Effects Recommendations

For discussion at the November 2011 Effects Meeting

Following the identification of historic resources within the Area of Potential Effects (APE), the project team has undertaken an analysis to identify any effects that the FEIS Selected Alternative and the Modified Selected Alternative may have on historic resources. Properties and districts that were identified as eligible for listing or previously listed on the National Register of Historic Places (NRHP) were identified in the *Identification Findings Report*, provided to Section 106 consulting parties on September 13, 2011. A thirty-day comment period was provided, with an in-person meeting on September 29 to facilitate discussions among group members. The final eligibility determinations are presented in the *Identification Findings Report*, available on the project website. Two specific categories of resources were identified:

- Properties within the Original APE, which were evaluated as part of the original Section 106 process and updated to reflect current historic status, lie near the project footprint and may experience direct or proximity impacts.
- Properties within the 2011 Extensions to the Original APE (not evaluated as part of the initial Section 106 process) lie further from the project footprint but have the potential to experience indirect effects due to the proposed design changes including the potential for traffic diversion due to the introduction of tolling.

Because effects within the 2011 Extensions to the Original APE will be assessed at a district or neighborhood level, all properties within the 2011 Extended APE over 45 years in age are treated as eligible for listing on the NRHP for the purpose of this project.

This *Effects Recommendations Document* focuses on the determination of potential effects to those properties and districts that were identified as eligible for listing or previously listed on the NRHP. The assessment of adverse effects has been conducted according to the criteria of adverse effect (36 CFR 800.5). Per regulations from the Advisory Council on Historic Preservation, an adverse effect is an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register of Historic Places" such that a property's location, design, setting, materials, workmanship, feeling, or association is diminished. This can include both direct effects (caused by the action and occurring at the same time and place) and indirect effects (reasonably foreseeable effects caused by the project but occurring later in time or farther removed).

A "no adverse effect" determination is found when the undertaking's effects do not meet the criteria of the preceding paragraph on adverse effects or the undertaking is modified or conditions are imposed to avoid adverse effects. Conditions to avoid adverse effects may include subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

No effect is found when either there are no historic properties present or there are historic properties present but the undertaking will have no impact upon them.

Effects are being compared for two alternatives: the FEIS Selected Alternative, which incorporates minor design changes since the 2003 FEIS publication as described below, and the Modified Selected

Alternative. For comparison, the original Selected Alternative as documented in the 2003 FEIS is presented as a baseline scenario.

1. Overview of Alternatives Considered

The 2003 Selected Alternative documented in the 2003 FEIS is included as a baseline for comparison for properties included in the original analysis. This alternative included:

- New East End Bridge (Alternative A-15 in the FEIS) with 6 lanes
- New East End Approaches with 6 lanes
- Reconstructed Kennedy Interchange relocated south of its existing footprint
- New I-65 Downtown Bridge with bicycle/pedestrian facilities

During the seven-year design process since the approval of the FEIS, based on new information, public involvement, and further engineering refinement, adjustments to the designs in the FEIS were made. The FEIS Selected Alternative includes the evolution of design updates that occurred since the publication of the ROD in 2003 through the proposal of the Modified Selected Alternative, such as:

- New East End Bridge (Alternative A-15 in the FEIS) with 6 lanes
- New East End Approaches with 6 lanes
- Reconstructed Kennedy Interchange relocated south of its existing footprint, lower in elevation than the 2003 design and reducing impacts within the Great Lawn by 93 feet
- New I-65 Downtown Bridge with bicycle/pedestrian facilities
- Third Street Ramps shown in the FEIS are removed, shifting access to River Road
- Diverging diamond interchange at I-265 / SR 62 (different from previous configuration)

The Modified Selected Alternative includes cost saving measures introduced in 2011, such as:

- New East End Bridge (Alternative A-15) reduced to 4 lanes
- New East End Approaches reduced to 4 lanes
- Reconstructed Kennedy Interchange within its existing footprint, lower in elevation than the 2003 or 2010 designs
- New I-65 Downtown Bridge with no bicycle/pedestrian facilities
- Diverging diamond interchange at I-265 / SR 62
- Frontage road connection between Mellwood and Story Avenues (included in both previous alternatives) is eliminated
- Access at Third Street returns to existing configuration
- Downtown Indiana flyover ramps are eliminated at 10th Street (included in both previous alternatives)
- The I-71 interchange at Frankfort Avenue (included in both previous alternatives) is eliminated
- Tolls on the Downtown (I-65) and East End Bridges

2. Methodology for Determining Effects within the Original APE

For historic properties within the 2003 Original APE, the FEIS evaluation included six categories for analyzing effects to historic properties, defined below:

- Encroachment includes permanent right-of-way acquisition and temporary construction easements. In many cases, encroachment could have an adverse effect; any encroachment on a

historic property was evaluated in the FEIS for its effect on the characteristics that make the property eligible for the NRHP.

- Noise levels based on projected 2025 traffic levels were evaluated in the 2003 FEIS for each historic property located within 1,200 feet of any alternative. An increase less than 3-5 decibels (dBA) is barely discernible and was considered to have no effect; historic properties experiencing a noise increase of at least 5 dBA were evaluated in the FEIS to determine the increase's effect on the characteristics that make the property eligible for the NRHP.
- Visual impacts were evaluated in the FEIS for historic resources within two miles of the project to account for lighting effects and qualitative viewshed changes. Visual effects were evaluated to determine (1) if the proximity to the project will result in relatively unobstructed views of project elements in a way that diminishes the integrity of the property's location, design, setting, feeling, or association or (2) if light dispersion from highway safety lighting reaches the property.
- Vibration impacts resulting from traffic, construction activities, and blasting were discussed. Each of these vibration sources were evaluated in the 2003 FEIS in accordance with the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Guidance Manual* to determine if the vibration would cause an effect on the characteristics that make the property eligible for the National Register.
    - In the FEIS, properties within 30 feet of the East End Indiana approach, 40 feet of the East End Kentucky approach, 50 feet of the Downtown Indiana approach, 130 feet of the Downtown Kentucky approach, or 80 feet of the Kennedy Interchange were considered to be near enough to the Project to experience annoyance from traffic vibration, which is considered at the level of 73 VdB by the FTA. These thresholds were identified based on soil types and pier sizes, as documented in the 2003 analysis.
    - In the FEIS, properties located more than 40 feet from alternatives were determined to have no potential to be adversely affected by vibrations from non-blasting construction activities.
    - In the FEIS, properties located more than 500 feet from blasting sites were determined to not be adversely affected by vibrations from blasting construction activities.
- Air Quality impacts were evaluated according to US Environmental Protection Agency (EPA) guidelines for modeling. All sites studied fell below the National Ambient Air Quality Standards for carbon monoxide. Particulate Matter ($PM_{2.5}$) was also evaluated qualitatively in the FEIS; the project meets conformity requirements for $PM_{2.5}$. Mobile Source Air Toxics (MSATs) and Ozone were dismissed from analysis based on the fact that on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will cause substantial reductions over time that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today. Substantial construction-related MSAT emissions are not anticipated for this project as construction is not planned to occur over an extended building period in any one localized area. In addition the LSIORB Project is included in KIPDA's *Horizon 2030: The Metropolitan Transportation Plan for the Louisville (KY-IN) Metropolitan Planning Area* long-range plan (p. 427), and in the *FY 2011–FY 2015 Transportation Improvement Program* (p. 162). The conformity analyses demonstrated conformity with the eight-hour ozone standard. Therefore, it was determined that air quality impacts from construction of any alternative would not affect any historic property.

- Construction may include temporary impacts from staging areas, borrow pits, waste areas, noise, nighttime lighting, air emissions, and traffic alterations. In the 2003 FEIS, areas near historic properties where it is reasonable to expect any of these operations to be located were identified and evaluated based on the proximity of the operation to the property.

3. Updating Effects within the Original APE

Because the footprint of the FEIS Selected Alternative has generally been reduced for the Modified Selected Alternative, effects presented in the 2003 FEIS generally represent a worst-case scenario. For this supplemental evaluation effort, the following updates have been completed for the effects described in the 2003 FEIS.

1. As described in the *Identification Findings Report*, a number of additional historic districts and properties have been newly identified within the Original APE. The effects of both of the alternatives will be assessed for these new resources.
2. Since 2003, updated traffic projections have been prepared, which forecast lower volumes for the 2030 analysis year than were identified for the 2025 analysis year covered in the FEIS.
3. Effects for the FEIS Selected Alternative and the Modified Selected Alternative were documented and compared to those effects documented in the 2003 FEIS.
    - Encroachment: Maps detailing the changes in right-of-way requirements between the FEIS Selected Alternative and the Modified Selected Alternative have been prepared to demonstrate differences in encroachment. **Figures 1** through **7** show right-of-way limits for these alternatives.
    - Noise: FHWA has issued new guidance regarding noise modeling techniques since the 2003 FEIS analysis was completed. A new noise analysis was completed for the SEIS effort which compares the FEIS Selected Alternative to the Modified Selected Alternative. The updated 2030 traffic volumes were used for this analysis, which focuses on properties within 500 to 800 feet of the Project.
    - Visual: Impacts are similar between each alternative. The Colgate Plant wastewater treatment facility in the Butchertown neighborhood is removed in the FEIS Selected Alternative but these structures would remain in the Modified Selected Alternative. This is an example of how some areas may be affected visually by the removal of buildings. Ramps within the Kennedy Interchange decrease in elevation between each scenarios: a maximum elevation of 77.1 feet above ground in the FEIS Selected Alternative versus a maximum of 59.9 feet above ground in the Modified Selected Alternative.
    - Vibration: Because updated traffic projections forecast lower volumes for the 2030 analysis year than were identified for the 2025 analysis year covered in the FEIS, the effects presented in the 2003 FEIS represent a worse-case scenario for vibration impacts.

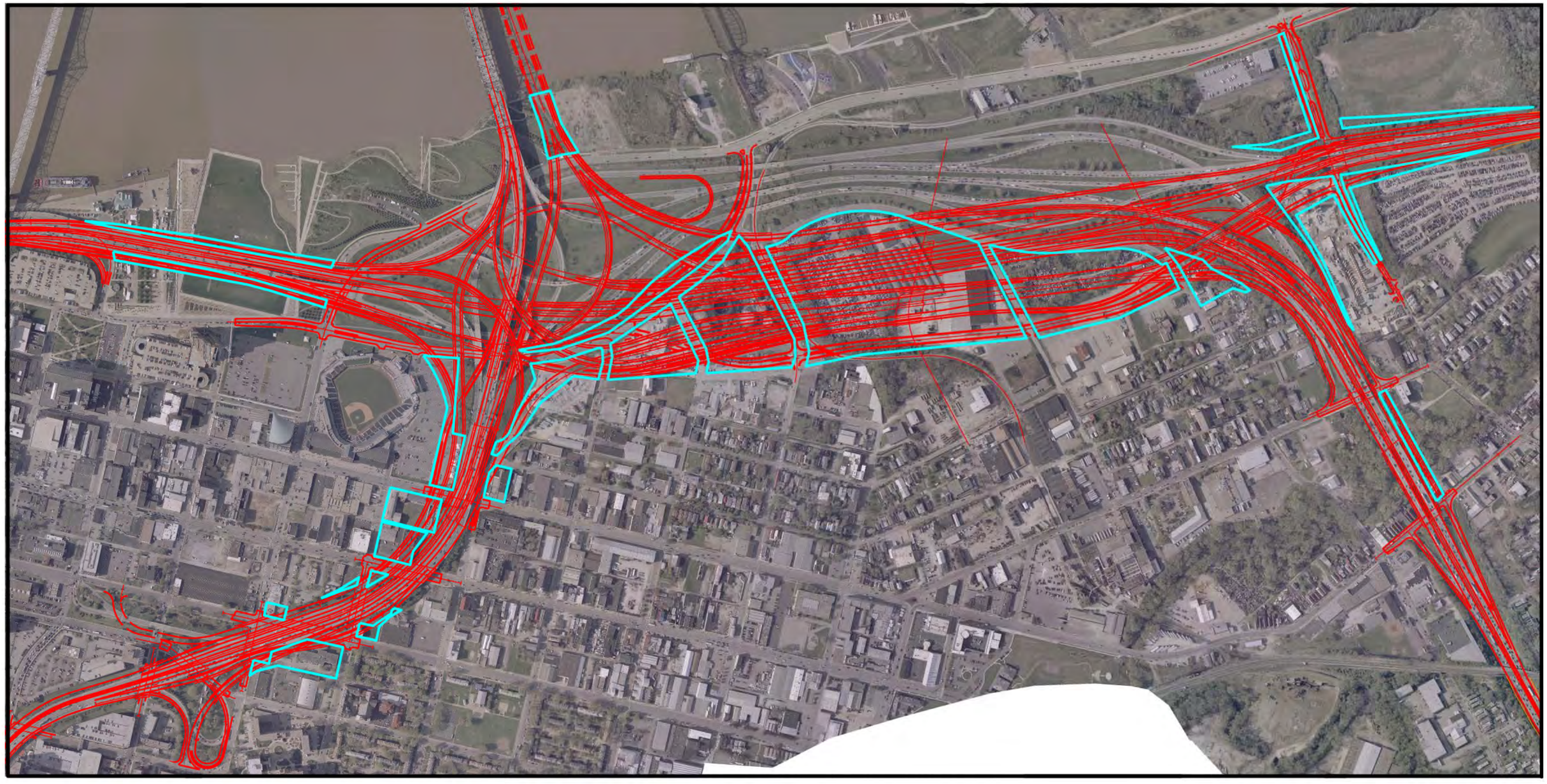

Figure 1

LEGEND

Proposed Property Acquisition

Alignment

THE OHIO RIVER BRIDGES

Supplemental Environmental Impact Statement

AREA OF PROPOSED PROPERTY ACQUISITION
FEIS SELECTED ALTERNATIVE (2010)

0 600'

5

Figure 2

LEGEND

Proposed Property Acquisition

Alignment

THE OHIO RIVER BRIDGES

Supplemental Environmental Impact Statement

AREA OF PROPOSED PROPERTY ACQUISITION
MODIFIED SELECTED ALTERNATIVE

0 600'

6

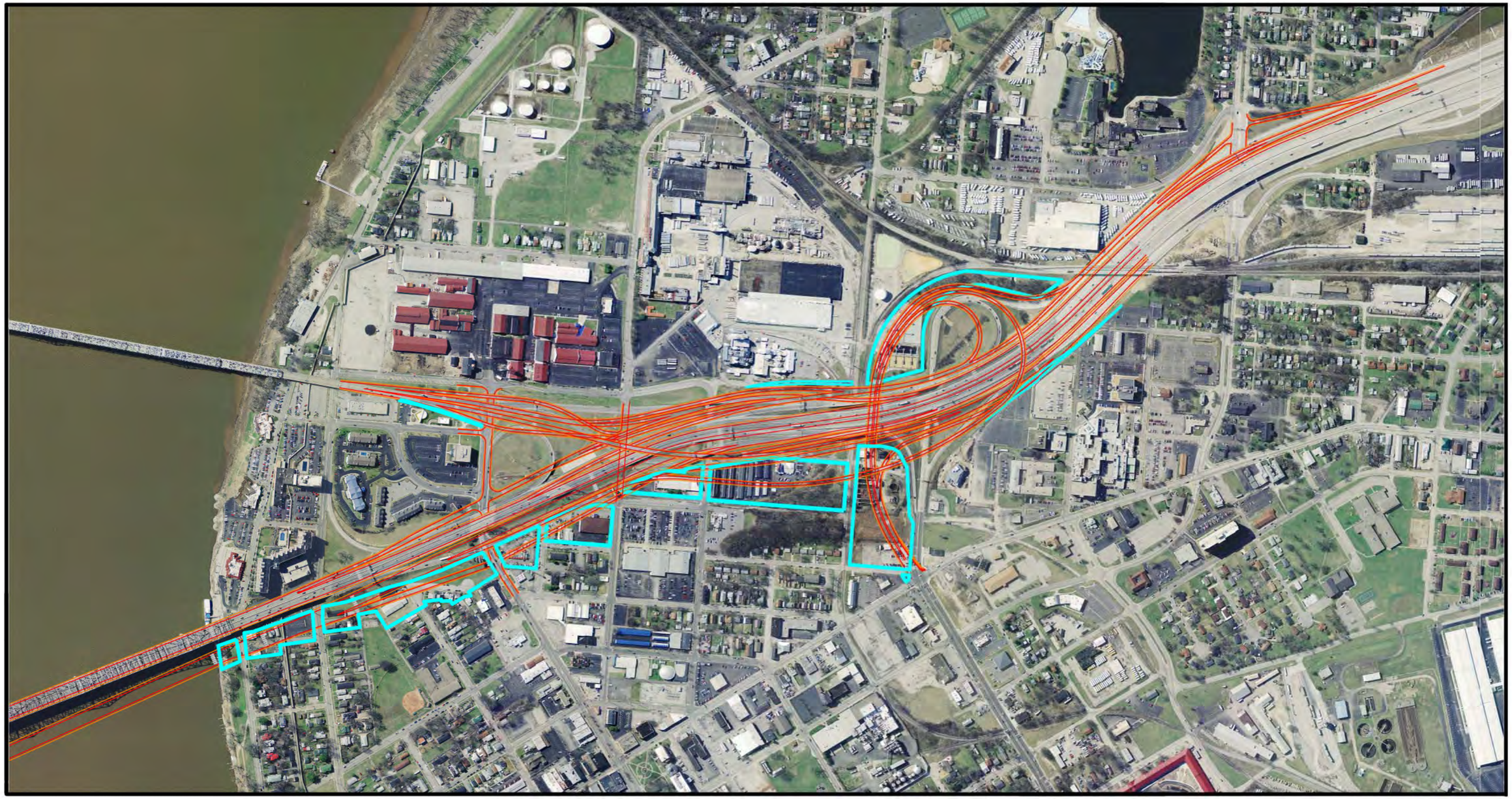

Figure 3

LEGEND

- Proposed Property Acquisition
- Edge of Pavement
- Shoulder

THE OHIO RIVER BRIDGES

Supplemental Environmental Impact Statement

PROPOSED PROPERTY ACQUISITION
FEIS SELECTED ALTERNATIVE (2010)

0 600'

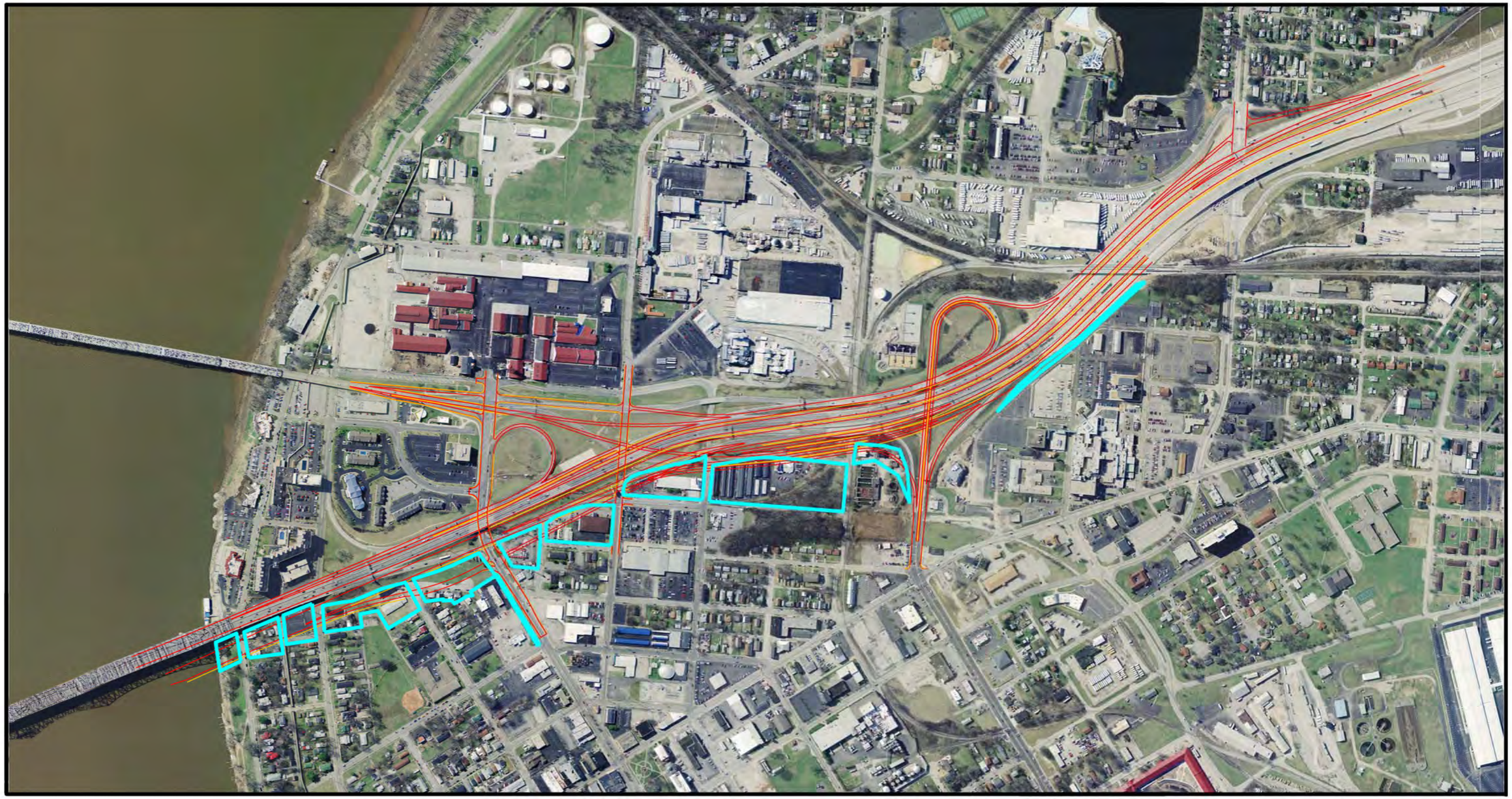

Figure 4

LEGEND

Proposed Property Acquisition

Edge of Pavement

Shoulder

THE OHIO RIVER BRIDGES

Supplemental Environmental Impact Statement

PROPOSED PROPERTY ACQUISITION
MODIFIED SELECTED ALTERNATIVE

0 600'

8

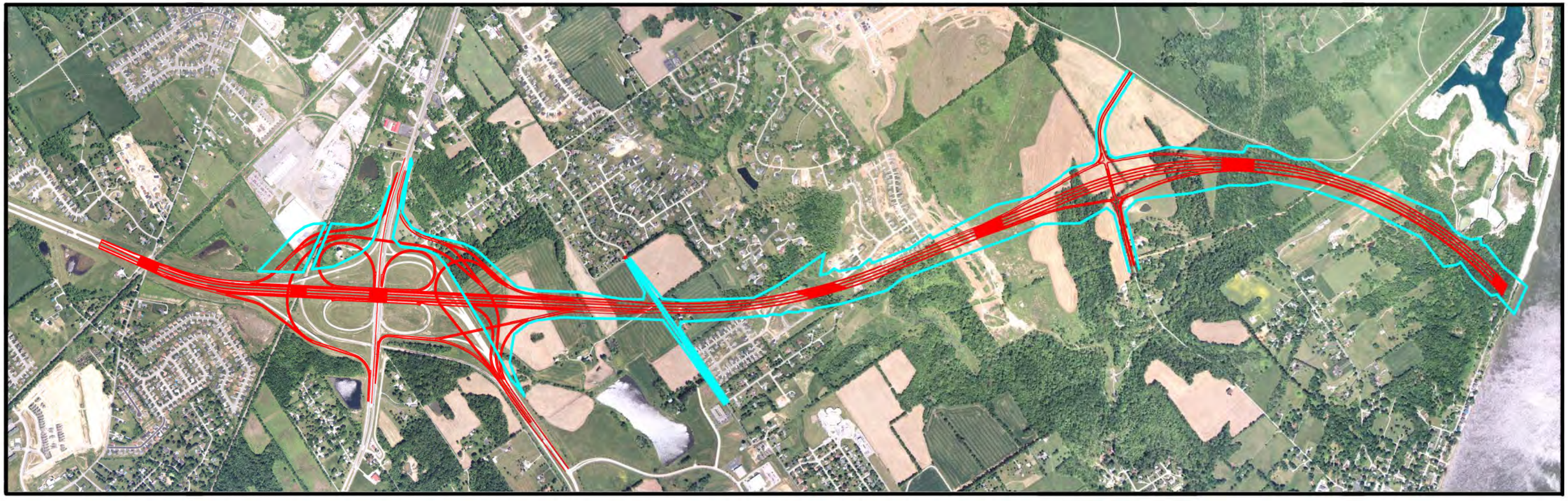

Figure 5

LEGEND

Proposed Property Acquisition

Alignment

THE OHIO RIVER BRIDGES

Supplemental Environmental Impact Statement

AREA OF PROPOSED PROPERTY ACQUISITION
FEIS SELECTED ALTERNATIVE (2010)

0 1500'

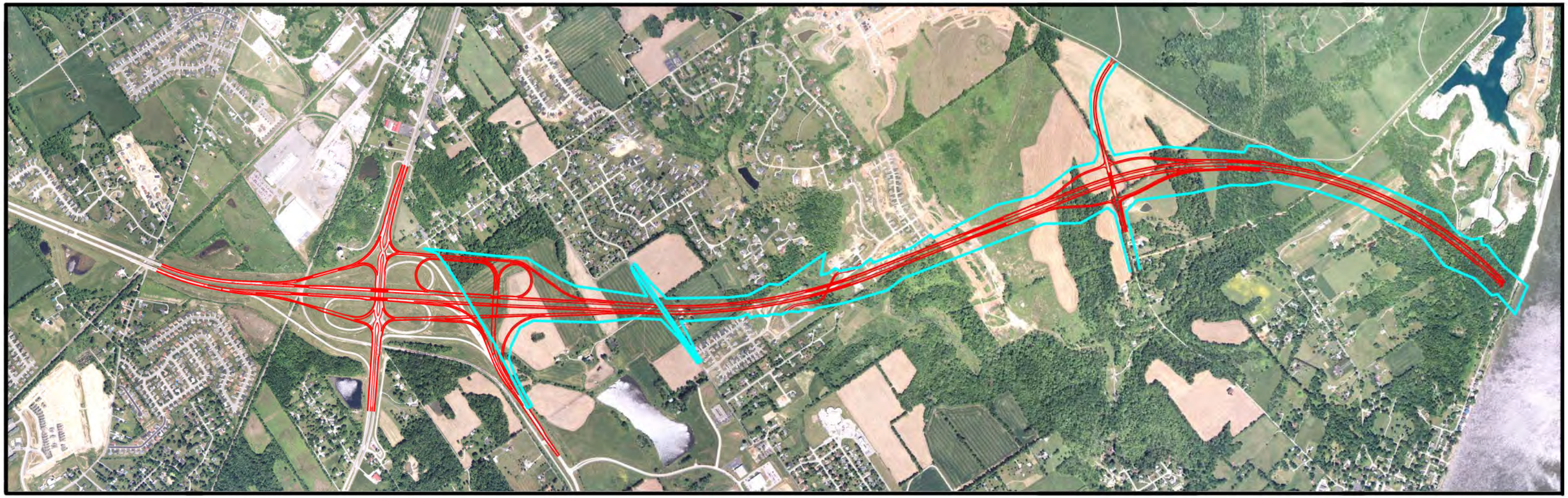

Figure 6

LEGEND

Proposed Property Acquisition

Alignment

THE OHIO RIVER BRIDGES

Supplemental Environmental Impact Statement

AREA OF PROPOSED PROPERTY ACQUISITION
MODIFIED SELECTED ALTERNATIVE

0 1500'

10

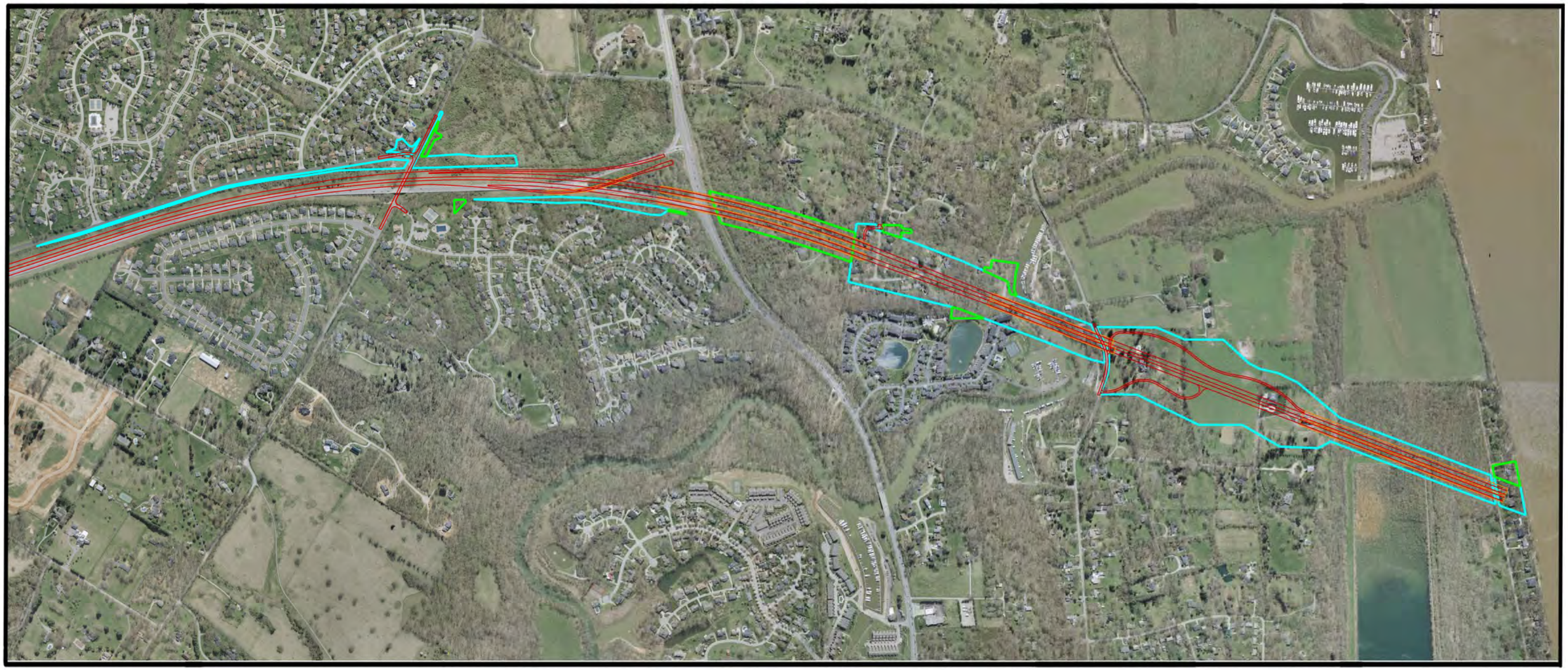

Figure 7

LEGEND

Proposed Property Acquisition

Permanent Easement

Alignment

NOTE: Right of Way for the 2010 FEIS and 2011 Modified alternatives are the same.

THE OHIO RIVER BRIDGES

Supplemental Environmental Impact Statement

AREA OF PROPOSED PROPERTY ACQUISITION MODIFIED SELECTED ALTERNATIVE

0 900'

11 **SDC4**

- Air Quality: The Louisville Metro Air Pollution Control District identified 24 intersections for hot spot analyses for an updated carbon monoxide (CO) assessment. The analysis utilized the CAL3QHC model developed by the US EPA. New hot spot analysis techniques predict lower CO levels than the original model due to reductions in projected traffic and refinements to modeling technology. None of the 860 receptors analyzed around the 24 hot spot intersections exceeded the one-hour or eight-hour National Ambient Air Quality Standards for CO. $PM_{2.5}$, Ozone, and MSATs were likewise determined to meet air quality conformity standards.
- Construction: Construction impacts are assumed to be the same as the FEIS for all three alternatives, excluding maintenance of traffic issues. Staging areas, borrow pits, noise, waste areas, nighttime lighting, and air emissions would be unchanged between the alternatives. Both of the build alternatives would involve the same general maintenance of traffic procedures and impacts related to staging during construction. The primary difference occurs at the Kennedy Interchange: the FEIS Selected Alternative would require more temporary street closures while the Modified Selected Alternative would require more temporary ramp closures, but fewer temporary street closures.

4. Summary Matrix of Findings: Original APE

Table 1 summarizes the effects findings for the historic districts and properties in the Original APE. The table compares findings presented in the 2003 FEIS, recommended findings for the FEIS Selected Alternative, and recommended findings for the Modified Selected Alternative. Within the table, "NE" represents No Effect, "NAE" represents No Adverse Effect, and "AE" represents Adverse Effect. Changes between scenarios are shaded yellow. Maps showing the locations of individual properties within the Original APE are included in the *Identification Findings Report* on pages 2-3 (Jeffersonville), 2-9 (East End Indiana), 2-21 (downtown Louisville), and 2-58 (East End Kentucky).

Table 1. Effects Recommendation within the Original APE

			2003 Selected Alternative (Documented in the 2003 FEIS)						FEIS Selected Alternative without Tolls (incorporating design updates through 2010)						Modified Selected Alternative with Tolls (Cost saving measures introduced in 2011)					
SHAARD/KHC #	**Property**		**Enc.**	**Vis.**	**Noise**	**Vib.**	**Const.**	**FINDING**	**Enc.**	**Vis.**	**Noise**	**Vib.**	**Const.**	**FINDING**	**Enc.**	**Vis.**	**Noise**	**Vib.**	**Const.**	**FINDING**
Jeffersonville, IN Resources																				
	Colgate-Palmolive Historic District		NE	AE	AE	NE	NAE	AE	NE	AE	AE	NE	NAE	AE	NE	AE	AE	NE	NAE	AE
	Ohio Falls Car and Locomotive Company Historic District		NE	AE	AE	AE	NAE	AE	NE	AE	AE	AE	NAE	AE	NE	AE	AE	AE	NAE	AE
	Old Jeffersonville Historic District		AE	AE	AE	AE	NAE	AE	AE	AE	AE	AE	NAE	AE	AE	AE	AE	AE	NAE	AE
019-305-56592	- Grisamore House	111-113 Chestnut Street	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
019-446-58018	Big Four Railroad Bridge	Ohio River	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-446-58009	Pennsylvania Railroad Bridge	Ohio River	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-446-58215	George Rogers Clark Memorial Bridge	Ohio River	AE	AE	NAE	AE	AE	AE	AE	AE	NAE	AE	AE	AE	AE	AE	NAE	AE	AE	AE
019-305-58006	Louisville Municipal Bridge Building	315 South Indiana Street	Considered with Clark Bridge (above)						AE	AE	NAE	AE	AE	AE	AE	AE	NAE	AE	AE	AE
019-446-64205	House	519 Riverside Drive	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
019-446-64206	House	527 Riverside Drive	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
019-305-58112	Spring Street Freight House (Train Depot)	1030 Spring Street	NE	AE	NE	AE	NE	AE	NE	AE	NE	AE	NE	AE	NE	NAE	NE	NE	NE	NAE
019-305-58062	City School	Wall Street	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
East End Indiana Resources																				
---	Ranney Wells Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	INAAP Igloo Storage Historic District		NE	NE	NE	AE	NE	AE	NE	NE	NE	AE	NE	AE	NE	NE	NE	AE	NE	AE
---	Central Utica Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	Utica Lime Industry (4 kiln sites)		NE	NE	NE	AE	NE	AE	See below						See below					
019-305-48001	- Kiln 48001		NE	NE	NE	NE	NE	NE	Boundaries expanded to include quarries						Boundaries expanded to include quarries					
019-305-48002	- Kiln 48002		NE	NE	NE	AE	NE	AE	Boundaries expanded to include quarries						Boundaries expanded to include quarries					
019-305-48003	- Kiln 48003		Considered with Kiln 48002 (above)						Boundaries expanded to include quarries						Boundaries expanded to include quarries					
019-305-48004	- Kiln 48004		NE	NE	NE	AE	NE	AE	Boundaries expanded to include quarries						Boundaries expanded to include quarries					
019-305-48001	- Kiln 48001 with associated quarry		Quarries not considered in 2003						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-48002	- Kiln 48002 with associated quarry		Quarries not considered in 2003						NE	NE	NE	AE	NE	AE	NE	NE	NE	AE	NE	AE
019-305-48003	- Kiln 48003 with associated quarry		Quarries not considered in 2003						AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE
019-305-48004	- Kiln 48004 with associated quarry		Quarries not considered in 2003						AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE
---	WPA Sea Wall	Utica Riverfront	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-46017	William Brindle House	115 Fourth Street, Utica	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	House	203 Fourth Street, Utica	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-46008	Utica Christian Chapel	300 Fourth Street, Utica	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-46025	Utica Cemetery	Fourth Street at Chestnut St, Utica	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
019-305-46013	Prather Farm	4075 Herb Lewis Road	NE	NAE	NE	NE	NAE	NAE	NE	NAE	NE	NE	NAE	NAE	NE	NAE	NE	NE	NAE	NAE
019-305-46009	House	108 Locust Street, Utica	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
---	House	609 Locust Street, Utica	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	House	200 block Longview Drive	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	Federal Style House	4711 Middle Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	John Dellinger Farm	Middle Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-46019	Utica Methodist Episcopal Church	Mulberry Street at Sixth St, Utica	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-46024	Howes Farm	606 Old Salem Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-45015	Lentz Heirs Cemetery	Salem Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-46026	Black Horse Tavern	206 Second Street, Utica	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	Lentz Cemetery	Upper River Road	NE	NE	AE	AE	NE	AE	NE	NE	AE	AE	NE	AE	NE	NE	AE	AE	NE	AE
019-305-55006	John Hoffman House	2405 Utica Pike	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-58001	Moss Family House	3011 Utica Pike	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-55015	House	3209 Utica Pike	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-45002	Woods House	3818 Utica Pike	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-45054	Thomas Benton Jacobs House	4002 Utica Pike	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Table 1. Effects Recommendation within the Original APE

SHAARD/KHC #	Property		2003 Selected Alternative (Documented in the 2003 FEIS)						FEIS Selected Alternative without Tolls (incorporating design updates through 2010)						Modified Selected Alternative with Tolls (Cost saving measures introduced in 2011)					
			Enc.	Vis.	Noise	Vib.	Const.	FINDING	Enc.	Vis.	Noise	Vib.	Const.	FINDING	Enc.	Vis.	Noise	Vib.	Const.	FINDING
East End Indiana Resources (continued)																				
019-305-45024	Farmstead	1117 Utica-Sellersburg Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
019-305-45027	Fry House	2408/2409 Utica-Sellersburg Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
---	James A Smith Farmstead	Utica-Sellersburg Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Downtown Louisville, KY Resources																				
---	Peaslee-Gaulbert Paint Manufacturing Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	West Main/10th Street Manufacturing Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	West Main Street Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Phoenix Hill Historic District		AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE
	Butchertown Historic District		AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE	AE
JFCD-218	Belle of Louisville	Ohio River	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFCD-252	Mayor Andrew Broaddus	Ohio River	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFCD-159	Louisville Medical College Building	101 Chestnut Street	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFCD-314	Theodore Ahrens Trade High School	520, 528, 546 South 1st Street	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFWP-139	Brown Tobacco Warehouse	1019-1025 West Main Street	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFWP-142	E. J. O'Brien Office	1024 West Main Street	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFWP-144	Givens, Headley and Company Tobacco Warehouse	1119-1121 West Main Street	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFCD107	Snead Manufacturing Company	817 West Market Street	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JFWP-164	Pennsylvania Freight Depot	Portland Avenue	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Conrad-Rawls Shoe Company	1120-1122 Rowan Street	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
East End Kentucky Resources																				
	Upper River Road Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Mockingbird Valley Historic District		Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Multiple Property Group: Ohio River Camps		Group added since 2003 analysis						See below						See below					
	- Juniper Beach Historic District		NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-2115	- Cabin (Beachland Beach)	7206 Beachland Beach Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-2371	- Cabin (Beachland Beach)	7214 Beachland Beach Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-2014	- Cabin (Creekside Court)	1 Creekside Court	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2008	- Cottage (Eifler Beach)	5135 Eifler Beach Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-2009	- Cottage (Eifler Beach)	5139 Eifler Beach Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-2010	- Cottage (Eifler Beach)	5143 Eifler Beach Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-2029	- Cabin (Gutherie Beach)	6208 Gutherie Beach Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-2030	- Cabin (Gutherie Beach)	6212 Gutherie Beach Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-1931	- House (Riviera Neighborhood)	912 East Riverside Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1934	- House (Riviera Neighborhood)	904 Riverside Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1935	- House (Riviera Neighborhood)	906 Riverside Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1936	- House (Riviera Neighborhood)	918 Riverside Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1937	- House (Riviera Neighborhood)	922 West Riverside Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2145	- House (Transylvania Beach)	6000 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE
JF-2075	- House (Transylvania Beach)	6012 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
JF-2076	- House (Transylvania Beach)	6206 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
JF-2077	- House (Transylvania Beach)	6212 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
JF-2078	- House (Transylvania Beach)	6312 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE
JF-2146	- House (Transylvania Beach)	6400 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE
JF-2079	- House (Transylvania Beach)	6402 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE
JF-2080	- House (Transylvania Beach)	6404 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE

Table 1. Effects Recommendation within the Original APE

SHAARD/KHC #	Property		2003 Selected Alternative (Documented in the 2003 FEIS)						FEIS Selected Alternative without Tolls (incorporating design updates through 2010)						Modified Selected Alternative with Tolls (Cost saving measures introduced in 2011)					
			Enc.	Vis.	Noise	Vib.	Const.	FINDING	Enc.	Vis.	Noise	Vib.	Const.	FINDING	Enc.	Vis.	Noise	Vib.	Const.	FINDING
East End Kentucky Resources (continued)																				
	Multiple Property Group: Ohio River Camps (continued)																			
JF-2081	- House (Transylvania Beach)	6410 Transylvania Beach Road	Resource added since 2003 analysis						NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE
JF-2033	- Cabin (Turner's Beach)	3125 River Road (#4)	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-806	- Cabin (Turner's Beach)	3125 River Road (#6)	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2034	- Cabin (Turner's Beach)	3125 River Road (#8)	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-807	- Cabin (Turner's Beach)	3125 River Road (#12)	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2035	- Cabin (Turner's Beach)	3125 River Road (#13)	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2036	- Cabin (Turner's Beach)	3125 River Road (#16)	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2039	- Cabin (Turner's Beach)	3125 River Road (unnumbered)	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2031	- Club and Pool houses (Turner's Beach)	3125 River Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1927	- Cabin (Waldoah Beach)	2801 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1926	- Cabin (Waldoah Beach)	2805 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1925	- Cabin (Waldoah Beach)	2809 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1923	- Cabin (Waldoah Beach)	2810 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1924	- Cabin (Waldoah Beach)	2811 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-804	- Cabin (Waldoah Beach)	2901 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1918	- Cabin (Waldoah Beach)	2903 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1919	- Cabin (Waldoah Beach)	2905 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1920	- Cabin (Waldoah Beach)	2907 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1921	- Cabin (Waldoah Beach)	2909 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1922	- Cabin (Waldoah Beach)	2911 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-805	- Cabin (Waldoah Beach)	2913 Waldoah Beach Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2372	- Cabin (Waldoah Beach)	3227 River Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	River Hill/Stonebridge Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Woodhill Valley Road Historic District		Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Country Estates Historic District		NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
	- Drumanard Historic District		NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
	- Glenview Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	- Harrods Creek Historic District		NE	AE	NE	NE	NE	AE	NE	AE	NE	NE	NE	AE	NE	AE	NE	NE	NE	AE
	- Nitta Yuma Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-557	- Bingham-Hillard Estate	5001 Avish Lane	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-556	- Shady Brook Farm/Theodore Mueller House	Avish Lane	---	---	---	---	---	---	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-533	- Winkworth	3200 Boxhill Lane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-555	- Rogers Clark Ballard School	4200 Lime Kiln Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-531	- Lincliffe/William R Belknap House	6100 Longview Lane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-532	- Ladless Hill	6501 Longview Lane	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-658	- Blankenbaker Station/Charles Bonnycastle	21 Poplar Hill	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-457	- Jesse Chrisler House	4508 River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-544	- Rockledge	4810 River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-545	- Shwab House	4812 River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-570	- Ashbourne	River Road	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
	Harrods Creek Village Historic District		NE	AE	NE	NE	NE	AE	NE	AE	NE	NE	NE	AE	NE	AE	NE	NE	NE	AE
	Jacob School Road Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	James T Taylor Subdivisions Historic District		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-839	Shirley/Baass/Taylor House	6300 Bass Road	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-1863	John C Doolan House, Dunmanway	701 Blankenbaker Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

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			Enc.	Vis.	Noise	Vib.	Const.	FINDING	Enc.	Vis.	Noise	Vib.	Const.	FINDING	Enc.	Vis.	Noise	Vib.	Const.	FINDING
East End Kentucky Resources (continued)																				
JF-530	Blankenbaker-Mattingly House	901 Blankenbaker Lane	Considered with Croghan-Blankenbaker (below)						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-529	McFerran House	5903 Jenness Court	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-671	Midlands/Morris Belknap	25 Poplar Hill Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Louisville Water Company Pumping Station	3005 River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Addison W Lee House	4218 River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-458	Croghan-Blankenbaker House	4306 River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2007	William Eifler House (Camps Group)	5209 River Road	Resource added since 2003 analysis						NE	NAE	NE	NE	NE	NAE	NE	NAE	NE	NE	NE	NAE
JF-455	Dr. J C Metcalfe House	5901 River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-690	Merriwether House	6421 River Road	NE	AE	AE	AE	NE	AE	NE	AE	AE	AE	NE	AE	NE	AE	AE	AE	NE	AE
JF-1986	Kerzinger Property	7314 River Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1928	Tudor Revival House (Camps Group)	906 East Riverside Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1939	Cape Cod House (Camps Group)	906 West Riverside Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1933	House (Camps Group)	4210 Riviera Drive	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-838	Green Castle Baptist Church	216 Rose Island Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-444	Prospect Store	2500 Rose Island Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1949	Stone Place Stables	7718 Rose Island Road	Resource added since 2003 analysis						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-559	Cedarbrook Farm	4800 Springdale Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-2047	Alice Speed Stoll House	5711 Stoll Hill	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-452	Rosewell/Barber House	6415 Transylvania Ave	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
JF-843	John Determan House (Camps Group)	6100 Transylvania Beach Road	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
JF-841	J. Schildknecht House (Camps Group)	6306 Transylvania Beach Road	NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE	NE	AE	AE
JF-786	Old Upper River Road Bridge over Goose Creek	Roadway	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF845	Upper River Road Bridge over Harrods Creek	Roadway	NE	AE	NE	AE	NE	AE	NE	AE	NE	AE	NE	AE	NE	AE	NE	AE	NE	AE
JF-802	Edgewater Garden/Richmond Boat Club	4417 Upper River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-677	J J Gaffney House	4525 Upper River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Bennett/Griesbaum/Lang House	6317 Upper River Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF453	Belleview	6600 Upper River Road	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
JF-447	Sutherland Farm	24 US Highway 42	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-772	Dogwood Hill	7001 US Highway 42	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-784	James T Taylor/James W Chandler House	6209 Wolf Pen Branch Road	NE	AE	AE	AE	NE	AE	NE	AE	AE	AE	NE	AE	NE	AE	AE	AE	NE	AE
JF-676	St Francis in the Fields Church	6710 Wolf Pen Branch Road	NE	AE	NAE	NE	AE	AE	NE	AE	NAE	NE	AE	AE	NE	AE	NAE	NE	AE	AE
JF-563	Allison-Barrickman House	6909 Wolf Pen Branch Road	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE	NE	AE	AE	AE	AE	AE
JF-1940	Crowfoot/R. F. Cate House	7500 Wolf Pen Branch Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-918	Fincastle	7501 Wolf Pen Branch Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-581	J E Skinner House	7811 Wolf Pen Branch Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-580	T G Peyton House	7849 Wolf Pen Branch Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
JF-1948	Royal/Kolbrook/Bruce House	5641 Wolf Ridge Road	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	Horner House	3509 Woodside Drive	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

5. Effects Description for Specific Properties in the Original APE

Historic properties in the Original APE which were not discussed in the 2003 FEIS are described below. In addition, any districts or properties that the team has identified as experiencing different effects than those presented in the 2003 FEIS are also discussed in this section. Dashes within the effect summary tables indicate that effects were not addressed within the 2003 FEIS.

Louisville Municipal Bridge Building (019-305-58006)

The Louisville Municipal Bridge Building was listed on the NRHP in 1984 alongside the George Rogers Clark Memorial Bridge (019-446-58215) and its pylons. The group is listed for its association with architecture, engineering, and transportation. The building is a two-story limestone structure reflecting the influence of both the Classical Revival and Art Deco styles. It was designed by Paul Phillippe Cret and was built during 1928-1929 by the Henry Bicknel Company of Louisville. The building housed bridge offices and other functions until tolls were discontinued in 1946.

Effects on the Louisville Municipal Bridge Building were considered as a group with the George Rogers Clark Bridge in the 2003 FEIS analysis.

Effects Findings

- Encroachment: Both the FEIS Selected Alternative and the Modified Selected Alternative would require the acquisition of right-of-way from this resource, bringing the road closer to the resource as well as increasing the street's elevation. This will alter its relationship to the transportation system, resulting in an Adverse Effect finding for encroachment.
- Visual: Both the FEIS Selected Alternative and the Modified Selected Alternative would alter the Indiana end of the George Rogers Clark Memorial Bridge. Both alternatives will impact the flanking pylons and both include construction of an embankment for US 31 to pass over Court Avenue. This embankment will alter the viewshed of the resource and its relationship to the current transportation system, resulting in an Adverse Effect finding for visual.
- Noise: While noise studies indicate that both the FEIS Selected Alternative and the Modified Selected Alternative would increase noise levels near the Louisville Municipal Bridge Building (from 60 dBA to 61 dBA), the levels would not rise to the threshold that would constitute an adverse effect (an increase of 5dBA over existing levels), resulting in a No Adverse Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource currently sits directly adjacent to existing US 31, and while both the FEIS Selected Alternative and the Modified Selected Alternative would experience an increase in traffic volume, it would not rise to the level that would result in an Adverse Effect finding for traffic vibration.
    - Construction Vibration – Construction of an embankment in close proximity to the resource would result in an Adverse Effect finding for construction vibration for both FEIS Selected Alternative and the Modified Selected Alternative.

- Blasting Vibration – No blasting would be required for either the FEIS Selected Alternative or the Modified Selected Alternative at this location.

- Construction: Construction of the embankment in close proximity to the resource results in an Adverse Effect finding for construction for both the FEIS Selected Alternative and the Modified Selected Alternative.

The table below summarizes the findings for each of the six impact categories for the Louisville Municipal Bridge Building:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	AE	AE	NAE	AE	AE	AE
Modified Selected Alternative	AE	AE	NAE	AE	AE	AE

Spring Street Freight House (Train Depot) (019-305-58112)

The Spring Street Freight House was listed on the NRHP in 2007 under Criteria A and C. It is significant historically for its associations with railroad transportation in the Jeffersonville area. It is significant architecturally as a good example of an early twentieth century depot design. It was constructed circa 1920 with Craftsman detailing enhancing a twentieth century Functional style.

Effects Findings

- Encroachment: The FEIS Selected Alternative and the Modified Selected Alternative would not require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The FEIS Selected Alternative, like the Selected Alternative documented in the 2003 FEIS, would introduce an additional elevated ramp for traffic from Court Street to eastbound 10th Street. This ramp would be at a higher elevation that existing roadways and occupy more of the viewshed, resulting in an Adverse Effect for visual. The Modified Selected Alternative eliminates the fly-over ramp at 10th Street. With the elevated facility eliminated, the changes that would occur within the viewshed of the resource would result in a No Adverse Effect finding for visual as it would only alter that transportation system that currently exists and would not introduce any new vertical elements. With both alternatives, artificial lighting would not introduce any new element onto the resource that does not already exist, resulting in a No Effect finding for lighting.
- Noise: Studies conducted for the 2003 FEIS indicated that the selected alternative would have no effect for noise on the resource. The alignment has not been drastically altered and the elevated element has been removed for the Modified Selected Alternative therefore resulting in a No Effect finding for noise for both the FEIS Selected Alternative and the Modified Selected Alternative.

- Vibration:
    - Traffic Vibration – The resource is not within the 50-foot (Downtown) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – The resource is not within the 40-foot range of potential vibration damage associated with construction operations for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for construction vibration.
    - Blasting Vibration – Blasting would not be required for either the FEIS Selected Alternative or the 2011 Modified Selected Alternative at this location.
- Construction: Construction within the vicinity of this resource would generally be limited to the construction along Court Street and 10th Street. Traffic control measures would be required during construction to manage traffic flow, resulting in a No Effect finding for construction under both alternatives.

The table below summarizes the findings for each of the six impact categories for the Spring Street Freight House:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	NE	AE	NE	AE	NE	AE
FEIS Selected Alternative (with updates)	NE	AE	NE	NE	NE	AE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Utica Lime Industry (019-305-48001 to 48004)

This Multiple Property group includes four lime kilns and associated quarries. They are eligible for the NRHP under criteria A and D.

Kiln 48001

Farthest south of the four kilns, this intermittent groundhog kiln was built between c.1850 and c.1880. Like most groundhog kilns, it was built into the base of a steep slope. The arched draw-off, which was used to extract burned lime from the kiln, faces the river. The kiln opens onto a plot that has been cleared for residential development. An abandoned tear-shaped quarry is located west of the kiln, measuring roughly 125 meters long by 50 meters wide.

Effects Findings

- Encroachment: The FEIS Selected Alternative and the Modified Selected Alternative would not require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: While the FEIS Selected Alternative and the Modified Selected Alternative would both be visible from the resource, it would not adversely affect those qualities for which the resource achieves significance, making it eligible for listing. Therefore, this results in a No Effect finding for visual.

- Noise: While the FEIS Selected Alternative and the Modified Selected Alternative are approximately 570 feet from the resource, noise would not adversely affect those qualities for which the resource achieves significance, making it eligible for listing. Therefore, this results in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is not within the 30-foot (Far East) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – The resource is not within the 40-foot range of potential vibration damage associated with construction operations for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for construction vibration.
    - Blasting Vibration - The resource would not be within the 500-foot range of potential vibration damage associated with blasting operations for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for blasting vibration.
- Construction: Construction within the vicinity of this resource would generally be limited to the construction of the Indiana approach spans to the Ohio River Bridge. The floodplain for the crossings is very narrow at this point and would only involve one or two landward piers. The abutment would be located within the top portion of the rock bluff, above Upper River Road. Any staging area would be located near the piers, near the river and Upper River Road. Waste areas or borrow pits would not be required for this portion of the Project. Traffic control measures would be required during construction to manage traffic flow along Upper River Road; however this would only require short-term lane restrictions during construction of the piers and placement of the superstructure. Access would be maintained along Upper River Road during these activities. All of this results in a No Effect finding for construction for both of the alternatives considered in this analysis.

The table below summarizes the findings for each of the six impact categories for Kiln 48001:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	NE	NE	NE	NE	NE	NE
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Kiln 48002

This is a large vertical double-chambered kiln located on the south side of a small, densely wooded creek valley. It was likely constructed by the Utica Lime Company. Below the north façade, an earthen bench extends northward toward the creek. The bench is covered with a dense layer of burned lime, ashes, coal cinders, and brick fragments. Two roads lead from the kiln toward Upper River Road. An extensive quarry extends west.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: While both alternatives considered in this analysis would be visible from the resource, it would not adversely affect those qualities for which the resource achieves significance, making it eligible for listing. Therefore, this results in a No Effect finding for visual.
- Noise: While both the FEIS Selected Alternative and the Modified Selected Alternative are located near the resource, noise would not adversely affect those qualities for which the resource achieves significance, making it eligible for listing. Therefore, this results in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is not within the 30-foot (Far East) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – The resource is not within the 40-foot area of potential vibration damage associated with construction operations for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for construction vibration.
    - Blasting Vibration – The resource is within the 500-foot area of potential vibration damage associated with blasting operations for both the FEIS Selected Alternative and the Modified Selected Alternative, resulting in an Adverse Effect finding for blasting vibration.
- Construction: Construction within the vicinity of this resource would generally be limited to the construction of the Indiana approach spans to the Ohio River Bridge. The floodplain for the crossings is very narrow at this point and would only involve one or two landward piers. The abutment would be located within the top portion of the rock bluff, above Upper River Road. Any staging area would be located near the piers, near the river and Upper River Road. Waste areas or borrow pits would not be required for this portion of the Project. Traffic control measures would be required during construction to manage traffic flow along Upper River Road; however this would only require short-term lane restrictions during construction of the piers and placement of the superstructure. Access would be maintained along Upper River Road during these activities. All of this results in a No Effect finding for construction for both of the alternatives considered in this analysis.

The table below summarizes the findings for each of the six impact categories for Kiln 48002:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	NE	NE	NE	AE	NE	AE
FEIS Selected Alternative (with updates)	NE	NE	NE	AE	NE	AE
Modified Selected Alternative	NE	NE	NE	AE	NE	AE

Kiln 48003

This is a large double kiln located opposite 48002 on the north side of a small, unnamed creek. It was built of large, dry-laid limestone slabs and was likely constructed c.1870. Near the base, a relatively small earthen bench extends toward the creek. A dirt road leading to a large quarry north of the creek

valley extends along a bluff north of the kiln, providing access to the combustion chamber openings atop the kiln. The large quarry is located west of the kiln and measures 286 ft in length.

Effects Findings

- Encroachment: Both the FEIS Selected Alternative and the Modified Selected Alternative would require the acquisition of right-of-way from this resource, which includes over 76 feet of the quarry itself, resulting in an Adverse Effect finding for encroachment.
- Visual: Because both the FEIS Selected Alternative and the Modified Selected Alternative would remove a portion of the quarry and introduce a new vertical and horizontal element that bisects the resource, each alternative results in an Adverse Effect finding for visual.
- Noise: While both the FEIS Selected Alternative and the Modified Selected Alternative directly affect the resource, noise would not adversely affect those qualities for which the resource achieves significance, making it eligible for listing. Therefore, this results in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is within the 30-foot (Far East) area of potential vibration damage associated with traffic for both the FEIS Selected Alternative and the Modified Selected Alternative, resulting in an Adverse Effect finding for traffic vibration.
    - Construction Vibration – The resource is within the 40-foot area of potential vibration damage associated with construction operations for both the FEIS Selected Alternative and the Modified Selected Alternative, resulting in an Adverse Effect finding for construction vibration.
    - Blasting Vibration – The resource is within the 500-foot area of potential vibration damage associated with blasting operations for both the FEIS Selected Alternative and the Modified Selected Alternative, resulting in an Adverse Effect finding for blasting vibration.
- Construction: Construction would include activities in direct contact with the resource including the removal of a portion of the quarry; resulting in an Adverse Effect for construction.

The table below summarizes the findings for each of the six impact categories for Kiln 48003:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	NE	NE	NE	AE	NE	AE
FEIS Selected Alternative (with updates)	AE	AE	NE	AE	AE	AE
Modified Selected Alternative	AE	AE	NE	AE	AE	AE

Kiln 48004

Kiln 48004 is a small, single chamber, in-ground limestone structure located along the western edge of Upper River Road, roughly half a mile north of Utica. It was likely built by a man named Starkweathers around 1826 and abandoned around 1847. The kiln is set at the base of a wooded bluff; the surrounding landscape is largely rural and undeveloped. The kiln's arched draw-off faced east toward the river. A series of abandoned quarries are located along the bluff, including one just above the kiln. The quarry most likely associated with the kiln is located in the side of the bluff 50 meters (164 ft) to the west if the kiln. The quarry is 856 ft in length.

Effects Findings

- Encroachment: Both the FEIS Selected Alternative and the Modified Selected Alternative would require the acquisition of right-of-way from this resource - 302 feet of the quarry itself - resulting in an Adverse Effect finding for encroachment.
- Visual: Because both the FEIS Selected Alternative and the Modified Selected Alternative would remove a portion of the quarry and introduce a new vertical and horizontal element that bisects the resource, both alternatives result in an Adverse Effect finding for visual.
- Noise: While both the FEIS Selected Alternative and the Modified Selected Alternative directly affect the resource, noise would not adversely affect those qualities for which the resource achieves significance, making it eligible for listing. Therefore, both alternatives result in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is within the 30-foot (Far East) area of potential vibration damage associated with traffic for both the FEIS Selected Alternative and the Modified Selected Alternative, resulting in an Adverse Effect finding for traffic vibration.
    - Construction Vibration – The resource is within the 40-foot range of potential vibration damage associated with construction operations for both the FEIS Selected Alternative and the Modified Selected Alternative, resulting in an Adverse Effect finding for construction vibration.
    - Blasting Vibration – The resource is within the 500-foot area of potential vibration damage associated with blasting operations for both the FEIS Selected Alternative and the 2011 Modified Selected Alternative, resulting in an Adverse Effect for vibration.
- Construction: Construction would include activities in direct contact with the resource including the removal of a portion of the quarry. This results in an Adverse Effect finding for construction for both the FEIS Selected Alternative and the Modified Selected Alternative.

The table below summarizes the findings for each of the six impact categories for Kiln 48004:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	NE	NE	NE	AE	NE	AE
FEIS Selected Alternative (with updates)	AE	AE	NE	AE	AE	AE
Modified Selected Alternative	AE	AE	NE	AE	AE	AE

Mockingbird Valley Historic District

The Mockingbird Valley Historic District is a residential neighborhood about five miles east of the center of downtown Louisville. The district is generally bounded by I-71 on the north, Brownsboro Road on the south, Swing Lane on the east, and Jarvis Lane on the west; Mockingbird Valley Road provides the spine of the district. The undulating landscapes, sharp bluffs, meandering creek bed, stone outcroppings, floodplains, and stands of trees are the character-defining features of this residential, suburban

landscape. The district, which includes 179 contributing elements, was listed on the NRHP in 2007 under Criterion A.

Effects Findings

- Encroachment: Neither FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is 2.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at their closest point. Based on this distance, the project results in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on their distance from the resource.
- Noise: As the resource is 2.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in the noise levels, resulting in a No Effect finding for noise.
- Vibration: As the resource is 2.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no opportunity for affects from traffic, construction, or blasting vibration. Therefore, this results in a No Effect finding for vibration.
- Construction: As the resource is 2.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource. This results in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the Mockingbird Valley Historic District:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Thomas Benton Jacobs House, 4002 Utica Pike (019-305-45054)

The Thomas Benton Jacobs House was built c.1864 and reflects the influence of the Federal and Greek Revival styles. The house was also used as the working farm of the Indiana State Reformatory in Jeffersonville. The Jacobs house is a side-gabled frame I-house clad in wood clapboard siding. As an intact example of a mid-nineteenth century farmhouse in Clark County, the house is eligible for listing in the NRHP under Criterion C.

Effects Findings

- Encroachment: Neither FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is three miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at their closest point. Based on this distance, the project results in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on their distance from the resource.
- Noise: As the resource is three miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in the noise levels, resulting in a No Effect finding for noise.
- Vibration: As the resource is three miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no opportunity for affects from traffic, construction, or blasting vibration. Therefore, this results in a No Effect finding for vibration.
- Construction: As the resource is three miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource. This results in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the Thomas Benton Jacobs house:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Multiple Property Group: Ohio River Camps

Individual residential structures were identified as contributing to the Multiple Property Group Ohio River Camps. The group was identified in the 2010 report *A Survey Update of Butchertown, Phoenix Hill, Downtown Louisville and River Road* as eligible for listing on the NRHP under criteria A for their association with river recreation. This group consists of 48 residences and one historic district within nine beach locations located along the Ohio River between Longview and Glenview. Individual properties are identified as contributing to a group, but not as a contiguous district. Six properties are additionally identified as individually eligible for NRHP listing while also being contributing to the Multiple Property Group: the William Eifler House (5209 River Road), 906 East Riverside Drive, 906 West Riverside Drive, 4210 Riviera Drive, the Determan House (6100 Transylvania Beach Road), and the J. Schildknecht House (6212 Transylvania Beach Road).

Cabin at 7206 Beachland Beach Road (JF-2115)

This house is a two-story end gable river cottage. It is constructed from concrete block. The front façade faces south and includes three bays, w/d/w. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Although the alternatives would be visible, neither would be directly in front of the resource. Based on the distance from the resource, both alternatives result in a No Adverse Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the resource.
- Noise: As the resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 7206 Beachland Beach Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Cabin at 7214 Beachland Beach Road (JF-2371)

This house is a one-story side gable river cottage. It is constructed from concrete block with a shed addition on the northern façade. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.

- Visual: The resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Although the alternatives would be visible, neither would be directly in front of the resource. Based on the distance from the resource, both alternatives result in a No Adverse Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the resource.
- Noise: As the resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is one mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 7214 Beachland Beach Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Cabin at 1 Creekside Court (JF-2014)

This house is a one-story gable-front river cottage, situated on the banks of Harrods Creek. The house has experienced very little alteration since its construction circa 1940. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.

- Visual: The resource is approximately 0.35 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on the heavily wooded nature of its surroundings, the alternatives would only be partially visible at best, resulting in a No Adverse Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on the distance from the resource and filtering by the wooded surroundings.
- Noise: As the resource is approximately 0.35 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 0.35 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 0.35 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 1 Creekside Court, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Cabin at 5135 Eifler Beach Road (JF-2008)

This two-story concrete block and frame beach house was initially constructed circa 1950. The house is topped by a gambrel roof. The second-story is clad in aluminum siding. Replacement vinyl windows are present throughout. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.

- Visual: The resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Although the alternatives would be visible, neither would be directly in front of the resource. Based on the distance from the resource, both alternatives result in a No Adverse Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on the distance between the alternatives and the resource.
- Noise: As the resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.

- Vibration:
    - Traffic Vibration – As the resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 5135 Eifler Beach Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Cabin at 5139 Eifler Beach Road (JF-2009)

This one-story beach house was constructed circa 1930. The slight roof overhang with exposed rafter tails combined with the general shape and materials are characteristic of the building period. This form of beach house was a common choice in Louisville's river camp communities. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the 2011 Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.

- Visual: The resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Although the alternatives would be visible, neither would be directly in front of the resource. Based on the distance from the resource, both alternatives result in a No Adverse Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on the distance between the alternatives and the resource.
- Noise: As the resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 1.7 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 5139 Eifler Beach Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Cabin at 5143 Eifler Beach Road (JF-2010)

This one-story beach house was constructed circa 1940. The use of concrete block as a building material and employment of 15-light metal pivot windows are characteristic of the building period. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 1.6 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Although the alternatives would be visible, neither would be directly in front of the resource. Based on the distance from the resource, both alternatives result in a No Adverse Effect finding for visual impacts. In addition,

any lighting used for the alternatives would not be intrusive to the resource based on the distance between the alternatives and the resource.

- Noise: As the resource is approximately 1.6 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 1.6 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 1.6 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 5143 Eifler Beach Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Cabin at 6208 Guthrie Beach Road (JF-2029)

This house is one-story topped by a side-gable roof. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 0.5 mile away from both alternatives at the closest point. Although the alternatives would be visible, neither would be directly in front of the resource. Based on the distance from the resource, both alternatives result in a No Adverse Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on their distance from the resource.
- Noise: As the resource is approximately 0.5 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.

- Vibration:
    - Traffic Vibration – As the resource is approximately 0.5 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 0.5 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6208 Guthrie Beach Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Cabin at 6212 Guthrie Beach Road (JF-2030)

This house is two-story topped by a side-gable roof covered in new metal sheeting. The main living space is situated on the second floor in order to avoid/minimize the effects of flooding. The building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 0.5 mile away from both alternatives at the closest point. Although the alternatives would be visible, neither would be directly in front of the resource. Based on the distance from the resource, both alternatives result in a No Adverse Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on their distance from the resource.
- Noise: As the resource is approximately 0.5 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 0.5 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.

    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 0.5 mile away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6212 Guthrie Beach Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

House at 912 East Riverside Drive (JF-1931)

This house is a one-story concrete block building. The house's style suggests a construction date circa 1950. The house shares details common to buildings built to serve Louisville's 20th century river camp dwellers. Specifically, the use of concrete block as a principal building material, a simple modern square-shaped form, and use of modern detailing, such as a hipped roof with overhanging eaves, are features typical to river cabins. This house is located within the Riviera neighborhood, platted in 1924 as a vacation community; the building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.3 miles away from the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.3 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would

be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table on the following page summarizes the findings for each of the six impact categories for the house at 912 East Riverside Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House at 904 Riverside Drive (JF-1934)

This one-story ranch house was constructed circa 1955. A projecting gable bay extends past the main body of the building on the north side of the façade. A recessed front porch shelters the main entry door and two central window bays. This house is located within the Riviera neighborhood, platted in 1924 as a vacation community; the building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.3 miles away from the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.3 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.

    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 904 Riverside Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House at 906 Riverside Drive (JF-1935)

This two-story Cape Cod style house appears to have been a single-story dwelling raised to two stories in the last quarter of the 20th century. The riverside neighborhood tends to flood, and this house may have been altered to protect it from the adjacent Ohio River. At the same time, it appears the house's footprint was enlarged. The house exhibits some characteristics of the Cape Cod traditionalist style, including the projecting gable-front stone entry vestibule and traditional square-shaped form. This house is located within the Riviera neighborhood, platted in 1924 as a vacation community; the building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.3 miles away from the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.3 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.

- Construction: As the resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 906 Riverside Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House at 918 Riverside Drive (JF-1936)

This two-story concrete block house is a good example of river camp architecture built in the mid 20th century. The house is built on a raised foundation, as a response to periodic flooding on the adjacent Ohio River. This house is located within the Riviera neighborhood, platted in 1924 as a vacation community; the building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.3 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 918 Riverside Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House at West 922 Riverside Drive (JF-1937)

This house is a two-story cross-gable dwelling. The main living space is situated on the second floor in order to avoid/minimize the effects of flooding. The projecting front gable bay to the south has Victorian elements that were probably intended to mimic whimsical beach-front architecture. Stylistically, the building resembles a typical vacation home in Louisville's river camp communities. This house is located within the Riviera neighborhood, platted in 1924 as a vacation community; the building is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.3 miles away from the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.3 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.3 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 922 West Riverside Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House at 6000 Transylvania Beach Road (JF-2145)

This two-story house is like many on Transylvania Beach where the first story is a raised foundation for the house. The first story is clad in mortared fieldstone which obscures the structural material (likely concrete block); the second story is frame, sided in vertical wood paneling. This house is one of the few on Transylvania Beach with an attached garage. The house has an integral two-story rear porch supported on piers. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 680 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.
- Noise: The resource is approximately 680 feet away from both alternatives. The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is approximately 680 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.

- Construction: The resource is approximately 680 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6000 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	NE	AE	AE
Modified Selected Alternative	NE	AE	AE	NE	AE	AE

House at 6012 Transylvania Beach Road (JF-2075)

This two-story house is like many on Transylvania Beach where the first story is a raised foundation for the house. The second story is frame, sided in vertical boards. All openings have been boarded except for about five sets of sliding windows in an enclosed integral porch area at the northeast corner of the second story. The house has a rear deck supported on piers. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 250 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.
- Noise: The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is approximately 250 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would

be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.

  - Blasting Vibration –As the resource is approximately 250 feet away from both alternatives, it falls within the 500-foot area where affects from blasting vibration occurs, resulting in an Adverse Effect finding for vibration from blasting.
- Construction: As the resource is approximately 250 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6012 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	AE	AE	AE
Modified Selected Alternative	NE	AE	AE	AE	AE	AE

House at 6212 Transylvania Beach Road (JF-2077)

This two-story house is like many on Transylvania Beach where the first story is a raised foundation for the house. The first story is brick veneer covered concrete block; the second is aluminum-sided frame. There is a tall, vertically-oriented casement window in the northeast side of the house. The house has a rear enclosed porch opening onto a rear deck. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 350 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.
- Noise: The resource is approximately 350 feet away from both alternatives. The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.
- Vibration:
  - Traffic Vibration – The resource is approximately 350 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential

vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 350 feet away from both alternatives, it falls within the 500-foot area where affects from blasting vibration occurs, resulting in an Adverse Effect finding for vibration from blasting.
- Construction: As the resource is approximately 350 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6212 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	AE	AE	AE
Modified Selected Alternative	NE	AE	AE	AE	AE	AE

House at 6312 Transylvania Beach Road (JF-2078)

This two-story house is like many on Transylvania Beach where the first story is a raised foundation for the house. The first story is rusticated concrete block and the second story is frame, sided in horizontal boards. The house has a single story attached concrete block garage addition. The garage has a patio area on the flat-roofed top with a wooden open rail balustrade, part of a larger deck/patio that spans the rear of the house. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 900 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.
- Noise: The resource is approximately 900 feet away from both alternatives. The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA

over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.

- Vibration:
  - Traffic Vibration – The resource is approximately 900 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
  - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
  - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: The resource is approximately 900 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table on the following page summarizes the findings for each of the six impact categories for the house at 6312 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	NE	AE	AE
Modified Selected Alternative	NE	AE	AE	NE	AE	AE

House at 6400 Transylvania Beach Road (JF-2146)

This is a single story side gable frame house that rest on piers. A brick foundation wall has been built around the piers. The house is clad in vinyl siding and has an exterior brick chimney located on the western façade. A full width porch adorns the front façade. It is topped by a shed roof that is supported by square, wood posts. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 950 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for

visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.

- Noise: The resource is approximately 950 feet away from both alternatives. The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is approximately 950 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: The resource is approximately 950 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6400 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	NE	AE	AE
Modified Selected Alternative	NE	AE	AE	NE	AE	AE

House at 6402 Transylvania Beach Road (JF-2079)

This two-story house is like many on Transylvania Beach where the first story is a raised foundation for the house. The first story is concrete and the second story may be frame; the entire house has been sided in brick veneer. The main, second story entrance is accessed by curved metal stairs which meet at a brick veneer stoop with a poured concrete porch. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.

- Visual: The resource is approximately 1,040 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.
- Noise: The resource is approximately 1,040 feet away from both alternatives. The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is approximately 1,040 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: The resource is approximately 1,040 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6402 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	NE	AE	AE
Modified Selected Alternative	NE	AE	AE	NE	AE	AE

House at 6404 Transylvania Beach Road (JF-2080)

This two-story house is like many on Transylvania Beach where the first story is a raised foundation for the house. The first story appears to be concrete block with a brick veneer on its façade. The second story is frame and sided in vertical wood paneling and aluminum siding on the gable ends. Projecting from the left side of the second story is a single bay shed roof enclosed porch on tall piers and sheltering a first story entrance and another porch area beneath. The second story has double French doors that open onto a round-edged

balcony with a metal rail. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 1,100 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.
- Noise: The resource is approximately 1,100 feet away from both alternatives. The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is approximately 1,100 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: The resource is approximately 1,100 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6404 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	NE	AE	AE
Modified Selected Alternative	NE	AE	AE	NE	AE	AE

House at 6410 Transylvania Beach Road (JF-2081)

This two-story house is like many on Transylvania Beach where the first story is a raised foundation for the house. The first story is concrete block with a concrete coating; the second story is frame, sided in vertical wood paneling. At the roof ridge is a wide, interior brick chimney with several pots. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 1,300 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Both alternatives would introduce a new visual intrusion to the river camp landscape. By introducing new vertical and horizontal elements near the resource, both alternatives would result in an Adverse Effect finding for visibility. In addition, any lighting used for either alternative would also add an element which would be intrusive to the resource.
- Noise: The resource is approximately 1,300 feet away from both alternatives. The 2011 noise study determined that noise levels would rise on Transylvania Beach Road by more than 18 dBA over existing levels. This increase in noise is likely to alter the feeling and setting associated with river camp houses situated on a dead-end street; resulting in an Adverse Effect finding for noise.
- Vibration:
    - Traffic Vibration – The resource is approximately 1,300 feet away from both alternatives and does not fall within the 40-foot (East End Kentucky approach) area of potential vibration damage associated with traffic for either the FEIS Selected Alternative or the Modified Selected Alternative, resulting in a No Effect finding for traffic vibration.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: The resource is approximately 1,300 feet away from both alternatives and is located on a dead-end street. The resource will likely experience impacts from construction activities resulting in an Adverse Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 6410 Transylvania Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	AE	AE	NE	AE	AE
Modified Selected Alternative	NE	AE	AE	NE	AE	AE

Turner's Beach Cabins at 3125 River Road (various KHC numbers)

Turner's Beach includes Cabins #4, #6, #8, #12, #13, #16, & one unnumbered cabin, plus Club House & Pool House. The River Road property was used for social activities and recreation along the river for its members, and construction of summer homes began in the 1920s and 1930s. The property features a long entryway off River Road, which runs past the baseball field, swimming pool, and tennis courts. Cabins are arranged in a row perpendicular to the river against the western property line. Today, the centerpiece of the property is the modern multi-purpose building but the original clubhouse and several historic residences still exist. These resources are identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resources are approximately 1.9 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternative would not be intrusive to the resource based on its distance from the resource.
- Noise: As the resources are approximately 1.9 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resources are approximately 1.9 miles away from either alternative and are situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resources are approximately 1.9 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and are situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resources are approximately 1.9 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and are situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resources are approximately 1.9 miles away from both alternatives, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the cabins, pool house, and club house at Turner's Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2801 Waldoah Beach Road (JF-1927)

This is a front gable frame house on piers that began as a weekend river camp building. There is a shed roof porch at the central door. Piers are obscured by later latticework. The roof is sagging in several places. A large metal stovepipe pierces the center of the roof ridge. There is also a rear deck on piers. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately two miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately two miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2801 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2805 Waldoah Beach Road (JF-1926)

This is a two-story, side gable building that appears to have originally been a single-story rusticated concrete block building with a projecting entrance bay at its right façade. The first-story entrance bay contains a single steel door. The building has a second story frame addition that is sided in horizontal boards. There is a recessed entrance bay in the second story addition, accessed by a set of metal stairs. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately two miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.

- Vibration:
    - Traffic Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2805 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2809 Waldoah Beach Road (JF-1925)

This is a frame bungalow that began as a weekend river camp building, originally listed as #4 at Waldoah Beach. The house has an exterior parged chimney in the center of the façade and another interior chimney along the roof ridge. The house retains its wooden brackets beneath the eaves. It has an integral rear shed porch. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately two miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately two miles away from both the alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2809 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2810 Waldoah Beach Road (JF-1923)

This is a single-story, frame building built atop piers. The building is composed of a front gable portion closest to the north of the lot and a wider, taller front gable portion to its south. In the front corner formed by the two sections, there is a shed roof enclosed porch at the left side of the building. Modern lattice has been installed obscuring the piers. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately two miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2810 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2811 Waldoah Beach Road (JF-1924)

This is a two-story, front gable building on which all exterior elevations have been parged or stuccoed. There is a wide eave overhang on the southwest and northeast elevations. There is a two pile rear shed addition and a modern first story deck built on wooden piles and accessed by a set of wooden stairs. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately two miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately two miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately two miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2811 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2901 Waldoah Beach Road (JF-804)

Originally #7 at Waldoah Beach, this building started as a single story brick home with a flat roof. It has a second story addition sided in vinyl. The house now has a T-plan type layout; it appears to have always had the projecting wing at the western side of the front façade. The house retains its brick exterior chimney at the left side, but the top portion has been removed and a stove pipe has been installed. There is an opening which faces Waldoah Beach Road and another which faces northeast on the side of the wing. The house has stone block accents in the brick portion as well as sections of contrasting brick patterning above the first story openings. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.1 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 2.1 miles away from both the alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2901 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2903 Waldoah Beach Road (JF-1918)

Originally cabin #9 at Waldoah Beach, this two story front gable house likely started as many of the rest of the weekend river camp buildings at Waldoah Beach: as a single story building which acquired a second story. The first story is sided in permastone and the second in vertical board siding. There is an exterior brick chimney stack on the western elevation of the building. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.1 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2903 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2905 Waldoah Beach Road (JF-1919)

Originally #9 at Waldoah Beach, this building has a brick clad first story with a second story frame addition with an overhang on the eastern elevation forming a first story side porch below it. The second story addition has vinyl siding. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.1 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.1 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 2.1 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2905 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2907 Waldoah Beach Road (JF-1920)

Originally #10 at Waldoah Beach, this building served as a weekend retreat building and has since acquired a second story frame addition at the front, and a camelback-type two story frame addition at the rear. The first story is parged, obscuring the original construction materials. The entrance is at the right side of the second story, accessed by a set of modern wooden stairs. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.1 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately 2.1 miles away from both alternatives, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2907 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2909 Waldoah Beach Road (JF-1921)

This building is clad in brick on the first story. It now has a two-story frame addition sided in vinyl. An entrance is located at the left side in the second story, accessed by a set of wooden stairs. There is also a first story entrance at the right side of the original brick portion. The house has a modern rear deck. There is what appears to be a cistern pipe at the southeast corner. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.1 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.1 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 2.1 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2909 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2911 Waldoah Beach Road (JF-1922)

This building was originally #12 Waldoah Beach when the area operated as a weekend river camp. This is one of the larger scale dwellings here. It is a cross gable building composed of a front gable, three-story portion and a side gable, two-story portion. The first story of both portions is rusticated concrete block and the second/third stories are common bond brick. The front door is sheltered by a mansard roof porch with two wooden columns and decorative wooden brackets. The house has a recessed rear brick ell which may be an enclosed porch; to its rear is a patio area. There are four entrances. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.1 miles away from both alternatives at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.1 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.

- Construction: As the resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2911 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 2913 Waldoah Beach Road (JF-805)

Originally #13 at Waldoah Beach, this two-story brick home has a hipped roof. A two-story porch wraps around the right side and rear of the house. There is an exterior brick chimney on the left. There are two rear doors, one on the first story and a patio entrance on the second story. The rear elevation of the house has been parged and there are modern quoins at the edges. The rear slope of the roof has a modern gable roof dormer. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.2 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.2 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.2 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.2 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration –As the resource is approximately 2.2 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.

- Construction: As the resource is approximately 2.2 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 2913 Waldoah Beach, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Cabin at 3227 River Road (Waldoah Beach) (JF-2372)

This resource sits at the end of along driveway off of River Road. It is a two-story home topped by a side gable roof. One gable dormer is centrally located on the front face of the roof. A two-story porch is present on the rear of the house. The house is identified as contributing as part of the Ohio River Camps Multiple Property Group.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.2 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alignment.
- Noise: As the resource is approximately 2.2 miles away from either alternative, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 2.2 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding for traffic-induced vibration.
    - Construction Vibration – As the resource is approximately 2.2 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding for construction-induced vibration.
    - Blasting Vibration – As the resource is approximately 2.2 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding for blasting-induced vibration.
- Construction: As the resource is approximately 2.2 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 3227 River Road, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Woodhill Valley Road Historic District

The Woodhill Valley Road Subdivision Historic District was identified in the 2010 report *A Survey Update of Butchertown, Phoenix Hill, Downtown Louisville and River Road* as eligible for listing on the NRHP. Thirteen structures were surveyed as part of the survey update. Twelve were determined to be contributing resources to the historic district once the 50-year threshold was reached under a context of mid-century suburban development in Jefferson County.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The district is approximately 1,500 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on the heavily wooded nature of its surroundings and other existing residences, neither alternative is visible from this location, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternative would not be intrusive to the district based on its distance from the resource as much if not all would be filtered out by the wooded surroundings.
- Noise: As the district is approximately 1,500 feet away from both alternatives, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the district is approximately 1,500 feet away from both alternatives and is situated on a dead-end street, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the district is approximately 1,500 feet away from both alternatives and is situated on a dead-end street, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the district is approximately 1,500 feet away from both alternatives and is situated on a dead-end street, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the district is approximately 1,500 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the district:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Theodore Mueller House & Shady Brook Farm (JF-556)

The Theodore Mueller House was listed on the NRHP in 1983 under Criterion C. It is a significant example of a twentieth century country house in the Tudor Revival style with Arts and Crafts details. It is one of several dwellings built in the decade after WWI, an era in which wealthy Louisville families continued their turn-of-the-century trend of building of large suburban estates. The larger Shady Brook Farm is also listed on the NRHP as a part of the Harrods Creek Historic District.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 1,200 feet away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on the heavily wooded nature of its surroundings and other existing residences, both alternatives are only partially visible, resulting in a No Adverse Effect finding for visibility. In addition, any lighting used for the alternative would not be intrusive to the resource based on its distance from the resource and the wooded surroundings.
- Noise: As the resource is approximately 1,200 feet away from the proposed alternatives, there would be no change in noise levels from the previous analysis, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the district is approximately 1,200 feet away from the proposed alternatives and is situated on a residential street, there would be no opportunity for increased vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the district is approximately 1,200 feet away from the proposed alternative and is situated on a residential street, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the district is approximately 1,200 feet away from the proposed alternatives, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 1,200 feet away from the proposed alternatives, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the individually NRHP listed Theodore Mueller House and surrounding Shady Brook Farm Historic District:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NAE	NE	NE	NE	NAE
Modified Selected Alternative	NE	NAE	NE	NE	NE	NAE

Blankenbaker-Mattingly House, 901 Blankenbaker Lane (JF-530)

The Blankenbaker-Mattingly House is two- story, three bay residence topped by a cross gable roof. Also known as "Aunt Fanny's House" it is associated with the Croghan-Blankenbaker House.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.25 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on the distance between the resource and the alternatives, this results in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the resource.
- Noise: As the resource is approximately 3.25 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.25 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.25 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the Blankenbaker-Mattingly House:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	-
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

William Eifler House, 5209 River Road (JF-2007)

The Eifler House was identified in the 2010 report *A Survey Update of Butchertown, Phoenix Hill, Downtown Louisville and River Road* as eligible for listing on the NRHP. This one-and-one half story Craftsman bungalow was constructed by William Eifler, the founder of Eifler Beach. The house was constructed in 1913. It was also identified as a contributing element to the Multiple Property Group Ohio River Camps.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 1.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on the wooded nature of its surroundings and the fact that the resource sits 460 feet off the riverbank, neither alternatives is visible, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on the distance between the alternatives and the resource.
- Noise: As the resource is approximately 1.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 1.5 miles away from both alternatives and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration – As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 1.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the William Eifler House, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	-
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Kerzinger House, 7314 River Road (JF-1986)

The Kerzinger House was identified as eligible for listing on the NRHP under Criterion C. This two story Colonial Revival style house is rectangular in form with a side gabled roof and horizontal siding.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property, resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 0.5 miles away from either alternative at its closest point. Between the alternatives and the Kerzinger House are Mayfair Avenue and Transylvania Avenue. These two streets are lined with houses and mature trees. The numerous residences and trees block the both alternatives from being visible from the resource, resulting in a No Effect finding for visibility. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the resource and the intervening neighborhood and wooded surroundings.
- Noise: As the resource is approximately 0.5 mile away from both alternatives, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 0.5 miles away from the proposed alternatives, there would be no opportunity for vibration from traffic.
    - Construction Vibration – As the district falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction.
    - Blasting Vibration – As the resource is approximately 0.5 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative and falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting.
- Construction: As the resources is approximately 0.5 miles away from the proposed alternatives, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the Kerzinger House:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House, 906 East Riverside Drive (JF-1928)

This house was identified in the 2010 report *A Survey Update of Butchertown, Phoenix Hill, Downtown Louisville and River Road* as eligible for listing on the NRHP. The building measures three structural bays; the north and south gable bays project from the main body on the front façade to form a recessed central entry. A stone chimney is situated in the center bay. The house has wooden casement windows

on the principal façade and elevations with Tudor-style multi-paned leaded glass and some one-over-one wood double-hung windows. The house is located within the Riviera neighborhood, platted in 1924 as a vacation community and was identified as a contributing element to the Multiple Property Group Ohio River Camps.

Effects Findings

- Encroachment: Neither FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.4 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.4 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.4 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.4 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 906 East Riverside Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House, 906 West Riverside Drive (JF-1939)

This house was identified in the 2010 report *A Survey Update of Butchertown, Phoenix Hill, Downtown Louisville and River Road* as eligible for listing on the NRHP. This is a one-and-one half story Cape Cod style house with some elements of the Tudor Revival style. It was constructed in the late 1930s. The house has a combination of eight-over-eight double-hung wood windows and three-light wood casement windows. A central entry bay projects symmetrically on the façade. Also symmetrically

placed, two shed-roofed dormers flank the main entry onto the steeply-pitched top half-story. On the building's south elevation there is a brick chimney. To the north of the main body of the house is an attached garage, designed in the same style. The house is located within the Riviera neighborhood, platted in 1924 as a vacation community and was identified as a contributing element to the Multiple Property Group Ohio River Camps.

Effects Findings

- Encroachment: Neither FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.2 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.2 miles away from the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.2 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.2 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 906 West Riverside Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

House, 4210 Riviera Drive (JF-1933)

This house was identified in the 2010 report *A Survey Update of Butchertown, Phoenix Hill, Downtown Louisville and River Road* as eligible for listing on the NRHP. This moderne-inspired ranch house was constructed in 1954 by Charles Farmer to resemble a ship. The house has a prominent picture window on the front façade, low horizontal lines, and a stone-veneered chimney pylon projecting asymmetrically

from near the center of the main body of the house. The house also features low overhanging roof eaves that extend from the main body of the house on the south elevation to create a sheltered entry porch. The house is located within the Riviera neighborhood, platted in 1924 as a vacation community and was identified as a contributing element to the Multiple Property Group Ohio River Camps.

Effects Findings

- Encroachment: Neither FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 3.4 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on this distance, both alternatives result in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the alternatives.
- Noise: As the resource is approximately 3.4 miles away from the FEIS Selected Alternative and the Modified Selected Alternative, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration:
    - Traffic Vibration – As the resource is approximately 3.4 miles away from the either alternative and is situated on a dead-end street away from any main roadways, there would be no opportunity for vibration from traffic. Therefore, this results in a No Effect finding.
    - Construction Vibration – As the resource falls outside the 40-foot area where the potential to be adversely affected from non-blasting construction occurs, there would be no opportunity for vibration from construction. Therefore, this results in a No Effect finding.
    - Blasting Vibration –As the resource falls outside the 500-foot area where the potential to be adversely affected from blasting occurs, there would be no opportunity for vibration from blasting. Therefore, this results in a No Effect finding.
- Construction: As the resource is approximately 3.4 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the house at 4210 Riviera Drive, an element of the Ohio River Camps Multiple Property Group:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

Stone Place Stables, 7718 Rose Island Road

This house was identified in 2010 report *A Survey Update of Butchertown, Phoenix Hill, Downtown Louisville and River Road* as eligible for listing on the NRHP under Criterion C. The Colonial Revival style cottage is a single story house with a side gabled roof and has a cut away porch supported by a simple, round corner column. The main fieldstone chimney protrudes from the side of the house. The property also contains a gambrel-roof frame barn, a caretaker's house, a machine shed, a horse stable, a horse

training barn, several small sheds, and a mobile home. The barns date to the first half of the twentieth century and contribute to the historic character of the site.

Effects Findings

- Encroachment: Neither the FEIS Selected Alternative nor the Modified Selected Alternative would require the acquisition of right-of-way from this resource. There would be no encroachment on this property; resulting in a No Effect finding for encroachment.
- Visual: The resource is approximately 2.1 miles away from both the FEIS Selected Alternative and the Modified Selected Alternative at its closest point. Based on the distance between the resource and the alternatives, this results in a No Effect finding for visual impacts. In addition, any lighting used for the alternatives would not be intrusive to the resource based on its distance from the resource.
- Noise: As the resource is approximately 2.1 miles away from both alternatives, there would be no change in noise levels, resulting in a No Effect finding for noise.
- Vibration: As the resource is approximately 2.1 miles away from both alternatives, there would be no opportunity for traffic, construction, or blasting vibration; thus resulting in a No Effect finding for vibration.
- Construction: As the resource is approximately 2.1 miles away from either alternative, no construction activities would affect this resource, resulting in a No Effect finding for construction.

The table below summarizes the findings for each of the six impact categories for the Stone Place Stables:

	Enc.	Vis.	Noise	Vib.	Const.	FINDING
Selected Alternative (from FEIS)	--	--	--	--	--	--
FEIS Selected Alternative (with updates)	NE	NE	NE	NE	NE	NE
Modified Selected Alternative	NE	NE	NE	NE	NE	NE

6. Updating Effects within the Extensions to the Original APE

For historic properties within the 2011 Extensions to the Original APE, the effects analysis for historic properties focused on the impacts of diverted traffic, which are indirect and cumulative. Because of the nature of indirect impacts, effects were evaluated based on their impacts at the subarea level, rather than on a building-by-building basis.

Encroachment and construction effects occur only within the 2003 Original APE, and are not discussed for the five subareas in the sections below. Economic impacts are not expected within the five subareas and are also not discussed in the sections below. While increases and decreases in traffic can affect accessibility, parking, or pass-by trips in historic districts, the extent of changes in traffic patterns forecast for this Project are minimal and would not result in an economic loss that would alter the characteristics that qualify the historic buildings in which businesses are located for inclusion in or eligibility for the National Register of Historic Places. Discussion of traffic movements for the project is provided in the Traffic Forecasting Appendix of the DSEIS.

As documented in Section 3 of the *Identification Findings Report*, a multi-tiered screening process was developed to identify local surface streets in subareas that may experience noticeable changes in traffic volumes or operations due to the implementation of cross-river tolls and other proposed Project modifications. The boundaries of these Extended APE subareas were identified based on travel demand model output for the AM and PM peak periods, interpretation of these results by professional traffic engineers, and consultation with the SHPO in both states. These boundaries represent reasonable attempts to define areas that could experience effects due to changes in traffic patterns or design modifications.

Changes in traffic patterns could result in Visual, Noise, Vibration, or Air Quality impacts, as discussed below. Specific impacts in each of the subareas are discussed in the following section.

- Visual: The introduction of additional traffic can create visual effects. Due to the fact that visual effects cannot be quantitatively measured and do not harm the elements of a historic property in a physical manner, assessing visual effects on historic properties relies primarily on subjective analysis. Forecasted changes in traffic patterns were used to identify whether the change would be visibly perceptible (defined as a change of 1-2 vehicles per minute per lane during the peak hour). If the traffic change reaches this range and is determined to be perceptible, that does not necessarily mean it is an automatic adverse effect. For it to be considered an adverse effect, the traffic change would have to affect the character of the subarea in such a way as to diminish the qualities that relay its significance.
- Noise: Similarly, changes in traffic patterns can lead to changes in noise effects along travel corridors. The FHWA noise policy website states that a 3 dBA change is the minimum increase in noise that can be perceived by the human ear. Also according to the FHWA Noise Policy website, it takes a doubling of the traffic volume or changes in vehicle mix (i.e., trucks, cars, motorcycles, etc.) to increase noise by 3 dBA. Changes in noise levels could impact the setting of a historic property; if the setting of an historic property does not contribute to understanding its significance, then the introduction of additional traffic in that setting may not diminish the integrity of the characteristics of the historic property which make it eligible for the National Register of Historic Places.
- Vibration: Increased vibration has the potential to damage historic properties. Heavy trucks are the primary source of traffic-induced ground-borne vibration. The FTA *Transit Noise and Vibration Impact Assessment* manual (May 2006) identifies methodologies to define ground-borne vibration. As shown in Figure 7-3 in the FTA manual, heavy trucks and buses generate approximately 65 VdB, which is slightly below the threshold for human perception. For reference, the threshold for cosmetic damage to fragile buildings is considerably higher, estimated at around 100 VdB, similar to the impacts from blasting 50 feet away from the resource.
- Air Quality: The air quality analysis does not distinguish between the Original APE and the Extensions to the Original APE. The results showed CO, $_{PM2.5}$, Ozone, and MSATs meet air quality conformity standards; these results apply to the entire metropolitan area, therefore none of the properties are considered to have an effect as a result of changes in air quality.

7. Effects Description for Extensions to the Original APE

The following subsections describe the effects of the project on historic resources within the Extensions to the Original APE. For these areas, the effects analysis for historic properties focuses on the impacts of diverted traffic, which are indirect and cumulative. Because of the nature of indirect impacts, effects are evaluated based on their impacts to each of the five subareas as a whole, rather than on a property-by-property basis. Four of the six impact categories were repeated for these areas; encroachment and construction were omitted since these subareas fall outside the footprint of the project. Air quality was not repeated for each subarea since this analysis applies to the entire metropolitan area.

Jeffersonville, IN Subarea

This subarea is comprised primarily of traditional, single family residential development. The area developed as an urban street grid, lined with commercial and residential structures. It lies between the Old Jeffersonville Historic District to the south and the Quartermaster Depot Historic District to the north. The primary east-west highway connections through the area are Court Avenue and 10th Street, which are lined with commercial development. The northeastern portion of the Jeffersonville Extended APE contains the most intact concentration of single family, detached residences. The Court Avenue corridor follows the southern edge of the subarea and is comprised almost entirely of professional offices and institutional/government uses. The 10th Street corridor generally follows the northern edge of the subarea and is comprised primarily of commercial development.

Effects Findings – FEIS Selected Alternative

This subarea falls beyond the limits of the 2003 Original APE. Because this alternative does not include tolling, changes in traffic patterns are not associated with this alternative. This scenario was identified as the baseline for comparison to identify changes in traffic patterns resulting from the Modified Selected Alternative.

Effects Findings –Modified Selected Alternative

- Visual: The projected traffic increases fall below the threshold for a perceptible change in traffic (1-2 additional vehicles per lane per minute during the peak hour). This results in a No Effect finding for visual.
- Noise: In Jeffersonville, traffic is not projected to double. Therefore, noise will not increase by a perceptible level (3dBA). This results in a No Effect finding for noise.
- Vibration: No change in the mix of traffic patterns are projected in this area. Heavy truck traffic is projected to fall well below the threshold for ground-borne vibratory impacts, which is defined in the FTA Manual as approximately 100 VdB for minor cosmetic damage to fragile buildings. This results in a No Effect finding for vibration.

The table below summarizes the effects findings for the Jeffersonville, Indiana sub-area:

	Vis.	Noise	Vib.	FINDING
Modified Selected Alternative	NE	NE	NE	NE

Clarksville, IN Subarea and the SR 62 Corridor

This subarea is comprised primarily of traditional, single family residential development along with some commercial development near major intersections. The area developed as an urban street network lined with commercial and residential structures, with primary traffic movements along SR 62 and South Clark Boulevard. Clark Boulevard represents the western boundary. The northern half of this area

contains the most intact concentration of single-family, detached residences, most of which are single story structures, generally built in the 1930s and 1940s and exhibiting characteristics typically found in the American Small House style. Two small historic districts are located within the subarea: Clark Boulevard Historic District and Randolph Avenue Historic District.

SR 62 is a limited access arterial connecting Clarksville to New Albany. The corridor is characterized by heavy commercial and some industrial developments that back up to this roadway. Older residential developments and wooded areas abut the northern portions of the route.

Effects Findings – FEIS Selected Alternative

This subarea falls beyond the limits of the 2003 Original APE. Because this alternative does not include tolling, changes in traffic patterns are not associated with this alternative. This scenario was identified as the baseline for comparison to identify changes in traffic patterns resulting from the Modified Selected Alternative.

Effects Findings –Modified Selected Alternative

- Visual: The projected traffic increases are within the range for a perceptible change in traffic (1-2 additional vehicles per minute per lane during the peak hour); however, this is not expected to adversely affect the character of the subarea due to the low volume of additional traffic per minute (1-2 cars per lane). The projected traffic increases will not alter the setting, feeling, viewshed or association of its historic resources to their surroundings or to the current transportation system. This results in a No Adverse Effect finding for visual.
- Noise: In Clarksville, traffic is not projected to double. Therefore, noise will not increase by a perceptible level (3 dBA). This results in a No Effect finding for noise.
- Vibration: No change in the mix of traffic patterns are projected in this area. Per the FTA manual, heavy truck traffic is projected to fall well below the threshold for ground-borne vibratory impacts, which the FTA defines as approximately 100 VdB for minor cosmetic damage to fragile buildings. This results in a No Effect finding for vibration.

The table below summarizes the effects findings for the Clarksville, Indiana and the SR 62 Corridor sub-areas:

	Vis.	Noise	Vib.	FINDING
Modified Selected Alternative	NAE	NE	NE	NAE

New Albany, IN Subarea

This subarea is comprised primarily of traditional, single family residential development along with new commercial development characteristic of the Vincennes Street corridor, industrial uses along the southern portion, and typical commercial/retail uses and governmental functions in the west. The area developed as an urban street grid.

Similar to the residential areas in Clarksville, the New Albany residential areas include single-family, detached residences, the majority of which are one story structures located in multiple blocks with occasional commercial structures mixed within the blocks. Many of the homes were built in the 1930s and 1940s and exhibit characteristics typically found in the American Small House style. The Vincennes Street corridor, which bisects Spring Street, is characterized primarily by commercial development.

The development within the downtown New Albany area east of I-64 is comprised almost entirely of commercial (professional offices) and institutional/government uses. This includes city-county government offices, a public library, and a federal courthouse. The downtown New Albany area west of I-64 is comprised of a mix of land uses including residential, commercial, light industrial uses, and some vacant parcels. The street pattern is a traditional city grid, with some one-way pairs.

The subarea contains portions of twelve historic districts:

- Northside Industrial Historic District retains a high concentration of 19th century and early 20th century industrial buildings.
- Downtown New Albany Historic District contains a significant collection of commercial buildings that were constructed from the first half of the 19th century. Eventually, religious, residential, and other types of buildings were integrated with the commercial buildings.
- Mansion Row Historic District contains excellent examples of 19th century commercial and residential architecture.
- Spring Street Historic District developed between 1840 and 1920, generally as a middle to upper-middle class neighborhood. There are also several churches and commercial structures within the district.
- Oak Street Historic District contains residential areas that developed between 1840 and 1920 and also includes commercial buildings and churches.
- Cedar Bough Historic District is residential in nature with houses built between 1890 and 1910.
- Catherine Place Historic District is residential in nature that developed shortly after the turn of the 20th century.
- Shelby Place Historic District is primarily residential in nature that developed shortly after the turn of the 20th century.
- East Residential Historic District is residential in nature that developed in the late 19th and early 20th centuries. The district has a few non-residential buildings, indicating that the commercial areas were well established by the time the neighborhood was developed.
- Silver Grove Historic District originally was a separate town that was annexed in 1914. It contains mostly residential buildings with only a few remaining commercial and industrial resources.
- Glenwood Historic District is residential in nature that developed between the late 1930s and the early 1950s.
- West End Historic District represents the oldest intact working class neighborhood in New Albany developed in the late 1830s. It contains a fine collection of vernacular house types.

Based on the fact that these twelve historic districts make up the majority of the New Albany subarea, they contain the same character defining features, a mixture of residential, residential and commercial or light industrial, as the larger subarea described above. While the Cedar Bough, Catherine Place and Glenwood historic districts are solely residential in nature, they are similar in character to the residential areas within adjacent historic districts that also include commercial buildings at other locations within those districts. Effects on the twelve previously identified historic districts were evaluated in a combined assessment with the New Albany Extended APE since the character of each district is consistent with the larger subarea.

Effects Findings – FEIS Selected Alternative

This subarea falls beyond the limits of the 2003 Original APE. Because this alternative does not include tolling, changes in traffic patterns are not associated with this alternative. This scenario was identified

as the baseline for comparison to identify changes in traffic patterns resulting from the Modified Selected Alternative.

Effects Findings –Modified Selected Alternative

- Visual: With the traffic divided between the six primary east-west streets running through New Albany, the projected traffic increases are within the range for a perceptible change in traffic (1-2 additional vehicles per minute per lane during the peak hour); however, this is not expected to adversely affect the character of the subarea due to the low volume of additional traffic per minute (1-2 cars per lane). The projected traffic increases will not alter the setting, feeling, viewshed or association of its historic resources to their surroundings or to the current transportation system. This results in a No Adverse Effect finding for visual.
- Noise: In New Albany, traffic is not projected to double. Therefore, noise will not increase by a perceptible level (3 dBA). This results in a No Effect finding for noise.
- Vibration: No change in the mix of traffic patterns are projected in this area. Per the FTA manual, heavy truck traffic is projected to fall well below the threshold for ground-borne vibratory impacts, which the FTA defines as approximately 100 VdB for minor cosmetic damage to fragile buildings. This results in a No Effect finding for vibration.

The table below summarizes the effects findings for the New Albany, Indiana sub-area:

	Vis.	Noise	Vib.	FINDING
Modified Selected Alternative	NAE	NE	NE	NAE

Downtown Louisville, KY Subarea

This subarea in downtown Louisville extends one block on either side of the Second Street corridor to Broadway, along with an area between Jefferson Street and Muhammad Ali Boulevard to Jackson Street. The area developed as an urban street grid. Much of this area is comprised of both older structures and modern in-fill, as well as a number of surface parking lots. The type and scale of urban development, as well as the street corridors, are similar to that in the rest of Louisville's Central Business District. Buildings typically front the sidewalk and range in height from three story commercial buildings to new high-rise towers. Land uses include a mix of office space, retail establishments, religious and social institutions, as well as some multi-family, multi-story residential uses. A major feature found within this subarea is the modern Louisville Convention Center bounded by Market, Fourth, Jefferson and Second Streets. The street pattern is a traditional city grid, with on-street parking and wide sidewalks.

Six historic districts lie within this subarea, although several have been partially or fully demolished to make way for modern development. Districts in the subarea include:

- Whiskey Row Historic District is a row of attached 3-4 story buildings built between approximately 1852 and 1905.
- West Market Street Historic District originally contained nine commercial structures with only one intrusion, a surface parking located lot in the middle of the block. The district has lost several of its contributing resources as a large multi-story parking garage has been erected in the middle of the block.
- 2nd and Market Streets Historic District originally contained eight buildings over a nine acre area. A majority of the resources are no longer extant.
- 3rd and Market Streets Historic District has lost all its buildings to demolition.

- 3rd and Jefferson Streets Historic District originally contained five buildings. Today, one of the five contributing structures remains; a three-story, commercial brick structure at 240-244 West Jefferson Street.
- Savoy Historic District has lost all its buildings and now the Kentucky International Convention Center occupies the location.

These six historic districts share many of the same character defining features as the larger subarea described above. 3rd and Jefferson, 2nd and Market, West Market and Whiskey Row all contain multi-story commercial buildings that front the sidewalk. In addition, two of the historic districts, West Market and 2nd and Market, exhibit modern in-fill within their boundaries. Effects on the six previously identified historic districts were evaluated in a combined assessment with the downtown Louisville Extended APE since the character of each district is consistent with the larger subarea.

Effects Findings – FEIS Selected Alternative

This subarea falls beyond the limits of the 2003 Original APE. Because this alternative does not include tolling, changes in traffic patterns are not associated with this alternative. This scenario was identified as the baseline for comparison to identify changes in traffic patterns resulting from the Modified Selected Alternative.

Effects Findings –Modified Selected Alternative

- Visual: Even though the projected traffic increases using the US 31 Bridge are within the range for a perceptible change in traffic (1-2 additional vehicles per minute per lane during the peak hour), this traffic is dispersed throughout the street grid through the Extended APE area. The traffic increase is not expected to adversely affect the character of the subarea due to the low volume of additional traffic with per minute (1-2 cars per lane). The projected traffic increases will not alter the setting, feeling, viewshed or association of its historic resources to their surroundings or to the current transportation system. This results in a No Adverse Effect finding for visual.
- Noise: In downtown Louisville, traffic is not projected to double. Therefore, noise will not increase by a perceptible level (3 dBA). This results in a No Effect finding for noise.
- Vibration: No change in the mix of traffic patterns are projected in this area. Per the FTA manual, heavy truck traffic is projected to fall well below the threshold for ground-borne vibratory impacts, which the FTA defines as approximately 100 VdB for minor cosmetic damage to fragile buildings. This results in a No Effect finding for vibration.

The table below summarizes the effects findings for the downtown Louisville, Kentucky sub-area:

	Vis.	Noise	Vib.	FINDING
Modified Selected Alternative	NAE	NE	NE	NAE

River Road Corridor in Louisville, KY

This subarea extends between the Ohio River and I-71, from just south of Zorn Avenue to Frankfort Avenue. Along the southern side of River Road, there are expansive views of wooded/natural areas including a former golf course near Zorn Avenue and the City of Louisville Soccer Park. The northern side of the roadway contains industrial uses, such as a series of mineral extraction activity and gravel operations. This area also includes some new commercial and office land uses near Zorn Avenue.

River Road is a 2-lane connector road with narrow shoulders and includes a crossing at Beargrass Creek. In the western portion of the APE, River Road transitions to a gateway boulevard into downtown Louisville with sidewalks.

Effects Findings – FEIS Selected Alternative

This subarea falls beyond the limits of the 2003 Original APE. Because this alternative does not include tolling, changes in traffic patterns are not associated with this alternative. This scenario was identified as the baseline for comparison to identify changes in traffic patterns resulting from the Modified Selected Alternative.

Effects Findings –Modified Selected Alternative

- Visual: The projected traffic increases are within the range for a perceptible change in traffic (1-2 additional vehicles per minute per lane during the peak hour); however, this is not expected to adversely affect the character of the subarea due to the low volume of additional traffic per minute (1-2 cars per lane). The projected traffic increases will not alter the setting, feeling, viewshed or association of its historic resources to their surroundings or to the current transportation system. This results in a No Adverse Effect finding for visual.
- Noise: Along River Road, traffic is not projected to double. Therefore, noise will not increase by a perceptible level (3 dBA). This results in a No Effect finding for noise.
- Vibration: No change in the mix of traffic patterns are projected in this area. Per the FTA manual, heavy truck traffic is projected to fall well below the threshold for ground-borne vibratory impacts, which the FTA defines as approximately 100 VdB for minor cosmetic damage to fragile buildings. This results in a No Effect finding for vibration.

The table below summarizes the effects findings for the River Road corridor in Louisville, Kentucky:

	Vis.	Noise	Vib.	FINDING
Modified Selected Alternative	NAE	NE	NE	NAE

8. Summary of Archaeological Sites

Work has been completed at various archaeological sites since the 2003 FEIS was published. A brief summary is presented below on sites that require additional investigations; additional information will be included in the DSEIS.

- Additional investigations were recommended in the 2003 FEIS for Sites 12-Cl-559 and 12-Cl-561 near the East End approach in Indiana; these have not yet been undertaken.
- A new site was identified associated with the Spring Street Freight House since the 2003 FEIS was published; additional investigations will be undertaken to determine this site's eligibility.
- Additional investigations were recommended in the 2003 FEIS for Sites 15Jf677, 15Jf680, and 15Jf683 near the East End approach in Kentucky; this has not yet been undertaken since the FEIS.

- Phase I investigations were undertaken in 2006 at Sites 15Jf678, 15Jf679, and 15 Jf719 (added after the 2003 FEIS) near the East End approach in Kentucky; additional Phase II investigations are required before eligibility can be determined at these locations.
- Site 15Jf720 was identified near the East End approach in Kentucky after the 2003 FEIS was published; Phase I investigations were conducted in 2008 but additional coordination is required to determine the site's eligibility.