Data

Needs

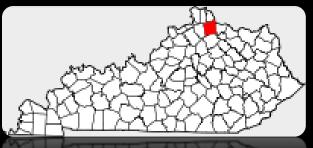
Analysis



Scoping Study







Pendleton County KY 330 From MP 8.638 to 8.678 Item No. 6-1081

Prepared by the KYTC Division of Planning KYTC District 6

November 2012





| I. PRELIMINARY PROJECT INFORMATION | | | | | | | | |
|--------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|----------------------|----------------------------------------|---------------|--|--|--|
| County: | Pendleton | Item No.: | | 6-1081 | | | | |
| Route Number(s): | KY 330 | Road Name: | | Falmouth - Mt Auburn Rd | | | | |
| Program No.: | 86697 | UPN: FD52 | | 96 330 | 008-009 | | | |
| Federal Project No.: | BRO 0603(231) | Type of Wo | ork: | Bridge Replacement | | | | |
| 2012 Highway Pl | lan Project Description: | | | | | | | |
| Replace bridge on KY 330 over Short Creek 0.35 miles north of J H Goodman Rd (CR 1238) (SR 47.4) | | | | | | | | |
| 096B00012N | | | | | | | | |
| Beginning MP: | 8.638 | Ending MP: | 8.678 | Project Length: | 0.04 | | | |
| | | | | | | | | |
| Functional Class.: | Urban | | State Class.: | ☐ Primary ✓ Sec | condary | | | |
| | Collector | | Route is on: | □ NHS □ NN □ | Ext Wt | | | |
| MPO Area: Not Applicab | vle ▼ | | Truck Class.: | A ▼ | | | | |
| In TIP: Yes | No | | % Trucks: | N/A | | | | |
| ADT (current): | 1392 2009 | | Terrain: | Rolling ▼ | | | | |
| Access Control: | None Permit F | Fully Controlled | Partial | Spacing: | ~ | | | |
| Median Type: | | ded (Type): | | | , , | | | |
| Existing Bike Accommo | | <u> </u> | Ped: | : Sidewalk | | | | |
| _ | ☐ 35 mph ☐ 45 mph | , [] E | 55 mph | | | | | |
| • | · | | _ | Other (Specify): | | | | |
| KYTC Guidelines Prelin | ninarily based on . | | - | d Design Speed | | | | |
| | | | GEOMETRIC | | | | | |
| Roadway Data: | EXISTING | PRAC | CTICES* | at at | | | | |
| No. of Lanes | 2 | 2 | | Existing Rdwy. Plans a | vailable? | | | |
| Lane Width | 10 ft | 11 ft | | ✓ Yes | | | | |
| Shoulder Width | 2 ft | 5 ft | | Year of Plans: | | | | |
| Max. Superelevation** | N/A | 6% | | Traffic Foreca | st Requested | | | |
| Minimum Radius** | 1549 ft | 1065 ft | | Date Requested: | | | | |
| Maximum Grade | N/A | 7% | | Mapping/Survey | Requested | | | |
| Minimum Sight Dist. | 10% >= 1500 ft | 495 ft | | Date Requested: | | | | |
| Sidewalk Width(urban) | N/A | N/A | | Type: | | | | |
| Clear-zone*** | N/A | | ** | | | | | |
| Project Notes/Design Exc | :eptions?: ** Slopε | of 1V:3H, fi | xed objects sł | hould not be present in | vicinity | | | |
| *Based on proposed Design Speed, | **AASHTO's A Policy on Geometric Des | sign of Highways an | d Streets, ***AASHT(| D's Roadside Design Guide | _ | | | |
| Bridge No.*: | (Bridge #1) | (Bric | dge #2) | | | | | |
| Sufficiency Rating | 47.3 | N/A | | Existing Geotech data | available? | | | |
| Total Length | 116.7 ft | N/A | | ☐ Yes ✓ No | | | | |
| Width, curb to curb | 23.3 ft | N/A | | | | | | |
| Span Lengths | 36.1 ft | | v/A | Detour Length(s): | 15.0 miles | | | |
| Year Built | 1938 | | N/A | 5 , , | | | | |
| Posted Weight Limit | Not Posted | | ν/A | | | | | |
| Structurally Deficient? | Yes | N/A | | *If more than two bridges a | re located on | | | |
| Julianum, 20 | | N/A | | the project, include additions sheets. | | | | |
| Functionally Obsolete? | No | | | the project, include addition | ns sheets. | | | |

| II. PROJECT PURPOSE AND NEED | | | | | | |
|-------------------------------------------------|---------|-------|------|-----------|--|--|
| A. Legislation | | | | | | |
| The following funding is listed in the Kentucky | Funding | Phase | Year | Amount | | |
| Transportation Cabinet 2012 - 2018 6 Year | BRX | D | 2014 | \$350,000 | | |
| Highway Plan as item number 6-1081 Page | BRX | R | 2015 | \$50,000 | | |
| 125 | BRX | U | 2015 | \$25,000 | | |
| | BRX | С | 2016 | \$500,000 | | |

B. Project Status

Project is listed in the TC-10 project authorization no. 86697 providing \$350,000 in initial design funds to begin the desing phase of the project.

C. System Linkage

This bridge crosses Short Creek on KY 330 at MP 8.6 in Pendleton County. This route provides a route from Falmouth & US 27 to US 25 & I-75 in Corinth. It also links to KY 1054 & KY 36.

D. Modal Interrelationships

This route is not a major freight route.

E. Social Demands & Economic Development

The bridge on KY 330 will have minimal impact of Economic Development. The route provides access to Falmouth & Kincaide Lake State Park from the southwest & I-75.

F. Transportation Demand

The ADT was 1392 in 2009 on this section of KY 330. Some traffic increase is possible in the future with more visitors to Falmouth & Kincaide Lake State Park.

| II. PROJECT PURPOSE AND NEED (cont.) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G. Capacity |
| The bridge on KY 330 is a two lane bridge with no shoulders. Given the current ADT of 1392, capacity is not a problem. |
| H. Safety |
| Collision data for a 5 year period from 07/01/2007 to 6/30/2012 from MP 8.0 to MP 9.0 on KY 330 indicate there were 4 collisions with 0 injuries. 3 of the crashes were single vehicle and two involved a collision with an animal. Crash data indicates that there is not a major safety issue in the area. |
| I. Roadway Deficiencies |
| The bridge over ShortCreek is structurally deficient and needs replacement. Sufficiency Rating from the 2012 KYTC Bridge Inspection Report is 47.3 |
| Draft Purpose and Need Statement: Need: The bridge on KY 330 over Short Creek is structurally deficient and needs to be replaced. |

Purpose: The purpose is to address the replacement of this bridge and the impacts it will have on the region to provide safe and reliable travel.

| III. PRELIMINARY ENVIRONMENTAL OVERVIEW | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| | | | | |
| A. Air Quality | | | | |
| Project is in: Attainment area Nonattainment or Maintenance Area PM 2.5 County TID Do #1 | | | | |
| STIP Pg.#: 104 TIP Pg.#: | | | | |
| | | | | |
| B. Archeology/Historic Resources Known Archeological or Historic Resources are present | | | | |
| No known historical building in the area will be affected. Unknown if any archeology resources are in the area. | | | | |
| C. Threatened and Endangered Species | | | | |
| Possible presence of bat habits in the area as well as mussel species in the creek near the bridge. | | | | |
| | | | | |
| D. Hazardous Materials ☐ Potentially Contaminated Sites are present ☐ Potential Bridge or Structure Demolition | | | | |
| Bridge demolition may cause hazardous materials to get into the creek. | | | | |
| | | | | |
| | | | | |
| | | | | |
| 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 IWOC ☐ Special Use Waters | | | | |
| Permit may be required due to impacts to the creek. | | | | |
| | | | | |
| F. Noise | | | | |
| Are existing or planned noise sensitive receptors adjacent to the proposed project? | | | | |
| Is this considered a "Type I Project" according to the KYTC Noise Analysis and Abatement Policy? \times No | | | | |
| | | | | |
| C. Socioconomio | | | | |
| G. Socioeconomic Check all that may apply: Low Income/Minority Populations affected Relocations Local Land Use Plan available | | | | |
| Check all that may apply: Low Income/Minority Populations affected Relocations Local Land Use Plan available No impact to any socioeconomic categories. | | | | |
| The impact to any sociocconomic categories. | | | | |
| | | | | |
| H. Section 4(f) or 6(f) Resources The following are present on the project: Section 4(f) Resources Section 6(f) Resources | | | | |
| The following are present on the project: Section 4(f) Resources Section 6(f) Resources No section 4(f) or 6(f) properties. | | | | |
| ino section 4(1) or o(1) properties. | | | | |
| Anticipated Environmental Document: CE Level 1 | | | | |

IV. PROJECT SCOPING

A. Alternative 1: No Build

The bridge will continue to deteriorate, need repair, and eventual replacement.

B. Alternative 2: Replace Bridge

Construct new bridge to replace exisiting bridge.

Begin constucting new bridge adjacent to the existing bridge on the northwest side. Construct new approaches from the north and the south ends of the new bridge. Route traffic onto new bridge when completed. Demo old bridge. Note: The new bridge may be built on the northeast side of the existing bridge if estimated to be more feasible and cost effective.

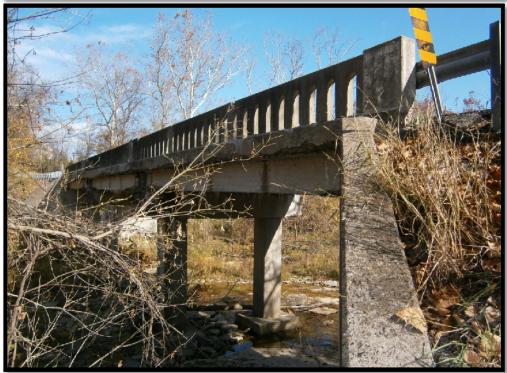


| Current Estimate | | | | |
|------------------|-----------------|--|--|--|
| P <u>hase</u> | <u>Estimate</u> | | | |
| | | | | |
| Design | \$350,000 | | | |
| R/W | \$50,000 | | | |
| U tilites | \$25,000 | | | |
| Const | \$500,000 | | | |
| Total | \$925,000 | | | |
| | | | | |

V. Summary

The bridge over Short Creek in Pendleton County is structurally deficient and needs replacement. The alternative 2 to replace the bridge is recommended and can be constructed within the budgeted amount. The no build alternative is not recommended for the long term but can be allowed for the short term.

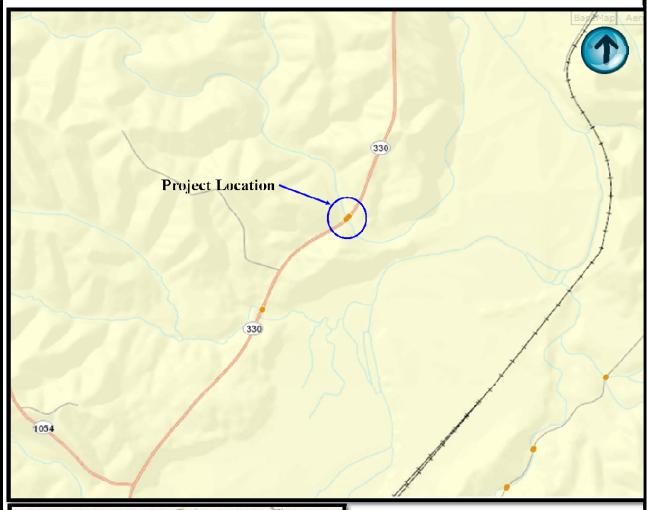


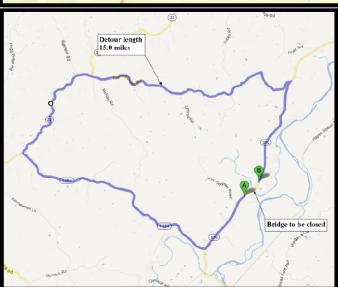


VI. Tables and Exhibits

Project Location Map

Bridge located on KY 330 approx 1.5 miles north of KY 1054.





Detour length if bridge is closed to traffic is approx 15 miles. This option may be used if it is determined that construction of a new bridge adjacent to the exisiting bridge is not feasible or cost effective. The detour would travel along KY 330 , KY 1054, KY 22, and Fishing Creek Rd in Pendleton County.