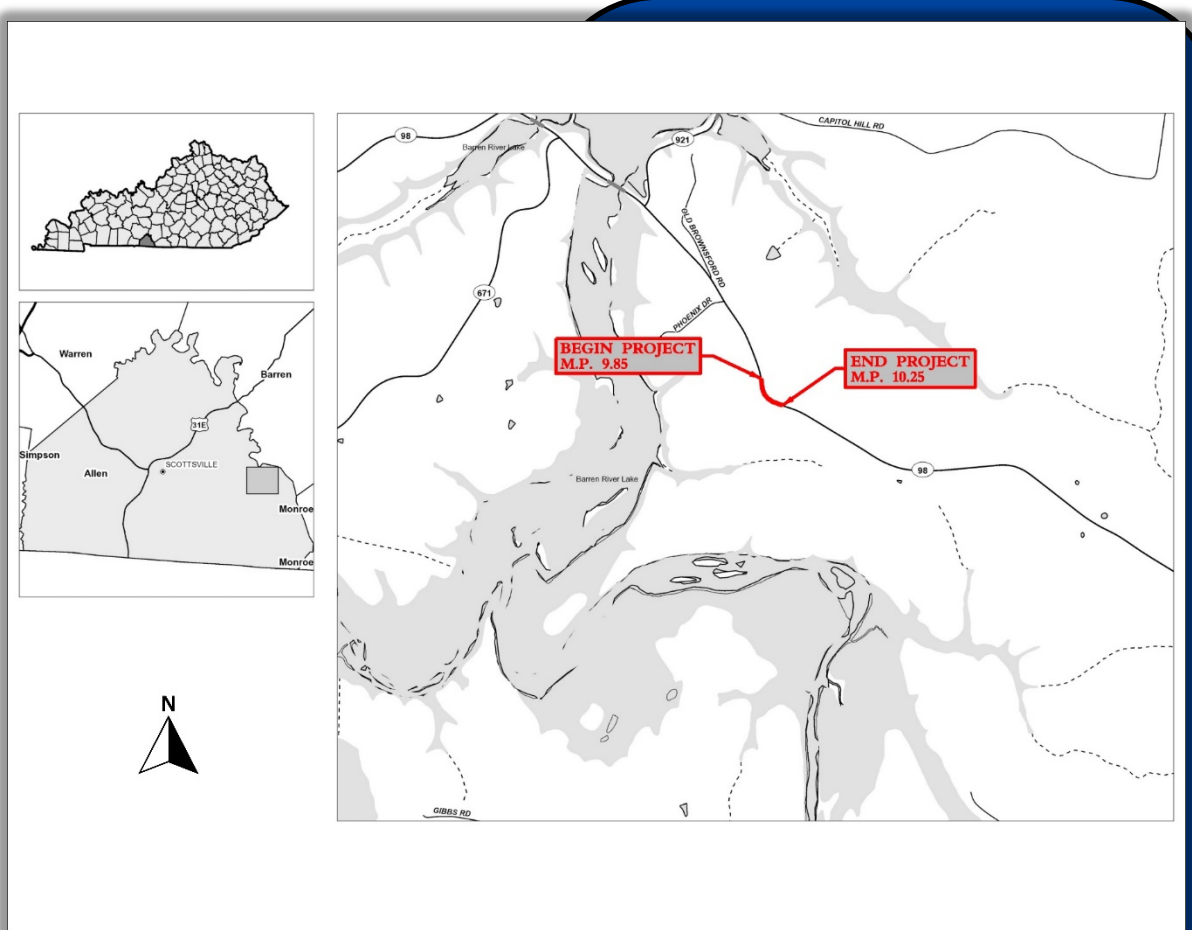


Data

Needs

Analysis



Scoping Study



KY-98
Brownsford Road
Allen County
Item No. 3-8902.00

Prepared by the
KYTC District 3

November 2021



I. PRELIMINARY PROJECT INFORMATION

County:	Allen	Item No.:	3-8902.00
Route Number(s):*	KY-98	Road Name:	Brownsford Road
Program No.:	13560	UPN:	FD04 002 0098 009-011
Federal Project No.:	STP 9031001	Type of Work:	Grade & Drain

2020 **Highway Plan Project Description:**

RECONSTRUCT 1.0 MILE EAST OF BRIDGE OVER BARREN RIVER LAKE TO CORRECT VERTICAL AND HORIZONTAL DEFICIENCIES. (2020CCN)

Beginning MP:	9.85	Ending MP:	10.25	Project Length:	0.4
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.:	AA	% Trucks:	10.522
MPO Area:	Not Applicable	Terrain:	Rolling		
ADT (current):	1194 2018				
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial	Spacing:			
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 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'	12'	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shoulder Width	4'	8'	Year of Plans: 1951
Max. Superelevation***	N/A	8%	<input type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	N/A	960'	Date Requested:
Maximum Grade	N/A	4%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	N/A	495'	Date Requested:
Sidewalk Width(urban)	N/A	N/A	Type: <input type="text"/>
Clear-zone [†]	N/A	26'-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 FY20-FY26 Enacted Highway Plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
SPP	D	2021	\$400,000
SPP	R	2022	\$400,000
SPP	U	2022	\$300,000
SPP	C	2023	\$1,300,000

B. Project Status

The design funding of \$400,000 was authorized on July 2, 2021.

C. System Linkage

KY-98 is federally functionally classified as a Rural Major Collector that primarily connects the city of Fountain Run (and secondarily Gamaliel and Tompkinsville) to the city of Scottsville and the rural areas around each of those cities.

D. Modal Interrelationships

This is a rural highway that has very low intermodal interaction. There is not a fixed route transit service outside of the city of Scottsville in Allen County, but KY-98 is a bus route for area schools. Bicycle and pedestrian facilities are also not present on this route.

E. Social Demands & Economic Development

This highway provides the primary connection for residents of eastern Allen County to the services - business, school, healthcare, government, and recreational activity - of Scottsville and Fountain Run (and also extending to Gamaliel and Tompkinsville).

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

The last actual traffic count for KY-98 in Allen County between MP 9.85 and MP 10.25 (2018) was 1,194 AADT. These counts have remained fairly consistent over the past two decades. This is a AA route and is vital for the transportation of freight (Dollar General's warehouse is on the western end of KY-98 in Scottsville, and CPC Commodities/Livestock is on the eastern end in Fountain Run).

G. Capacity

This corridor does not experience noteworthy congestion issues.

H. Safety

In the last five years (2016-2020), there have been four reported crashes on KY-98 from MP 9.85 to MP 10.25 in Allen County. Two of these were single vehicle collisions where the driver failed to navigate the horizontal curve, and the other two involved two vehicles where the collision was caused by the curve, narrow lane widths, and poor sight distance. The Critical Rate Factor for this corridor is 0.478, indicating that crashes may be occurring at a lower rate than on a similar type of corridor in Kentucky. It's also worth noting that a fatal crash occurred just outside of the five year sample size (8/26/2015).

I. Roadway Deficiencies

This section of KY-98 is in a horizontal curve with poor superelevation and is also in a heavily wooded area, so sight distance is limited and wet/icy conditions are an issue due to the shade from those trees.

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]

The SPP design funds was added to the FY19-22 STIP as part of Administrative Mod. 2018.306 on June 16, 2021

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. There were no sites observed within the environmental footprint that appear to be eligible for the NRHP.

C. Threatened and Endangered Species

There are no critical habitats at this location. The Gray bat and Indiana bat are endangered species, and the Northern long-eared bat is threatened. Anticipate that seasonal tree clearing restrictions will be required to minimize potential adverse effects to Indiana bats. Expect a subject matter expert to conduct a further survey.

D. Hazardous Materials

Potentially Contaminated Sites are present Potential Bridge or Structure Demolition

There are no known hazardous materials located within the corridor.

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

DEA Permit Coordinator will prepare the needed documentation for the permits.

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

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

This project is in a rural area, and there are no relocations that will be required for the construction of this project.

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 no 4(f) or 6(f) resources within the direct impact areas.

[Anticipated Environmental Document:](#)

CE Level 1



IV. PROJECT NEED, PURPOSE & SCOPE

A. Need:

KY-98 is a rural major collector route that connects the rural communities along the corridor to the cities of Scottsville and Fountain Run (and also extending to Gamaliel and Tompkinsville). It is also a AA truck route that is vital for the transportation of freight (Dollar General/CPC). This section currently experiences 10.522% truck traffic.

B. Purpose:

The purpose of this project is to improve safety for all drivers and mobility (with a focus on freight) at this horizontal curve on this corridor.

C. Scope:

The estimated improvement to this horizontal curve on KY-98 is realigning it to correct the deficiencies of the existing section. Since this work would be outside of the existing alignment, impacts to right-of-way and utilities can be expected.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
The following estimate is based on realigning KY-98 to straighten and flatten out the major horizontal curve in the project area.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$400,000
	R/W	\$400,000
	Utilities	\$300,000
	Const	\$1,300,000
	Total	\$2,400,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company - AT&T Contact - Gary Kidd, Area Manager Address - 3719 Bardstown Rd, 2nd Fl, Louisville, KY 40218 Phone No. - 502-454-4591	Tri-County Electric Membership Coop. Corp. Steve Linville, Engineer 405 College Street, PO Box 40, Lafayette, TN 37083 270-237-4418
Company - North Central Telephone Cooperative Inc. Contact - Troy Davis, Engineer Address - 872 Hwy 52 Byp E PO Box 70, Lafayette, TN 37083 Phone No. - 615-888-6058	Allen County Water District Garry Wade, District Manager 330 New Gallatin Rd PO-B 58, Scottsville, KY 42164 270-622-8770
Company - Windstream Communications Contact - Steve Johnson, Sr. Engineer OSP Address - 130 W. New Circle Road, Lexington, KY 40505 Phone No. - 859-321-2035	Fountain Run Water District Louise Veach, Office Manager 226 Main St, PO Box 118, Fountain Run, KY 42133 270-852-1161
Company - Tennessee Valley Authority Contact - Williams Mills, Transmission Service Manager Address - 6045 Russellville Road, Bowling Green, KY 42101 Phone No. - 270-846-7049	

VII. TABLES AND EXHIBITS



Photo 1: Near the beginning of the project area facing south toward Fountain Run



Photo 2: Main curve facing south toward Fountain Run (showing the vertical curvature)

VII. TABLES AND EXHIBITS (cont.)



Photo 3: Main curve facing north toward Scottsville (showing issue of trees shading roadway)



Photo 4: Near the end of the project area facing north toward Scottsville