

**D**ata

**N**eeds

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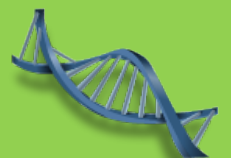
## Scoping Study



Proposed Garrett Ramp  
Floyd County  
Improve Access to KY 80  
Eastbound from KY 7  
Item Number 12-8703.00

Prepared by KYTC  
Division of Planning  
District 12

October 2013



**I. PRELIMINARY PROJECT INFORMATION**

<b>County:</b>	Floyd	<b>Item No.:</b>	12-8703.00
<b>Route Number(s):</b>	KY 80	<b>Road Name:</b>	New Connection
<b>Program No.:</b>	8761601D	<b>UPN:</b>	FD04 036 0080 001-002
<b>Federal Project No.:</b>	N/A	<b>Type of Work:</b>	Congestion Mitigation

2012 **Highway Plan Project Description:**

Improve access to KY 80 at Garrett eastbound and eliminate necessity for crossing westbound lanes to merge into eastbound lanes. M.P. 1.527 to 1.827.

**Beginning MP:** 1.527      **Ending MP:** 1.827      **Project Length:** 0.3

**Functional Class.:**  Urban  Rural  
**State Class.:**  Primary  Secondary  
**Route is on:**  NHS  NN  Ext Wt

**MPO Area:** Not Applicable  
**In TIP:**  Yes  No  
**Truck Class.:** .....  
**% Trucks:** 18.10%

**ADT (current):** 9190 2012  
**Access Control:**  None  Permit  Fully Controlled  Partial Spacing: .....  
**Terrain:** .....

**Median Type:**  Undivided  Divided (Type): Raised Mountable

**Existing Bike Accommodations:** ..... **Ped:**  Sidewalk

**Posted Speed:**  35 mph  45 mph  55 mph  Other (Specify): .....

**KYTC Guidelines Preliminarily Based on :** 25 MPH Proposed Design Speed

**COMMON GEOMETRIC**

Roadway Data:	EXISTING	PRACTICES*	
No. of Lanes	4	1	<a href="#">Existing Rdwy. Plans available?</a>
Lane Width	12'	15'	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shoulder Width	10'	6'8"	Year of Plans: 1970
Max. Superelevation**	7.90%	8%	<input checked="" type="checkbox"/> <a href="#">Traffic Forecast Requested</a>
Minimum Radius**	N/A	170'	Forecast Complete
Maximum Grade	7.0%	11%	<input checked="" type="checkbox"/> Mapping/Survey Requested
Minimum Sight Dist.	N/A	155'	Date Requested: 8/1/2012
Sidewalk Width(urban)	N/A	N/A	Type: .....
Clear-zone***	N/A	N/A	

**Project Notes/Design Exceptions?:** Common Geometric Practices data listed is for proposed ramp at 25 mph

\*Based on proposed Design Speed, \*\*AASHTO's A Policy on Geometric Design of Highways and Streets, \*\*\*AASHTO's Roadside Design Guide

**Bridge No.** N/A      (Bridge #1)      (Bridge #2)  
**Sufficiency Rating**  
**Total Length**  
**Width, curb to curb**  
**Span Lengths**  
**Year Built**  
**Posted Weight Limit**  
**Structurally Deficient?**  
**Functionally Obsolete?**

[Existing Geotech data available?](#)  
 Yes  No

\*if more than two bridges are located on the project, include additions sheets.

**II. PROJECT PURPOSE AND NEED**

**A. Legislation**

The following funding was listed in the 2012 General Assembly's Enacted Highway Plan.	<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
	SPP	Design	2013	\$1,000,000
	SPP	Right of Way	2014	\$500,000
	SPP	Utilities	2014	\$330,000
	SPP	Construction	2015	\$3,000,000

**B. Project Status**

Design funds for this project were authorized on February 10, 2013.

**C. System Linkage**

The proposed connection will allow traffic from KY 7 to access the eastbound lane of KY 80 without having to cross two lanes of westbound KY 80 traffic.

**D. Modal Interrelationships**

KY 80 and KY 7 are primary routes for coal freight in Kentucky. A coal tippie is also located on KY 7. There are no bike routes along this corridor.

**E. Social Demands & Economic Development**

Both KY 80 and KY 7 are located in an area of Floyd County that has seen coal mine operations and coal tipples opened and closed over the years. Potential for future mining operations are present, but are also difficult to predict due to fluctuations in the coal industry.

**F. Transportation Demand**

ADT of this section of KY 80 has remained relatively unchanged during the last several years. Traffic is not anticipated to increase, but the safety issues associated with the intersection of KY 80 and KY 7 will remain without the completion of this project.

## II. PROJECT PURPOSE AND NEED (cont.)

### G. Capacity

Throughout the day traffic remains steady at the project location, with the morning and evening commutes time periods being the most congested. Coal freight adds to the congestion and safety issues associated with the intersection due to trucks having to accelerate uphill from a complete stop.

### H. Safety

Since 2009, there have been six (6) accidents in the project area. Two (2) were single vehicle accidents caused by hydroplaning resulting in one (1) injury. Two (2) were angle accidents at the intersection of KY 80 resulting in two (2) injuries. One (1) accident was rear end and one (1) collision with animal.

A project was completed to light the intersection. The meter for the roadway lighting at the Garrett intersection (KY 80 @ KY 7) was installed on March 26, 2008. No study was completed to assess the effect the roadway lighting has had on crashes at this location.

### I. Roadway Deficiencies

Roadway deficiencies are not present on KY 80 that would contribute for the need of this project, however, other factors create safety problems that this project is to address.

### Draft Purpose and Need Statement:

Need: Over a 10 year period, there have been 24 accidents with 21 injuries, between M.P. 1.5 to M.P. 1.9 of KY 80.

Purpose: Improve safety by the reduction of conflicting turning movements.

**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]

State funded project - No STIP Pg. #

**B. Archeology/Historic Resources**

Known Archeological or Historic Resources are present

No Section 106 notifications have been generated from the District at this point, however, with Garrett being an old coal mining camp and the possibility of affecting several homes, a cultural historic survey will be required.

**C. Threatened and Endangered Species**

The Indiana Bat (*Myotis Sodalis*) is listed as threatened or endangered species in the project area. An IBCMOA or a BA may require to compensate for any potential habitat loss for this species.

**D. Hazardous Materials**

Potentially Contaminated Sites are present  Potential Bridge or Structure Demolition

At the time of the Environmental Overview, no UST/HAZMAT issues were noted in the project area.

**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

With a likely excess excavation site required and the possibility of affecting a stream in the area, an ACE LOP may be required depending on the final alternate chosen.

**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

**G. Socioeconomic**

Check all that may apply:  Low Income/Minority Populations affected  Relocations  Local Land Use Plan available  
Some relocations are possible, therefore, relocation surveys may be required to determine if any low income or minority populations are affected.

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

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

No 4(f) or 6(f) resources will be affected by project.

Anticipated Environmental Document:

None (Completely State funded)



**IV. POSSIBLE ALTERNATIVES**

**A. Alternative 1: No Build**

This alternative does not address the needs identified.

**B. Alternative 2: Construct Access Ramp with Side Hill Cut Parallel to KY 80 from KY 7**

This alternative would construct an access ramp beginning south of the KY 80 bridge from KY 7 running parallel to the eastbound lane of KY 80 for approximately 2000 L.F. A side hill cut would be required for construction of the ramp. With this alternative, access to Garrett Hill via Frog Alley would have to be taken into consideration. Accommodations would be made to allow residents of Garrett Hill to keep access from KY 80 in this location due to Frog Alley being a one lane and one-way road.



Planning Level Cost Estimate:

<u>Phase</u>	<u>Estimate</u>
Design	\$1,000,000
R/W	\$59,500
Utilities	\$245,000
Const	\$2,463,566
<b>Total</b>	<b>\$3,768,066</b>

**IV. POSSIBLE ALTERNATIVES**

**C. Alternative 3: Construct Access Ramp with Concrete Walls Parallel to KY 80 from KY 7**

This alternative would construct an access ramp beginning south of the KY 80 bridge from KY 7 running parallel to the eastbound lane of KY 80 for approximately 2000 L.F. The ramp would be constructed with vertical concrete walls to allow for closer construction to the bridge and less excavation overall. With this alternative, access to Garrett Hill via Frog Alley would have to be taken into consideration. Accommodations would be made to allow residents of Garrett Hill to keep access from KY 80 in this location due to Frog Alley being a one lane and one-way road.



Planning Level Cost Estimate:

<u>Phase</u>	<u>Estimate</u>
Design	\$1,000,000
R/W	\$18,500
Utilities	\$245,000
Const	\$2,532,536
<b>Total</b>	<b>\$3,796,036</b>

### V. Summary

This study is a Data Needs Analysis (DNA) of a roadway project to improve access to KY 80 at the Garrett intersection in Floyd County, Item Number 12-8703.00. Through analysis of the existing roadway geometrics, crash data, site visits, and discussion with the Project Team, several needs were identified within the project limits. The following were identified as project needs:

- The project is needed.
- Reduction in conflicting turning movements is a primary goal of the project.
- The design should address turning needs of larger vehicles.
- Access to Frog Alley during and after construction should be considered in the design.
- Constructability and cost impacts as related to waste material will be considered in the design.

There is a possibility that mined out areas are located adjacent and/or within the project site.

- Improvements that could be made to KY 7 should be considered in the design.
- Avoid and minimize any impacts to existing coal camp houses.

Alt #	Description	D (\$)(Fund)	R (\$)(Fund)	U (\$)(Fund)	C (\$)(Fund)	Total (\$mil)
1	No Build	-	-	-	-	-
2	Construct Access Ramp Side Hill Cut	1,000,000	59,500	245,000	2,463,566	3,768,066
3	Construct Access Ramp Concrete Wall	1,000,000	18,500	245,000	2,532,536	3,796,036
-	Current Hwy Plan Estimated Cost	1,000,000	500,000	330,000	3,000,000	4,830,000
-	Current Pre-Con Estimated Cost					

### VI. Tables and Exhibits



Exhibit 1: Project Location Map



VI. Tables and Exhibits (cont.)



Exhibit 2: Aerial

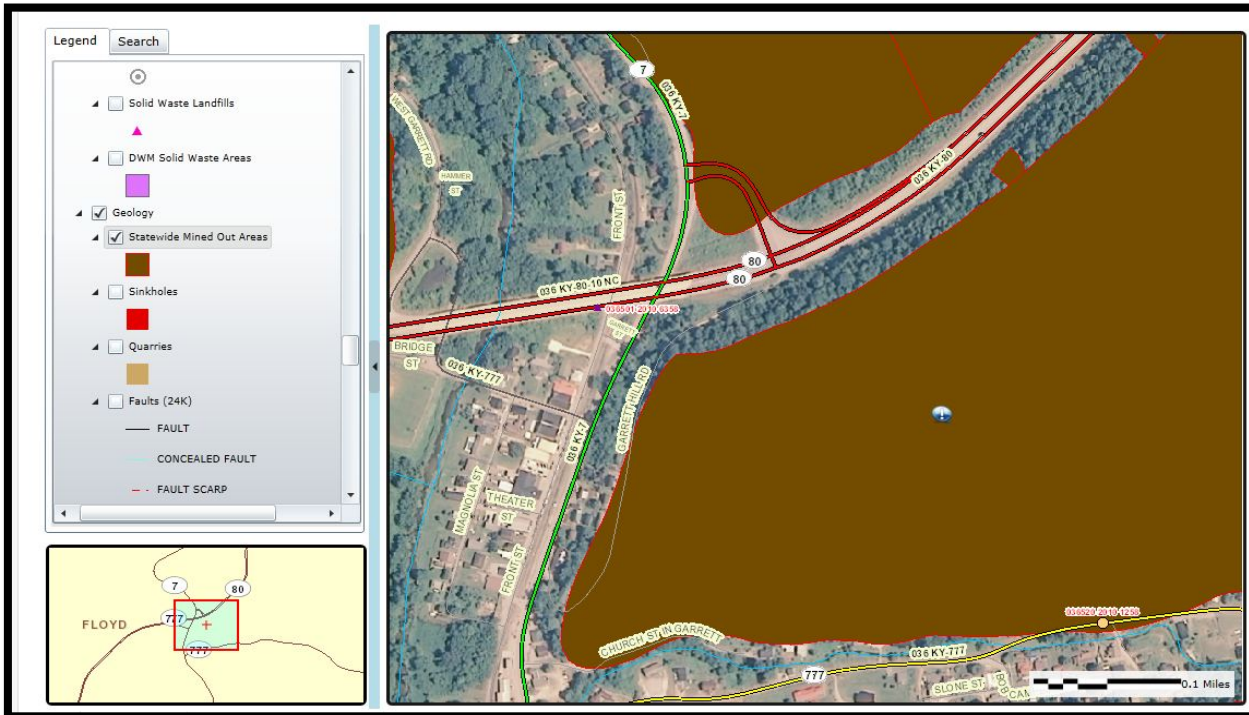


Exhibit 3: Mined Out Areas