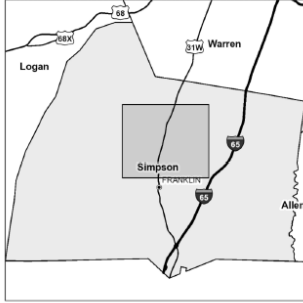
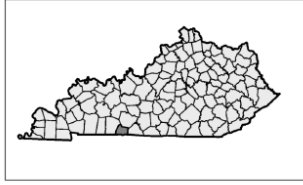
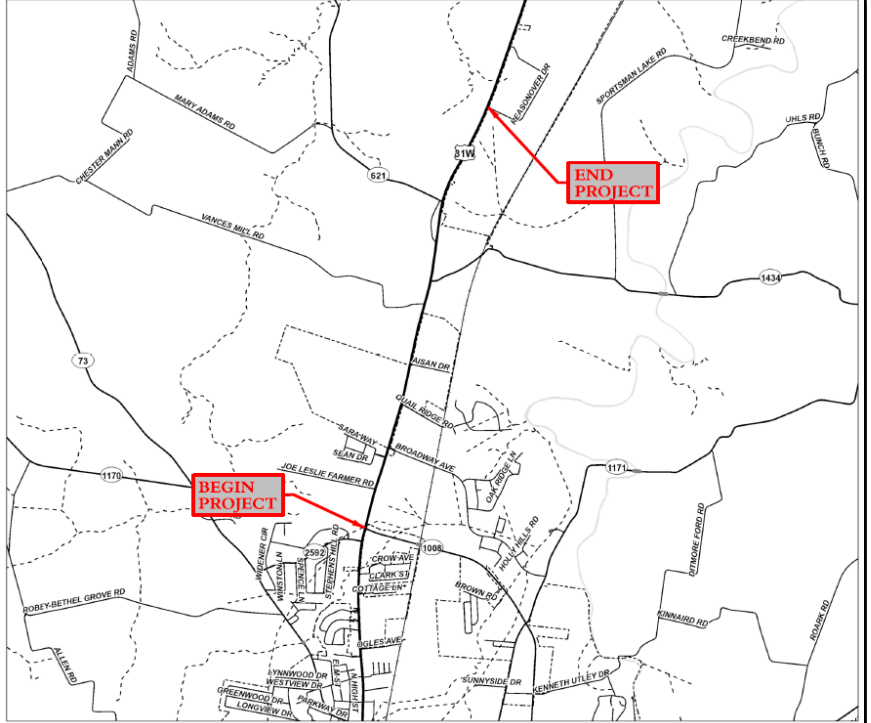


Data Needs Analysis



3-8856.00
SIMPSON CO.
US 31W (3.023 MILES)
MP 8.477 TO MP 11.500



Scoping Study



US 31W, Simpson County
From KY 1008 to KY 621
Item No. 3-8856.00

Prepared by the KYTC
Division of Planning and
KYTC District 3

May 2021



I. PRELIMINARY PROJECT INFORMATION

County:	Simpson	Item No.:	3-8856.00
Route Number(s):*	US 31W	Road Name:	Bowling Green Road
Program No.:	1209701D	UPN:	FD52 107 31W 008-011
Federal Project No.:	5081007	Type of Work:	Major Widening

2021 **Highway Plan Project Description:**

IMPROVE US-31W FROM KY-1008 TO KY-621 (termini moved to Reasonover Drive at MP 11.5 per locals' request). (14CCN)(16CCR) (2020CCR)

Beginning MP:	8.477	Ending MP:	10.800	Project Length:	3.023
In TIP:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Reconcile Project Information in Clearview		
State Class.:	<input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary		Route is on:	<input type="checkbox"/> NHS <input checked="" type="checkbox"/> NN <input type="checkbox"/> Ext Wt	
Functional Class.:	<input checked="" type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural	Arterial	Truck Class.:	AAA	% Trucks: 12.799
MPO Area:	Not Applicable		Terrain:	Rolling	
ADT (current):	7789	(Year)	2018		
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled		<input type="checkbox"/> Partial	Spacing:	3
Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):				
Existing Bike Accommodations:	None		Ped:	<input type="checkbox"/> Sidewalk	
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph		<input type="checkbox"/> Other (Specify):		
KYTC Guidelines Preliminarily Based on :	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	Varies	8'	Year of Plans: 1941
Max. Superelevation***	NA	8%	<input checked="" type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	NA	960'	Date Requested:
Maximum Grade	4%	5%	<input checked="" type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	>495'	495'	Date Requested: Received
Sidewalk Width(urban)	NA	N/A	Type: Lidar
Clear-zone [†]	Varies	26'-32'	
Project Notes/Design Exceptions?	NA		

Bridge No.: [‡]	NA	(Bridge #2)
Sufficiency Rating		
Total Length	Existing Geotech Data Available?	
Width, curb to curb	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Span Lengths		
Year Built		
Posted Weight Limit	Detour Length(s):	
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 was listed in the 2020 enacted highway plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
FED	D	2022	\$1,560,000
FED	R	2024	\$1,740,000
FED	U	2025	\$4,870,000
FED	C	2026	\$12,660,000

B. Project Status

This project was identified as No. 2 priority project by local officials during the 2020 SHIFT prioritization process. This project was sponsored by the BRADD and double boosted as well. Design funds were authorized 7/24/2020.

C. System Linkage

US 31W is a Urban Minor Arterial and a Rural Major Collector within the project limits. US 31W connects the incorporated areas of Franklin, Woodburn, and Bowling Green. This roadway provides access to a large industrial park in northern Simpson County and is a major commuter route between Franklin and Bowling Green. US 31W also serves as a detour route for Interstate 65 when incidents close the interstate between Exit 6 and Exit 20.

D. Modal Interrelationships

Because of the large percentage of industrial uses along the US 31W corridor, the movement of large trucks needs to be considered for design decisions.

E. Social Demands & Economic Development

Northern Simpson County has experienced rapid growth with both industrial (Wilkey North Industrial park) and residential growth north of KY 1008.

II. PROJECT PURPOSE AND NEED (cont.)**F. Transportation Demand**

The last actual traffic counts for the section of US 31W within the project limits are MP 8.4770 to MP 13.9840 = 7,789 in 2018. These counts have been on steady decrease from 2000 to 2015 but has increased significantly from 2015 to 2018. Further growth is anticipated, particularly if a new I-65 interchange at KY-240 is constructed in the future.

G. Capacity

During the peak commuting travel periods in the morning and afternoon, congestion is experienced. Additional passing opportunities will help relieve the congestion until traffic demands major widening.

H. Safety

The proposed improvement is located along the US 31W Safety Corridor which was identified as a corridor of concern because of its high incidence of crashes (69 from 2016-2020). Twenty six percent of the collisions reported on this corridor in the last five years involved injuries about a quarter reported as rear end collisions. Collision types most commonly reported included single vehicle, rear end, angle, head on, and sideswipes in that order. Many crashes were due to multiple industrial access points along the corridor.

I. Roadway Deficiencies

Overall the horizontal and vertical geometry of this section of roadway is flat and straight with no significant curvature. The lane width of 10-11' does not meet KYTC standards. The narrow shoulders in the non improved sections also do not meet KYTC standards.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW

A. Air Quality

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

STIP Pg.#: [Redacted]

TIP Pg.#: [Redacted]

B. Archeology/Historic Resources

Known Archeological or Historic Resources are present

There are historic-age houses lining this route along with a historic-age golf course/club (the Franklin Country Club) and an historic-age industrial structure. Archaeological survey will need to be conducted.

C. Threatened and Endangered Species

Listed on USFWS IPaC website for this area is Gray, Indiana, and Northern Long-eared Bats and snuffbox mussel. There are quite a few mapped sinkholes in the corridor and karst potential is mapped as intense, so it would need to be searched for caves and portals for potential bat use. Possible BA may be required.

D. Hazardous Materials

Potentially Contaminated Sites are present Potential Bridge or Structure Demolition

There are possible UST sites present.

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

There are no major impacts.

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 Noise Screening will be required.

G. Socioeconomic

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

An Environmental Justice Analysis will be needed.

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

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

Outside of the APE, there is a previously documented cemetery (Hoy Family Cemetery) in the area southeast of the US-31W and KY-1008 intersection.

[Anticipated Environmental Document:](#)

CE Level 3 

IV. PROJECT NEED, PURPOSE & SCOPE

A. Need:

US 31W between KY 1008 and the north industrial park is predominantly a two lane facility. There is a .6 mile section of this roadway that was widened to four lanes to accommodate the turning movements at a factory. US31W is the major non-interstate, north-south route through Simpson County and provides a link between Franklin and Bowling Green. There is a mixture of residential, farmland, and industrial land use along this section. Congestion and delays in travel time often occur during morning and afternoon rush hours due to the number of left turns and the lack of turning lanes at some of the commercial and industrial entrances. Due to the volume of traffic and the various turning movements, safety is a concern.

B. Purpose:

US 31W is a vital and heavily traveled connection between Bowling Green and Franklin. The increasing traffic is creating safety and mobility issues for motorists and commercial vehicles along the corridor. This project was identified as No. 2 priority project by local officials during the 2020 SHIFT prioritization process. Resulting from that prioritization, a project was identified in the FY 2020 Enacted Biennial Highway Plan. The purpose of the project is to address safety and mobility issues along US 31W and to provide a reliable connection between Bowling Green and Franklin.

C. Scope:

The typical section will be a 3 lane rural section with 12' driving lanes, 12' center turn lane, and 8' shoulders (4' paved). The initial tie down point will be at the widened section of the KY 1008 intersection. There is potential to limit the scope through the Franklin Precision Industry/Pool and Spa Depot Distribution Center area and Wilkey North Industrial Park where widening has already occurred. Some very minor shoulder widening may be necessary in these sections. KYTC has already obtained mobile lidar mapping supplemented with conventional aerial mapping. However, an additional 2000' of conventional survey will be required in order to extend the project to the new termini at Reasonover Drive at MP 11.5.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
Estimate assumes three lane typical section with equal widening. Project Team may consider avoiding any construction within the industrial park areas that have previously been widened for 3 lanes including right turn lanes.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$1,560,000
	R/W	\$1,740,000
	Utilities	\$4,870,000
	Const	\$12,660,000
Total	\$20,830,000	

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company Name -	Franklin Electric Plant Board
Contact -	John W. Law, Operations Superintendent
Address -	309 North High St. Franklin, Kentucky 42135-0349
Phone No. -	270-586-4441
Company Name -	Tennessee Valley Authority
Contact -	William F. Mills, Transmission Service Manager
Address -	6045 Russellville Road
Phone No. -	270-846-7049
Company Name -	Warren Rural Electric Cooperative Corporation
Contact -	Jonathan Lindsey, Field Engineer
Address -	951 Fairview Ave., P.O. Box 1118 BG, KY 42102
Phone No. -	270-842-6541
Company Name -	Atmos Energy Corporation
Contact -	Ryne White, Engineer II
Address -	2850 Russellville Road BG, KY 42101
Phone No. -	270-685-8140
Company Name -	Millennium Gas Pipeline
Contact -	Wayne Goodrum, Manager
Address -	951 Fairview Ave, P.O. Box 1118 BG, KY 42102
Phone No. -	270-776-4651
Company Name -	AT&T
Contact -	Calvin "Buzz" Colburn, Contract Engineer
Address -	1062 Lovers Lane Bowling Green, Kentucky 42103
Phone No. -	270-782-4810
Company Name -	LUMEN (CenturyLink Communications, LLC)
Contact -	Jeffrey Cannon, Program Manager
Address -	2531 Perimeter Place Drive Nashville, TN 37214
Phone No. -	1-615-263-1128
Company Name -	Comcast Cable
Contact -	Danny Hoover, Supervisor
Address -	2919 Ring Road Elizabethtown, Kentucky 42701
Phone No. -	270-706-0351
Company Name -	City of Franklin, Kentucky Water and Sewer
Contact -	Kenton Powell, City Manager
Address -	117 W. Cedar St, P.O. Box 2805 Franklin, Ky 42135
Phone No. -	270-586-4497
Company Name -	Simpson County Water District
Contact -	Ryan Leisey, P.E., Manager of Engineering
Address -	523 Hwy US-31W Byp BG, Kentucky 42102
Phone No. -	270-842-0052

VII. TABLES AND EXHIBITS



KY 1008 Intersection with US 31W. Project progresses to the right.



Previously widened section of US 31 W near Franklin Precision Industries

VII. TABLES AND EXHIBITS (cont.)



Two lane section of US 31W looking south near the intersection with KY 621



US 31W looking south near Reasonover Drive at the end of the project