Executive Summary

Item No. 5 -80261.00

US 31E (Bardstown Road) Study

Jefferson County

December 2025

Bardstown Road Study

Background

The Kentucky Transportation Cabinet (KYTC) initiated the US 31E Corridor Study, KYTC Item No. 5-80261.00 to examine transportation needs along the US 31E corridor from the Bullitt County Line (MP 0.000) to KY 1065 (Beulah Church Roa / Seatonville Road) (MP 5.549) including the I-265 (Gene Snyder Freeway) interchange. The extents of the study area are shown in Figure ES-1. A list of prioritized improvement options based on transportation needs, environmental / economic benefits and impact, benefit / cost, safety, public input, and existing / future transportation operations is the outcome of the study.

Study Objectives

The objective of this study is to identify and develop concepts that might improve safety, reduce congestion, and improve multimodal transportation options along US 31E from the Bullitt County Line to KY 1065 (Beulah Church Road / Seatonville Road) including the I-265 (Gene Snyder Freeway) interchange.

Study goals include the following:

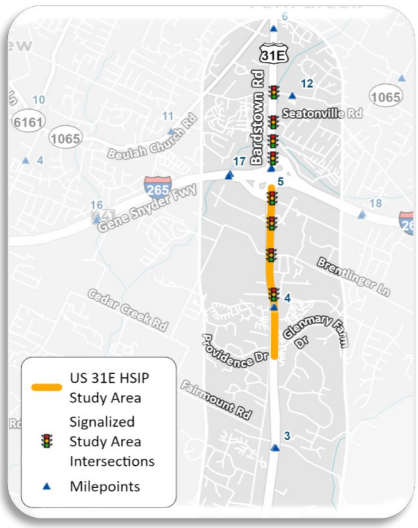
- Provide safety, capacity, access management, transit, and bicycle / pedestrian improvements for all transportation users now and into the future.
- Provide opportunities for engagement with the public to share study information and collect meaningful input to the study process.
- Minimum utility, right-of-way, and environmental impacts.

Previous Studies, State, and Local Projects

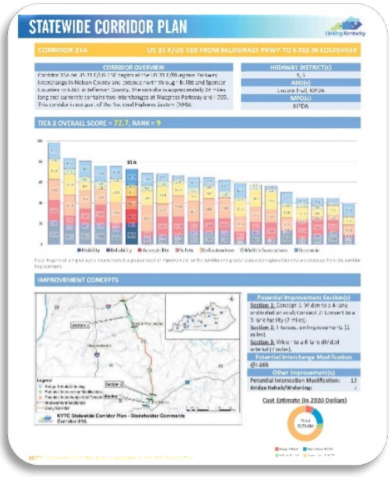
Current and planned studies and projects that may affect the study area include:

2024 HSIP Safety Study for US 31E

Highway Safety Improvement Program (HSIP) projects are federally funded and are intended to use a data-informed process to identify, develop and deliver solutions to prevent fatalities and serious injury crashes on Kentucky's public roads. The highlighted area within the US 31E corridor has recently been evaluated concurrently with emphasis on safety-focused improvements.



2021 Linking Kentucky Statewide Corridor Plan



The Kentucky Statewide Corridor Plan, or Linking Kentucky, is a planning study of key transportation corridors within the state. This study identifies current and future transportation needs, gathers insight from stakeholders, and prioritizes corridors that have the greatest potential to better link Kentucky's region and improve safety, mobility and accessibility. The US 31E corridor from the Bluegrass Parkway to I-265 is ranked #9 out of 45 corridor segments.

KYTC Enacted Highway Plan (2024 – 2030)

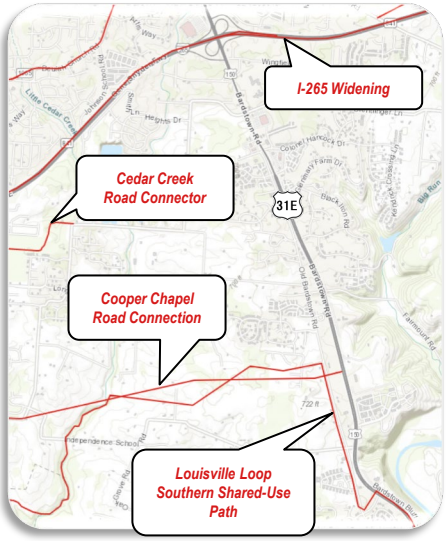
Relevant projects include:

- *Item No. 5-554.00: Improve safety and reduce congestion on I-265 from I-65 to US 31E. Funding is listed as $3,250,000 for design in 2025.*
- *Item No. 5-558.00: Improve safety and reduce congestion on I-265 from US 31E to KY 155. Design funds are $3,500,000 for 2026 and $4,000,000 for 2027; Right of way is $2,500,000 in 2028. Utilities is $1,500,000 in 2028.*
- *Item No. 5-80250.00: Design and construction of a realigned Old Bardstown Road to align with the entrance to Walgreens at Hillock with a memorandum of agreement with the Louisville Metro Government. Design funds are $40,000 for 2026. Utilities is $40,000 for 2026. Construction is $400,000 for 2026.*

KIPDA Connecting Kentuckiana MTP 2050

There are four projects listed in the Metropolitan Transportation Plan (MTP) that are in the vicinity of the study corridor. These include:

- *Cooper Chapel Road Phase 3 Connection*
- *Louisville Loop Southern Shared-Use Path*
- *Cedar Creek Road Connector*
- *I-265 improvements including the consideration of widening from four to six lanes*



Existing Conditions

US 31E is an urban principal arterial north of the I-265 interchange and an urban minor arterial south of the I-265 interchange to the Bullitt County line. It serves as a primary route connecting Louisville to Mt. Washington and further points south. A summary of existing conditions information for the corridor is presented in the following illustration.

Typical Section

4 Lanes; 12' Lane; 10' Shoulder
16 – 38' Median

Traffic & Operations

2024 Traffic: 31,520 – 33,650
2045 Traffic: 35,280 – 42-780

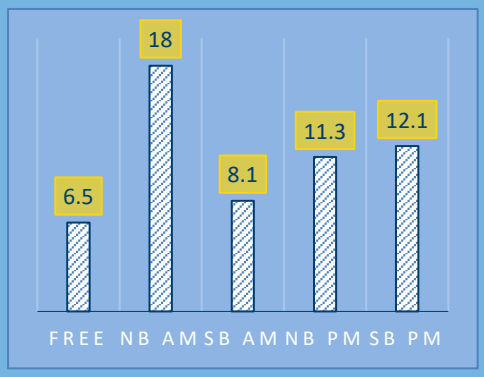
LOS A - D

Existing overall / mainline level of service and delay is at acceptable level (between LOS A – D)

LOS E - F

Most side street approaches at intersections have a high level of delay and failing level of service (LOS E - F)

Travel Time (Min)



Direction of Travel by Period

Safety

(Jan. 2018 – Dec. 2023)

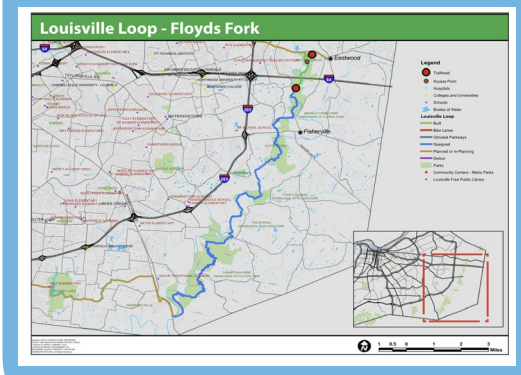
- 9 Killed
- 220 Injury
- 793 Property Damage Only
- 5 Pedestrian Crashes

Transit

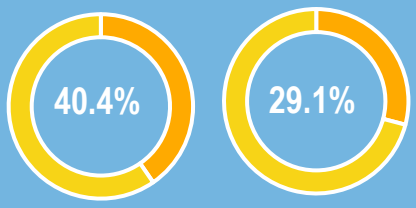
- *TARC operates Route 17; 7 days per week (~6 AM to 11 PM)*
- *Declining route ridership*

2019	174,872
2020	66,781
2023	124,732

Bike / Ped



Environmental Justice

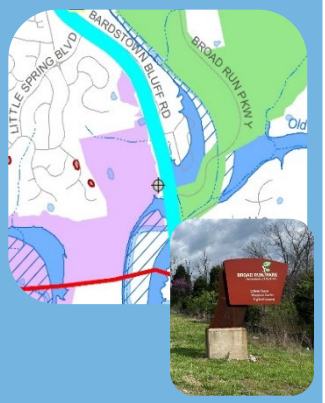


Minority | Poverty Level

Census Tract 117.08 Block Group 4 is located south of I-265 and west of US 31E. It includes Cedar Heights Mobile Home Park.

Environmental Resources

- *Floodway*
- *100 Year Flood Zone*
- *Broad Run Park*
- *Future Fund Property*



Improvement Concepts

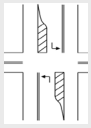
The existing conditions analysis and input from the project team, local elected officials / stakeholders, and the public helped guide the development and evaluation of improvement locations and concepts.

Four project categories were identified to organize the improvement concepts. These include:

- Intersection / Spot Improvement Concepts
- Corridor Improvement Concepts
- Multimodal Improvement Concepts
- Future Policy Considerations

Identifying initial concepts focused on a high-level assessment of the effect on potential crash reductions, potential travel / delay reduction, and cost impacts. The following tables (Tables ES-1 and ES-2) show the types of improvements initially considered.

Table ES -1. Preliminary Concepts for Intersections / Spots

		Potential Crash Reduction	Potential Travel / Delay Reduction	Cost Estimate Range
Intersections	 **Concept:** Additional / New Turn Lanes	14 - 26% (All crashes)	5 - 53% AM 29 - 88% PM	LOW - HIGH
	 **Concept:** Offset Lefts	34% (Fatal and Injury Crashes)	N/A	MEDIUM
	 **Concept:** Bowtie	Reduces # of conflict points and promotes lower speeds	Fewer signal phases mean less stopping time at main intersection	HIGH
	 **Concept:** Access Modifications	Moving traffic to signalized intersection regulates turns	N/A	MEDIUM - HIGH
	 **Concept:** Turn Lane Extension	14 - 26% (All crashes)	Extensions reduce vehicle queues blocking intersections	LOW
	 **Concept:** Improve / Add Lighting	28% (Nighttime injury crashes)	N/A	LOW

Improvement Concepts (cont.)

Table ES -2 . Preliminary Concepts for Corridors

		Potential Crash Reduction	Potential Travel / Delay Reduction	Cost Estimate Range
Corridor	 **Concept:** Pavement Management / Markings	~13 - 21% (Fatal, Serious, Minor, Possible Injury)	N/A	HIGH
	 **Concept:** Cable Median Barrier	29% (Serious, Minor, Possible Injury)	N/A	MEDIUM
	 **Concept:** Speed Feedback Sign	5 - 22% (All crashes)	N/A	LOW
	 **Concept:** Access Management	25 - 31% (Fatal and Injury)	VARIES	HIGH
	 **Concept:** Widen to Six Lanes	15% (All crashes)	Less than 10% reduction in arterial total delay	HIGH
	 **Concept:** RCUT	22 - 63% (Fatal and Injury)	Up to 40% reduction in travel time	HIGH

Additional concepts were developed to address needs in transit, pedestrian, and bicycle modes of transportation. Concepts developed include:

- Enhanced Transit Service – Standardize bus stop locations, upgrade higher usage stops, provide faster bus running times.
- Shared Use Path – Explore modifications on Old Bardstown Road to connect between high traffic areas and Broad Run Park.
- Sidewalk Connectivity – Extend / construct new segments of sidewalk for continuity of pedestrian network. A recent HSIP study of the area for sidewalks gaps produced a prioritized list of segments. US 31E segments within the study area were considered a lower priority.
- Pedestrian Interchange Connectivity – Explore feasibility of constructing a pedestrian path in median with concrete barrier separators and connect to all crossings at existing signalized intersections.

Other concepts discussed but not deemed feasible at this time include major interchange reconstruction, express lane, hard shoulder running, and limiting left turns at cross streets and Old Bardstown Road.

Public Involvement

During the study, multiple outreach and collaborative meetings were held.

Project Team Meetings

The Project Team consisted of:

- *KYTC District 5*
- *KYTC Central Office*
- *KIPDA*
- *Consultant Team*

Project Team Meeting No.1:
Presentation and Discussion of Existing Conditions

Project Team Meeting No. 2:
Presentation and Discussion of Improvement Concepts

Project Team Meeting No. 3:
Presentation and Discussion of Revised Improvement Concepts

Prioritization Meeting:
Discussion of Prioritization

Local Elected Official / Stakeholder Meetings

Two meetings were held to inform local elected officials and stakeholders of the study and solicit input on transportation needs and improvement concepts.

Representatives included:

- *Louisville Metro*
- *Bike Louisville*
- *State and Local Elected Officials*
- *Cedar Creek Baptist Church*
- *Fern Creek Fire and EMS*
- *Louisville Metro Police Department*
- *Jefferson County Public Schools*

Public Meetings

Two open-house events were held to inform attendees about the study and provide an opportunity to collect feedback on improvement concepts.

Top Issues Identified:
1. Congestion; 2. Safety; 3. Access to Properties

Top Intersections Identified for Improvement:

- *Cedar Creek Rd / Brentlinger Ln*
- *KY 2053 (Thixton Ln)*
- *Hillock Dr / Colonel Hancock Dr*

Top Segment Identified for Improvement:
I-265 WB Off Ramp to I-265 EB Off Ramp

Online Surveys

Interactive online surveys were published concurrently with the public meetings to inform and collect feedback on the study for interested people not able to attend the public meeting.

Top Issues Identified:
1. Congestion; 2. Safety; 3. Access to Properties

Top Intersections Identified for Improvement:

- *Cedar Creek Rd / Brentlinger Ln*
- *Hillock Dr / Colonel Hancock Dr*
- *I-265 EB Off Ramp*

Top Segments Identified for Improvement:
Southpoint Blvd to Brentlinger Ln

Bardstown Road Study
Public Survey #1

Conclusions

The US 31E Study resulted in a range of conceptual improvements for future implementation. Improvement concepts primarily focused on areas with safety, traffic operations, and multimodal (bicycle / pedestrian) needs. Significant congestion and delay at the intersections impact the overall roadway capacity – consideration may be given to improving intersections as noted prior to larger-scale investments such as full corridor widening. The recommended priorities are based on identification of needs, technical analysis, public input, and KYTC District 5 staff prioritization. The following tables (Tables ES-3 and ES-4) present the identified projects based on high, medium, and low priority.

An additional recommendation proposes a separate study for the US 31E / I-265 interchange to evaluate the full impacts of the interchange in conjunction with the larger-scale transportation network beyond the corridor.

The next phase in the project development process for any of the recommendations would be Preliminary Engineering. If federal funds are used or permits required, additional environmental analysis will be required to satisfy the National Environmental Policy Act (NEPA).

KYTC continues to implement the 2024 HSIP Safety Study recommendations. No additional funding currently exists for any of the recommendations made in this study. Any identified projects, that are not funded through HSIP, would need to be integrated into the KIPDA Metropolitan Transportation Plan (MTP) and the KYTC Strategic Highway Investment Formula for Tomorrow (SHIFT) process as a first step in pursuit of funding. KYTC, KIPDA, and Louisville Metro could potentially collaborate on funding and implementation of some projects.

Conclusions (cont.)

Table ES-3. Intersection / Spot Priority Improvement List

Concept ID	Location	Description	Cost (2024 Total Estimate)	ROI	Public Input (% Liked)	Priority
SPOT						
A	KY 660 (Waterford Rd)	Turn Lanes	$437,000	2:1	60	LOW
B	Little Spring Blvd	RCUT	$1,290,000	13:1	57	LOW
C	KY 2053 (Thixton Ln)	Turn Lanes	$459,000	54:1	84	HIGH
D	Fairmount Rd	RCUT	$2,336,000	7:1	57	MEDIUM
E	Long Home Rd	Offset Lefts	$627,000	6:1	57	LOW
F	Long Home Rd	RCUT	$2,123,000	11:1	57	MEDIUM
G	Providence Dr / Glenmary Farm Dr	RCUT	$2,463,000	9:1	57	MEDIUM
H	Hillock Dr / Colonel Hancock Dr	Offset Lefts	$451,000	21:1	66	MEDIUM
I	Hillock Dr / Colonel Hancock Dr	RCUT	$6,560,000	52:1	57	MEDIUM
J	Cedar Creek Rd / Brentlinger Ln	Turn Lanes	$1,144,000	145:1	83	HIGH
K	Bartley Dr	Realign Intersection	$3,500,000	N/A	64	HIGH
L	I-265 WB Off Ramp	Expand Storage	$704,000	10:1	N/A	LOW
M	Cedar Springs Blvd / Brookridge Village Blvd	Turn Lanes	$2,264,000	12:1	78	MEDIUM
N	Cedar Look Dr	Turn Lanes / Offset Lefts	$1,726,000	81:1	60 - 67	HIGH
O	KY 1065 (Beulah Church / Seatonville Rd)	Bowtie	$6,200,000	7:1	39	LOW
P	KY 1065 (Beulah Church / Seatonville Rd)	Turn Lanes / Offset Lefts	$1,975,000	15:1	60 - 65	HIGH
Q	Hillock Dr / Colonel Hancock Dr to Southpointe Blvd	Add NB Lane	$6,150,000	4:1	70	HIGH
R	Southpointe Blvd to I-265 EB On Ramp	Add NB Lane	$7,050,000	2:1	70	HIGH

Conclusions (cont.)

Table ES-4. Corridor and Multimodal Priority Improvement List

Concept ID	Description	Cost (2024 Total Estimate)	ROI	Public Input (% Liked)	Priority
CORRIDOR					
A	Old Bardstown Rd Management (modify pavement markings and STOP signs)	$100,000	N/A	N/A	LOW
B	Jefferson / Bullitt County Line to I-265 EB On-Ramp – Widen from 4 to 6 Lanes	$88,000,000	5:1	70	LOW
B-1	Jefferson / Bullitt County Line to Cooper Chapel Extension – Widen from 4 to 6 Lanes	$47,200,000	1:1		LOW
B-2	Cooper Chapel Extension to Hillock Dr / Colonel Hancock Dr – Widen from 4 to 6 Lanes	$27,500,000	1:1		MEDIUM
B-3	Hillock Dr / Colonel Hancock Dr to I-265 EB On Ramp – Add NB Lane	$13,200,000	3:1		HIGH
C	Combination Added NB Lane (B-3) and RCUTs	$19,600,000	30:1	57	MEDIUM
MULTIMODAL					
A	Enhance Transit	$730,000	N/A	53	N/A
B	Sidewalk Connectivity	$2,060,000	N/A	69	N/A
C	Pedestrian Interchange Connectivity	$1,410,000	N/A	54	N/A
OTHER					
A	Speed Feedback Signs	$40,000	249:1	55	N/A
B	Cable Median Barrier	$660,000	3:1	61	N/A
C	Lighting	$960,000	25:1	74	N/A