

increase of approximately 14 dBA over existing noise levels and an increase of approximately 7 dBA over projected No-Build noise levels.

Avoidance Alternatives

An alignment shift of Alternative C-2 to the east would further impact the Ohio Falls Car and Locomotive Historic District. An alignment shift of Alternative C-2 to the west would further impact the Colgate-Palmolive Historic District, the Pennsylvania Railroad and McAlpine Locks. Other design alternatives such as a reduced facility, retaining walls, etc., also would not avoid the property. Alternatives C-1 and C-3 would avoid use of the District. Other avoidance alternatives to a Section 4(f) use of this District would be the No-Action Alternative, the Transportation Management Alternative, and the One Bridge/Highway Alternative (Far East or Near East).

Measures to Minimize Harm

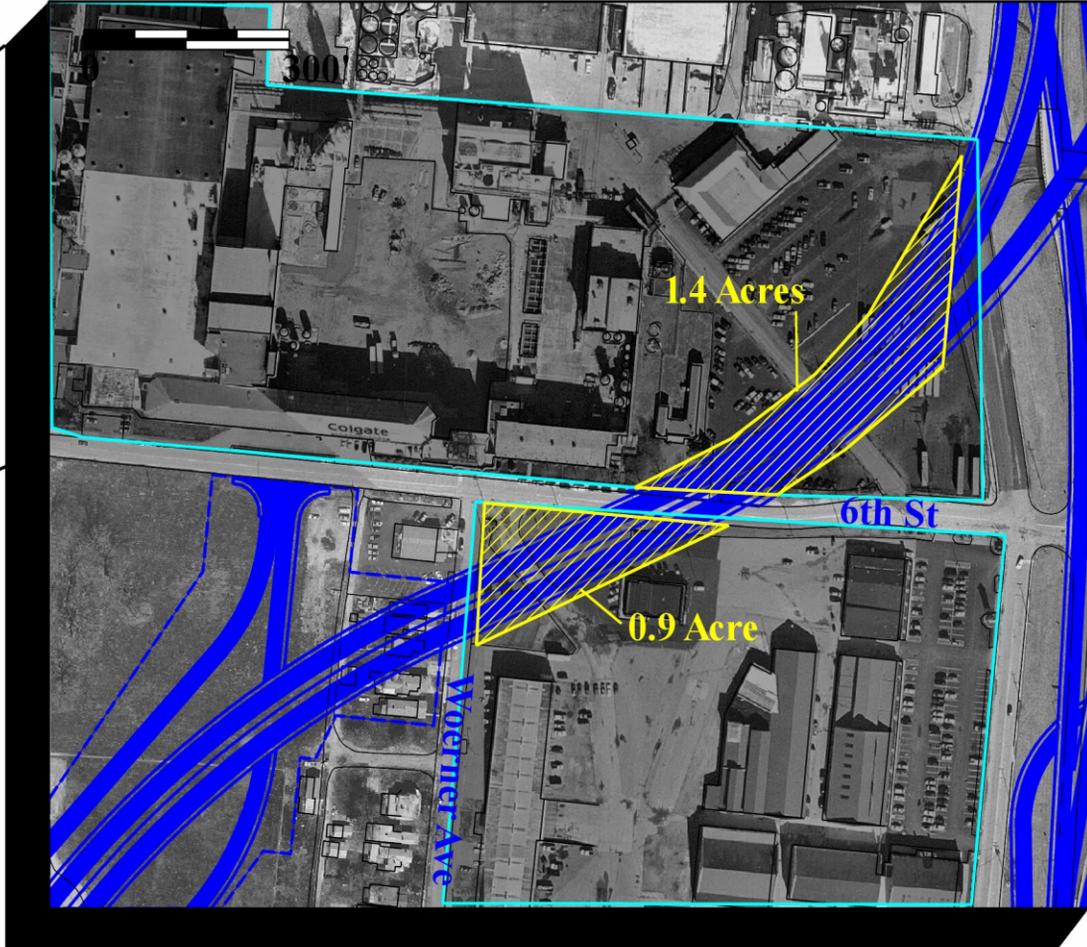
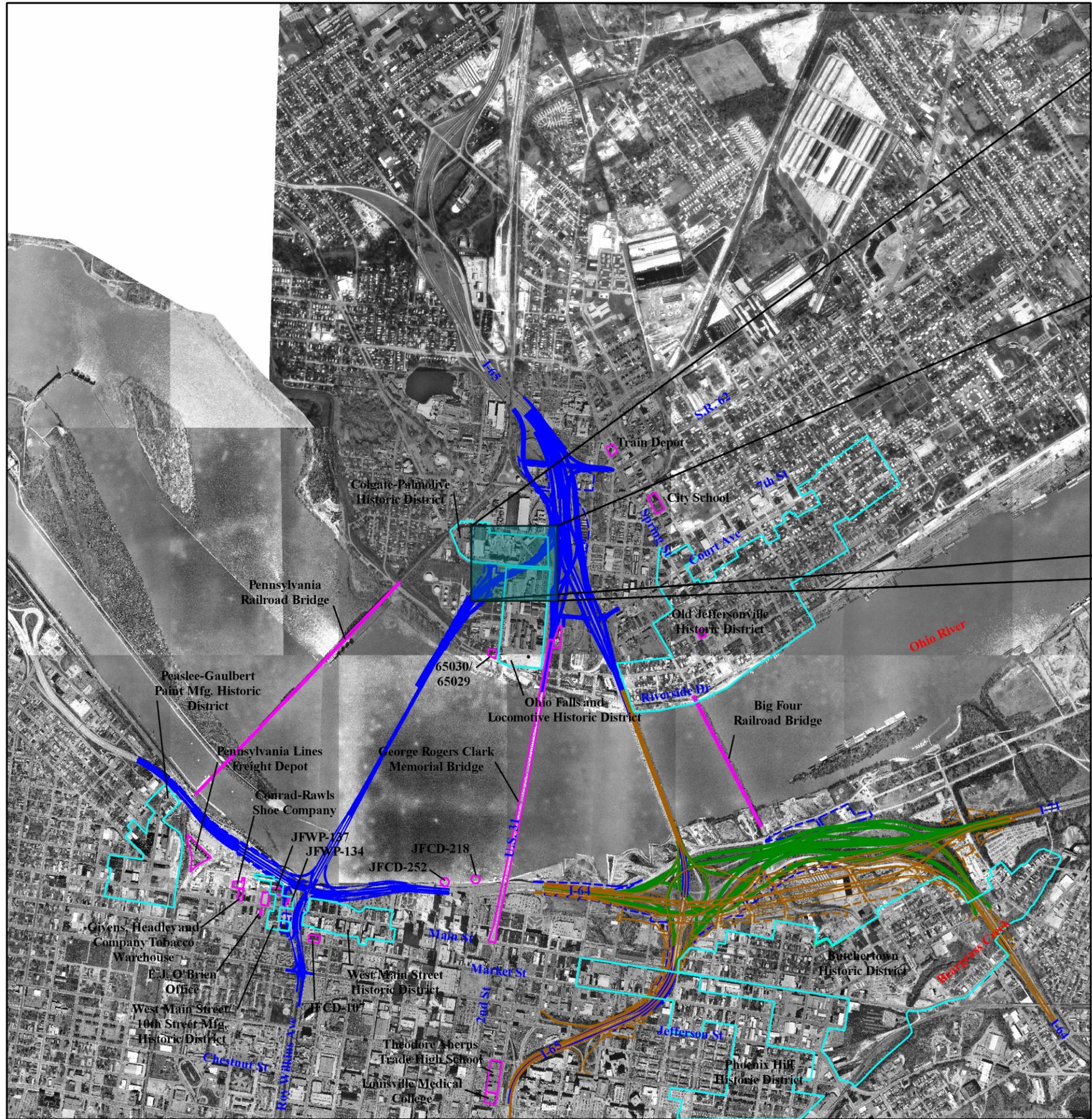
The bridge will be designed to aesthetically compliment the existing landscape. During final design of the project, reduced shoulder widths and steeper fill slopes will be evaluated to determine if they can be implemented without compromising safety. Vegetative screening will also be incorporated into the final design, where appropriate, to decrease visual impacts. INDOT will develop documentation and seek NRHP nomination for the Colgate-Palmolive Historic District. If the property owner does not consent to NRHP listing, then INDOT will make reasonable effort to prepare documentation for the Historic District at a level to be agreed upon by the Indiana SHPO, the INDOT and the FHWA. In consultation with the Indiana Historic Preservation Advisory Team and the Indiana SHPO, the INDOT will develop and place interpretative signage near the facility to explain the historical importance of the site, its evolution, and its importance to the economic growth of the region.

Conclusion

Alternative C-1, the downtown element of the Preferred Alternative, will avoid use of the Colgate-Palmolive Historic District.

Ohio Falls Car and Locomotive Company Historic District (ID-HC-64001-64024) - Indiana

The Ohio Falls Car and Locomotive Company was founded in a village called Ohio Falls in 1864. Constructing railcars and locomotives, the first facility built in Clarksville was destroyed by fire in 1872. When the complex was rebuilt afterwards, the buildings were constructed to be fire resistant and were spaced apart to discourage the spread of fire. In the District, the Italianate style, popular as late as the 1890s, is visible in most of the brick nineteenth-century buildings, which incorporate gabled roofs, with later additions to the building exhibiting shed style roofs. The industrial buildings of the former railcar company presently provide homes for various types of commercial enterprises, through ongoing adaptive reuse of the property. This resource is also significant for its associations with rail transportation and the production of rail cars in Indiana. This property is eligible for inclusion on the NRHP under criteria A and C, events and architecture. The total size of the district is 30.7 acres.



LEGEND

- Historic District Boundary
- Area of Direct Encroachment
- C2
- Kennedy Interchange Relocated
- Kennedy Interchange In-Place


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 OHIO RIVER BRIDGES PROJECT
Environmental Impact Statement/Preliminary Design
**OHIO FALLS CAR AND LOCOMOTIVE AND
 COLGATE-PALMOLIVE HISTORIC DISTRICTS**


FIGURE 6.2-19

Photograph 1

View looking southwest toward the commercial establishments of the Ohio Falls Car and Locomotive Company Historic District from I-65.



The Ohio Falls and Locomotive Company Historic District and its relationship to Alternative C-2 are shown on Figure 6.2-19. The property is privately owned, with no covenants or restrictions on the ownership. Vehicular and pedestrian access is available; however, there are no records of public visitation to the District. There is no relationship to other similarly used lands in the area. The District's primary characteristic is its association with rail transportation. There are no other unusual characteristics or features associated with this property.

Impacts

Alternative C-2: This alternative would use approximately 0.9 acre on the northern portion of the District. (See Figure 6.2-19) One structure within the District would be displaced by the alternative. Visual impacts are anticipated to other adjacent properties within the District. Traffic noise levels from Alternative C-2 are projected to be approximately 69 dBA at this property by the year 2025, which would be an increase of approximately 11 dBA over existing noise levels and an increase of 3 dBA over projected No-Build noise levels.

Avoidance Alternatives

An alignment shift of Alternative C-2 the west would further impact the Colgate-Palmolive Historic District. An alignment shift of Alternative C-2 to the east would further impact the Ohio Falls Car and Locomotive Company Historic District. Other design alternatives such as a reduced facility, retaining walls, etc., also would not avoid the property. Alternatives C-1 and C-3 would avoid use of the District. Other avoidance alternatives to a Section 4(f) use of this District would be the No-Action Alternative, the Transportation Management Alternative, and the One Bridge/Highway Alternative (Far East or Near East).

Measures to Minimize Harm

The bridge will be designed to aesthetically compliment the existing landscape. During final design of the project, reduced shoulder widths and/or steeper fill slopes will be evaluated to determine if they can be implemented without compromising safety. Vegetative screening will also be incorporated into the final design, where appropriate, to decrease visual impacts. INDOT

will develop documentation and seek NRHP nomination for the Ohio Falls Car and Locomotive Company Historic District. If the property owner does not consent to NRHP listing, then INDOT will make reasonable effort to prepare documentation for the Historic District at a level to be agreed upon by the Indiana SHPO, the INDOT and the FHWA. In consultation with the Indiana Historic Preservation Advisory Team and the Indiana SHPO, INDOT will develop and place interpretative signage near the facility to explain the historical importance of the site, its evolution, and its importance to the economic growth of the region. Prior to initiating construction activities, INDOT will ensure that the construction contractor will develop and implement a blasting/vibration plan for the project to avoid damage to the District.

Conclusion

Alternative C-1, the downtown element of the Preferred Alternative, will avoid use of the Ohio Falls Car and Locomotive Company Historic District.

West Main/10th Street Manufacturing Historic District (KE-HC-11) - Kentucky

The West Main/10th Street Manufacturing Historic District consists of several properties located within the vicinity of the West Main/10th Streets intersection. These include the Illinois Central Freight Terminal building, U. S. Post Office garage at 1001-1007 West Main Street, three story commercial building at 1004, 1006, 1008 West Main Street, the National Biscuit Company building at 117 South 10th Street, building at 108 South 10th Street and 120 South 10th Street, New Enterprise Tobacco Warehouse, and the Tobacco Realty Company building. This District is eligible as a small manufacturing district under Criterion A and covers approximately 1.5 acres. The New Enterprise Tobacco Warehouse is individually listed on the NRHP and covers approximately 0.5 acre of the District. Vehicular and pedestrian access is available; however; there are no records of public visitation to the District. There are no other unusual characteristics or features associated with this property.



(1)



(2)

Photographs 1-2 (from left to right): 1) View looking northeast toward the New Enterprise Tobacco Warehouse from the intersection of 10th and Main Streets. 2) View looking northwest across the Ninth Street overpass toward the West Main/10th Street Manufacturing Historic District.

Impacts

Alternative C-2 would use approximately 1.5 acres of the District and would displace three buildings, including the New Enterprise Tobacco Warehouse. (See Figure 6.2-20) Traffic noise levels from Alternative C-2 are projected to be approximately 75 dBA at this property by the year 2025, which would be an increase of approximately 9 dBA over existing noise levels.

Alternatives C-1 And C-3 are over 3,000 feet away and the many buildings in downtown Louisville block the views of the alternatives.

Avoidance Alternatives

A shift of Alternative C-2 to the west would have greater impacts to the District and would impact the McAlpine Locks. A shift of the alignment to east would impact other historic properties. Design alternatives such as a reduced facility, retaining walls, etc., also would not avoid the structure. Alternatives C-1 and C-3 would avoid use of this resource. Other avoidance alternatives to a Section 4(f) use of this property would be the No-Action Alternative, the Transportation Management Alternative, and the One Bridge/Highway Alternative (Far East or Near East).

Measures to Minimize Harm

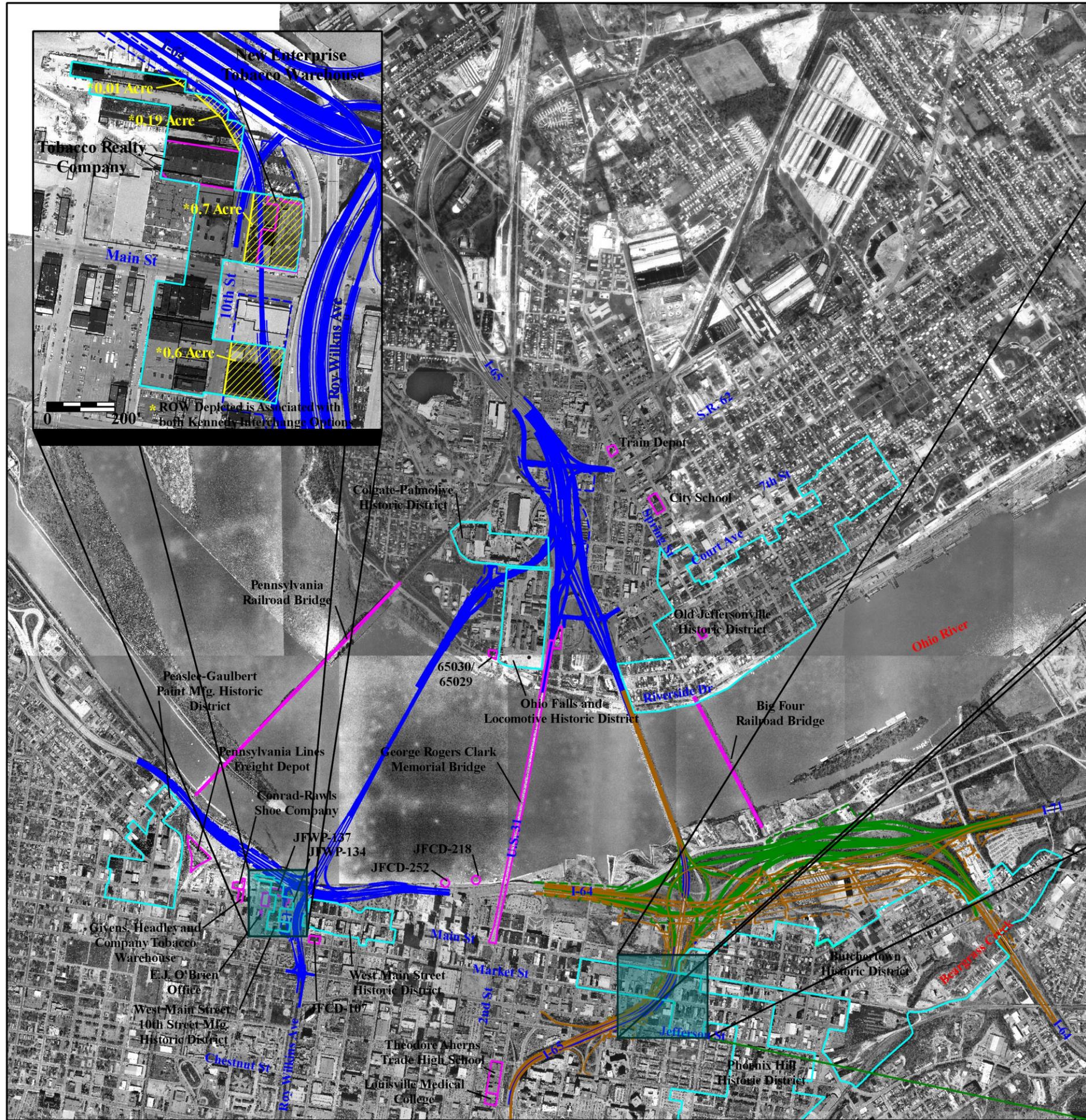
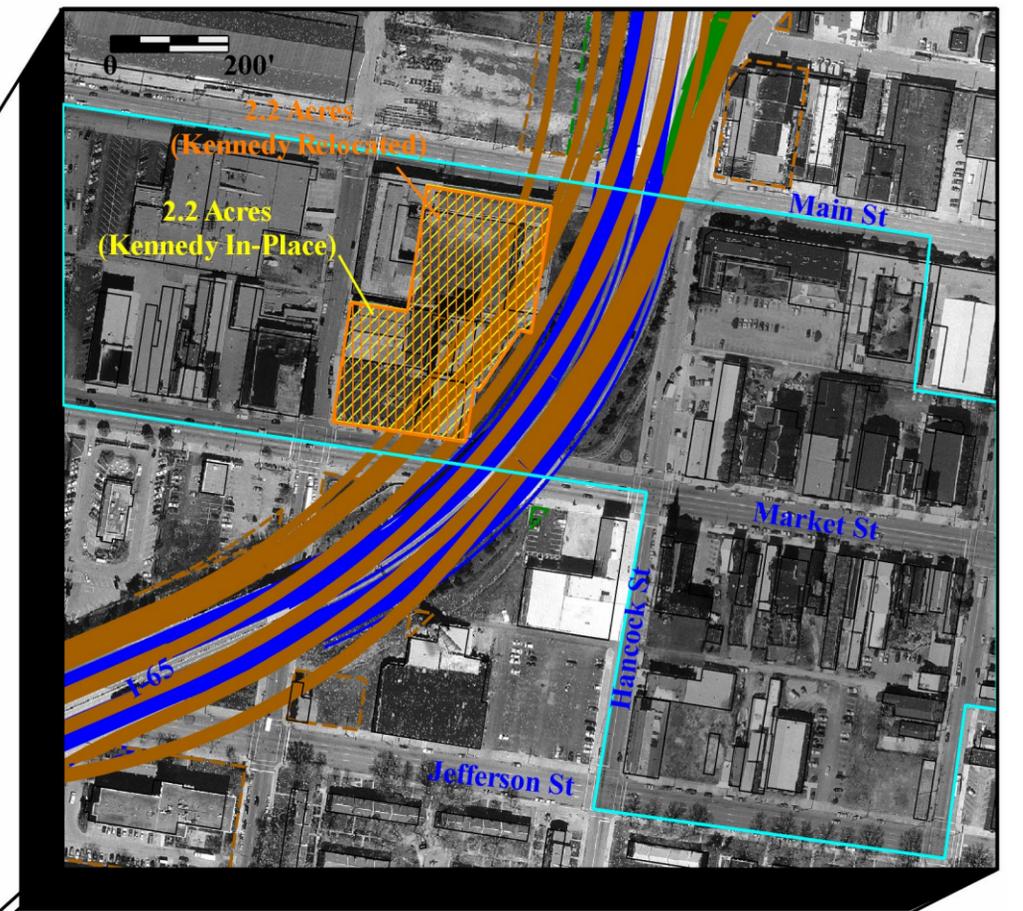
The displaced buildings would be photographed and documented in accordance with the appropriate historic standards.

Conclusion

Alternative C-1, the downtown element of the Preferred Alternative, will avoid use of the West Main/10th Street Manufacturing Historic District.

Phoenix Hill Historic District (KD-HC-5) - Kentucky

Present day Phoenix Hill, known as Uptown, was part of the original town of Louisville. Land subdivision began around 1835 and accelerated with the influx of immigrants in the next decade. The early development of Phoenix Hill as a middle and working-class neighborhood is evident in the number of extant structures, which predate the Civil War. The Bloody Monday riots, perpetuated by the Know Nothing Party's successful attempts to deny naturalized citizens the vote, occurred on Election Day, August 6, 1855. Bloody Monday began in Phoenix Hill. Riots, street fights, ransacking, and fires spread throughout other ethnic neighborhoods of the city resulting in numerous deaths and major property damage. Bloody Monday was successful in discouraging further immigration to Louisville for sometime afterwards. The ethnic heritage of the neighborhood can be seen in the churches, which were established by the German and Irish populations. German-Catholic populations founded St. Martin's Church and St. Boniface; St. John the Evangelist was founded for the Irish immigrants. The residential architecture in Phoenix Hill spans nearly a century with some examples dating as early as 1840. These are some of the earliest residential examples that remain in the inner city. The most common style of housing in Phoenix Hill is the shotgun, represented in nearly every variation in both frame and brick construction.



LEGEND

- Historic Resource Boundary
- Historic District Boundary
- Area of Direct Encroachment Associated with the Kennedy Interchange In-Place Option
- Area of Direct Encroachment Associated with the Kennedy Interchange Relocated Option

ALIGNMENT

- C2
- Kennedy Interchange Relocated
- Kennedy Interchange In-Place

RIGHT-OF-WAY

- - - C2
- - - Kennedy Interchange Relocated
- - - Kennedy Interchange In-Place



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**PHOENIX HILL AND WEST MAIN ST/10TH ST
 MANUFACTURING HISTORIC DISTRICTS**

0 3,000'

FIGURE 6.2-20



(1)



(2)



(3)

Photographs 1-3 (from left to right and top to bottom): 1) View looking west along Market Street. The boundary of the Phoenix Hill Historic District is pictured to the right. 2) View looking east along Market Street toward the Baer Fabrics Building and I-65. 3) View looking east along Main Street toward I-65 and Billy Goat Strut (pictured to the right).

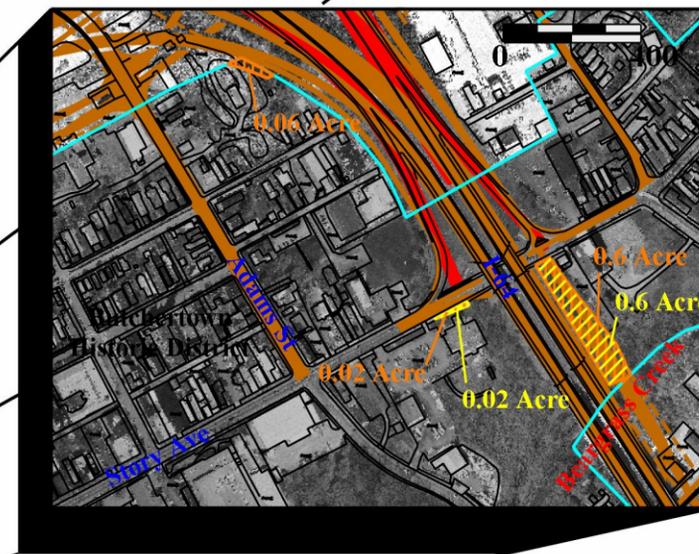
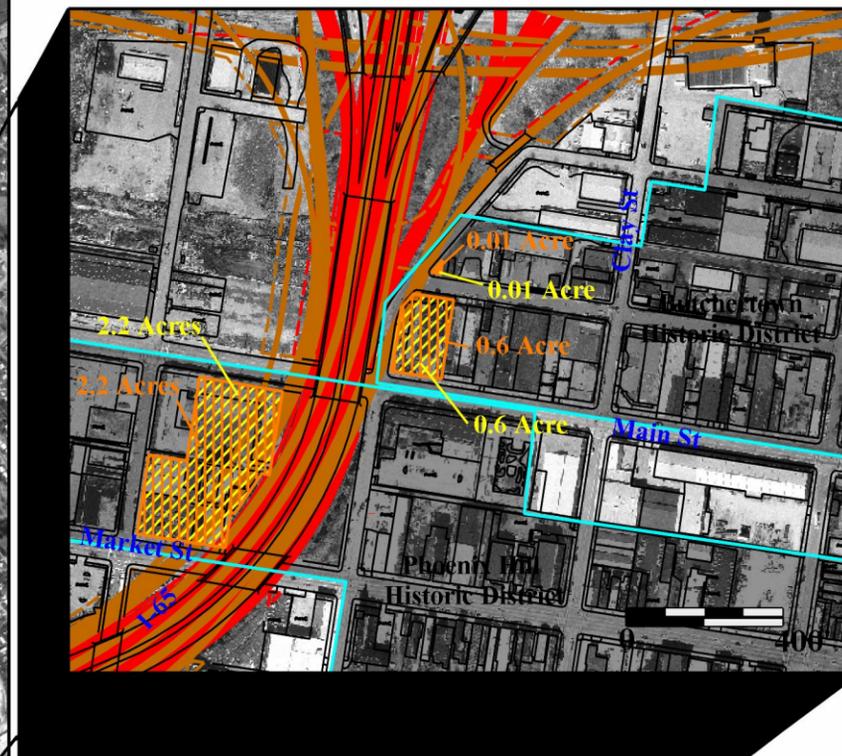
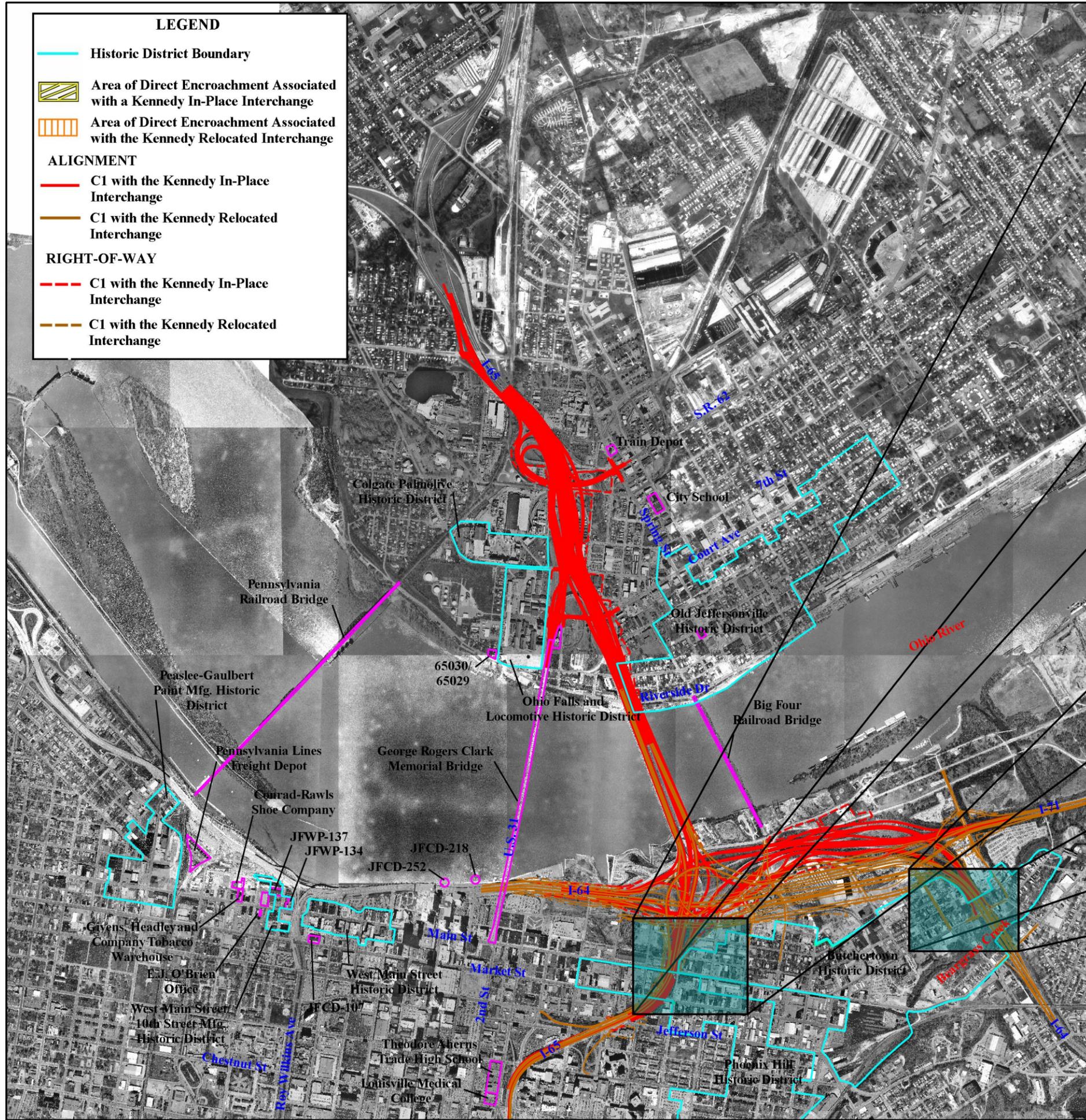
This District is included on the NRHP under criteria A and C, events and architecture. The total size of the district is 150 acres. The Phoenix Hill Historic District and its relationship to the downtown alternatives are shown on Figures 6.2-21 and 6.2-22. The individual properties within the District are mostly residences and are privately owned. An Architectural Review Board reviews proposed exterior modifications to structures in the District. Vehicular and pedestrian access is available; however, the individual properties are not open to the public for visitation or recreation activities. There are no other unusual characteristics or features associated with this District.

Impacts

Both Kennedy Interchange options (**Relocated** and In-Place) would require the use of approximately 2.2 acres of land from the District and would displace two contributing structures, one industrial building and one commercial building.

LEGEND

-  Historic District Boundary
-  Area of Direct Encroachment Associated with a Kennedy In-Place Interchange
-  Area of Direct Encroachment Associated with the Kennedy Relocated Interchange
- ALIGNMENT**
-  C1 with the Kennedy In-Place Interchange
-  C1 with the Kennedy Relocated Interchange
- RIGHT-OF-WAY**
-  C1 with the Kennedy In-Place Interchange
-  C1 with the Kennedy Relocated Interchange





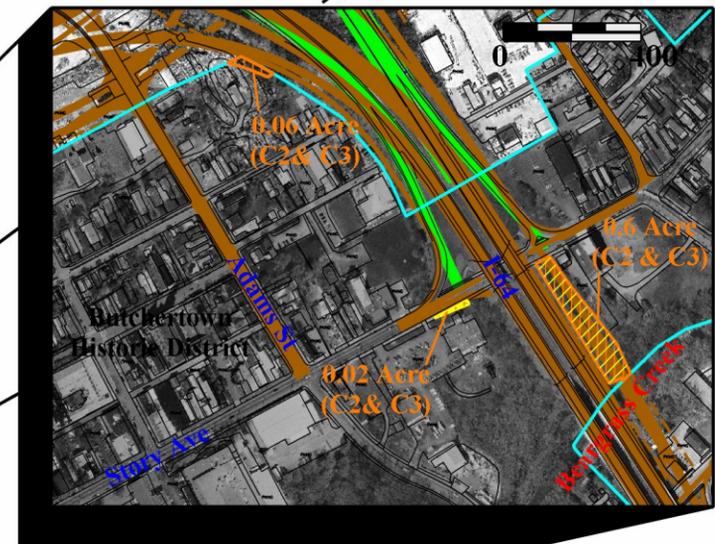
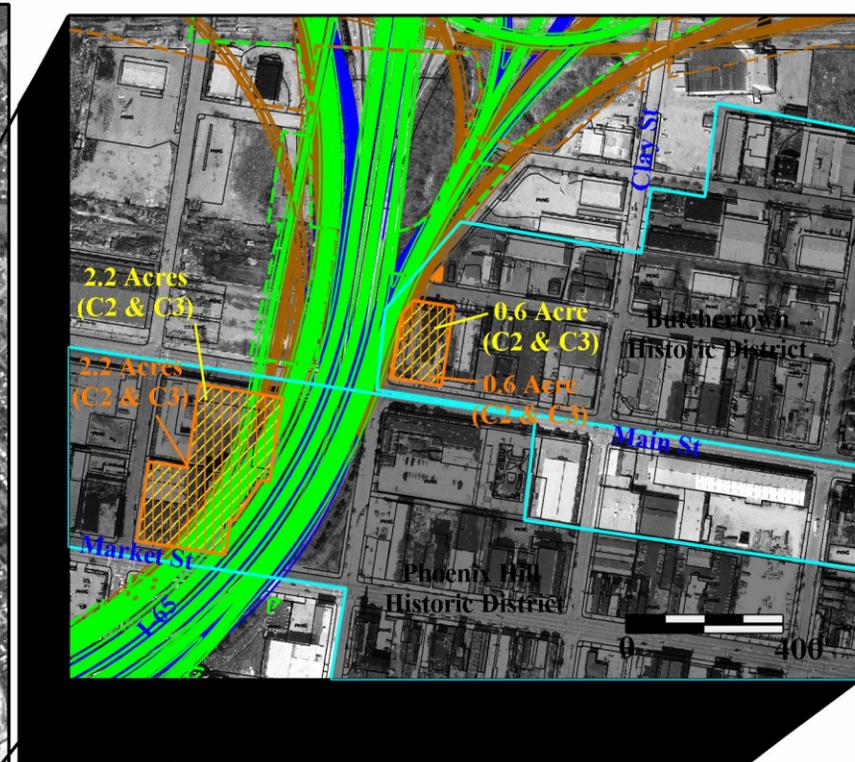
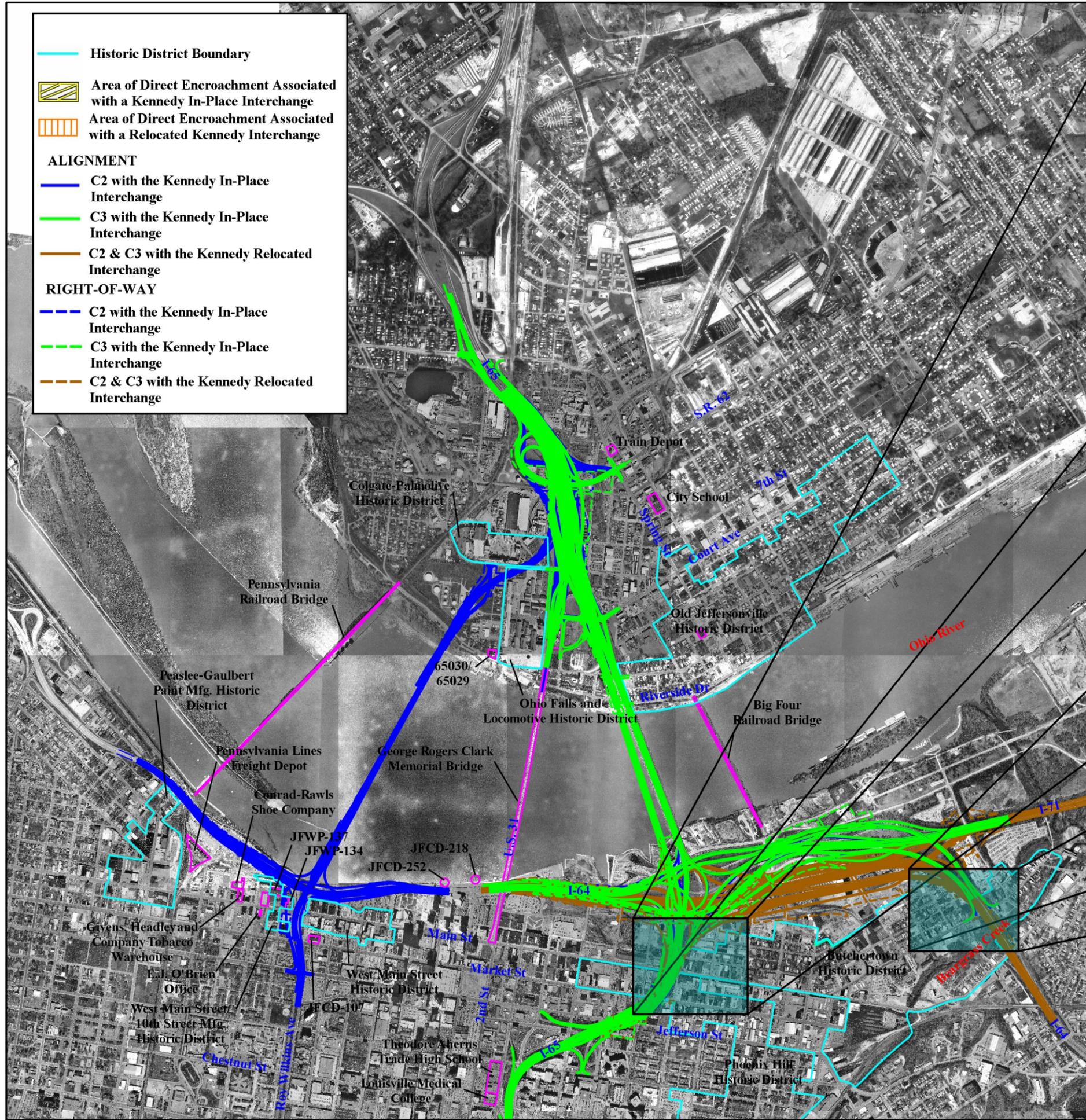
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**BUTCHERTOWN AND PHOENIX HILL
HISTORIC DISTRICTS**



0 3,000'

FIGURE 6.2-21



LOUISVILLE – SOUTHERN INDIANA
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BUTCHERTOWN AND PHOENIX HILL
HISTORIC DISTRICTS

Scale: 0 to 3,000'

FIGURE 6.2-22

Traffic noise levels are projected to be approximately 80 dBA by the year 2025, which would be an increase of approximately 15 dBA over existing noise levels. Projected noise levels for the No-Build Alternative are also 80 dBA.

Avoidance Alternatives

Either redesign option of the Kennedy Interchange would have the same impacts to this District. Each would use 2.2 acres of property and would displace two contributing structures. The impacts occur due to widening along I-65 south of where the ramps of either interchange option would connect to existing I-65. Widening of I-65 would be required with either interchange option to accommodate projected traffic volumes. Shifting the interchange east or west would further encroach upon the Phoenix Hill Historic District or the adjacent Butchertown Historic District and West Main Street Historic District. Design alternatives, such as a reduced facility, retaining walls, etc., would not avoid the District. The only avoidance alternatives would be the No-Action Alternative and the Transportation Management Alternative. As discussed in Section 6.4.1, neither of these alternatives alone would meet the purpose and need for this project. Therefore, there is no feasible and prudent alternative to use of the Phoenix Hill Historic District.

Reconstruction of the Kennedy Interchange has been a need for many years. The railroad and railroad bridge across the Ohio at the time of the original construction of the Kennedy Interchange resulted in substandard geometry that, coupled with short weaving sections and merge sections, causes severe congestion and an injury crash rate much higher than the statewide average. Delays for the motoring public have continued to grow, resulting in higher user costs and degradation of the air quality of the region.

Measures to Minimize Harm

Interchange ramps will be placed as close as feasible to existing I-65 to minimize impacts to the District. During final design of the interchange, efforts will be made to blend the reconstructed interchange with the existing landscape as much as practicable. Reduced shoulder widths and/or steeper fill slopes will be utilized to the extent practical without compromising safety. In addition, the following measures will be implemented to minimize and mitigate harm to the District:

1. The KYTC will develop an HPP for the Phoenix Hill Historic District. The HPP will include recommended measures for context sensitive design, noise abatement, streetscape improvements, and interpretive signage which will be implemented as part of the Project to mitigate adverse impacts to the historic district, as well as additional recommendations for measures to enhance the Historic District and include strategies for rehabilitation and reuse of the buildings and grounds that lie within the Historic District. The HPP will develop a thematic context to assist with future nominations in the region. The HPP will be coordinated with the latest development plans available from the Louisville-Jefferson County Metro Government that involve the Historic District and east Downtown area.
2. Project roadway lighting within the viewshed of historic properties and any navigational lighting required on structures included in the project will be designed and constructed to minimize the dispersion of light beyond the highway right of way and include state-of-the-art techniques and systems, such as Full Cutoff Optics (FCOs) or other similar

systems, to the extent allowed by the U. S. Coast Guard requirements and to ensure safe roadway lighting levels.

3. The KYTC will make a reasonable effort to work with the owner to relocate the Baer Fabrics Company to another historic property within the District or to a suitable facility within the Phoenix Hill neighborhood, as defined by the Louisville-Jefferson County Metro Government. If the owner agrees to move his business to an historic property within the District or neighborhood, project funds will be made available for its rehabilitation in accordance with Secretary's Standards and to suit the needs of its new function.
4. In consultation with the KY SHPO and the Louisville-Jefferson County Metro Government, the KYTC will develop a treatment plan for rehabilitation of the Vermont American Buildings affected by the project and to explore options for their re-use. The KYTC will undertake the rehabilitation of the exterior of the buildings, if recommended in the treatment plan, as a part of the project.
5. St. John's Church – During the development of detailed plans and in consultation with the Church and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified for the Church. Interior noise abatement will be considered if the predicted noise levels exceed the interior noise abatement criteria.
6. Refuge in Kentucky Church – During the development of detailed plans and in consultation with the Church and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified for the Church. Interior noise abatement will be considered if the predicted noise levels exceed the interior noise abatement criteria.
7. The KYTC will place interpretative signage within the Historic District to explain its historic significance.
8. The KYTC will include streetscape improvements along Main Street and Market Street from Floyd Street to Clay Street and in the area under the I-65 bridge in accordance with provisions of the HPP and the Kentucky Heritage Council's streetscape design guidelines.
9. Prior to initiating construction activities in this section, KYTC will ensure that the construction contractor will develop and implement a blasting/vibration plan for the project to avoid damage to the District.

Conclusion

Based on the above considerations, there is no feasible and prudent alternative to the use of land from the Phoenix Hill Historic District, and the proposed action includes all possible planning to minimize harm to the Phoenix Hill Historic District resulting from such use.

Butchertown Historic District (KD-HC-4) - Kentucky

Significant geographical features for Butchertown in the early nineteenth century were Beargrass Creek and the Frankfort Pike, which connected Louisville at the Falls of the Ohio with the fertile Bluegrass region of central Kentucky. Drove of cattle and hogs, products of the Bluegrass, were driven down Frankfort Pike to the mouth of Beargrass Creek on the Ohio River, a point of departure to the southern states. Some animals were shipped live, but it was more practical to

butcher them in Louisville, salt the pork, pickle the beef, and pack the products in barrels. Louisville's first city directory in 1832 listed 12 butchers in the area covered by present day Butchertown. Germans who immigrated to the area after 1848 eventually dominated Louisville's butchering business. As the butchering business expanded, special inns with pens for livestock were built to accommodate the drovers and their herds. These livestock pens were absorbed into the Bourbon Stock Yards, which opened in 1869. The skilled German butchers built their shops facing Frankfort Pike, which became Main Street in the late 1840s. The butchers' slaughtering sheds were to the rear of their properties along Beargrass Creek, which provided water needed during the butchering process and also served as a drain for the waste. From these independent butchers came the name "Butchertown" in the early 1850s. In addition to the butchers' shops, packinghouses, tanners, coopers, soap and tallow makers, were a woolen mill, furniture factory, and two breweries. In the late 1860s, a young Western Union telegrapher, Thomas Edison, boarded at a house on East Washington Street. According to local history, Edison's stay in the neighborhood was ended when he was fired for ruining his boss's office carpet with one of his experiments. Butchertown is distinguished by the intermingling of modest wood shotgun houses with larger, more ambitious brick dwellings, and various industrial plants. Butchertown's architectural diversity is one of its unique characteristics. This District is included on the NRHP under criteria A and C, events and architecture. The total size of the district is 223 acres.



(1)



(2)



(3)

Photographs 1-3 (from left to right and top to bottom): 1) View looking north toward the Edison House. 2) View looking northwest toward the Wesley House. 3) View looking west along Main Street. Butchertown Historic District is pictured to the left.

The Butchertown Historic District and its relationship to the downtown alternatives are shown on Figures 6.2-21 and 6.2-22. The individual properties within the District are mostly residences and are privately owned. An Architectural Review Board reviews proposed exterior modifications to structures in the District. Vehicular and pedestrian access is available; however, the individual properties are not open to the public for visitation or recreation activities. There is no distinct relationship to other similarly used lands in the area. There are no other unusual characteristics or features associated with this District.

Impacts

Relocation and reconstruction of the Kennedy Interchange would use approximately 1.29 acres from this District and displace one contributing structure. (See Figures 6.2-21 and 6.2-22) Immediately adjacent to the interchange, noise levels are projected to increase in the worst case by 6 dBA over the existing noise levels by the year 2025. The In-Place option for reconstruction of the Kennedy Interchange would use approximately 1.23 acres of the District and would displace the same structure. Traffic noise levels are projected to be approximately 73 dBA by the year 2025, which would be an increase of approximately 3 dBA over existing noise levels and an increase of approximately 3 dBA over projected No-Build noise levels.

Avoidance Alternatives

Impacts to the Butchertown Historic District are due to the ramp connections with existing I-64 and I-65; therefore, either reconstruction of the Kennedy Interchange would impact this District. Since the impacts to the Butchertown Historic District are caused by the connecting ramps to existing I-64 and I-65, shifting the interchange east, west or north would not reduce the encroachment on the District; and shifting the interchange farther south would increase the encroachment (Figures 6.2-11 and 6.2-12). Design alternatives such as a reduced facility, retaining walls, etc., would not avoid the District. The only avoidance alternatives would be the No-Action Alternative and the Transportation Management Alternative and, as discussed previously, neither of these alternatives alone would sufficiently meet the purpose and need of the project.

Reconstruction of the Kennedy Interchange has been a need for many years. The existing railroad and railroad bridge across the Ohio River at the time of the original construction of the Kennedy Interchange resulted in substandard geometry that, coupled with short weaving sections and merge sections, causes severe congestion and an injury crash rate much higher than the statewide average. Delays for the motoring public has continued to grow, resulting in higher user costs and degradation of the air quality of the region.

Measures to Minimize Harm

The **Relocated option** connector ramps along I-64 have been shifted as close as feasible to existing I-64 so that they would now miss all five of the contributing structures in this area that were shown in the DEIS as being displaced. The ramps along I-65 were also designed as close as feasible to the existing facility; however, one contributing structure (Grocers Ice and Cold Storage Company) in that location could not be avoided. Either interchange option would

displace the Ice House. Strategies for preservation and reuse of the Ice House facade will be evaluated prior to its removal, as noted in the measures listed below. Final design of the interchange will aesthetically compliment the existing landscape as much as practicable. Reduced shoulder widths and/or steeper fill slopes will be utilized to the extent practical without compromising safety. Some non-contributing properties within the Butchertown Historic District currently detract from the Historic District's appearance. Some of these non-contributing properties may be considered for temporary use as staging areas during construction, where such temporary use is acceptable to the Kentucky Historic Preservation Advisory Team. Following construction, any non-contributing properties temporarily used as staging areas would be restored to a condition as good or better than it was prior to the project. Any temporary use of land from within the Butchertown Historic District will be in accordance with 23 CFR 771.135(p)(7).

Reconstructing the Kennedy Interchange In-Place would use slightly less property (0.06 acre) than the **Relocated option**, however, the additional acreage is part of a junkyard and is not from a contributing property. Both options would displace the same contributing structure, the Ice House. The In-Place option, however, would have greater impacts to another Section 4(f) property, Waterfront Park, and would have greater overall Section 4(f) impacts than the **Relocated option**. Also, traffic operations would not be satisfactory with the In-Place option. Relocation of the interchange would allow for elimination of the numerous left-hand entrances and exits, difficult weaves, and other conflict points that are part of the current Kennedy Interchange, and which have led the interchange to be known commonly as "Spaghetti Junction." Currently, I-64 through traffic, which is not destined for downtown Louisville, must merge and weave with downtown oriented I-65 and I-71 traffic. The Kennedy Interchange Relocation would allow I-64 through traffic to pass through the interchange without encountering the numerous conflict points in the current interchange. All merging and diverging activities would take place on collector-distributor roads, away from mainline roadway traffic, where they would not interfere with the flow of traffic through the interchange. These improvements would help to reduce congestion and improve safety in the Kennedy Interchange, and would reduce the number of "conflict points" where crashes are more likely to occur.

The In-Place reconstruction of the Kennedy Interchange would not provide the same improvements and would not alleviate the unsatisfactory operating conditions associated with the difficult merges and weaving sections in the current interchange. Because the interchange would be reconstructed In-Place, requiring the maintenance of traffic operations during construction, a wholesale reconstruction of the Kennedy Interchange would not be possible. Thus, while improving some current conditions, an In-Place reconstruction would not eliminate all of the left-hand exits and entrances or complex weaving movements found in the current interchange. This would adversely impact I-64 through-traffic route continuity and contribute to additional congestion and safety problems. By 2025, average peak hour speeds in the Kennedy Interchange are projected to be 5 mph less than under the Kennedy Interchange **Relocation option**. This significant decrease in the efficiency of the Kennedy Interchange would result in significantly greater congestion and delays, which would likely spill over onto adjacent roadways, including the Kennedy Bridge. Thus, while providing some short-term benefit, the In-Place reconstruction of the Kennedy Interchange would not provide a long-term solution to the Kennedy Interchange deficiencies. Consequently, the In-Place option would not meet the purpose and need for the

project and, therefore, is not a feasible and prudent alternative for reconstruction of the Kennedy Interchange.

The following measures will be also implemented to minimize harm to the Butchertown Historic District:

1. The KYTC will develop an HPP for the property. The HPP will include recommended measures for context sensitive design, noise abatement, streetscape improvements, connectivity to the river, and interpretive signage, which will be implemented as part of the project to mitigate adverse effects to the historic district. The HPP will also provide additional strategies for rehabilitation and reuse of buildings and grounds that could enhance the district. The HPP will develop a thematic context to assist with future nominations in the region. The HPP will be coordinated with the latest development plans available from the Louisville-Jefferson County Metro Government that involve the historic district and east Downtown area.
2. The KYTC will develop the Witherspoon Extension in accordance with provisions of the HPP as the principal east-west route through the Historic District, and will implement measures that encourage north-south traffic through the historic district to use Clay Street and Frankfort Avenue.
3. In consultation with the Kentucky Historic Preservation Advisory Team (KHPAT), the KYTC will design and construct the roadway sections along the north side of the Butchertown Historic District using embankments or other designs recommended by KHPAT that would support aesthetically pleasing noise abatement measures, lighting, and landscaping that would maintain the context of the historic district as set forth in the HPP.
4. Edison House – The KYTC will provide funding for rehabilitation of the exterior of the Edison House provided the owners agree to provide a preservation easement to ensure long-term preservation of its exterior. Plans will be submitted to the KY SHPO for approval as to conformance with the Secretary’s Standards prior to implementation. During the development of detailed plans and in consultation with the Edison House owners and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified. Interior noise abatement will be considered if predicted noise levels exceed the interior noise abatement criteria.
5. Wesley House – The KYTC will provide funding for the rehabilitation of the exterior of the Wesley House provided the owners agree to provide a preservation easement to ensure long-term preservation of its exterior. Plans will be submitted to the KY SHPO for approval as to conformance with the Secretary’s Standards prior to implementation. During the development of detailed plans and in consultation with the Wesley House owners and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified. Interior noise abatement will be considered if predicted noise levels exceed the interior noise abatement criteria.
6. St. Joseph’s Church – During the development of detailed plans and in consultation with the Church and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified for the Church, Day Care Center and School. Interior noise abatement will be considered if predicted noise levels exceed the interior noise abatement criteria.

7. Franklin Street Baptist Church – During the development of detailed plans and in consultation with the Church and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified for the Church. Interior noise abatement will be considered if predicted noise levels exceed the interior noise abatement criteria.
8. Marcus Lindsay Methodist Church – During the development of detailed plans and in consultation with the Church and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified for the Church. Interior noise abatement will be considered if predicted noise levels exceed the interior noise abatement criteria.
9. Grace Immanuel United Church of Christ – During the development of detailed plans and in consultation with the Church and KY SHPO, KYTC will conduct a noise study to determine whether interior noise abatement measures are justified for the Church. Interior noise abatement will be considered if predicted noise levels exceed the interior noise abatement criteria.
10. Grocers Ice and Cold Storage Company (601 – 615 East Main Street) – The KYTC will, in consultation with the KY SHPO, make a reasonable effort during project development to provide a plan that supports the adaptive reuse of this property. In the event that such a plan cannot be developed, the KYTC will develop documentation for the property at a level agreed upon by the KY SHPO, the KYTC, and the FHWA and will proceed to demolish the structure once the agreed upon documentation has been accepted.
11. Mellwood/Story Connection – The KYTC will conduct a study of the Mellwood Avenue/Story Avenue Connector during the development of detailed plans in order to evaluate the elimination of this proposed connector and restoration of two-way traffic flow on Mellwood Avenue and Story Avenue. Results of the study will be provided to the Advisory Team for review and comment.
12. The KYTC will design and construct Streetscape improvements within the entire Historic District in accordance with provisions of the HPP and the Kentucky Heritage Council's streetscape design guidelines.
13. The KYTC will design and construct traffic calming measures on existing streets in the Historic District with attention to the expansion of east downtown Louisville and Phase Two of the Waterfront Park with the concurrence of the KY SHPO and to the extent practicable and in a manner consistent with the HPP.
14. Project roadway lighting within the viewshed of historic properties and any navigational lighting required on structures included in the project will be designed and constructed to minimize the dispersion of light beyond the highway right of way and include state-of-the-art techniques and systems, such as Full Cutoff Optics (FCOs) or other similar systems, to the extent allowed by the U. S. Coast Guard requirements and to ensure safe roadway lighting levels.
15. Noise abatement measures such as innovative pavement designs, bridge decks, bridge joints, berms, barriers and landscaping will be implemented where reasonable and feasible to mitigate noise impacts to the Historic District.
16. Prior to initiating construction activities in this section KYTC will ensure that the construction contractor will develop and implement a blasting/vibration plan for the project to avoid damage to the District.

Conclusion

Based on the above considerations, there is no feasible and prudent alternative to the use of land from the Butchertown Historic District, and the proposed action includes all possible planning to minimize harm to the Butchertown Historic District resulting from such use.

George Rogers Clark Memorial Bridge (KD-HC-55023)

The George Rogers Clark Memorial Bridge, also known as the Louisville Municipal Bridge, is included on the NRHP for its association with transportation, engineering and for the quality of its architectural elements (Criteria A and C). The bridge was constructed in 1928-1929 as a toll bridge across the Ohio River and was owned by the city of Louisville. The bridge was designed to address a river crossing that had been dependent mostly on ferries. The bridge is a six-span cantilever truss bridge, with Warren Through trusses. The piers are built of ashlar-cut limestone. The bridge is 3,740 feet long and carries a four-lane roadway (40 feet wide) with 5 feet wide pedestrian walks. Art Deco limestone pylons flank the approaches on each side of the bridge. The relationship of the project to the George Rogers Clark Memorial Bridge can be seen on Figure 6.2-23.

Photograph 1
*View looking south
toward the pylons from
the Administration
Building.*

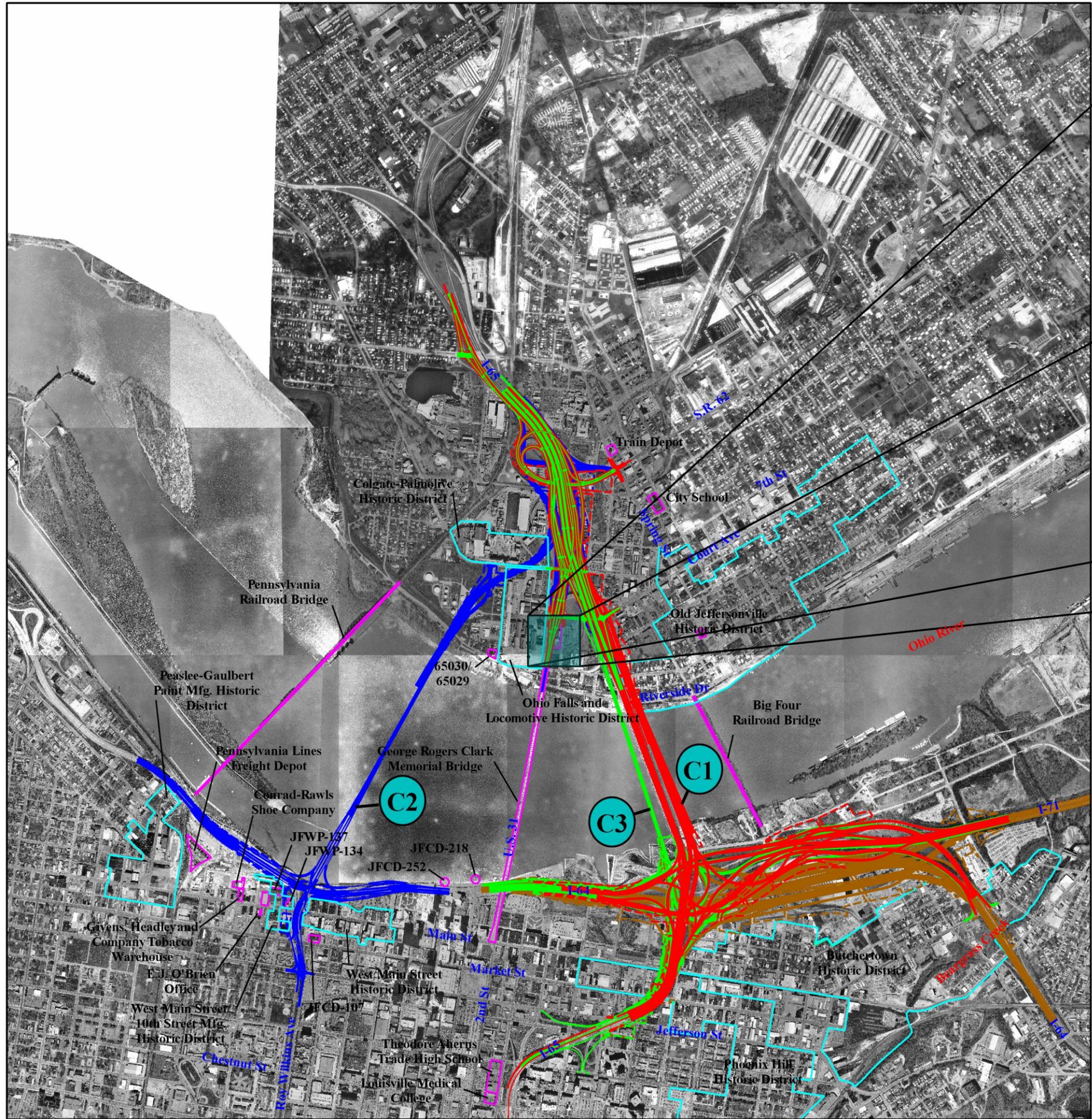


Impacts

Due to proposed improvements to the connections and approaches to the George Rogers Clark Memorial Bridge, all of the downtown alternatives would require moving the pylons flanking the approach to the bridge on the Indiana side, and would use approximately 0.1 acre of the property upon which the pylons are located.

Avoidance alternatives

Due to proposed improvements to the connections and approaches to the George Rogers Clark Memorial Bridge, all of the downtown alternatives would have the same impacts to the George Rogers Clark Memorial Bridge. The approach improvements cannot be accomplished without



LEGEND

- Historic Resource Boundary
- Area of Direct Encroachment
- Historic Structure

ALIGNMENT	RIGHT-OF-WAY
— C1	- - - C1
— C2	- - - C2
— C3	- - - C3

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**GEORGE ROGERS CLARK MEMORIAL
BRIDGE AND ADMINISTRATION BUILDING**

FIGURE 6.2-23

moving the pylons, and the improvements are necessary for safe and adequate functioning of the connection to a new downtown bridge. The design cannot be reduced to avoid the pylons. The only avoidance alternatives are the No-Action Alternative, the Transportation Management Alternative and the One Bridge/Highway Alternative (Far East or Near East). As noted previously in Section 6.4.1, none of these alternatives would sufficiently meet the purpose and need for this project. The No-Action Alternative and the Transportation Management Alternative (by itself) would not meet any of the needs. The One Bridge/Highway Alternative would not sufficiently meet all of the needs so as to constitute a feasible and prudent long-term solution to the region's cross-river mobility needs. With any of the One Bridge/Highway Alternatives, the total cross-river demand-to-capacity ratio would once again be near or above 100 percent by the year 2025, meaning that additional improvements would once again be necessary. The One Bridge/Highway Alternative would not sufficiently resolve the congestion on the Kennedy Bridge and Kennedy Interchange. The LOS on the Kennedy Bridge would remain at E for the One Bridge/Highway Alternative (Downtown), and would only improve to D for the One Bridge/Highway Alternative (East End). The One Bridge/Highway Alternative would also not solve the traffic safety problems in the Kennedy Interchange and on the Kennedy Bridge and approach roadways. The Kennedy Interchange and Kennedy Bridge have a history of high crash rates.

Traffic congestion is a contributor to those high crash rates, and the One Bridge/Highway Alternative would not reduce congestion sufficiently to resolve the traffic safety problems on those facilities. The One Bridge/Highway Alternative would not sufficiently meet all of the needs for this project and, therefore, is not a feasible and prudent alternative.

None of the Far East or Near East One Bridge/Highway Alternatives (A-2, A-9, A-13, **A-15**, A-16 or B-1) would sufficiently improve cross-river mobility, sufficiently reduce congestion or solve safety problems on the existing Kennedy Bridge and approach roads in the design year (2025). Consequently, none of the East End alternatives, by itself, would meet the purpose and need for the project and, therefore, would not be a feasible and prudent alternative. The inadequacies of the One Bridge/Highway Alternatives are discussed in more detail in Chapter 3.

Measures to Minimize Harm

The INDOT and KYTC shall make every reasonable effort to avoid displacement of the historic bridge pylons on the Indiana approach to the Clark Memorial Bridge (U.S. 31). In the event displacement of the bridge pylons cannot be avoided, the INDOT, in consultation with the FHWA and the Historic Preservation Advisory Teams, will develop and implement a Treatment Plan which will include measures designed to minimize damage to the original contributing elements to the structure, including the retaining walls and administration building. The Treatment Plan will include documentation on the original bridge pylons, retaining walls and other features within the Project limits at a level to be agreed upon by the entities noted above, and will include recommendations for historically appropriate lighting where it is necessary to replace the existing fixtures. The INDOT and KYTC will make every reasonable effort to relocate the pylons in a way that will ensure protection of the NRHP designation for the bridge.

Conclusion

Based on the above considerations, there is no feasible and prudent alternative to the use of land from the George Rogers Clark Memorial Bridge, and the proposed action includes all possible planning to minimize harm to the George Rogers Clark Memorial Bridge resulting from such use.

6.2.2 Parks, Refuges and Recreational Section 4(f) Properties

There are a number of significant publicly owned parks, recreational areas and wildlife refuges within the proposed project area that are subject to Section 4(f) regulations. Section 4(f) resources (parks, recreational areas and wildlife refuges) that would be used by one or more of the proposed alternatives are summarized in Table 6.2-2. A discussion of potential uses of Section 4(f) parks, preserves and recreational areas follows.

Parks, Refuges and Recreational Resources Impacted By Far East And Near East Alternatives:

Six Mile Island Nature Preserve (KE-PR-1)

Six Mile Island Nature Preserve is one of 34 nature preserves currently owned or managed by the Kentucky State Nature Preserves Commission (KSNPC). Dedicated state nature preserves are established to protect and preserve rare species and the natural environment. Dedicated in 1979, Six Mile Island Nature Preserve is 305.2 acres of undeveloped riverine island and buffer strip located in the Ohio River noted for its variety of water birds. Access is by boat from the Cox Boat Ramp on River Road. There are no facilities on the island. Activities include passive recreation with an emphasis on nature study and bird watching. The island was protected so that it would be allowed to return to its original natural state. With time, the island will allow researchers and citizens a unique opportunity to study the ecology of riverine island systems (KSNPC 1996). As part of the protected nature preserve, Six Mile Island functions as a refuge for a variety of waterfowl and other wildlife.

Photograph 1

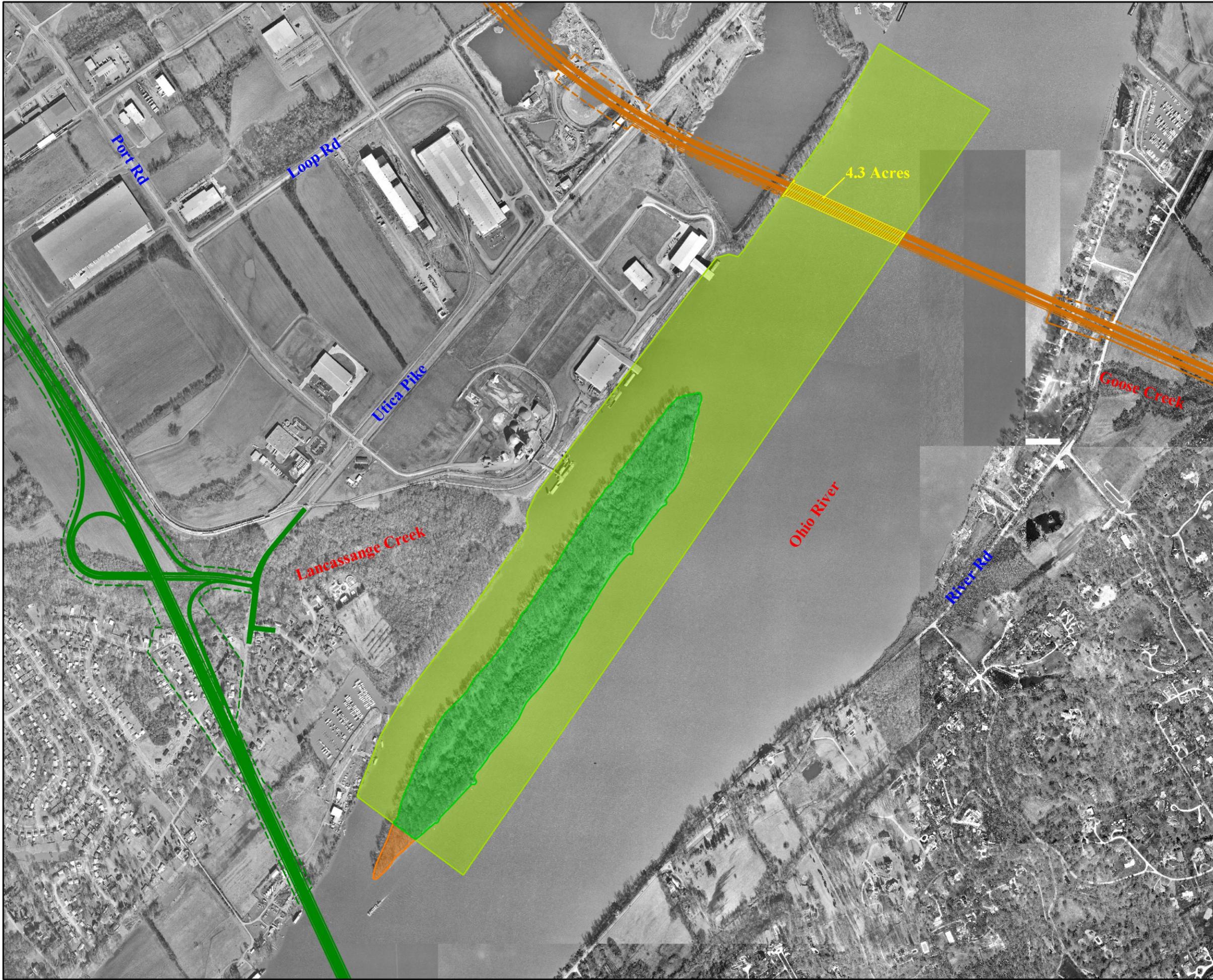
*View looking southwest
toward Six Mile Island
Nature Preserve.*



**TABLE 6.2-2
SECTION 4(f) RESOURCES
PARKS, REFUGES AND RECREATIONAL AREAS**

East End Alternatives	Resource Name	Alpha-Numeric Code	Resource Type	Ownership	Function or Available Activities	Access*	Approximate Number of Users/Visitors	Relationship with Similarly Used Lands	Unusual Characteristics	Resource Size (acres)	Amount of Use (acres)	
A-2	Indiana	None										
	Kentucky	None										
A-9	Indiana	None										
	Kentucky	Six Mile Island Nature Refuge	KE-PR-1	Refuge	State	Sanctuary for wildlife habitat and protect threatened species	B	No record of Data	None	Located within Ohio River	305.2	4.3
A-13	Indiana	None										
	Kentucky	None										
A-15	Indiana	None										
	Kentucky	None										
A-16	Indiana	None										
	Kentucky	None										
B-1	Indiana	None										
	Kentucky	None										
Downtown Alternatives	Resource Name	Alpha-Numeric Code	Resource Type	Ownership	Function or Available Activities	Access*	Approximate Number of Users/Visitors	Relationship with Similarly Used Lands	Unusual Characteristics	Resource Size (acres)	Amount of Use (acres)	
C-1	Indiana	Greenway Corridor	ID-PR-9	Park	(City)	Park	P, V, B	No record of Data	Contains Riverfront and Ashland Parks	None	107.3	0.031
	Kentucky	Waterfront Park	KD-PR-11/12	Park	City of Louisville	Park	P, V, B	1,275,250 in 2000	Adjacent to Waterfront Park Phase II	Located within Ohio River Floodplain	55.1	0.050
C-2	Indiana	Greenway Corridor	ID-PR-9	Park	(City)	Park	P, V, B	No record of Data	Contains Riverfront and Ashland Parks	None	170.3	0.031
C-3	Indiana	Greenway Corridor	ID-PR-9	Park	(City)	Park	P, V, B	No record of Data	Contains Riverfront and Ashland Park	None	170.3	0.031
	Kentucky	Waterfront Park	KD-PR-11/12	Park	City of Louisville	Park	P, V, B	1,275,250 in 2000	Adjacent to Waterfront Park Phase II	Located within Ohio River Floodplain	55.1	0.050
Kennedy Interchange	Resource Name	Alpha-Numeric Code	Resource Type	Ownership	Function or Available Activities	Access*	Approximate Number of Users/Visitors	Relationship with Similarly Used Lands	Unusual Characteristics	Resource Size (acres)	Amount of Use (acres)	
In-Place Reconstruction	Kentucky	Waterfront Park	KD-PR-11/12	Park	City of Louisville	Park	P, V, B	1,275,250 in 2000	Adjacent to Waterfront Park Phase II	Located within Ohio River Floodplain	55.1	1.217
	Kentucky	Extreme Sports Complex	KD-PR-13	Park	City of Louisville	Park	P, V	Proposed	None	Developed for extreme sports	2	0.117
Relocated Reconstruction	Kentucky	Waterfront Park	KD-PR-11/12	Park	City of Louisville	Park	P, V, B	1,275,250 in 2000	Adjacent to Waterfront Park Phase II	Located within Ohio River Floodplain	55.1	0.171
	Kentucky	Extreme Sports Complex	KD-PR-13	Park	City of Louisville	Park	P, V	Proposed	None	Developed for extreme sports	2	0.098

* P- pedestrian, V- vehicle, B- Boat



LEGEND

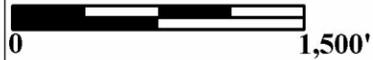
- Six Mile Island Nature Preserve
- Six Mile Island Nature Preserve Buffer Area
- Portion of Island Owned by the U.S. Government and Excluded from the Nature Preserve Limits
- Area of Direct Encroachment

ALIGNMENT	RIGHT-OF-WAY
 A9	 A9
 B1	 B1



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**SIX MILE ISLAND
NATURE PRESERVE**



0 1,500'

FIGURE 6.2-24

The Commonwealth of Kentucky owns most of Six Mile Island. The United States of America owns a portion of the island, approximately 0.37 acre at the southern tip. In addition to the island itself, the Six Mile Island Nature Preserve includes a buffer area that extends around the island and upstream of it approximately 4,350 feet. Six Mile Island Nature Preserve and its relationship to the East End alternatives are shown on Figure 6.2-24. There is no recorded data of public visitation to the refuge.

Impacts

Alternative A-9: This alternative crosses the buffer strip of Six Mile Island Nature Preserve upstream of the island. The alternative would span the buffer area on structure, using approximately 4.3 acres of the buffer area. Bridge support piers would likely be placed within the buffer area. The distance from the alternative to the island is approximately 2,300 feet. The bridge would be visible from the island and traffic noise from the bridge would be audible on the island. Traffic noise levels from Alternative A-9 are projected to be approximately 55 dBA at this property by the year 2025, which would be an increase of approximately 6 dBA over existing noise levels.

Avoidance Alternatives

Alternatives A-2, A-13, **A-15**, A-16 and B-1 would avoid any use of the Six Mile Island Nature Preserve and buffer area. An alignment shift of Alternative A-9 to the east that would avoid the refuge and buffer area would impact significant archaeological sites that are eligible for the NRHP and would have greater impacts to Shady Brook Farm of the Country Estates Historic District. Shifting Alternative A-9 to the west would have greater impacts to the Six Mile Island Nature Preserve. Other design alternatives such as a reduced facility, retaining walls, etc., also would not avoid the buffer area. Other avoidance alternatives to a Section 4(f) use of this refuge and buffer area would be the No-Action Alternative, the Transportation Management Alternative, and the One Bridge/Highway Alternative (Downtown).

Measures to Minimize Harm

The bridge would be designed to aesthetically compliment the existing landscape. Span length and the location of bridge support piers would be coordinated with agencies having jurisdiction over the refuge.

Coordination

The project has been coordinated with the KSNPC, which manages and has jurisdiction over the refuge. KSNPC is concerned with potential impacts to the refuge, such as traffic noise, and prefers an alternative as far away as possible to avoid and/or minimize impacts.

Conclusion

Alternative A-15, the eastern element of the Preferred Alternative, will avoid use of the Six Mile Island Nature Preserve.

Parks, Refuges and Recreational Resources Impacted By Downtown Alternatives:

Greenway Corridor (ID-PR-9) [Includes Riverfront Park (ID-PR-8) and Ashland Park (ID-PR-7)] – Indiana

Jeffersonville Redevelopment Department is currently proceeding with plans to improve the Riverfront Park in accordance with the recommendation of the recently adopted Conceptual Master Plan-Falls of the Ohio River Greenway Corridor, developed in cooperation with the Louisville District, USACE. This plan proposes a wide riverfront promenade reserved for non-vehicular use between Jeffersonville, Clarksville and New Albany.

The Greenway incorporated existing Riverfront Park and Ashland Park within its limits. Along the length of the promenade there will be head-in slips providing moorings for recreational yachts. Behind the promenade on the sloping bank, there will be three separate areas for public gatherings. An amphitheater is proposed at the foot of Spring Street. Two additional terraced seating areas are proposed to be cut into the bank at the foot of Pearl Street and into the bank between Clark Street and Mulberry Street. A variety of landscaping is planned along the sloping bank, with parking above Riverside Drive. The total size of the planned Greenway Corridor is 170.0 acres.

Riverfront Park presently encompasses the area along the Ohio River from Kennedy Bridge upstream to Watt Street, including the city docks. It is owned by the city of Jeffersonville and is jointly maintained by the Jeffersonville Parks and Recreation Department and the Jeffersonville Redevelopment Department. Downstream of the city dock area, the park is a passive recreation facility, composed of a steeply sloping bank that descends from Riverside Drive to a narrow terrace at the water's edge. The area is maintained in grass, with some large trees and ornamental plantings. There is a viewing deck and picnic area. Land and Water Conservation Fund (LWCF) monies have not been used at the Jeffersonville Riverfront Park. The total size of the Riverfront Park is 9.4 acres.

Ashland Park is situated along the Ohio River on Riverside Drive in Clarksville. With an overlook of the Ohio River and the Louisville skyline, this park is an ideal place for family-oriented activities. Facilities at the park include playground equipment, a shelter house and restrooms; the park is also a gateway to the Falls of the Ohio Interpretive Center. The total size of Ashland Park is 13.3 acres, and it is owned by the city of Clarksville. No known LWCF monies have been used for Ashland Park.

These parks and their relationship to the downtown alternatives are shown on Figure 6.2-25. In addition to their relationship to each other, these parks also have similarities to Waterfront Park on the Kentucky riverbank of the Ohio River. Vehicles, boats and pedestrians can access these parks. There is no recorded data of public visitation to these three resources. There are no other unusual characteristics or features associated with these parks.



(1)



(2)



(3)

Photographs 1-3 (from top to bottom and left to right): 1) View looking east along the proposed Greenway Corridor from the Clark Memorial Bridge. 2) Looking west along Riverfront Park (within the proposed Greenway Corridor) from the Big Four Railroad Bridge. 3) View looking northwest along the proposed Greenway Corridor from the Clark Memorial Bridge toward Ashland Park.

Impacts

Alternative C-1: This alternative would span over approximately 0.4 acre of Riverfront Park, which is included within the Greenway Corridor. Preliminary layouts indicate that bridge support piers and footings would use approximately 0.031 acres of park property. No park facilities or functions would be directly impacted. Visual impacts would be minor, since an elevated freeway already crosses the park adjacent to this alternative.

Traffic noise levels from **Alternative C-1** are projected to be approximately 73 dBA at this property by the year 2025, which would be an increase of approximately 8 dBA over existing noise levels.

Alternative C-2: This alternative would span over approximately 1.1 acres of the Greenway Corridor, with approximately 0.9 acre of that being within Ashland Park. Preliminary layouts indicate that bridge support piers and footings would use approximately 0.031 acres of park property. No park facilities or functions would be directly impacted.