

MEETING MINUTES

Groundbreaking by Design.

Project: US 51 Corridor Study
Fulton, Hickman, Carlisle, and Ballard Counties

Purpose: Project Team Meeting No. 1

Place: Hybrid Meeting: KYTC District 1 and MSTeams

Meeting Date: April 4, 2024 at 11 AM EDT

Prepared By: Qk4

Participants:

Austin Hart	KYTC D1 PDMP BM
Jason Looper	KYTC D1 TEBM
Dustin Turner	KYTC D1 Planning
Patsy Rawlins	KYTC D1 Design
Keith Todd	KYTC D1 PIO
Steve DeWitte	KYTC CO Planning
Catherine Davis	KYTC CO Planning
Libbie Lowe	KYTC CO Planning
Jay Balaji	KYTC CO Planning
Connor Schurman	KYTC CO Planning
Dasha Korostina	KYTC CO Planning
Jared Jeffers	KYTC CO Planning
Karl Sawyer	KYTC CO Design
Connor Ouellette	KYTC CO DEA
Rebecca Thompson	Qk4
Lindsay Hoskins	Qk4
Jeremy Lukat	Qk4

Austin opened the meeting, which is intended to discuss the existing conditions for the 40-mile US 51 corridor, stretching between Fulton and Wickliffe.

Area Projects & CHAFs

The 2024 Highway Plan has not been signed yet, but the Conference version¹ includes more funded projects (**Table 1**) along the study corridor than the earlier Recommended Plan.² Several projects show design funding in FY 2025 but the District intends to complete this planning study first to help inform prioritization decisions. The study should continue to examine need-based solutions, even if the total costs are less than the budget in the latest plan. Sections of US 60 approaching Wickliffe, the Ohio River crossing, and US 51 in Tennessee constrain US 51 mobility today, even if major sections of it were improved.

¹ Biennium: <https://apps.legislature.ky.gov/record/24rs/budget/HB266/bill.pdf>

Out years: <https://apps.legislature.ky.gov/record/24rs/budget/HJ91/bill.pdf>

² Online at <https://transportation.ky.gov/Program-Management/Pages/2024-Recommended-Highway-Plan.aspx>

Table 1: Highway Plan (as of 4/1/24) and CHAF projects along US 51

ID	Description	Approx. MP	Funding
1-1140.01	Cairo Bridge Replacement	Bal 7.3-8.3	D 25, C 28-30
1-1140.20	Cairo Bridge Replacement/Approach	Bal 7.5-7.8	C 28
IP20170075	Reconstruct, north of Wickliffe to Bridge (2.7 mi)	Bal 4.6-7.3	-
IP20060003	Truck access to Riverport	Bal 4.0	-
IP20060001	Turn Radius at KY 121	Bal 3.3	-
IP20060002	Fort Jefferson Park Entrance	Bal 2.7	-
1-80320 IP20230125	Freight Access to Riverport	Bal 2.0-2.2	D 26, R 27, U 27, C 28
1-80308 IP20080002	Reconstruct, Carlisle Co to RR overpass (3.2 mi)	Bal 0.0-3.2	P 25, D 26
IP20080012	Reconstruct, Ballard Co to Truman Creek (4.4 mi)	Car 8.3-12.7	-
1-333 IP20080013	Intersection improvement at US 62/Front/Elm	Car 7.8-8.0	C 24
1-80323 IP20060012	Reconstruct, KY 1377 to Truman Creek (2.1 mi)	Car 6.1-8.3	D 27, R 28, U 28, C 30
1-10105	Bridge at Little Mayfield Creek	Car 4.4	D 24, C 24
1-80309 IP20080011	Reconstruct, Hickman Co to KY 1377 (6.1 mi)	Car 0.0-6.1	D 25, R 28, U 28, C 30
1-10104	Bridge at Gaddie Creek	Car 1.7	D 24
1-80325 IP20060046	Reconstruct, KY 703 to Obion Creek (4.3 mi)	Hic 8.3-13.7	D 25, R 26, U 27, C 28
1-10144	Bridge at Bruch Creek	Hic 11.9	D 24, C 24
1-80330 IP20120006	Intersection Improvements at KY 1301/Harpers Hams	Hic 11.1-11.4	D 25, R 25, U 25, C 27
1-80203 IP20080033	Realign, Clayton to KY 703 / DLZ Designing	Hic 7.2-8.3	R 25, U 25, C 27
IP20190054	Reconstruct, Ezell Ln to Clayton St (0.4 mi)	Hic 6.9-7.3	-
1-80328 IP20080032	Reconstruct, Bayou de Chien to Martin Rd (2.1 mi)	Hic 4.5-6.6	D 26, R 27, U 27, C 28
1-10146	Bridge at Cane Creek	Hic 2.4	D 24, C 24
1-80327 IP20080031	Reconstruct, Fulton Co to Cane Creek (2.4 mi)	Hic 0.0-2.4	D 25, R 26, U 27, C 28
IP20060031	Major Widening, Parkway to Hickman Co (4.7 mi)	Ful	-
IP20060032	Intersection Improvements at KY 94/Railroad overpass	Ful	-
IP20020002	Access to Fulton Co Ind. Park	Ful 0.2-0.6	-

Planning studies were completed for Bardwell and Clinton in 2004, recommending spot improvements at intersections plus realignment for the curve/hill south of Clinton. DLZ has an ongoing design contract for US 51 through Clinton. While PL&G has not occurred yet, options follow the existing alignment aside from the curve south of town.

Purchase Area Development District (PADD) completed bike/ped plans for Bardwell, Clinton, and Fulton in 2022. Recommendations from each will be considered as Build concepts are developed. PADD is also completing the socioeconomic analysis for this study.

Existing Geometry/Systems

North of US 60, US 51 is on the National Highway System (NHS) and is a rural principal arterial. South of US 60, it is a minor arterial, state-designated truck route, and not NHS. It features two 10- to 12-foot lanes for most of the length, excepting a three-lane section south of Wickliffe and sections with wider lane widths in Wickliffe, Clinton, and at the parkway interchange. The current alignment meets *Highway Design Manual* guidelines excluding steep/curvy sections near Phoenix Paper, south of Bardwell, and on the north side of Clinton.

There are 23 bridges along US 51; one is in Poor condition with the remainder rated Good or Fair. Five bridge replacement projects are funded in the draft Highway Plan, including the bridge rated as Poor.

Crash Trends

Five years of crash data (2019-2023) showed 201 crashes, including 2 fatalities and 39 injury crashes. By type, most crashes involve a single vehicle (45%) with 20% representing head on or opposite direction sideswipes. Overall, 32% of crashes involved commercial vehicles and 54% were roadway departures. Truck crashes were primarily single vehicles and same direction sideswipes, with 67% representing roadway departures. A broader look at 10 years of data showed 12 fatalities in the past decade. No segments demonstrate a Level of Service of Safety (LOSS) 3 or 4 but five intersections flag for LOSS 3 or 4 for severe (KAB) crashes.

Geographically, crash clusters appear at four primary locations:

- Between the River and Wickliffe: 30 crashes in 4 miles
- In Wickliffe: 28 crashes in 0.7 miles
- Through the 0.5-mile curvy section near Phoenix Paper: 9 crashes
- In Clinton: 19 crashes in 1.2 miles

Existing Traffic

Historic counts show 1,600-2,600 vehicles per day (vpd) along most of the corridor, increasing in Clinton (4,400 vpd in 2020), Bardwell (3,600 vpd in 2022), and north of Wickliffe (6,600 vpd in 2023). Heavy trucks make up 15-45% of these volumes. Oversize farm equipment also regularly uses the highway. Sections of US 51 north of Bardwell are designated bike routes though Strava heat maps show negligible usage.

Turning movement counts were conducted in January 2024 at seven intersections; no capacity concerns were identified.

StreetLight data (2021) provided estimates on origin-destination (OD) flows. Few trips travel through the entire 40-mile corridor.

- Of all traffic using the US 51 bridge in either direction, 70% heads to/from Paducah via US 60 or KY 286. Considering only truck traffic on the bridge, 61% travels to/from Paducah. Roughly 4% of bridge traffic or 7% of bridge trucks continue south of Clinton.
- Of all traffic traveling on US 51 just north of the Parkway in either direction, 15% continues as far as Bardwell. Considering only truck traffic on US 51 just north of the Parkway, an estimated 20% continues to the Ohio River bridge; truck traffic at this location is a smaller volume than in Ballard County.

Qk4 will look at similar trends for trucks to/from Phoenix Paper and at Bardwell. The team will also continue to refine maps to convey OD data graphically.

Future Traffic

Most historic counts demonstrate negative growth, excepting the last five years of data approaching the US 51 bridge which have shown substantial increases. KYTC Modal Group will produce a growth rate from the statewide model, considering input from local stakeholders in May. Most of the growth for the area is associated with two future riverports:

one at Cairo, IL and another south of Wickliffe. Minor expansions are also proposed at one of the industrial parks at Fulton. Forecasts will be compared against other recent traffic projections for nearby projects: I-69, the Cairo Bridge, and the US 60 study through Ballard County.

Next Steps

District 1 will coordinate with local officials and stakeholders to arrange an in-person kickoff meeting in Bardwell in early May. The project team will reconvene once the 2024-2030 Highway Plan is enacted. Qk4 is also completing a red flag environmental overview; floodplains may be helpful for stakeholder discussions in May.

Following the May outreach, Qk4 will begin developing improvement concepts to present at the second project team meeting. The district has heard complaints about KY 286, the shortest route from Paducah, although continuing improvements along US 60 make it a better connection and more appropriate for trucks. Spot improvements along US 51 should be developed; a cost estimate for a Super-2 highway would help inform decision making. Qk4 will apply FHWA's SPICE tool to help develop safety solutions.

End of Minutes

MEETING MINUTES

Groundbreaking by Design.

Project: US 51 Corridor Study
Fulton, Hickman, Carlisle, and Ballard Counties

Purpose: Stakeholder Meeting No. 1

Place: Carlisle County Cooperative Extension Office in Bardwell

Meeting Date: May 23, 2024 at 9 AM

Prepared By: Qk4

Participants:

Kenny Wilson	Hickman County Judge/Executive
Greg Terry	Carlisle County Judge/Executive
Jessica Galloway	Carlisle County Judge/Executive's Office
April Gallimore	Fulton County Judge/Executive's Office
Josh Glover	Carlisle County Emergency Services
Jeremy Buchanan	Purchase ADD
Jon Young	Purchase ADD
Kyle Poat	KYTC D1 CDE
Austin Hart	KYTC D1 PDMP BM
Jason Looper	KYTC D1 TEBM
Dustin Turner	KYTC D1 Planning
Patsy Rawlins	KYTC D1 Design
Catherine Davis	KYTC CO Planning
Libbie Lowe	KYTC CO Planning
Rebecca Thompson	Qk4

Kyle opened the meeting, which is intended to discuss the existing conditions for the 40-mile US 51 corridor, stretching between Fulton and Wickliffe. Rebecca described the study process and presented the existing conditions information.

Planning Context

The 2024-2030 Highway Plan includes numerous projects along the corridor, covering 88% of the study length with \$45 million over the next two years. The District will use this planning study to help inform prioritization decisions. Planning studies were completed for Bardwell and Clinton in 2004, recommending spot improvements at intersections plus realignment for the curve/hill south of Clinton. Purchase ADD also completed Bike/Ped Master Plans for Bardwell and Clinton in 2022; recommendations from each will be considered as Build concepts are developed.

Major riverport facilities in both Cairo and south of Wickliffe are developing master plans, which will influence future traffic trends. While there are no other large-scale developments planned, the group discussed other factors that could influence future traffic:

- Trucks are banned from using a section of KY 286, increasing truck flows along US 62 and US 51 instead.
- The conversion of the Purchase Parkway to I-69 (signed to Fulton later this summer) may increase truck traffic. Tennessee plans to begin construction on the section south of Fulton (Exit 1) by 2028.

Existing Geometry/Systems

North of US 60, US 51 is on the National Highway System (NHS) and is a rural principal arterial. South of US 60, it is a minor arterial, state-designated truck route, and not NHS. It features two 10- to 12-foot lanes for most of the length with generally narrow shoulders. About 2/3 of the length is less than 25 feet wide. The current alignment meets *Highway Design Manual* guidelines excluding steep/curvy sections near Phoenix Paper, south of Bardwell, and on the north side of Clinton.

There are 23 bridges along US 51; one is in Poor condition with the remainder rated Good or Fair. Five bridge replacement projects are funded in the current Highway Plan, including the Brush Creek bridge rated as Poor.

Crash Trends

Five years of crash data (2019-2023) showed 201 crashes, including 2 fatalities and 39 injury crashes. By type, most crashes involve a single vehicle (45%) with 20% representing head on or opposite direction sideswipes. Overall, 32% of crashes involved commercial vehicles. Truck crashes were primarily single vehicles and same direction sideswipes.

Geographically, crash clusters appear at four primary locations: between the River and Wickliffe (30 crashes in 4 miles), In Wickliffe (28 crashes in 0.7 miles), through the 0.5-mile curvy section near Phoenix Paper (9 crashes), and in Clinton (19 crashes in 1.2 miles). Truck crashes made up more than half the incidents in the two northern clusters. The group discussed other safety concerns:

- There was another fatality near Phoenix Paper in 2024 not reflected in the data.
- KYTC resurfaced US 51 north of Wickliffe Mounds State Historic Site in summer 2020; has this had an impact on crash rates? Records show 21 of 30 crashes in this stretch occurred 2021-2023.
- Near Phoenix Paper, the overpass transitioning to a series of curves is challenging for trucks.
- The signal at US 51/US 60 was removed during August 2023. None of the crashes at the intersection were reported in 2023.

Traffic

Historic counts show 1,600-2,600 vehicles per day along most of the corridor, increasing in Clinton, Bardwell, and Wickliffe. Heavy trucks make up 15-45% of these volumes. Oversize farm equipment also regularly uses the highway. Sections of US 51 north of Bardwell are designated bike routes though locals report negligible usage.

Turning movement counts were conducted in January 2024 at seven intersections; no capacity concerns were identified.

Next Steps

The meeting ended with a discussion of other transportation needs:

- Drivers tend to speed through Clinton faster than they should.
- There are some tight turns in Clinton that are challenging for large trucks. Adjusting the stop bars or removing a few parking spaces could address the problem.
- Sidewalks abut the roadway in town, which can be uncomfortable for pedestrians.

The project team will develop improvement concepts to address identified needs then hold another meeting in the Fall.

End of Minutes

MEETING MINUTES

Groundbreaking by Design.

Project: US 51 Corridor Study
Fulton, Hickman, Carlisle, and Ballard Counties

Purpose: Project Team Meeting No. 2

Place: Hybrid Meeting: KYTC District 1 and MSTeams

Meeting Date: September 13, 2024 at 10 AM EDT

Prepared By: Qk4

Participants:

Kyle Poat	KYTC D1 CDE
Austin Hart	KYTC D1 PDMP BM
Jason Looper	KYTC D1 TEBM
Dustin Turner	KYTC D1 Planning
Patsy Rawlins	KYTC D1 Design
Brad Whybark	KYTC D1 Environmental
Sydney Gream	KYTC D1 Planning
Steve DeWitte	KYTC CO Planning
Catherine Davis	KYTC CO Planning
Libbie Lowe	KYTC CO Planning
Jay Balaji	KYTC CO Planning
Connor Schurman	KYTC CO Planning
Dasha Korostina	KYTC CO Planning
Jared Jeffers	KYTC CO Planning
Karl Sawyer	KYTC CO Design
Connor Ouellette	KYTC CO DEA
Rebecca Thompson	Qk4
Courtney Evans	Qk4

Rebecca opened the meeting, which is intended to review existing conditions and present Build concepts for the 40-mile US 51 corridor, stretching between Fulton and Wickliffe.

Existing Conditions Recap

North of US 60, US 51 is on the National Highway System (NHS) and is a rural principal arterial. South of US 60, it is a minor arterial, state-designated truck route, and not NHS. It features two 10- to 12-foot lanes for most of the length, generally narrow shoulders, and substandard vertical and horizontal stretches. Five years of crash data (2019-2023) showed 202 crashes, including 3 fatalities and 39 injury crashes. By type, most crashes involve a single vehicle (45%) with 20% representing head on or opposite direction sideswipes. Overall, 32% of crashes involved commercial vehicles and 54% were roadway departures. Daily traffic ranges from 1,600 to 6,600 vehicles per day (vpd) with minimal capacity concerns despite heavy truck flows. KYTC Modal Group recommended a 1.58% annual growth rate, resulting in 3,700-7,600 vpd in the 2045 No-Build scenario.

An environmental red flag overview highlights study area constraints: Section 4(f) parks and wildlife refuges, historic resources, known archaeological sites, community features, streams/wetlands, etc. Purchase ADD is preparing the socioeconomic analysis, which will likely show low-income populations. Most of the Build concepts considered follow the existing alignment, which should help minimize impacts. Qk4 will share the archaeological and historic summaries with Brad and Connor.

Goals & Objectives

Build concepts were developed to address three primary goals, ranked by relevance:

1. Improve safety, with a focus on higher severity crash locations
2. Consider all users: trucks, farm equipment, pedestrians, etc.
3. Consider both existing and future mobility

In light of projected funding in the FY2024-2030 Highway Plan, the study will have a programming flavor to support prioritization of all previously identified projects along the route. Build concepts will range from low-cost, low impact maintenance actions up to major corridor widening.

Build Concepts

Qk4 presented 11 smaller scale spot improvements and six larger scale corridor projects for team discussion. While capacity concerns are not driving intersection improvements, ICE spreadsheets were prepared for each at-grade study intersection and will be included as an appendix to the report.

Smaller Scale

- The US 60/US 51 intersection was a two-way stop with warning flashers, which were recently removed and converted to a four-way stop.
- Could parking on both sides of US 51 near the Ballard courthouse be changed to parallel spaces with sidewalk bump-outs? The centerline approaching KY 286 (Court Street) is crooked to accommodate truck turns; shifting the southbound stop bar could address.
- Curves near Phoenix paper showed a concentration of wet weather crashes but it is difficult to tell what is driving them. Perhaps there are drainage issues with the private overpass? Are drivers speeding? Or shoulder grading/ditch maintenance could contribute to poor drainage? High friction pavement may help, paired with shoulder grading and oversize chevrons. A public riverport is proposed opposite the paper plant, which could result in changes to this stretch of roadway. Jay will check with Jeremy to confirm the status of the port project/funding.
- At Bardwell, the US 51/US 62 intersection was recently converted to a four-way stop, though US 51 thru trips don't tend to actually stop unless there's someone waiting to turn out. Plans for Item No. 1-333 should remain in the mix for discussion with stakeholders, but adjusting traffic control may have addressed the issue.
- South of Bardwell, the 35-mph speed limit should be extended to the tangent section. Chevrons for the horizontal curve may not be a good visual for an in-town setting.
- Through Clinton, Item No. 1-80203 is currently considering 11-foot lanes, a 4- to 5-foot sidewalk, and 8-foot shared use path to minimize impacts. Designers are considering how to address the Y intersection near the Dollar General and to extend the sidewalk to the farmers' market. Some of the smaller scale signing/stripping fixes could be implemented ahead of this DLZ project. Austin is meeting the Judge/Executive for a walking tour next week.

- Qk4 will also look at the S-curves near CR-1229 (Tom Looney Road). There were 7 crashes within 500 feet over five years—primarily single vehicle crashes.

Larger Scale

- The stretch north of Wickliffe was repaved with concrete in 2021. Crash records show 30 crashes north of the US 60 intersection, 16 of which were on the bridge itself. Of the remaining 14, three occurred in 2019-2020 prior to repaving and nine were after (2022-2023).
- Qk4 looked at an option to widen between bridges to get a consistent 40-ft template north of Wickliffe. A 2+1 typical over the entire 4 miles will be added as well.
- A farther north US 51-to-US 60 bypass option will be considered, avoiding sharp curves on US 60 near Sixth Street and Mayola Avenue. The team discussed whether bypassing businesses along existing US 51 near Wickliffe Mounds State Park will be a concern.
- The 2+1 widening concept will model two distinct scenarios:
 - Follow existing alignment but add pavement for additional recovery areas
 - Full reconstruction, addressing substandard alignment elements in addition to pavement width
- Cost estimates for large scale projects should predict an order of magnitude rather than detailed costs. Qk4 will provide KMZ files to D1 with a request for R and U phase estimates.

Next Steps

Qk4 will prepare the additional Build concepts discussed above and work towards cost estimates. The next local officials/stakeholder meeting could be combined with the monthly WAVE meeting (early November) to boost engagement.

End of Minutes

MEETING MINUTES

Groundbreaking by Design.

Project: US 51 Corridor Study
Fulton, Hickman, Carlisle, and Ballard Counties

Purpose: Local Officials/Stakeholder Meeting No. 2

Place: Carlisle County Courthouse

Meeting Date: November 18, 2024 at 9 AM EDT

Prepared By: Qk4

Participants:

Kenny Wilson	Hickman County Judge/Executive
Greg Terry	Carlisle County Judge/Executive
Todd Cooper	Ballard County Judge/Executive
Jon Young	Purchase ADD
Kyle Poat	KYTC D1 CDE
Austin Hart	KYTC D1 PDMP BM
Jason Looper	KYTC D1 TE BM
Dustin Turner	KYTC D1 Planning
Catherine Davis	KYTC CO Planning
Libbie Lowe	KYTC CO Planning
Rebecca Thompson	Qk4
Courtney Evans	Qk4

Rebecca opened the meeting, which is intended to review existing conditions and present Build concepts for the 40-mile US 51 corridor, stretching between Fulton and Wickliffe.

Existing Conditions Recap

North of US 60, US 51 is on the National Highway System (NHS) and is a rural principal arterial. South of US 60, it is a minor arterial, state-designated truck route, and not NHS. It features two 10- to 12-foot lanes for most of the length, generally narrow shoulders, and substandard vertical and horizontal stretches. Five years of crash data (2019-2023) showed 202 crashes, including 3 fatalities and 39 injury crashes. By type, most crashes involve a single vehicle (45%) with 20% representing head on or opposite direction sideswipes. Overall, 32% of crashes involved commercial vehicles and 54% were roadway departures. Daily traffic ranges from 1,600 to 6,600 vehicles per day (vpd) with minimal capacity concerns despite heavy truck flows. Applying a 1.58% annual growth rate, resulting traffic shows 3,700-7,600 vpd in the 2045 No-Build scenario.

In light of funding in the FY2024-2030 Enacted Highway Plan, the study will support prioritization of previously identified projects along the route. Kyle explained how the state's budget process works: the first two years represent real funding in each Highway Plan with the "out years" representing projections. However, a new Plan will be in place with a new budget each even numbered year. Getting big-dollar projects through the process requires funding through multiple plan cycles, competing each time for statewide funds. With the area development districts, KYTC will begin working through the SHIFT process for the 2026-2032 Plan early next year.

Build Concepts

Qk4 presented 11 smaller scale spot improvements and seven larger scale corridor projects for team discussion. Concepts represent high-level ideas to estimate order-of-magnitude costs; more detailed engineering study is needed to develop individual projects.

Table 1: Small-Scale Build Concepts

ID	Name	County	BMP	EMP	Crashes	DRUC
1	US 51/US 60 Radii	Ballard	3.6	3.7	8	\$500k
2	Wickliffe Striping & Sidewalk	Ballard	3.3	3.6	20	\$4.3M
3	Phoenix Drainage	Ballard	1.4	2.4	12	\$1.2M
5	Bardwell Sidewalk	Carlisle	7.2	7.9	9	\$9.8M
6	Bardwell Hill/Curve Signage	Carlisle	6.7	7.4	2	\$500k
7	Item 1-80330 at KY 1301	Hickman	11.1	11.3	2	\$1.9M
8	Clinton Sidewalks/DLZ	Hickman	7.1	8.3	20	\$9.5M
9	Clinton Striping & Signing	Hickman	7.0	8.3	20	\$800k
10	KY 924 Safety	Fulton	4.4	4.6	3	\$400k
11	KY 94 Safety	Fulton	2.4	2.6	3	\$500k
12	CR-1229 S-curves	Carlisle	5.5	5.7	7	\$2.1M

Table 2: Larger-Scale Build Concepts

ID	Name	County	BMP	EMP	Crash	CDE Curves	DEF Grades	DRUC	Relo.
A	40 ft north of Wickliffe	Ballard	5.1	6.7	7	-	-	\$8M	0
B1	North Wickliffe Bypass	Ballard	4.2	US 60	16	NA	NA	\$11M	1
B2	North Wickliffe Bypass	Ballard	4.2	US 60	16	NA	NA	\$21M	0
C	Curve at RR Overpass	Carlisle	9.8	10.3	6	-	0.5 mi	\$6M	0
D	Bardwell Hill Profile	Carlisle	6.6	7.4	2	0.1 mi	0.7 mi	\$10M	1
E	Cane Creek Curves	Hickman	1.9	3.1	7	-	0.1 mi	\$6M	0
F		ALL	-	-	112			\$250M	7
F1		Ballard	3.9	7.3	17	0.25 mi	0.2 mi	\$15M	1
F2		Ballard	2.7	3.2	1	0.2 mi	0.4 mi	\$3M	0
F3		Ballard	0.0	2.5	13	0.25 mi	0.6 mi	\$30M	0
F4	2+1 Widening (same alignment)	Carlisle	8.1	12.6	18	-	1.4 mi	\$30M	2
F5		Carlisle	1.6	7.0	21	0.1 mi	1.3 mi	\$30M	2
F6		Carlisle	0.0	1.1	2	-	0.4 mi	\$6M	0
F7		Hickman	8.3	15.0	17	0.1 mi	1.9 mi	\$60M	0
F8		Hickman	0.0	7.2	21	-	2.0 mi	\$45M	1
F9		Fulton	0.3	4.7	19	-	0.9 mi	\$25M	1
G			ALL	-	-	112			\$260M
G1		Ballard	3.9	7.3	17	0.25 mi	0.2 mi	\$20M	2
G2		Ballard	2.7	3.2	1	0.2 mi	0.4 mi	\$4M	0
G3		Ballard	0.0	2.5	13	0.25 mi	0.6 mi	\$30M	0
G4	2+1 Reconstruction (55 mph)	Carlisle	8.1	12.6	18	-	1.4 mi	\$35M	2
G5		Carlisle	1.6	7.0	21	0.1 mi	1.3 mi	\$30M	3
G6		Carlisle	0.0	1.1	2	-	0.4 mi	\$6M	0
G7		Hickman	8.3	15.0	17	0.1 mi	1.9 mi	\$65M	0
G8		Hickman	0.0	7.2	21	-	2.0 mi	\$40M	1
G9		Fulton	0.3	4.7	19	-	0.9 mi	\$30M	1

Group discussion followed:

- The all-way stop at US 60 is working well—much safer with trucks not trying to beat signal cycles.
- The signal at US 51/Clay Street could be swapped out for an all-way stop to encourage safe speeds through Clinton.
- High visibility stop signs with flashing LED lights to improve visibility are also an option.
- Sidewalks in Wickliffe are in pretty good shape. Locals will not want to lose parking to convert angle spaces to parallel. Sidewalk elements of Build Concept 2 can be dismissed.
- Harper Hams (near KY 1301 intersection) closed but the property is expected to redevelop as a truck wash, increasing traffic volumes.
- A public meeting for the Item No. 1-80203 sidewalk project at Clinton is planned for December 12. The team will discuss whether the sidewalks should extend to Rotary Park.
- In Clinton, improved sidewalks and crosswalks are needed at the Phillips Drive intersection to safely accommodate students walking near the school.
- Bypasses of Bardwell and Clinton were proposed in 2004 studies; there is no interest in advancing either.
- Of the smaller scale projects, the bypass lane for trucks at US 51/US 60 is a high priority.
- Of the larger scale concepts, the curves at Cane Creek are a lower priority. An improved 2+1 highway would be an asset, potentially working south to north since there is an improved section south of Clinton.

Next Steps

Qk4 will continue to refine concepts based on today's discussions, with one more meeting with KYTC District 1. The study findings will be summarized in a report in Spring 2025, including detailed project sheets for each Build concept. The report will also suggest potential funding streams that could align with specific projects types, e.g. safety or bike/ped grants to supplement traditional Highway Plan funds.

End of Minutes

MEETING MINUTES

Project: US 51 Corridor Study
Fulton, Hickman, Carlisle, and Ballard Counties

Purpose: Project Team Meeting No. 3

Place: Virtual Meeting

Meeting Date: January 21, 2025 at 2:00 PM

Prepared By: Qk4

Participants:

Austin Hart	KYTC D1 PDMP BM
Dustin Turner	KYTC D1 Planning
Patsy Rawlins	KYTC D1 Design
Brad Whybark	KYTC D1 Environmental
Steve DeWitte	KYTC CO Planning
Catherine Davis	KYTC CO Planning
Libbie Lowe	KYTC CO Planning
Jared Jeffers	KYTC CO Planning
Karl Sawyer	KYTC CO Design
Connor Ouellette	KYTC CO DEA
Rebecca Thompson	Qk4
Courtney Evans	Qk4

Catherine opened the meeting, which is intended to review existing conditions and recommend priorities between Build concepts for the 40-mile US 51 corridor, stretching between Fulton and Wickliffe.

Existing Conditions Recap

US 51 features two 10- to 12-foot lanes for most of the length, generally narrow shoulders, and substandard vertical and horizontal stretches. Five years of crash data (2019-2023) showed 202 crashes, including 3 fatalities and 39 injury crashes. Over the past decade, 12 fatalities have been reported, concentrated in Ballard and Carlisle counties. By type, most of the 202 crashes involved a single vehicle (45%) with 20% representing head on or opposite direction sideswipes. Overall, 32% of crashes involved commercial vehicles and 54% were roadway departures.

Daily traffic ranges from 1,600 to 6,600 vehicles per day (vpd) with heavy truck flows. KYTC Modal Group recommended a 1.58% annual growth rate, resulting in 2,200-9,200 vpd in the 2045 No-Build scenario. Three of six study intersections demonstrate future capacity concerns: Spot 1 addresses the US 51/US 60 intersection while US 51/KY 121 (Court Street) and US 51/KY 58 (Mayfield Road) provide adequate pavement to consider restriping when/if congestion becomes a problem.

Build concepts were developed to improve safety, consider all users (e.g., trucks, farm equipment, pedestrians, etc.), and lastly to consider both existing and future mobility.

Build Concepts

Concepts were grouped into small- and large-scale categories, with information on needs, costs, and impacts summarized in slides. The team discussed individual concepts, resulting in the priorities in **Table 1**.

Table 1: Build Concepts and Priorities

Concept	2024 Cost	Crashes	BCA	Priority
Smaller Scale				
1: US 51/US 60	\$530k	8	1.9	High
2: Through Wickliffe	\$280k	20	46	High
3: Phoenix Drainage	\$1.2M	12	2.0	Med
5: Bardwell Sidewalks	\$9.8M	9	Qualitative	Med/Low
6: Bardwell Hill/Curve	\$460k	2	3.1	High
7: US 51/KY 1301	\$1.9M	2	0.2	Low
8: 1-80203 Clinton	\$9.5M	20	Qualitative	In Design
9: Clinton Striping and Signing	\$800k	20	3.7	High
10: US 51/KY 924	\$350k	3	1.3	Med
11: US 51/KY 94	\$460k	3	3.0	Med
12: US 51/Tom Looney	\$2.1M	7	1.4	High
Larger Scale				
A: 40-Foot North of Wickliffe	\$8M	7	>0.1	Combine
B: North Wickliffe Bypass	\$10-20M	21	0.2	Med
C: Curve at Railroad Overpass	\$6M	6	0.2	Med
D: Bardwell Hill Profile	\$10M	2	>0.1	Low
E: Cane Creek Curves	\$6M	7	0.4	Med
F: 2+1 Widening	\$250M	202	0.0–2.2	Dismiss
G: 2+1 Reconstruction	\$260M	202	0.1–2.1	Long-Term

Key discussion points included:

- Do not present benefit-cost ratios for the sidewalk projects since many of the benefits are qualitative. In some studies, bike/ped projects are presented separately but it makes sense to keep them grouped alongside others for this one.
- Since Item 1-80203 is in design, its prioritization should reflect that project development activities are underway. Feedback during the recent public meeting was positive although there was some hesitancy regarding the potential roundabout.
- Spot 9 overlaps the Item 1-80203 funding but would require a different funding source if the intent is to advance small-scale safety countermeasures ahead of the larger project.
- Since costs between Concepts F and G are very similar, G (addressing substandard curves and grades) should advance over F. Reconstruction as a 2+1 represents a long-term priority and should generally progress north to south, following traffic and safety trends.

- There was discussion about whether a 40-foot (Concept A) or 52-foot (Concept G1) typical section between the Ohio River Bridge and Wickliffe is preferred. Studies along US 60 and KY 286 are examining potential 2+1 typicals for these regional routes, which could influence what fits best along US 51. It would be nice to have passing opportunities in this stretch.
- Sections G2 and G3 may need to be combined to have enough length to make a 2+1 viable.

Qk4 will submit the draft report in February.

End of Minutes