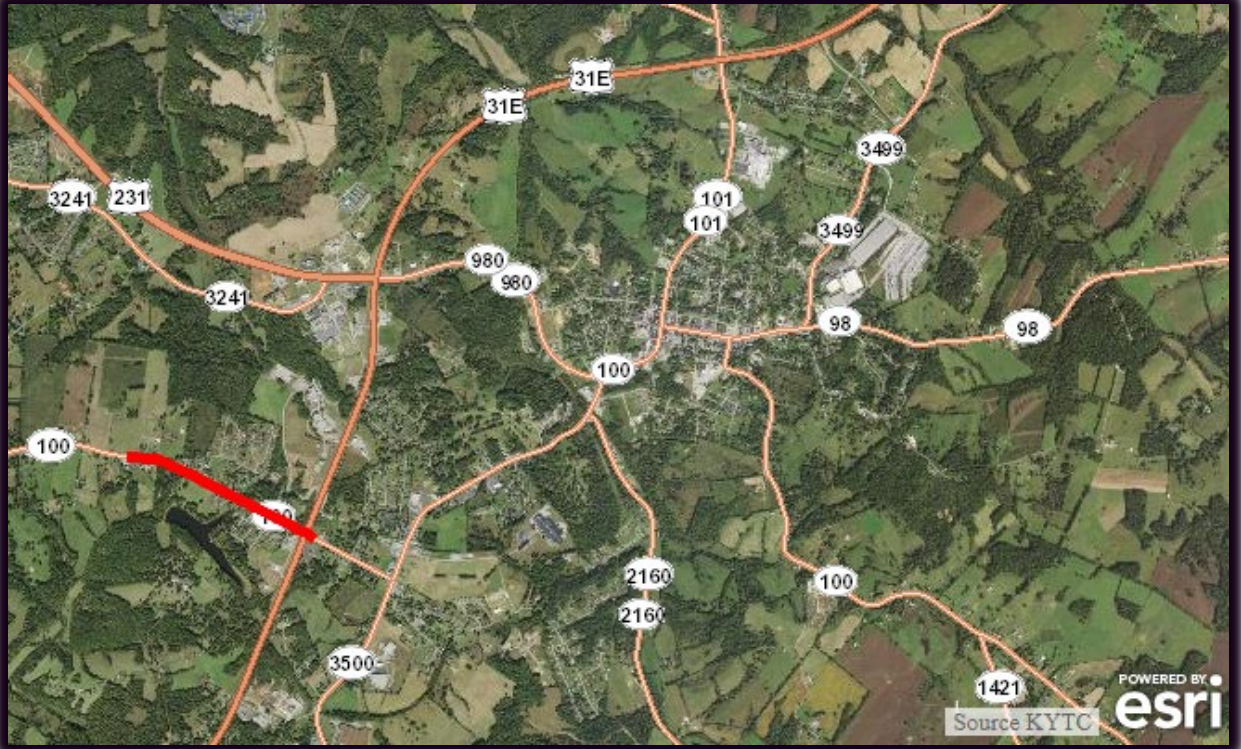


Data Needs Analysis



Scoping Study



KY-100
Franklin Road
Allen County
Item No. 3-8802.00

Prepared by
KYTC District 3

January 2023



I. PRELIMINARY PROJECT INFORMATION

County:	Allen	Item No.:	3-8802.00
Route Number(s):*	KY-100	Road Name:	Franklin Road
Program No.:	15632	UPN:	FD52 002 0100 005-014
Federal Project No.:	STP 5071020	Type of Work:	Major Widening

2022 **Highway Plan Project Description:**

WIDENING OF KY 100 (FRANKLIN ROAD) TO 3 LANES WITH URBAN SECTION FROM OLIVER STREET TO US 31E TO INCREASE CAPACITY/SAFETY. MP 11.800-12.700 (14CCN)(18CCN) (2020CCR)

Beginning MP:	11.8	Ending MP:	12.7	Project Length:	0.9
In TIP:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Use PDP/CHAF to Verify Project Data		
State Class.:	<input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary		Route is on:	<input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt	
Functional Class.:	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural	Collector	Truck Class.:	AAA	% Trucks: 8.013
MPO Area:	Not Applicable		Terrain:	Rolling	
ADT (current):	3462	2019			
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled		<input type="checkbox"/> Partial	Spacing: <input type="text"/>	
Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):				
Existing Bike Accommodations:	Shared Lane		Ped:	<input type="checkbox"/> Sidewalk	
Posted Speed:	<input checked="" type="checkbox"/> 35 mph <input checked="" type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph		<input type="checkbox"/> Other (Specify):		
KYTC Guidelines Preliminarily Based on :	35/45/55 MPH Proposed Design Speed				

COMMON GEOMETRIC

Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	2	Existing Rdwy. Plans available?
Lane Width	10'	11-12'	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shoulder Width	5'	4-8'	Year of Plans: 1940
Max. Superelevation***	N/A	6-8%	<input type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	N/A	100-960'	Date Requested:
Maximum Grade	8%	8-10%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	N/A	250-495'	Date Requested:
Sidewalk Width(urban)	N/A	5'	Type: <input type="text"/>
Clear-zone [†]	N/A	14-32'	
Project Notes/Design Exceptions?	N/A		

Bridge No.: [‡]	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			Existing Geotech Data Available?
Total Length			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Width, curb to curb			
Span Lengths			
Year Built			
Posted Weight Limit			Detour Length(s): N/A
Structurally Deficient?			
Functionally Obsolete?			
Existing Bridge Type			

*If more than one road is included in the project, include additional sheets.
 **Based on proposed Design Speed
 ***AASHTO's A Policy on Geometric Design of Highways and Streets
 +AASHTO's Roadside Design Guide
 ‡If more than two bridges are located on the project, include additional sheets.

II. PROJECT PURPOSE AND NEED

A. Legislation

The following funding is listed in KY's FY22-FY28 Enacted Highway Plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
STP2	D	2023	\$380,000
SPP	R	2025	\$580,000
SPP	U	2026	\$580,000
SPP	C	2027	\$720,000

B. Project Status

The design funding of \$380,000 was authorized on August 31, 2022.

C. System Linkage

KY-100 (Franklin Road) is federally functionally classified as a Rural Major Collector that primarily connects the city of Scottsville in Allen County to the city of Franklin in Simpson County.

D. Modal Interrelationships

This is considered a rural highway but this section is adjacent to an area that could be considered urban, especially considering that the school district is there (off Oliver Street and US-31E). There isn't a fixed route transit service outside of the city of Scottsville in Allen County, but KY-100 is a bus route for area schools. Bicycle and pedestrian facilities are also not present on this route, but it is possible that they could be considered in this area. This route also experiences frequent horse and buggy traffic due to a large Mennonite community to the west off of KY-100, and they have expressed concern about this section of KY-100 due to the geometry.

E. Social Demands & Economic Development

This highway provides the primary connection for residents of southwestern Allen County, in particular the residents of Briarwood Shores Apartments and the other communities along this section, to the services - business, school, healthcare, government, and recreational activity - of Scottsville.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

The last actual traffic count for KY-100 in Allen County between MP 11.8 and MP 12.654 (2019) was 3,462 AADT and between MP 12.654 and MP 12.7 (2021) was 5,011 AADT. These counts have remained fairly consistent over the past two decades. This is also a AAA route and is vital for the transportation of freight (8% trucks). However, this route is not on the National Truck Network so it is illegal for over-dimensional trucks to use it.

G. Capacity

This corridor does not experience noteworthy congestion issues, other than short delays at US-31E where there is a traffic signal.

H. Safety

In the last five years (2018-2022), there have been 29 reported crashes (1 of which was fatal but did not actually take place in this corridor) on KY-100 from MP 11.8 to MP 12.7 in Allen County. The majority (12) were rear end collisions, which makes sense due to the traffic signal and the many approaches on this section. In fact, 10 of those 29 crashes happened at the US-31E intersection and they made up half of the rear end collisions for the entire section (6). The Oliver Street intersection experienced 2 crashes. The Critical Rate Factor for this corridor is 1.144 up to MP 12.654 and 1.813 after that, indicating that crashes may be occurring at a slightly higher rate than on a similar type of corridor in Kentucky. The EEC (Excess Expected Crashes) for KAB crashes is 0.2 and 1.0 for CO crashes, indicating that the number of crashes occurring on this corridor is slightly higher than what would be expected. The LOSS (Level of Service of Safety) for both KAB and CO crashes is 3, indicating less than expected safety performance and moderate potential for crash reduction. In summary, there is potential for safety improvement on this corridor.

I. Roadway Deficiencies

This section of KY-100 is narrow (10' lanes with 1' paved shoulder and 4' stabilized shoulder), especially when considering the amount of truck traffic. There are numerous approaches that should be considered, but the one at Oliver Street is the only one that comes in at a skew. There is also a sag in this section with a grade of 8% that bears mentioning.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW

A. Air Quality

Project is in: Attainment area Nonattainment or Maintenance Area PM 2.5 County

STIP Pg.#: (2021-2024) pg.1

TIP Pg.#:

As this is a federally-funded project, it is listed in the STIP.

B. Archeology/Historic Resources

Known Archeological or Historic Resources are present

Section 106 will apply and SHPO clearances for archeology and historic will be required.

C. Threatened and Endangered Species

The Gray, Indiana, and Northern-long eared bat are endangered species. Anticipate seasonal tree cutting restrictions will be required to minimize potential adverse effects to Indiana Bats.

D. Hazardous Materials

Potentially Contaminated Sites are present Potential Bridge or Structure Demolition

There is a gas station at the end of the project.

E. Permitting

Check all that may apply: Waters of the US MS4 area Floodplain Impacts Navigable Waters of the US Impacts

Are 401/404 Permits likely to be required? Yes No Impacts to: Wetlands Stream/Lake/Pond

ACE LON ACE NW ACE IP DOW IWQC Special Use Waters

A KYTC BMP Plan and KYR10 permit will be applied if disturbance is greater than 1 acre. Ramble Creek crossing at MP 12.35.

F. Noise

Are existing or planned noise sensitive receptors adjacent to the proposed project? Yes No

Is this considered a "Type I Project" according to [KYTC Noise Analysis and Abatement Policy?](#) Yes No

A Traffic Noise Impact Analysis must be performed in accordance with the KYTC Noise Policy.

G. Socioeconomic

Check all that may apply: Low Income/Minority Populations Relocations Local Land Use Plan available

There are residential homes, a church, and a business along the corridor.

H. Section 4(f) or 6(f) Resources

The following are present on the project: Section 4(f) Resources Section 6(f) Resources

There are none present.

[Anticipated Environmental Document:](#)

CE Level 1



IV. PROJECT NEED, PURPOSE & SCOPE

A. Need:

KY-100 is a rural major collector route that connects the communities along the corridor to the cities of Scottsville and Franklin. Numerous approaches along the corridor paired with frequent horse and buggy traffic are safety concerns (29 crashes with nearly half being rear end). It is also a AAA truck route that is used for the transportation of freight.

B. Purpose:

The purpose of this project is to improve safety and mobility along this section of KY-100.

C. Scope:

The estimated improvement to this corridor based on the funding is reconstructing the Oliver Street intersection and adding a turn lane on KY-100 at that intersection. Conversely, the estimated improvement based on the Highway Plan description is installing a two-way left-turn lane. Significant impacts to right-of-way (60' existing) and utilities should be expected if the latter is the case, but the former will have some impacts as well.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
The following estimate is based on just reconstructing the Oliver Street intersection and adding a turn lane on KY-100 at that intersection. The larger project that is described in the 2022 Highway Plan is for installing a two-way left-turn lane on KY-100 from Oliver Street to US-31E. In the 2018 Highway Plan, Design, Right-of-Way, and Utility costs were similar to the 2022 estimates, but the Construction estimate was \$3 million more.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$380,000
	R/W	\$580,000
	Utilities	\$580,000
	Const	\$720,000
	Total	\$2,260,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company - Tennessee Valley Authority
 Contact - Williams Mills, Transmission Service Manager
 Address - 6045 Russellville Rd, Bowling Green, KY 42101
 Phone No. - 270-846-7049

Company - North Central Telephone Cooperative Inc.
 Contact - Troy Davis, Engineer
 Address - 872 Hwy 52 E Byp PO Box 70, Lafayette, TN 37083
 Phone No. - 615-666-2151

Company - Windstream Communications
 Contact - Steve Johnson, Sr Engineer OSP
 Address - 111 South Main St, Elizabethtown, KY 42701
 Phone No. - 859-357-6209

Company - Tri-County Electric Membership Coop. Corp.
 Contact - Steve Linville, Engineer
 Address - 405 College St, PO Box 40, Lafayette, TN 37083
 Phone No. - 615-666-2111

Company - Allen County Water District
 Contact - Garry Wade, District Manager
 Address - 330 New Gallatin Rd PO58, Scottsville, KY 42164
 Phone No. - 270-622-3040

Company - City of Scottsville Water, Sewer, and Gas
 Contact - William Thomason, City Superintendent
 Address - 201 West Main St, Scottsville, KY 42164
 Phone No. - 270-618-1843

VII. TABLES AND EXHIBITS



Photo 1: Beginning of the project near the Oliver Street intersection facing east toward Scottsville



Photo 2: End of the project at the US-31E intersection facing west toward Franklin