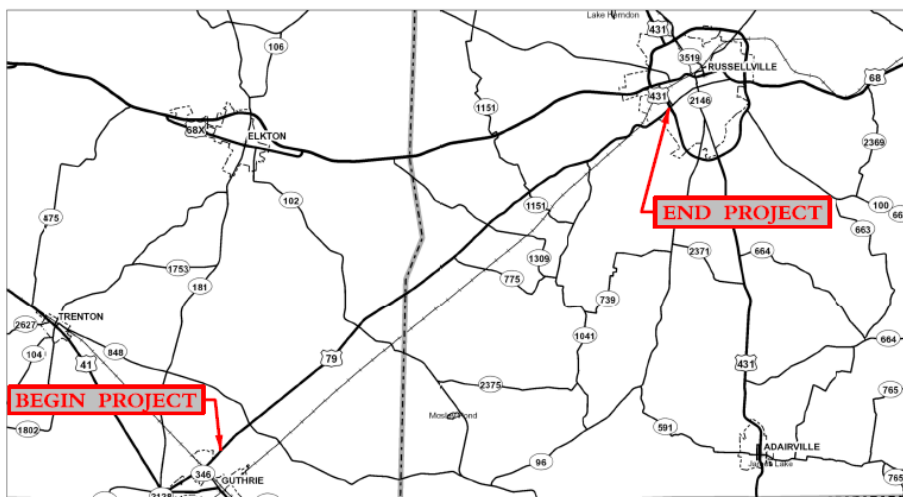
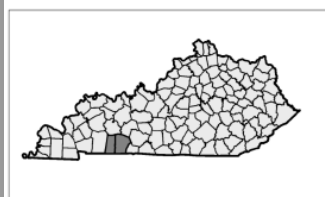
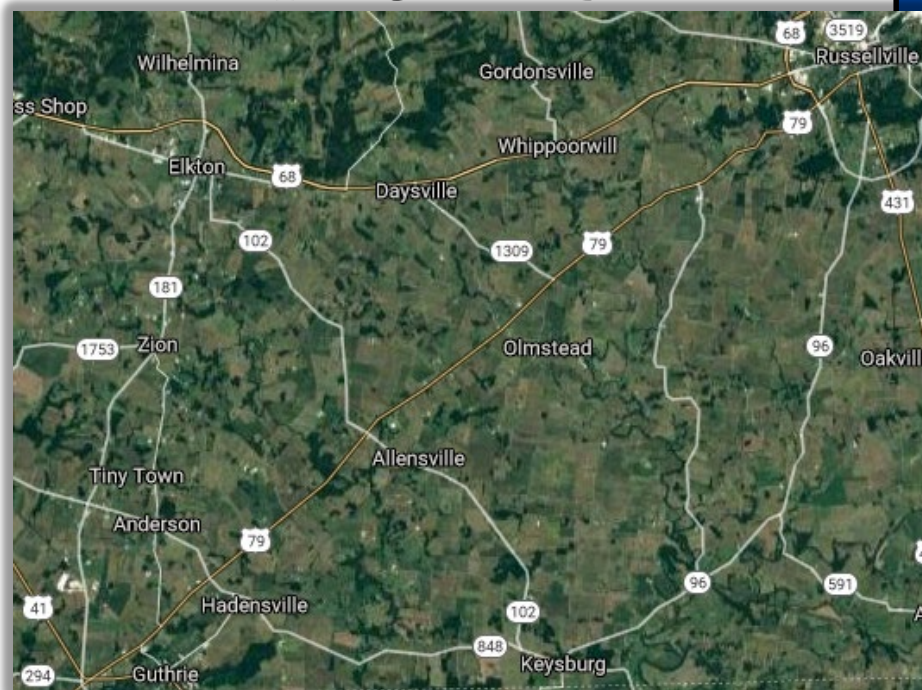


Data Needs Analysis



3-80050.00
LOGAN & TODD CO.
US 79 (18.32 MILES)
MP 3.00 (TODD) TO MP 10.71 (LOGAN)

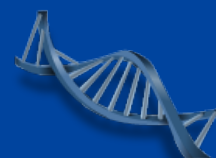
Scoping Study



US-79 Clarksville/
Russellville Road
Todd/Logan County
Item No. 3-80050.00

Prepared by the
KYTC District 3

May 2021



I. PRELIMINARY PROJECT INFORMATION

County:	Todd/Logan	Item No.:	3-80050
Route Number(s):*	US-79	Road Name:	Russellville/Clarksville Road
Program No.:	12805	UPN:	FD52 71/110 0079 000-011
Federal Project No.:	NHPP 0791010	Type of Work:	Widening

2020 Highway Plan Project Description:

Widen US-79 to 4 lanes (*assumed to actually be 3 lanes, and the estimate reflects that*) from Todd County Line (*really MP 3 in Todd County*) to intersection with Russellville Bypass. (18CCN) (2020CCR)

Beginning MP:	0.000	Ending MP:	10.713	Project Length:	18.319
In TIP:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
State Class.:	<input checked="" type="checkbox"/> Primary <input type="checkbox"/> Secondary				
Functional Class.:	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural <input type="checkbox"/> Arterial				
MPO Area:	Not Applicable				
ADT (current):	3329-4441 2018-2020				
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:	<input type="checkbox"/> Shared Lane <input type="checkbox"/> Ped: <input checked="" 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 :	55, 45, 35 MPH Proposed Design Speed				

[Reconcile Project Information in Clearview](#)

COMMON GEOMETRIC

Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	2	Existing Rdwy. Plans available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Year of Plans: 1931-1933 <input type="checkbox"/> Traffic Forecast Requested Date Requested: <input type="checkbox"/> Mapping/Survey Requested Date Requested: Type:
Lane Width	10'-12'	12'	
Shoulder Width	2'-4'	8'	
Max. Superelevation***	N/A	8%	
Minimum Radius***	N/A	960'	
Maximum Grade	N/A	4%	
Minimum Sight Dist.	N/A	495'	
Sidewalk Width(urban)	N/A	N/A	
Clear-zone [†]	N/A	26'-32'	

Project Notes/Design Exceptions?

N/A

Bridge No.†	110B00011N	110B00013N	
Sufficiency Rating	62.6	96	Existing Geotech Data Available? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Detour Length(s): N/A
Total Length	120.8'	34'	
Width, curb to curb	25'	23'	
Span Lengths	38'	10'	
Year Built	1932	1931	
Posted Weight Limit	N/A	N/A	
Structurally Deficient?	No	No	
Functionally Obsolete?	No	No	
Existing Bridge Type	Concrete T-beam	Concrete Culvert	
Bridge No.†	110B00014N	071B00026N	
Sufficiency Rating	98.4	63	
Total Length	32'	97.5'	
Width, curb to curb	25'	23'	
Span Lengths	8'	30'	
Year Built	1931	1933	
Posted Weight Limit	N/A	N/A	

Structurally Deficient?	<u>No</u>	<u>No</u>	
Functionally Obsolete?	<u>No</u>	<u>No</u>	
Existing Bridge Type	<u>Concrete Culvert</u>	<u>Concrete T-beam</u>	
Bridge No.: [‡]	<u>071B00025N</u>	<u>071B00024N</u>	<u>110B00012N</u>
Sufficiency Rating	<u>75.5</u>	<u>91.6</u>	<u>63.3</u>
Total Length	<u>110.5'</u>	<u>86'</u>	<u>171'</u>
Width, curb to curb	<u>23'</u>	<u>44'</u>	<u>23.5'</u>
Span Lengths	<u>34'</u>	<u>40'</u>	<u>40'</u>
Year Built	<u>1933</u>	<u>1933</u>	<u>1931</u>
Posted Weight Limit	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Structurally Deficient?	<u>No</u>	<u>No</u>	<u>No</u>
Functionally Obsolete?	<u>No</u>	<u>No</u>	<u>No</u>
Existing Bridge Type	<u>Concrete T-beam</u>	<u>Concrete T-beam</u>	<u>Concrete T-beam</u>

*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 the 2020 General Assembly's Enacted Highway Plan, and it is based on continuous three lane widening.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
FED	D	2022/23	\$1,500,000/\$6,000,000
FED	R	2024	\$12,740,000
FED	U	2024	\$20,810,000
FED	C	2026	\$59,010,000

B. Project Status

The initial design funding of \$1,500,000 has been authorized.

C. System Linkage

This section of US-79 is federally functionally classified as a Rural Principal Arterial that connects the city of Russellville, KY in Logan County to the city of Clarksville, TN. It is the primary route that connects the adjacent small rural communities to the commercial centers of Russellville and Clarksville.

D. Modal Interrelationships

This is a rural highway that has very low intermodal interaction. However, because of the large percentage of truck traffic on US-79 - Tier 3 intermodal freight arterial on the Kentucky Highway Freight Network - due to the interchange with I-24, their mobility should be considered. There is not a fixed route transit service in Logan or Todd County, but US-79 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 southeastern Todd County and southwestern Logan County to the services - business, school, healthcare, government, and recreational activity - of Russellville. It is also an economic freight corridor between Kentucky and Tennessee.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

The traffic counts for this corridor have been divided into five sections. The last actual traffic count for US-79 in Todd County between MP 3 and MP 3.973 (2018) was 4,285 AADT and between MP 3.973 and MP 10.606 (2019) was 3,553 AADT. The last actual traffic count for US-79 in Logan County between MP 0 and MP 3.478 (2019) was 3,553 AADT, between MP 3.478 and MP 7.351 (2017) was 3,243 AADT, and between MP 7.351 and MP 10.713 (2018) was 4,441 AADT. These counts have remained fairly consistent over the past two decades. This is a AAA route, and it is vital for the transportation of freight.

G. Capacity

This corridor does not experience noteworthy congestion issues.

H. Safety

In the last five years (2015-2020), there have been 172 crashes on US-79 in Todd County between MP 0 and MP 10.606 with 46 resulting in injury and two fatalities and 170 crashes on US-79 in Logan County between MP 0 and MP 10.713 with 35 resulting in injury and three fatalities. Most of these crashes were either single vehicle, angle, or rear end collisions. The Critical Rate Factor for this corridor in Todd County is slightly above 1.0 indicating that crashes may be occurring at a slightly higher rate than on similar type corridors in Kentucky, and the CRF for this corridor in Logan County is approximately 0.75 indicating that crashes may be occurring at a lower rate than on similar type corridors in Kentucky.

I. Roadway Deficiencies

US-79 has an area of horizontal curves in the Post Oak area. There are also areas along the corridor that exceed a 4.0% grade which is greater than the KYTC geometric 4.0% maximum design standard.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW

A. Air Quality

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

STIP Pg. #:

TIP Pg. #:

N/A

B. Archeology/Historic Resources

☐ Known Archeological or Historic Resources are present

There are no known resources along the project, however historic-age houses are along this route. A Historic and 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

Bridges and culverts are within the project corridor. Security Seed and Chemical LLC is at MP 9.65.

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

Whippoorwill Creek, a special use water, and Dry Fork Creek are within the project corridor.

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

None present.

[Anticipated Environmental Document:](#)

CE Level 2

**IV. PROJECT NEED, PURPOSE & SCOPE****A. Need:**

This section of US-79 is a rural principal arterial route that connects the rural communities along the corridor to the cities of Russellville, KY and Clarksville, TN. It is also an intermodal freight arterial (AAA route) that is vital for the transportation of freight. It currently experiences 23.383% truck traffic.

B. Purpose:

The purpose of this project is to improve mobility (mainly focused on freight) along this corridor.

C. Scope:

The estimated improvement to US-79 is widening from MP 3 in Todd County to the Todd/Logan County Line (MP 10.606) to the Russellville Bypass (MP 10.713) in Logan County (total distance of 18.319 miles), differing from the Highway Plan Project Description of from the Logan/Todd County Line (MP 0) to the Russellville Bypass (total distance of 10.713 miles), from two lanes to three lanes (2+1 design). Although a continuous third lane (2+1 design) is estimated and an ideal solution, strategically located passing lanes may also suffice and be economically feasible. It is assumed that the majority of the work will stay on the existing alignment, but the widening will still create the need to buy a large amount of additional right-of-way. It is also worth noting that three bridges within the project limits are being replaced by other projects: 3-80101, 3-80102, and 3-10010.

V. PROJECT ESTIMATE & METHODOLOGY

Estimate Methodology:	Current Estimate	
The following estimate is listed in the 2020 General Assembly's Enacted Highway Plan, and it is based on continuous three lane widening.	<u>Phase</u>	<u>Estimate</u>
	Planning	
	Design	\$7,500,000
	R/W	\$12,740,000
	Utilities	\$20,810,000
	Const	\$59,010,000
	Total	\$100,060,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company - AT&T	Pennyrile Rural Electric Cooperative Corporation
Contact - Gary Kidd, Area Manager	Allen Gates, Chief Executive Officer
Address - 3719 Bardstown Rd, 2nd Fl, Louisville, KY 40218	2000 Harrison St, Hopkinsville, KY 42241
Phone No. - 502-454-4591	270-886-2555
Company - Mediacom Communications Corporation	Atmos Energy Corporation
Contact - Brien Ramey, Construction Specialist	Ronnie Benningfield, Operations Manager
Address - 90 North Main Street, Benton, KY 42025	2850 Russellville Rd, Bowling Green, KY 42101
Phone No. - 270-527-9939	270-901-1705
Company - City of Guthrie, KY Water and Sewer Dept.	Boardwalk Pipeline Partners Northern Division
Contact - Devin Turner, Superintendent	Kevin Carman, Manager of Regional Projects
Address - 110 Kendall St, PO Box 125, Guthrie, KY 42234	2332 Hwy 60 West, Hardinsburg, KY 40143
Phone No. - 270-483-2511	270-852-1161
Company - Logan-Todd Regional Water Commission	Tennessee Valley Authority
Contact - Kyle Kenner, Superintendent	Williams Mills, Transmission Service Manager
Address - 248 Tower St, PO Box 400, Guthrie, KY 42234	6045 Russellville Road, Bowling Green, KY 42101
Phone No. - 270-483-6990	270-846-7049
Company - Todd County Water District	Russellville Electric Plant Board
Contact - John Haley, Superintendent	Dale Vowell, General Manager
Address - 2201 New Hwy 68 West, Elkton, KY 42220	165 East Fourth Street, Russellville, KY 42276
Phone No. - 270-265-2229	270-726-2466
Company - CSX Transportation Inc.	R.J. Corman Railroad Company
Contact - Amanda DeCesare, Project Manager	Debbie Hawley, Public Projects Manager
Address - 1717 Dixie Hwy, Rm 400, Ft. Wright, KY 41011	101 R.J. Corman Drive, Nicholasville, KY 40340
Phone No. - 859-426-6924	859-881-2499
Company - Logan Telephone Cooperative Inc.	Suddenlink Communications
Contact - Thadd Kistler, Operations Manager	Brent Lovell, Plant Manager
Address - 10725 Bowling Green Rd, Auburn, KY 42206	1005 Main Street, Trenton, MO 64683
Phone No. - 270-542-4121	660-359-3607
Company - East Logan Water District	City of Russellville, KY Water and Sewer Dept.
Contact - Steven Taylor, Operations Manager	Wayne Thomas, Director of Utilities
Address - 399 E Main St, PO Box 715, Auburn, KY 42206	168 South Main Street, Russellville, KY 42276
Phone No. - 270-772-0846	270-726-5042
Company - South Logan Water Association, Inc.	City of Guthrie, KY Natural Gas System
Contact - Jamie Utley, Operations Manager	Dwight Luton, President
Address - 114 South Main Street, Adairville, KY 42202	110 Kendall St, PO Box 125, Guthrie, KY 42234
Phone No. - 270-772-1057	270-483-2511

VII. TABLES AND EXHIBITS



Photo 1: Project area near MP 3 in Todd County facing north toward Logan County



Photo 2: Project area near the Todd/Logan County line facing north toward the Russellville Bypass



Photo 3: Project area near Russellville Bypass facing south toward the Post Oak area (horizontal curve area)