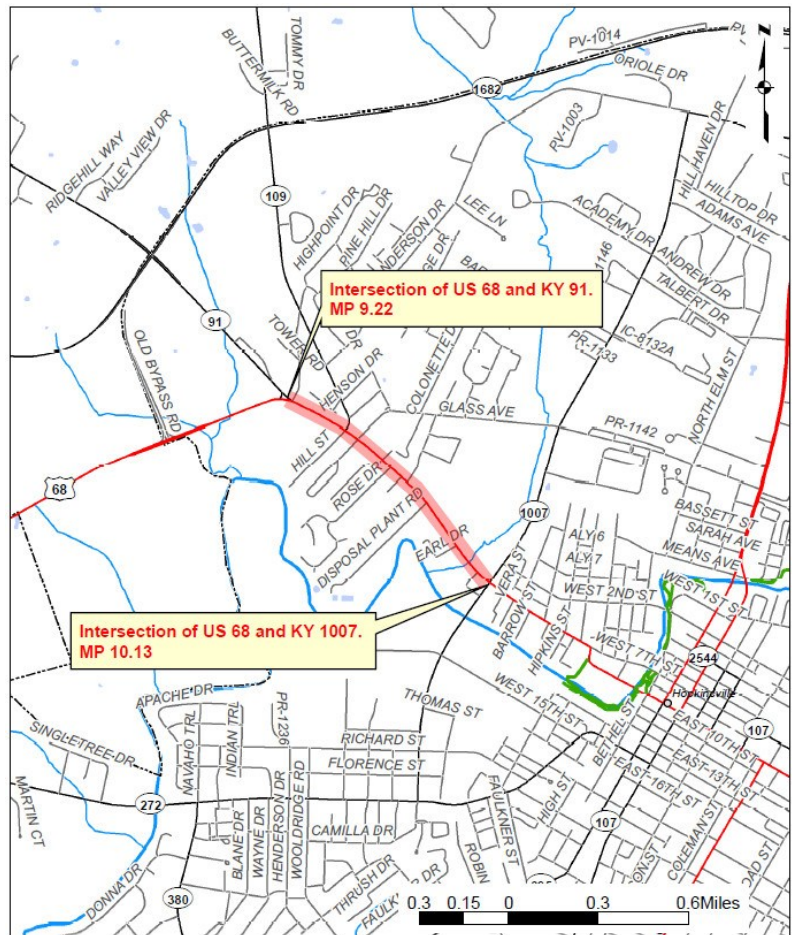
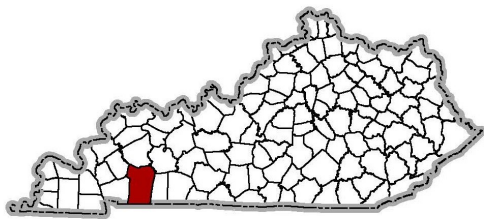


D_{ata}

N_{eeds}

A_{nal}ysis



Scoping Study

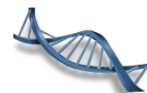


Christian County US 68

Address congestion and mobility of US 68 from KY 91 to KY 1007 in Hopkinsville.

Item No. **2-899.00**

Prepared by
KYTC District 2 Planning
September 2017



I. PRELIMINARY PROJECT INFORMATION			
County:	Christian	Item No.:	2-899.00
Route Number(s):*	US 68	Road Name:	W 7TH Street
Program No.:	9334501D	UPN:	FD52 024 0068 09-011
Federal Project No.:	NHPP 0801 107	Type of Work:	Reconstruction/Add Lanes
2016 Highway Plan Project Description:			
Address congestion and mobility of US 68 from KY 91 to KY 1007 in Hopkinsville.			
Beginning MP:	9.22	Ending MP:	10.13
Project Length:		0.91	
In TIP:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Reconcile Project Information in Clearview		
State Class.:	<input checked="" type="checkbox"/> Primary <input type="checkbox"/> Secondary		
Functional Class.:	<input checked="" type="checkbox"/> Urban <input type="checkbox"/> Rural <input type="text" value="Arterial"/>		
MPO Area:	Not Applicable		
ADT (current):	9841 2017		
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): <input type="text"/>		
Existing Bike Accommodations:	Shared Lane <input type="text"/> Ped: <input type="checkbox"/> Sidewalk		
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input type="checkbox"/> 55 mph <input checked="" type="checkbox"/> Other (Specify): 35-45		
KYTC Guidelines Preliminarily Based on :		45 MPH Proposed Design Speed	
COMMON GEOMETRIC PRACTICES**			
Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	2	Existing Rdwy. Plans available?
Lane Width	10 to 11'	11' (interrupted flow)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shoulder Width	4 to 5'	curb gutter w/sw	Year of Plans: 1932
Max. Superelevation***		6%	<input checked="" type="checkbox"/> Traffic Forecast Requested
Minimum Radius***		643' (min 45 mph)	Date Requested: 8/29/2017
Maximum Grade	.4 to 2.4 %	7%	<input type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.		360'	Date Requested: <input type="text"/>
Sidewalk Width(urban)	none	5'	Type: <input type="text"/>
Clear-zone [†]		46'	
Project Notes/Design Exceptions?		Criteria based on arterial urban curb gutter w/sw	
Bridge No.: [‡]	(Bridge #1)	(Bridge #2)	
Sufficiency Rating			
Total Length			Existing Geotech Data Available?
Width, curb to curb			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Span Lengths			
Year Built			
Posted Weight Limit			Detour Length(s): <input type="text"/>
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

This project was in the approved 2016 Highway plan.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
SPP	D	2019	\$1,200,000
SPP	R	2021	\$1,750,000
SPP	U	2021	\$1,500,000
SPP	C	2022	\$5,500,000

B. Project Status

This project was identified and added to the UPL in 2006 by the Pennyrile Area Development District as project # 02 024 B0068 8.20. Design funds in the amount of \$750,000 were authorized on August 4, 2017. The type of funding was NH funds.

C. System Linkage

This project will improve the connection between the US 68 bypass and KY 1007.

D. Modal Interrelationships

There are no railroad, riverports, or airports associated with this route. This route is a "AAA" truck route and had a truck percentage of 7.75 in 2013.

E. Social Demands & Economic Development

Residents accessing schools, businesses and restaurants along or from the corridor.

II. PROJECT PURPOSE AND NEED (cont.)

F. Transportation Demand

A 2017 count shows an ADT of 9,841. The traffic appears to be decreasing over time. See traffic count history below.

G. Capacity

The ADT is approaching a volume appropriate for a multiple lane roadway. Lack of channelized access to businesses along corridors can contribute to mobility issues. This segment of roadway is accessed by an industrial site near the intersection of US 68 and KY 91, a retirement center located near its intersection with KY 1007 as well as multiple businesses including fueling stations and restaurants.

H. Safety

This .9 mile segment of arterial roadway has several driveways and intersects with 10 roadways connecting businesses and residential areas. This section has had 127 collisions resulting in 32 injuries over the last 3 years. Many of these result from unprotected left turning vehicles trying to access the driveways or intersections.

I. Roadway Deficiencies

The narrow two lane roadway along with lack of access management do not meet current geometric design standards for this urban principal arterial.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW

A. Air Quality

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

STIP Pg.#: FY 17-20, Mod#2016.075

TIP Pg.#:

B. Archeology/Historic Resources

☐ Known Archeological or Historic Resources are present

None known at this time. Historic resources may be related to NP Trail of Tears designation of the road

C. Threatened and Endangered Species

Trees related to NLEB, IB. No creek visible to affect Gray Bat

D. Hazardous Materials

☐ Potentially Contaminated Sites are present ☐ Potential Bridge or Structure Demolition

Unknown at this time. Copper still and Agricultural Oil building located along 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

No water issues viewed at this time except for MS4 designated area

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 the [KYTC Noise Analysis and Abatement Policy?](#) ☐ Yes ☒ No

None

G. Socioeconomic

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

Low income housing located along project

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

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

This is the primary issue with this project since this roadway is designated by National Park as Trail of Tears. There is likely to be no possibility of a de minimis, so other possibilities must be examined to possibly avoid mitigation fees. Net Benefits, pathways

Anticipated Environmental Document:

CE Level 1



IV. PROJECT SCOPING, NEEDS & PURPOSE

A. Scoping & Need:

The narrow two lane roadway along with lack of access management do not meet current geometric design standards for this urban principal arterial. This section has had 127 collisions resulting in 32 injuries over the last 3 years. Many of these result from unprotected left turning vehicles trying to access the driveways or intersections.

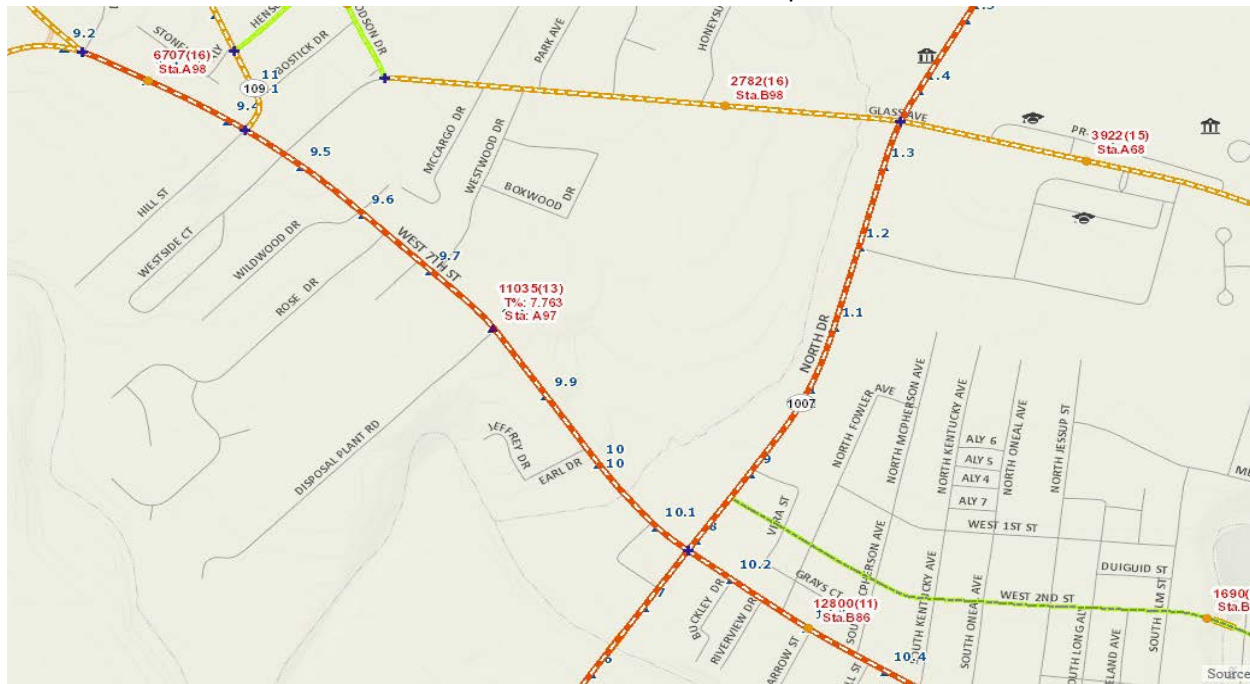
B. Draft Project Purpose:

This project aims to improve mobility, safety, and roadway geometric deficiencies on US 68 from KY 91 to KY 1007 in Hopkinsville.

V. PROJECT ESTIMATE & METHODOLOGY	
Estimate Methodology:	Current Estimate
Project phase estimates were based on a 5 lane rural roadway with 4 foot paved shoulders. See PIF # 02 024 B0068 8.20.	<u>Phase</u> <u>Estimate</u>
	Planning
	Design 1,200,000
	R/W 1,750,000
	Utilities 1,500,000
	Const 5,500,000
	Total 9,950,000
Due to the urban development and use of this corridor, it may be worth considering an urban street section in the alternatives.	
VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION	
Company Name -	PRECC
Contact -	Gary Breaden
Address -	2000 Harrison Street; Hopkinsville, KY 42240
Phone No. -	270-886-2555
Company Name -	AT&T
Contact -	Michael Forrest
Address -	801 Richard Street; Hopkinsville, KY 42240
Phone No. -	270-889-9782
Company Name -	HWEA
Contact -	Mike Beck
Address -	401 East 9th Street; Hopkinsville, KY 42240
Phone No. -	270-887-4242
Company Name -	Spectrum Cable
Contact -	Tim Mracek
Address -	515 Double Springs Rd; Bowling Green, KY 42101
Phone No. -	270-392-1041
Company Name -	Atmos Energy
Contact -	Chase Downing
Address -	3275 Highland Pointe Road; Owensboro, KY 42303
Phone No. -	270-685-8128
Company Name -	Hopkinsville Electric System
Contact -	Jeff Hurd
Address -	1820 East 9th Street, Hopkinsville, KY 42240
Phone No. -	270-887-4200
Company Name -	Christian County Water District
Contact -	James Owen
Address -	1820 East 9th Street, Hopkinsville, KY 42240
Phone No. -	270-886-3696

VII. TABLES AND EXHIBITS

Traffic Count Station Map



Traffic Count History

[Print](#) [Download Station Details](#)

Historical Traffic Volume Summary

Station Details:

Sta ID:	024A97
Sta Type:	Classification
Map:	MapIt
District:	2
County:	Christian
Route:	024-US-0068 -000
Route Desc:	WEST 7TH ST

Begin MP:	9.4220
Begin Desc:	HILL STREET/KY 109
End MP:	10.1370
End Desc:	KY 1007 (NORTH DRIVE)
Impact Year:	1999
Year Added:	

Newest Count:

AADT:	11035
Year:	2013
% Single:	4.1080
% Combo:	3.6550
K Factor:	7.90
D Factor:	61

Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

Impact Year - year of significant change to traffic pattern within station segment

AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway

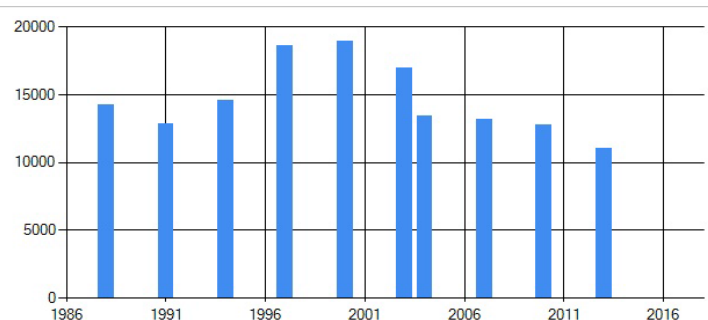
% Single - single unit truck volume as a percentage of the AADT

% Combo - combination truck volume as a percentage of the AADT

K Factor - peak hour volume as a percentage of the AADT

D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2017		2007	13200	1997	18600
2016		2006		1996	
2015		2005		1995	
2014		2004	13400	1994	14600
2013	11035	2003	17000	1993	
2012		2002		1992	
2011		2001		1991	12900
2010	12800	2000	19000	1990	
2009		1999		1989	
2008		1998		1988	14300



VII. TABLES AND EXHIBITS (cont.)

Vicinity

