

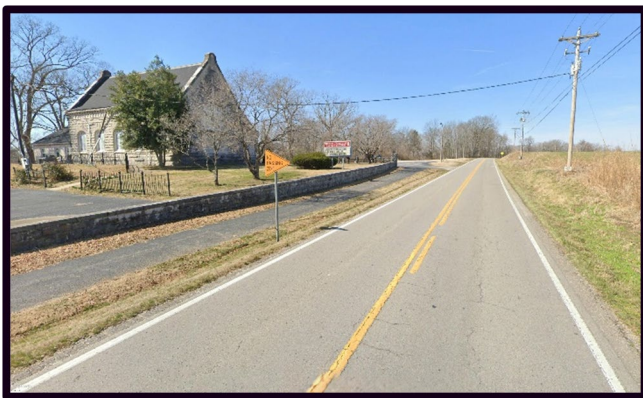
Data

Needs

Analysis



Scoping Study



KY 234, Warren County
Item No. 3-8854.00

Prepared by the KYTC
Division of Planning and
KYTC District 3

December 2021



I. PRELIMINARY PROJECT INFORMATION

County:	Warren	Item No.:	3-8854.00
Route Number(s):*	KY 234	Road Name:	Cemetery Road
Program No.:	1444301D	UPN:	07 114 234 7-9
Federal Project No.:	9031043	Type of Work:	MAJOR WIDENING(O)

2020 **Highway Plan Project Description:**

MAJOR WIDENING/RECONSTRUCTION OF CEMETERY ROAD (KY-234) FROM FOUNTAIN TRACE TO ROGER PORTER ROAD(MP 7.878 TO MP 9.625).(14CCN) (2020CCN)

Beginning MP:	7.878	Ending MP:	9.625	Project Length:	1.747
In TIP:	<input checked="" type="checkbox"/> Yes <input 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 <input type="checkbox"/> Collector	Truck Class.:	A	% Trucks:	N/A
MPO Area:	Bowling Green	Terrain:	Rolling		
ADT (current):	5359	2019			
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 checked="" type="checkbox"/> Divided (Type):	Turning MP 9.606 to MP 9.625			
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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Lane Width	9'	11'	
Shoulder Width	4'	6'	Year of Plans: 1950
Max. Superelevation***	8.00%	8%	<input type="checkbox"/> Traffic Forecast Requested
Minimum Radius***	1432.4'	960'	Date Requested:
Maximum Grade	7%	7%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	404'	495'	Date Requested:
Sidewalk Width(urban)	N/A	N/A	Type:
Clear-zone [†]	Varies	26'-32'	

Project Notes/Design Exceptions? Tie in to existing improvements made under item number 3-1077.00 near Roger Porter Rd

Bridge No.: [‡]	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			Existing Geotech Data Available? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Total Length			
Width, curb to curb			Detour Length(s):
Span Lengths			
Year Built			
Posted Weight Limit			
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>
SPP	D	2021	\$1,000,000
SPP	R	2022	\$3,000,000
SPP	U	2022	\$3,250,000
SPP	C	2024	\$7,000,000

B. Project Status

Since the design phase timeline of this project is anticipated to span the 2021/2022 bienium neither the district or the MPO elected to boost this as a priority project for the 2022 SHIFT cycle. It is anticipated that this project will remain a priority for the 2024 cycle and right of way and utility funds will be requested at that time.

C. System Linkage

KY 234 is a Rural Major collector within the project limits. This portion of KY 234 can be used as a route between the residential development along KY 234 to Bowling Green/I-65. Also travelers between Barren River Lake/Scottsville and Bowling Green use this route.

D. Modal Interrelationships

This route accommodates a range of recreational travelers including water recreation for Barren River and Barren River lake. Aside from the residential developments in the immediate vicinity of the project limits, there are multiple farms along the route that access this roadway using farm vehicles.

E. Social Demands & Economic Development

Several large "estate" subdivisions exist along this corridor which contribute to commuting traffic along this route. Burton Memorial Church (historic) is also located along this corridor.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

The last actual traffic count for this segment of KY 234 is 5359 ADT (2019). Since 1995 there have been no discernible patterns in the average annual daily traffic counts for this segment. The numbers fluctuate and are in the range of approximately 5300 to 7500 AADT from 1995 to 2019.

G. Capacity

There are no perceived congestion issues associated with this segment of KY 234.

H. Safety

Forty crashes were found in the Highway Information System View and Extract Interface for the five year period of 2016-2020. The majority of crash types are made up of single vehicle, sideswipes, and rear ends. About 25% of crashes during this period resulted in bodily injury and there was one fatality reported.

I. Roadway Deficiencies

Narrow lanes with minimal shoulders along with steep slopes at the roadside contribute to a limited ability to recover from an unexpected departure from this facility. Multiple subdivisions with no turn lanes along with vehicles turning into and out of subdivisions also create opportunities for collisions at the intersections.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW	
A. Air Quality	
Project is in: <input checked="" type="checkbox"/> Attainment area <input type="checkbox"/> Nonattainment or Maintenance Area <input type="checkbox"/> PM 2.5 County	
STIP Pg.#: [REDACTED]	TIP Pg.#: [REDACTED]
Project added to STIP 11/03/2021 under STIP MOD # 2021.0132 Bowling Green-Warren Co MPO Administrative Modification #10	
B. Archeology/Historic Resources	
<input checked="" type="checkbox"/> Known Archeological or Historic Resources are present	
Section 106 will apply and SHPO clearances for archeology and historic will be required. Burton Memorial Baptist Church (Drakes Creek Baptist Church) at MP 9.15 is listed on the National Register of Historic Place. A cemetery is present within the corridor.	
C. Threatened and Endangered Species	
The Gray bat and Indiana bat are endangered species, and the Northern long-eared bat is threatened. It is anticipated that seasonal tree clearing restrictions will be required to minimize potential adverse effects to Indiana bats. Several clam species, and Kentucky Cave Shrimp are endangered.	
D. Hazardous Materials	
<input type="checkbox"/> Potentially Contaminated Sites are present <input type="checkbox"/> Potential Bridge or Structure Demolition	
There are no known hazardous materials located within the corridor.	
E. Permitting	
Check all that may apply: <input checked="" type="checkbox"/> Waters of the US <input type="checkbox"/> MS4 area <input type="checkbox"/> Floodplain Impacts <input type="checkbox"/> Navigable Waters of the US Impacts	
Are 401/404 Permits likely to be required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Impacts to: <input type="checkbox"/> Wetlands <input type="checkbox"/> Stream/Lake/Pond	
<input type="checkbox"/> ACE LON <input type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQC <input type="checkbox"/> Special Use Waters	
Drakes Creek is within the project corridor and coordination with DEA will be needed. The City of Bowling Green is a MS4 area.	
F. Noise	
Are existing or planned noise sensitive receptors adjacent to the proposed project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Is this considered a "Type I Project" according to KYTC Noise Analysis and Abatement Policy? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
A Traffic Noise Impact Analysis must be performed with accordance with the KYTC Noise Policy.	
G. Socioeconomic	
Check all that may apply: <input type="checkbox"/> Low Income/Minority Populations <input type="checkbox"/> Relocations <input type="checkbox"/> Local Land Use Plan available	
There are residential homes, neighborhoods, a church, and a cemetery along the project corridor.	
H. Section 4(f) or 6(f) Resources	
The following are present on the project: <input checked="" type="checkbox"/> Section 4(f) Resources <input type="checkbox"/> Section 6(f) Resources	
Burton Memorial Baptist Church (Drakes Creek Baptist Church) at MP 9.15 is listed on the National Register of Historic Places.	
Anticipated Environmental Document:	CE Level 2 ▼

IV. PROJECT NEED, PURPOSE & SCOPE

A. Need:

KY 234 between MP 7.878 and MP 9.625 is a two lane facility that services residential developments along with travelers between Barren River Lake/Scottsville and Bowling Green.

B. Purpose:

The purpose of this project is to address deficiencies in lane/shoulder width along with an unforgiving roadside.

C. Scope:

The original scope of this project was major widening but other options including minor widening may be considered for design. Minor widening could include a continuous three-lane section or possibly intermittent turning lanes with wide lanes, shoulder, and improved clear zone.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
The current estimate is based on major widening through the project limits.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$1,000,000
	R/W	\$3,000,000
	Utilities	\$3,250,000
	Const	\$7,000,000
	Total	14,250,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company Name -	Warren Rural Electric Cooperative Corporation
Contact -	Jonathan Lindsey, Field Engineer
Address -	951 Fairview Ave. Bowling Green, Kentucky 42102
Phone No. -	270-842-6541
Company Name -	Tennessee Valley Authority
Contact -	William F. Mills, Transmission Service Manager
Address -	6045 Russellville RD Bowling Green, Kentucky 42101
Phone No. -	270-846-7049
Company Name -	Atmos Energy Corporation
Contact -	Ryne White, Sr. Engineer
Address -	2850 Russellville Road Bowling Green, Kentucky 42101
Phone No. -	270-901-1705
Company Name -	AT&T
Contact -	Calvin "Buzz" Colburn, Contract Engineer
Address -	1061 Lovers Lane Bowling Green, Kentucky 42103
Phone No. -	270-782-4811
Company Name -	Spectrum Cable
Contact -	Justin Sturgeon, Construction Coordinator
Address -	515 Double Springs Rd. Bowling Green, Kentucky 42101
Phone No. -	270-782-0903
Company Name -	Warren County Water District
Contact -	Ryan Leisey, P.E., Manager of Engineering
Address -	523 Hwy US-31W Byp Bowling Green, Kentucky 42102
Phone No. -	270-842-0052

VII. TABLES AND EXHIBITS

Looking south near Roger Porter Road



Looking North near Barrington Manor Subdivision

