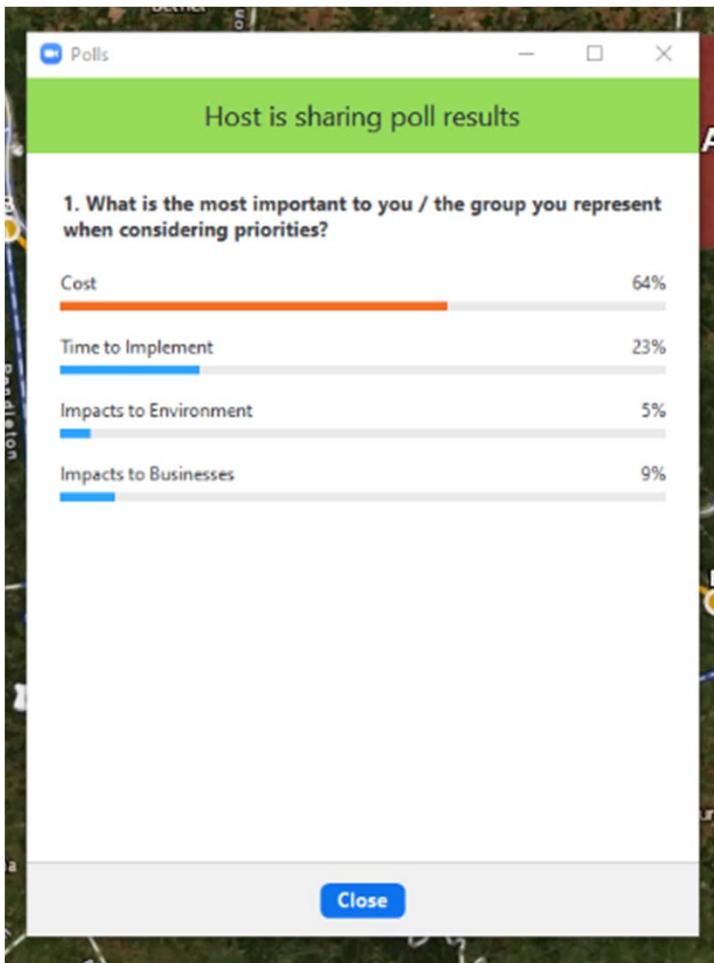
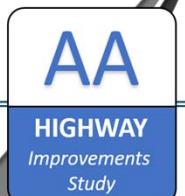
# LO/S Meeting Input



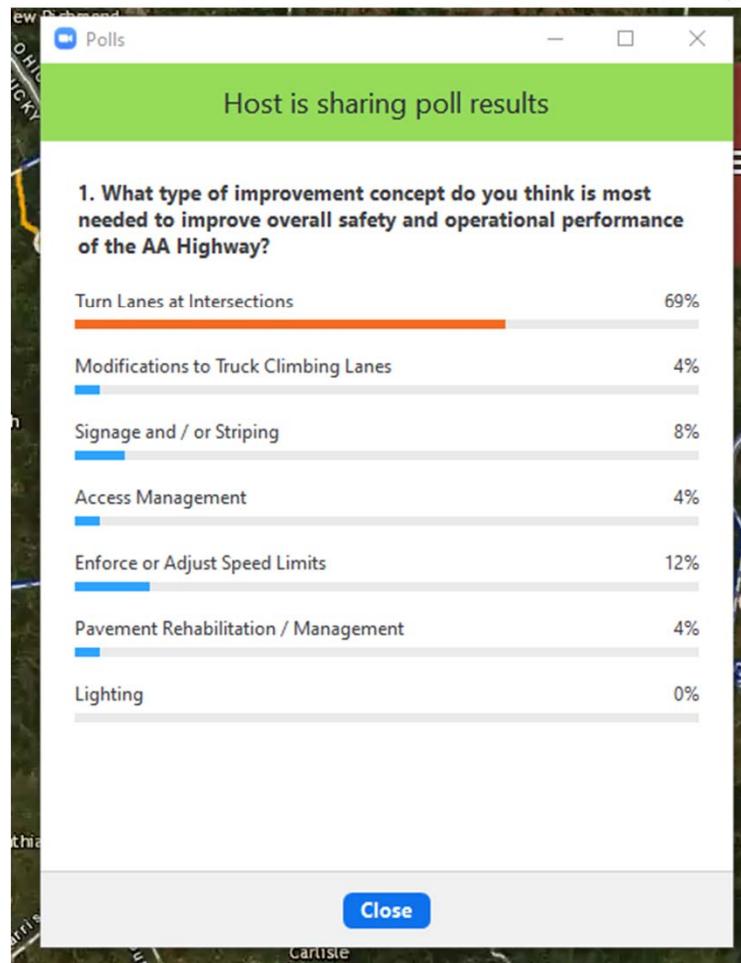
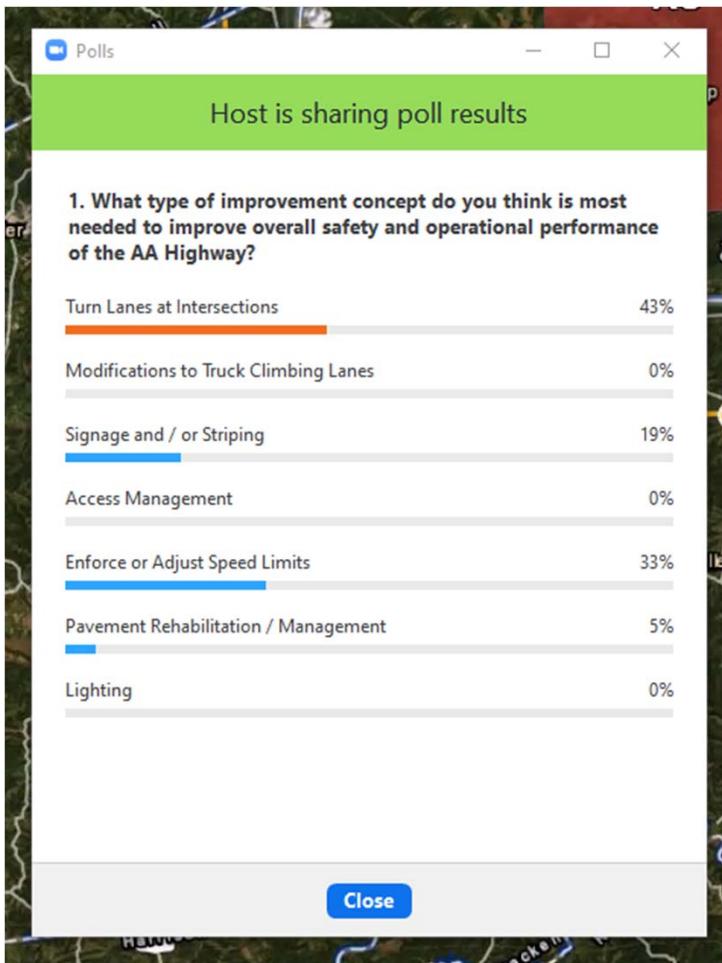
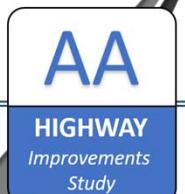
# LO/S Meeting Input



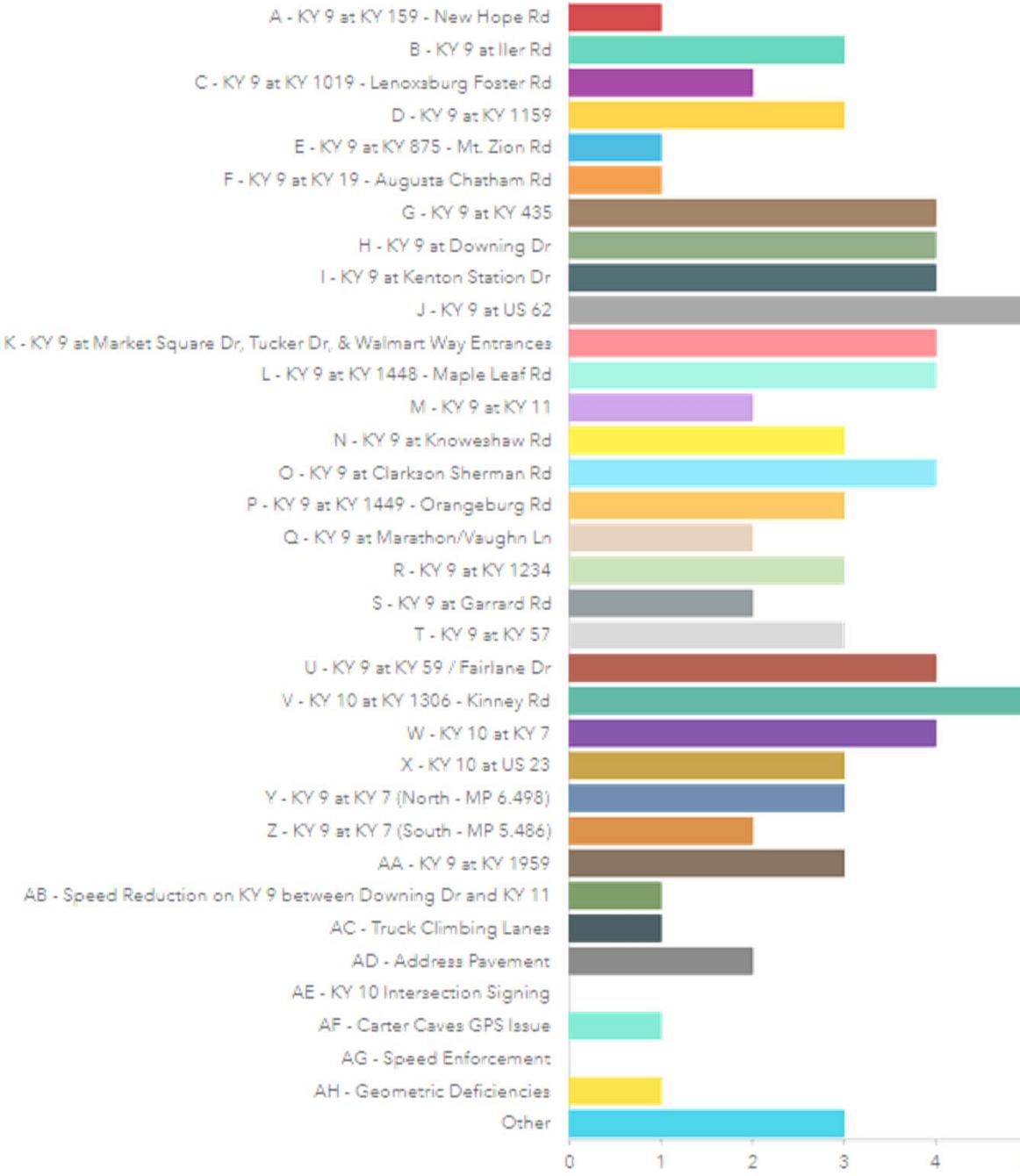
# LO/S Meeting Input



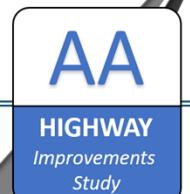
# LO/S Meeting Input



# LO/S Meeting Input



# LO/S Meeting Input

[Hide table](#)[Other response](#) Empty categories[Sort](#)

Answers	Count	Percentage
Low	17	18.68%
Medium	22	24.18%
High	48	52.75%
Other Comment - Please explain below	0	0%

Answered: 87 Skipped: 4

# LO/S Meetings Input

Location	Priority Responses							
	High		Medium		Low		Total Count	% of Responses
	Count	%	Count	%	Count	%		
A - KY 9 at KY 159 - New Hope Rd	1	100%	-	0%	-	0%	1	1.15%
B - KY 9 at Iler Rd	2	67%	1	33%	-	0%	3	3.45%
C - KY 9 at KY 1019 - Lenoxsburg Foster Rd	-	0%	-	0%	2	100%	2	2.30%
D - KY 9 at KY 1159	2	67%	1	33%	-	0%	3	3.45%
E - KY 9 at KY 875 - Mt. Zion Rd	-	0%	1	100%	-	0%	1	1.15%
F - KY 9 at KY 19 - Augusta Chatham Rd	1	100%	-	0%	-	0%	1	1.15%
G - KY 9 at KY 435	1	25%	2	50%	1	25%	4	4.60%
H - KY 9 at Downing Dr	2	50%	2	50%	-	0%	4	4.60%
I - KY 9 at Kenton Station Dr	4	100%	-	0%	-	0%	4	4.60%
J - KY 9 at US 62	5	100%	-	0%	-	0%	5	5.75%
K - KY 9 at Market Square Dr, Tucker Dr, & Walmart Way Entrances	2	50%	-	0%	2	50%	4	4.60%
L - KY 9 at KY 1448 - Maple Leaf Rd	2	50%	1	25%	1	25%	4	4.60%
M - KY 9 at KY 11	1	50%	1	50%	-	0%	2	2.30%
N - KY 9 at Knoweshaw Rd	1	33%	1	33%	1	33%	3	3.45%
O - KY 9 at Clarkson Sherman Rd	3	75%	-	0%	1	25%	4	4.60%
P - KY 9 at KY 1449 - Orangeburg Rd	1	33%	1	33%	1	33%	3	3.45%
Q - KY 9 at Marathon/Vaughn Ln	-	0%	1	50%	1	50%	2	2.30%
R - KY 9 at KY 1234	2	67%	-	0%	1	33%	3	3.45%
S - KY 9 at Garrard Rd	1	50%	1	50%	-	0%	2	2.30%
T - KY 9 at KY 57	2	67%	1	33%	-	0%	3	3.45%
U - KY 9 at KY 59 / Fairlane D	3	75%	-	0%	1	25%	4	4.60%
V - KY 10 at KY 1306 - Kinney Rd	2	40%	2	40%	1	20%	5	5.75%
W - KY 10 at KY 7	-	0%	3	100%	-	0%	3	3.45%
X - KY 10 at US 23	3	100%	-	0%	-	0%	3	3.45%
Y - KY 9 at KY 7 (North - MP 6.498)	2	67%	1	33%	-	0%	3	3.45%
Z - KY 9 at KY 7 (South - MP 5.486)	-	0%	1	50%	1	50%	2	2.30%
AA - KY 9 at KY 1959	1	33%	1	33%	1	33%	3	3.45%
AB - Speed Reduction on KY 9 between Downing Dr and KY 11	-	0%	-	0%	1	100%	1	1.15%
AC - Truck Climbing Lanes	-	0%	-	0%	1	100%	1	1.15%
AD - Address Pavement	2	100%	-	0%	-	0%	2	2.30%
AE - KY 10 Intersection Signing	-	-	-	-	-	-	0	0.00%
AF - Carter Caves GPS Issues	1	100%	-	0%	-	0%	1	1.15%
AG - Speed Enforcement	-	-	-	-	-	-	0	0.00%
AH - Geometric Deficiencies	1	100%	-	0%	-	0%	1	1.15%
Other	-		-		-		0	0.00%

# LO/S Meeting Input



3

2

1

0

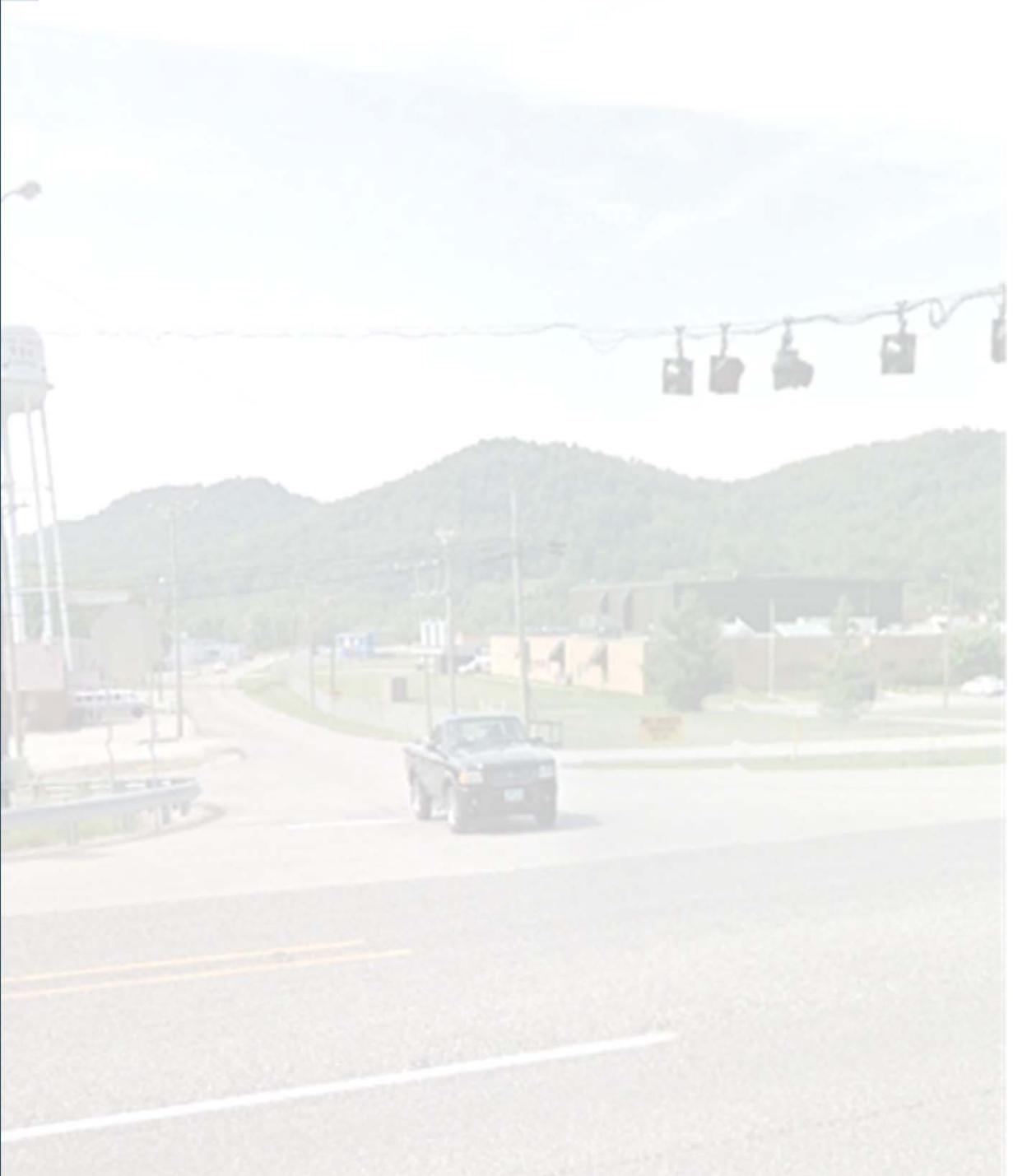
A - KY 9 at KY 159 - New Hope Rd

R - KY 9 at KY 1234

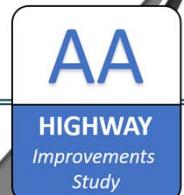
■ Concept 1  
■ Concept 2



# Additional Concept



# KY 9 at Lions Lane



**LOCATION INFORMATION**



**Features**

- 2-Lane
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets
- 15.45% Truck Traffic
- Overhead Caution Lights
- School Zone—Reduced Speed of 35 mph during school traffic

**Issues**

There were comments associated with this spot by local officials and stakeholders regarding the potential danger of this intersection—specifically since it is used heavily by younger, less experienced drivers going to and from Lewis County High School. The intersection sits between two curves.

**IMPROVEMENT CONCEPT**

**Existing**



**Proposed**

Add a second southbound lane on Lions Lane and "Do Not Block Intersection" signage



**SPOT**

?????

**PROJECT PRIORITY**

?????

**LOCATION**

Lewis County  
KY 9 at KY 2523 (Lions Lane)  
MP 12.749

**DATA**

2020 AADT: 5,000  
2045 AADT: 5,700  
Crash Data:  
CRF: N/A  
Crashes: 0  
CHAFID: N/A

**DESCRIPTION**

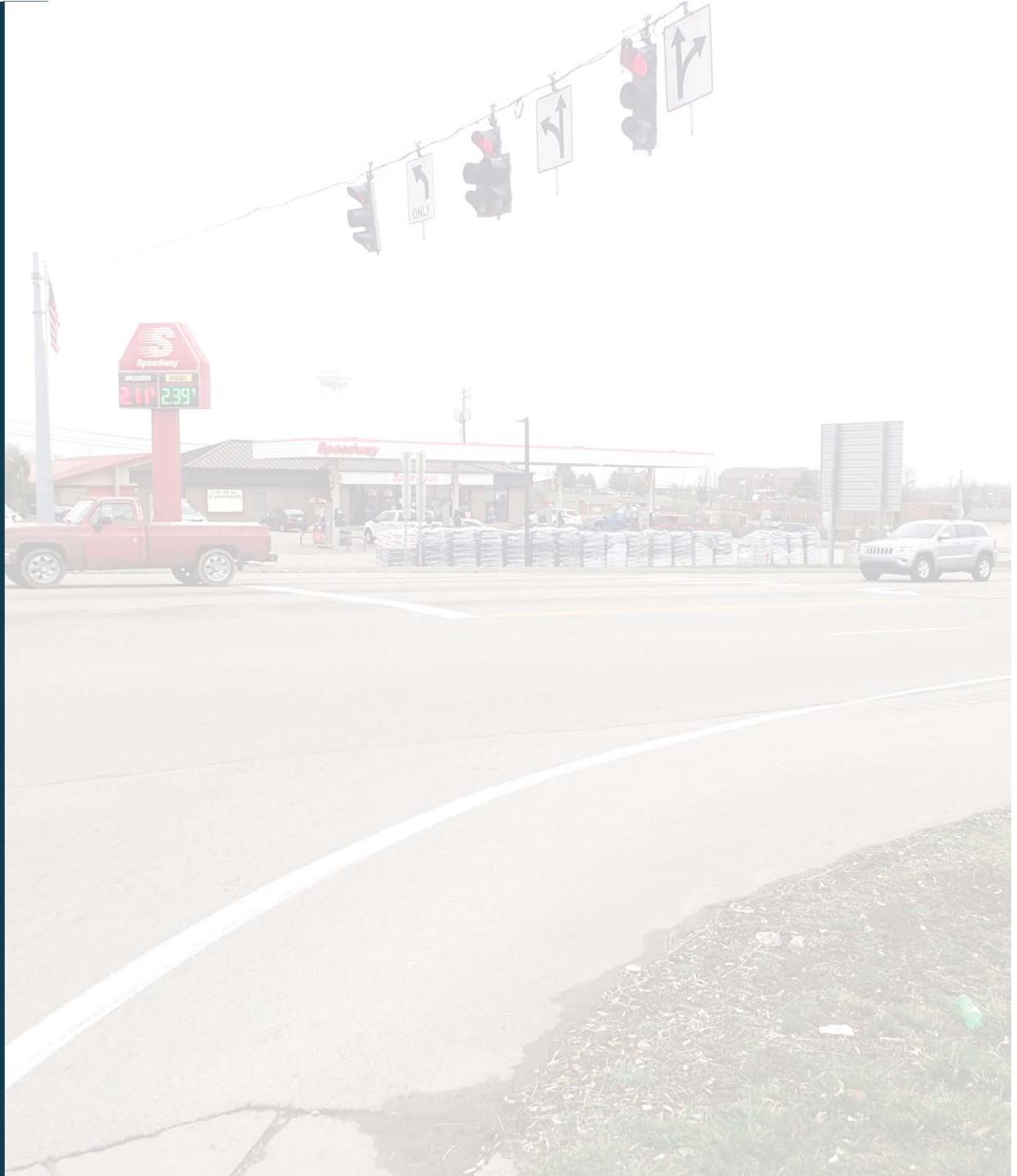
Improve intersection by adding a second lane to the southbound Lions Lane approach.

**COST ESTIMATE**

2020 Dollars

Design:	\$10,000
ROW:	\$ N/A
Utilities:	\$ N/A
Const.:	\$55,000
Total:	<b>\$65,000</b>

# Prioritization



# Prioritization Categories



-  **Critical Rate Factor (CRF)**
-  **Benefit – Cost (B/C)**
-  **Local Official / Stakeholder Input (LO/S)**
-  **SHIFT Score**

# High Priority

	<u>CRF</u>	<u>B/C</u>	<u>LO/S</u>	<u>TOTAL SCORE</u>
L	29	32	28	89
J	34	21	34	89
H	24	34	31	89
D	25	31	24	80
X	33	26	18	77
T	27	30	20	77
W	30	27	19	76
V	26	12	33	71
AB	32	33	6	71
G	20	17	32	69
U	19	20	26	65
M	31	19	14	64
N	21	18	23	62
I	16	16	30	62
P	23	15	22	60

# Medium Priority

	<u>CRF</u>	<u>B/C</u>	<u>LO/S</u>	<b>TOTAL SCORE</b>
K	22	8	29	59
F	28	22	7	57
Y	0	29	17	46
C	17	10	15	42
Q	15	13	13	41
AA	0	23	16	39
A	0	28	9	37
Z	0	25	11	36
S	0	24	12	36
AH	18	14	3	35
O	0	7	27	34
B	0	9	25	34

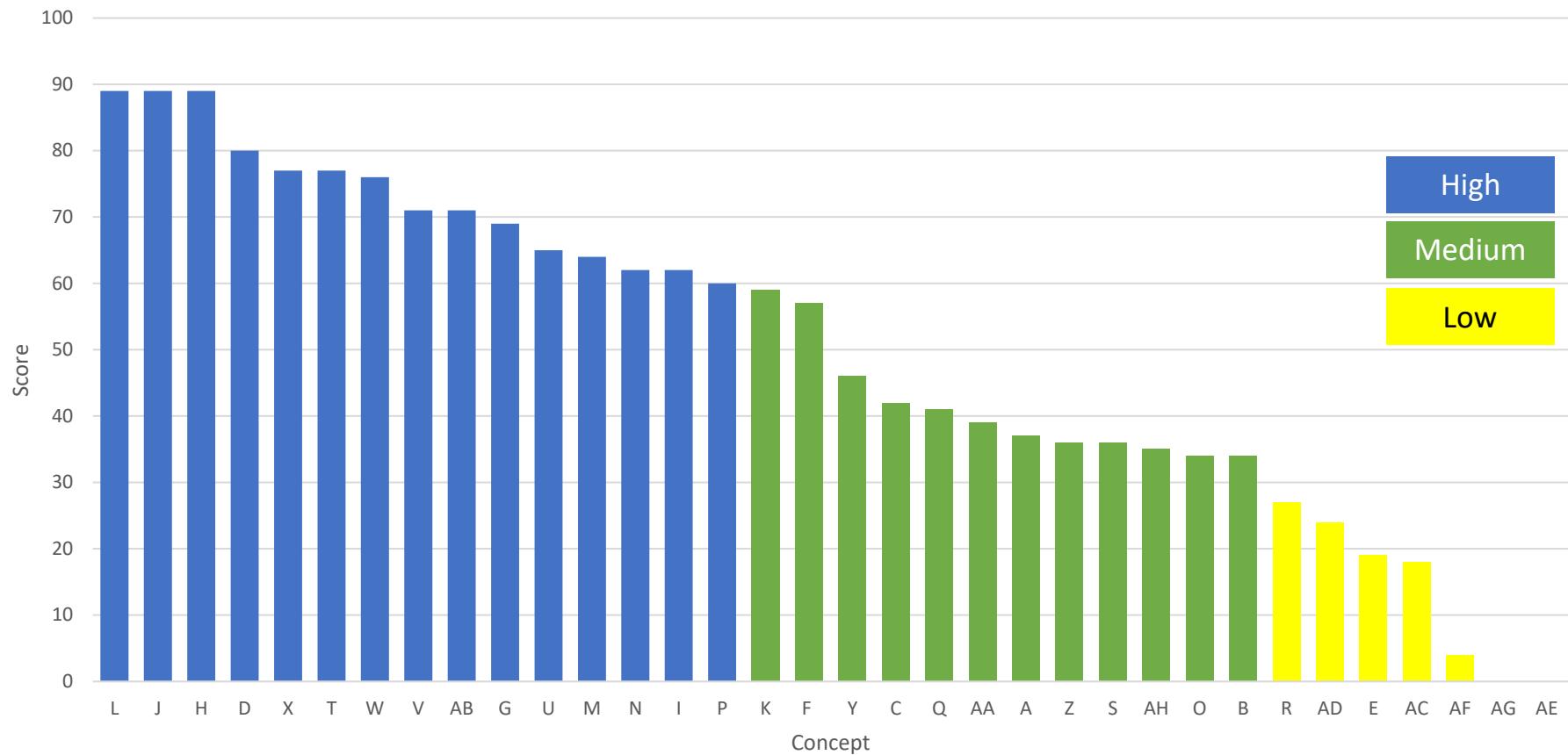
# Low Priority

	<u>CRF</u>	<u>B/C</u>	<u>LO/S</u>	<b>TOTAL SCORE</b>
R	0	6	21	27
AD	14	0	10	24
E	0	11	8	19
AC	13	0	5	18
AF	0	0	4	4
AG	0	0	0	0
AE	0	0	0	0

# Prioritization



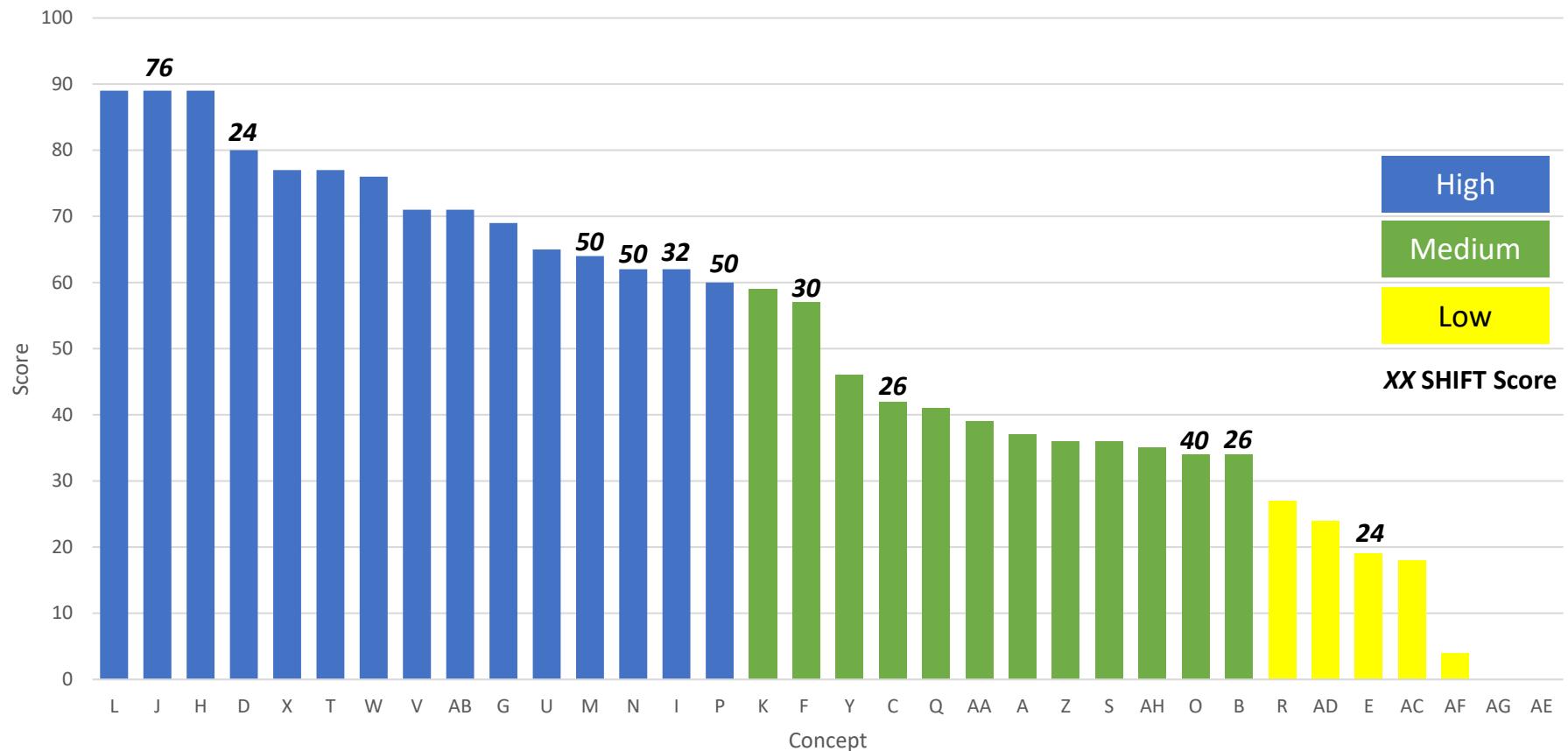
PRIORITY SCORING



# Prioritization



PRIORITY SCORING



# Cost

High Priority

Cost

\$6,097,500

Medium Priority

\$10,850,000

Low Priority

\$560,000

Total Cost

\$17,507,500

Note: Costs are in 2020 dollars and include Design (D), Right-of-Way (ROW), Utilities (U), and Construction (C). These are planning-level only estimates; surveying and detailed design work has not been completed at this time.

# Next Steps

1. Additional Review / Development of KY 9 at Lions Lane Concept Sheet
2. Finalize Prioritization
3. Prepare Draft Report

# Contacts



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**KYTC District 9 Project Managers**  
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**AECOM**