



CATEGORICAL EXCLUSION ENVIRONMENTAL DETERMINATION CHECKLIST

1. PROJECT INFORMATION

Item #: 7-8705.00	Route: US 460
Work Type: Reconstruction	County: Bourbon
Project Description: US 460 reconstruction from Russell Cave Road (KY 353) 6.3 miles to US 27 Bypass.	
Roadway Conditions and Setting: 2-lane rural arterial. AAA truck class, with 10.9% trucks. 55-MPH posted speed limit. US 460 has substandard geometry.	Traffic Volume: Current (2016) ADT 4,100 Design Year (2036) ADT 6,100
Project Length: <u>6.302</u> Begin MP: <u>1.394</u> End MP: <u>7.696</u> Note: If project length is > 1 mile and on a new alignment, project may not be eligible for CE Level 1, and DEA and FHWA must be consulted.	Number of alternative(s) considered including "No Build": <u>Four</u> — Alts 1, 2, Centerville Avoidance Alt (which can be matched with either build alternative), and the No Build. See "Section 4 Alternatives Summary"

2. ENVIRONMENTAL DETERMINATION

Categorical Exclusion- Level-2 (Attach all project correspondence and documentation)

APPROVAL SIGNATURES



 District Environmental Coordinator

10-3-17

 Date



 Project Manager

10/3/17

 Date

All appropriate project commitments/mitigation and identified required future work have been entered into the CAP

 Division of Environmental Analysis
(required for Level 2)

 Date

 Federal Highway Administration
(required for Level 3)

 Date

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3. PURPOSE AND NEED *(add additional pages if needed)*

US 460 in Bourbon County is an east-west route linking Paris with I-75 in Georgetown. There is an industrial park located at the Paris Bypass (eastern terminus), and plans for its expansion.

The **Purpose** of this project is to improve safety and driver expectation by improving the roadway typical section, vertical and horizontal geometry, drainage, and roadside clear zone.

The **Needs** are based on US 460's substandard roadway geometry. The existing roadway has narrow driving lanes (10-foot wide) with narrow shoulders. In some areas along the roadway there are no ditches for draining the storm water off the roadway. Also, the roadway has substandard vertical and horizontal curvatures that can restrict a driver's sight distance for entrances, approaches and other vehicles ahead. There are other hazards that exist along the roadway's recovery area that include: tree lines, pavement edge drop offs, dry stone fences, utility poles, culvert headwalls, etc. These obstructions can be a safety hazard to motorists in the event that a vehicle incidentally veered off the traveled way.



US 460 & Russell Cave Road Intersection: Left (Looking South) and Right (Looking West)



US 460 Looking East near MP 1.55

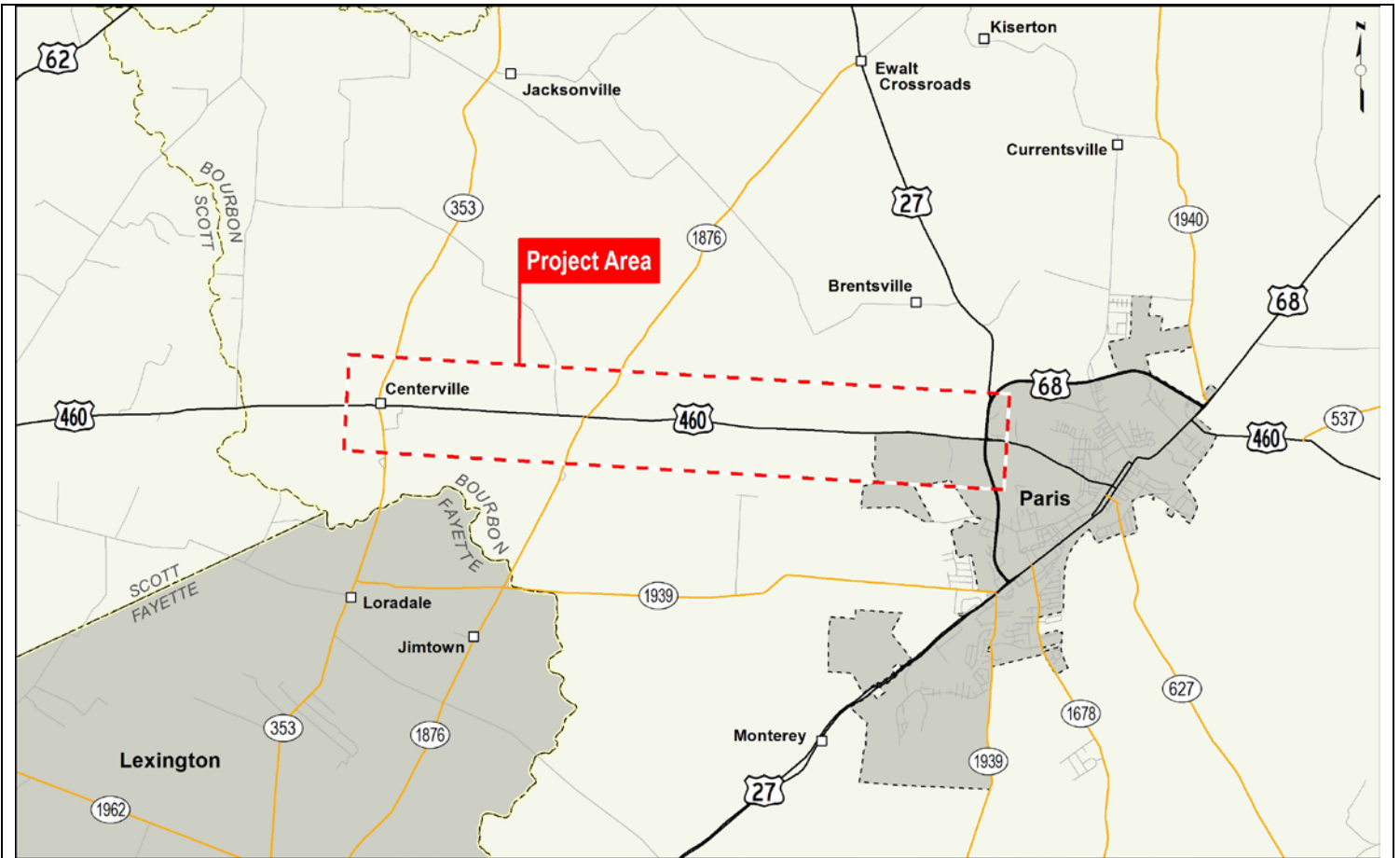


US 460 Looking East near MP 3.60

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4. ALTERNATIVES SUMMARY *Describe all alternatives that were evaluated, their impacts, and the reason(s) for elimination or selection (attach additional pages if needed)*

Required Attachments Location Map Plan Map/Sheets

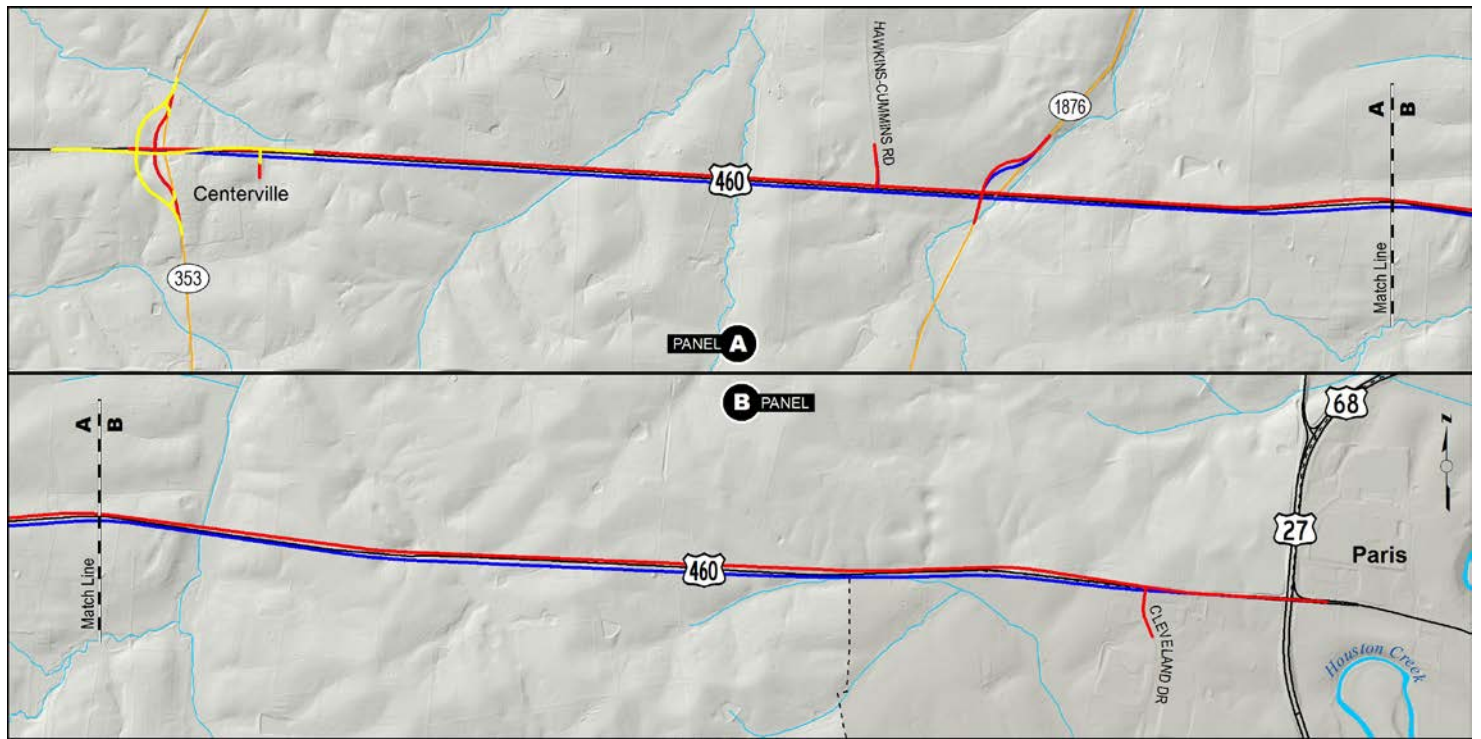
Three build alternatives and the No-Build Alternative have been evaluated in detail throughout the development of this project.

With the No-Build Alternative, KYTC would take no action toward reconstruction of the road. This alternative does not meet the project’s purpose and need; however, it was retained for analysis to provide a comparison with the Build Alternatives. The following build alternatives have been developed for evaluation in this analysis. The locations of the build alternatives are illustrated on Figure 3 in the colors identified below:

- Alternative 1 (**Red**) would widen to the North
- Alternative 2 (**Blue**) would widen to the South.
- Centerville Avoidance Alternative (**Yellow**)—Developed to avoid a historic site within the westernmost 1.0 mile of the corridor. This avoidance alternative can be combined with either Alternative 1 or 2. The June 2, 2016, letter from the KY SHPO said “...we recommend Alternative 1 with the Centerville Avoidance Alignment and with the revision to avoid site BD 65 and BB 66 (Elm Spring) as the preferred Alternative as it is most sensitive to above-ground cultural resources.”

Alternative 1+Centerville Avoidance Alternative (1+C’villAA) is the preferred alternative. It is the alternative illustrated on Exhibit 1, the 11x17 exhibit in the back of this document.

The eastern and western project termini are KY 353 (Russell Cave Road) in Centerville and US 27 Bypass, respectively. The typical section is the same as that of the existing Georgetown Road in terms of number of travel lanes—one lane in each direction. The difference is the lanes would be 12-foot-wide lanes and with 3-foot-wide paved with rumble strips. At present US 460 has 10-foot wide lanes with 1-foot paved shoulders. There are currently numerous vertical curves (hills and valleys) that hinder sight distance for vehicles pulling out of driveways, and visibility of on-coming vehicles. The drainage would be collected through ditches, as it currently is (rather than through curb and gutter which is more common in urban areas). Approaching US 27 Bypass, US 460 would include turn lanes.



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2. Identify all issues:

- 4 residential relocations and 1 commercial displacement (Centerville Market)
- One UST system (with three 8,000 gallon tanks and one pump station) at the Centerville Market will need to be removed, and soil tested. Open records show no open violations. (See Section K).
- Section 106 commitments, as outlined in Memorandum of Agreement (MOA) in Attachment B, require the following:
 - A State Level I Documentation shall be completed by an approved professional for Site BB-763 (Site 20), a stone arch culvert under US 460. (MOA Section I. A. and B.)
 - A good faith effort shall be made to consider reconstruction of the stone arch culvert elsewhere on the project. If it is not feasible, a good faith effort shall be made to reuse the stone in the construction of walls and other elements within the project area. (MOA Section II. A.) *
 - Stone walls and entry gates impacted by the project shall be reconstructed by a qualified stone mason with Dry Stone Conservancy certification. Approximately 3,683 linear feet of stone wall and two sets of entry gates will require reconstruction in consultation with the SHPO. (MOA Section II. B.) (See CE Section E.3.)
 - A Kentucky Heritage Council survey form will be completed for each stone culvert and bridge identified. A brief summary report containing maps and photographs will be provided to the Kentucky Heritage Council. (MOA Section III.)
 - A Phase I archaeological survey will be conducted for all unsurveyed parcels within the project right-of-way, prior to the initiation of any ground disturbing activities, such as utility relocations or construction. If an archaeological site contains prehistoric artifacts, the FHWA will initiate consultation with Indian Tribes deemed appropriate by the FHWA. (MOA Section V.)
- Section 7 coordination shall be completed to address possible impacts to the Indiana bat, northern long eared bat, running buffalo clover, and Short's bladderpod.
- KYTC shall obtain KPDES KYR10 permit, USACE 404 permit (anticipated NW 14) and KDOW WQC. KYTC will likely need to submit to USACE a preconstruction notification due to the impact to a historic resource. Once pipe sheets are developed during Final Design, the permitting requirements should be revisited.
- See discussion on Temporary Easements in Section E.3, as it addresses the measures that must be met, per 23 CFR 774.13 (d) to avoid a Section 4(f) use of the historic sites during construction.

* After an engineering analysis it has been determined the stones in the arch culvert cannot be reused in a new culvert under the road because they lack enough structural integrity. However, KYTC will make a good faith effort to reuse the stone from the culvert elsewhere on the project in accordance with MOA, and per the September 28, 2017, de minimis letter from FHWA to SHPO (Attachment B).

3. Other unique environmental or engineering factors that require consideration through the remaining project development (excess excavation needs, utility considerations, drainage problems, geotechnical issues, topographic constraints, mines, acidic rock, drinking water wells, etc.)

- Per the [UK Groundwater Data Repository Water Well and Spring Location](#), there are several wells in the Centerville area, but none will be impacted by the project.
- The Bluegrass Land Conservancy, a nonprofit organization that acquires easements for agricultural preservation, owns two Conservation Easements along the project corridor. These issues will be addressed during the Right of Way acquisition process.

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7. ENVIRONMENTAL CONDITIONS AND CONSEQUENCES			
A. Right of Way impacts	NA	Y	N
1. Does the project require the acquisition of right-of-way?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Full or partial property acquisition required? Temporary Easement <u>3.5 acres</u> Estimated acreage: Fee Simple <u>95 acres</u> Permanent Easement <u>N/A</u> *	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Business or residential relocations required. No. of relocations: Residential <u>4</u> * Business <u>1 (Centerville Market)</u> Suitable properties available: Residential: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Describe "NO" in A.8 Business: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown * If total acreage is >10 or total relocations are >5, consult with DEA. * If total acreage is >25 or total relocations are >10 DEA, consults with FHWA. * If >1 relocation, complete Environmental Justice evaluation (see C.5).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Last resort housing required? <input type="checkbox"/> Likely <input type="checkbox"/> Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Property transfer from a State or Federal agency required? List agencies in A.8 below.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Cemetery affected by project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Will excess excavation sites be required? <input type="checkbox"/> Designated <input type="checkbox"/> Permitted/Available for Contractor <input checked="" type="checkbox"/> Unknown (must note in Sec. 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Describe Impacts/Comments: The four residential relocations and one commercial displacement are each located in the unincorporated Centerville area, near the western terminus. (The rejected Alt. 1 (without the Centerville Avoidance Alternative) would have relocated 13 households/0 commercial displacements, and Alt. 2 would have relocated 13 households.) Regarding available housing, as of this writing, there are 84 single family homes for sale at www.realtor.com in Bourbon County. Of those approximately 76 are houses that are similar to the relocations (the others are large farms). Per the map, the majority of the 76 houses for sale are in and around Paris. Scott County, which is only 1.3 miles to the west, currently has over 480 houses for sale. Based on this information, the need for housing of last resort is not anticipated. It is unlikely there will be a need for a borrow or excess material site. More information will be known during final design.			

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B. Economic Impacts	NA	Y	N
1. The project will have economic impacts on the regional and/or local economy, such as effects on development, tax revenues and public expenditures, employment opportunities, accessibility, and retail sales.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. The project will affect established businesses or business districts. <i>There would be 1 commercial displacement, Centerville Market, at the western termini of the project.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. The project will affect prime farmlands <i>The NRCS, during coordination for the CPA-106 forms, identified 51.6 acres of prime farmland within the alignment of the Preferred Alternative 1.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. The project will affect property protected by an agricultural preservation easement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Describe Impacts/Benefits to the local economy and summarize methodology used in the analysis of Prime Farmlands and Agricultural Districts including avoidance, minimization and mitigation:</p> <p><i>Coordination was made with the local NRCS office using the CPA-106 form. The impacts to farmlands were found to be not significant. The scores on the AD-106 forms are below the threshold of 260 points for either alternative. They are 152 for the Preferred Alternative 1, and 154 for Alternative 2. See Attachment C.</i></p> <p><i>There are two agricultural districts in the project corridor, but both are along the south side of US 460 and would be avoided with Preferred Alternative 1. Alternative 2 would have required land from the agricultural districts.</i></p> <p><i>The Bluegrass Land Conservancy, a nonprofit organization that acquires easements for agricultural preservation. The Bluegrass Land Conservancy owns two Conservation Easements along the project corridor. These issues will be addressed during the Right of Way acquisition process.</i></p>			

C. Social Impacts	NA	Y	N
1. The project will affect neighborhoods or community cohesion for the various social groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. The project will affect travel patterns and accessibility (e.g., vehicular, commuter, bicycle, or pedestrian).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. The project will affect school districts, churches, businesses, police and fire protection, etc. <i>Include the direct impacts and the indirect impacts that may result from the displacement of households and businesses.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. The project will impact the elderly, handicapped, nondrivers, transit-dependent.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. The project will significantly or disproportionately impact minorities or disadvantaged persons (Environmental Justice, E.O. 12898).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

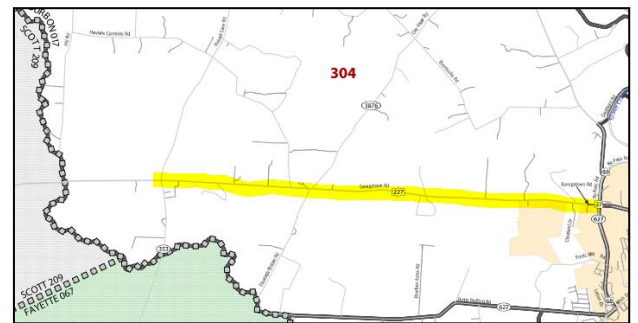
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Describe burdens/benefits and attach documentation describing EJ analysis. If relocation survey was sent, summarize responses here:

The analysis was based on the [September 4, 2014, KYTC/FHWA-KY environmental justice guidance](#), which outlines the following approach (*policy language is italicized, black font, and from pages 11-13; project-specific information is underlined and dark blue font*):

- *Distribute EJ survey forms to potential relocatees along the preferred alternative.*
Surveys were mailed to the four potential relocatees. Two relocations, 50%, responded. One indicated they are low-income, not minority, and not opposed to relocating as part of the project. The other indicated they are not a member of an EJ population.
- *Instances when fifty percent or less of those surveyed have responded additional information is required. (Conduct) a site visit to determine if those households where a survey response was not received are potential low-income residences based on a windshield survey.... A worst case scenario should be used when making a determination.*
Of the two that did not respond to the survey, during a field visit one appeared to be low-income, and one did not.

- *Gather U.S. Census data to determine the percentage of households that are potential minority residences.... (Apply) that percentage to the number of non-responses to determine the number that are minority.... rounded to the nearest whole number.*



The US 460 corridor is located in Census Tract 304, which has 2.0% minority. 2.0% of the two potential relocations who did not respond results in less than a half of a percent, and thus is rounded to zero. Therefore, it is assumed there are no minorities who did not complete the survey.

2010 EJ-Related Census Data and Assumed EJ Status of Relocatees

EJ Population	Kentucky	Bourbon County	Census Tract 304	Number who did not respond to Survey	Assumed number of EJ status
Minority	15.0%	14.7%	2.0%	2	0.020 * 2 = 0 (rounded)

- *Both low income and minority residences will then be combined to determine the total number of potential EJ relocations. When fifty percent or less of the total number of relocations is adversely effect, the determination will be made that the project does not disproportionately affect the EJ population and the EJ analysis will be concluded.*

Summary of US 460 Site-Specific Environmental Justice Analysis

	Total		EJ Race	EJ Low-Income	EJ Both	Adversely Affected? Reported/Assumed
Number Who Returned Survey	2	Survey Results	0	1	0	No (2) Reported
Number Who Did Not Return Survey	2	Assumed EJ Status based on Census (Race) or Site Visit (Income)	0	1	N/A	Yes (2) Assumed
Total Relocations	4	EJ Status	0	2	0	
Percentage EJ Status / Disproportionately High (i.e., >50%)?			50% / No			
Percentage Adversely Affected / Disproportionately High (i.e., >50%)?			50% / No			
Disproportionately High EJ Population and Adversely Affected?			No			

Conclusion: No disproportionately high and adverse impacts to EJ populations are anticipated based on the survey results, site-specific field observations, and the Census data. No further analysis or mitigation for environmental justice populations is required for the US 460 project.

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D. Local Land Use and Transportation Plan	<u>NA</u>	<u>Y</u>	<u>N</u>
1. Project consistent with local land use plan. <i>(NA if no plan exists) – see images from zoning map below</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Project consistent with local transportation plan. <i>(NA if no plan exists)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Project would induce adverse or beneficial secondary and cumulative effects.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Are there any existing and/or planned bike or pedestrian walkways – <i>see description below</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Describe Impacts: <ul style="list-style-type: none"> ○ The 2012 “Bourbon County Bicycle Plan” (p. 31) shows the local officials are interested in promoting a “paved shoulder and/or shared use path” along US 460 between Paris and Russel Cave Road. ○ There are no bicycle routes along the corridor. The Bluegrass Bicycle Tour does cross US 460 in the project area, but does not use US 460. ○ The image below is from the Paris Planning and Zoning mapping and illustrates the Paris/Bourbon County Industrial Park, located along the south side of US 460 within the study area. The community plans to attract new industries to this park, as shown below. This area has been annexed by Paris. The zoning includes Industrial (“I”) land use including these areas and up to US 460, in what is currently agricultural use. 			

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3. Describe historic resource impacts:

Historic resources exist throughout the project corridor. There were 14 resources eligible for listing in the National Register of Historic Places (NRHP), 10 of those are within the Cooper Run Rural Historic District (CCRHD), which is listed in the NRHP. SHPO concurred with these eligibility determinations in a letter dated **January 15, 2015** (Attachment B). These sites were presented at a Section 106 Consulting Parties meeting on **October 12, 2015**.

A survey performed in March 2016 identified a 15th site (Site 20) on the eastern edge of the CCRHD boundary—a stone arch culvert bridging US 460 that dates to the 1830s. The culvert was included in the Determination of Effects Report (DOE Report). The SHPO concurred with the report’s findings (including that Site 20 was eligible, and the effects for each of the sites) in a letter dated **June 2, 2016** (Attachment B).

A finding of either No Effect or No Adverse Effect was found for all but Site 20. Site 20 cannot be avoided since it is a culvert under the road that will be reconstructed. Therefore Site 20, and consequently the overall project, received a finding of Adverse Effect. Documentation per Section 800.11(e) of the National Historic Preservation Act was submitted to FHWA documenting these findings. Because the project has received an Adverse Effect determination, a Section 106 Memorandum of Agreement (MOA) has been developed, and signed by the KYTC (July 27, 2017), the Kentucky SHPO (August 17, 2017), and by the FHWA Kentucky Division (September 25, 2017). On September 5, 2017, FHWA coordinated with ACHP, who opted to not participate at this time, in a letter dated September 21, 2017. (See Attachment B)

Commitments to Minimize Impacts to Historic Elements

Drylaid stone walls and entry gates have been identified in the Eligibility Report as contributing elements to the eligible and listed historic sites. Such elements are either adjacent to or within the exiting US 460 right-of-way. These historic elements have been encountered on other KYTC projects. The acceptable mitigation is to have these elements reconstructed by a recognized professional qualified to reconstruct the elements with historic integrity, and either outside the “clear zone” for vehicles, or within an acceptable limits based on the conditions. With these commitments, reconstruction of these historic elements would receive a finding of No Adverse Effect.

Following are a list of the Historic Elements that would need to be reconstructed to receive a finding of No Adverse Effect. These elements are illustrated in Attachment B, Required Mitigation to Historic Sites.

Historic Site #	Description of Historic Element	Alt Impacting	Alt 1 Stationing (Approximate)	Condition
3 BB-760	Entry Gate (South Side)	Alts 1 & 2	536+00	Excellent
7 BB-568	500 foot drylaid stone wall (South Side)	Alts 1 & 2	635+00 to 614+00	Poor
10 BB-570	Pair of 25-foot drylaid stone walls along driveway (South Side)	Alts 1 & 2	742+00	Good
10 BB-570	223 foot drylaid stone wall foundation at west end of property (South Side)	Alts 1 & 2	721+50 to 724+00	Poor
12 BB-60	Entry Gate (South Side)	Alts 1 & 2	681+00	Good
15 BB-583	2,840 foot drylaid stone wall (North Side, across from Site 10)	Alt 1	734+00 to 760+50	Good

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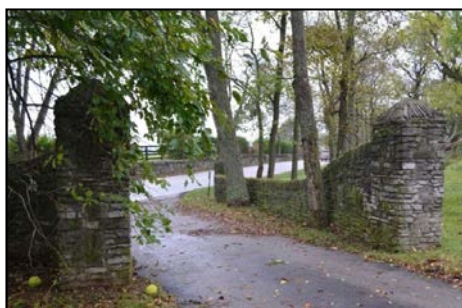
Site 1, Avoided by C'ville Avoidance Alt.



Site 3, Entry Gate



Site 7, Drylaid Stone Wall



Site 10, Entry Gate



Site 10, Drylaid Stone Wall



Site 12, Entry Gate



Site 15, Drylaid Stone Wall

Temporary easements: Because only preliminary alternatives have been developed to date, it is not known if temporary easements will be required from any of the sites. However, if they are necessary, per 23 CFR 774.13 (d), the following criteria must be met to avoid a “use” of the land:

- (1) The duration must be temporary (i.e., less than the time needed for construction of the project), and there should be no change in ownership of the land;
- (2) The scope of the work must be minor;
- (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- (4) The land being used must be fully restored, i.e., the property must be returned to a condition that is at least as good as that which existed prior to the project; and
- (5) There must be documented agreement of the official(s) with jurisdiction over the “Section 4(f)” resource regarding the above conditions.

KYTC would adhere to these commitments; therefore, a finding of No Adverse Effect would be anticipated from any temporary easements.

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F. Archeological Resources	NA	Y	N												
1. Will project impact archaeological resources. <i>If "Yes", list site number(s) that cannot be avoided:</i> _____ <i>(Document means for assessing project and attach Archeological Investigation Form, correspondence, or documentation from DEA Archeologist with finding).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>												
2. Are/were sites recommended for Phase II work? (attach SHPO concurrence letter) If "Yes", list site number(s): _____ 3. Are NRHP eligible/potentially eligible sites affected by the project? <i>If "Yes", indicate level of impact; If "No", attach SHPO concurrence letter:</i> <input type="checkbox"/> "No Adverse Effect" (attach SHPO concurrence letter) <input type="checkbox"/> "Adverse Effect" (attach FHWA and SHPO concurrence letter)-Section 4(f) must be completed if preservation in-place is required.*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>												
4. Is Native American Consultation (NAC) required? <i>If "No", explain why in F.9 below.</i> <i>If "Yes," document dates of consultation below and describe the outcome in F.9 below.</i> Dates NAC conducted: Phase I _____; Phase II _____; MOA _____ FHWA Closure Date: Phase I _____; Phase II _____; MOA _____ Tribal request for additional consultation: <table style="margin-left: auto; margin-right: 0;"> <tr> <td style="padding-right: 10px;">Phase I</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Phase II</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>MOA</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Phase I	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Phase II	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MOA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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MOA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>												
5. Describe archeological resource impacts: The Section 106 MOA in Attachment B, states the following in Section V.: <i>Phase I archaeological survey will be conducted for all unsurveyed parcels within The Project right-of-way, prior to the initiation of any ground disturbing activities, such as utility relocations or construction, to determine if they contain archaeological sites that are eligible for listing in the NRHP. Upon completion of the survey, a report will be prepared in accordance with the SHPO Specifications and will be submitted by the FHWA to the SHPO for review and comment. If an archaeological site contains prehistoric artifacts, the FHWA will initiate consultation with Indian Tribes deemed appropriate by the FHWA.</i>															

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G. Section 4(f)	NA	Y	N
1. Are 4(f) properties affected by the project? <i>If "Yes", notify DEA EPM who will consult with FHWA to determine applicability of Section 4(f)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is the project adjacent to a 4(f) resource? <i>If "Yes", DEA EPM consults with the FHWA to determine applicability of "constructive use." if Questions 1 and 2 are both "No," go to Section H.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Prudent and feasible means to avoid 4(f) properties were fully considered but resource cannot be avoided. <i>Only determined in consultation with FHWA. Indicate the 4(f) type below.</i> <input checked="" type="checkbox"/> De Minimis Finding <input checked="" type="checkbox"/> Programmatic Section 4(f) <input type="checkbox"/> Full Section 4(f) Statement <i>If an Individual 4(f) Statement is required, the project cannot be completed as a CE Level 1 or 2 document. However, if the impacts can be satisfied by completing a Programmatic 4(f) Statement or a De Minimis Finding, the CE can be completed as a CE Level 1 or 2.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Describe process followed and consultation completed. Attach documentation developed to resolve 4(f) issue Fifteen historic resources eligible for listing in the NRHP—and therefore Section 4(f) resources—exist along the project corridor. There are <u>no</u> wildlife refuges or public owned parks. Of the 15 historic resources, all have been either avoided, or commitments made to rebuild stone walls and entry gates (contributing elements) to reduce impacts to result in a finding of "No Adverse Effect," except for one historic stone arch culvert (Site 20) that is unavoidable. The historic culvert has been addressed through a programmatic 4(f) Statement for Historic Bridges on September 28, 2017 by FHWA. See Attachment B. Although there would be an Adverse Effects finding for impacts to Site 20, Alternative 1 with the Centerville Avoidance Alignment is the minimization alternative with regard to overall impacts to NRHP-listed or eligible sites. Alternatives 1 and 2 (without the Centerville Avoidance alignment) would each have required the demolition of Site 1 (an historic tavern, see photo in Section E.3), which resulted in a finding of Adverse Effect for those two alignments. The Centerville Avoidance Alternative is a prudent and feasible avoidance alternative for Site 1, and is therefore the preferred alternative. The June 2, 2016 , letter from the KY SHPO said "...we recommend Alternative 1 with the Centerville Avoidance Alignment ... as the preferred Alternative as it is most sensitive to above-ground cultural resources." See discussion on Temporary Easements in Section E.3, as it addresses the measures necessary to avoid a Section 4(f) use of the historic sites during construction.			

H. Section 6(f)	NA	Y	N
1. Are 6(f) properties affected by the project? <i>If "Yes", consult with DEA and FHWA to determine applicability of Section 6(f)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Has discussion been initiated with the Governor's Office of Local Development and the having responsibility for the administration of the publicly owned park/recreation area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Will a Memorandum of Agreement be required? <i>Final Signature Date: _____ * Project may only be processed as a CE Level 3 if Section 6(f) applies.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Describe parties involved, process followed and consultation completed to resolve 6(f) issue: <u>N/A</u>			

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I. Noise Impacts (23 CFR Part 772)	NA	Y	N
1. Indicate if any of the following are applicable, which would necessitate a traffic noise analysis: <input type="checkbox"/> New roadway on new alignment <input type="checkbox"/> Addition of one or more through travel lanes; <input type="checkbox"/> Significant change in vehicle mix or traffic speed <input type="checkbox"/> Significant change in horizontal or vertical alignment <input type="checkbox"/> Addition or relocation of interchange lanes or ramps <input type="checkbox"/> Change in roadway character that substantially reduces the shielding effect of landforms or noise barriers	☒	<input type="checkbox"/>	<input type="checkbox"/>
2. There are noise sensitive receivers/land uses adjacent to the proposed project (e.g. residences, businesses, schools, parks, etc.). <i>See KYTC Noise Analysis and Abatement Policy, Table 1.</i>	☒	<input type="checkbox"/>	<input type="checkbox"/>
3. Traffic noise analysis demonstrates that KYTC noise abatement criteria will be exceeded.	☒	<input type="checkbox"/>	<input type="checkbox"/>
4. A substantial increase of 10+ db from existing conditions will result from Build alternate	☒	<input type="checkbox"/>	<input type="checkbox"/>
5. There are feasible and reasonable measures that can reduce impacts. <i>If yes, discuss in 1.6 below.</i>	☒	<input type="checkbox"/>	<input type="checkbox"/>
6. Describe noise impact and abatement measures (if applicable) <p>A noise analysis is not warranted, as this is a Type III Project (i.e., one that does not warrant a noise analysis) because the project will be building the new 2-lane road in close proximity to the existing 2-lane roadway. The new road will not have substantial horizontal or vertical alternations as compared to the existing alignment nor change the vehicle mix. The project will not add new through travel lanes, auxiliary lanes, new interchanges, or other elements that would warrant a noise analysis.</p>			

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J. Air Quality Impacts	NA	Y	N
1. Is the project located in an air quality non-attainment or maintenance area for ozone (O ₃) (part of Boone, Kenton, and Campbell counties).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The project is listed in an approved STIP and/or TIP. <i>If not in STIP, notify DEA SME</i> STIP # 7-8705 Page # 6 of 7 (STIP 2017-2020) TIP Page # N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Is project controversial <i>or</i> does the project HAVE or ADD a signalized intersection with a projected “open to traffic” year ADT > 80,000 vehicles per day? <i>If “Yes” analysis may be required. Clearance memo from DEA SME is required and must be attached. If “No”, check box below.</i> <input checked="" type="checkbox"/> This project does not exceed the Kentucky CO screening criteria for project-level analysis and is not expected to produce a violation of the CO standards (35 ppm over a one-hour period or 9 ppm over an eight-hour period).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Does the project have potential for Mobile Air Toxin effects? <input checked="" type="checkbox"/> No potential for meaningful MSAT effects – no analysis required Qualifying CE (23CFR 771.117 c)* Air quality exempt project (40 CFR 93.126) Other projects with no meaningful impacts on traffic volumes or vehicle mix <input type="checkbox"/> Low potential for MSAT effects – Qualitative Analysis and uncertainty assessment required** <input type="checkbox"/> Higher potential for MSAT effects (AADT 140,000 by design year) Quantitative Analysis required to differentiate alternatives. * <i>Indicate project type as described in the list:</i> _____ ** <i>Contact DEA SME for assistance and attach related analysis.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Is the project in an area requiring PM 2.5 consideration (Boone, Boyd, Bullitt, Campbell, Jefferson, Kenton, or part of Lawrence)? <i>If PM 2.5 consideration is required, attach checklist, consultation emails, etc., to document findings.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Impacts/Comments (reference attached documentation) N/A – The project is not in an area of air quality concern for any pollutant. And the project is included in the current STIP for KYTC.			

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K. Hazardous Materials	NA	Y	N
1. Are known or potentially contaminated sites (service stations, landfills, automotive repair, junkyard, structures with asbestos, etc.) along the project corridor?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is ROW required from, or extensive excavation required adjacent to a potentially contaminated site? <i>If "Yes" Phase II testing is required and should be completed prior to ROW authorization request.).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Does Phase II analysis indicate the existing and/or proposed ROW is contaminated? <i>Extent and estimated remediation cost to be provided by DEA SME to Division of ROW and Project Team.</i> Phase II testing for US 460 has not yet occurred. As stated in K.2, it will occur prior to ROW Authorization. See discussion in E.6.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Will any bridges or standing structures be demolished for completion of the work? Status of inspection of bridges and structures for asbestos-containing materials (ACM) <input type="checkbox"/> Complete <input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required <i>(Identify bridges and structures and discuss results of assessment, if completed, reason not required, or future work in K.6 and Section 5.)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. If bridges are removed, refurbished, or repainted, will there be lead-based paint wastes to address?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>6. Discuss significance of any "Yes" marked in 1-5 and any deferred necessary activities.</p> <p>Centerville Market has USTs and pumps that will be in the footprint of the preferred alignment. Prior to construction the USTs will need to be removed and property disposed of, and soil samples taken to identify whether or not contaminants have leaked from the tanks and exceed allowable limits, per the Kentucky Division of Waste Management, UST Branch. If so, such soils will need to be removed and properly disposed prior to construction activities.</p> <p>An open records request from Kentucky Division of Environmental Protection (KDEP), UST Branch, shows that the tanks were installed in 1988. There are three 8,000 gallon tanks—diesel, high octane, and regular unleaded—and one pump station. Over the course of several years, various Notices of Violation (NOVs) were issued for the site. Each appears to have been addressed and the site currently has no outstanding NOVs. Field visits confirmed these findings and identified no other site-specific concerns.</p> <p>The field visits did identify other general issues of concern as follows: PCBs within pole-mounted transformers, and asbestos containing materials and possibly other universal contaminants within structures that will need to be removed prior to demolition.</p>			

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L. Threatened and Endangered Species (T&E)	NA	Y	N
1. Sources considered to identify potential impacts to federally threatened and endangered species attach copies: <input checked="" type="checkbox"/> DEA Combined Species List: USF&WS, KDF&WS, and KSNPC source reviewed See Attachment D. Species identified: <u>Indiana bat, gray bat, Northern long-eared bat, running buffalo clover, and Short's bladderpod (May 11, 2017)</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Habitat Assessment indicated Federally listed T&E <u>habitat</u> present in vicinity No Effect determined for: <u>Indiana bat, gray bat, Northern long-eared bat, running buffalo clover, and Short's bladderpod</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Indiana bat and/or Northern long-eared bat (<i>check all that apply</i>) <input checked="" type="checkbox"/> To be determined <input type="checkbox"/> No Effect <input type="checkbox"/> CMOA <input type="checkbox"/> Tree cutting restrictions			
4. Is the project located upstream or within Designated Critical Habitat? (<i>Consultation with DEA required</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Biological Assessment required? If yes, list species: <input type="checkbox"/> Completed (attach USFW letter) <input checked="" type="checkbox"/> To be completed before construction (CAP entry recommended and include in Section 5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the project likely to adversely affect federally listed T&E Species? (<i>formal consultation required</i>) * * <i>If the project is likely to affect a federally listed T&E species, excluding Indiana bat addressed through a CMOA, it is not eligible for CE Level 1 or 2 and DEA and FHWA must be consulted.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Describe any T&E species concerns/protective measures. <p>Part of the proposed study area is located in "summer 1" habitat for both the Indiana bat and northern-long eared bat, and part is in "potential" habitat for these species.</p> <p>Two federally listed species are known within the five mile buffer: Short's bladderpod, and running buffalo clover. It is recommended that a survey for these endangered species be conducted within areas of potential habitat prior to construction activities.</p>			

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M. Water Resource Impacts	NA	Y	N
<p>1. Does the project impact State Listed Special Use Waters or tributaries to a Special Use Water? <i>Indicate all types below and consult DEA Permit SME prior to issuance of the CE.</i></p> <p><input type="checkbox"/> Cold Water Aquatic Habitat <input type="checkbox"/> Outstanding National Resource Water <input type="checkbox"/> Exceptional Waters</p> <p><input type="checkbox"/> Reference Reach Stream <input type="checkbox"/> Outstanding State Resource Water <input type="checkbox"/> State Wild River</p> <p><input type="checkbox"/> Federally Designated Wild River <input type="checkbox"/> Federally Designated Scenic River</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>2. Will project involve surface disturbance greater than one acre? <i>If "Yes," note need for KPDES KYR10 storm water permit box in M.11.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>3. Is project located partially or wholly within a designated MS4 community? <i>(If Yes, identify any local ordinances, restrictions, local permits, or other local requirements that require consideration before, during, and after construction. Specify in box M.13 below, and, if appropriate, in Section 5).</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>4. Does the project encroach upon a 100 Year Floodplain? <i>If "Yes," determinations regarding No Rise Certifications, FEMA Map Revisions, etc., to be made by KYTC Design, Drainage Section during final design.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>5. Could project potentially affect surface or groundwater drinking supplies, public or private?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>6. Does the project involve impacts to a stream below Ordinary High Water Mark (OHWM) or to a wetland? <i>If answer is "No," the replies to questions 7 and 8 will also be "No."</i></p> <p>Anticipate Impacts below OHWM, (check all that apply)</p> <p><input type="checkbox"/> Bridge/Pier abutment <input type="checkbox"/> Relocation/Channelization <input type="checkbox"/> Temporary Diversion <input checked="" type="checkbox"/> Culvert</p> <p><input type="checkbox"/> Low Water Crossing <input type="checkbox"/> Excess Excavation Site <input type="checkbox"/> Bank Stabilization <input checked="" type="checkbox"/> Wetland Fill</p> <p><input type="checkbox"/> Other, e.g. temporary crossing, (describe): _____</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>7. Will project impact a lake or pond requiring its draining or filling (note characteristics below)</p> <p><input type="checkbox"/> A stream enters the lake or pond <input checked="" type="checkbox"/> A stream exits the lake or pond</p> <p><i>If stream is exiting lake or pond, 404 permit is required.</i></p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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M. Water Resource Impacts (continued)	N/A	Y	N
<p>8. Permit Requirements</p> <p>401/404 Permits are likely to be required for this project. <i>(Indicate type below and in Section 5)</i></p> <p>If any permits are expected to be required, submit CE Request for Assistance to DEA SME</p> <p>Stream/Lake/Pond Impacts <input type="checkbox"/> BNR <input checked="" type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQ</p> <p>Mitigation required by <input type="checkbox"/> ACE <input type="checkbox"/> DOW</p> <p>Wetland Impacts <input type="checkbox"/> BNR <input checked="" type="checkbox"/> ACE NW <input type="checkbox"/> ACE IP <input type="checkbox"/> DOW IWQ</p> <p>Mitigation required by <input type="checkbox"/> ACE <input type="checkbox"/> DOW</p> <p>Will this project affect navigable waters of the U.S. as defined by USACE and require a Section 10 permit? <i>If "Yes," coordination with DEA is required.</i></p> <p>Will this project affect navigable waters of the U.S. requiring a Coast Guard, Section 9 permit? <i>If "Yes," coordination with Division of Structural Design is required.</i></p> <p>Will this project require a KPDES storm water permit (KYR10) for construction?</p> <p>Will this project require any additional permits for a local MS4? <i>(Discuss requirements in M.10)</i></p> <p>Will construction in the floodplain require analysis and coordination by KYTC Design Drainage Section to ensure that potential flooding impacts are thoroughly addressed?</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>9. Is the project within a watershed of a significant water resource (public or private drinking water supply, wellhead protection area, Special Use Water, etc.)? <i>(Indicate types below.)</i></p> <p><input type="checkbox"/> Project is a candidate for KYTC Karst Policy</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>	<p><input checked="" type="checkbox"/></p>
<p>10. Describe water resource investigations conducted, impacts identified, and permits required or anticipated: Literature research and field investigations were conducted to identify Waters of the U.S. in January 2016. During the field survey they identified the following within the rights-of-way of the proposed alternatives:</p> <p>Alternate No. 1 (Preferred) —</p> <ul style="list-style-type: none"> o Three ponds o Two NWI wetlands were identified along the north side of the corridor, and could be impacted by the preferred alternative. o Six streams – three perennial and three intermittent streams. The total length of impacts it would be 1,285 linear feet. US 460 Sta. 561+75 – 285 LF; Sta. 583+18 – 275 LF; Sta. 620+25 – 110 LF; Sta. 687+23 – 150 LF; Sta. 721+50 – 200 LF; KY 353 Sta. 39+97 – 145 LF; KY 1876 Sta. 54+06 – 120 LF. <p>* <u>Permits.</u> ACE NW was checked above. A preconstruction notification (PCN) prior to construction will be submitted to USACE by the DEA Permit Coordinator in effort to obtain a NW 14. A General Water Quality Certification will be in place from KY Division of Water. Once pipe sheets are developed, the permitting requirements should be revisited.</p>			

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Karst. Mapping of karst features using the KGS’s data revealed one sinkhole in the alignment of Alternative 1 but could not be identified in the field. It is assumed the landowners have filled them. No caves were identified in the records search or during field observations. Per KGS, the area is located in a region of “moderate karst occurrences.” The project is not considered to be a candidate for the KYTC Karst Policy.

Floodplains. There are two Zone A (“No Base Elevations Determined”) FEMA Floodplains that would be crossed—Cooper Run Tributary 8 and Cooper Run. The existing culverts in each would be extended. The designs will be coordinated with the KYTC Design Drainage Section. (See image below and Exhibit 1 in back of CE.)



Ponds and Wetlands. The preferred alignment would impact three ponds, two of which are NWI identified wetlands:

- Station. 252+00 near Centerville, an ephemeral stream is shown entering the pond. The impacts to this pond are very minimal and will be filling in a small portion near the upstream end of it (first image). Per NWI, it is a PUBHh wetland that was field verified by Eco-Tech consultants.
- Station 595+00 on the north side, no stream enters or exits that pond (middle image). Per NWI, it is a PUBHh wetland that was field verified by Eco-Tech consultants.
- KY 353 Sta. 46+00 on the right side and there are also no streams that appear to enter or exit the pond (last image). This is not an identified wetland.



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N. Construction Impacts

Discuss potential impacts of construction activities pertaining to water quality, stream diversion, air quality, detours and delays in traffic, businesses, noise, etc.:

Temporary and minimal air, noise, water quality, and traffic flow impacts will occur during construction.

The air quality impact would be temporary, and primarily in the form of diesel-powered construction equipment emissions and dust from exposed earth. Air pollution associated with airborne particle creations would be effectively controlled through the use of watering or the application of calcium chloride in accordance with KYTC's *Standard Specifications*, as directed by the KYTC project manager.

Construction activities, including traffic maintenance and construction sequence, would be planned and scheduled to minimize traffic delays. Signs would be used as appropriate to provide notice of road closures and other pertinent information to the traveling public. Traffic delays would be controlled to the maximum extent possible where many construction operations are in progress simultaneously.