APPENDIX

STAKEHOLDER ENGAGEMENT

KY 44 Project Team Meeting #1

1:00 PM Thursday, July 14th, 2022 | KYTC D5 & Microsoft Teams

Attendees

Name	Representing	Email
Steve DeWitte	KYTC	Stephen.DeWitte@ky.gov
Billy Garrison*	WSP	Billy.Garrison@wsp.com
Dave Heil	KYTC	dave.heil@ky.gov
William Lucas	D8	William.Lucas@ky.gov
Beth Niemann	KYTC	Elizabeth.Niemann@ky.gov
Austin Obenauf*	WSP	Austin.Obenauf@wsp.com
Travis Thompson*	HDR	Travis.alan.thompson@hdrinc.com
Connor Schurman*	KYTC	Connor.schurman@ky.gov
Rob Frazier	HDR	Robert.Frazier@hdrinc.com
Doug Smith	WSP	Douglas.Smith@wsp.com
Anne Warnick	WSP	Anne.Warnick@wsp.com
Jeremeih Shaw	KIPDA	Jeremeih.shaw@kipda.org
Larry Chaney	KYTC D5	<u>Larry.chaney@ky.gov</u>
Andy Rush	KIPDA	Andy.rush@kipda.org
Jared Jeffers	KYTC	Jared.jeffers@ky.gov
Mikael Pelfrey*	KYTC	Mikael.pelfrey@ky.gov
Tom Hall	KYTC D5	Tom.hall@ky.gov
Karl Sawyer	KYTC D5	Karl.sawyer@ky.gov
Cameron Manley*	WSP	Cameron.Manley@wsp.com
Chris Barrow*	WSP	Chris.Barrow@wsp.com

^{*}Indicates attendance via MS Teams

Introduction

The meeting started with Tom Hall, the KYTC project manager presenting the background of the study and then Anne Warnick, the consultant team project manager, introduced the agenda and went through introductions of present persons.

Study Background, Objective, & Goals

Anne presented the background, objective, and goals for the study and opened the floor for any comments.

KYTC asked if stakeholder outreach includes the general public for this project? It does not, but local stakeholders would include business owners and local officials.

Anne presented the study schedule and asked about the best time during the study to reach out to stakeholders. The project team agreed to hold a stakeholder meeting after the third project team meeting and when the recommendations were ready to discuss with the stakeholders.

Materials from KYTC

The team shared study area materials received from KYTC. Anne shared permit and development plans.

Anne asked if all of the permits had been approved and will be built. No one attending the meeting knew and Anne will follow up with Jason Richardson to find out. It was noted that most of the permits received are dated 2018 and later. Anne noted all the permitted project were added to the project KMZ file.

Travis shared the KYTC Highway Plan Projects from the past and the projects in the recently adopted KYTC Six-Year Highway Plan. There is an SLO funded project funded through KIPDA that should be added to the list. It was also noted that 5-347.51 is in the right of way and utility phase and should be let in the next 12 months.

There was discussion about how project 5-80103, which reconstructs KY 44 between Bogard Lane and Armstrong Lane, was added to the Six-Year Highway Plan. It was noted that District 5 already had design segments developed and created a Legislative estimate for the state representative. This section was requested by the state representative, and we will want to engage them during stakeholder outreach.

Tom noted he just received information on 5-8710.00 in the form of a PowerPoint file and would provide that to the consulting team.

There was additional discussion about which of the projects shared are active and which are previous projects that are now dormant. Before the 2022 Six-Year Plan was released, all projects along the corridor were designed through preliminary engineering but not funded. Now that there is funding for certain sections, this programming study will be used to ensure that the funding is correctly prioritized. Any changes to previous project phasing and prioritization, as well as any new projects added need to be carefully documented. Tom noted that prioritization is important because if the District is committing funds for design they want to be confident it will go to construction.

Discussion about a potential interchange at KY 61 and I-65 north of the study area was discussed, as it is listed in KIPDA's MTP, however a recent KYTC study found that a new interchange would not be utilized enough to justify the cost, and KYTC is recommending it be removed from the MTP.

Existing Conditions

Traffic Update

Anne presented existing traffic volumes along the corridor broken into the nine segments that will be used for evaluation, as well as a table showing the various growth rates that have been used for each segment in previous studies along with historical growth. Additionally, the ten intersections that the consultant team proposes to analyze were shared. Two intersections, KY 1526 (Bells Mill Road) and Bogard, have recently been reconstructed, so counts would not be necessary for those.

It was noted that KYTC has Streetlight data now, so if there are any gaps in existing count data, these can be supplemented with that data.

Some of the most recent count data is from 2020, and a question was raised about how it lines up with historical count data. WSP looked at historical count data to ensure that the 2020 counts were not outliers and would not skew historical growth projections, and also requested the previous years' count data to compare it to. KYTC is also interested in having spot comparisons made between the KYTC counts already made and the newly acquired Streetlight data.

It was also noted that some of the growth rates from previous projects are based off intersection improvement studies and may not make sense projected out to the future year for this study, since the growth rates were used for shorter term projections. The consultant team may use graphs/charts to show a comparison and see trends, showing both percentages and volumes.

There was discussion about how to handle reaching capacity thresholds, when the peak hour volumes max out and the peak spreads out over multiple hours. The consultant team will keep this in mind when preparing the traffic forecast, and the implications that has for design (I.e. K factors and DHVs).

The project team discussed which intersections to choose for analysis. The question was asked whether the existing conditions data suggest a need to improve these intersections. The intersections were selected based on which appeared to be the major intersections based on land used. The team will revisit with respect to the safety and geometric analysis and revise accordingly. **The KYTC project team will also provide input on intersections they believe should or should not be included in the analysis.** Based on the discussion during the meeting, the team decided that the KY 44 / KY 61 intersection does not need to be included in the analysis for this study because this intersection was recently improved with KY 61 widening. The Adam Shepherd Parkway intersection will also be excluded from analysis because the City of Shepherdsville has an ongoing project to improve it.

It was noted that Mt. Washington has a bike/ped plan in place that should be considered in this study.

Corridor Speeds

Travis presented the HERE speed data from KYTC for the KY 44 study area. A significant lowering of speeds approaching the I-65 interchange and the US 31E intersection was discussed. Other intersections along KY 44, such as at Bells Mill also see a lowering of speeds. A significant drop off in speeds just east of Stringer Lane was also observed.

Safety

Travis presented the crash trends for the KY 44 study area. It was noted that the last time the KYTC Data Driven Safety Analysis (DDSA) team met, they determined that the 2020 crash data could be included for safety analyses. Based on the crash data collected for this study, it was decided to include 2020 crashes in the analysis, which will include a review of crashes between 2017 and 2021.

Existing Geometrics

Anne presented the existing geometrics along the corridor. One item noted during this discussion is that this study should determine if bicycle facilities or a shared use path should be considered along the corridor since the use of different modes of transportation may have changed since the corridor was originally designed.

Future Design

Anne presented a map summarizing the future designs for KY 44.

It was noted that the ongoing 5-347 project needs to have the same growth rate recommendations as this study. There will need to be coordination between the traffic forecast and design recommendations.

Next Steps

- The consultant team will schedule a traffic growth rate meeting with KYTC
- The consultant team will check in with the 5-347.10 project team as their design progresses

The meeting concluded at 3:10 PM ET.

KY 44 Project Team Meeting #2

10:00 AM Wednesday, September 28th, 2022 | KYTC D5 & Microsoft Teams

Attendees

Name	Representing	Email
Steve DeWitte*	KYTC	Stephen.DeWitte@ky.gov
Billy Garrison	WSP	Billy.Garrison@wsp.com
Beth Niemann	KYTC	Elizabeth.Niemann@ky.gov
Austin Obenauf*	WSP	Austin. Obenauf@wsp.com
Travis Thompson	HDR	Travis.alan.thompson@hdrinc.com
Connor Schurman*	KYTC	Connor.schurman@ky.gov
Rob Frazier	HDR	Robert.Frazier@hdrinc.com
Doug Smith	WSP	Douglas.Smith@wsp.com
Matt Bullock	KYTC D5	matt.bullock@ky.gov
Jeremeih Shaw*	KIPDA	Jeremeih.shaw@kipda.org
Larry Chaney*	KYTC D5	Larry.chaney@ky.gov
Andy Rush*	KIPDA	Andy.rush@kipda.org
Tracy Lovell	KYTC D5	Tracy.lovell@ky.gov
Philip Bischof*	HDR	Philip.Bischof@hdrinc.com
Tom Hall	KYTC D5	Tom.hall@ky.gov
Karl Sawyer	KYTC D5	Karl.sawyer@ky.gov
Elizabeth Farc	WSP	elizabeth.farc@wsp.com
Chris Barrow*	WSP	Chris.Barrow@wsp.com
Ali Rahimi*	HDR	Alireza.Rahimi@hdrinc.com
Jayalakshmi Balaji*	KYTC	Jayalakshmi.Balaji@ky.gov

^{*}Indicates attendance via MS Teams

Introduction

The meeting started with Doug Smith, the consultant team project manager, introducing the purpose of the meeting to discuss concepts for the corridor and the agenda. Introductions were made of present persons. Tom Hall, the KYTC project manager, presented the background of the study and work done to this point.

Study Background & Growth Rates

Doug presented a review of the corridor, schedule, and goals for the study. Doug presented the current and past projects on the KY 44 corridor. KYTC mentioned the project to construct turn lanes in front of Bullitt County East High School was put out for bid and will be most likely rejected due to over cost.

Doug presented a map of 2022-2028 Highway Plan projects and Phase 1 Design projects to display the combined previous planning efforts. Doug also presented updated construction costs for the five sections of the 5-150.01 Phase 1 Design. KYTC staff noted that the priorities, listed as 1-5, were arrived

at based on local official and district staff input at the time. The purple project, from US 31E to KY 1319 did have design in place, but no funding for subsequent phases. The local Bullitt County government received funding through KIPDA for another design phase that is currently in progress. This programming study should find a sensible order or priorities based on data.

Initial Process & Discoveries

Doug presented additional existing conditions analyses to help inform concepts for the corridor. The crash analysis revealed primarily angle, opposing left turn, rear end, and side-swipe same direction crashes.

The consultant team dissected the corridor into nine segments to pair existing cross sections with the potential build option cross sections to come up with alternate concepts presented today.

Doug presented the Highway Capacity S??? (HCS) showing segments A-I Level of Service (LOS) in the PM Peak in both the No Build and 2045 Build scenarios. It was clarified that the 2045 Build scenario in this analysis included proposed cross sections in Phase 1 Design. The middle segments, particularly from Melwood Dr to KY 1526, do not reach failure. A 5-lane build through the corridor still does not resolve LOS to above D east of I-65 in Shepherdsville or WB east of US 31E in Mt. Washington. However, it was noted that there is an opportunity to get ahead of growth in the far east portion of the corridor, where the WB LOS does not fail until 2030.

The results of the Synchro No Build model were also shown. What is poor LOS remains poor LOS. Shows some improvement at Lloyd and Bogard with the addition of a signal. A steady decline in LOS is shown between Fisher/Armstrong and US 31EX.

The conclusion of these capacity analyses is that it is difficult to pick a cross section if the reason for failure is not clear – whether it is capacity or operations.

System Management Approach

Doug presented a solution could be a systems management approach that considers alternate routing to remove drivers from Mt. Washington, improve signalization along corridor, and move drivers dependably with operations rather than building capacity which would have latent demand effects.

There was discussion that the segments look like they do not function well because the analysis is based on following density. Tracy asked if the consultant team looked at travel time vs. LOS because its easier to explain and justify a dollar amount with estimated time savings. Travel time was not considered so far. There was further discussion that traveling continuously is usually preferable, even if the route is a bit longer, rather than driving in stop and go traffic conditions. Building 5 lanes will make almost everything operate really well, but it comes with a large price tag.

Rob presented four alternative network connections as defined in the scope. The consultant team modeled how many trips would be attracted to these corridors. All alternatives were modeled as two-lane roads. First, Rob presented a new route between KY 44 to KY 480 over the Salt River. This connection was identified in previous planning studies. It attracted about 10,000 trips, but also added traffic to the corridor. Second, an alternative to improve KY 1526 and build a new interchange on I-65 would attract traffic, mostly from Shepherdsville. This option could provide relief to the interchange in Shepherdsville and the interstate, especially with improved signal timing in Shepherdsville. The third option is a new connection northwest of Mt. Washington from Greenbrier Rd to US 31E. This option

reduced traffic in Mt. Washington the most, as it would likely benefit residents in the area and provide another route bypassing the city. There could be right-of-way acquisition problems. This idea has been around for many years without any movement. The fourth option is a north-south connection between Beulah Church Rd/Cooper Chapel Rd in Jefferson County to KY 44. The model showed this route would become a relief for US 31E, but it does come at a great expense and impact to the existing land use. The second and third options are the most promising.

Interior Intersection Operational Focus – TSMO Solutions

Doug and Chris presented TSMO solutions for the corridor. Cost estimates for a 3-lane section were presented. Possible innovative intersection solutions were presented, including a continuous green T-intersection at KY 1526 and restricted crossing U-turn (RCUTs) at Fisher Ln/Armstrong Ln or Lloyd Ln/Bogard Ln. The 3-lane section with specific intersection improvements works for the interior where there is less traffic.

Shepherdsville Analysis & Options

Doug presented concepts for Shepherdsville, including improving signal timing, adding through lanes from the SB I-65 ramp to Adam Shepherd Pkwy, and adding triple left turns from Adam Shepherd Pkwy to KY 44. KYTC (Karl) mentioned that the option to add a through lane from the SB off ramp to Adam Shepherd Pkwy had been explored before but was not moved forward due to the cost.

There was discussion of a striping project being done by the city of Shepherdsville. The project is believed to be in the permitting review stage. KYTC asked how these options interact with the striping project. These options would be in addition to the City's project.

Mt. Washington Analysis & Options

Doug presented options for the eastern end of the corridor in Mt. Washington. This area has restricted ROW. Potential concepts include restricted left turns to promote through traffic, improved street grid connections on Water St, and a possible quadrant intersection around the shopping area at KY 44 and US 31E. Near term improvements may help get ahead of the growth expected east of US 31E. A 5-lane cross section is possible immediately east of US 31E and a roundabout at KY 1319 could help with new development traffic.

There was discussion of other planning efforts in the area. D5 has been tasked with looking into a rear entrance to the high school behind Kroger. There will need to be coordination between the consultant teams to recommend the same concepts.

Doug presented multimodal recommendations for a shared use path and sidewalk. Filling in network gaps, particularly where growth is happening, will strengthen the current incomplete multimodal grids in the urban areas and along the residential corridor.

Summary of Concepts

Rob presented a graphic showing the four concepts. KYTC asked if travel time could be predicted for each option and displayed along with cost. KYTC would like to see more data supporting cost and time decisions. There was discussion is travel time could be predicted. Rob and the HDR team has done this work for another corridor and can look at the options provided for KY 44.

Tom outlined three remaining questions the consultant team should focus on. First, what order should the work be done? Second, are the cross-sections appropriate? Third, what TSMO solutions can be

implemented in the near-term? These questions should be asked to the stakeholders to frame discussion.

There was discussion on upgrading traffic signals to 2070s and creating a timing plan. KYTC is working on procurement and installation. Will likely be complete by the end of the year, but the data will not be available prior to the completion of this study in November. This can be seen as a parallel project to the study effort and will not affect the study's schedule.

There was further discussion about prioritization of work on the corridor. The district has been focused on west of US 31E, but the county has been focused on east of US 31E. The prioritization will need to be a balance of data-driven recommendations and public input, especially in the urban areas.

KYTC asked when the stakeholder meeting will be held. The meeting should be in October, ideally inperson. The consultant team will arrange the invitation.

Next Steps

- The consultant team will predict travel times for the three options (Performance Based Design 1 & 2 and TSMO & Urban Strategies) to support cost and prioritization decisions.
- The consultant team will schedule a Stakeholder Meeting with state representatives and senators, Bullitt County staff, and local mayors in October.
- The consultant team will schedule the third Project Team Meeting for one week after the Stakeholder Meeting.
- The consultant team will check in with the 5-347.10 project team as their design progresses.

The meeting concluded at 12:34 PM ET.

KY 44 Local Elected Officials and Stakeholders Meeting

10:30 AM Friday, November 4th, 2022 | Shepherdsville City Hall & Microsoft Teams

Attendees

Name	Representing	Phone	Email
Matt Bullock	KYTC D5	502-210-5400	matt.bullock@ky.gov
Beth Niemann	KYTC		Elizabeth.Niemann@ky.gov
Tom Hall	KYTC D5	502-210-5400	Tom.hall@ky.gov
Tracy Lovell	KYTC D5	502-210-5400	Tracy.lovell@ky.gov
Jerry Summers	Bullitt County	502-543-2262	jsummers@bullittky.com
Larry Dangerfield	Lebanon Junction	270-259-1080	
Arthur Jones	Shepherdsville	502-492-7404	Ajones@shepcity.com
Karl Sawyer	KYTC D5		Karl.sawyer@ky.gov
Tom Huff	State Representative	502-553-4827	thomas.huff@lrc.ky.gov
Mike Nemes	State Senator	502-807-2423	mike.nemes@lrc.ky.gov
Troy Wood	BCPS	502-797-3423	Troy.wood@bullittkyschools.us
Barry Armstrong	Mt. Washington	502-7973423	Barmstrong@mtwky.org
Lori Puchino	Mt. Washington	502-536-0653	Lpuchino@mtwky.org
Kay Parrish	Bullitt County	502-599-4265	Kparrish@bullittky.com
Owen Taylor	City of Fox Chase	502-955-7672	
Joseph	Hillview	502-553-7625	
Thompson			
Mike Hubbard,	Shepherdsville	502-802-5703	Mhubbardsr@gmail.com
Sr.	City Council		
Keith Griffee	Bullitt County	502-939-3285	Griffee548@gmail.com
Tonya Taylor	Shepherdsville	502-215-1529	
Bob Fouts	Bullitt County Economic Development	502-298-1377	bfouts@gobullittky.com
Jim Hannah*	KYTC D5		Jim.hannah@ky.gov
Carl Jenkins*	KYTC D5		Carl.jenkins@ky.gov
Keith Lovan*	KYTC		Keith.lovan@ky.gov
Connor	KYTC		Connor.schurman@ky.gov
Schurman*			
Terri Keating*			
Shelli Venable*	KYTC D5		Shelli.venable@ky.gov
Larry Chaney	KYTC D5		Larry.chaney@ky.gov
Travis Thompson	HDR	502-909-3286	Travis.alan.thompson@hdrinc.com

Rob Frazier	HDR	816-309-2907	Robert.Frazier@hdrinc.com
Doug Smith	WSP	859-245-3898	Douglas.Smith@wsp.com
Philip Bischof	HDR	502-909-3252	Philip.Bischof@hdrinc.com
Elizabeth Farc	WSP	859-245-3883	elizabeth.farc@wsp.com

^{*}Indicates attendance via MS Teams

Introduction

The meeting started with Tom Hall, the KYTC District 5 project manager, introducing the purpose of the meeting, the history and purpose of the project, and what the consultant team would be presenting. Doug Smith, the consultant team project manager, began the presentation by reviewing the study purpose and the study area. Doug showed projects that have been constructed, planned, or designed.

Current Conditions

Rob Frazier, HDR, presented the current conditions, including traffic volumes, speed, level of service, and safety.

A comment was made by a member of the audience that KY 44 is the county's only east-west connector. Federal funds have already been sought and prioritized. KY 44 is also an important road for connecting to Taylorsville, especially with the BlueOval SK battery plant coming further down I-65 in Glendale. He asked for future traffic to be considered. Rob responded that a substantial amount of growth had been forecasted during the study analysis.

Another question was asked about a project to build an additional road over John Harper Highway (KY 1526). Travel time is important, and people make decisions on what route to take based on travel time on KY 44.

An informal vote was taken on the important issues presented in this section of the presentation.

- Safety = 17 votes
- Highest volume = 18 votes
- Level of Service = 15 votes
- Travel time speed = 1 (A comment was made online that speed should not be faster. Safety first. Doug clarified that this doesn't necessarily mean posted speed limit, but overall travel time.)
- Economic development = 6 votes
- Traffic operations = 0 votes
- Residential impacts = 9 (Comments were made concerning the speed and safety of the corridor and the physical impacts of widening the road.)
- Quality of life = all attendees voted in favor

Potential Concepts

Doug presented four concepts for the corridor: the existing design, performance-based design A, performance-based design B, and TSMO strategies. Doug also showed the right-of-way impacts, travel time reductions, and cost estimates for each concept. He noted that cost estimates are important for

preparing for the upcoming KYTC SHIFT prioritization process. Rob presented the predicted safety of different cross sections.

A question was asked why none of the concepts showed five lanes from I-65 to KY 61 in Shepherdsville. Doug responded that it had been discussed but the team thought that the railroad would be difficult to work around. Although Shepherdsville has built a relief valve on Adam Shepherd Pkwy, the stakeholder indicated that traffic would likely switch back to using KY 44 if that section was widened.

Another question was asked if the bridge over Floyds Fork (by Hoot Owl Camp Rd) would need to be widened. Rob answered that it depends on where the 5-lane section ended, but the bridge could probably fit three lanes. This has been accounted for in the cost estimate.

A comment was made that safety, specifically the predicted safety of improvements, is important in applying for grants.

Doug presented short term strategies that could be done to improve the corridor soon. A question was asked if the fatal crashes shown west of KY 1526 were before or after the turn lanes were constructed. Doug responded that it is a mix.

Rob discussed a few potential network connection options that were explored. He gave an example of the Northwest Mt. Washington Bypass that would take an estimated 10% of traffic out of downtown Mt. Washington. This is a concept only. Rob revisited the question of a road connecting I-65 across John Harper Highway to Mt. Washington. Tom Hall noted this is an idea that does not have a scope or cost estimate.

Discussion and Survey

Attendees were invited to participate in a survey to provide feedback on the priority sections and potential concepts. Paper copies of the survey were available, and Rob led attendees through the same questions on Menti.

Judge Summers made a comment that the eastern part of the corridor is a priority as it has one of the largest schools in the state and a new school being built, as well as a new neighborhood. The county has worked extensively with KYTC and the legislature to come up with the existing priorities.

A question was asked if the project proposed street lighting, especially between the high school and KY 1526. Another comment concerned how difficult a median is for EMS to navigate around. It was mentioned that when a crash is bad enough to shut down both eastbound and westbound lanes on KY 44, EMS has issues reaching the crash location. Doug responded that the median would only be on either end of the corridor near major intersections.

A question was asked if sidewalks were included in the concepts. Doug responded that the proposed concepts align with KYTC's new Complete Streets Policy and Manual. The concepts include a 5' sidewalk on one side and a 10' multi-use path on the other side. The attendee noted that communities need sidewalks, especially for those with limited mobility.

Next Steps

- The consultant team will compile and review comments and survey results.
- The consultant team will email out the presentation to attendees.

The meeting concluded at 12:06 PM ET.

KY 44 Programming Study

LOCAL OFFICIALS/STAKEHOLDERS MEETING NOVEMBER 4, 2022 SHEPHERDSVILLE CITY HALL/MS TEAMS

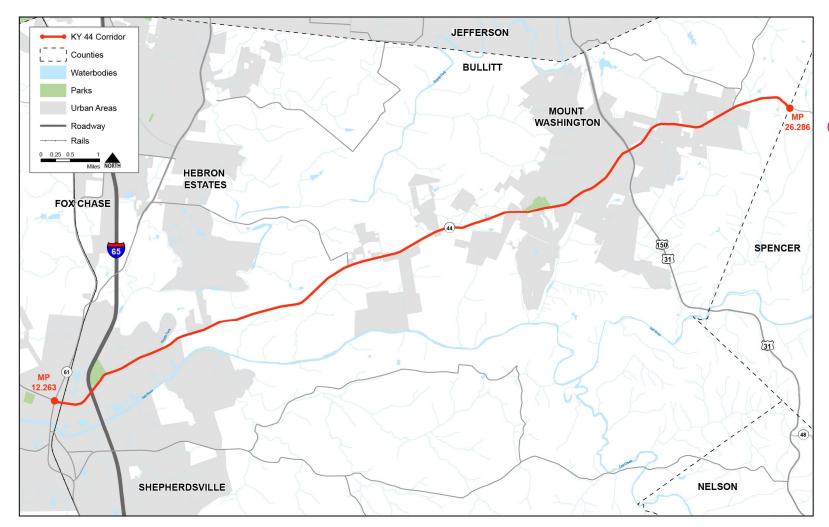
Agenda

- 1. INTRODUCTION
 - Study Purpose
 - Study Area
 - Summary of Constructed and Planned Projects
- 2. CORRIDOR NEEDS
 - Traffic Volumes
 - Capacity
 - Safety
- 3. POTENTIAL IMPROVEMENT CONCEPTS
- 4. NEXT STEPS

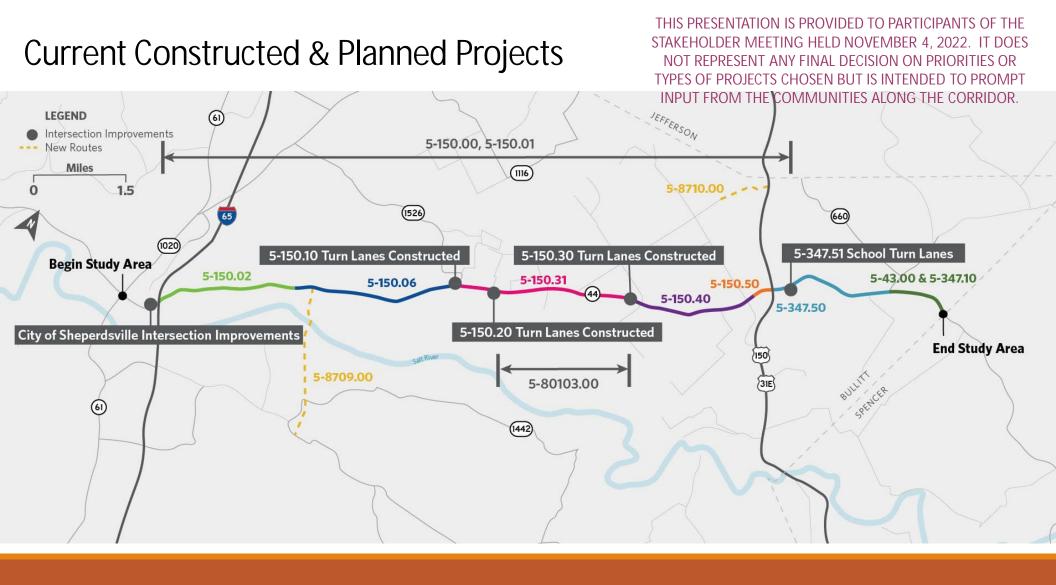
Study Purpose

THIS PRESENTATION IS PROVIDED TO PARTICIPANTS OF THE STAKEHOLDER MEETING HELD NOVEMBER 4, 2022. IT DOES NOT REPRESENT ANY FINAL DECISION ON PRIORITIES OR TYPES OF PROJECTS CHOSEN BUT IS INTENDED TO PROMPT INPUT FROM THE COMMUNITIES ALONG THE CORRIDOR.

- 1. Review existing projects and studies.
 - → There have been many concepts developed over the years. What is still relevant?
- 2. Validate previous design assumptions.
 - → What kinds of cross-sections are needed today and in the future?
- 3. Investigate ways to optimize performance through Transportation System Management & Operations (TSMO) & Performance-Based Flexible Solutions (PBFS) concepts.
 - → What are short-term improvements to improve the operation of the corridor?
- 4. Develop project priority programming scheme.
 - → In what order should the projects be built?



Study Area



2022 – 2028 Highway Plan Projects + Phase 1 Design



THIS PRESENTATION IS PROVIDED TO

PARTICIPANTS OF THE STAKEHOLDER MEETING HELD NOVEMBER 4, 2022. IT DOES

Questions to think about:

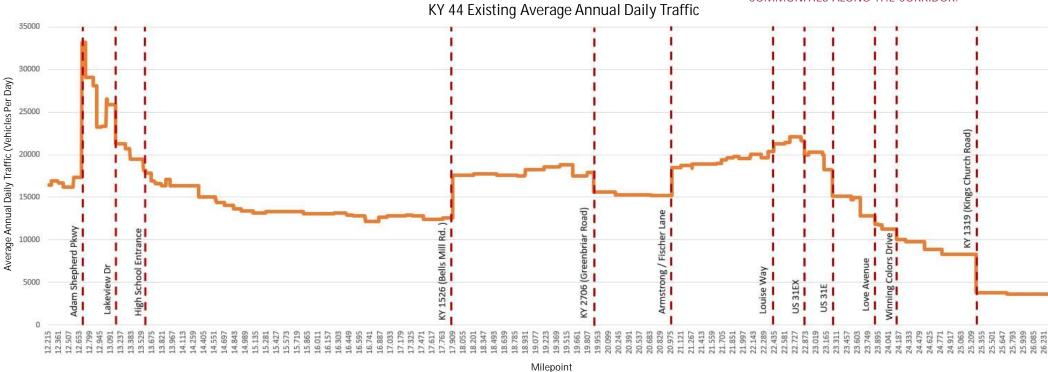
- 1. What sections of the corridor should be invested in first?
- 2. What type of improvement is preferred?



Corridor Needs

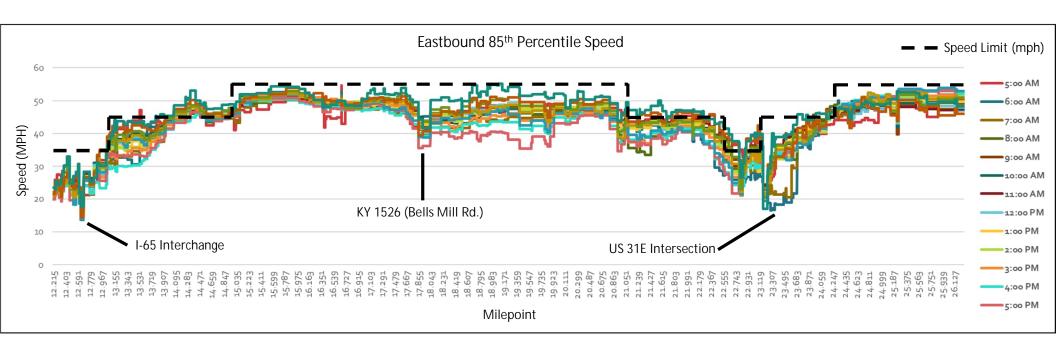
Traffic Volume

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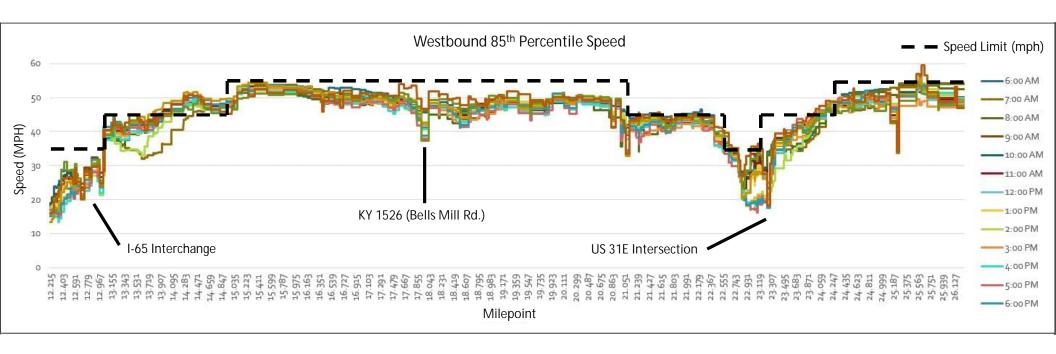


KY 44 Average Annual Daily Traffic

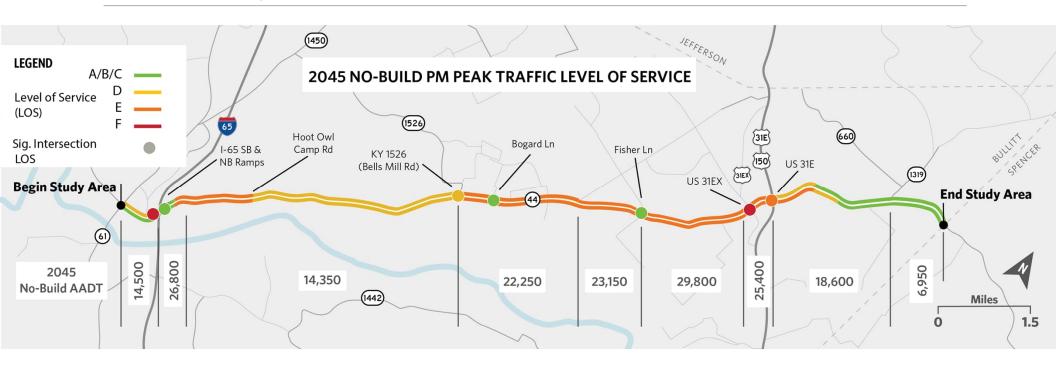
Existing Travel Speeds



Existing Travel Speeds

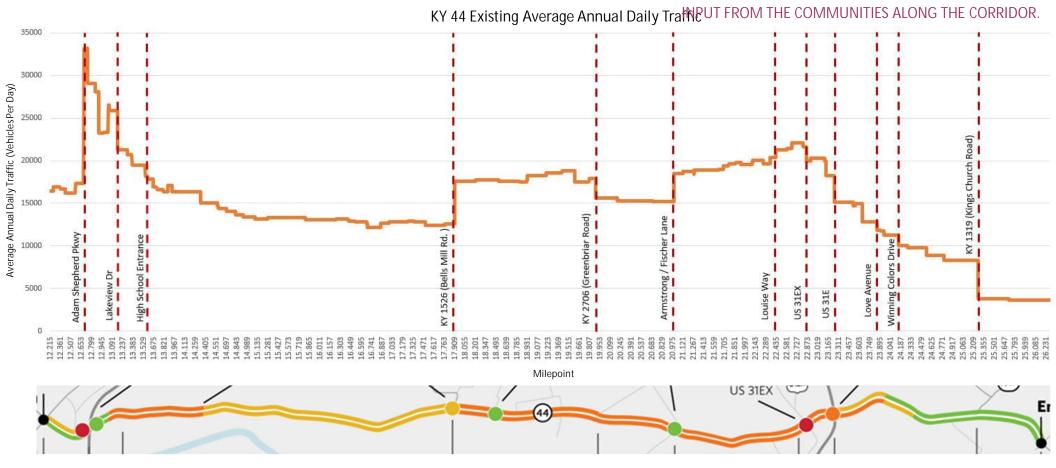


Capacity – 2045 Level of Service

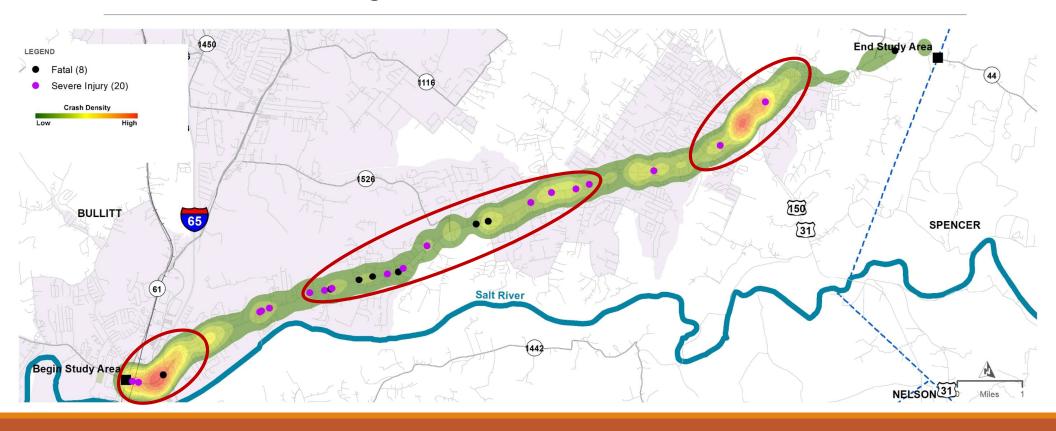


Traffic Volume

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Crash Density 2017 - 2021



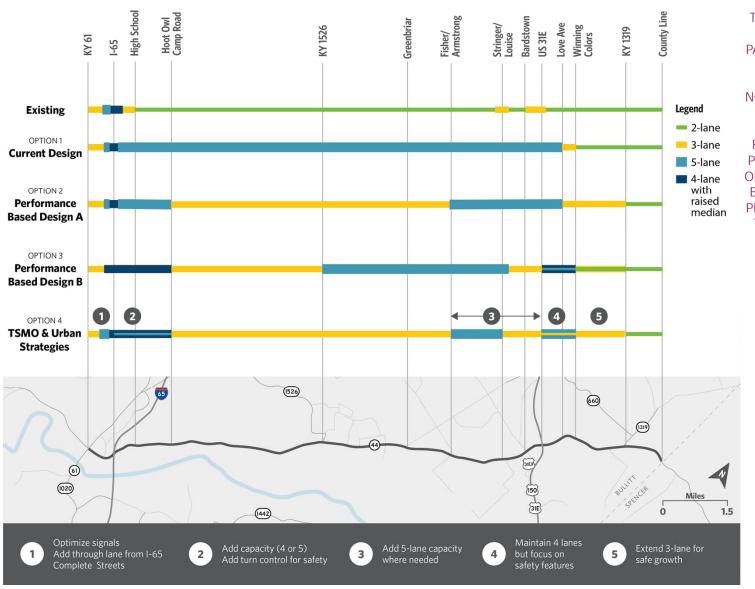
What are your most important issues?

- 1. Safety (crashes)? 16+1
- 2. Highest Volume? 18+1
- 3. Level of Service? 15
- 4. Travel time savings? 1
- 5. Economic development? 6
- 6. Traffic operations?
- 7. Community/resident impacts? 8
- 8. Quality of life? +++

Potential Improvement Concepts

Tasked with:

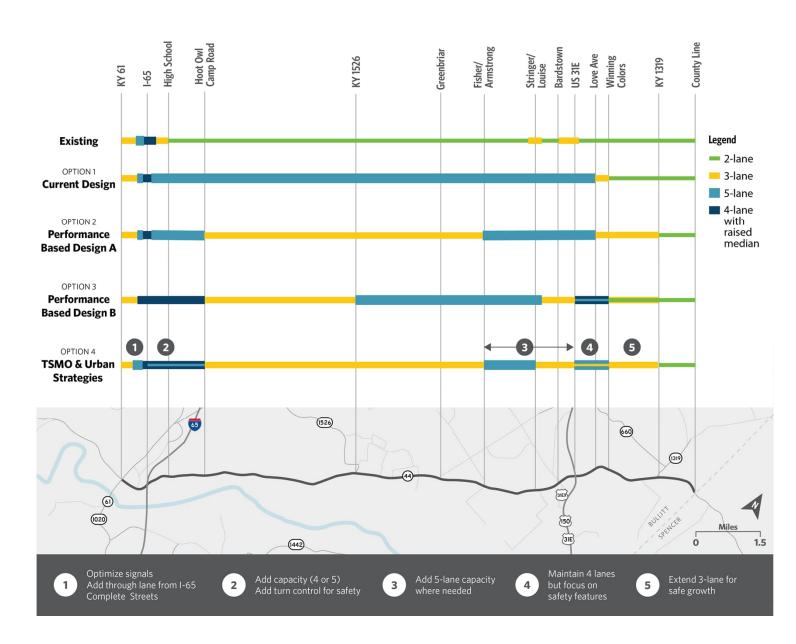
- Validate previous design assumptions.
- Investigate ways to optimize performance through Transportation Systems & 'Right-sizing' solutions concepts.



Right of Way Impacts

- 29 acres, \$16.2M
- 20 building takes
- 20 acres, \$11.9M
- 17 building takes
- 24.7 acres, \$13.7M,
- 15 building takes
- 15.1 acres, \$6.9M
- 7 building takes

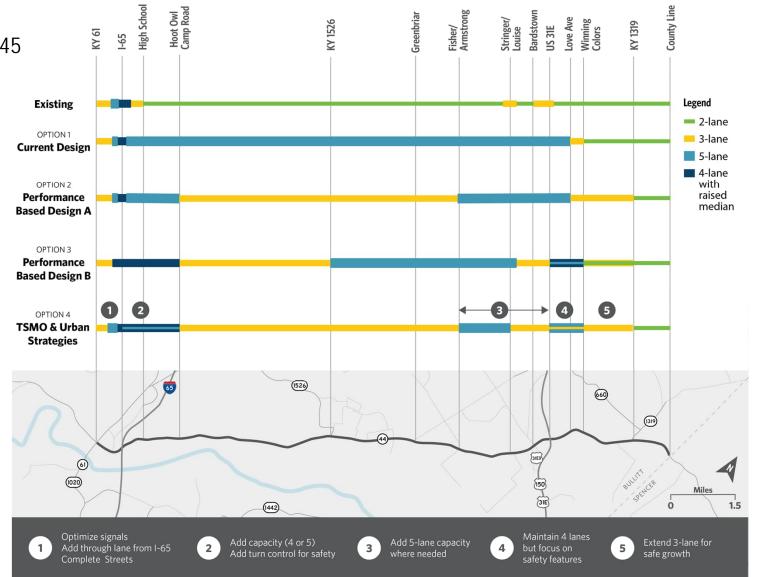
THIS PRESENTATION IS PROVIDED TO PARTICIPANTS OF THE STAKEHOLDER MEETING HELD NOVEMBER 4, 2022. IT DOES NOT REPRESENT ANY FINAL DECISION ON PRIORITIES OR TYPES OF PROJECTS CHOSEN BUT IS INTENDED TO PROMPT INPUT FROM THE COMMUNITIES ALONG THE CORRIDOR.

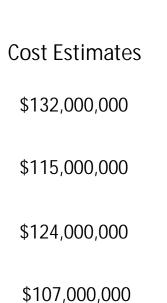


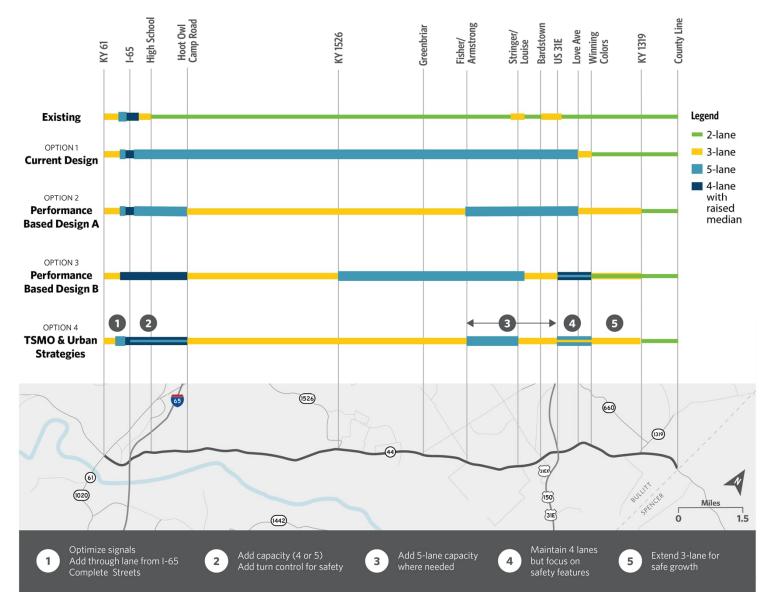
Travel Time Reductions in 2045

Eastbound -	Westbound -
7-18%	6-14%
4-6%	4-8%
3-8%	6-8%
1-2%	1-5%

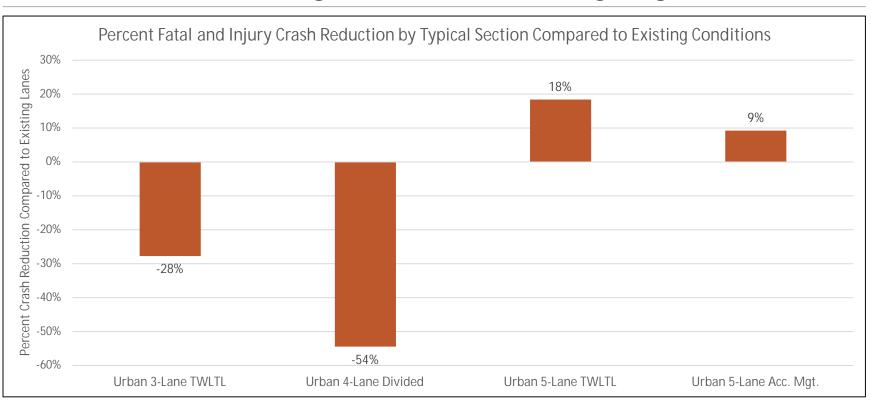
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THE CORRIDOR.







Predicted Safety: Fatal and Injury Crashes



Short-Term Strategies

- 1. Improved traffic signal operations
 - Upgrade to 2070 controllers & signal timing, intersection detection (2023)
 - Signal timing plan to improve two downtown areas and possibly some interior intersections
- 2. Initiate closer look at interior crashes to find mitigating spot improvements.
 - Potentially utilize KYTC HSIP program
- 3. Closer coordination on local projects
 - Shepherdsville restriping work on KY 61 and Adam Shepherd Parkway
 - Design work east of Mt. Washington (conducted by Burgess & Niple)
- 4. Complete Streets/Safe Streets for All for pedestrians and cyclists (KIPDA application)
 - Visibility -- improved crosswalk markings and lighting
 - Maintenance and ADA compliance, especially near schools
 - Pursue grants Bipartisan Infrastructure Law (BIL) competitive grant programs and others.
- 5. Access management around I-65 interchange and US 31E intersection

www.menti.com code 5823 1337

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Next Steps - Study Schedule



Next Steps – Questions



CONTACT INFORMATION

Tom Hall, PE District Project Manager

tom.hall@ky.gov

Beth Niemann, PE Central Office Project Manager

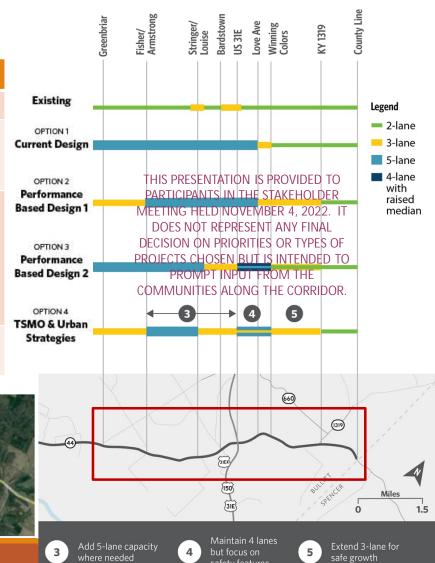
• <u>elizabeth.niemann@ky.gov</u>



Mt. Washington Highlights

Key Issues	Upgrades to Consider
Expensive ROW	Optimize existing pavement/lanes
High Crash Rates	 Utilize raised median 4-lane cross-section Limit left turns Access management around US 31E intersection
Congestion & Queueing	 Upgrade & optimize traffic signals * 5-lane cross section where needed Complete downtown grid segments Potential network connection/northwest bypass Potential roundabout at KY 1319 (Kings Church Rd) Reserve ROW east of US 31E for future growth
Pedestrian Vulnerability	Add/complete sidewalks, crosswalks, curbs
	(* = short-term improvements)

Mt Washington



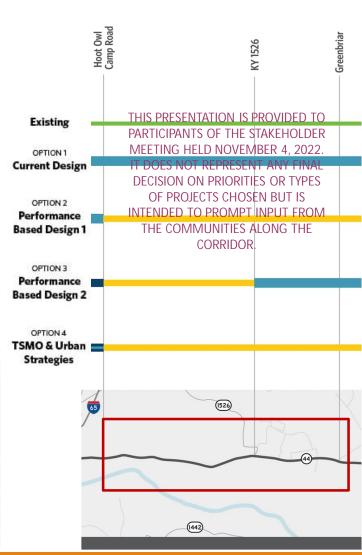
but focus on safety features

Interior Highlights

Segment Key Issues	Upgrades to Consider
Numerous lefts/delays	• Cross-sections that allow for through-movement
Poorly operating intersections	 Signal optimization * Improved approach detection equipment * Potential innovative intersections
Low volume western segment with delays	Improve intersection operations (see above) *
Higher speed crashes	Reduce left turn conflicts, Conduct further evaluation
Residential areas with limited bike/ped facilities	Add sidewalks, ADA/crosswalks, curbs

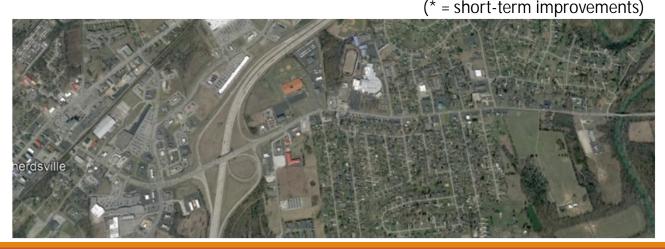
(* = short-term improvements)





Shepherdsville Highlights

Key Issues	Upgrades to Consider
Congestion & Queueing	 Upgrade & optimize traffic signals * Add lanes between I-65 & Adam Shepherd Pkwy 5 lanes east to Hoot Owl Camp Road
High Crash Rates	Utilize raised median 4-lane cross-section Access management to reduce driveway entrances
Expensive ROW	Optimize existing pavement/lanes *
Pedestrian Vulnerability	Add sidewalks, curbs, crosswalk visibility





You are invited to participate in the

Local Elected Officials / Stakeholder Input Meeting

for the

KY 44 Programming Study On Friday, November 4 from 10:30 AM to 12:00 PM

You are invited to a meeting to provide input on the Kentucky Transportation Cabinet's 2022 KY 44 Programming Study. The meeting will be held on **Friday**, **November 4 from 10:30 a.m. to 12:00 p.m.** (**EDT**).

Over the years, KYTC has developed various design concepts for most of the KY 44 corridor between KY 61 in Shepherdsville and the Spencer County line just east of Mount Washington. Improving KY 44 is expected to be a costly undertaking and take many years to complete. It will likely need to be constructed in sections.

KYTC contracted with WSP USA in March 2022 to perform a data-driven review of all previous design decisions along the corridor and to propose a prioritized plan for moving forward. The purpose is to make sure we are on track to use limited KYTC resources in the right places and in the right order. The study team was also tasked with identifying innovative traffic flow and safety improvement opportunities that may have been overlooked in the past. These type improvements could be implemented quickly, at a lower cost, and be expected to provide noticeable congestion relief and safety benefits in the interim.

The draft recommendations were recently completed. This meeting will include an overview of those recommendations and then provide an opportunity for you to ask questions and provide feedback.

In-Person & Virtual Meeting: KY 44 Programming Study (KY 61 to Spencer County Line)

Hosted by KYTC and Project Team

Friday, November 4 from 10:30 a.m. to 12:00 p.m. at the

Shepherdsville City Hall

634 Conestoga Pkwy

Shepherdsville, KY 40165

See below for access to MS Teams virtual meeting if you are unable to attend in-person.

Virtual Option Access:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 357 774 175 722

Passcode: oTGEqU

Download Teams | Join on the web

Or call in (audio only)

<u>+1 213-267-3760,,219649742#</u> United States, Los Angeles

Phone Conference ID: 219 649 742#

Find a local number | Reset PIN

<u>Learn More</u> | <u>Meeting options</u>

Please confirm your attendance by submitting your RSVP (accepting this invitation).

We want your opinions — on behalf of your organization or those you represent— on potential improvement strategies as the study moves towards completion. If you are not the best contact at your organization to attend this presentation, please forward this invitation to the preferred contact. This is the only meeting for local elected officials and stakeholders for this study.

We look forward to seeing you November 4, 2022. Thank you for your involvement in and support for this important study.

Sincerely,

Tom Hall, P.E. District 5 Planning Section Supervisor Tom.Hall@ky.gov (502) 764-0826

If you have any questions or need to request a hard copy of the materials in advance of the meeting, please contact me or **Beth** Niemann (Elizabeth, Niemann@ky,gov).

KY 44 PROGRAMMING STUDY, DISTRICT 5 KYTC LOCAL OFFICIAL / STAKEHOLDER MEETING



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ΚY	61	to	I-65

- I-65 to Hoot Owl Camp Road
- Hoot Owl Camp Road to KY 1526 (Bells Mill Road)
- KY 1526 (Bells Mill Road) to KY 2706 (Greenbriar Road)
- KY 2706 (Greenbriar Road) to Stringer Lane
- Stringer Lane to US 31 EX (Bardstown Road)
- US 31 EX (Bardstown Road) to US 31E/US150
- US 31E/US 150 to KY 1319 (Kings Church Road)
- KY 1319 (Kings Church Road) to Spencer County Line

2. In the areas where we are proposing to modify the design from 5-lanes to something less (3-lane, 4-lane with raised median, etc.), are there concerns with that?

3. There are two performance-based concepts proposed (Option 2 and Option 3). Is one preferred over the other?

4. Are there any concerns with the proposal to optimize signal timing along KY 44 or with any of the other proposed Short-Term Strategies?

- a. Improved traffic signal operations
- b. Closer coordination on local projects
- c. Complete Streets/Safe Streets for All for pedestrians and cyclists (KIPDA application)
- d. Access management around I-65 interchange and US 31E intersection
- e. Pursuing KYTC Highway Safety Improvement Program funds to improve safety from I-65 to Greenbriar Road

KY 44 Project Team Meeting #3

10:00 AM Friday, November 17th, 2022 | KYTC District 5 Office & Microsoft Teams

Attendees

Name	Representing	Email
Matt Bullock	KYTC D5	<u>Matt.bullock@ky.gov</u>
Beth Niemann	KYTC	Elizabeth.Niemann@ky.gov
Tom Hall	KYTC D5	<u>Tom.hall@ky.gov</u>
Tracy Lovell	KYTC D5	<u>Tracy.lovell@ky.gov</u>
Andy Rush	KIPDA	Andy.rush@kipda.org
Jayalakshmi Balaji*	KYTC	Jayalakshmi.balaji@ky.gov
Jared Jeffers*	KYTC	<u>Jared.jeffers@ky.gov</u>
Jeremeih Shaw*	KIPDA	Jeremeih.shaw@kipda.org
Zachary Neihof*	KYTC D5	Zachary.neihof@ky.gov
Karl Sawyer	KYTC D5	Karl.sawyer@ky.gov
Connor Schurman*	KYTC	Connor.schurman@ky.gov
Larry Chaney	KYTC D5	<u>Larry.chaney@ky.gov</u>
Travis Thompson	HDR	<u>Travis.alan.thompson@hdrinc.com</u>
Rob Frazier*	HDR	Robert.Frazier@hdrinc.com
Doug Smith	WSP	<u>Douglas.Smith@wsp.com</u>
Philip Bischof	HDR	Philip.Bischof@hdrinc.com
Elizabeth Farc*	WSP	elizabeth.farc@wsp.com
Austin Obenauf	WSP	<u>Austin.obenauf@wsp.com</u>

^{*}Indicates attendance via MS Teams

Introduction

The meeting started with Tom Hall introducing the purpose of the meeting, then Doug Smith, the consultant project manager, reviewing the history and purpose of the project, and what the consultant team would be presenting. He then continued the presentation by reviewing the study area, and showed projects that have been constructed, planned, or designed. Also, slides that were presented at the Stakeholder meeting were presented such as LOS, Traffic Volumes, Crash Heat Map, roadway cross-section comparative safety, and network connections modeled.

Update on Previous Project Team Questions

Doug presented slides for both the current KYTC Highway Plan and prior Phase 1 design KY 44 projects in the study area. During the Update on Previous Team Questions, a question was raised on the status of the Burgess and Niple (B&N) design projects 5-347.50 and 5-347.10. It was concluded that B&N is on hold and waiting for the traffic analysis to be finished by HMB before moving forward. Tracey Lovell reported that the project is currently in 'Phase 1.5' due to the delay in traffic analysis and

Indicates an item change that is needed.

environmental. Phase 2 design will start upon completion of the traffic analysis and environmental. The project previously was state funded but is now federally funded. No schedule to Preliminary Line and Grade has been established.

Doug went on to talk through the traffic volumes, existing travel speeds, crash density, key interior intersections, safety, and network connections that were modeled. A question was raised on the key interior intersections graphic (slide 13) and it was deemed that the consultant team needs to add turning arrows for each intersection approach for better understanding.

A question was also raised during the safety portion of the presentation, asking what a 4-Lane section will look like. The consultant team answered by explaining that a 4-Lane section will include two travel lanes in each direction with a raised median for access management.

Consultant team to add intersection turning arrows for all approaches on the Key Interior Intersections graphic, slide 13.

Local Official Stakeholder Meeting Recap

Doug started this section off by showing the questionnaire that was presented to the stakeholders and explaining the results. Doug went through the other questions asked, summarized below:

- 1. In what order should work on the segments be completed (rank 1 to 9)?
- 2. What are your thoughts about modifying the design in some areas from 5-Lanes to something else (3-Lane, 4-Lane with raised median)?
- 3. There are two performance-based concepts proposed (Option 2 and Option 3). Is one preferred over the other?
- 4. Are there concerns with any of the short-term strategies?

A question was raised as to who participant #11 was due to the rankings being different than all of the others. The Bullitt County Judge was participant #11.

It should also be noted than a comment was raised on question number 3, which showed that there was a lot of concern at the schools for turn lane needs.

Potential Improvement Concepts

Doug provided the project team with the potential improvement concepts for KY 44. Short-term strategies were presented first, stating that several are very important to set the stage for future actions withing the corridor (signal installation and timing, taking a close look at the serious interior crashes, and close coordination with ongoing local projects).

A question was raised on why the 4-Lane section is not shown even though it is the safest. This was answered by stating that the 4-Lane is not the best overall option, but only the best for safety. Also, a 4-lane section was recommended in some alternatives, mostly in the downtown areas of Shepherd sville and Mt. Washington where more control of turning movements would lower crash rates.

Doug continued by presenting concept right-of-way impacts and cost estimates. The project team felt the cost estimate accuracy was appropriate for this planning-level study.

Project Prioritization and Corridor Strategy

Doug started this section by highlighting the potential improvement concept summary and describing the handout that was provided to the in-person attendees. He then showed how each improvement scored on safety and level of service (red/yellow/green or high/medium/low). There was a transcription error for Option 3, where 4-lane data was used in the concept analysis instead of 5-lane, which will be corrected. In the safety evaluation section, it was noted that many entrances onto KY 44 in Shepherdsville were left turns across traffic, and it was noted to the project team that a frontage road was looked at but deemed as being not viable for this corridor due to the amount of right of way needed. A question was also raised for the 5-lane section, asking if the configuration would be a 3 lanes one way and 2 lanes the other direction or a 4-lane with a TWLTL. The typical section would be a fourlane with a TWLTL.

Consultant team to update either the potential improvement corridor graphic or the data to match.

Doug presented the recommended improvements options spreadsheet to the team. The recommendations were generated by analyzing the LOS and safety needs of each of the segments and choosing the cross section that best addressed the greatest need. In most segments, safety was the governing need. Overall, the project team agreed that the data informed process helps with prioritization. Some questions were raised during this section.

- What does "no change" mean?
 - "No change" means it is recommended to keep the existing roadway as is, including any turn lanes that are present.
- How did you prioritize these segments?
 - The year of construction in the current Highway Plan is how the order prioritization was organized for the 2022 Highway Plan Projects.
 - The recommended prioritization was a combination of the highest needs (safety and LOS combined), safety data that was at similar levels through a segment, and grouping similar cross sections drove prioritization.
- Can we look at the segment break points again?
 - The data informs the segments, but logical termini will be important moving forward, specifically priority 1 (Bardstown Road to Love Avenue) and priority 6 (Love Avenue to the Spencer County Line). The consultant will take a second look to make sure the break points make sense.
 - Adjustments can be made.
- It was noted that the recommended option was NOT one of the four concepts shown to the stakeholders and that might be a concern. Doug said that the data showed that a combination of Option 2 and Option 3 would perform best when analyzed segment by segment.

Next Steps

Doug presented the next step, which is the submittal of the draft programming study. This is scheduled for the end of November.

Some final questions were raised at the end of the meeting and are highlighted below:

- How does KYTC implement this from the report?
 - Short-Term Improvements
 - ♦ Project Sheets
 - ♦ Safety summary
 - ♦ Leave it open ended for funding
- KY 61 Interchange for network connections?
 - A new interchange at KY 61 north of KY 44 moves traffic from KY 44 and the I-65 interchange
- Salt River Bridge network connections?
 - The Salt River Bridge connection increased traffic on KY 44 but could be good for the overall network.
- Other considerations
 - Signage will need to be considered for all improvements.

The meeting concluded at 11:43 AM ET.

KY 44 Programming Study

PROJECT TEAM MEETING #3
NOVEMBER 17, 2022
DISTRICT 5 OFFICE/MS TEAMS

Local Official/ Stakeholder Meeting Recap

KY 44 PROGRAMMING STUDY, DISTRICT 5 KYTC LOCAL OFFICIAL / STAKEHOLDER MEETING



- 1. In what order should work on the segments be completed (rank 1 to 9)?
 - ___ KY 61 to I-65
 - ___ I-65 to Hoot Owl Camp Road
 - ___ Hoot Owl Camp Road to KY 1526 (Bells Mill Road)
 - ___ KY 1526 (Bells Mill Road) to KY 2706 (Greenbriar Road)
 - ____ KY 2706 (Greenbriar Road) to Stringer Lane
 - ___ Stringer Lane to US 31 EX (Bardstown Road)
 - ___ US 31 EX (Bardstown Road) to US 31E/US150
 - US 31E/US 150 to KY 1319 (Kings Church Road)
 - ____ KY 1319 (Kings Church Road) to Spencer County Line
- In the areas where we are proposing to modify the design from 5-lanes to something less (3-lane, 4-lane with raised median, etc.), are there concerns with that?
- 3. There are two performance-based concepts proposed (Option 2 and Option 3). Is one preferred over the other?
- 4. Are there any concerns with the proposal to optimize signal timing along KY 44 or with any of the other proposed Short-Term Strategies?
 - a. Improved traffic signal operations
 - b. Closer coordination on local projects
 - c. Complete Streets/Safe Streets for All for pedestrians and cyclists (KIPDA application)
 - d. Access management around I-65 interchange and US 31E intersection
 - Pursuing KYTC Highway Safety Improvement Program funds to improve safety from I-65 to Greenbriar Road

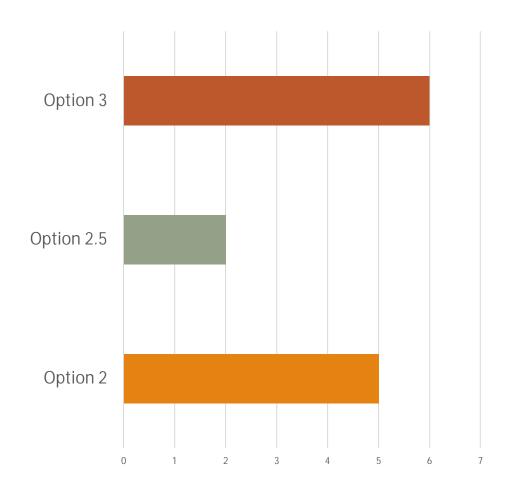
																	1st	2nd	3rd
In what order should work be completed?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Average	place	place	place
KY 61 to I-65	2	2		6	4	5	5	7	3	5	4	2	3	7	2	4.1		4	2
I-65 to Hoot Owl Camp Road	1	1		8	1	6	8	4	8	1	6	1	4	6	3	4.1	5		1
Hoot Owl Camp Road to KY 1526 (Bells Mill Rd)	3	3		1	8	7	7	8	9		3	7		5	5	5.5	1		3
KY 1526 (Bells Mill Rd) to KY 2706 (Greenbriar Rd)			1	5	7	8	9	5	6		2	6		2	7	5.3	1	2	
KY 2706 (greenbriar Rd) to Stringer Lane				4	6	9	6		7		8	8		3	6	6.3			1
Stringer lane to US 31 EX (Bardstown Rd)				3	2	3	3	1	4	2	9	5		4	4	3.6	1	2	3
US 31 EX (Bardtsown Rd) to US 31E/US 150				2	3	2	2	3	2	4	5	4	2	1	1	2.6	2	5	2
US 31E/US 150 to KY 1319 (Kings Church Rd)				7	5	1	1	6	1	3	7	3	1	8	8	4.3	4		2
KY 1319 (Kings Church Rd) to Spencer County Line				9	9	4	4	9	5	(1	9		9	9	6.8	1		

Question 1: In what order should work on the segments be completed (rank 1 to 9)?

- 3 and 4 lane is more cost effective and more community friendly.
- Multiple option could work. Can you limit side road access (create frontage roads to main intersections).
- 3 lanes are appropriate between Hoot owl and Bells Mill. Also beyond Mt. Washington.
- In favor, with decrease of accidents a priority.
- Driver confusion and potential congestion in transition areas might outweigh benefits of lower costs.
- Yes to 3 lanes from Hoot Owl to Bells Mill
- 3 lane at (??) location as in option #2
- I-65 to Hoot Owl 2 lanes with center lane due to bridge only being wide enough for 2 lanes + center after bridge east. There has been talk of homes and apartments to the left of this area. 1100+ homes/apts.
- My best guess the projected growth is underestimated.

Question 2:

What are your thoughts about modifying the design in some areas from 5-lanes to something else (3-lane, 4-lane with raised median)?



Question 3:

There are two performance-based concepts proposed (Option 2 and Option 3). Is one preferred over the other?

Additional comments:

- Option 3. The schools need help as well-either by extending turn lanes and adding control lights.
- 2.5 a hybrid approach with 5 lane from KY 1526 to Armstrong. Also 4 or 5 lanes from KY 61 to I-65.
- Option 3, but extend 5 lanes further west to KY 1526

- 1 & 4
- The biggest issue is access control, not just management.
- Local project coordination
- All of this is important. Coordination is key especially in special events.
- Priority given to intersections and entrances at all of the schools. Could work start at those locations and then expand from there?
- Bring on 2070 signal controls.
 Median remove on 44 @ I-65 to free up traffic in main lanes. This is a huge issue here at all hours of the day in the City of Shepherdsville.

 3. Sidewalks are a must on Hwy 44 W-East. Drainage/curbing. Lighting.
- a and b
- Traffic signals I like this improvement
- I can't imagine bikes and pedestrians on Hwy 44. They are not allowed on interstates.

Question 4:

Are there concerns with any of the Short-Term Strategies?

- 1) Signal Timing
- 2) Local Project Coordination 3) Complete Streets
- 4) Access Management

What were the most important issues for Stakeholders?

1.	Safety (crashes)?	16 + 1 online
2.	Highest Volume?	18 + 1 online
3.	Level of Service?	15
4.	Travel time savings?	1
5.	Economic development?	6
6.	Traffic operations?	0
7.	Community/resident impacts?	8
	Quality of life?	Everyone