BRENT SPENCE BRIDGE CORRIDOR PROJECT

SOCIOECONOMIC TECHNICAL REPORT

KYTC PROJECT ITEM NO. 6-17 | ODOT PID 89068
JANUARY 11, 2024

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1. INTRODUCTION

The purpose of this report is to evaluate the effects the Brent Spence Bridge (BSB) Corridor Project will have on older adults, individuals with limited English proficiency (LEP), adults with disabilities, zero-car households, and disadvantaged communities.[1] This report also documents avoidance, minimization, mitigation, and enhancement measures incorporated into the project.

1.1 Project Description

The BSB corridor consists of 7.8 miles of I-71 and I-75 connecting southwest Ohio and northern Kentucky. The corridor is located within the Greater Cincinnati/Northern Kentucky region and is a major route for regional and local mobility. Regionally, the BSB carries both I-71 and I-75 traffic over the Ohio River and connects to I-74, I-275, and US-50. The BSB corridor also facilitates local travel by providing access to downtown Cincinnati in Hamilton County, Ohio and Covington in Kenton County, Kentucky. The corridor forms a critical part of a major freight route connecting Canada to Florida, carrying more than $1 billion of freight every day and more than $400 billion of freight every year. Traffic congestion continues to hamper freight movement throughout the BSB corridor as evidenced by its ranking at 15 on the American Transportation Research Institute's list of the nation's top truck bottlenecks for the year 2023.

The project's primary features are illustrated in Figure 1. The project will:

- Reconstruct I-71/I-75 and add one lane in each direction;
- Rebuild the overpass bridges and interchanges in the corridor and add a new exit at Ezzard Charles Drive in Ohio;
- Construct a collector-distributor (C-D) roadway system between West 12th Street in Kentucky and Ezzard Charles Drive in Ohio;
- Extend frontage roads connecting Pike Street to West 4th Street and West 5th Street in Kentucky;
- Add C-D lanes between Dixie Highway (US-25) and Kyles Lane (KY-1072) in Kentucky;
- Rehabilitate and reconfigure the existing double-decker BSB to carry three lanes of local traffic on each deck as part of the C-D roadway system; and
- Build a new double-decker companion bridge west of the existing BSB to carry five lanes of through (interstate) traffic on each deck.

The project will also add sidewalks and shared-use paths on local streets that cross the interstate and incorporate aesthetic treatments throughout the corridor.

The project will be delivered in three, nonsequential phases, as shown in Figure 2. Phases I and II are following a traditional design-bid-build procurement process, and Phase III is following a progressive design-build procurement process.

[1] Effects on minority and low-income populations were analyzed separately and are documented in the *Environmental Justice Analysis Report (December 2023)*.

Figure 1: BSB Corridor Project Overview

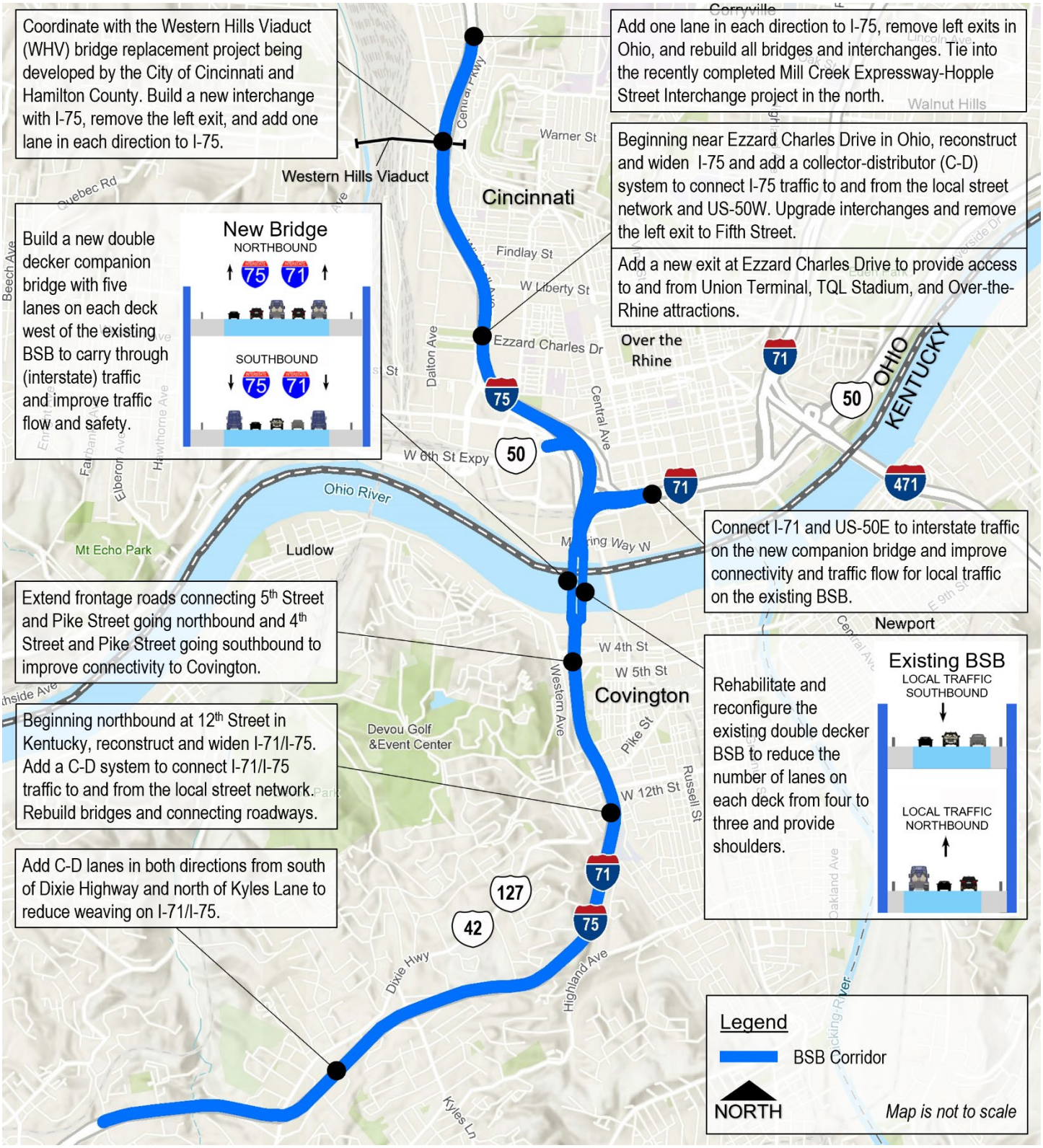
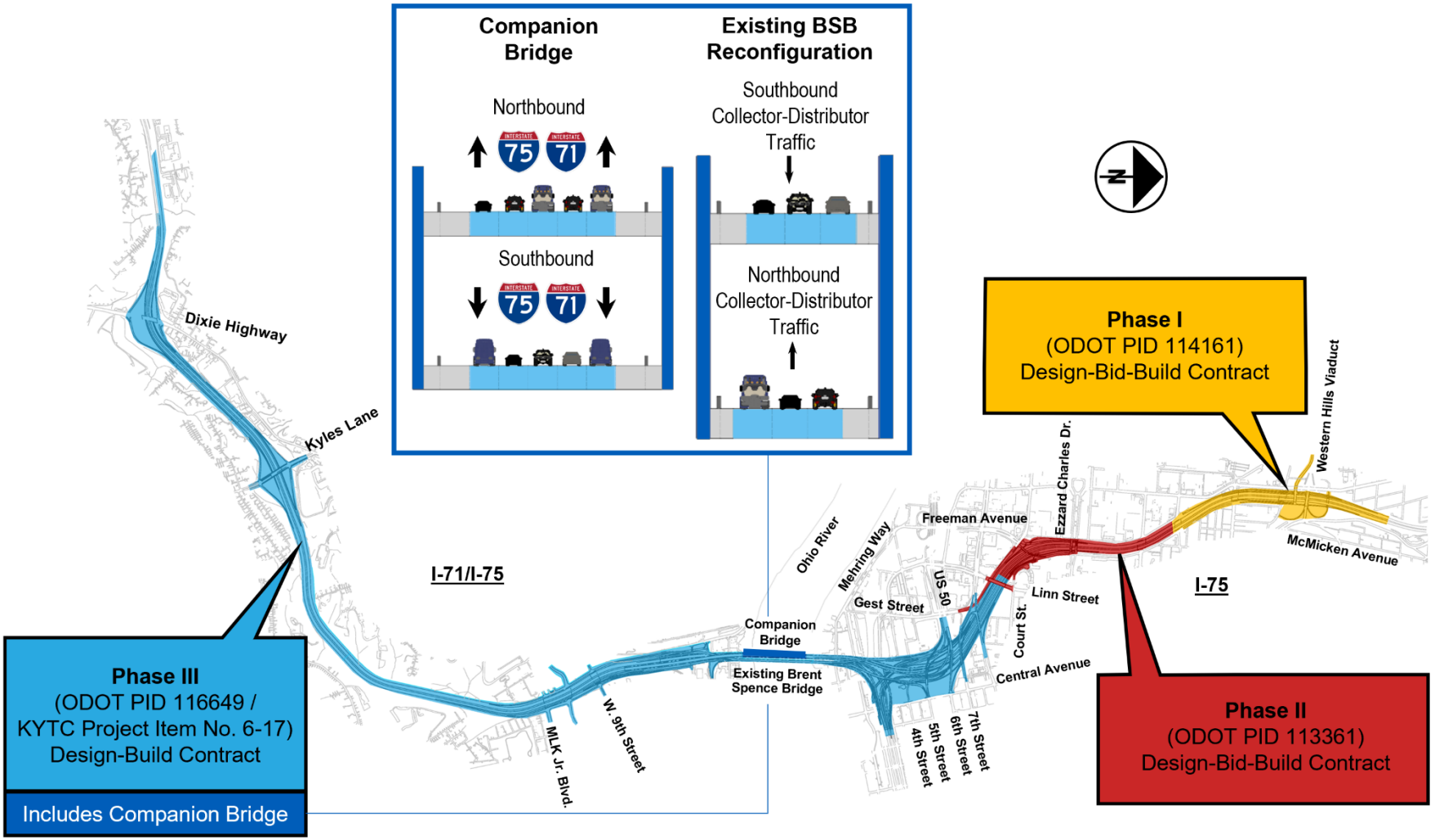


Figure 2: Brent Spence Bridge Corridor Project Phases



1.2 Project History

On October 14, 2004, The Kentucky Transportation Cabinet (KYTC) and the Ohio Department of Transportation (ODOT) recognized the need to improve the BSB corridor and formally entered into an agreement to jointly develop and deliver a project to replace the existing BSB. That agreement has been updated and modified five times from 2004 to present, including a supplement dated December 12, 2012 that established a Bi-State Management Team to focus on procurement, financing, and project communications.

KYTC and ODOT developed a range of alternatives for improving the BSB corridor. Through a series of preliminary engineering and planning studies coupled with public outreach and stakeholder involvement, KYTC and ODOT narrowed the range of alternatives to two feasible alternatives, which were evaluated in an Environmental Assessment (EA). In August 2012, the Federal Highway Administration (FHWA) issued a Finding of No Significant Impact (FONSI) identifying Alternative I as the selected alternative for the BSB Corridor Project. Reevaluations of the EA/FONSI subsequently completed in 2015 and 2018 concluded that the 2012 FONSI remained valid.

Since 2012, KYTC and ODOT have conducted a Value Engineering Workshop (October 2012), a Performance-Based Design Workshop (December 2019), and other studies and activities to identify and evaluate measures to improve the design and constructability and to reduce the cost of the project. Further improvements and cost saving measures were identified as Phases I and II of the project progressed through detailed design development (see Figure 2). These combined efforts culminated in a set of refinements to Selected Alternative I (from the 2012 EA/FONSI), which have been designated Refined Alternative I (Concept I-W), referred to hereinafter as Concept I-W.

KYTC and ODOT are preparing a supplemental EA for Concept I-W to assess revised regulatory requirements, changed site conditions, design refinements, impact changes, further environmental commitments (enhancements and mitigation), and additional NEPA reevaluation and coordination efforts that have occurred since the 2012 EA/FONSI. This report is one component of those efforts.

1.3 Previous Socioeconomic Evaluation

The 2012 EA/FONSI included a brief qualitative discussion about effects on older adults, persons with disabilities, and zero-car households, and concluded that Selected Alternative I was not expected to result in changes to access or mobility for these populations or groups.

1.4 Purpose and Need

The purpose and need for the project is to:

- Improve traffic flow and level of service;
- Improve safety;
- Correct geometric deficiencies; and
- Maintain connections to key regional and national transportation corridors.

2. METHODOLOGY

The following sections discuss the methodology for evaluating impacts and benefits to various socioeconomic groups and disadvantaged communities.

2.1 Study Area

For consistency across analyses, the study area for the socioeconomic analysis is the same study area that was used for the project's environmental justice analysis, which was developed as part of a separate effort and documented in the *Environmental Justice Analysis Report (January 2024)*. Maps showing the socioeconomic study area are provided in Appendix A. The socioeconomic study area encompasses and is larger than the project study area for the supplemental EA, which allows for a conservative approach that captures the fullest range of potential effects on various socioeconomic groups and disadvantaged communities.

2.2 Methodology Overview

This socioeconomic analysis was performed according to the following steps:

1. Identify populations of specific socioeconomic groups and disadvantaged communities in the study area (see Section 3).
2. Create and carry out a targeted neighborhood outreach plan (see Section 4).
3. Analyze the effects on socioeconomic groups and disadvantaged communities and determine impacts and benefits (see Section 5).
4. Evaluate avoidance, minimization, mitigation, and enhancement measures (see Section 6).
5. Document findings (see Section 7).

2.3 Socioeconomic Groups

The following statutes and guidance documents form the framework for the socioeconomic analysis methodology:

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.
- Age Discrimination Act of 1975.
- Americans with Disabilities Act of 1990.
- Presidential Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (August 11, 2000).
- U.S. Department of Transportation Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons (December 12, 2005).

- ODOT Public Involvement Manual for NEPA and the PDP (January 6, 2020).
- KYTC Public Involvement Process for Statewide Transportation Planning and Project Delivery (2020).
- Ohio-Kentucky-Indiana (OKI) Regional Council of Governments Participation Plan (February 2022).

The socioeconomic analysis has been conducted in accordance with applicable federal and state guidelines. Where differences in methodology occur, the most conservative and inclusive approach has been followed. The communities considered in this report include:

- Older adults (over age 64);
- Individuals with LEP[1];
- Adults with disabilities[2]; and
- Zero-car households.

The demographic makeup of the socioeconomic study area was identified using 5-year American Community Survey (ACS) estimates for 2016-2020. This data was the most current available at the time of the analysis and provides the overall percentage of older adults, individuals with LEP, adults with disabilities, and zero-car households in each census block group. The overall percentage of identified socioeconomic groups was also calculated for the socioeconomic study area and the cities, counties, and states that intersect the socioeconomic study area.

Consistent with the analysis methodology applied in the *Environmental Justice Analysis Report*, socioeconomic population groups within the study area were identified using a meaningfully greater analysis, which identifies areas where the percentage of older adults, individuals with LEP, adults with disabilities, or zero-car households is meaningfully greater than the same population group within an established reference community. Several reference communities were evaluated, including OKI's tri-state region; Hamilton and Kenton counties; the combined cities of Fort Mitchell, Fort Wright, Park Hills, Covington, and Cincinnati; and the socioeconomic study area. While there are slight variations in the results depending on the specific reference community, none of those variations is substantial enough to affect the overall conclusions of the socioeconomic analysis. The socioeconomic study area yields results that are consistent with the other reference communities examined, accurately reflects the existence of the socioeconomic populations evaluated in this report, and is sufficiently large to provide context for the impact analysis. Therefore, the socioeconomic study area was chosen as the reference community for the meaningfully greater analysis.

Demographics were analyzed at the block group level, as defined by the U.S. Census Bureau 2020 decennial census geographic boundaries. The meaningfully greater threshold for identifying populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households was any block group that contained a higher percentage of a specific socioeconomic group than the overall study area.

[1] Limited English proficiency is defined as speaking English "not well" or "not at all," according to the U.S. Census Bureau.
[2] U.S. census disability data is only available for persons age 18 and over.

2.4 Disadvantaged Communities

Presidential Executive Order 14008: Tackling the Climate Crisis at Home and Abroad (January 27, 2021) established the Justice40 (J40) initiative, supporting a comprehensive approach to advancing equity. In November 2022, the Council on Environmental Quality (CEQ) released the Climate and Economic Justice Screening Tool (CEJST)[1] to aid in the identification of disadvantaged communities. The tool uses datasets that are indicators of burdens in eight categories:

- Climate Change: Communities in census tracts that are at or above the 90th percentile for expected agriculture loss rate or expected building loss rate or expected population loss rate or projected flood risk or projected wildfire risk.
- Energy: Communities in census tracts that are at or above the 90th percentile for energy cost or particulate matter (PM2.5) in the air.
- Health: Communities in census tracts that are at or above the 90th percentile for asthma or diabetes or heart disease or low life expectancy.
- Housing: Communities in census tracts that experienced historic underinvestment or are at or above the 90th percentile for housing cost or lack of green space or lack of indoor plumbing or lead paint.
- Legacy Pollution: Communities in census tracts that have at least one abandoned mine land or formerly used defense sites, or are at or above the 90th percentile for proximity to hazardous waste facilities or proximity to Superfund sites (National Priorities List (NPL)) or proximity to Risk Management Plan (RMP) facilities.
- Transportation: Communities in census tracts that are at or above the 90th percentile for diesel particulate matter exposure or transportation barriers, or traffic proximity and volume.
- Water and Wastewater: Communities that are in census tracts that are at or above the 90th percentile for underground storage tanks and releases or wastewater discharge.
- Workforce Development: Communities that are in census tracts that are at or above the 90th percentile for linguistic isolation or low median income or poverty or unemployment.

A community is designated as disadvantaged by the CEJST if it is in a census tract that is (1) at or above the threshold for one or more categories of burden, and (2) at or above the threshold for an associated socioeconomic burden (such as low-income or education level). In addition, a census tract that is completely surrounded by disadvantaged communities and is at or above the 50th percentile for low income is also considered disadvantaged by the CEJST.[2] This socioeconomic report uses the CEJST to identify the locations of disadvantaged populations in the socioeconomic study area and evaluates impacts on and benefits to disadvantaged communities, with an emphasis on the categories of burden identified above.

[1] https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5
[2] https://screeningtool.geoplatform.gov/en/methodology

Because the socioeconomic study area boundary is based on census block groups, which are smaller geographic units than census tracts, a slightly larger area was considered for the disadvantaged community analysis; however, the entirety of the socioeconomic study area was covered by this analysis.

3. POPULATION CHARACTERISTICS

The following sections describe population characteristics for the socioeconomic groups and disadvantaged communities analyzed in this report. Mapping showing the locations of these populations is provided in Appendix A. Detailed breakdowns of socioeconomic groups by census block group are provided in Appendix B. The base data used by the CEJST to identify disadvantaged populations is provided in Appendix C.

3.1 Older Adults (Over Age 64)

According to U.S. census data, adults over age 64 make up 11.7 percent of the population of the socioeconomic study area. Table 1 compares the population of older adults in the socioeconomic study area to the states, counties, and cities in which it is situated. In Kentucky, 25 of 47 block groups have older adult populations, compared to 7 of 29 block groups in Ohio. A map of older adult populations is included in Appendix A.

Table 1: Population Characteristics – Older Adults

		Older Adults (Over Age 64)	
Geography	Total Population	Population	Percentage
State of Kentucky	4,461,952	729,928	16.36%
State of Ohio	11,675,275	1,990,621	17.05%
Campbell County, KY	93,608	14,811	15.82%
Kenton County, KY	166,552	23,915	14.36%
Hamilton County, OH	815,790	125,679	15.41%
Covington, KY	40,466	5,258	12.99%
Fort Mitchell, KY	8,278	1,132	13.67%
Fort Wright, KY	5,766	1,015	17.60%
Park Hills, KY	2,993	444	14.83%
Cincinnati, OH	302,687	37,738	12.47%
Socioeconomic study area	71,496	8,333	11.66%

3.2 Limited English Proficiency

According to U.S. census data, 1.3 percent of the population of the socioeconomic study area has limited English proficiency (LEP). Table 2 compares individuals with LEP in the socioeconomic study area to the states, counties, and cities in which it is situated. Of the 17 block groups that exceed the socioeconomic study area average, 14 are located in Kentucky, and 3 are in Ohio. There are 7 block groups with an LEP population greater than 5 percent, with 3 of those having an LEP population greater than 10 percent; the highest proportion of LEP individuals in a block group is 16.9 percent. Of these 7 block groups, 86 percent of the LEP population speak Spanish, 7.9 percent speak an Asian or Pacific Island (API) language, and 5.7 percent speak a non-Indo European, non-API language. Spanish speakers are present in 6 of the 7 block groups with an LEP population greater than 5 percent, while API and other language speakers are each located entirely within 1 block group.[1] A map of populations of individuals with LEP is provided in Appendix A.

Table 2: Population Characteristics – Limited English Proficiency

Geography	Total Population (Age 5 and Over)	Limited English Proficiency (Age 5 and Over)	
		Population	Percentage
State of Kentucky	4,188,377	42,989	1.03%
State of Ohio	10,982,292	115,238	1.05%
Campbell County, KY	88,253	330	0.37%
Kenton County, KY	155,589	1,772	1.14%
Hamilton County, OH	762,550	9,877	1.30%
Covington, KY	37,488	792	2.11%
Fort Mitchell, KY	7,675	33	0.43%
Fort Wright, KY	5,559	16	0.29%
Park Hills, KY	2,817	0	0.00%
Cincinnati, OH	281,075	4,327	1.54%
Socioeconomic study area	66,332	874	1.32%

3.3 Adults with Disabilities

According to U.S. census data, adults with disabilities make up 16.5 percent of the population of the socioeconomic study area. Table 3 compares adults with disabilities in the socioeconomic study area to the states, counties, and cities in which it is situated. In Kentucky, 28 of 47 block groups have populations of adults with disabilities, compared to 10 of 29 block groups in Ohio. A map of populations of adults with disabilities is included in Appendix A.

[1] This census block group is located in Covington, about 1.25 miles south of the Ohio River and 0.5 miles east of the BSB corridor (see Map ID 49 on mapping included in Appendix A).

Table 3: Population Characteristics – Adults with Disabilities

Geography	Total Population (18 Years and Older)	Adults with Disabilities (18 Years and Older)	
		Population	Percentage
State of Kentucky	3,330,918	705,961	21.19%
State of Ohio	8,796,379	1,475,726	16.78%
Campbell County, KY	70,987	10,882	15.33%
Kenton County, KY	125,252	20,293	16.20%
Hamilton County, OH	613,316	87,095	14.20%
Covington, KY	30,798	5,901	19.16%
Fort Mitchell, KY	6,052	980	16.19%
Fort Wright, KY	4,513	674	14.93%
Park Hills, KY	2,358	330	13.99%
Cincinnati, OH	226,754	34,852	15.37%
Socioeconomic study area	54,777	9,038	16.50%

3.4 Zero-Car Households

According to U.S. census data, 22.7 percent of the households in the socioeconomic study area do not have reliable access to a vehicle. Table 4 compares zero-car households in the socioeconomic study area to the states, counties, and cities in which it is situated. In Kentucky, 17 of 47 block groups have populations of zero-car households, compared to 16 of 29 block groups in Ohio. A map of populations of zero-car households is included in Appendix A.

Table 4: Population Characteristics – Zero-Car Households

Geography	Total Occupied Households	No Access to Vehicles	
		Households	Percentage
State of Kentucky	1,748,053	122,132	6.99%
State of Ohio	4,717,226	365,855	7.76%
Campbell County, KY	37,197	2,718	7.31%
Kenton County, KY	64,544	4,723	7.32%
Hamilton County, OH	344,588	37,864	10.99%
Covington, KY	17,397	3,204	18.42%
Fort Mitchell, KY	3,331	157	4.71%
Fort Wright, KY	2,333	35	1.50%
Park Hills, KY	1,277	44	3.45%
Cincinnati, OH	138,696	26,387	19.03%
Socioeconomic study area	32,557	7,387	22.69%

3.5 Disadvantaged Communities

Of the 36 census tracts that intersect the socioeconomic study area, 21 are categorized as disadvantaged communities in at least one category of burden. Every category is represented in the socioeconomic study area, including housing, health, transportation, workforce development, legacy pollution, energy, water and wastewater, and climate change. Table 5 summarizes the disadvantaged census tracts in Kentucky and Ohio. A map of disadvantaged communities in the socioeconomic study area is included in Appendix A.

Table 5: Disadvantaged Census Tracts by Category of Burden

	Number of Census Tracts		
Category of Burden	**Kentucky**	**Ohio**	**Total**
Housing	10	8	18
Health	9	8	17
Transportation	7	9	16
Workforce Development	7	8	15
Legacy Pollution	4	9	13
Energy	3	3	6
Water and Wastewater	1	2	3
Climate Change	0	2	2

4. TARGETED NEIGHBORHOOD OUTREACH SUMMARY

The following sections summarize the outreach efforts conducted by KYTC and ODOT to engage populations at the neighborhood level. Mapping showing neighborhoods in the socioeconomic study area is included in Appendix D. A brief summary of the targeted neighborhood outreach is included in Appendix E. Further details about all public involvement activities for the project, including detailed summaries of the targeted neighborhood outreach meetings and responses to all comments received, are provided in the *Public Involvement Summary (January 2024)*.

4.1 Neighborhood Outreach Strategy

The targeted neighborhood engagement strategy consisted of the following:

- Phone interviews were conducted with the neighborhood associations and community councils in areas where the communities analyzed in this report were identified (see Section 3) to determine contact information, constituencies/membership, advertising strategies, meeting schedules, and potential meeting locations that are accessible for persons with disabilities and those who are transit dependent. If a neighborhood did not have an organized council, KYTC and ODOT coordinated with the city where the neighborhood was located and members of the Project Advisory Committee to determine the best ways to reach that neighborhood.

- KYTC and ODOT coordinated with impacted neighborhoods[1] to attend regularly scheduled neighborhood meetings and present the most up-to-date project information and to dialogue about the specific needs of each neighborhood. The Lewisburg and Botany Hills neighborhoods, which border each other, do not have organized neighborhood associations. As a result, meetings in these neighborhoods were combined and scheduled at a venue in Botany Hills that was accessible by transit and by persons with disabilities. Similarly, the Queensgate neighborhood does not have an organized community council; however, this area consists primarily of commercial and industrial facilities with minimal residential land use. The project team determined that the scattered residential areas would have opportunities to attend meetings in adjacent neighborhoods. As a result, a meeting was not scheduled in Queensgate. Finally, the cities of Fort Mitchell, Fort Wright, and Park Hills operate as independent cities without smaller, defined neighborhoods; therefore, the project team attended and presented at meetings organized through city officials.
- KYTC and ODOT advertised the outreach meetings via communication methods each neighborhood group already had in place. Depending on the neighborhood, advertisement methods included neighborhood web sites, Facebook pages, announcements at neighborhood meetings, email notifications, and printed flyers. In the Lewisburg and Botany Hills neighborhoods, the project team emailed meeting flyers to known community contacts and distributed printed flyers at community facilities and businesses in both neighborhoods. Responding to feedback received during the initial neighborhood outreach, the December meetings were also advertised in the project's e-newsletter.
- KYTC and ODOT held one daytime and one evening broad-scale neighborhood outreach meeting in each state to engage neighborhoods within the socioeconomic study area that will not be directly impacted by the project. These meetings were promoted via fliers emailed to neighborhood associations and community councils, the project website, the project's December e-newsletter, ODOT District 8's events page, Facebook, X (formerly Twitter), Nextdoor.com, an article in the Northern Kentucky Tribune, and local radio and TV media. Information was also provided to a Cincinnati City Council member, and the City of Cincinnati shared information regarding these meetings on their social media platforms.
- KYTC and ODOT developed a "PublicInput.com" website specific to neighborhoods in the socioeconomic study area that was available for the duration of the neighborhood outreach effort. The site was made available when the first neighborhood outreach meeting was held, and the comment period ended 16 days after the final meeting. Information about the availability of project materials and the opportunity to comment online through PublicInput.com was available at every outreach meeting and was distributed to each neighborhood group.
- Advertising materials included information in Spanish offering translation and interpretation services. In addition, information about the meeting was printed in Spanish and distributed in the Lewisburg and

[1] For the purposes of neighborhood outreach, impacted neighborhoods targeted for the small-scale meetings were defined as those directly adjacent to the construction limits, as no permanent adverse impacts to traffic, noise, air quality, access, or mobility are anticipated beyond the immediate project area.

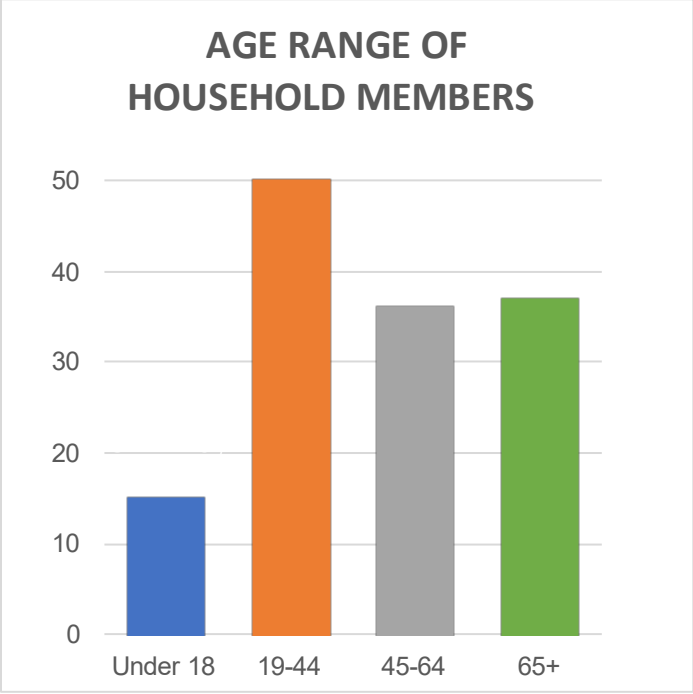
Botany Hills neighborhoods based on feedback from a Project Advisory Committee member. Comment forms were also available in both Spanish and English. Finally, the PublicInput.com site provided a "translate" button on the home screen to automatically translate the website text into Spanish and several other languages.

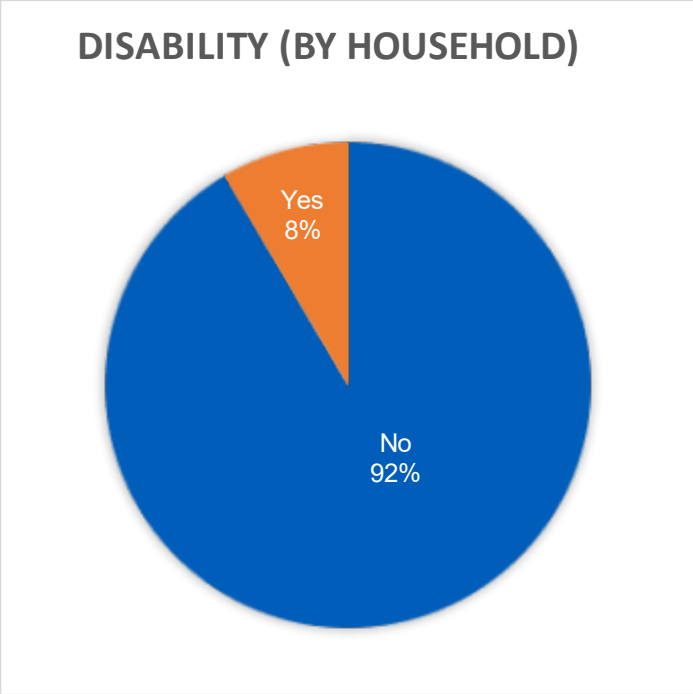
4.2 Neighborhood Outreach Results

Between November 15, 2022 and December 20, 2022, KYTC and ODOT hosted 16 neighborhood outreach meetings (12 small-scale meetings in individual neighborhoods and 4 broad-scale meetings). A total of 418 people signed in at the meetings, excluding the project team. Comments were accepted on the PublicInput.com site between November 15, 2022 and January 5, 2023. It was viewed 2,559 times, with 218 individuals choosing to engage by submitting comments or responding to polling questions.

Demographic questionnaires were available at all in-person neighborhood meetings, and polling questions on the PublicInput.com site sought demographic data of participants. A total of 111 individuals provided demographic information, although not every individual answered every question. Of the individuals who provided demographic information, 35 percent were from households with one or more older adult, and 8 percent were from households with one or more persons with a disability (regardless of age), see Figure 3. All participants in the neighborhood outreach indicated English as their primary language, and no requests for translation services were received. Only one response was received regarding the individual's primary mode of transportation, and that response indicated a personal automobile.

Figure 3: Neighborhood Outreach – Socioeconomic Results





4.3 Neighborhood Outreach Comments

The small-scale neighborhood meetings followed an informal format, with a KYTC or ODOT representative walking through a presentation while encouraging those present to ask questions and give feedback throughout. Some small-scale meetings were not conducive to this format due to the large number of people present. In these cases, as well as for the broad-scale neighborhood meetings, the project team made a formal presentation, and attendees were encouraged to review exhibits, ask questions, and offer feedback one-on-one before and after the presentation. During the meetings, questions were posed to the project team and answered in real time. These questions most commonly centered around:

- How traffic will flow through the corridor, including how and when local traffic will enter and exit the C-D roadway system.
- Drainage and flooding issues in the Goebel Park Complex and Peaselburg in Kentucky.
- Noise analysis methodology.
- The timeframe for the project, including sequence of construction.
- Property impacts and right-of-way acquisition.
- Project costs and funding.

Concerns expressed during the meetings, on written comment forms, and on PublicInput.com generally included:

- The desire for noise barriers, specifically in the West End neighborhood in Ohio, the Mainstrasse neighborhood in Kentucky, and southwest of Dixie Highway in Fort Mitchell, Kentucky.
- Volume of truck traffic and associated traffic congestion and noise (particularly the use of engine brakes).
- Traffic impacts during construction.
- Increased traffic and associated noise and air quality concerns.
- Multimodal accommodations, including connections on local streets that cross I-71/I-75.
- Improving connections across I-75 in Ohio.
- Reducing the project footprint.
- Creating additional developable land.
- Lowering (trenching) and/or constructing freeway caps on I-75 in Ohio.
- Adding fixed transit (such as light rail) to the project.

No additional small pockets of older adults, individuals with LEP, adults with disabilities, or zero-car households were identified during the targeted neighborhood outreach activities. To the extent the project team was able to ascertain, questions, comments, and feedback were consistent across all socioeconomic groups.

The project team did not identify any concerns unique to populations of older adults, individuals with LEP, adults with disabilities, or zero-car households. Likewise, unanticipated additional community impacts were not identified during the neighborhood outreach.

Comments offered during the neighborhood outreach may be related to categories of burden for disadvantaged communities as follows:

- Energy – Comments about air quality concerns associated with increased traffic.
- Transportation – Comments about the desire for additional transit, multimodal accommodations, and improved connections across I-75 to reduce transportation barriers.
- Water and wastewater – Comments about flooding in the Peaselburg neighborhood and the Goebel Park Complex.
- Workforce development – Comments about the desire to create additional developable land, which could increase employment opportunities.

4.4 Neighborhood Outreach Outcomes

Community members generally supported the refinements, mitigation, and enhancements incorporated into Concept I-W, including the reduction of the project footprint, additional developable land, additional noise/visual screening barriers[1], measures to reduce flooding and combined sewer overflows, new and improved multimodal facilities, and aesthetic features. During the neighborhood outreach comment period, community members offered additional feedback and suggestions. Every comment was evaluated by the project team, and individual responses were prepared and published on the project website. The individual responses to all comments received during the neighborhood outreach are provided in the project's *Public Involvement Summary.* In addition to the enhancements listed above, which were already included in the project at the time of the neighborhood outreach meetings, KYTC and ODOT have incorporated several refinements into Concept I-W in direct response to the additional comments and feedback that was gathered, including:

- KYTC will implement measures to improve safety for pedestrians and school-age children who cross the northbound entrance ramp from Dixie Highway to I-71/I-75. Measures will include reducing the length of the crosswalk, installing warning signs, and enhancing the pavement markings to better define the crosswalk for pedestrians and vehicles.
- KYTC is proposing a noise/visual screening barrier in the vicinity of Maple Avenue, south and west of Dixie Highway in Fort Mitchell.
- KYTC is proposing a noise/visual screening barrier in Mainstrasse, including in the vicinity of the Goebel Park Complex.

[1] Noise barriers have been determined to be reasonable and feasible per 23 CFR part 772 and the applicable state noise policy and are proposed mitigation for noise impacts. Noise/visual screening barriers do not meet one or more of the reasonability criteria but are proposed enhancements to provide noise reduction above and beyond the requirements of 23 CFR part 772 and the applicable state noise policy.

- During final design, KYTC has committed to coordinating with the City of Covington to evaluate the use of transparent noise barriers in some locations to preserve views of the Goebel Park Complex from the highway and to preserve views of the skyline and across I-71/I-75 from surrounding neighborhoods.
- ODOT has committed to work with the City of Cincinnati to conduct before/after surveys of roadways impacted by increased traffic during construction. ODOT will restore roadways to pre-construction conditions once the project is complete.
- During final design, KYTC and ODOT will evaluate reconfiguring the lanes on the Clay Wade Bailey Bridge to add bicycle lanes.

4.5 Open-House Project Update Meetings

In August 2023, KYTC and ODOT held two project update meetings to provide information about the project's status, including Concept I-W, anticipated impacts, proposed mitigation and enhancement measures, and the progressive design-build process. The meetings were targeted toward a broad public audience that included all socioeconomic populations and groups. The meetings were advertised via the project website, press releases, distribution of an advertisement flyer to the Project Advisory Committee and the project Diversity & Inclusion Outreach Committee, a notification via the project mailing list, posts on the project social media pages, Facebook events, and coverage in local print and television media. The meetings were hosted in neighborhoods immediately adjacent to the project corridor, offered free parking, and were accessible to persons with disabilities and via local transit routes. Similar to the targeted EJ outreach meetings, Spanish translation and interpretation services were offered upon request, and Spanish comment forms were available at the meetings. No requests for Spanish translation services or Spanish comment forms were received.

The project update meetings followed an open-house format. Attendees were invited to view a pre-recorded presentation and to browse exhibits providing details about the project. Members of the project team were present to answer questions and respond to feedback throughout the meetings, and comments were accepted via written comment forms returned at the meetings, the project website, email, phone, and direct mail.

Concerns expressed during the meetings and in submitted comments generally included:

- Construction schedule and opportunities to work on the project.
- Property and right-of-way impacts.
- Future traffic volumes and traffic operations.
- Traffic impacts during construction.
- Multimodal accommodations, including fixed transit (such as light rail).
- Improving local street connections across I-75 in Ohio.
- Reducing the project footprint.
- Creating additional developable land.
- Support for concepts developed by a local group called Bridge Forward.

The comments did not express any concerns unique to populations of older adults, individuals with LEP, adults with disabilities, or zero-car households. Likewise, unanticipated additional community impacts were not identified during the project update meetings. In response to comments received during the public outreach and in coordination with the City of Cincinnati, ODOT has committed to building a wider bridge on Ezzard Charles Drive over I-75 to provide an additional 50 feet of green space on each side that could support potential future civic space or retail development by the City. The individual responses to all comments received during the project update meetings are provided in the project's *Public Involvement Summary.* A summary of all comments received and a response to each was posted to the project website, and the public was notified of the availability of the comment and response summary in the project's October e-newsletter.

4.6 Future Neighborhood Outreach

Community members will have the opportunity to review the supplemental EA and other project information and provide comments to KYTC and ODOT for 30 days after it is made publicly available. During that time, in-person public hearings will be scheduled in Kentucky and Ohio. In addition, there will be a virtual public hearing. The public availability of the supplemental EA and the public hearings will be advertised through direct mailings, social media, press releases, print media, the project website, the project e-newsletter, and advertisements disseminated to the same neighborhoods that were engaged during the targeted neighborhood outreach. Direct mailings and flyers advertising the public hearings will include information in Spanish offering translation and interpretation services upon request. Comment forms will be available in both English and Spanish.

The public hearings will provide opportunities for community members to review exhibits and other project information, including mitigation and enhancement measures incorporated into Concept I-W. In addition, members of the project team will be available to answer questions. Verbal and written comments will be accepted at the hearing, as well. The comment period for the supplemental EA will last for 15 days after the public hearings.

KYTC and ODOT are committed to a robust public and stakeholder involvement process during the design and construction of the project. To facilitate public involvement and outreach, the project *Public Engagement Plan* will be updated to guide public and stakeholder engagement (including identified socioeconomic populations and groups and disadvantaged communities) during detailed design and construction.

5. IMPACTS AND BENEFITS

The following sections analyze the effects on older adults, individuals with LEP, adults with disabilities, zero-car households, and disadvantaged communities and determine impacts and benefits resulting from Concept I-W. A guide providing cross references between neighborhoods and cities adjacent to the project corridor, impacted public recreational properties, impacted historic properties, identified socioeconomic populations and groups, disadvantaged communities, and noise sensitive areas is included in Appendix G.

5.1 Relocations

Concept I-W will require 4 residential, 1 partial commercial, and 24 full (including 14 tenants in one structure) commercial relocations. Impacted structures (including total and partial relocations) are shown on the Corridor Exhibit in Appendix F.

5.1.1 Socioeconomic Groups

The residential and commercial relocations will occur within census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households (see Table 6). The residential relocations are in Kentucky and include one single-family home adjacent to the northbound exit ramp to Kyles Lane and three single-family homes directly adjacent to Bullock Street in the Lewisburg neighborhood. Two of the residential relocations in the Lewisburg neighborhood are tenant occupied. In Kentucky, the relocated businesses include an auto body shop, an auto service shop, a car dealership, a radio tower, and a heating and air conditioning company. In Ohio, the partial relocation includes removing a building on property owned by E&T Real Estate. Relocated businesses in Ohio include a printing shop, a fast-food restaurant, the dunnhumby USA headquarters, a vacant bar/night club, and a vacant gas station. Concept I-W will remove 204 feet of Longworth Hall, which will require 14 commercial tenants to relocate. The relocated Longworth Hall tenants include office space for six businesses, three recording or photography studios, a vacant night club, an escape room, and storage space for three businesses. Six of the relocated Longworth Hall tenants have short term, month-to-month leases. In addition, two tenants already plan to relocate within the remaining portions of Longworth Hall.

ODOT is in the process of purchasing the full Longworth Hall property at a mutually agreed upon price and from a willing seller as a result of the right-of-way negotiation process. The building will remain occupied, and only businesses directly impacted by the removal of 204 feet from the building's east end will be relocated. ODOT may use interior space or the exterior grounds surrounding the building during the project's construction, but no impacts to the building's continued use for commercial office, retail, and event space are anticipated. If project-related activities result in additional impacts beyond those described above to tenants in Longworth Hall, then ODOT will conduct additional coordination in order for FHWA to determine if reevaluation to meet NEPA requirements is necessary.

With the exception of the tenants in Longworth Hall, the Ohio businesses have already been relocated and/or removed under the 2012 FONSI. KYTC began acquiring the right-of-way for the project in early 2022. The residential and commercial relocations are anticipated to be complete in 2024. The only major employer displaced is the dunnhumby USA headquarters. In anticipation of the project, a new, expanded headquarters (currently under new ownership and called 84.51°) was built about one-half mile east. Ongoing acquisition activities in Kentucky and Ohio have indicated that affected businesses will be able to relocate within the same geographic area if so desired, either in existing structures or new construction. None of the commercial relocations is expected to result in substantial job loss or economic impact, nor are they known to be substantial employers of older adults, individuals with LEP, adults with disabilities, or zero-car households or serve unique needs within these communities.

Table 6: Relocations by Population Group

State	Concept I-W Relocations	Relocations in Census Block Groups by Population Group			
		Older Adults	Limited English Proficiency	Adults with Disabilities	Zero-Car Households
Kentucky					
Residential	4 units	0 units	3 units	3 units	0 units
Commercial[1]	5 full, 0 partial	1 full, 0 partial	3 full, 0 partial	3 full, 0 partial	1 full
Ohio					
Residential	0 units	0 units	0 units	0 units	0 units
Commercial[1]	19 full, 1 partial	3 full, 0 partial	0 full, 0 partial	16 full, 1 partial	16 full, 1 partial
Total					
Residential	4 units	0 units	3 units	3 units	0 units
Commercial[1]	24 full, 1 partial	4 full, 0 partial	3 full, 0 partial	19 full, 1 partial	17 full, 1 partial

1. Commercial relocations are expressed as full and partial acquisitions.

The acquisition of property for right-of-way (including residential and business relocations) has been, and will continue to be, in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act). During the right-of-way acquisition process, KYTC and ODOT will provide assistance finding relocation properties with suitable accommodations for older adults, persons with disabilities, and multimodal access, as necessary. Translation services will also be offered to facilitate the relocation process for persons with LEP. No person displaced by the project will be required to move from a displaced dwelling unless comparable replacement housing is available to that person.

Due to overall real estate market conditions, replacement housing of comparable size may not be available at comparable costs. There are existing mechanisms in place to address these concerns. In addition to receiving just compensation for properties acquired to construct the project, displaced property owners and tenants will also receive relocation assistance. There are also provisions within the Uniform Act to ensure that decent, safe, and sanitary comparable replacement housing is within the financial means of the displaced person. When such housing cannot be provided, the Uniform Act provides “housing of last resort.” Housing of last resort, described in 49 CFR § 24.404, is a tool to provide agencies with the flexibility necessary to respond to difficult or unique relocation conditions when there is an insufficient supply of comparable housing. It enables agencies to:

- Exceed the payment amounts set elsewhere in the Uniform Act.
- Construct new houses.
- Modify an existing dwelling to suit the displaced resident’s needs.
- Relocate or rehabilitate a dwelling.
- Provide unsecured loans or leases to displaced residents.

Given the above, the relocations associated with Concept I-W are expected to result in minimal impacts on populations of older adults, individuals with LEP, adults with disabilities, or zero-car households.

5.1.2 Disadvantaged Communities

Concept I-W will acquire land that has been subject to historic contamination by regulated materials. During construction, KYTC and ODOT will remove and properly dispose of regulated solid waste, petroleum-contaminated soil and water, and underground storage tanks. In addition, Concept I-W requires the relocation of the West End Substation in the Queensgate neighborhood. As part of those relocation efforts, Duke Energy is remediating contamination on the site of the West End Substation under the Ohio Environmental Protection Agency Voluntary Action Program. These activities to address historic contamination are located in a disadvantaged community with a legacy pollution burden. The management, proper disposal, and remediation of regulated materials addresses the legacy pollution and water and wastewater categories of burden[1] for disadvantaged communities in the socioeconomic study area and represents a beneficial effect of Concept I-W.

5.2 Community Resources

Community resources near the project corridor are shown on the Corridor Exhibit in Appendix F and are summarized below:

- Parks and Recreation: There are several parks and recreation facilities near the project corridor, including General Ormsby Mitchel Park, Fort Wright Nature Center, a neighborhood park located at Hermes Avenue and 11th Street in Covington, Devou Park, George Steinford Park, and the Goebel Park Complex (which includes three interconnected parks: Goebel Park, Kenney Shields Park, and the SFC Jason Bishop Memorial Dog Park) in Kentucky; and the Firefighters Memorial, Queensgate Playground and Ball Field, Lincoln Park – Union Terminal, Lincoln Community Center, Ezzard Charles Park, Wade Walk Baseball Field, Laurel Playground, West End Community Garden, Sands Playground, Linn-Livingston Park, and Dyer Park in Ohio.
- Schools: There are five schools near the project corridor: Beechwood Elementary and High School, Notre Dame Academy, Prince of Peace Catholic School in Kentucky; and the Community Action Agency Head Start Preschool, St. Joseph Catholic School, and the Cincinnati Job Corps Center in Ohio.
- Libraries: There is one branch of the Cincinnati Public Library near the project corridor, located at Linn Street and Ezzard Charles Drive.
- Cemeteries: There are two cemeteries near the project corridor in Kentucky: Highland Cemetery and Historic Linden Grove Cemetery and Arboretum.

[1] Although the affected disadvantaged community did not have a water and wastewater burden as identified by the CEJST, addressing historic contamination is still expected to improve water and wastewater conditions. This is particularly noteworthy because the community is bordered on two sides by census tracts that have been determined by the CEJST to have water and wastewater burdens.

- Historic Resources: There are several National Register of Historic Places (NRHP) listed and eligible sites near the project corridor, including NRHP-listed historic districts.
- Places of Worship: There are several places of worship in the project area. The Central Church of the Nazarene in Fort Wright is adjacent to the project corridor.
- Other: Several other community resources are located near the project corridor, including the Ivy Knoll Senior Living Community, Garden of Hope, and St. Elizabeth Covington Hospital in Kentucky; and the Kettering Health Bengals Practice Fields, Paycor Stadium, the Duke Energy Convention Center, the David and Rebecca Barron Center for Men, the WXIX television station, fire stations 14 and 29, the Cincinnati Union Terminal, and a post office in Ohio.

Given the demographics of the socioeconomic study area (see Appendix B), the community resources identified above may be utilized by or serve older adults, individuals with LEP, adults with disabilities, members of zero-car households, and members of disadvantaged communities. The project team presumed usage of all community resources by all populations. The project team presented anticipated impacts to community resources and solicited feedback during the targeted neighborhood outreach described in Section 4, and no comments specific to the use of community resources were received.

Concept I-W is not anticipated to impact libraries or cemeteries. Concept I-W will require minor amounts of right-of-way from the Notre Dame Academy, Beechwood Elementary and High School, the Central Church of the Nazarene, and St. Elizabeth Covington Hospital, which may be utilized by or serve older adults, individuals with LEP, adults with disabilities, and members of zero-car households. However, no temporary or permanent impacts to the operations of these community facilities are anticipated. Concept I-W will acquire minor amounts of right-of-way from the Hillsdale Subdivision Historic District, which does not have any identified socioeconomic populations or groups. Concept I-W will also acquire minor amounts of right-of-way from the Elberta Apartments Historic District, which is situated in a census block group with populations of older adults and adults with disabilities. However, no structures will be removed, and no residential relocations will occur in these historic districts. The Kentucky State Historic Preservation Office (SHPO) determined that Concept I-W will have no adverse effect on the Hillsdale Subdivision Historic District or the Elberta Apartment Historic District. Concept I-W will also result in minor temporary impacts to the Firefighters Memorial and Ezzard Charles Park; however, access to the parks will be maintained at all times, and no permanent impacts will occur.

The Queensgate Playground and Ball Field is in a census block group with populations of adults with disabilities and zero-car households. Concept I-W will acquire 0.72 acre of permanent right-of-way and easement from the Queensgate Playground and Ball Field, including the loss of outfield areas. Trees and shrubs along the southern edge of the park will be also removed during the construction of the highway, retaining wall, and a proposed noise barrier. To mitigate the impacts, ODOT committed to compensating the City of Cincinnati for the land, relocation of recreational facilities, preparation of construction plans for the ball field reconfiguration, and construction monitoring of the mitigation. These commitments were documented in a *Memorandum of Agreement* (MOA) between ODOT and the City of Cincinnati Recreation Commission executed on May 5, 2011. ODOT paid $198,050 to fulfill its financial commitments in the MOA on December 12, 2012. The City of Cincinnati reconfigured the ball fields in 2014. No further physical impacts are

anticipated for the Queensgate Playground and Ball Field that have not already occurred and been mitigated. ODOT is proposing a noise barrier to mitigate noise impacts that are predicted at the Queensgate Playground and Ball Field based on a noise analysis conducted for Concept I-W (see Section 5.5.3). During construction, the proposed 10-foot noise barrier may be installed along the park and highway boundary in lieu of the limited access right-of-way fencing specified in the MOA. If noise public involvement concludes that a noise barrier will not be built, then ODOT has committed to installing the limited access right-of-way fencing as noted above. See Section 5.5.3 for additional details about noise.

The Goebel Park Complex is located in a census block group with populations of persons with LEP, adults with disabilities, and zero-car households. It is also located within a disadvantaged community. Concept I-W will acquire 2.84 acres of permanent right-of-way from the Goebel Park Complex, including 360 feet of walking trails, two basketball courts, and associated resources. To mitigate these impacts, KYTC is returning 2.23 acres of land that is currently occupied by the West 5th Street ramp to the park. Other impacts to the Goebel Park Complex will be mitigated through reconstruction of the walking trail within the complex and a financial commitment from KYTC for the development of a new Goebel Park Complex Master Plan, replacement and enhancement of the basketball courts or other outdoor recreation facilities within the park, and a relocated outdoor pool and associated facilities or other comparable aquatic facility serving the same purpose within the park. The replacement property is higher in elevation than the portions of the complex that will be acquired by the project and not prone to flooding. In addition, the replacement land is flatter and closer to other prominent park features. Based on these characteristics, the replacement land has greater potential for future enhancements to outdoor recreational activities and amenities within the Goebel Park Complex. The future plans, uses, and locations of facilities in the Goebel Park Complex will be established during the new master planning process facilitated by the City of Covington and funded by the proposed mitigation measures for the complex.

In addition to the mitigation measures listed above, KYTC is proposing noise/visual screening barriers to reduce noise levels in the Goebel Park Complex. During detailed design, KYTC has committed to coordinating the composition of the barriers with the City of Covington to determine where transparent noise barriers would be beneficial to preserve views of the Goebel Park Complex from the highway, particularly the iconic Clock Tower located within the park. Furthermore, the separation of interstate runoff from the BSB corridor from the existing combined sewer system will reduce the frequency of combined sewer overflows, including in the Goebel Park Complex. See Section 5.5.3 for additional details about noise and Section 5.5.4 for additional details about stormwater management.

The Lewisburg Historic District is located in a census block group with populations of individuals with LEP and adults with disabilities. Concept I-W will require the removal of three houses along Bullock Street between West 12th Street and Pike Street in the Lewisburg Historic District. The impacts have been determined to have an adverse effect on the Lewisburg Historic District. Mitigation measures for impacts to the Lewisburg Historic District were established in a *Programmatic Agreement Among FHWA, ODOT, KYTC, the Ohio SHPO, the Kentucky SHPO, and the City of Covington* (Section 106 Programmatic Agreement). The Section 106 Programmatic Agreement specifies mitigation measures that include the recordation of removed structures; the establishment of a $1.2 million grant program to improve and rehabilitate the façades of residential and commercial properties in the Lewisburg Historic district; and the protection, monitoring, and repair of historic

structures from vibration during construction. In addition to the mitigation measures outlined in the Section 106 Programmatic Agreement, KYTC is proposing noise barriers to mitigate noise impacts that are predicted in the Lewisburg Historic District as a result of Concept I-W. See Section 5.5.3 for additional details about noise.

Longworth Hall is in a census block group with populations of adults with disabilities and zero-car households. It is also in a disadvantaged community. Concept I-W will remove 204 feet of the B&O Freight Terminal/Longworth Hall building located along Pete Rose Way in Cincinnati. This structure, constructed as a warehouse for the Baltimore & Ohio Railroad, currently operates as a general mixed-use office, retail, and event space and is not a unique community resource. To mitigate the impacts to Longworth Hall, ODOT committed to completing repair, upgrade, restoration, enhancement, and refurbishment on the portions of the building impacted by construction and the portions of the building to remain. These commitments were documented in the Section 106 Programmatic Agreement. As a result of the right-of-way negotiation process, ODOT is in the process of purchasing the full Longworth Hall property at a mutually agreed upon price and from a willing seller. The portions of the building not removed will remain occupied. ODOT may use interior space or the exterior grounds surrounding the building during the project's construction, but no impacts to the building's continued use for commercial office, retail, and event space are anticipated. Likewise, no additional adverse effects to the historic integrity of Longworth Hall are anticipated as a result of ODOT's activities in the building and on the exterior grounds.

Although several impacted community resources are located within and may serve communities with older adults, individuals with LEP, adults with disabilities, and zero-car households, mitigation measures incorporated into Concept I-W will offset anticipated impacts. The Queensgate Playground and Ball Field has been reconfigured and continues to serve as a recreational resource to the community. The mitigation measures for the Goebel Park Complex will reduce flooding and provide new basketball courts or other outdoor recreational facilities and a new pool or comparable aquatic facility and other enhancements that will further the City of Covington's long-term plans for this resource. The establishment of a façade grant program and the protection, monitoring, and repair of historic structures from vibration during construction will preserve and enhance the Lewisburg Historic District. Finally, repair, upgrade, restoration, enhancement, and refurbishment measures performed on Longworth Hall will preserve and enhance a historic resource, and the building will continue to be utilized for commercial office, retail, and event space.

In consideration of the mitigation measures incorporated into Concept I-W, project-related impacts to community resources are not anticipated to impact disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Instead, the reduction of flooding and combined sewer overflows in the Goebel Park Complex will benefit these populations and will help to address the water and wastewater category of burden for disadvantaged communities. The façade grant and the vibration protection, monitoring, and repair of residential structures in the Lewisburg Historic District in accordance with the Section 106 Programmatic Agreement will also benefit these populations and will help to address housing burdens in the Lewisburg neighborhood.[1]

[1] Although the Lewisburg neighborhood is not specifically identified as a disadvantaged community by the CEJST, the façade grant program will help to address historic housing disinvestment in this community, which has been noted as a concern by officials with the City of Covington.

5.3 Access and Mobility

The following sections discuss vehicular, pedestrian and bicycle, and transit access and mobility considerations for the communities analyzed in this report.

5.3.1 Vehicular Access

Concept I-W will change how through (interstate) traffic and local traffic travel through the corridor, as described below:[1]

- Through (interstate) traffic will move through the corridor via I-71/I-75 and across the Ohio River on a new double-decker companion bridge west of the existing BSB. These changes will improve access and mobility for all travelers on the interstate system, including older adults, individuals with LEP, adults with disabilities, and zero-car households that rely on transit routes utilizing I-71/I-75.
- Traffic will travel to and from local destinations using C-D roadways. While the method for accessing local destinations will change, all access will be maintained. The introduction of the C-D roadway system will improve traffic flow by separating through and local traffic and keeping them in separate paths for longer distances, reducing weaving movements that can disrupt traffic flow. These benefits will be realized by through (interstate) travelers as well as individuals traveling to and from destinations in surrounding communities, including individuals who are dependent on transit that travels on I-71/I-75. C-D roadways will be built in the following locations:
    - Northbound between the Dixie Highway (KY) and Kyles Lane interchanges (KY). This change will not occur in an area with an identified socioeconomic group or a disadvantaged community.
    - Southbound between the Kyles Lane (KY) and Dixie Highway interchanges (KY). This traffic flow improvement will occur in two census block groups with older adults and adults with disabilities.
    - Northbound from north of St. Elizabeth Covington Hospital (KY) to north of Freeman Avenue (OH). This traffic flow improvement will occur in four census block groups with older adults, two census block groups with individuals with LEP, five census block groups with adults with disabilities, three census block groups with zero-car households, and/or five census tracts with disadvantaged communities.
    - Southbound from north of Ezzard Charles Drive (OH) to south of West 5th Street (KY). This traffic flow improvement will occur in one census block group with older adults, one census block group with individuals with LEP, two census block groups with adults with disabilities, one census block group with zero-car households, and/or one census tract with a disadvantaged community.
- Left-hand exits off of I-71/I-75 will be removed, except for one left-hand exit to West 5th Street from the C-D road in Covington. These changes will occur in census block groups with individuals with LEP, adults with disabilities, and/or zero-car households in addition to a census tract with a disadvantaged

[1] Traffic operations for Concept I-W were analyzed using certified traffic for the years 2029 and 2049 and are documented in an *Interchange Modification Study Addendum (December 2023)* prepared for the project.

community. The removal of left-hand exits will improve traffic flow for all interstate travelers, including individuals traveling to and from the surrounding communities, by allowing traffic to exit the interstate from the right lane or the C-D roadway as opposed to the high speed (left) interstate lane.

- The Texas turnaround at Pike Street will be removed and replaced by the C-D roadway system. This change will occur in census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as a census tract with a disadvantaged community and will provide similar access.
- An extended frontage road along Simon Kenton Way will provide an additional north-south community connection between West 9th Street and West 5th Street in Covington. This change will improve access in a census block group with individuals with LEP, adults with disabilities, and zero-car households as well as a census tract with a disadvantaged community.
- The West 4th Street ramp to the northbound C-D roadway system in Covington, which continues on to I-71 and I-75, will be open to all vehicles, as opposed to the existing emergency vehicle access only. This change will restore access that is currently restricted in a census block group with individuals with LEP, adults with disabilities, and zero-car households as well as a census tract with a disadvantaged community.
- Access to northbound I-75 will be provided directly from the Clay Wade Bailey Bridge. This change will improve access in a census block group with older adults and a census tract with a disadvantaged community.
- Rose Street will be permanently closed, and Augusta Street will be closed under the existing BSB. These changes will occur in a census block group with adults with disabilities and zero-car households and a census tract with a disadvantaged community. However, impacts are not anticipated because these roadways almost exclusively serve adjacent utility infrastructure and an asphalt plant, do not serve existing transit routes, and alternative access is available within one city block.
- The entrance to northbound I-75 at 4th Street in downtown Cincinnati will be removed and replaced with an entrance ramp at 3rd Street. This change will not occur in an area with identified socioeconomic groups or disadvantaged communities.
- The southbound I-75 exit to 5th Street in downtown Cincinnati will be removed, and the exit to 7th Street will be widened to accommodate rerouted traffic. This removal of the 5th Street ramp will not occur in an area with identified socioeconomic groups or disadvantaged communities.
- The connection between 6th Street and Winchell Avenue will be removed and replaced with a connection between 6th Street and the northbound C-D road, which continues on to northbound I-75. This change will provide similar access in census block groups with older adults, adults with disabilities, zero-car households as well as a census tract with a disadvantaged community.
- The northbound entrance ramp to I-75 will be moved from its existing location at Freeman Avenue (south of Ezzard Charles Drive) to Winchell Avenue (north of Ezzard Charles Drive). This change will improve access in a census block group with older adults, adults with disabilities, and zero-car households as well as a census tract with a disadvantaged community.

- The two existing one-way bridges on Ezzard Charles Drive will be replaced with one, two-way bridge over I-75. This change will provide similar access in a census block group with older adults, adults with disabilities, and zero-car households as well as a census tract with a disadvantaged community.
- Direct access to Central Parkway from I-75 will be provided via the interchange with the Western Hills Viaduct. This change will improve access in a census tract with a disadvantaged community.
- Access to Spring Grove Avenue from the Western Hills Viaduct will be provided via a ramp to Harrison Avenue. This change will improve access in a census block group with adults with disabilities and zero-car households as well as a census tract with a disadvantaged community.

In the existing condition, incidents on the BSB force traffic (including trucks) onto the local street network, often overburdening the system. The construction of a new companion bridge and C-D roadway system introduces additional resilience into the local and regional transportation network by providing additional options for maintaining cross-river traffic if an incident or future construction or maintenance activities occur. Likewise, the extension of Simon Kenton Way to West 5th Street in Kentucky will be able to accommodate traffic that would otherwise divert into downtown Covington. These changes are anticipated to reduce traffic congestion and improve safety in census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as census tracts with disadvantaged communities.

Given the above, the permanent changes in vehicular access incorporated into Concept I-W are not anticipated to impact disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households; rather, net improvements in vehicular access to, from, and within these communities are expected. By improving access, Concept I-W is anticipated to reduce transportation barriers, which will address the transportation category of burden for disadvantaged communities.

5.3.2 Pedestrian and Bicycle Access

Pedestrian and bicycle facilities incorporated into Concept I-W are shown in the Multimodal Exhibit provided in Appendix F. In Kentucky, the project will be implemented in accordance with KYTC's *Complete Streets, Roads, and Highways Policy* and *Complete Streets, Roads, and Highways Manual*, which outline KYTC's policies and procedures for developing a comprehensive, integrated, and connected transportation network focused on creating safe transportation options for users of all ages and abilities. KYTC's complete streets policy and procedures are designed to protect vulnerable roadway users and provide equitable transportation operations in underinvested and underserved communities. To that end, Concept I-W will build a new shared use path along the outside lanes on Simon Kenton Way and new/rebuilt sidewalks along the outside lanes on Bullock Street. Sidewalks will be rebuilt along Pike Street west of I-71/I-75. Also, new and rebuilt sidewalks will be included under the MLK/West 12th Street, Pike Street, West 9th Street, West 5th Street, and West 3rd Street bridges, including a 5-foot switchback accessible ramp to replace steep stairs between Pike Street and Lewis Street. A new shared-use path will be built under the West 5th Street bridge, which will tie into the shared-use paths in the Goebel Park Complex. The shared-use path will be extended along Crescent Avenue to connect to the existing shared-use path along the Ohio River. The new and improved pedestrian and bicycle infrastructure incorporated into Concept I-W is situated in disadvantaged communities and census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car

households and will improve access in and between the Westside, Mainstrasse, Lewisburg, Botany Hills, and Covington Central Business District neighborhoods (see Table 7).

In Ohio, the project will be implemented in accordance with ODOT's *Multimodal Design Guide*, which outlines ODOT's procedures for developing connected pedestrian and bicycle networks to support walking and bicycling for people of all ages and abilities. To that end, Concept I-W will install bicycle and pedestrian infrastructure in and between the Cincinnati Central Business District (CBD) Riverfront, Queensgate, and the West End neighborhoods, which are located in disadvantaged communities and census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Pedestrian and bicycle connections will be included across I-75 on 6th Street, 7th Street, 9th Street, Linn Street, Freeman Avenue, Ezzard Charles Drive, Liberty Street, Findlay Street, Bank Street, and Harrison Avenue. In addition, a new shared-use path will be constructed along Winchell Avenue between 9th Street and Ezzard Charles Drive, including a pedestrian bridge connection to Freeman Avenue (see Table 7).

The multimodal accommodations in both Kentucky and Ohio will also support the OKI *Regional Complete Streets Policy*, which outlines OKI's policy for building roads designed for all users.

Table 7: U.S. Census Block Groups with Pedestrian and Bicycle Improvements

Map ID[1]	Census Block Group Number	Neighborhood	Older Adults?	Individuals with LEP?	Adults with Disabilities?	Zero-Car Household?	Disadvantaged Community?[2]
Kentucky							
32	211170638001	Botany Hills	Yes	No	No	No	No
33	211170670004	Kentucky CBD	Yes	No	No	No	Yes
38	211170616001	Lewisburg/ Botany Hills	No	Yes	Yes	No	No
39	211170603002	Mainstrasse	No	Yes	Yes	Yes	Yes
47	211170607002	Mainstrasse	Yes	No	Yes	No	Yes
48	211170607001	Westside	No	No	No	No	Yes
Ohio							
4	390610263001	Queensgate	No	No	Yes	Yes	Yes
5	390610269002	West End	No	No	Yes	Yes	Yes
6	390610269001	West End	No	No	No	No	Yes
11	390610002001	West End	Yes	No	Yes	Yes	Yes
14	390610264005	West End	No	No	No	Yes	Yes
24	390610265001	West End	No	No	Yes	Yes	No
28	390610265003	CBD Riverfront	No	No	No	No	No

1. Only census block groups with pedestrian and bicycle improvements are shown. See Appendix A for exhibits showing Map ID numbers for each census block group in the socioeconomic study area.

2. A "yes" indicates the census block group falls within a census tract with a disadvantaged community.

3. Blue shading indicates a census block group with one or more socioeconomic population groups and/or a disadvantaged community.

Concept I-W will comply with the requirements of the Americans with Disabilities Act of 1990 and increase the options available to pedestrians and bicyclists, which will enhance community connectivity along and across the I-71/I-75 corridor and may improve access to transit, employment, healthcare, cultural, recreational, and commercial destinations. Furthermore, new bicycle lanes and shared-use paths will support future planned improvements of regional pedestrian and bicycle networks. Therefore, the permanent changes in pedestrian and bicycle access incorporated into Concept I-W are not anticipated to impact disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households; rather, improvements in pedestrian and bicycle access will provide a direct benefit to these communities.

Improving multimodal access and increasing connectivity will reduce transportation barriers, which will help to address the transportation category of burden for disadvantaged communities. Furthermore, improving access for pedestrians and bicyclists may help to address the energy category of burden by reducing reliance on vehicular travel which contributes to particulate matter in the air. Finally, improving options for active transportation and multimodal access to healthcare destinations may help to address the health category of burden by promoting better health outcomes for those with asthma, diabetes, heart disease, or low life expectancy.

5.3.3 Transit

Many bus routes and stops are located directly adjacent to the BSB corridor, largely north of Pike Street in Kentucky and throughout the corridor in Ohio (see the Multimodal Exhibit in Appendix F). The majority of these bus routes and stops are located within and serve census block groups with older adults, individuals with LEP, and/or adults with disabilities as well as census tracts with disadvantaged communities. Furthermore, census block groups adjacent to the existing bus routes and stops have households without reliable access to vehicles, which implies a larger dependence on public transportation. Additionally, bus routes in the area utilize the BSB and the BSB corridor for express routes, including for access to the Cincinnati/Northern Kentucky International Airport.

Concept I-W will not permanently affect access to transit and will provide an overall benefit to the public for transit in the area. Concept I-W will reduce traffic congestion, improving reliability for local bus routes that use the BSB for 210 trips every weekday, thus benefitting older adults, individuals with LEP, adults with disabilities and/or members of zero-car households and disadvantaged communities who utilize these transit routes. In addition, new and improved sidewalks, shared-use paths, and bicycle lanes will enhance connections to existing bus stops and routes, as shown on the Multimodal Exhibit in Appendix F.

Given the above, Concept I-W is not expected to impact transit access for disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households; rather, Concept I-W is expected to improve transit access for these communities. In addition, by supporting mass transit options and associated reductions in particulate matter in the air, Concept I-W may help to address the energy category of burden for disadvantaged communities.

5.4 Safety

The C-D roadway system incorporated into Concept I-W will improve safety by separating through and local traffic and keeping them separate for longer distances, thus reducing weaving movements that increase the risk of crashes. The removal of left-hand exits and other design deficiencies such as substandard shoulders are also expected to improve safety and reduce crashes by further reducing weaving movements and by providing a larger buffer for vehicles. In addition, two existing one-way bridges on Ezzard Charles Drive over I-75 will be replaced with one combined two-way bridge. This change was incorporated into Concept I-W in response to a request from the City of Cincinnati and is expected to reduce the high number of wrong-way crashes occurring at this location.

The safety improvements, including interstate upgrades, the C-D roadways, the removal of left-hand exits, and the reconfigured Ezzard Charles Drive bridge will occur in census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households, as well as census tracts with disadvantaged communities, and will directly improve safety for individuals traveling to, from, and within these communities.

To promote safety for bicyclists and pedestrians, the ramp connections with local streets are being designed as lower-speed urban roadways, which will encourage drivers to decelerate to safe speeds prior to reaching bicycle and pedestrian crossings. Furthermore, the buffer distance between automobile traffic and sidewalks and shared-use paths will be increased, improving bicyclist and pedestrian safety and comfort. Finally, lighting will be installed in underpass areas to improve safety and security for pedestrians and bicyclists. These improvements will occur in areas with older adults, individuals with LEP, adults with disabilities, zero-car households, and/or disadvantaged communities and are anticipated to directly improve safety for pedestrians and bicyclists in these communities.

Given the above, Concept I-W is not expected to impact safety for disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households; rather, Concept I-W is expected to improve vehicular, pedestrian, and bicycle safety in these communities.

5.5 Environmental

The following sections discuss environmental effects of Concept I-W on older adults, individuals with LEP, adults with disabilities, zero-car households, and disadvantaged communities.

5.5.1 Air Quality

Air quality evaluations completed for Concept I-W considered PM2.5, carbon monoxide, and ozone. The project is in attainment with National Ambient Air Quality Standards for PM2.5 and ozone, and Concept I-W is in conformance with National Ambient Air Quality Standards for ozone. In addition, a *Quantitative MSAT Analysis Report (August 2023)* concluded that Concept I-W is consistent with mobile source air toxics requirements.

The U.S. Environmental Protection Agency (USEPA) has developed a mapping and screening tool called EJ Screen that provides a nationally consistent dataset of environmental indicators.[1] A review of EJ Screen environmental indicators for air quality showed the following:

- Compared to statewide data, PM2.5 levels in the air are in the 80 to 100 percentile[2] range for the entire socioeconomic study area. PM2.5 levels in the southern portions of the socioeconomic study area are generally in the 80 to 90 percentile range. PM2.5 levels climb to the 90 to 95 percentile range from just south of the Ohio River through most of the Ohio portion of the socioeconomic study area. PM2.5 levels in five census block groups in the northernmost portions of socioeconomic study area are in the 95 to 100 percentile range.
- Compared to statewide data, diesel particulate matter in the air is in the 90 to 100 percentile range for the entire socioeconomic study area.
- Compared to statewide data, the air toxics respiratory hazard index[3] is in the 80 to 90 percentile range for the Kentucky portions of the socioeconomic study area and in the 95 to 100 percentile range for the Ohio portions of the socioeconomic study area.

While Concept I-W is consistent with National Ambient Air Quality Standards and mobile source air toxics requirements, environmental indicators synthesized by USEPA show that pollutant levels in the socioeconomic study area are relatively high when compared to statewide data for Kentucky and Ohio.

To further evaluate air quality considerations, KYTC and ODOT completed an emissions burdens analysis that modeled the levels of volatile organic compounds, nitrogen oxides, and PM2.5 in the socioeconomic study area for 2020 existing, 2050 no-build, and 2050 build scenarios.[4] The analyses concluded that emissions of the analyzed pollutants in the socioeconomic study area would be substantially decreased for both the 2050 no-build and 2050 build scenarios when compared to the 2020 existing scenario. These reductions are primarily due to the implementation of the latest federal emissions standards coupled with fleet turnover.

In general, Concept I-W will improve traffic flow and reduce traffic congestion and vehicle idling in the area transportation network, which is expected to reduce vehicle emissions and improve local air quality. When the 2050 build scenario is compared to the 2050 no-build scenario, the levels of volatile organic compounds and nitrogen oxides are anticipated to be less or approximately the same throughout the socioeconomic study area. This includes 60 of 76 census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households and 21 of 36 census tracts with disadvantaged communities. The disadvantaged

[1] Environmental Protection Agency. (n.d.). EJScreen: Environmental Justice Screening and Mapping Tool. EPA. Retrieved June 28, 2023, from https://www.epa.gov/ejscreen.

[2] Percentiles are a method of comparing local conditions to the rest of the state. When compared to statewide data, the percentile describes what percent of the state has an equal or lower value of a specific environmental indicator.

[3] Air toxics are pollutants known to cause or suspected of causing cancer or other serious health effects (also known as toxic air pollutants or hazardous air pollutants). The air toxics respiratory hazard index is the sum of hazard indices for those air toxics with reference concentrations based on respiratory endpoints, where each hazard index is the ratio of exposure concentration in the air to the health-based reference concentration set by USEPA.

[4] The affected network modeled for the emissions burdens analysis was slightly larger than and contained the full extents of the socioeconomic study area.

communities include 16 census tracts with a transportation category of burden (which includes diesel particulate matter exposure) and/or 17 census tracts with a health category of burden (which includes asthma).

When the 2050 build scenario is compared to the 2050 no-build scenario, PM2.5 is anticipated to be less or approximately the same in Campbell and Hamilton counties, which includes 32 of 76 census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households and 13 of 36 census tracts with disadvantaged communities. The disadvantaged communities in Campbell and Hamilton counties include 10 census tracts with a health category of burden 5 census tracts with an energy category of burden (which includes exposure to PM2.5 in the air). In Kenton County, PM2.5 is anticipated to be slightly greater (2.8 percent) due to an increase in vehicle miles of travel that will occur throughout the area transportation network when the project is built. Kenton County includes 28 of 76 census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households and 8 of 36 census tracts with disadvantaged communities. The disadvantaged communities in Kenton County include 7 census tracts with a health category of burden and 1 census tract with an energy category of burden.

Given the above, Concept I-W is not anticipated to further degrade, and may improve, overall air quality for populations of older adults, individuals with LEP, adults with disabilities, and zero-car households. Improved overall air quality will also help to address the transportation, health, and energy categories of burden for disadvantaged communities.

5.5.2 Greenhouse Gases and Climate Change

On January 29, 2023, CEQ issued interim "National Environmental Policy Act (NEPA) Guidance on the Consideration of Greenhouse Gas (GHG) Emissions and Climate Change." KYTC and ODOT modeled the levels of greenhouse gas emissions[1] expected to occur in 2020 existing, 2050 no-build, and 2050 build scenarios.[2] The greenhouse gas emissions analysis was conducted at a quantitatively high level and encompassed the affected transportation network where changes in greenhouse gas emissions are expected to occur as a direct result of Concept I-W.

The emissions burdens analysis concluded that greenhouse gas emissions would be substantially decreased for both the 2050 no-build and 2050 build scenarios when compared to the 2020 existing scenario. These reductions are primarily due to the implementation of the latest federal emissions standards coupled with fleet turnover. Greenhouse gas emissions are expected to be slightly greater (0.7 percent) when the 2050 build scenario is compared to the 2050 no-build scenario. This is primarily due to an increase in vehicle miles of travel that will occur throughout the area transportation network when the project is built. In addition, the 0.7 percent difference in greenhouse gas emissions is less than the associated 1.7 percent difference in vehicle miles of travel. The change in greenhouse gas emissions is expected to have minimal effects on climate change in the socioeconomic study area.

[1] Greenhouse gas emissions (also called carbon dioxide equivalent emissions) were calculated from projected carbon dioxide, nitrous oxide, and methane gas emissions weighted according to the global warming potential of each gas as defined by USEPA in its MOtor Vehicle Emission Simulator (MOVES3).

[2] The affected network modeled for the greenhouse gas analysis was slightly larger than and contained the full extents of the socioeconomic study area.

Measures incorporated into Concept I-W to manage stormwater and reduce flooding (see Section 5.5.4) will promote climate resilience in the project area. In addition, KYTC and ODOT address issues related to climate change on a statewide level through their *Transportation Asset Management Plans.*[1] The design, construction, and maintenance of the project will be in accordance with each state's *Asset Management Plan*. Given the above, Concept I-W is not anticipated to appreciably impact greenhouse gas emissions and climate change for populations of older adults, individuals with LEP, adults with disabilities, or zero-car households. Concept I-W is not anticipated to contribute to the category of burden for climate change in disadvantaged communities because it will not change agriculture loss rate, expected building loss rate, population loss rate, projected flood risk, or projected wildfire risk.

5.5.3 Noise

KYTC conducted noise analyses for Concept I-W that predicted noise impacts in 14 census block groups in Kentucky, including in areas with older adults, individuals with LEP, adults with disabilities, zero-car households, and/or disadvantaged communities. The study found noise barriers to be feasible and reasonable per KYTC's *Noise Analysis and Abatement Policy* (KYTC noise policy) to mitigate noise impacts in nine census block groups, including seven with an identified socioeconomic group and/or a disadvantaged community, and KYTC is proposing noise barriers in these areas.

Recognizing from neighborhood outreach efforts that traffic noise is a primary concern of area residents, KYTC conducted technical studies to evaluate additional noise/visual screening barriers for the remaining five block groups where noise impacts were predicted but noise barriers were not warranted. Based on the technical feasibility and public comments received during outreach activities, KYTC is proposing one additional noise/visual screening barrier south and west of the Dixie Highway interchange (near West Maple Avenue), which is situated in a census block group with populations of older adults and adults with disabilities. KYTC is also proposing noise/visual screening barriers in the Mainstrasse neighborhood, which will benefit three census block groups, two of which have populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. The proposed noise/visual screening barrier in the Mainstrasse neighborhood will also benefit two census tracts with disadvantaged communities.

Only one census block group with noise impacts in Kentucky will not receive mitigation from proposed noise barriers or enhanced noise reduction from proposed noise/visual screening barriers. The census block group that will not receive mitigation or enhanced noise reduction only includes one noise sensitive receptor[2]: a hotel located in a census block group with an older adult population. The noise analyses concluded that noise barriers were not feasible or reasonable at this location, and noise/visual screening barriers would not provide a noticeable reduction in sound levels.

In accordance with the KYTC *Noise Analysis and Abatement Policy*, a noise abatement public meeting and surveys will be conducted with benefited receptors at each location where noise and noise/visual screening

[1] *Transportation Asset Management Plan BIL-Compliant Version* (KYTC, December 2022) and *Transportation Asset Management Plan* (ODOT, December 2022)

[2] A noise sensitive receptor is an individual site or location that would be sensitive to an increase in noise levels.

barriers are proposed in Kentucky. During stakeholder and public outreach, some concerns were raised about noise barriers blocking views of Covington for motorists traveling on I-71/I-75. Concerns were also raised about noise barriers blocking views across I-71/I-75 from adjacent areas such as along Crescent Avenue. During detailed design, KYTC has committed to coordinating with the City of Covington to evaluate the use of transparent noise barriers in some locations to preserve views of the Goebel Park Complex from the highway and to preserve views of the skyline and across I-71/I-75 from surrounding neighborhoods.

ODOT conducted noise analyses for Concept I-W that predicted noise impacts in seven census block groups in Ohio, including five census block groups with older adults, adults with disabilities and/or zero-car households as well as four census tracts with disadvantaged communities. The study found noise barriers to be feasible and reasonable per ODOT's *Analysis and Abatement of Highway Traffic Noise Policy Statement* (ODOT noise policy) in three census block groups in the West End neighborhood, and ODOT is proposing noise barriers in these areas. In addition, ODOT has committed to constructing 57-inch barriers on the Liberty Street, Findlay Street, and Bank Street bridge parapets. These barriers will be 15 inches taller than standard ODOT bridge barriers, and the increased height will further reduce tire pavement noise in the West End neighborhood, which is situated in census block groups with populations of older adults, adults with disabilities, and zero-car households as well as census tracts with disadvantaged communities. In accordance with ODOT's noise policy, ODOT will conduct noise abatement public involvement with benefited receptors where noise abatement has been determined to be feasible and reasonable.

The Ohio analysis identified noise impacts in the Camp Washington neighborhood, which is situated in a census block group with adults with disabilities and a census tract with a disadvantaged community. However, the impacts only occur at three isolated homes spaced over a distance of about 2,000 feet. Noise mitigation for isolated residences is not cost effective per ODOT's noise policy, and noise mitigation is not proposed in the Camp Washington neighborhood.

The Ohio analysis identified noise impacts for 79 noise sensitive receptors in the CUF neighborhood, which is situated in an area with no identified socioeconomic groups or disadvantaged communities. Noise barriers were evaluated in the CUF neighborhood but were not found to achieve noise reduction goals and were not cost effective per ODOT's noise policy; therefore, noise mitigation is not proposed in the CUF neighborhood.

The Ohio analysis also identified noise impacts at the Cincinnati Jobs Corps (the equivalent of two noise sensitive receptors) in the Queensgate neighborhood, which is situated in a census block group with populations of adults with disabilities and zero-car households as well as a census tract with a disadvantaged community. Noise barriers were evaluated for the Cincinnati Jobs Corps but were not found to be cost effective per ODOT's noise policy; therefore, nose mitigation is not proposed in the Queensgate neighborhood.

The Ohio analysis also Identified noise impacts at the Firefighters Memorial and an apartment building (31 total noise sensitive receptors) in the Cincinnati CBD Riverfront neighborhood, which is situated in an area with no identified socioeconomic groups or disadvantaged communities. Noise barriers were evaluated for the Firefighters Memorial and the apartment building but were not found to be feasible and/or reasonable per ODOT's noise policy; therefore, noise mitigation is not proposed in the CBD Riverfront neighborhood.

Proposed noise barriers and enhanced noise/visual screening barriers in Kentucky and Ohio are shown on the Corridor Exhibit and Noise Schematic in Appendix E. As summarized in Table 8, noise impacts are predicted in 21 census block groups in the socioeconomic study area, including 17 census block groups with disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Noise barriers are proposed to provide noise mitigation and noise/visual screening barriers are proposed to provide enhanced sound reduction in 16 census block groups where noise impacts were identified, including 14 census block groups with disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. There are a total of 116 impacted noise sensitive receptors in the 5 census block groups where noise or noise/visual screening barriers are not proposed. Only 7 of these 116 receptors are located in census block groups with older adults, individuals with LEP, adults with disabilities, zero-car households, and/or disadvantaged communities.

Although noise impacts are predicted in disadvantaged communities and communities with older adults, individuals with LEP, adults with disabilities, and/or zero-car households throughout the corridor, KYTC and ODOT are proposing noise barriers to mitigate noise impacts or noise/visual screening barriers to provide enhanced sound reduction in these communities. Given the above, Concept I-W will not result in substantial noise impacts on disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, or zero-car households.

Table 8: U.S. Census Block Groups with Noise Impacts and Proposed Mitigation

Map ID[1]	Census Block Group Number	Neighborhood	Socio-economic Population?[2]	Disadvantaged Community?[3]	Mitigation[4]
Kentucky					
32	211170638001	Botany Hills	O	No	None[5]
38	211170616001	Botany Hills/ Lewisburg	L, D	No	Noise barrier
39	211170603002	Mainstrasse	L, D, Z	Yes	Noise/visual screening barrier
40	211170603001	Mainstrasse	-	Yes	Noise/visual screening barrier
47	211170607002	Mainstrasse	O, D	Yes	Noise/visual screening barrier
48	211170607001	Westside	-	Yes	Noise barrier
57	211170650002	Westside	D	Yes	Noise barrier
63	211170649003	Park Hills/ Fort Wright	O, D	No	Noise barrier
64	211170651001	Peaselburg	O, L, D, Z	Yes	Noise barrier
69	211170652001	Fort Wright	D	No	Noise barrier
71	211170648003	Fort Wright	O, D	No	Noise barrier
72	211170652002	Fort Wright	-	No	Noise barrier
74	211170648002	Fort Mitchell	O, D	No	Noise/visual screening barrier
75	211170647002	Fort Mitchell	-	No	Noise barrier

Map ID[1]	Census Block Group Number	Neighborhood	Socio-economic Population?[2]	Disadvantaged Community?[3]	Mitigation[4]
Table 8 (cont.)					
Ohio					
1	390610028002	Camp Washington	D	Yes	None[6]
2	390610027001	CUF	-	No	None[7]
4	390610263001	Queensgate	D, Z	Yes	None[8]
5	390610269002	West End	D, Z	Yes	Noise barrier
11	390610002001	West End	O, D, Z	Yes	Noise barrier
24	390610265001	West End[9]	D, Z	No	Noise barrier
28	390610265003	CBD Riverfront	-	No	None[10]

1. *See Appendix A for exhibits showing Map ID numbers for each census block group in the socioeconomic study area.*
2. *The following socioeconomic population groups were evaluated: (O) Older Adults, (L) Individuals with LEP, (D) Adults with Disabilities, and (Z) Zero-Car Households.*
3. *A "yes" indicates the census block group falls within a census tract with a disadvantaged community.*
4. *Noise/visual screening barriers will provide enhanced noise reduction for areas that did warrant noise barriers in accordance with KYTC's noise policy.*
5. *Only one impacted receiver. Noise mitigation was not feasible or reasonable per KYTC's noise policy. Noise/visual screening barriers would not provide a noticeable reduction in sound levels.*
6. *Only three impacted receptors over a distance of 2,000 feet. Noise mitigation for isolated receptors is not cost effective per ODOT's noise policy.*
7. *Noise mitigation was evaluated but did not achieve noise reduction goals and was not cost effective per ODOT's noise policy.*
8. *Only one impacted receiver, the Cincinnati Job Corps. Noise mitigation was not cost effective per ODOT's noise policy.*
9. *The Queensgate Playground and Ball Field is located in the West End neighborhood (census block group 390610265001, Map ID 24). See Appendix A for exhibits showing Map ID numbers and Appendix G for a resource cross reference guide.*
10. *Noise mitigation was evaluated but was not feasible or reasonable per ODOT's noise policy.*
11. *Blue shading indicates a census block group with one or more socioeconomic population group and/or a disadvantaged community.*

5.5.4 Stormwater

The majority of the project corridor in Kentucky, beginning at Kyles Lane and extending to the Ohio River, is located in the Willow Run watershed. This watershed drains to the Ohio River through a combined sewer system which overflows during high-volume rain events, flooding the river with combined sewer overflow. The BSB corridor encompasses 27 percent of the Willow Run watershed. Under existing conditions, all of the runoff from the I-71/I-75 corridor in Kentucky flows into the combined sewer system, creating flooding in the Peaselburg neighborhood and contributing to overflow events. Furthermore, elevated water levels can cause the Ohio River to backflow into the combined sewer system, leading to flooding in the Goebel Park Complex in the Mainstrasse neighborhood. The affected areas of the Goebel Park Complex and the Peaselburg neighborhood are located in census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as census tracts with disadvantaged communities.

While only runoff from new impervious area is required to be separated, KYTC has committed to separating all interstate runoff from the BSB corridor from the existing combined sewer system. Modeling shows that these separation efforts will substantially reduce the volume flowing into the combined sewer system and the frequency of overflow events, including in the Goebel Park Complex. In addition, during detailed design, KYTC will work with the City of Covington and Kentucky Sanitation District 1 to address surcharging in the Peaselburg neighborhood based on the local design criteria for a 25-year storm, which will further reduce flooding in this neighborhood.

In Ohio, Mill Creek runs through the western portion of the socioeconomic study area, through census block groups with populations of adults with disabilities and zero-car households. It also runs through areas identified as disadvantaged communities. During extreme rain events, existing combined sewers flood Mill Creek with sewage. The stormwater system along the BSB corridor in Ohio will be completely replaced, and the new system will be designed to meet current ODOT standards. Concept I-W will separate highway drainage from the existing combined sewer system in Ohio, and ODOT will partner with the Metropolitan Sewer District to build infrastructure to drain directly to Mill Creek and/or the Ohio River. ODOT will also utilize best management practices and off-site mitigation to address water quality treatment requirements in Ohio. These measures will reduce the frequency of combined sewer overflow events and improve water quality in Mill Creek as it runs through the Camp Washington and Queensgate neighborhoods.

Given the above, Concept I-W is not anticipated to impact stormwater in areas with disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households; rather, Concept I-W is expected to provide direct benefits to these communities by reducing flooding and combined sewer overflows that currently occur within them. Furthermore, separating interstate stormwater from the combined sewer system and addressing surcharging in the Peaselburg neighborhood will help to address the water and wastewater category of burden for disadvantaged communities.

5.6 Visual

Interstates 71 and 75 are physically prominent features in the project area. In general, this will not change as a result of Concept I-W. However, the visual setting will change in some areas immediately adjacent to the project, including in communities with older adults, individuals with LEP, adults with disabilities, zero-car households, and/or identified as disadvantaged. Below is a summary of key visual characteristics of Concept I-W:

- A new double-decker companion bridge will be built immediately west of the existing BSB. The new companion bridge will be a new visual feature in census block groups with populations of older adults, adults with disabilities, zero-car households as well as census tracts with disadvantaged communities; however, it will be situated directly adjacent to the existing BSB in an area where the highway already dominates the visual landscape.
- The proposed interstate will be higher than the existing highway in some areas. The greatest height changes will occur in Kentucky on the approaches to the new companion bridge and will occur in block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as census tracts with disadvantaged communities. In the vicinity of the Goebel

Park Complex, the maximum height increase will be 31 feet for the northbound lanes on I-71/75. In general, the change in height decreases as the distance from the new companion bridge increases.

- Widening on I-71/I-75, the realigned approaches to the new companion bridge, and the construction of a C-D roadway system will move lanes closer to adjacent homes and businesses. This widening will impact 18 census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as nine census tracts with disadvantaged populations.
- Steeper side slopes or retaining walls will be built in some areas to avoid property impacts. These will occur in census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as census tracts with disadvantaged populations.
- Landscaping within the existing right-of-way will change. In the existing condition, brush and small trees in the right-of-way provide some visual screening of the highway. It is anticipated that some of the existing vegetation will be permanently removed from within the right-of-way in census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as census tracts with disadvantaged populations.
- Noise and noise/visual screening barriers ranging from 8 to 24 feet in height have been proposed in 14 census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as census tracts with disadvantaged populations.

A project Aesthetics Committee was formed to evaluate aesthetic treatments for project components, including the structure type for the companion bridge. KYTC and ODOT have met several times with the full Aesthetics Committee and Subcommittees focused on specific geographic areas of the corridor. Additional aesthetics meetings are planned throughout the detailed design process to finalize aesthetic plans.

KYTC is closely coordinating the project aesthetic plans with the Covington Aesthetics Subcommittee and the Fort Wright/Fort Mitchell Aesthetics Subcommittee to further their goals of creating vibrant urban spaces in locations throughout the corridor. Items being discussed include landscaping, streetscapes, gateways, and treatments for piers, abutments, retaining walls, and noise barriers. During final design, KYTC has committed to coordinating with the City of Covington to evaluate the use of transparent noise barriers in some locations to preserve views of the Goebel Park Complex from the highway and to preserve views of the skyline and across I-71/I-75 from surrounding neighborhoods. Disadvantaged communities and communities with older adults, individuals with LEP, adults with disabilities, and zero-car households in the Kentucky portion of the BSB corridor will receive the same opportunities for aesthetic enhancements as the general population.

ODOT is also coordinating the project aesthetic plans with the Ohio Subcommittee, which includes the City of Cincinnati. Piers, abutments, retaining walls, and noise barriers, longitudinal bridge parapets, and overhead bridge parapets will receive aesthetic treatments. In addition, the steel and concrete girders will have colors that fit into the aesthetics of the larger I-75 corridor, and overpass bridges will have translucent screen walls with interior lighting. As an enhancement, the City of Cincinnati is currently considering including colored and/or integral graphic panels. Overpass bridges will also include decorative lighting and planters at the back of walk and near the curb. These aesthetic treatments will contribute to an urban neighborhood feel on bridges throughout the corridor in Ohio and will be a substantial enhancement over the existing bridges.

Disadvantaged communities and communities with older adults, individuals with LEP, adults with disabilities, and zero-car households in the Ohio portion of the BSB corridor will receive the same opportunities for aesthetic enhancements as the general population.

Finally, KYTC, ODOT, and the Aesthetics Committee are coordinating the design of the new companion bridge to ensure that it is an iconic, aesthetically pleasing structure. The required elevations for the top of the new companion bridge will be no less than 300 feet and no more than 420 feet above the normal pool elevation of the Ohio River. The minimum elevation was set to ensure the new bridge can be better seen due to its proximity to the existing BSB. The maximum elevation was set to protect the visual character of historic districts, including areas with disadvantaged communities and various socioeconomic groups.

Community members were presented with renderings and other details of the new companion bridge, drawings and details showing elevations of the proposed interstate in Kentucky, renderings and other information about landscaping, and information about noise barriers during the targeted neighborhood outreach and were encouraged to provide comments. Community members generally supported the aesthetic elements incorporated into Concept I-W.

Given the above, minor visual changes will be experienced in disadvantaged communities and communities with older adults, individuals with LEP, adults with disabilities, and/or zero-car households. However, the aesthetics incorporated into Concept I-W are anticipated to provide direct benefits to these communities by improving the visual character of the project corridor and helping to foster vibrant neighborhood spaces those communities. Therefore, Concept I-W is expected to result in net visual benefits for disadvantaged communities and populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

5.7 Workforce Development

KYTC and ODOT recognize the BSB Corridor Project represents a historic opportunity and are going above and beyond the minimum federal requirements to promote and strengthen disadvantaged business enterprise (DBE)[1] firms. To that end, separate goals for DBE participation will be established in both the design and construction portions of the progressive design-build portion of the project (Phase III) to ensure that DBE firms in both industries have opportunities to participate. In addition, KYTC and ODOT have sponsored industry information and networking events that provided a forum for robust engagement between prime consultants/ contractors and DBE firms. DBE outreach will continue through the progressive design-build process and may include activities such as networking events, newsletters, and social media. In addition, the design-build team will be required to provide opportunities to develop and support DBE firms working on the project.

During the progressive design-build phase of the project (Phase III), KYTC and ODOT have also committed to developing an on-the-job training program to offer equal opportunity for the training of minorities, women, and

[1] A disadvantaged business enterprise (DBE) is a for-profit small business where individuals who are minority or women or otherwise socially and economically disadvantaged own at least a 51-percent interest and control management and daily business operations (Source: USDOT).

disadvantaged persons to advance their skills toward journeyperson status in the highway construction trades. To support those efforts, the project's contract documents will include a 15 percent on-the-job training target. The target will be finalized during the preconstruction phase of the progressive design-build contract and will set aside a percentage of the total work hours for the construction trades (excluding supervisory, shop, and office personnel) for on-the-job training. In addition, KYTC and ODOT will create a workforce development plan to assist candidates seeking employment in the transportation industry or on related infrastructure projects. Workforce development opportunities being discussed include engaging local students in science, technology, engineering, and mathematics (STEM) opportunities related to the project, apprenticeship programs, and veteran employment programs.

These initiatives are anticipated to create jobs, support business development, and support income growth in the greater Cincinnati and Northern Kentucky regions. The scope of the progressive design-build phase is considered to be particularly beneficial in terms of workforce development because it will offer opportunities to progress through multiple steps in project development all in one location and on one project. In support of these initiatives, KYTC and ODOT have formed a BSB Corridor Project Diversity & Inclusion Outreach Committee, which allows local practitioners and leaders to provide input about promoting diversity and inclusion as part of the Phase III contract. This committee includes a wide range of diverse members and will continue to meet throughout the duration of the project.

Workforce impacts are not anticipated for older adults, individuals with LEP, adults with disabilities, zero-car households, and/or disadvantaged communities. While project-related DBE participation, on-the-job training, and workforce development opportunities will be broadly available, residents in disadvantaged communities and members of diverse socioeconomic groups will be afforded equal opportunities to share in these benefits. Although workforce development opportunities may not be as beneficial to persons who do not actively participate in the workforce, such as some older adults or some adults with disabilities, Concept I-W is expected to provide direct benefits to disadvantaged communities and diverse socioeconomic groups in terms of job creation, business development, and income growth. Likewise, these programs will help to address the workforce development category of burden for disadvantaged communities.

5.8 Indirect and Cumulative Effects

Indirect effects are impacts caused by the project that occur later in time or in an area that is farther removed in distance from the project. The type and extent of indirect effects varies for different projects, but they must be considered "reasonably foreseeable," or highly likely to occur because the project was built.

Concept I-W is not anticipated to contribute indirectly to a change in the utilization of community resources that are used by or serve groups and communities in the socioeconomic study area. Concept I-W may indirectly improve economic and employment opportunities. In anticipation of the project, the dunnhumby USA headquarters (currently under new ownership and called 84.51°) relocated to a new, expanded site about one-half mile east and within a 1-mile radius of 21 census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as 8 census tracts with disadvantaged communities. The new headquarters anchored additional street-level commercial spaces that generated further economic

growth in downtown Cincinnati. In addition, Concept I-W reconfigures several ramps in downtown Cincinnati to open up approximately 10 acres of land for potential redevelopment and/or public use directly adjacent to the Cincinnati CBD and adjacent to census block groups with populations of older adults, adults with disabilities, and/or zero-car households as well as census tracts with disadvantaged communities.

Goals for DBE firm participation, mentoring, and support will be incorporated into the project's progressive design-build phase (Phase III). In addition, KYTC and ODOT have committed to developing an on-the-job training program to offer equal opportunity for the training of minorities, women, and disadvantaged persons to advance their skills toward journeyperson status in the highway construction trades. KYTC and ODOT have also committed to creating a workforce development plan to assist candidates seeking employment in the transportation industry or on related infrastructure projects (see Section 5.7). Therefore, Concept I-W could indirectly contribute to long-term enhancements in workforce diversity, employment, and income that will benefit members of disadvantaged communities and diverse socioeconomic groups.

Given the above, the Concept I-W is not expected to result in indirect impacts on disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Concept I-W is anticipated to indirectly contribute to job creation, economic development, and long-term workforce enhancements that will benefit diverse socioeconomic groups and disadvantaged communities. The indirect effects associated with Concept I-W will also help to address the workforce development category of burden for disadvantaged communities by creating jobs, economic activity, future development potential. Furthermore, the addition of infrastructure to support electric vehicles in conjunction with the reconstructed dunnhumby USA headquarters may help to reduce PM2.5 in the air, which could help to address the energy category of burden.

Cumulative effects are incremental impacts on the community or natural environment that occur from adding the impacts of one project to other past, present, and likely-to-occur projects. When added together, minor impacts from several projects can result in a greater cumulative impact on a community. The supplemental Environmental Assessment provides an analysis of cumulative effects for Concept I-W, including the identification of other past, present, and reasonably foreseeable actions (through the year 2050) that were considered in the analysis.

Concept I-W will contribute to cumulative business and residential displacements in the greater Cincinnati and Northern Kentucky areas; however, business and residential relocations have been minimized to the greatest extent practicable and represent only some of the businesses, job opportunities, and residences available in the area. In addition, the partial acquisition of public recreational facilities will have a minor contribution to the cumulative loss of parkland. Concept I-W is also expected to have a minor contribution to the cumulative loss of historic resources. Concept I-W will improve community cohesion, improve traffic flow and safety for all modes of travel, improve air quality, abate noise, reduce flooding and storm sewer overflows, improve aesthetics, and provide additional economic opportunities, which will help to offset any cumulative effects from past, present, and reasonably foreseeable actions.

Given the above, Concept I-W is anticipated to result in a minor contribution to cumulative residential and commercial relocations and the loss of parkland and historic resources that will be experienced across all socioeconomic groups, including populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households and in all communities, including those identified as disadvantaged.

5.9 Temporary Construction Impacts

During construction, the socioeconomic study area will be temporarily impacted by increased traffic on local roads and reduced access to the I-71/I-75 corridor due to construction activities. These impacts are anticipated to some extent for all modes of transportation, including vehicular, pedestrian, bicycle, and transit. Impacts are anticipated across all socioeconomic groups and communities.

KYTC and ODOT are working with local cities and counties to mitigate impacts from construction activities. Mitigation activities will include developing an overall Traffic Management Plan and a detailed Maintenance of Traffic (MOT) plan to maintain traffic operations through the corridor and minimize disruption to the surrounding communities. When preparing the MOT plan, KYTC and ODOT will work to minimize impacts on local businesses; evaluate impacts on public transportation and develop measures to maintain existing services; evaluate temporary detours to limit impacts from redirecting traffic through community sensitive areas; establish an Incident Management Plan to minimize diversion resulting from any incidents that occur during construction; communicate with trucking companies and mapping services to provide information about re-routing and delays; and provide for adequate signing during construction. KYTC and ODOT are also committed to maintaining neighborhood and community facility access for all modes of transportation, including vehicles, bicycles, and pedestrians (in compliance with the Americans with Disabilities Act) to the extent practicable.

Local cities and all relevant agencies within each city will have an opportunity to review and provide input on all aspects of MOT planning, plan development, and construction operations affecting the city. MOT and Incident Management Plans will also be coordinated with first responders, transit agencies, and the Regional Incident Management Task Force. Furthermore, in response to comments received during neighborhood outreach, ODOT has committed to work with the City of Cincinnati to conduct before/after surveys of roadways impacted by increased traffic during construction. ODOT will restore roadways to pre-construction conditions once the project is complete. In accordance with the Section 106 Programmatic Agreement, KYTC will also protect historic resources in the Lewisburg Historic District during construction by developing plans for vibration protection, monitoring, and repair (see Section 5.2). The above measures will minimize construction-related disruptions for disadvantaged communities and populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

During construction, a project website will provide regular updates regarding maintenance of traffic plans, current conditions, and upcoming changes. The website will provide an email address and phone number for the public to contact the contractor's designated representative with questions, concerns, or complaints regarding ongoing and planned construction activities. Information about construction sequencing, project highlights, and construction schedules will also be shared with the public through social media, e-newsletters,

local media, presentations to local groups, and virtual project updates. KYTC and ODOT will develop reporting protocols to ensure that the contractor responds to inquiries in a timely manner and keeps KYTC and ODOT informed of community questions and concerns. In addition, the project's communications team will provide timely notice to local cities prior to the public release of information related to any portion of the project located in or likely to have a substantial effect on that city. Older adults, adults with disabilities, individuals with LEP, zero-car households, and members of disadvantaged communities will have equal access to all project communications. Project newsletters have been, and will continue to be, provided in both English and Spanish. In addition, the project website can be translated into different languages using easily accessible and user-friendly tools built into standard internet browsers. Translation services will also be available for individuals with LEP as needed.

Temporary dust, air quality, and construction noise impacts may affect residents and business owners in the socioeconomic study area during construction. To mitigate these impacts, KYTC and ODOT will develop and implement a dust control plan and other measures to minimize and prevent discharge of dust in the atmosphere. During construction, measures will also be implemented to minimize diesel emissions and to protect sensitive receptors from impacts of diesel exhaust fumes. KYTC and ODOT will also develop and implement an ambient air quality monitoring program for the following sensitive areas:

- In the vicinity of Beechwood Elementary and High School, which is not anticipated to directly benefit disadvantaged communities or populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.
- In the vicinity of Notre Dame Academy, which will benefit a census block group with older adults and adults with disabilities.
- East and west of I-71/I-75 between Edgecliff Road and West 5th Street, which will benefit five census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as four census tracts with disadvantaged communities.
- East and west of I-75 between 9th Street and Findlay Street, which will benefit five census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as four census tracts with disadvantaged populations.

During construction, KYTC and ODOT will also implement measures to minimize construction noise in noise sensitive areas, including those in disadvantaged communities and/or populations of older adults, individuals with LEP, adults with disabilities, and zero-car households. The project staff will be educated on noise sensitive receptors, including location, type, hours of operation, and any prior concerns communicated. Measures that will be implemented to minimize construction noise include careful selection of equipment to be utilized, utilization of well-maintained motorized equipment and muffler systems, selection of haul routes that will cause the least disturbance to noise sensitive receptors, use of existing and temporary features to shield noise sensitive receptors from construction activities, and scheduling of work to minimize noise impacts on noise sensitive receptors. Temporary construction impacts are anticipated to be the most disruptive in the 24 census block groups that are directly adjacent to the project corridor. These areas contain 17 census block groups with

populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households as well as disadvantaged communities. The use of a progressive design-build process for Phase III will allow the project team to streamline the project's schedule and expedite construction to minimize the duration of temporary impacts. In addition, KYTC and ODOT will continue to evaluate temporary impacts and incorporate measures to avoid, minimize, or mitigate impacts to the greatest extent possible.

Given the above, Concept I-W will result in temporary construction impacts that will be experienced by all socioeconomic groups and communities near the BSB corridor, including disadvantaged communities. However, the impacts will be temporary in nature and minimized to the greatest extent possible.

6. AVOIDANCE, MINIMIZATION, MITIGATION, AND ENHANCEMENT MEASURES

The following sections summarize the avoidance, minimization, mitigation, and enhancement measures incorporated into Concept I-W.

6.1 Avoidance and Minimization Measures

Concept I-W incorporates several refinements that reduce the project's overall footprint, including optimizing interchange geometry by utilizing the land formerly occupied by the dunnhumby USA headquarters, reducing shoulder widths to match updated design criteria, lowering design speeds to reduce the required radii of curvature, constructing retaining walls, and reducing the width of the companion bridge. As shown in Table 9, these refinements have resulted in substantial reductions in residential and commercial relocations when compared to Selected Alternative I (from the 2012 FONSI).

The 2012 EA/FONSI documented 40 residential relocations. Furthermore, the data reported in the 2012 EA/FONSI counted apartment buildings as one unit, and Selected Alternative I would have relocated closer to 80 households. The current total of 4 residential relocations represents up to a 95 percent reduction compared to the original design of Selected Alternative I approved in the 2012 EA/FONSI. The reduction in residential relocations occurred primarily in disadvantaged communities and where populations of older adults, individuals with LEP, adults with disability, and/or zero-car households reside. Therefore, the impacts resulting from residential relocations have been avoided and minimized to the greatest extent practicable.

The 2012 EA/FONSI also quantified the removal of 204 feet of Longworth Hall as one commercial relocation, although the removal would have required 14 commercial tenants within that structure to relocate. When the commercial tenant relocations that were not quantified in the 2012 EA/FONSI are taken into account, Concept I-W requires two fewer full commercial relocations than Selected Alternative I (from the 2012 EA/FONSI).

The refinements incorporated into Concept I-W also reduced impacts on schools, historic resources, places of worship, and a hospital. Furthermore, the reconfigured Ezzard Charles Drive bridge was designed to avoid removing trees in Ezzard Charles Park, which is situated in a disadvantaged community and a census block group with populations of older adults, adults with disabilities, and zero-car households.

Table 9: Relocations Comparison

State	Selected Alternative I (from 2012 EA/FONSI) Relocations (units or businesses)	Refined Alternative I (Concept I-W) Relocations (units or full take, partial take)
Kentucky		
Residential	40 units[1]	4 units
Commercial	6 businesses	5 full, 0 partial
Ohio		
Residential	0 units	0 units
Commercial	8 businesses[2]	19 full[3], 1 partial
Total		
Residential	40 units[1]	4 units
Commercial	14 businesses[2]	24 full, 1 partial

1. This total counted apartment buildings as one unit and would have relocated closer to 80 households.

2. This total counted the removal of 204 feet of Longworth Hall as one commercial relocation and would have relocated 14 commercial tenants within that structure.

3. Total includes 14 tenants relocated due to the removal of 204 feet of Longworth Hall. Two tenants already plan to relocate within the remaining portions of Longworth Hall.

6.2 Mitigation Measures

The following measures incorporated into Concept I-W will mitigate impacts on disadvantaged communities and populations of older adults, individuals with LEP, adults with disabilities, and zero-car households and will be incorporated into the environmental commitments in the supplemental EA:

- KYTC and ODOT will remove and properly dispose of regulated solid waste, petroleum-contaminated soil and water, and underground storage tanks. In addition, Duke Energy is remediating contamination on the site of the West End Substation under the Ohio Environmental Protection Agency Voluntary Action Program (see Section 5.1.2).
- ODOT has fulfilled its commitment to compensate the City of Cincinnati for impacts to the Queensgate Playground and Ball Field in the West End neighborhood. These commitments were documented in an *MOA between ODOT and the City of Cincinnati Recreation Commission* executed on May 5, 2011. ODOT paid $198,050 to fulfill its financial commitments in the MOA on December 12, 2012. The City of Cincinnati reconfigured the ball fields in 2014. During construction, a proposed 10-foot noise barrier

may be installed along the park and highway boundary in lieu of the limited access right-of-way fencing specified in the MOA. If noise public involvement concludes that a noise barrier will not be built, then ODOT has committed to installing the limited access right-of-way fencing as noted above (see Section 5.2).

- To mitigate impacts to the Goebel Park Complex in the Mainstrasse neighborhood, KYTC is returning 2.23 acres of land that is currently occupied by the West 5th Street ramp to the park. The replacement land will be at a higher elevation than the impacted area, which will reduce flooding in the complex. Other impacts to the Goebel Park Complex will be mitigated through reconstruction of the walking trail within the complex and funding the development of a new Goebel Park Complex Master Plan, replacement and enhancement of the basketball courts or other outdoor recreation facilities within the park, and a relocated outdoor pool and associated facilities or other comparable aquatic facility serving the same purpose within the park (see Section 5.2).
- Mitigation measures for the Lewisburg Historic District were established in a *Programmatic Agreement Among FHWA, ODOT, KYTC, the Ohio SHPO, the Kentucky SHPO, and the City of Covington*. Mitigation measures include the recordation of demolished structures, the establishment of a $1.2 million grant program to improve and rehabilitate the façades of residential and commercial properties in the Lewisburg Historic District, and the monitoring and protection of historic structures from vibration (see Section 5.2).
- To mitigate impacts to Longworth Hall in the Queensgate neighborhood, ODOT committed to completing repairs, upgrades, restoration work, enhancements, and refurbishment on the portions of the building impacted by construction and the portions of the building to remain. These commitments were documented in a *Programmatic Agreement Among FHWA, ODOT, KYTC, the Ohio SHPO, the Kentucky SHPO, and the City of Covington.* ODOT's purchase of the full Longworth Hall property and activities in the building and on the exterior grounds during construction will not impact the building's continued use for commercial office, retail, and event space or the historic integrity of Longworth Hall (see Section 5.2).
- To mitigate noise impacts, noise barriers are proposed for areas west of I-71/I-75 between the Dixie Highway interchange and West 4th Street in Covington and east of I-71/I-75 from the southern project terminus to Pike Street in Covington. During final design, a noise abatement public meeting and surveys will be conducted with benefited receptors at each location where noise barriers are proposed in accordance with the KYTC *Noise Analysis and Abatement Policy* (see Section 5.5.3).
- To mitigate noise impacts, noise barriers are proposed east of I-75 in the West End neighborhood. The noise barriers will be built from the Queensgate Playground and Ball Field to Linn Street and from south of Freeman Avenue to Bank Street. ODOT has also committed to constructing 57-inch barriers on the Liberty Street, Findlay Street, and Bank Street bridge parapets to further reduce tire pavement noise. During final design and in accordance with the ODOT *Analysis and Abatement of Highway Traffic Noise Policy Statement*, ODOT will conduct noise abatement public involvement with benefited

receptors where noise abatement has been determined to be feasible and reasonable (see Section 5.5.3).

- To mitigate temporary construction impacts, KYTC and ODOT will develop an overall Traffic Management Plan, a detailed MOT plan, and an Incident Management Plan. KYTC and ODOT will also proactively communicate with local cities and the general public regarding construction activities. In addition, ODOT has committed to work with the City of Cincinnati to conduct before/after surveys of roadways impacted by increased traffic during construction. ODOT will restore roadways to pre-construction conditions once the project is complete. KYTC and ODOT will also implement a dust control plan and other measures to minimize and prevent discharge of dust, measures to minimize and prevent diesel emissions, an air quality monitoring and protection program, and measures to manage construction noise (see Section 5.9).

6.3 Enhancement Measures

The following enhancement measures incorporated into Concept I-W will benefit disadvantaged communities and populations of older adults, individuals with LEP, adults with disabilities, and zero-car households and will be incorporated into the environmental commitments in the supplemental EA:

- New and rebuilt sidewalks, shared-use paths, and bicycle lanes will be built parallel to I-71/I-75 and on every local street crossing of the highway. These facilities will enhance east-west connections on local streets that cross I-71/I-75, north-south connections adjacent to the highway, and may improve access to transit, employment, healthcare, cultural, recreational, and commercial destinations. In Kentucky, the multimodal facilities will improve access in and between the Westside, Mainstrasse, Lewisburg, Botany Hills, and Covington Central Business District neighborhoods. In Ohio, the multimodal facilities will improve access in and between the CBD Riverfront, Queensgate, and West End neighborhoods (see Sections 5.3.2 and 5.3.3).
- KYTC is going above and beyond the parameters of its noise policy and proposing a noise/visual screening barrier to provide noise reduction for residences south and west of the Dixie Highway interchange (near West Maple Avenue in the City of Fort Mitchell) and to shield views of the highway (see Section 5.5.3).
- KYTC is going above and beyond the parameters of its noise policy and recommending a noise/visual screening barrier to provide noise reduction in the Mainstrasse neighborhood and in the vicinity of the Goebel Park Complex (see Section 5.5.3).
- KYTC and ODOT are separating interstate stormwater runoff from combined sewer systems to reduce flooding and combined sewer overflows occurring in the Peaselburg, Mainstrasse, Queensgate and Camp Washington neighborhoods. In addition, during detailed design, KYTC will work with the City of Covington and Kentucky Sanitation District 1 to address surcharging in the Peaselburg neighborhood based on the local design criteria for a 25-year storm, which will further reduce flooding in this neighborhood (see Section 5.5.4).

- KYTC has committed to coordinating with the City of Covington to evaluate the use of transparent noise barriers in some locations to preserve views of the Goebel Park Complex from the highway and to preserve views of the skyline and across I-71/I-75 from surrounding neighborhoods (see Section 5.6).
- KYTC and ODOT are closely coordinating the aesthetic plans for the project with the cities of Fort Mitchell, Fort Wright, Covington, and Cincinnati to further their goals of creating vibrant urban spaces throughout the corridor. Items to be incorporated into the project include landscaping, streetscapes, gateways, and treatments for piers, abutments, noise and noise/visual screening barriers, and retaining walls. Multiple aesthetics meetings will be held during detailed design to finalize aesthetics plans (see Section 5.6).
- KYTC and ODOT are establishing goals for DBE firm participation, mentoring, and support during the project's progressive design-build contract (Phase III) (see Section 5.7).
- During the progressive design-build contract (Phase III), KYTC and ODOT will develop an on-the-job training program geared toward minorities, women, and disadvantaged persons (see Section 5.7).
- KYTC and ODOT will develop a workforce development plan to be implemented during the project's progressive design-build contract (Phase III) (see Section 5.7).
- Approximately 10 acres of excess land created by interchange and ramp refinements will be transferred to the City of Cincinnati for potential redevelopment and/or public use (see Section 5.8).

7. SUMMARY

The purpose of this report is to evaluate the effects Concept I-W will have on disadvantaged communities and populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

7.1 Socioeconomic Groups

In the socioeconomic study area, 32 of 76 census block groups have populations of older adults, 17 block groups have populations of individuals with LEP, 38 block groups have populations of adults with disabilities, and 33 block groups have populations of zero-car households. These communities are broadly dispersed throughout the socioeconomic study area, and some are located directly adjacent to the project corridor. The following sections summarize the effects of Concept I-W on populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

7.1.1 Relocations

Residential and commercial relocations will occur in census block groups with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Residential relocations include four single-family residences, two of which are tenant occupied. Commercial relocations in Kentucky include an

auto body shop, an auto service shop, a car dealership, a radio tower, and a heating and air conditioning company. In Ohio, relocated businesses include a printing shop, a fast-food restaurant, the dunnhumby USA headquarters, two vacant bar/night clubs, a vacant gas station, office space for six businesses, three recording or photography studios, an escape room, storage space for three businesses, and the removal of one building on property owned by a real estate company. Fourteen (14) of the commercial relocations in Ohio are tenants in Longworth Hall, six of which have short term, month-to-month leases. In addition, two tenants already plan to relocate within the remaining portions of Longworth Hall.

With the exception of the tenants in Longworth Hall, the Ohio businesses have already been relocated and/or removed under the 2012 FONSI. KYTC began acquiring the right-of-way for the project in early 2023. The residential and commercial relocations are anticipated to be complete in 2024. As a result of the right-of-way negotiation process, ODOT is in the process of purchasing the full Longworth Hall property at a mutually agreed upon price and from a willing seller. The portions of the building not removed will remain occupied and will continue to be utilized for commercial office, retail, and event space.

The only major employer displaced is the dunnhumby USA headquarters. However, a new, expanded headquarters (currently under new ownership and called 84.51°) has been built about one-half mile east in downtown Cincinnati. Ongoing acquisition activities in Kentucky have indicated that affected businesses will be able to relocate within the same geographic area if so desired, either in existing structures or new construction. None of the commercial relocations is expected to result in substantial job loss or economic impact, nor are they known to be substantial employers of older adults, individuals with LEP, adults with disabilities, or zero-car households or serve unique needs within these communities.

The acquisition of property for right-of-way (including residential and business relocations) has been, and will continue to be, in accordance with the Uniform Act. During the right-of-way acquisition process, KYTC and ODOT will provide assistance finding relocation properties with suitable accommodations for older adults, persons with disabilities, and multimodal access, as necessary. Translation services will also be offered to facilitate the relocation process for persons with LEP. No person displaced by this project will be required to move from a displaced dwelling unless comparable replacement housing is available to that person. If necessary, housing of last resort will be utilized to provide the flexibility necessary to respond to difficult or unique relocation conditions.

Given the above, the relocations associated with Concept I-W are expected to result in minimal impacts on populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

7.1.2 Community Resources

Concept I-W will result in minor impacts on schools, places of worship, and a hospital that may be utilized by or serve older adults, individuals with LEP, adults with disabilities, and members of zero-car households. However, no temporary or permanent impacts to the operations of these community facilities are anticipated. Concept I-W will also require minor amounts of right-of-way from the Hillsdale Subdivision Historic District and

the Elberta Apartments Historic District; however, Concept I-W will have no adverse effect on these historic districts. Concept I-W will also result in minor temporary impacts to the Firefighters Memorial and Ezzard Charles Park, but access to the parks will be maintained at all times, and no permanent impacts will occur.

Concept I-W will impact the Queensgate Playground and Ball Field, the Goebel Park Complex, the Lewisburg Historic District, and historic Longworth Hall, which are located within and serve communities with older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Measures incorporated into Concept I-W will mitigate impacts to the Queensgate Playground and Ball Field, the Goebel Park Complex, the Lewisburg Historic District, and Longworth Hall. Enhancement measures, such as noise/visual screening barriers and the separation of interstate runoff from combined sewer systems will provide additional benefits for the Goebel Park Complex. In consideration of the mitigation and enhancement measures incorporated into the design, Concept I-W is not anticipated to impact community resources that are utilized by or serve populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households; rather, the mitigation measures and other enhancement measures incorporated into Concept I-W will provide additional improvements to parks and historic resources in these communities.

7.1.3 Access, Mobility and Safety

Concept I-W includes several features that will improve access, mobility, and safety for vehicular traffic traveling to, from, and within communities with populations of older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Concept I-W is also anticipated to benefit these communities by reducing traffic congestion on the local street networks within them.

Concept I-W incorporates new and improved pedestrian and bicycle infrastructure in communities with older adults, individuals with LEP, adults with disabilities, and/or zero-car households. The proposed improvements will directly benefit these communities by increasing the options available to pedestrians and bicyclists, which will enhance community connectivity along and across the I-71/I-75 corridor and may improve access to transit, employment, healthcare, cultural, recreational, and commercial destinations. Furthermore, new bicycle lanes and shared-use paths will support future planned improvements of regional pedestrian and bicycle networks.

Concept I-W will reduce traffic congestion, improving reliability for local bus routes that use the BSB for 210 trips every weekday, thus benefitting older adults, individuals with LEP, adults with disabilities, and members of zero-car households who utilize these transit routes. In addition, new and improved sidewalks, shared-use paths, and bicycle lanes will enhance connections to existing bus stops and routes that are located in and serve these communities.

Given the above, Concept I-W is anticipated to directly benefit access, mobility, and safety for populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

7.1.4 Environmental

When the 2050 build scenario is compared to the 2020 existing scenario, vehicle emissions throughout the socioeconomic study area are expected to be substantially reduced. When the 2050 build scenario is compared to the 2050 no-build scenario, vehicle emissions throughout the socioeconomic study area are expected to be less or approximately the same, with slightly greater levels of PM2.5 in Kenton County. The affected areas of Kenton County include 28 of 76 (37 percent) census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households. Therefore, Concept I-W is not anticipated to further degrade, and may improve, overall air quality for populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

Greenhouse gas emissions are expected to be substantially decreased for both the 2050 no-build and 2050 build scenarios when compared to the 2020 existing scenario. These reductions are primarily due to the implementation of the latest federal emissions standards coupled with fleet turnover. Greenhouse gas emissions are expected to be slightly greater (0.7 percent) when the 2050 build scenario is compared to the 2050 no-build scenario. This is primarily due to an increase in vehicle miles of travel that will occur throughout the area transportation network when the project is built. In addition, the 0.7 percent difference in greenhouse gas emissions is less than the associated 1.7 percent difference in vehicle miles of travel. The change in greenhouse gas emissions is expected to have minimal effects on climate change in the socioeconomic study area.

Stormwater management measures incorporated into Concept I-W will promote climate resilience, and the project will be implemented in accordance with KYTC's and ODOT's *Transportation Asset Management Plans*. These measures will support efforts to reduce the effects of greenhouse gas emissions and climate change. Therefore, Concept I-W is not anticipated to appreciably impact greenhouse gas emissions and climate change for populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

For Concept I-W, noise impacts are predicted in communities with older adults, individuals with LEP, adults with disabilities, and/or zero-car households. However, KYTC and ODOT are proposing noise barriers to mitigate noise impacts or noise/visual screening barriers to provide enhanced sound reduction in these communities.

Concept I-W is anticipated to benefit populations of older adults, individuals with LEP, adults with disabilities, and zero-car households by reducing flooding and combined sewer overflows in their communities.

Given the above, and in consideration of the mitigation and enhancement measures incorporated into Concept I-W, net environmental benefits are expected for populations of older adults, individuals with LEP, adults with disabilities, and zero-auto households.

7.1.5 Visual

Concept I-W will result in minor visual changes in communities with older adults, individuals with LEP, adults with disabilities, and/or zero-car households due to the new companion bridge over the Ohio River, raising and widening I-71/I-75, the construction of a new C-D roadway system, retaining walls, vegetation removal, and noise and noise/visual screening barriers. While minor visual changes are anticipated, the aesthetic features incorporated into Concept I-W are anticipated to provide direct benefits for communities of older adults, individuals with LEP, adults with disabilities, and zero-car households by improving the visual character of the project corridor and helping to foster vibrant neighborhood spaces in those communities. Therefore, Concept I-W is expected to result in net visual benefits for populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

7.1.6 Workforce Development

Concept I-W will provide opportunities for DBE firm participation and implement an on-the-job training program and workforce development plan. While project-related DBE participation, on-the-job training, and workforce development opportunities will be broadly available, members of diverse socioeconomic groups will be afforded equal opportunities to share in these benefits. Although workforce development opportunities may not be as beneficial to persons who do not actively participate in the workforce, such as some older adults or some adults with disabilities, Concept I-W is expected to provide direct benefits to diverse socioeconomic groups in terms of job creation, business development, and income growth.

7.1.7 Indirect and Cumulative Effects

The relocation of the former dunnhumby USA headquarters helped to create new jobs and economic activity within a 1-mile radius of 21 census block groups with older adults, individuals with LEP, adults with disabilities, and/or zero-car households. In addition, Concept I-W will free up approximately 10 acres of land that will be transferred to the City of Cincinnati for potential redevelopment and/or public use adjacent to census block groups with populations of older adults, adults with disabilities, and/or zero-car households. Opportunities for DBE firm participation, on-the-job training, and workforce development programs incorporated into Concept I-W may also indirectly contribute to long-term enhancements in workforce diversity, employment, and income for these communities. Therefore, Concept I-W is not expected to result in a change in utilization of community resources; rather, net beneficial indirect effects on populations of older adults, individuals with LEP, adults with disabilities, and zero-car households are expected.

Concept I-W will improve community cohesion, improve traffic flow and safety for all modes of travel, improve air quality, abate noise, reduce flooding and storm sewer overflows, improve aesthetics, and provide additional economic opportunities, which will help to offset any cumulative effects from past, present, and reasonably foreseeable actions. Concept I-W will have a minor contribution to cumulative business and residential displacements and loss of parkland and historic resources. These cumulative effects will be experienced

across all socioeconomic groups, including populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

7.1.8 Temporary Construction Impacts

During construction, temporary access and mobility, noise, and air quality impacts are anticipated for all socioeconomic groups in the socioeconomic study area, including populations of older adults, individuals with LEP, adults with disabilities, and zero-car households. However, these impacts will be minimized to the greatest extent possible through proactive communication with local cities and the public and the development of plans for vibration protection, monitoring, and repair; a Traffic Management Plan; MOT plans for all modes of travel; an Incident Management Plan; a dust control plan and other measures to minimize and prevent discharge of dust; measures to minimize and prevent diesel emissions; an ambient air quality monitoring program; and measures to manage construction noise. ODOT has also committed restore roadways impacted by increased traffic during construction to pre-construction conditions. These measures will minimize construction-related disruptions on all socioeconomic groups, including populations of older adults, individuals with LEP, adults with disabilities, and zero-car households.

Given the above, temporary construction impacts on populations of older adults, individuals with LEP, adults with disabilities, and zero-car households will be temporary in nature and minimized to the greatest extent possible.

7.1.9 Conclusion

Concept I-W will result in residential and commercial relocations, minor impacts to community facilities, minor permanent changes in travel patterns, noise impacts, minor visual changes, a minor contribution to cumulative business and residential displacements and loss of parkland and historic resources, and temporary construction impacts on populations of older adults, individuals with LEP, adults with disabilities, and zero-car households. However, mitigation measures incorporated into Concept I-W will minimize and offset impacts. Furthermore, enhancement measures coupled with other features incorporated into Concept I-W will benefit older adults, individuals with LEP, adults with disabilities, and zero-car households by improving traffic flow and access; reducing traffic congestion; enhancing pedestrian, bicycle, and transit connections; improving safety for all modes of travel; improving local air quality; reducing greenhouse gas emissions; improving climate resilience; reducing traffic noise; reducing flooding and combined sewer overflows; improving aesthetics; creating jobs; providing opportunities for DBE firm participation, on-the-job training, and workforce development; and indirectly providing long-term enhancements in workforce diversity, employment, and income for populations of older adults, individuals with LEP, adults with disabilities, and zero-car households. All communities have been, and will continue to be, provided full and fair participation in the transportation decision-making process. When avoidance, minimization, mitigation, and enhancement measures are considered, impacts on older adults, individuals with LEP, adults with disabilities, and zero-car households will include relocations, a minor contribution to cumulative business and residential displacements and loss of parkland and historic resources, and temporary construction impacts. Given the balance of impacts and

benefits, Concept I-W is expected to result in net benefits for populations of older adults, individuals with LEP, adults with disabilities, and zero-car households (see Table 10).

Table 10: Summary of Anticipated Adverse Impacts and Benefits

Evaluation Area	Anticipated Adverse Impacts	Anticipated Benefits
Relocations	• Minimal impact from residential and commercial relocations.	• None.
Community Resources	• No impacts when mitigation is considered.	• Additional benefits from mitigation and enhancement measures in the Lewisburg Historic District, the Goebel Park Complex, and Queensgate Playground and Ball Field.
Access and Mobility		
Vehicular	• Minor changes in travel patterns with similar access accommodated.	• Improved traffic flow and access. • Reduced traffic congestion.
Pedestrian and Bicycle	• No impacts.	• New and improved multimodal facilities.
Transit	• No impacts.	• Improved transit connections and reliability for transit on I-71/I-75.
Safety	• No impacts.	• Improved vehicular, pedestrian, and bicycle safety.
Environmental		
Air Quality	• No impacts.	• Improved local air quality due to reduced emissions over existing conditions.
Greenhouse Gases and Climate Change	• Minimal impacts.	• Reduced greenhouse gas emissions compared to existing conditions. • Improved climate resilience.
Noise	• No substantial impacts when mitigation and enhancements are considered.	• Reduced traffic noise.
Stormwater	• No impacts.	• Reduced flooding. • Reduced combined sewer overflows.
Visual	• Minor visual changes.	• Improved aesthetics and visual character.
Workforce Development	• No impacts.	• Job creation. • Opportunities for DBE firm participation, on-the-job training, and workforce development.
Indirect and Cumulative	• No indirect impacts. • Minor cumulative residential and commercial displacements and loss of parkland and historic properties.	• Indirect enhancements in long-term workforce diversity, employment, and income growth.
Temporary Construction	• Minor short-term impacts to access and mobility, noise, and air quality minimized to the greatest extent practicable.	• None.

7.2 Disadvantaged Communities

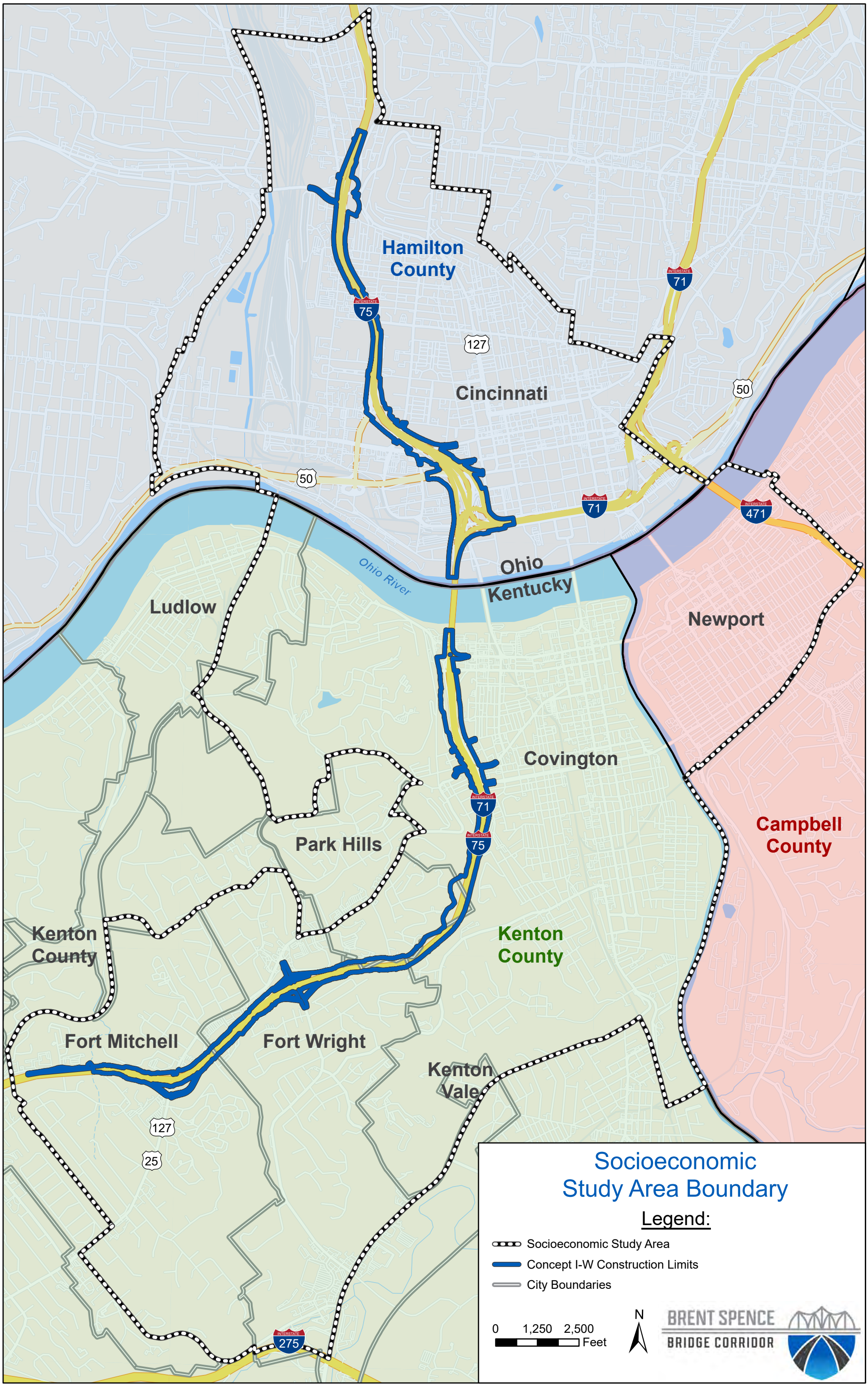
Of the 36 census tracts that intersect the socioeconomic study area, 21 are categorized as disadvantaged communities in at least one category of burden, and every category is represented in the socioeconomic study area. A summary of how Concept I-W is anticipated to address categories of burden for disadvantaged communities in the socioeconomic study area is included below:

- Climate change – No changes in agriculture loss rate, expected building loss rate, population loss rate, projected flood risk, or projected wildfire risk.
- Energy – No changes in energy cost. Reduced PM2.5 in the air due to: reduced traffic congestion; improvements for alternative modes of transportation, which may reduce reliance on vehicular travel; support for mass transit, which may reduce overall emissions.
- Health – Potential better health outcomes for those with asthma, diabetes, heart disease, or low life expectancy due to: improved access to healthcare destinations; improved options for active transportation; and improved air quality due to improved traffic flow and reduced vehicle idling.
- Housing – No changes in housing cost, lack of indoor plumbing, or lead paint. Proposed mitigation and enhancements in parks will preserve green space in the project area. Although the Lewisburg neighborhood is not identified as a disadvantaged community, the implementation of a grant program to improve and rehabilitate the façades of residential properties and the vibration protection, monitoring, and repair of residential structures in accordance with the Section 106 Programmatic Agreement will help to address historic underinvestment in this area.
- Legacy pollution – Reduced legacy pollution due to the management, proper disposal, and remediation of regulated materials contamination.
- Transportation – Improved local air quality due to reduced traffic congestion and reduced transportation barriers due to improved access and mobility for all modes of travel.
- Water and wastewater – Improved water and wastewater conditions due to: removal of underground storage tanks; provision of replacement land that is not prone to flooding in the Goebel Park Complex; and reduced flooding and combined sewer overflows due to the separation of interstate runoff from combined sewer systems and the implementation of measures to address surcharges in the Peaselburg neighborhood.
- Workforce development – Workforce improvements due to: jobs, and economic activity generated by the relocation of the former dunnhumby USA headquarters; future redevelopment opportunities on excess land; DBE participation, development, and support; on-the-job training; and the development and implementation of a workforce development plan.

Given the above, Concept I-W is not anticipated to further contribute to burdens for disadvantaged communities and incorporates several features that will help to address existing burdens experienced in these communities.

The measures incorporated into Concept I-W to address existing burdens are anticipated to be the most beneficial in the 17 census tracts that are directly adjacent to the project corridor. Of these, 10 (59 percent) have been identified as disadvantaged communities by the CEJST.

Appendix A:
Study Area and Population Maps


Hamilton County
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Ohio River
Ohio
Kentucky
Ludlow
Newport
Covington
Campbell County
Park Hills
Kenton County
Kenton County
Fort Mitchell
Fort Wright
Kenton Vale
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Socioeconomic Study Area Boundary
Legend:
Socioeconomic Study Area
Concept I-W Construction Limits
City Boundaries
0 1,250 2,500
Feet
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BRENT SPENCE BRIDGE CORRIDOR

Older Adults (Over Age 64)

Legend:

- Concept I-W Construction Limits
- Socioeconomic Study Area
- ## Census Block Group Map ID

People Over Age 64

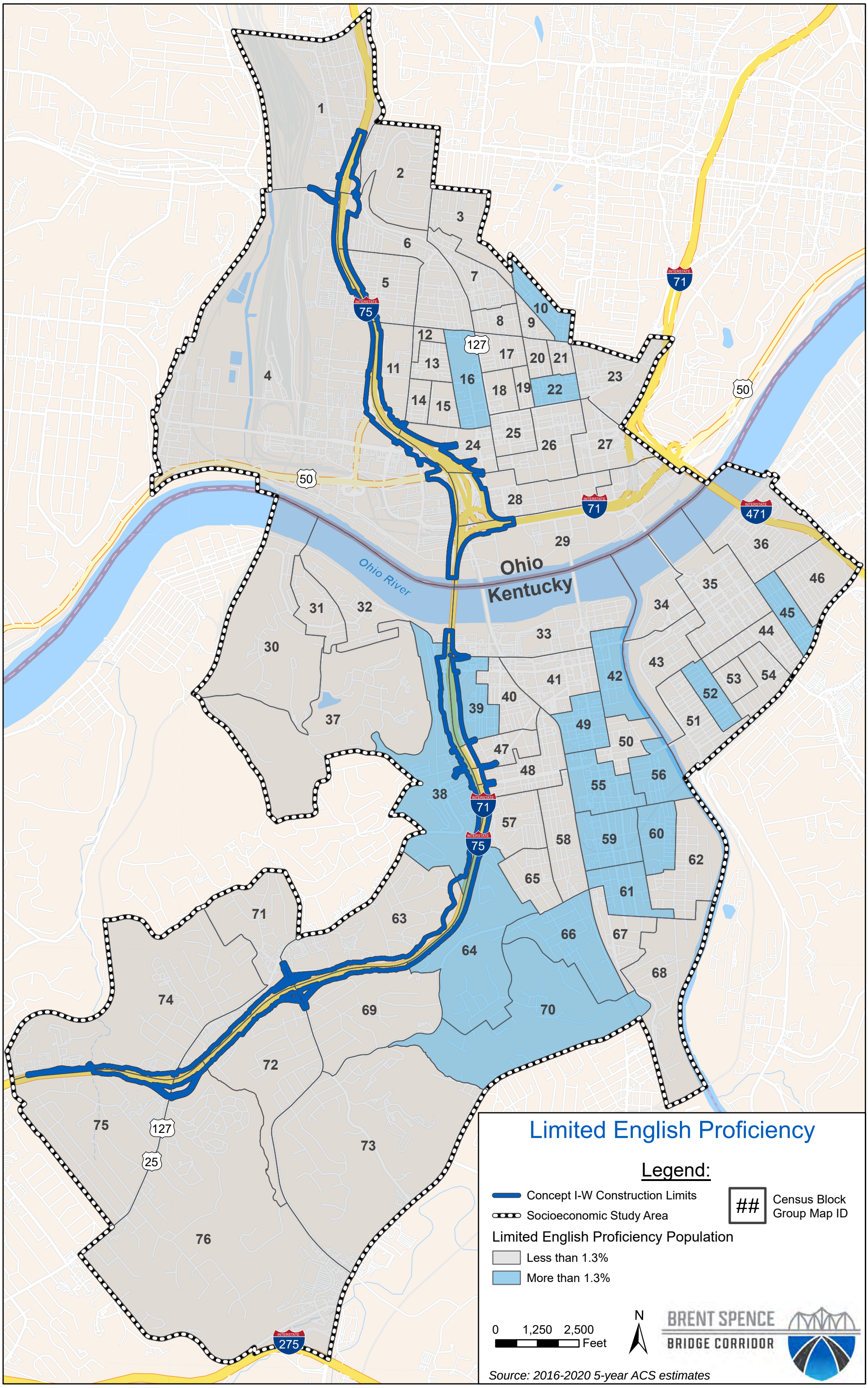
- Less than 11.7%
- More than 11.7%

0 1,250 2,500 Feet

N

BRENT SPENCE BRIDGE CORRIDOR

Source: 2016-2020 5-year ACS estimates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Ohio River
Ohio
Kentucky
INTERSTATE 75
INTERSTATE 71
INTERSTATE 471
INTERSTATE 275
50
127
25
Limited English Proficiency
Legend:
Concept I-W Construction Limits
Socioeconomic Study Area
Census Block Group Map ID
Limited English Proficiency Population
Less than 1.3%
More than 1.3%
0 1,250 2,500
Feet
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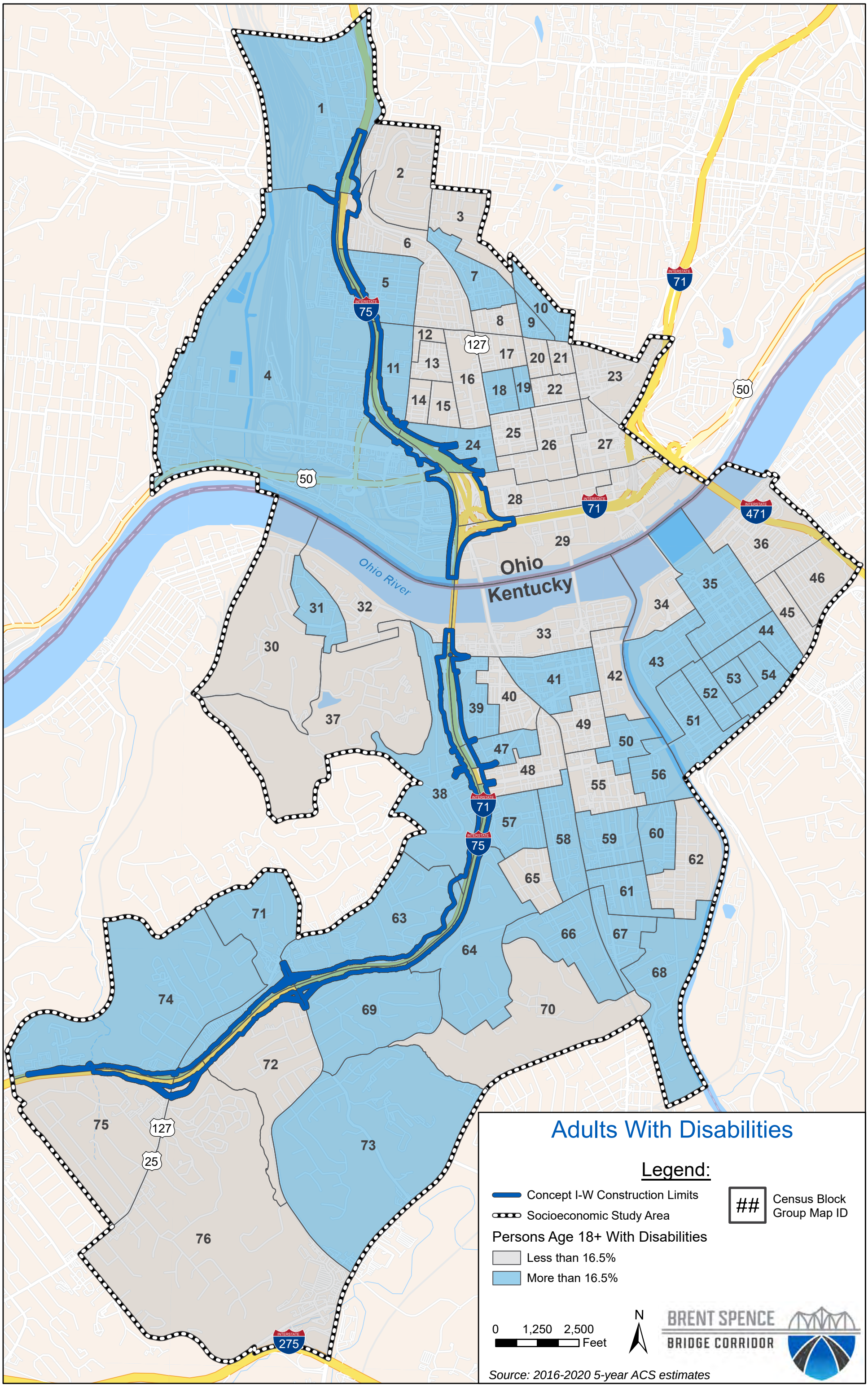
BRENT SPENCE
BRIDGE CORRIDOR
Source: 2016-2020 5-year ACS estimates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Ohio River
Ohio
Kentucky
INTERSTATE 75
INTERSTATE 71
INTERSTATE 471
INTERSTATE 275
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Adults With Disabilities
Legend:
Concept I-W Construction Limits
Socioeconomic Study Area
Census Block Group Map ID
Persons Age 18+ With Disabilities
Less than 16.5%
More than 16.5%
0 1,250 2,500
Feet
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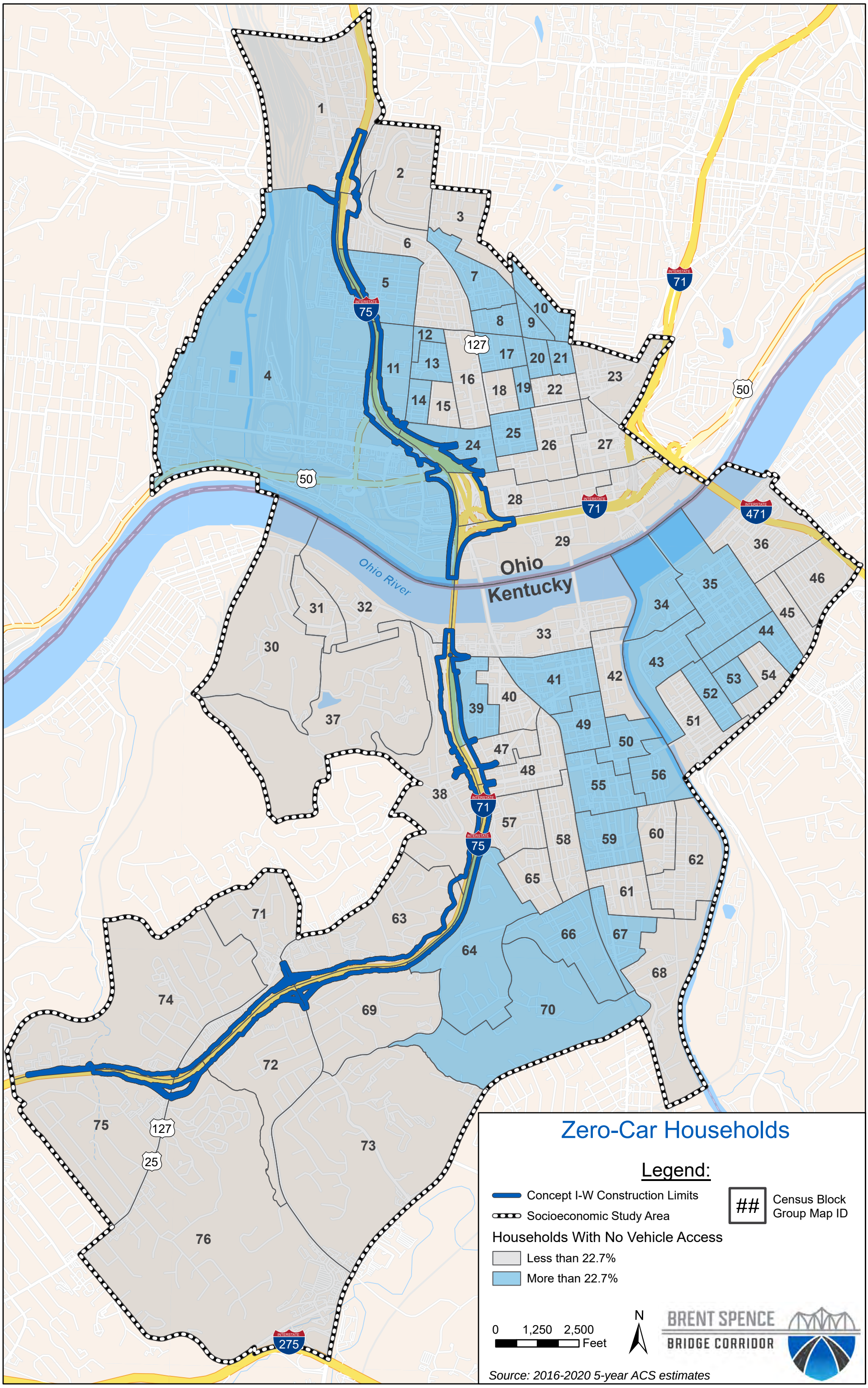
BRENT SPENCE
BRIDGE CORRIDOR
Source: 2016-2020 5-year ACS estimates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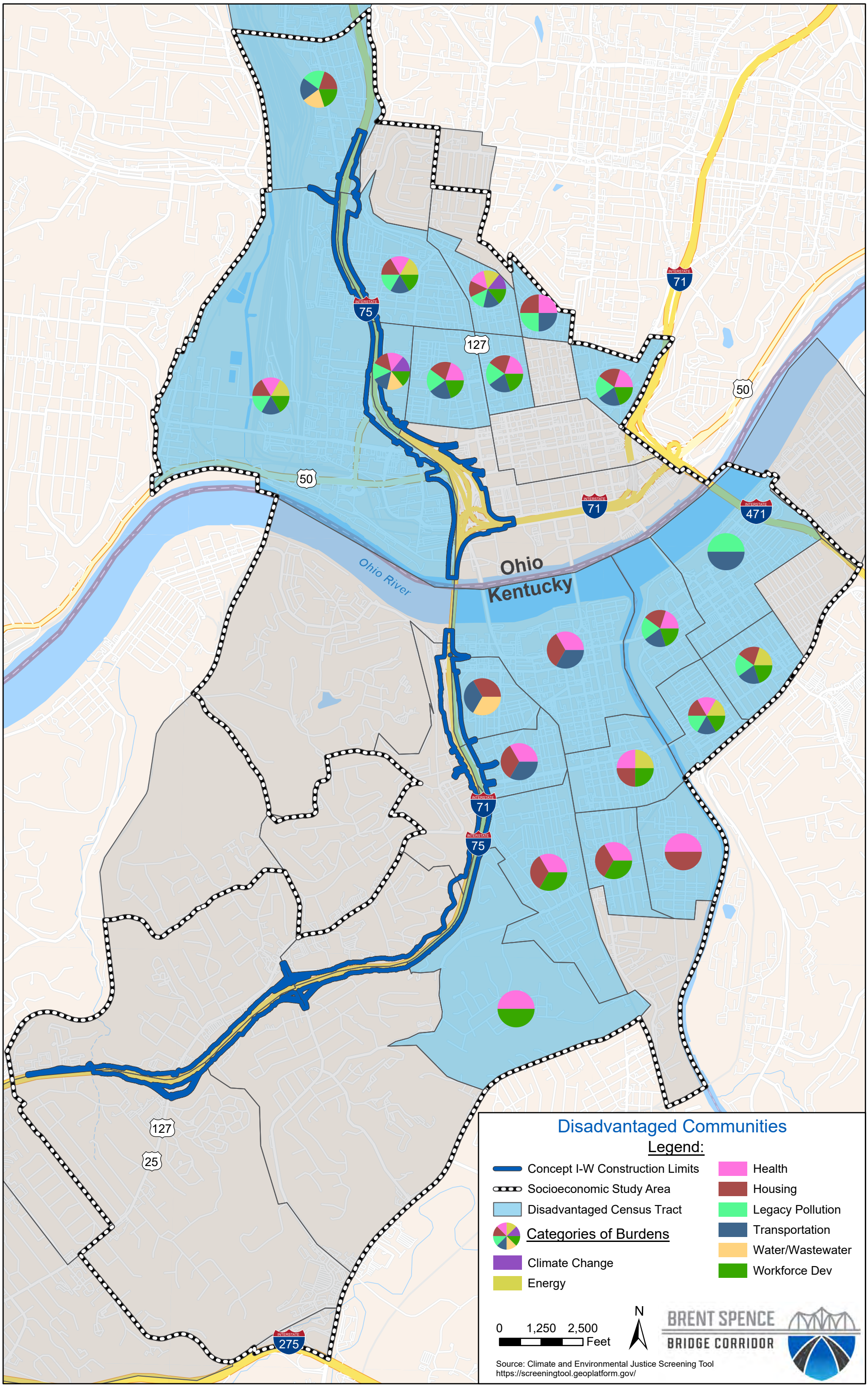
Ohio River
Ohio
Kentucky
INTERSTATE 75
INTERSTATE 71
INTERSTATE 471
INTERSTATE 275
50
127
25
Zero-Car Households
Legend:
Concept I-W Construction Limits
Socioeconomic Study Area
Census Block Group Map ID
Households With No Vehicle Access
Less than 22.7%
More than 22.7%
0 1,250 2,500
Feet
N
BRENT SPENCE
BRIDGE CORRIDOR
Source: 2016-2020 5-year ACS estimates


Ohio River
Ohio
Kentucky
INTERSTATE 75
INTERSTATE 71
INTERSTATE 471
127
50
25
INTERSTATE 275
Disadvantaged Communities
Legend:
Concept I-W Construction Limits
Socioeconomic Study Area
Disadvantaged Census Tract
Categories of Burdens
Climate Change
Energy
Health
Housing
Legacy Pollution
Transportation
Water/Wastewater
Workforce Dev
0 1,250 2,500
Feet
N
BRENT SPENCE
BRIDGE CORRIDOR
Source: Climate and Environmental Justice Screening Tool
https://screeningtool.geoplatform.gov/

Appendix B:
Population Tables

Table 1: Population Characteristics - Older Adults

Geography	Total Population	Older Adults (Over Age 64)	
		Population	Percentage
State of Kentucky	4,461,952	729,928	16.36%
State of Ohio	11,675,275	1,990,621	17.05%
Campbell County, KY	93,608	14,811	15.82%
Kenton County, KY	166,552	23,915	14.36%
Hamilton County, OH	815,790	125,679	15.41%
Covington, KY	40,466	5,258	12.99%
Fort Mitchell, KY	8,278	1,132	13.67%
Fort Wright, KY	5,766	1,015	17.60%
Park Hills, KY	2,993	444	14.83%
Cincinnati, OH	302,687	37,738	12.47%
Socioeconomic Study Area	71,496	8,333	11.66%

Map ID	Census Block Group	Total Population	Older Adults (Over Age 64)	
			Population	Percentage
1	390610028002	370	33	8.92%
2	390610027001	1,688	124	7.35%
3	390610026002	1,344	16	1.19%
4	390610263001	1,132	86	7.60%
5	390610269002	2,481	247	9.96%
6	390610269001	612	25	4.08%
7	390610016001	448	70	15.63%
8	390610016002	348	23	6.61%
9	390610017002	242	28	11.57%
10	390610017001	894	87	9.73%
11	390610002001	897	224	24.97%
12	390610264002	568	0	0.00%
13	390610264001	884	25	2.83%
14	390610264005	1,022	49	4.79%
15	390610264004	52	18	34.62%
16	390610264003	444	68	15.32%
17	390610009001	1,018	119	11.69%
18	390610009003	258	43	16.67%
19	390610009002	556	27	4.86%
20	390610010001	648	7	1.08%
21	390610010002	660	41	6.21%
22	390610010003	335	23	6.87%
23	390610011001	980	42	4.29%
24	390610265001	763	54	7.08%
25	390610007002	566	25	4.42%
26	390610007003	926	102	11.02%
27	390610007001	453	25	5.52%
28	390610265003	1,119	41	3.66%
29	390610265002	842	115	13.66%
30	211170638003	1,090	265	24.31%
31	211170638002	509	50	9.82%
32	211170638001	659	112	17.00%
33	211170670004	607	158	26.03%
34	210370501001	131	22	16.79%
35	210370532001	1,863	114	6.12%
36	210370532002	1,370	134	9.78%
37	211170638004	901	60	6.66%
38	211170616001	1,191	112	9.40%
39	211170603002	785	65	8.28%
40	211170603001	805	46	5.71%
41	211170670002	1,247	237	19.01%
42	211170670003	900	314	34.89%
43	210370501002	1,372	309	22.52%
44	210370505001	1,019	29	2.85%
45	210370504001	1,248	99	7.93%
46	210370504002	1,126	222	19.72%
47	211170607002	647	145	22.41%
48	211170607001	930	85	9.14%
49	211170670001	940	105	11.17%
50	211170671002	856	101	11.80%
51	210370506002	832	116	13.94%
52	210370506001	915	286	31.26%
53	210370505003	521	65	12.48%
54	210370505002	425	67	15.76%
55	211170671003	1,005	77	7.66%
56	211170671001	677	103	15.21%
57	211170650002	404	7	1.73%
58	211170650001	785	92	11.72%
59	211170609001	1,110	32	2.88%
60	211170610002	803	116	14.45%
61	211170609002	1,215	151	12.43%
62	211170610001	1,443	152	10.53%
63	211170649003	1,377	218	15.83%
64	211170651001	1,171	236	20.15%
65	211170650004	1,223	79	6.46%
66	211170650003	835	116	13.89%
67	211170611002	669	95	14.20%
68	211170611001	795	74	9.31%
69	211170652001	1,303	104	7.98%
70	211170651002	2,302	89	3.87%
71	211170648003	459	79	17.21%
72	211170652002	1,099	98	8.92%
73	211170652003	1,745	667	38.22%
74	211170648002	1,633	320	19.60%
75	211170647002	2,317	182	7.85%
76	211170647001	1,687	141	8.36%

Source: U.S. Census Bureau American Community Survey 2020 5-Year Estimates, Table B01001

Note: Light blue shading indicates census block groups where the percent of older adults is above the percent of older adults for the Socioeconomic Study Area.

Table 2: Population Characteristics - Limited English Proficiency

Geography	Total Population Age 5 and Over	Limited English Proficiency Age 5 and Over	
		Population	Percentage
State of Kentucky	4,188,377	42,989	1.03%
State of Ohio	10,982,292	115,238	1.05%
Campbell County, KY	88,253	330	0.37%
Kenton County, KY	155,589	1,772	1.14%
Hamilton County, OH	762,550	9,877	1.30%
Covington, KY	37,488	792	2.11%
Fort Mitchell, KY	7,675	33	0.43%
Fort Wright, KY	5,559	16	0.29%
Park Hills, KY	2,817	0	0.00%
Cincinnati, OH	281,075	4,327	1.54%
Socioeconomic Study Area	66,332	874	1.32%

Map ID	Census Block Group	Total Population	Limited English Proficiency Age 5 and Over	
			Population	Percentage
1	390610028002	325	0	0.00%
2	390610027001	1,642	0	0.00%
3	390610026002	1,344	0	0.00%
4	390610263001	934	0	0.00%
5	390610269002	2,002	0	0.00%
6	390610269001	584	1	0.17%
7	390610016001	394	0	0.00%
8	390610016002	265	0	0.00%
9	390610017002	242	0	0.00%
10	390610017001	860	50	5.81%
11	390610002001	800	9	1.13%
12	390610264002	405	0	0.00%
13	390610264001	825	0	0.00%
14	390610264005	1,001	0	0.00%
15	390610264004	52	0	0.00%
16	390610264003	444	12	2.70%
17	390610009001	961	0	0.00%
18	390610009003	258	0	0.00%
19	390610009002	514	0	0.00%
20	390610010001	609	0	0.00%
21	390610010002	656	0	0.00%
22	390610010003	330	43	13.03%
23	390610011001	898	0	0.00%
24	390610265001	655	0	0.00%
25	390610007002	556	0	0.00%
26	390610007003	911	0	0.00%
27	390610007001	449	0	0.00%
28	390610265003	1,056	0	0.00%
29	390610265002	826	0	0.00%
30	211170638003	1,067	0	0.00%
31	211170638002	509	0	0.00%
32	211170638001	644	0	0.00%
33	211170670004	607	0	0.00%
34	210370501001	131	0	0.00%
35	210370532001	1,765	11	0.62%
36	210370532002	1,259	0	0.00%
37	211170638004	876	0	0.00%
38	211170616001	1,118	71	6.35%
39	211170603002	700	10	1.43%
40	211170603001	774	0	0.00%
41	211170670002	1,212	0	0.00%
42	211170670003	900	12	1.33%
43	210370501002	1,239	10	0.81%
44	210370505001	973	0	0.00%
45	210370504001	1,141	16	1.40%
46	210370504002	1,060	0	0.00%
47	211170607002	604	0	0.00%
48	211170607001	885	5	0.56%
49	211170670001	733	124	16.92%
50	211170671002	696	4	0.57%
51	210370506002	751	0	0.00%
52	210370506001	860	15	1.74%
53	210370505003	485	0	0.00%
54	210370505002	409	0	0.00%
55	211170671003	918	39	4.25%
56	211170671001	579	11	1.90%
57	211170650002	390	0	0.00%
58	211170650001	785	0	0.00%
59	211170609001	949	105	11.06%
60	211170610002	733	29	3.96%
61	211170609002	1,120	37	3.30%
62	211170610001	1,213	0	0.00%
63	211170649003	1,272	0	0.00%
64	211170651001	1,118	80	7.16%
65	211170650004	1,148	0	0.00%
66	211170650003	782	20	2.56%
67	211170611002	666	0	0.00%
68	211170611001	745	0	0.00%
69	211170652001	1,252	0	0.00%
70	211170651002	2,049	160	7.81%
71	211170648003	445	0	0.00%
72	211170652002	1,001	0	0.00%
73	211170652003	1,682	0	0.00%
74	211170648002	1,519	0	0.00%
75	211170647002	2,160	0	0.00%
76	211170647001	1,610	0	0.00%

Source: U.S. Census Bureau American Community Survey 2020 5-Year Estimates, Table B16004

Note: Light blue shading indicates census block groups where the percent LEP population is above the percent LEP population for the Socioeconomic Study Area.

Table 3: Population Characteristics - Adults with Disabilities (18 Years and Older)

Geography	Total Population Age 18 and Over	Adults with Disabilities	
		Population 18 and Over	Percentage
State of Kentucky	3,330,918	705,961	21.19%
State of Ohio	8,796,379	1,475,726	16.78%
Campbell County, KY	70,987	10,882	15.33%
Kenton County, KY	125,252	20,293	16.20%
Hamilton County, OH	613,316	87,095	14.20%
Covington, KY	30,798	5,901	19.16%
Fort Mitchell, KY	6,052	980	16.19%
Fort Wright, KY	4,513	674	14.93%
Park Hills, KY	2,358	330	13.99%
Cincinnati, OH	226,754	34,852	15.37%
Socioeconomic Study Area	54,777	9,038	16.50%

Map ID	Census Block Group	Total Population Age 18 and Over	Adults with Disabilities	
			Population 18 and Over	Percentage
1	390610028002	320	59	18.44%
2	390610027001	1,545	182	11.78%
3	390610026002	1,266	38	3.00%
4	390610263001	760	171	22.50%
5	390610269002	1,187	303	25.53%
6	390610269001	531	11	2.07%
7	390610016001	333	113	33.93%
8	390610016002	265	29	10.94%
9	390610017002	140	32	22.86%
10	390610017001	742	153	20.62%
11	390610002001	722	140	19.39%
12	390610264002	157	14	8.92%
13	390610264001	555	47	8.47%
14	390610264005	715	98	13.71%
15	390610264004	52	0	0.00%
16	390610264003	408	30	7.35%
17	390610009001	903	97	10.74%
18	390610009003	258	48	18.60%
19	390610009002	457	117	25.60%
20	390610010001	410	33	8.05%
21	390610010002	644	56	8.70%
22	390610010003	330	12	3.64%
23	390610011001	762	63	8.27%
24	390610265001	655	277	42.29%
25	390610007002	556	48	8.63%
26	390610007003	898	68	7.57%
27	390610007001	355	14	3.94%
28	390610265003	1,038	39	3.76%
29	390610265002	810	52	6.42%
30	211170638003	965	68	7.05%
31	211170638002	483	143	29.61%
32	211170638001	618	49	7.93%
33	211170670004	555	11	1.98%
34	210370501001	131	14	10.69%
35	210370532001	901	171	18.98%
36	210370532002	1,072	79	7.37%
37	211170638004	762	48	6.30%
38	211170616001	1,038	181	17.44%
39	211170603002	662	171	25.83%
40	211170603001	708	102	14.41%
41	211170670002	1,111	200	18.00%
42	211170670003	883	125	14.16%
43	210370501002	1,020	185	18.14%
44	210370505001	829	247	29.79%
45	210370504001	965	75	7.77%
46	210370504002	989	109	11.02%
47	211170607002	572	117	20.45%
48	211170607001	812	115	14.16%
49	211170670001	582	63	10.82%
50	211170671002	523	137	26.20%
51	210370506002	564	208	36.88%
52	210370506001	716	338	47.21%
53	210370505003	476	108	22.69%
54	210370505002	364	169	46.43%
55	211170671003	773	101	13.07%
56	211170671001	440	89	20.23%
57	211170650002	340	119	35.00%
58	211170650001	693	132	19.05%
59	211170609001	733	187	25.51%
60	211170610002	559	147	26.30%
61	211170609002	883	185	20.95%
62	211170610001	937	114	12.17%
63	211170649003	1,026	248	24.17%
64	211170651001	962	326	33.89%
65	211170650004	997	61	6.12%
66	211170650003	539	165	30.61%
67	211170611002	551	111	20.15%
68	211170611001	615	105	17.07%
69	211170652001	966	193	19.98%
70	211170651002	1,250	192	15.36%
71	211170648003	406	82	20.20%
72	211170652002	696	84	12.07%
73	211170652003	1,378	324	23.51%
74	211170648002	1,175	224	19.06%
75	211170647002	1,641	171	10.42%
76	211170647001	1,142	101	8.84%

Source: U.S. Census Bureau American Community Survey 2020 5-Year Estimates, Table C21007

Note: Light blue shading indicates census block groups where the percent of adults with disabilities is above the percent of adults with disabilities for the Socioeconomic Study Area.

Table 4: Population Characteristics - Zero-Car Households

Geography	Total Occupied Households	No Access to Vehicles	
		Households	Percentage
State of Kentucky	1,748,053	122,132	6.99%
State of Ohio	4,717,226	365,855	7.76%
Campbell County, KY	37,197	2,718	7.31%
Kenton County, KY	64,544	4,723	7.32%
Hamilton County, OH	344,588	37,864	10.99%
Covington, KY	17,397	3,204	18.42%
Fort Mitchell, KY	3,331	157	4.71%
Fort Wright, KY	2,333	35	1.50%
Park Hills, KY	1,277	44	3.45%
Cincinnati, OH	138,696	26,387	19.03%
Socioeconomic Study Area	32,557	7,387	22.69%

Map ID	Census Block Group	Total Occupied Households	No Access to Vehicles	
			Households	Percentage
1	390610028002	158	30	18.99%
2	390610027001	782	57	7.29%
3	390610026002	628	33	5.25%
4	390610263001	369	161	43.63%
5	390610269002	936	597	63.78%
6	390610269001	190	23	12.11%
7	390610016001	280	169	60.36%
8	390610016002	168	61	36.31%
9	390610017002	77	69	89.61%
10	390610017001	543	181	33.33%
11	390610002001	515	266	51.65%
12	390610264002	145	66	45.52%
13	390610264001	418	307	73.44%
14	390610264005	416	130	31.25%
15	390610264004	35	0	0.00%
16	390610264003	248	0	0.00%
17	390610009001	437	104	23.80%
18	390610009003	0	0	0.00%
19	390610009002	294	105	35.71%
20	390610010001	312	96	30.77%
21	390610010002	479	136	28.39%
22	390610010003	210	0	0.00%
23	390610011001	476	50	10.50%
24	390610265001	609	489	80.30%
25	390610007002	450	137	30.44%
26	390610007003	598	103	17.22%
27	390610007001	304	13	4.28%
28	390610265003	748	149	19.92%
29	390610265002	539	22	4.08%
30	211170638003	592	0	0.00%
31	211170638002	193	18	9.33%
32	211170638001	407	39	9.58%
33	211170670004	376	24	6.38%
34	210370501001	98	31	31.63%
35	210370532001	505	182	36.04%
36	210370532002	691	28	4.05%
37	211170638004	427	0	0.00%
38	211170616001	651	116	17.82%
39	211170603002	385	97	25.19%
40	211170603001	366	41	11.20%
41	211170670002	711	219	30.80%
42	211170670003	456	57	12.50%
43	210370501002	763	337	44.17%
44	210370505001	382	88	23.04%
45	210370504001	526	75	14.26%
46	210370504002	518	16	3.09%
47	211170607002	326	57	17.48%
48	211170607001	527	54	10.25%
49	211170670001	364	156	42.86%
50	211170671002	374	113	30.21%
51	210370506002	310	69	22.26%
52	210370506001	434	233	53.69%
53	210370505003	212	97	45.75%
54	210370505002	205	9	4.39%
55	211170671003	423	186	43.97%
56	211170671001	254	67	26.38%
57	211170650002	241	45	18.67%
58	211170650001	442	58	13.12%
59	211170609001	361	87	24.10%
60	211170610002	329	54	16.41%
61	211170609002	469	103	21.96%
62	211170610001	461	41	8.89%
63	211170649003	531	15	2.82%
64	211170651001	605	139	22.98%
65	211170650004	487	22	4.52%
66	211170650003	273	93	34.07%
67	211170611002	342	78	22.81%
68	211170611001	345	14	4.06%
69	211170652001	469	35	7.46%
70	211170651002	940	467	49.68%
71	211170648003	216	9	4.17%
72	211170652002	338	8	2.37%
73	211170652003	791	84	10.62%
74	211170648002	657	0	0.00%
75	211170647002	784	54	6.89%
76	211170647001	636	18	2.83%

Source: U.S. Census Bureau American Community Survey 2020 5-Year Estimates, Table B25044

Note: Light blue shading indicates census block groups where the percent of zero-car households is above the percent of zero-car households for the Socioeconomic Study Area.

Appendix C:
CEJST Data

Table 1: Disadvantaged Populations - Summary by Census Tract

Census Tract	Disadvantaged?	Number of Categories of Burden Determined to be Disadvantaged	Disadvantaged for Climate Change Category of Burden?	Disadvantaged for Energy Category of Burden?	Disadvantaged for Health Category of Burden?	Disadvantaged for Housing Category of Burden?	Disadvantaged for Legacy Pollution Category of Burden?	Disadvantaged for Transportation Category of Burden?	Disadvantaged for Water and Wastewater Category of Burden?	Disadvantaged for Workforce Development Category of Burden?
39061000200	YES	7	YES	NO	YES	YES	YES	YES	YES	YES
39061000700	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
39061000900	YES	5	NO	NO	YES	YES	YES	YES	NO	YES
39061001000	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
39061001100	YES	5	NO	NO	YES	YES	YES	YES	NO	YES
39061001600	YES	7	YES	YES	YES	YES	YES	YES	NO	YES
39061001700	YES	4	NO	NO	YES	YES	YES	YES	NO	NO
39061002600	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
39061002700	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
39061002800	YES	5	NO	NO	NO	YES	YES	YES	YES	YES
39061026300	YES	6	NO	YES	YES	YES	YES	YES	NO	YES
39061026400	YES	5	NO	NO	YES	YES	YES	YES	NO	YES
39061026500	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
39061026900	YES	6	NO	YES	YES	YES	YES	YES	NO	YES
21037050100	YES	5	NO	NO	YES	YES	YES	YES	NO	YES
21037050400	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21037050500	YES	5	NO	YES	NO	YES	YES	YES	NO	YES
21037050600	YES	6	NO	YES	YES	YES	YES	YES	NO	YES
21037053200	YES	2	NO	NO	NO	NO	YES	YES	NO	NO
21117060300	YES	3	NO	NO	NO	YES	NO	YES	YES	NO
21117060700	YES	3	NO	NO	YES	YES	NO	YES	NO	NO
21117060900	YES	3	NO	NO	YES	YES	NO	NO	NO	YES
21117061000	YES	2	NO	NO	YES	YES	NO	NO	NO	NO
21117061100	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21117061600	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21117063800	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21117064700	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21117064800	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21117064900	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21117065000	YES	3	NO	NO	YES	YES	NO	NO	NO	YES
21117065100	YES	2	NO	NO	YES	NO	NO	NO	NO	YES
21117065200	NO	0	NO	NO	NO	NO	NO	NO	NO	NO
21117067000	YES	3	NO	NO	YES	YES	NO	YES	NO	NO
21117067100	YES	4	NO	YES	YES	YES	NO	NO	NO	YES

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 2: Disadvantaged Populations - Climate Change Category of Burden

		Socioeconomic Threshold					Environmental, Climate, or Other Burden Thresholds							
Census Tract	Disadvantaged for Climate Change Category of Burden?	Total population	Adjusted percent of individuals below 200% Federal Poverty Line (percentile)	Adjusted percent of individuals below 200% Federal Poverty Line	Is low income?	Income data has been estimated based on geographic neighbor income	Greater than or equal to the 90th percentile for expected agriculture loss rate and is low income?	Expected agricultural loss rate (Natural Hazards Risk Index) (percentile)	Expected agricultural loss rate (Natural Hazards Risk Index)	Greater than or equal to the 90th percentile for expected building loss rate and is low income?	Expected building loss rate (Natural Hazards Risk Index) (percentile)	Expected building loss rate (Natural Hazards Risk Index)	Greater than or equal to the 90th percentile for expected population loss rate and is low income?	Expected population loss rate (Natural Hazards Risk Index) (percentile)
39061000200	YES	902	0.99	0.76	TRUE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061000700	NO	1903	0.32	0.13	FALSE	FALSE	FALSE		0	FALSE	58	0.0187	FALSE	57
39061000900	NO	1882	0.87	0.49	TRUE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061001000	NO	1524	0.43	0.19	FALSE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061001100	NO	1083	0.77	0.39	TRUE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061001600	YES	802	0.97	0.68	TRUE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061001700	NO	992	0.94	0.59	TRUE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061002600	NO	3378	0.29	0.12	FALSE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061002700	NO	1599	0.11	0.03	FALSE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061002800	NO	1396	0.77	0.39	TRUE	FALSE	FALSE		0	FALSE	56	0.0181	FALSE	56
39061026300	NO	1004	0.99	0.79	TRUE	FALSE	FALSE	38	0.0438	FALSE	62	0.0214	FALSE	61
39061026400	NO	2736	0.94	0.6	TRUE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
39061026500	NO	2702	0.48	0.21	FALSE	FALSE	FALSE		0	FALSE	60	0.02	FALSE	67
39061026900	NO	2309	0.96	0.64	TRUE	FALSE	FALSE		0	FALSE	56	0.0179	FALSE	56
21037050100	NO	1518	0.98	0.72	TRUE	FALSE	FALSE	3	0	FALSE	60	0.0203	FALSE	69
21037050400	NO	2268	0.58	0.27	FALSE	FALSE	FALSE		0	FALSE	60	0.0202	FALSE	67
21037050500	NO	1916	0.93	0.57	TRUE	FALSE	FALSE		0	FALSE	60	0.0202	FALSE	61
21037050600	NO	1882	0.99	0.79	TRUE	FALSE	FALSE		0	FALSE	60	0.0202	FALSE	62
21037053200	NO	3509	0.65	0.31	TRUE	FALSE	FALSE		0	FALSE	60	0.0204	FALSE	68
21117060300	NO	1660	0.73	0.36	TRUE	FALSE	FALSE		0	FALSE	60	0.0205	FALSE	62
21117060700	NO	1676	0.8	0.42	TRUE	FALSE	FALSE		0	FALSE	60	0.0204	FALSE	62
21117060900	NO	2553	0.96	0.63	TRUE	FALSE	FALSE		0	FALSE	60	0.0205	FALSE	62
21117061000	NO	2280	0.82	0.44	TRUE	FALSE	FALSE	6	0.0002	FALSE	62	0.0214	FALSE	69
21117061100	NO	1430	0.61	0.29	FALSE	FALSE	FALSE	8	0.0005	FALSE	64	0.0229	FALSE	73
21117061600	NO	1150	0.55	0.25	FALSE	FALSE	FALSE	1	0	FALSE	62	0.022	FALSE	65
21117063800	NO	2570	0.4	0.17	FALSE	FALSE	FALSE	12	0.0011	FALSE	65	0.0243	FALSE	69
21117064700	NO	5277	0.21	0.08	FALSE	FALSE	FALSE	8	0.0004	FALSE	60	0.0203	FALSE	62
21117064800	NO	3359	0.19	0.07	FALSE	FALSE	FALSE	2	0	FALSE	60	0.0204	FALSE	62
21117064900	NO	2987	0.56	0.26	FALSE	FALSE	FALSE	2	0	FALSE	68	0.0275	FALSE	71
21117065000	NO	3809	0.81	0.42	TRUE	FALSE	FALSE	1	0	FALSE	60	0.0205	FALSE	62
21117065100	NO	3443	0.92	0.55	TRUE	FALSE	FALSE	7	0.0003	FALSE	60	0.0205	FALSE	62
21117065200	NO	4287	0.19	0.07	FALSE	FALSE	FALSE	14	0.0018	FALSE	61	0.0207	FALSE	63
21117067000	NO	2986	0.69	0.33	TRUE	FALSE	FALSE		0	FALSE	63	0.0226	FALSE	71
21117067100	NO	2296	0.97	0.67	TRUE	FALSE	FALSE		0	FALSE	60	0.0205	FALSE	63

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 2: Disadvantaged Populations - Climate Change Category of Burden (Cont.)

	Environmental, Climate, or Other Burden Thresholds								
Census Tract	Expected population loss rate (Natural Hazards Risk Index)	Share of properties at risk of flood in 30 years (percentile)	Share of properties at risk of flood in 30 years	Greater than or equal to the 90th percentile for share of properties at risk of flood in 30 years	Greater than or equal to the 90th percentile for share of properties at risk of flood in 30 years and is low income?	Share of properties at risk of fire in 30 years (percentile)	Share of properties at risk of fire in 30 years	Greater than or equal to the 90th percentile for share of properties at risk of fire in 30 years	Greater than or equal to the 90th percentile for share of properties at risk of fire in 30 years and is low income?
39061000200	0.0002	94	40	TRUE	TRUE	33	0	FALSE	FALSE
39061000700	0.0002	16	2	FALSE	FALSE	33	0	FALSE	FALSE
39061000900	0.0002	30	4	FALSE	FALSE	33	0	FALSE	FALSE
39061001000	0.0002	63	10	FALSE	FALSE	33	0	FALSE	FALSE
39061001100	0.0002	82	17	FALSE	FALSE	33	0	FALSE	FALSE
39061001600	0.0002	90	26	TRUE	TRUE	33	0	FALSE	FALSE
39061001700	0.0002	11	1	FALSE	FALSE	33	0	FALSE	FALSE
39061002600	0.0002	1	0	FALSE	FALSE	33	0	FALSE	FALSE
39061002700	0.0002	1	0	FALSE	FALSE	33	0	FALSE	FALSE
39061002800	0.0002	79	15	FALSE	FALSE	33	0	FALSE	FALSE
39061026300	0.0002	86	21	FALSE	FALSE	33	0	FALSE	FALSE
39061026400	0.0002	1	0	FALSE	FALSE	33	0	FALSE	FALSE
39061026500	0.0003	86	20	FALSE	FALSE	33	0	FALSE	FALSE
39061026900	0.0002	62	9	FALSE	FALSE	33	0	FALSE	FALSE
21037050100	0.0003	85	20	FALSE	FALSE	33	0	FALSE	FALSE
21037050400	0.0003	1	0	FALSE	FALSE	33	0	FALSE	FALSE
21037050500	0.0002	68	11	FALSE	FALSE	33	0	FALSE	FALSE
21037050600	0.0002	79	15	FALSE	FALSE	33	0	FALSE	FALSE
21037053200	0.0003	33	5	FALSE	FALSE	33	0	FALSE	FALSE
21117060300	0.0002	4	0	FALSE	FALSE	33	0	FALSE	FALSE
21117060700	0.0002	6	0	FALSE	FALSE	33	0	FALSE	FALSE
21117060900	0.0002	8	1	FALSE	FALSE	33	0	FALSE	FALSE
21117061000	0.0003	56	8	FALSE	FALSE	33	0	FALSE	FALSE
21117061100	0.0004	63	10	FALSE	FALSE	33	0	FALSE	FALSE
21117061600	0.0003	84	19	FALSE	FALSE	33	0	FALSE	FALSE
21117063800	0.0003	61	9	FALSE	FALSE	33	0	FALSE	FALSE
21117064700	0.0002	21	3	FALSE	FALSE	33	0	FALSE	FALSE
21117064800	0.0002	21	3	FALSE	FALSE	33	0	FALSE	FALSE
21117064900	0.0004	48	7	FALSE	FALSE	33	0	FALSE	FALSE
21117065000	0.0002	77	14	FALSE	FALSE	33	0	FALSE	FALSE
21117065100	0.0002	56	8	FALSE	FALSE	33	0	FALSE	FALSE
21117065200	0.0002	31	4	FALSE	FALSE	33	0	FALSE	FALSE
21117067000	0.0003	40	6	FALSE	FALSE	33	0	FALSE	FALSE
21117067100	0.0002	59	9	FALSE	FALSE	33	0	FALSE	FALSE

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 3: Disadvantaged Populations - Energy Category of Burden

		Socioeconomic Threshold					Enviromental, Climate, or Other Burden Thresholds					
Census Tract	Disadvantaged for Energy Category of Burden?	Total population	Adjusted percent of individuals below 200% Federal Poverty Line (percentile)	Adjusted percent of individuals below 200% Federal Poverty Line	Is low income?	Income data has been estimated based on geographic neighbor income	Greater than or equal to the 90th percentile for energy burden and is low income?	Energy burden (percentile)	Energy burden	Greater than or equal to the 90th percentile for PM2.5 exposure and is low income?	PM2.5 in the air (percentile)	PM2.5 in the air
39061000200	NO	902	0.99	0.76	TRUE	FALSE	FALSE	83	4	FALSE	87	10.26
39061000700	NO	1903	0.32	0.13	FALSE	FALSE	FALSE	2	1	FALSE	87	10.22
39061000900	NO	1882	0.87	0.49	TRUE	FALSE	FALSE	24	2	FALSE	87	10.25
39061001000	NO	1524	0.43	0.19	FALSE	FALSE	FALSE	15	1	FALSE	87	10.24
39061001100	NO	1083	0.77	0.39	TRUE	FALSE	FALSE	21	1	FALSE	87	10.23
39061001600	YES	802	0.97	0.68	TRUE	FALSE	TRUE	91	5	FALSE	88	10.29
39061001700	NO	992	0.94	0.59	TRUE	FALSE	FALSE	68	3	FALSE	88	10.27
39061002600	NO	3378	0.29	0.12	FALSE	FALSE	FALSE	80	4	FALSE	88	10.32
39061002700	NO	1599	0.11	0.03	FALSE	FALSE	FALSE	54	3	FALSE	88	10.34
39061002800	NO	1396	0.77	0.39	TRUE	FALSE	FALSE	70	3	FALSE	89	10.41
39061026300	YES	1004	0.99	0.79	TRUE	FALSE	TRUE	95	6	FALSE	87	10.25
39061026400	NO	2736	0.94	0.6	TRUE	FALSE	FALSE	44	2	FALSE	87	10.25
39061026500	NO	2702	0.48	0.21	FALSE	FALSE	FALSE	0	0	FALSE	87	10.19
39061026900	YES	2309	0.96	0.64	TRUE	FALSE	TRUE	93	5	FALSE	88	10.3
21037050100	NO	1518	0.98	0.72	TRUE	FALSE	FALSE	89	5	FALSE	86	10.13
21037050400	NO	2268	0.58	0.27	FALSE	FALSE	FALSE	35	2	FALSE	86	10.13
21037050500	YES	1916	0.93	0.57	TRUE	FALSE	TRUE	92	5	FALSE	86	10.11
21037050600	YES	1882	0.99	0.79	TRUE	FALSE	TRUE	93	5	FALSE	86	10.1
21037053200	NO	3509	0.65	0.31	TRUE	FALSE	FALSE	27	2	FALSE	86	10.15
21117060300	NO	1660	0.73	0.36	TRUE	FALSE	FALSE	49	2	FALSE	86	10.13
21117060700	NO	1676	0.8	0.42	TRUE	FALSE	FALSE	46	2	FALSE	86	10.1
21117060900	NO	2553	0.96	0.63	TRUE	FALSE	FALSE	77	4	FALSE	85	10.05
21117061000	NO	2280	0.82	0.44	TRUE	FALSE	FALSE	63	3	FALSE	85	10.04
21117061100	NO	1430	0.61	0.29	FALSE	FALSE	FALSE	35	2	FALSE	84	9.99
21117061600	NO	1150	0.55	0.25	FALSE	FALSE	FALSE	46	2	FALSE	86	10.1
21117063800	NO	2570	0.4	0.17	FALSE	FALSE	FALSE	30	2	FALSE	86	10.16
21117064700	NO	5277	0.21	0.08	FALSE	FALSE	FALSE	10	1	FALSE	84	9.96
21117064800	NO	3359	0.19	0.07	FALSE	FALSE	FALSE	6	1	FALSE	86	10.08
21117064900	NO	2987	0.56	0.26	FALSE	FALSE	FALSE	18	1	FALSE	85	10.07
21117065000	NO	3809	0.81	0.42	TRUE	FALSE	FALSE	70	3	FALSE	85	10.05
21117065100	NO	3443	0.92	0.55	TRUE	FALSE	FALSE	57	3	FALSE	85	10.01
21117065200	NO	4287	0.19	0.07	FALSE	FALSE	FALSE	18	1	FALSE	84	9.98
21117067000	NO	2986	0.69	0.33	TRUE	FALSE	FALSE	24	2	FALSE	86	10.14
21117067100	YES	2296	0.97	0.67	TRUE	FALSE	TRUE	92	5	FALSE	86	10.08

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 4: Disadvantaged Populations - Health Category of Burden

Census Tract	Disadvantaged for Health Category of Burden?	Socioeconomic Threshold					Enviromental, Climate, or Other Burden Thresholds						
		Total population	Adjusted percent of individuals below 200% Federal Poverty Line (percentile)	Adjusted percent of individuals below 200% Federal Poverty Line	Is low income?	Income data has been estimated based on geographic neighbor income	Greater than or equal to the 90th percentile for asthma and is low income?	Current asthma among adults aged greater than or equal to 18 years (percentile)	Current asthma among adults aged greater than or equal to 18 years	Greater than or equal to the 90th percentile for diabetes and is low income?	Diagnosed diabetes among adults aged greater than or equal to 18 years (percentile)	Diagnosed diabetes among adults aged greater than or equal to 18 years	Greater than or equal to the 90th percentile for heart disease and is low income?
39061000200	YES	902	0.99	0.76	TRUE	FALSE	TRUE	99	1480	TRUE	99	2380	TRUE
39061000700	NO	1903	0.32	0.13	FALSE	FALSE	FALSE	16	830	FALSE	7	670	FALSE
39061000900	YES	1882	0.87	0.49	TRUE	FALSE	FALSE	80	1090	TRUE	92	1660	FALSE
39061001000	NO	1524	0.43	0.19	FALSE	FALSE	FALSE	60	1000	FALSE	9	700	FALSE
39061001100	YES	1083	0.77	0.39	TRUE	FALSE	TRUE	90	1180	FALSE	52	1060	FALSE
39061001600	YES	802	0.97	0.68	TRUE	FALSE	TRUE	97	1340	TRUE	99	2460	TRUE
39061001700	YES	992	0.94	0.59	TRUE	FALSE	TRUE	94	1250	TRUE	90	1600	FALSE
39061002600	NO	3378	0.29	0.12	FALSE	FALSE	FALSE	93	1230	FALSE	3	550	FALSE
39061002700	NO	1599	0.11	0.03	FALSE	FALSE	FALSE	73	1050	FALSE	13	750	FALSE
39061002800	NO	1396	0.77	0.39	TRUE	FALSE	FALSE	89	1160	FALSE	48	1030	FALSE
39061026300	YES	1004	0.99	0.79	TRUE	FALSE	TRUE	99	1500	FALSE	85	1450	FALSE
39061026400	YES	2736	0.94	0.6	TRUE	FALSE	TRUE	98	1410	TRUE	90	1590	FALSE
39061026500	NO	2702	0.48	0.21	FALSE	FALSE	FALSE	60	1000	FALSE	48	1030	FALSE
39061026900	YES	2309	0.96	0.64	TRUE	FALSE	TRUE	97	1370	TRUE	98	2160	TRUE
21037050100	YES	1518	0.98	0.72	TRUE	FALSE	TRUE	96	1300	TRUE	92	1650	TRUE
21037050400	NO	2268	0.58	0.27	FALSE	FALSE	FALSE	40	930	FALSE	30	890	FALSE
21037050500	NO	1916	0.93	0.57	TRUE	FALSE	FALSE	88	1150	FALSE	81	1380	FALSE
21037050600	YES	1882	0.99	0.79	TRUE	FALSE	TRUE	97	1360	TRUE	96	1900	TRUE
21037053200	NO	3509	0.65	0.31	TRUE	FALSE	FALSE	52	969	FALSE	44	1000	FALSE
21117060300	NO	1660	0.73	0.36	TRUE	FALSE	FALSE	49	960	FALSE	41	969	FALSE
21117060700	YES	1676	0.8	0.42	TRUE	FALSE	FALSE	63	1010	FALSE	68	1200	FALSE
21117060900	YES	2553	0.96	0.63	TRUE	FALSE	TRUE	94	1250	TRUE	91	1630	FALSE
21117061000	YES	2280	0.82	0.44	TRUE	FALSE	FALSE	82	1100	FALSE	82	1400	FALSE
21117061100	NO	1430	0.61	0.29	FALSE	FALSE	FALSE	52	969	FALSE	51	1050	FALSE
21117061600	NO	1150	0.55	0.25	FALSE	FALSE	FALSE	57	990	FALSE	41	969	FALSE
21117063800	NO	2570	0.4	0.17	FALSE	FALSE	FALSE	35	910	FALSE	33	910	FALSE
21117064700	NO	5277	0.21	0.08	FALSE	FALSE	FALSE	20	850	FALSE	27	869	FALSE
21117064800	NO	3359	0.19	0.07	FALSE	FALSE	FALSE	18	840	FALSE	34	919	FALSE
21117064900	NO	2987	0.56	0.26	FALSE	FALSE	FALSE	49	960	FALSE	64	1160	FALSE
21117065000	YES	3809	0.81	0.42	TRUE	FALSE	FALSE	83	1110	FALSE	81	1370	FALSE
21117065100	YES	3443	0.92	0.55	TRUE	FALSE	TRUE	95	1290	FALSE	88	1530	FALSE
21117065200	NO	4287	0.19	0.07	FALSE	FALSE	FALSE	22	860	FALSE	58	1110	FALSE
21117067000	YES	2986	0.69	0.33	TRUE	FALSE	FALSE	35	910	FALSE	66	1180	FALSE
21117067100	YES	2296	0.97	0.67	TRUE	FALSE	TRUE	94	1250	TRUE	96	1930	FALSE

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 4: Disadvantaged Populations - Health Category of Burden (Cont.)

	Enviromental, Climate, or Other Burden Thresholds				
Census Tract	Coronary heart disease among adults aged greater than or equal to 18 years (percentile)	Coronary heart disease among adults aged greater than or equal to 18 years	Greater than or equal to the 90th percentile for low life expectancy and is low income?	Low life expectancy (percentile)	Life expectancy (years)
39061000200	94	950	TRUE	98	68.5
39061000700	5	320	FALSE	31	80.3
39061000900	71	710	FALSE		
39061001000	3	280	FALSE		
39061001100	14	409	FALSE		
39061001600	97	1080	FALSE		
39061001700	59	640	FALSE	88	73.4
39061002600	5	320	FALSE	59	77.59
39061002700	14	409	FALSE		
39061002800	41	550	FALSE		
39061026300	86	840	TRUE	90	73
39061026400	49	590	FALSE	88	73.4
39061026500	29	490	FALSE	36	79.8
39061026900	90	890	TRUE	99	67.5
21037050100	92	919	TRUE	99	62.4
21037050400	37	530	FALSE	71	76.2
21037050500	84	819	FALSE	87	73.59
21037050600	99	1210	TRUE	99	67.8
21037053200	49	590	FALSE	66	76.8
21117060300	39	540	FALSE	77	75.5
21117060700	55	620	TRUE	98	69.3
21117060900	88	860	TRUE	99	67.7
21117061000	79	770	TRUE	99	63.8
21117061100	47	580	FALSE	85	74.09
21117061600	37	530	FALSE	99	66.8
21117063800	37	530	FALSE	87	73.59
21117064700	29	490	FALSE	14	82.3
21117064800	39	540	FALSE	45	79
21117064900	64	670	FALSE	42	79.3
21117065000	76	750	TRUE	99	67.4
21117065100	89	869	TRUE	97	70.09
21117065200	71	710	FALSE	15	82.1
21117067000	64	670	TRUE	93	72.09
21117067100	84	819	TRUE	99	66.4

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 5: Disadvantaged Populations - Housing Category of Burden

Census Tract	Disadvantaged for Housing Category of Burden?	Socioeconomic Threshold					Enviromental, Climate, or Other Burden Thresholds						
		Total population	Adjusted percent of individuals below 200% Federal Poverty Line (percentile)	Adjusted percent of individuals below 200% Federal Poverty Line	Is low income?	Income data has been estimated based on geographic neighbor income	Greater than or equal to the 90th percentile for housing burden and is low income?	Housing burden (percent) (percentile)	Housing burden (percent)	Greater than or equal to the 90th percentile for lead paint, the median house value is less than 90th percentile and is low income?	Percent pre-1960s housing (lead paint indicator) (percentile)	Percent pre-1960s housing (lead paint indicator)	Median value ($) of owner-occupied housing units (percentile)
39061000200	YES	902	0.99	0.76	TRUE	FALSE	TRUE	98	59	FALSE	60	34	
39061000700	NO	1903	0.32	0.13	FALSE	FALSE	FALSE	60	26	FALSE	80	59	71
39061000900	YES	1882	0.87	0.49	TRUE	FALSE	FALSE	77	33	TRUE	95	83	73
39061001000	NO	1524	0.43	0.19	FALSE	FALSE	FALSE	35	18	FALSE	92	76	71
39061001100	YES	1083	0.77	0.39	TRUE	FALSE	FALSE	37	18	TRUE	99	91	64
39061001600	YES	802	0.97	0.68	TRUE	FALSE	TRUE	91	45	FALSE	99	91	
39061001700	YES	992	0.94	0.59	TRUE	FALSE	TRUE	96	52	TRUE	99	97	60
39061002600	NO	3378	0.29	0.12	FALSE	FALSE	FALSE	99	62	FALSE	92	77	24
39061002700	NO	1599	0.11	0.03	FALSE	FALSE	FALSE	85	39	FALSE	90	74	35
39061002800	YES	1396	0.77	0.39	TRUE	FALSE	FALSE	72	31	TRUE	99	91	4
39061026300	YES	1004	0.99	0.79	TRUE	FALSE	TRUE	99	64	FALSE	98	88	
39061026400	YES	2736	0.94	0.6	TRUE	FALSE	FALSE	80	35	FALSE	43	19	55
39061026500	NO	2702	0.48	0.21	FALSE	FALSE	FALSE	12	12	FALSE	58	32	79
39061026900	YES	2309	0.96	0.64	TRUE	FALSE	FALSE	84	38	TRUE	94	80	5
21037050100	YES	1518	0.98	0.72	TRUE	FALSE	TRUE	95	50	FALSE	49	23	9
21037050400	NO	2268	0.58	0.27	FALSE	FALSE	FALSE	36	18	FALSE	98	90	63
21037050500	YES	1916	0.93	0.57	TRUE	FALSE	TRUE	97	54	TRUE	98	89	5
21037050600	YES	1882	0.99	0.79	TRUE	FALSE	FALSE	84	38	TRUE	99	97	6
21037053200	NO	3509	0.65	0.31	TRUE	FALSE	FALSE	52	23	FALSE	86	67	68
21117060300	YES	1660	0.73	0.36	TRUE	FALSE	FALSE	69	29	TRUE	98	90	55
21117060700	YES	1676	0.8	0.42	TRUE	FALSE	FALSE	45	21	TRUE	95	83	24
21117060900	YES	2553	0.96	0.63	TRUE	FALSE	TRUE	94	48	TRUE	97	86	18
21117061000	YES	2280	0.82	0.44	TRUE	FALSE	FALSE	60	25	TRUE	94	81	10
21117061100	NO	1430	0.61	0.29	FALSE	FALSE	FALSE	54	24	FALSE	97	88	31
21117061600	NO	1150	0.55	0.25	FALSE	FALSE	FALSE	71	30	FALSE	90	74	18
21117063800	NO	2570	0.4	0.17	FALSE	FALSE	FALSE	57	24	FALSE	74	50	34
21117064700	NO	5277	0.21	0.08	FALSE	FALSE	FALSE	3	8	FALSE	75	51	66
21117064800	NO	3359	0.19	0.07	FALSE	FALSE	FALSE	11	12	FALSE	63	37	52
21117064900	NO	2987	0.56	0.26	FALSE	FALSE	FALSE	51	22	FALSE	85	66	51
21117065000	YES	3809	0.81	0.42	TRUE	FALSE	FALSE	78	34	TRUE	95	83	7
21117065100	NO	3443	0.92	0.55	TRUE	FALSE	FALSE	62	26	FALSE	68	43	23
21117065200	NO	4287	0.19	0.07	FALSE	FALSE	FALSE	54	23	FALSE	61	35	54
21117067000	YES	2986	0.69	0.33	TRUE	FALSE	FALSE	74	31	FALSE	78	56	65
21117067100	YES	2296	0.97	0.67	TRUE	FALSE	FALSE	89	42	TRUE	91	76	6

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 5: Disadvantaged Populations - Housing Category of Burden (Cont.)

Census Tract	Enviromental, Climate, or Other Burden Thresholds									
	Median value ($) of owner-occupied housing units	Greater than or equal to the 90th percentile for share of the tract's land area that is covered by impervious surface or cropland as a percent and is low income?	Greater than or equal to the 90th percentile for share of the tract's land area that is covered by impervious surface or cropland as a percent	Share of the tract's land area that is covered by impervious surface or cropland as a percent	Share of the tract's land area that is covered by impervious surface or cropland as a percent (percentile)	Does the tract have at least 35 acres in it?	Tract experienced historic underinvestment and remains low income	Tract experienced historic underinvestment	Share of homes with no kitchen or indoor plumbing (percentile)	Share of homes with no kitchen or indoor plumbing (percent)
39061000200		FALSE	FALSE	7052	89	TRUE	FALSE		0.61	0
39061000700	304200	FALSE	TRUE	8576	97	TRUE	FALSE		0.21	0
39061000900	326200	TRUE	TRUE	8025	95	TRUE	FALSE		0.84	0.02
39061001000	303300	FALSE	TRUE	8490	97	TRUE	FALSE		0.21	0
39061001100	262500	TRUE	TRUE	8089	95	TRUE	FALSE		0.21	0
39061001600		TRUE	TRUE	8025	95	TRUE	FALSE		0.61	0
39061001700	239700	TRUE	TRUE	7280	90	TRUE	FALSE		0.88	0.02
39061002600	120300	FALSE	FALSE	6208	81	TRUE	FALSE		0.69	0.01
39061002700	150300	FALSE	FALSE	3964	52	TRUE	FALSE		0.21	0
39061002800	65300	TRUE	TRUE	7729	93	TRUE	FALSE		0.78	0.01
39061026300		TRUE	TRUE	7345	91	TRUE	FALSE		0.21	0
39061026400	215500	TRUE	TRUE	7845	94	TRUE	FALSE		0.21	0
39061026500	379800	FALSE	TRUE	7915	94	TRUE	FALSE		0.61	0
39061026900	67100	TRUE	TRUE	7584	92	TRUE	FALSE		0.21	0
21037050100	82200	FALSE	FALSE	4474	59	TRUE	TRUE	TRUE	0.21	0
21037050400	250900	FALSE	FALSE	6772	87	TRUE	FALSE	FALSE	0.21	0
21037050500	69500	TRUE	TRUE	8311	96	TRUE	FALSE	FALSE	0.8	0.01
21037050600	72000	TRUE	TRUE	7657	93	TRUE	FALSE	FALSE	0.9	0.03
21037053200	283200	FALSE	FALSE	5537	74	TRUE	FALSE	FALSE	0.64	0
21117060300	216400	FALSE	FALSE	6584	85	TRUE	FALSE	FALSE	0.52	0
21117060700	120000	TRUE	TRUE	7383	91	TRUE	FALSE	FALSE	0.81	0.01
21117060900	103300	FALSE	FALSE	6708	86	TRUE	FALSE	FALSE	0.97	0.05
21117061000	84000	FALSE	FALSE	4823	64	TRUE	FALSE	FALSE	0.7	0.01
21117061100	137900	FALSE	FALSE	4140	54	TRUE	FALSE	FALSE	0.21	0
21117061600	103000	FALSE	FALSE	4144	54	TRUE	FALSE	FALSE	0.21	0
21117063800	148000	FALSE	FALSE	1446	18	TRUE	FALSE	FALSE	0.21	0
21117064700	269500	FALSE	FALSE	2509	31	TRUE	FALSE		0.62	0
21117064800	202900	FALSE	FALSE	1899	24	TRUE	FALSE	FALSE	0.21	0
21117064900	198900	FALSE	FALSE	2885	36	TRUE	FALSE	FALSE	0.21	0
21117065000	76100	FALSE	FALSE	5986	79	TRUE	FALSE	FALSE	0.21	0
21117065100	116200	FALSE	FALSE	1960	24	TRUE	FALSE	FALSE	0.21	0
21117065200	208800	FALSE	FALSE	2204	27	TRUE	FALSE		0.94	0.03
21117067000	263800	FALSE	FALSE	4942	66	TRUE	TRUE	TRUE	0.21	0
21117067100	70300	FALSE	FALSE	6043	80	TRUE	TRUE	TRUE	0.5	0

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 6: Disadvantaged Populations - Legacy Pollution Category of Burden

		Socioeconomic Threshold					Enviromental, Climate, or Other Burden Thresholds						
Census Tract	Disadvantaged for Legacy Pollution Category of Burden?	Total population	Adjusted percent of individuals below 200% Federal Poverty Line (percentile)	Adjusted percent of individuals below 200% Federal Poverty Line	Is low income?	Income data has been estimated based on geographic neighbor income	Greater than or equal to the 90th percentile for proximity to hazardous waste facilities and is low income?	Proximity to hazardous waste sites (percentile)	Proximity to hazardous waste sites	Greater than or equal to the 90th percentile for proximity to superfund sites and is low income?	Proximity to NPL (Superfund) sites (percentile)	Proximity to NPL (Superfund) sites	Greater than or equal to the 90th percentile for proximity to RMP sites and is low income?
39061000200	YES	902	0.99	0.76	TRUE	FALSE	FALSE	74	2.61	FALSE	50	0.06	TRUE
39061000700	NO	1903	0.32	0.13	FALSE	FALSE	FALSE	70	2.14	FALSE	51	0.06	FALSE
39061000900	YES	1882	0.87	0.49	TRUE	FALSE	FALSE	75	2.68	FALSE	51	0.06	TRUE
39061001000	NO	1524	0.43	0.19	FALSE	FALSE	FALSE	75	2.75	FALSE	52	0.06	FALSE
39061001100	YES	1083	0.77	0.39	TRUE	FALSE	FALSE	74	2.61	FALSE	52	0.06	TRUE
39061001600	YES	802	0.97	0.68	TRUE	FALSE	FALSE	80	3.41	FALSE	52	0.06	TRUE
39061001700	YES	992	0.94	0.59	TRUE	FALSE	FALSE	79	3.33	FALSE	52	0.06	TRUE
39061002600	NO	3378	0.29	0.12	FALSE	FALSE	FALSE	89	5.75	FALSE	54	0.06	FALSE
39061002700	NO	1599	0.11	0.03	FALSE	FALSE	FALSE	86	4.88	FALSE	54	0.06	FALSE
39061002800	YES	1396	0.77	0.39	TRUE	FALSE	TRUE	94	8.76	FALSE	55	0.07	TRUE
39061026300	YES	1004	0.99	0.79	TRUE	FALSE	FALSE	63	1.5	FALSE	47	0.05	TRUE
39061026400	YES	2736	0.94	0.6	TRUE	FALSE	FALSE	74	2.6	FALSE	50	0.06	TRUE
39061026500	NO	2702	0.48	0.21	FALSE	FALSE	FALSE	69	1.99	FALSE	50	0.06	FALSE
39061026900	YES	2309	0.96	0.64	TRUE	FALSE	FALSE	79	3.29	FALSE	52	0.06	TRUE
21037050100	YES	1518	0.98	0.72	TRUE	FALSE	FALSE	56	1.09	FALSE	48	0.05	TRUE
21037050400	NO	2268	0.58	0.27	FALSE	FALSE	FALSE	54	0.99	FALSE	49	0.06	FALSE
21037050500	YES	1916	0.93	0.57	TRUE	FALSE	FALSE	51	0.84	FALSE	48	0.05	TRUE
21037050600	YES	1882	0.99	0.79	TRUE	FALSE	FALSE	52	0.88	FALSE	47	0.05	TRUE
21037053200	YES	3509	0.65	0.31	TRUE	FALSE	FALSE	58	1.19	FALSE	49	0.06	TRUE
21117060300	NO	1660	0.73	0.36	TRUE	FALSE	FALSE	45	0.6	FALSE	45	0.05	FALSE
21117060700	NO	1676	0.8	0.42	TRUE	FALSE	FALSE	47	0.65	FALSE	45	0.05	FALSE
21117060900	NO	2553	0.96	0.63	TRUE	FALSE	FALSE	58	1.19	FALSE	44	0.05	FALSE
21117061000	NO	2280	0.82	0.44	TRUE	FALSE	FALSE	62	1.48	FALSE	44	0.05	FALSE
21117061100	NO	1430	0.61	0.29	FALSE	FALSE	FALSE	73	2.4	FALSE	42	0.04	FALSE
21117061600	NO	1150	0.55	0.25	FALSE	FALSE	FALSE	46	0.61	FALSE	44	0.05	FALSE
21117063800	NO	2570	0.4	0.17	FALSE	FALSE	FALSE	40	0.44	FALSE	45	0.05	FALSE
21117064700	NO	5277	0.21	0.08	FALSE	FALSE	FALSE	38	0.37	FALSE	37	0.04	FALSE
21117064800	NO	3359	0.19	0.07	FALSE	FALSE	FALSE	41	0.45	FALSE	40	0.04	FALSE
21117064900	NO	2987	0.56	0.26	FALSE	FALSE	FALSE	46	0.64	FALSE	42	0.04	FALSE
21117065000	NO	3809	0.81	0.42	TRUE	FALSE	FALSE	54	1	FALSE	43	0.05	FALSE
21117065100	NO	3443	0.92	0.55	TRUE	FALSE	FALSE	59	1.27	FALSE	41	0.04	FALSE
21117065200	NO	4287	0.19	0.07	FALSE	FALSE	FALSE	50	0.81	FALSE	39	0.04	FALSE
21117067000	NO	2986	0.69	0.33	TRUE	FALSE	FALSE	52	0.87	FALSE	47	0.05	FALSE
21117067100	NO	2296	0.97	0.67	TRUE	FALSE	FALSE	53	0.94	FALSE	45	0.05	FALSE

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 6: Disadvantaged Populations - Legacy Pollution Category of Burden (Cont.)

Census Tract	Enviromental, Climate, or Other Burden Thresholds							
	Proximity to Risk Management Plan (RMP) facilities (percentile)	Proximity to Risk Management Plan (RMP) facilities	Is there at least one Formerly Used Defense Site (FUDS) in the tract?	Is there at least one abandoned mine in this census tract?	There is at least one abandoned mine in this census tract and the tract is low income.	There is at least one Formerly Used Defense Site (FUDS) in the tract and the tract is low income.	Is there at least one Formerly Used Defense Site (FUDS) in the tract, where missing data is treated as False?	Is there at least one abandoned mine in this census tract, where missing data is treated as False?
39061000200	97	4.17			FALSE	FALSE	FALSE	FALSE
39061000700	91	2.26			FALSE	FALSE	FALSE	FALSE
39061000900	97	3.58			FALSE	FALSE	FALSE	FALSE
39061001000	95	2.92			FALSE	FALSE	FALSE	FALSE
39061001100	91	2.17			FALSE	FALSE	FALSE	FALSE
39061001600	99	5.65			FALSE	FALSE	FALSE	FALSE
39061001700	96	3.49			FALSE	FALSE	FALSE	FALSE
39061002600	96	3.4			FALSE	FALSE	FALSE	FALSE
39061002700	96	3.24			FALSE	FALSE	FALSE	FALSE
39061002800	98	5.06	FALSE		FALSE	FALSE	FALSE	FALSE
39061026300	95	3.06			FALSE	FALSE	FALSE	FALSE
39061026400	98	4.47			FALSE	FALSE	FALSE	FALSE
39061026500	91	2.24	FALSE		FALSE	FALSE	FALSE	FALSE
39061026900	99	6.03			FALSE	FALSE	FALSE	FALSE
21037050100	91	2.21			FALSE	FALSE	FALSE	FALSE
21037050400	93	2.61			FALSE	FALSE	FALSE	FALSE
21037050500	98	4.49			FALSE	FALSE	FALSE	FALSE
21037050600	94	2.74			FALSE	FALSE	FALSE	FALSE
21037053200	92	2.38			FALSE	FALSE	FALSE	FALSE
21117060300	86	1.68			FALSE	FALSE	FALSE	FALSE
21117060700	85	1.62			FALSE	FALSE	FALSE	FALSE
21117060900	77	1.14			FALSE	FALSE	FALSE	FALSE
21117061000	81	1.34			FALSE	FALSE	FALSE	FALSE
21117061100	75	1.05			FALSE	FALSE	FALSE	FALSE
21117061600	85	1.57			FALSE	FALSE	FALSE	FALSE
21117063800	87	1.79			FALSE	FALSE	FALSE	FALSE
21117064700	76	1.08			FALSE	FALSE	FALSE	FALSE
21117064800	74	1.01			FALSE	FALSE	FALSE	FALSE
21117064900	78	1.15			FALSE	FALSE	FALSE	FALSE
21117065000	78	1.15			FALSE	FALSE	FALSE	FALSE
21117065100	77	1.11			FALSE	FALSE	FALSE	FALSE
21117065200	75	1.06			FALSE	FALSE	FALSE	FALSE
21117067000	88	1.83			FALSE	FALSE	FALSE	FALSE
21117067100	88	1.82			FALSE	FALSE	FALSE	FALSE

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 7: Disadvantaged Populations - Transportation Category of Burden

		Socioeconomic Threshold					Enviromental, Climate, or Other Burden Thresholds							
Census Tract	Disadvantaged for Transportation Category of Burden?	Total population	Adjusted percent of individuals below 200% Federal Poverty Line (percentile)	Adjusted percent of individuals below 200% Federal Poverty Line	Is low income?	Income data has been estimated based on geographic neighbor income	Greater than or equal to the 90th percentile for diesel particulate matter and is low income?	Diesel particulate matter exposure (percentile)	Diesel particulate matter exposure	Greater than or equal to the 90th percentile for traffic proximity and is low income?	Traffic proximity and volume (percentile)	Traffic proximity and volume	Greater than or equal to the 90th percentile for DOT transit barriers and is low income?	DOT Travel Barriers Score (percentile)
39061000200	YES	902	0.99	0.76	TRUE	FALSE	TRUE	96	0.79	TRUE	98	6114.33	FALSE	62
39061000700	NO	1903	0.32	0.13	FALSE	FALSE	FALSE	96	0.8	FALSE	94	2734.96	FALSE	5
39061000900	YES	1882	0.87	0.49	TRUE	FALSE	TRUE	96	0.79	FALSE	86	1392.06	FALSE	7
39061001000	NO	1524	0.43	0.19	FALSE	FALSE	FALSE	96	0.8	FALSE	88	1607.43	FALSE	7
39061001100	YES	1083	0.77	0.39	TRUE	FALSE	TRUE	96	0.8	TRUE	94	2966.61	FALSE	7
39061001600	YES	802	0.97	0.68	TRUE	FALSE	TRUE	95	0.77	FALSE	83	1140.11	FALSE	6
39061001700	YES	992	0.94	0.59	TRUE	FALSE	TRUE	95	0.78	FALSE	84	1220.95	FALSE	6
39061002600	NO	3378	0.29	0.12	FALSE	FALSE	FALSE	95	0.73	FALSE	62	470.34	FALSE	66
39061002700	NO	1599	0.11	0.03	FALSE	FALSE	FALSE	95	0.77	FALSE	91	1976.91	FALSE	43
39061002800	YES	1396	0.77	0.39	TRUE	FALSE	TRUE	95	0.74	TRUE	98	5580.27	FALSE	30
39061026300	YES	1004	0.99	0.79	TRUE	FALSE	TRUE	95	0.75	TRUE	93	2561.66	FALSE	88
39061026400	YES	2736	0.94	0.6	TRUE	FALSE	TRUE	96	0.78	TRUE	93	2467.27	FALSE	8
39061026500	NO	2702	0.48	0.21	FALSE	FALSE	FALSE	96	0.79	FALSE	99	8192.71	FALSE	4
39061026900	YES	2309	0.96	0.64	TRUE	FALSE	TRUE	96	0.78	TRUE	98	5453.5	FALSE	56
21037050100	YES	1518	0.98	0.72	TRUE	FALSE	TRUE	95	0.75	FALSE	87	1474.26	FALSE	12
21037050400	NO	2268	0.58	0.27	FALSE	FALSE	FALSE	95	0.78	FALSE	92	2154.81	FALSE	6
21037050500	YES	1916	0.93	0.57	TRUE	FALSE	TRUE	95	0.75	FALSE	83	1182.45	FALSE	10
21037050600	YES	1882	0.99	0.79	TRUE	FALSE	TRUE	94	0.68	FALSE	78	908.46	FALSE	24
21037053200	YES	3509	0.65	0.31	TRUE	FALSE	TRUE	96	0.79	TRUE	95	3130.31	FALSE	19
21117060300	YES	1660	0.73	0.36	TRUE	FALSE	TRUE	94	0.67	TRUE	98	5566.54	FALSE	3
21117060700	YES	1676	0.8	0.42	TRUE	FALSE	TRUE	90	0.55	TRUE	97	4883.94	FALSE	26
21117060900	NO	2553	0.96	0.63	TRUE	FALSE	FALSE	82	0.45	FALSE	83	1129.71	FALSE	37
21117061000	NO	2280	0.82	0.44	TRUE	FALSE	FALSE	82	0.45	FALSE	38	172.76	FALSE	29
21117061100	NO	1430	0.61	0.29	FALSE	FALSE	FALSE	80	0.43	FALSE	77	856.94	FALSE	16
21117061600	NO	1150	0.55	0.25	FALSE	FALSE	FALSE	93	0.64	FALSE	99	9664.83	FALSE	20
21117063800	NO	2570	0.4	0.17	FALSE	FALSE	FALSE	95	0.72	FALSE	54	343.34	FALSE	9
21117064700	NO	5277	0.21	0.08	FALSE	FALSE	FALSE	92	0.61	FALSE	91	2060.87	FALSE	0
21117064800	NO	3359	0.19	0.07	FALSE	FALSE	FALSE	93	0.63	FALSE	91	1985.28	FALSE	6
21117064900	NO	2987	0.56	0.26	FALSE	FALSE	FALSE	93	0.64	FALSE	86	1376.32	FALSE	16
21117065000	NO	3809	0.81	0.42	TRUE	FALSE	FALSE	84	0.46	FALSE	81	1023.98	FALSE	39
21117065100	NO	3443	0.92	0.55	TRUE	FALSE	FALSE	85	0.48	FALSE	76	816.05	FALSE	72
21117065200	NO	4287	0.19	0.07	FALSE	FALSE	FALSE	92	0.6	FALSE	91	2056.75	FALSE	11
21117067000	YES	2986	0.69	0.33	TRUE	FALSE	TRUE	94	0.71	FALSE	89	1782.51	FALSE	5
21117067100	NO	2296	0.97	0.67	TRUE	FALSE	FALSE	87	0.5	FALSE	85	1299.53	FALSE	26

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 8: Disadvantaged Populations - Water and Wastewater Category of Burden

Census Tract	Disadvantaged for Water and Wastewater Category of Burden?	Socioeconomic Threshold					Enviromental, Climate, or Other Burden Thresholds					
		Total population	Adjusted percent of individuals below 200% Federal Poverty Line (percentile)	Adjusted percent of individuals below 200% Federal Poverty Line	Is low income?	Income data has been estimated based on geographic neighbor income	Greater than or equal to the 90th percentile for wastewater discharge and is low income?	Wastewater discharge (percentile)	Wastewater discharge	Greater than or equal to the 90th percentile for leaky underground storage tanks and is low income?	Leaky underground storage tanks (percentile)	Leaky underground storage tanks
39061000200	YES	902	0.99	0.76	TRUE	FALSE	FALSE	74	0.02	TRUE	93	14.77
39061000700	NO	1903	0.32	0.13	FALSE	FALSE	FALSE	62	0	FALSE	92	13.89
39061000900	NO	1882	0.87	0.49	TRUE	FALSE	FALSE	59	0	FALSE	89	10.29
39061001000	NO	1524	0.43	0.19	FALSE	FALSE	FALSE	66	0	FALSE	65	3.29
39061001100	NO	1083	0.77	0.39	TRUE	FALSE	FALSE	72	0.01	FALSE	82	6.96
39061001600	NO	802	0.97	0.68	TRUE	FALSE	FALSE	70	0.01	FALSE	67	3.54
39061001700	NO	992	0.94	0.59	TRUE	FALSE	FALSE	69	0.01	FALSE	53	2.09
39061002600	NO	3378	0.29	0.12	FALSE	FALSE	FALSE	72	0.01	FALSE	76	5.14
39061002700	NO	1599	0.11	0.03	FALSE	FALSE	FALSE	75	0.02	FALSE	69	3.84
39061002800	YES	1396	0.77	0.39	TRUE	FALSE	FALSE	78	0.04	TRUE	93	14.52
39061026300	NO	1004	0.99	0.79	TRUE	FALSE	FALSE	78	0.03	FALSE	82	6.92
39061026400	NO	2736	0.94	0.6	TRUE	FALSE	FALSE	69	0.01	FALSE	84	7.55
39061026500	NO	2702	0.48	0.21	FALSE	FALSE	FALSE	67	0	FALSE	89	10.46
39061026900	NO	2309	0.96	0.64	TRUE	FALSE	FALSE	75	0.02	FALSE	72	4.45
21037050100	NO	1518	0.98	0.72	TRUE	FALSE	FALSE	77	0.03	FALSE	62	2.92
21037050400	NO	2268	0.58	0.27	FALSE	FALSE	FALSE	65	0	FALSE	77	5.35
21037050500	NO	1916	0.93	0.57	TRUE	FALSE	FALSE	66	0	FALSE	39	1.04
21037050600	NO	1882	0.99	0.79	TRUE	FALSE	FALSE	72	0.01	FALSE	21	0.27
21037053200	NO	3509	0.65	0.31	TRUE	FALSE	FALSE	71	0.01	FALSE	38	1.01
21117060300	YES	1660	0.73	0.36	TRUE	FALSE	FALSE	64	0	TRUE	92	13.81
21117060700	NO	1676	0.8	0.42	TRUE	FALSE	FALSE	64	0	FALSE	66	3.46
21117060900	NO	2553	0.96	0.63	TRUE	FALSE	FALSE	67	0	FALSE	66	3.45
21117061000	NO	2280	0.82	0.44	TRUE	FALSE	FALSE	74	0.02	FALSE	45	1.48
21117061100	NO	1430	0.61	0.29	FALSE	FALSE	FALSE	73	0.02	FALSE	48	1.65
21117061600	NO	1150	0.55	0.25	FALSE	FALSE	FALSE	61	0	FALSE	64	3.19
21117063800	NO	2570	0.4	0.17	FALSE	FALSE	FALSE	67	0.01	FALSE	43	1.29
21117064700	NO	5277	0.21	0.08	FALSE	FALSE	FALSE	88	0.3	FALSE	60	2.71
21117064800	NO	3359	0.19	0.07	FALSE	FALSE	FALSE	41	0	FALSE	41	1.2
21117064900	NO	2987	0.56	0.26	FALSE	FALSE	FALSE	43	0	FALSE	50	1.82
21117065000	NO	3809	0.81	0.42	TRUE	FALSE	FALSE	62	0	FALSE	40	1.1
21117065100	NO	3443	0.92	0.55	TRUE	FALSE	FALSE	42	0	FALSE	43	1.3
21117065200	NO	4287	0.19	0.07	FALSE	FALSE	FALSE	46	0	FALSE	52	2
21117067000	NO	2986	0.69	0.33	TRUE	FALSE	FALSE	76	0.02	FALSE	85	8.02
21117067100	NO	2296	0.97	0.67	TRUE	FALSE	FALSE	73	0.01	FALSE	68	3.71

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 9: Disadvantaged Populations - Workforce Development Category of Burden

Census Tract	Disadvantaged for Workforce Development Category of Burden?	Socioeconomic Threshold			Enviromental, Climate, or Other Burden Thresholds								
		Percent individuals age 25 or over with less than high school degree (percentile)	Percent individuals age 25 or over with less than high school degree	Percent of residents who are not currently enrolled in higher ed	Greater than or equal to the 90th percentile for low median household income as a percent of area median income and has low HS attainment?	Low median household income as a percent of area median income (percentile)	Median household income as a percent of area median income	Greater than or equal to the 90th percentile for households in linguistic isolation and has low HS attainment?	Linguistic isolation (percent) (percentile)	Linguistic isolation (percent)	Greater than or equal to the 90th percentile for unemployment and has low HS attainment?	Unemployment (percent) (percentile)	Unemployment (percent)
39061000200	YES	73	16	94	TRUE	99	29	FALSE	62	2	FALSE	41	4
39061000700	NO	25	5	91	FALSE	28	115	FALSE	12	0	FALSE	28	3
39061000900	YES	59	12	91	FALSE	44	98	FALSE	12	0	TRUE	97	17
39061001000	NO	37	7	92	FALSE	46	96	FALSE	42	1	FALSE	45	4
39061001100	YES	52	10	94	FALSE	53	90	FALSE	12	0	FALSE	73	7
39061001600	YES	86	24	91	TRUE	97	36	FALSE	12	0	TRUE	90	11
39061001700	NO	44	8	94	FALSE	99	27	FALSE	12	0	FALSE	99	26
39061002600	NO	26	5	34	FALSE	93	49	FALSE	55	2	FALSE	64	6
39061002700	NO	27	5	57	FALSE	57	87	FALSE	61	2	FALSE	94	13
39061002800	YES	91	28	92	FALSE	71	75	FALSE	39	0	TRUE	94	14
39061026300	YES	98	43	93	TRUE	99	16	FALSE	12	0	TRUE	99	30
39061026400	YES	51	10	92	TRUE	93	47	FALSE	40	0	FALSE	87	10
39061026500	NO	34	6	91	FALSE	38	104	FALSE	12	0	FALSE	79	8
39061026900	YES	76	17	94	TRUE	99	22	FALSE	44	1	FALSE	79	8
21037050100	YES	73	16	92	TRUE	98	31	FALSE	26	0	TRUE	95	15
21037050400	NO	36	7	94	FALSE	22	125	FALSE	12	0	FALSE	6	1
21037050500	YES	83	21	94	TRUE	97	39	FALSE	12	0	FALSE	83	9
21037050600	YES	97	41	97	TRUE	95	42	FALSE	66	3	FALSE	56	5
21037053200	NO	80	20	93	FALSE	54	89	FALSE	60	2	FALSE	13	2
21117060300	NO	63	13	93	FALSE	73	73	FALSE	48	1	FALSE	36	3
21117060700	NO	63	13	95	FALSE	69	77	FALSE	46	1	FALSE	62	5
21117060900	YES	86	23	96	TRUE	90	53	FALSE	70	4	FALSE	87	10
21117061000	NO	72	16	96	FALSE	78	68	FALSE	12	0	FALSE	87	10
21117061100	NO	19	4	95	FALSE	55	88	FALSE	12	0	FALSE	61	5
21117061600	NO	60	12	94	FALSE	78	68	FALSE	82	7	FALSE	75	7
21117063800	NO	35	7	94	FALSE	47	96	FALSE	37	0	FALSE	13	2
21117064700	NO	9	2	92	FALSE	14	140	FALSE	39	0	FALSE	2	0
21117064800	NO	17	3	93	FALSE	27	117	FALSE	40	0	FALSE	2	0
21117064900	NO	36	7	89	FALSE	68	78	FALSE	12	0	FALSE	28	3
21117065000	YES	85	23	92	FALSE	82	64	FALSE	72	4	TRUE	94	13
21117065100	YES	90	27	95	TRUE	97	39	FALSE	54	1	TRUE	93	13
21117065200	NO	17	3	91	FALSE	36	107	FALSE	12	0	FALSE	13	2
21117067000	NO	59	12	95	FALSE	71	74	FALSE	45	1	FALSE	77	7
21117067100	YES	78	19	94	TRUE	97	35	FALSE	65	3	TRUE	97	18

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Table 9: Disadvantaged Populations - Workforce Development Category of Burden (Cont.)

	Enviromental, Climate, or Other Burden Thresholds				
Census Tract	Greater than or equal to the 90th percentile for households at or below 100% federal poverty level and has low HS attainment?	Percent of individuals < 100% Federal Poverty Line (percentile)	Percent of individuals < 100% Federal Poverty Line	Unemployment (percent) in 2009 (island areas) and 2010 (states and PR)	Percentage households below 100% of federal poverty line in 2009 (island areas) and 2010 (states and PR)
39061000200	TRUE	97	48	9	38
39061000700	FALSE	49	11	6	13
39061000900	TRUE	95	41	2	35
39061001000	FALSE	64	15	7	52
39061001100	TRUE	93	36	23	64
39061001600	TRUE	97	48	32	56
39061001700	FALSE	95	39	29	84
39061002600	FALSE	98	50	3	51
39061002700	FALSE	85	26	19	45
39061002800	TRUE	90	31	11	34
39061026300	TRUE	99	77	23	49
39061026400	TRUE	94	37	10	57
39061026500	FALSE	78	21	0	33
39061026900	TRUE	98	52	14	52
21037050100	TRUE	99	58	12	39
21037050400	FALSE	29	7	5	4
21037050500	TRUE	98	50	17	46
21037050600	TRUE	99	60	7	21
21037053200	FALSE	72	18	11	22
21117060300	FALSE	82	24	8	10
21117060700	FALSE	52	12	1	28
21117060900	TRUE	98	51	11	39
21117061000	FALSE	89	30	6	33
21117061100	FALSE	62	15	1	19
21117061600	FALSE	69	17	9	25
21117063800	FALSE	37	8	5	13
21117064700	FALSE	8	3	5	3
21117064800	FALSE	6	2	1	6
21117064900	FALSE	77	21	5	16
21117065000	FALSE	85	27	6	23
21117065100	TRUE	96	42	7	43
21117065200	FALSE	22	5	4	6
21117067000	FALSE	71	18	3	32
21117067100	TRUE	95	40	13	36

Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST) Version 1.0 (Nov. 22, 2022)
Note: Shaded rows indicate a census tract that has been identified as disadvantaged by the CEJST.

Appendix D:
Neighborhood Map

Neighborhoods and Cities Directly Impacted by Construction

Ohio
Camp Washington
CUF
West End
Queensgate
CBD Riverfront

Kentucky
Botany Hills
Central Business District
Mainstrasse
Westside
Lewisburg
Peaselburg
Park Hills (City)
Fort Wright (City)
Fort Mitchell (City)

Camp Washington
CUF - Heights
CUF
Mount Auburn
West End
OTR
Lower Price Hill
Queensgate
Pendleton
Downtown - Pendleton
Mount Auburn - Walnut Hills
CBD Riverfront
Mansion Hill
Ohio River
Ohio
Kentucky
Ludlow
Botany Hills
Central Business District
Licking Riverside
Two Rivers I
Taylors Landing
Gateway
Two Rivers II
Old Town/ Mutter Gottes
Buena Vista
Mainstrasse
Kenton Hills
Seminary Square
Eastside
Westside
Lewisburg
Historic West 15th Street
Helentown
Park Hills
Austinburg
Peaselburg
Wallace Woods
Kenton County
Levassor Park
City Heights
Monte Casino
Fort Wright
Kenton Vale
West Latonia
Latonia Milldale
Kuhrs Lane
Fort Mitchell

71 75 127 50 471 25 275

Project Area Neighborhoods

Legend:

- Concept I-W Construction Limits
- Socioeconomic Study Area
- Neighborhood Boundaries
- City Boundaries
- Neighborhoods and Cities Directly Impacted by Construction
- Area With One or More Identified Socioeconomic Groups

0 1,250 2,500 Feet

N

BRENT SPENCE BRIDGE CORRIDOR

Appendix E:
Neighborhood Outreach Summary

Brent Spence Bridge Corridor Project
Neighborhood Outreach Summary
Supplemental Environmental Assessment Process (2022-2023)

Targeted environmental justice (EJ)/neighborhood outreach occurred from November 2022 to January 2023. The total attendance at various outreach meetings was 418, and 373 total comments were received.

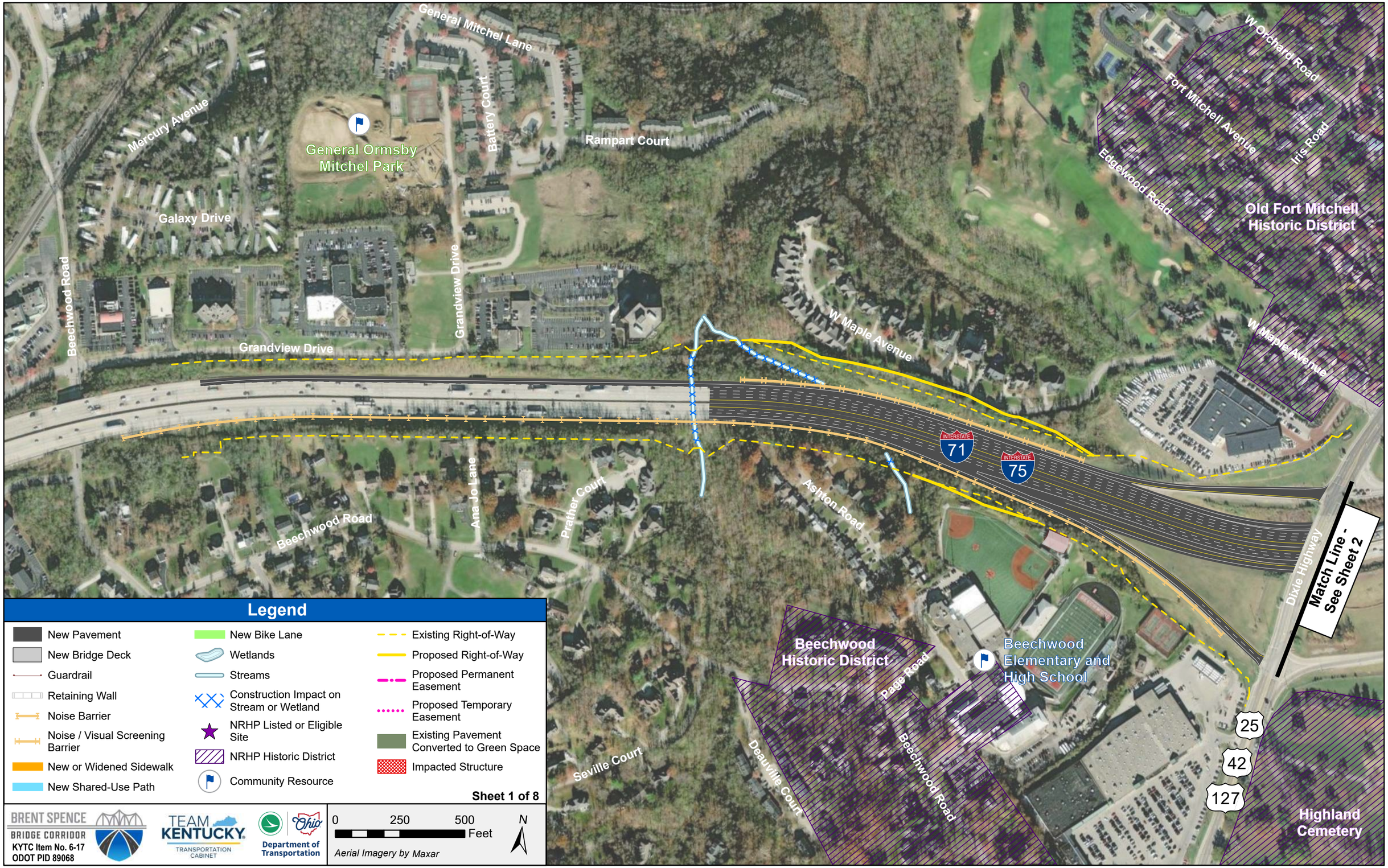
Date	Activity	Comments
November 15, 2022	• CUF neighborhood meeting (OH) • PublicInput.com targeted neighborhood outreach site goes live	• 30 in attendance (excluding the project team). • General questions about local connections to the interstate, multimodal accommodations, construction, funding, aesthetics, and property impacts (not specific to potential impacts on identified socioeconomic groups). • 0 comment forms returned at meeting.
November 21, 2022	Mainstrasse neighborhood meeting (KY)	• 12 in attendance (excluding the project team). • Questions about how traffic will move through the corridor and construction timeline. • Concerns about noise, drainage in low lying areas of Goebel Park, and traffic impacts during construction and when incidents occur on the highway. • 4 comment forms returned at meeting.
November 28, 2022	Friends of Peaselburg neighborhood meeting (KY)	• 16 in attendance (excluding the project team). • Questions about how traffic will move through the corridor, construction timeline, and property impacts. • Concerns about noise, flooding in neighborhoods, truck traffic, and traffic during construction. • Supportive of refinements incorporated into the project. • 6 comment forms returned at meeting.
November 29, 2022	CBD Riverfront neighborhood meeting (OH)	• 24 in attendance (excluding the project team). • Concerns about the project footprint, multimodal accommodations, connections across I-75, project costs, and traffic volumes/operations. • 1 comment form returned at meeting.
November 29, 2022	Westside Covington neighborhood meeting (KY)	• 13 in attendance (excluding the project team). • Questions about how traffic will move through the corridor, construction timeline, project funding, and property impacts. • Concerns about noise. • 6 comment forms returned at meeting.

Date	Activity	Comments
November 30, 2022	Fort Mitchell neighborhood meeting (KY)	• 46 in attendance (excluding the project team). • Questions about how traffic will move through the corridor, construction timeline, and property impacts. • Concerns about noise and pedestrian safety in the Dixie Highway interchange area. • 5 comment forms returned at meeting.
December 1, 2022	Ft. Wright neighborhood meeting (KY)	• 57 in attendance (excluding the project team). • Questions about how traffic will move through the corridor, construction timeline, project funding, and property impacts. • Concerns about noise, traffic during construction, and truck traffic. • 12 comment forms returned at meeting.
December 5, 2022	Mutter Gottes/ Covington CBD neighborhood meeting (KY)	• 17 in attendance (excluding the project team). • Questions about how traffic will move through the corridor and construction timeline. • Concerns about noise, traffic during construction and incidents, and access for first responders. • 5 comment forms returned at meeting.
December 6, 2022	Lewisburg/Botany Hills neighborhood meeting (KY)	• 17 in attendance (excluding the project team) • Questions about how traffic will move through the corridor and multimodal accommodations. • Concerns about noise. • 1 comment form returned at meeting.
December 12, 2022	Camp Washington neighborhood meeting (OH)	• 9 in attendance (excluding the project team). • Questions about traffic volumes and operations, alternative design concepts, the design of the interchange at the Western Hills Viaduct, and property impacts. • Concerns about local access, damage to local roadways during construction, maintenance of ODOT-owned property. • 1 comment form returned at meeting.
December 12, 2022	Park Hills neighborhood meeting (KY)	• 42 in attendance (excluding the project team). • Questions about how traffic will move through the corridor, right-of-way acquisition, project schedule, project costs, and construction timeline. • Concerns about noise and truck traffic. • 1 comment form returned at meeting.

Date	Activity	Comments
December 13, 2022	Large-scale neighborhood meetings (OH)	• 12 in attendance (excluding the project team). • Open house-style format with 30-minute formal presentation • 2 comment forms returned at meeting.
December 14, 2022	Large-scale neighborhood meetings (KY)	• 81 in attendance (excluding the project team). • Open house-style format with 30-minute formal presentation • 4 comment forms returned at meeting.
December 20, 2022	West End neighborhood meeting (OH)	• 42 in attendance (excluding the project team). • Questions about alternative design concepts, project schedule, funding, and landscaping. • Concerns about noise and construction impacts. • 0 comment forms returned at meeting.
January 5, 2023	51 day comment period for targeted EJ/ neighborhood outreach ends	• PublicInput.com site viewed 2,559 times, and 218 individuals submitted comments or responded to polling questions. • Written comments received via mail and in-person • 373 total comments.
January 20, 2023	EJ/neighborhood outreach meeting summaries posted to project website	Each summary included: • Meeting details and statistics • Summary of comments/responses • Advertising materials • Sign-in sheets • Presentation (including narrative) • Photographs • Written comments
February 9, 2023	EJ/neighborhood outreach comments/responses published to project website	

Appendix F:
Project Mapping

Corridor Exhibit



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 1 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

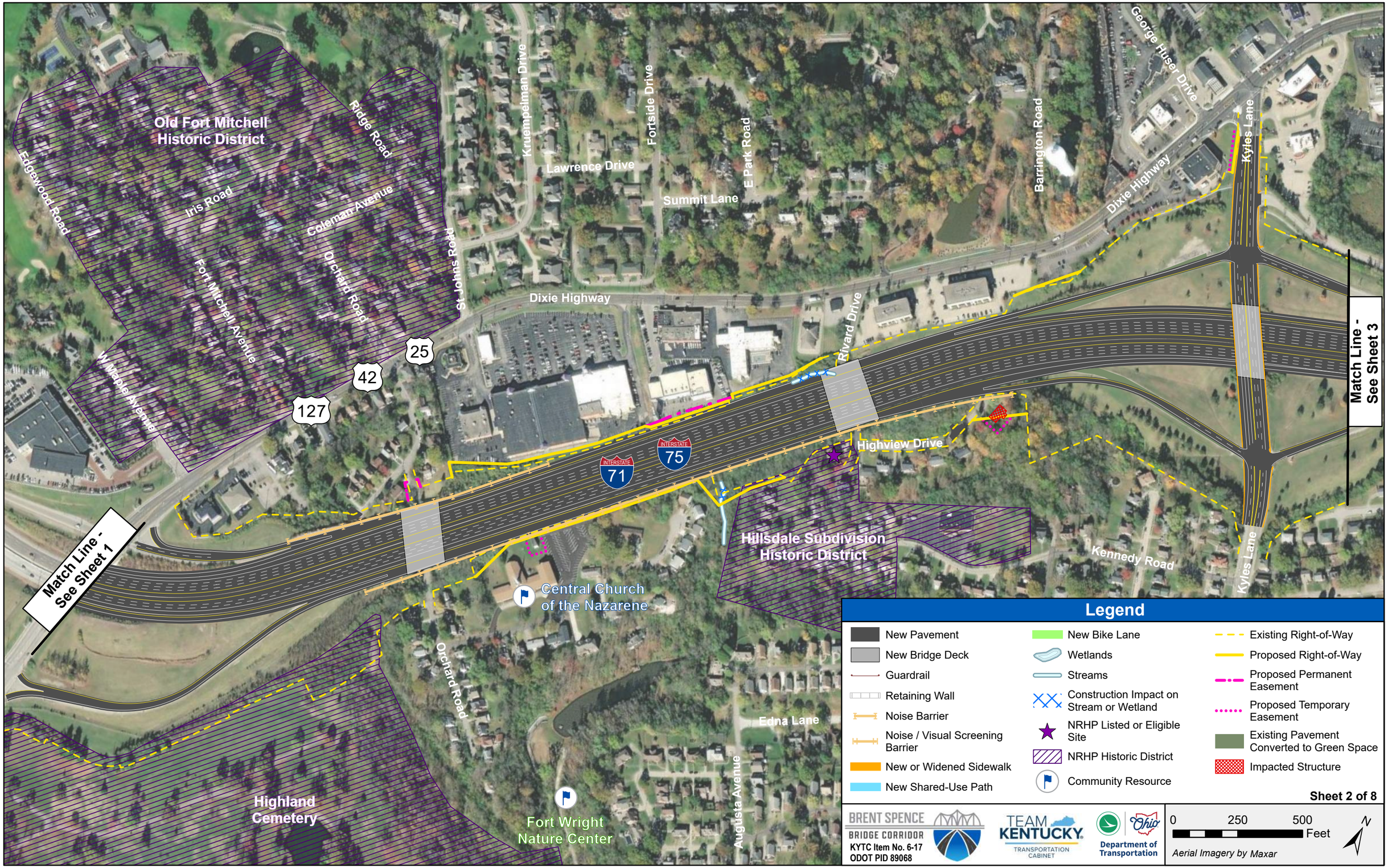
Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Maxar

Corridor Exhibit



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

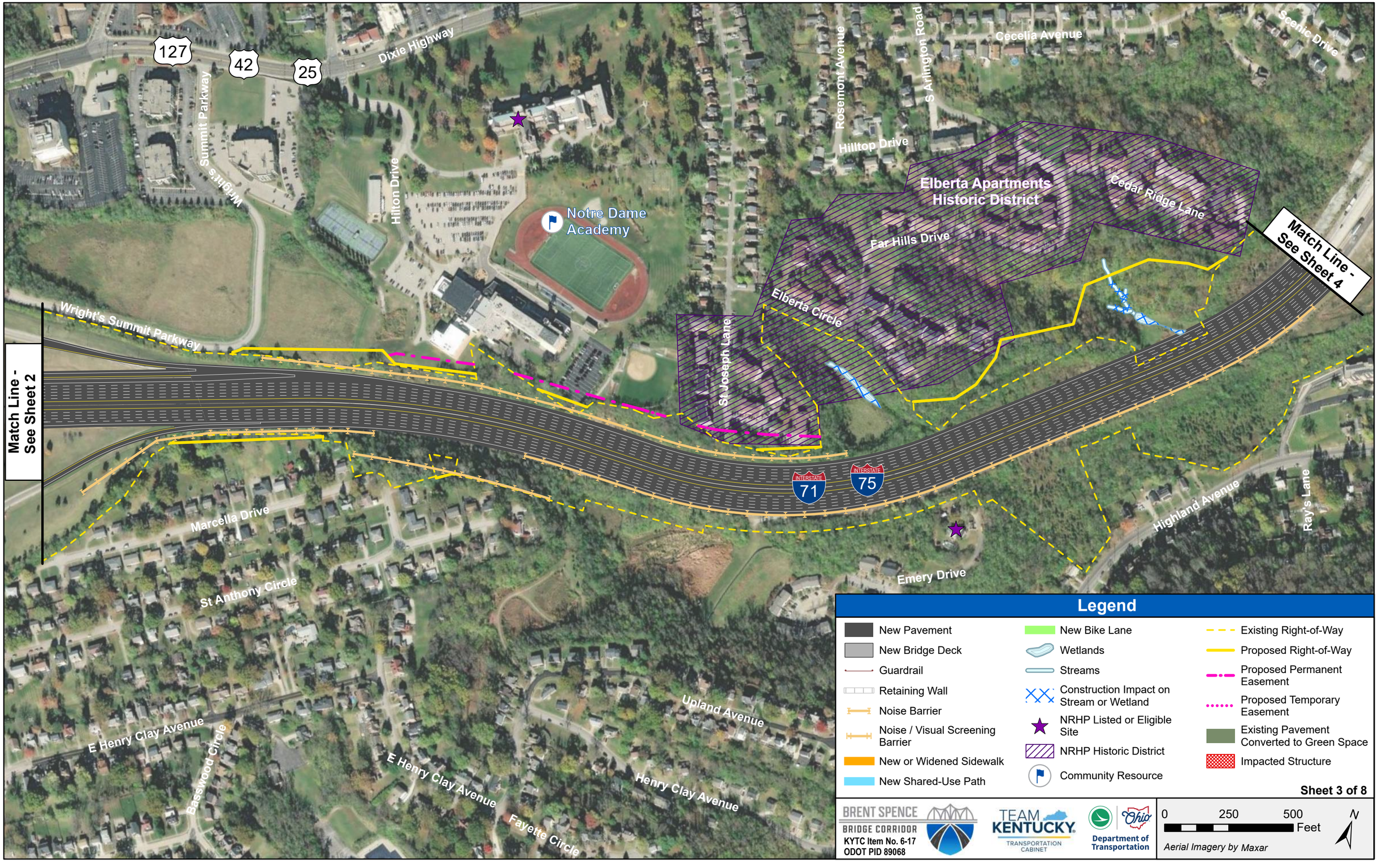
TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet

Aerial Imagery by Maxar

Corridor Exhibit



Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Maxar

Corridor Exhibit

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 4 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation | Ohio

0 250 500 Feet

Aerial Imagery by Maxar

Match Line - See Sheet 5

Match Line - See Sheet 3

Lewisburg Historic District

Prince of Peace Catholic School

Neighborhood Park

Impacted Structure

Mainstrasse Historic District

Elberta Apartments Historic District

St. Elizabeth Covington Hospital

Garden of Hope

Ivy Knoll Senior Living Community

Linden Grove Cemetery & Arboretum

Montague Road, Western Avenue, W 9th Street, Crescent Avenue, Lewis Street, Bakel Street, Southgate Street, W Pike Street, W 11th Street, W 12th Street, Willow Run Road, Watkins Street, Hermes Avenue, Bullock Street, Philadelphia Street, York Street, Irishrose Lane, Cecelia Avenue, Scenic Drive, Simon Kenton Way, Main Street, James Simpson Jr Way, Kavanaugh Street, Edgecliff Road, Monroe Street, W 16th Street, Linden Avenue, W 13th Street, MLK Jr. Boulevard, Lee Street, Holman Street

25, 42, 127, INTERSTATE 75, INTERSTATE 71

Corridor Exhibit

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Maxar

Corridor Exhibit

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 6 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Maxar

Corridor Exhibit

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 7 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Maxar

Cincinnati Union Terminal
Dalton Avenue
Post Office
Findlay Street
Match Line - See Sheet 8
Lincoln Park - Union Terminal
Liberty Street
Western Avenue
Cincinnati Job Corps Center
Freeman Avenue
W 8th Street
Gest Street
52
75
Winchell Avenue
West End Community Garden
Dayton Street Historic District
Sands Playground
Baymiller Street
Highway cap with green space
Lincoln Community Center
CAA Head Start
Public Library
Ezzard Charles Drive
Wade Walk Baseball Field
Linn Street
Match Line - See Sheet 6
St. Joseph Catholic School
Linn Livingston Park
Fire Station 29
Queensgate Playground and Ball Field
Court Street
Clark Street
Ezzard Charles Park
Derrick Turnbow Avenue
Laurel Park Drive
Wade Street
Laurel Playground
Poplar Street
Findlay Street
York Street
John Street
Cutter Street

Corridor Exhibit

Legend

- New Pavement
- New Bridge Deck
- Guardrail
- Retaining Wall
- Noise Barrier
- Noise / Visual Screening Barrier
- New or Widened Sidewalk
- New Shared-Use Path
- New Bike Lane
- Wetlands
- Streams
- Construction Impact on Stream or Wetland
- NRHP Listed or Eligible Site
- NRHP Historic District
- Community Resource
- Existing Right-of-Way
- Proposed Right-of-Way
- Proposed Permanent Easement
- Proposed Temporary Easement
- Existing Pavement Converted to Green Space
- Impacted Structure

Sheet 8 of 8

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

0 250 500 Feet

N

Aerial Imagery by Maxar

Connection to City of Cincinnati Western Hills Viaduct project

Western Hills Viaduct

Spring Grove Avenue

Dalton Avenue

Winchell Avenue

Match Line - See Sheet 7

Bank Street

Harrison Avenue

Patterson Street

Dayton Street Historic District

Colerain Avenue

Dyer Park

Central Avenue

Central Parkway

W McMicken Avenue

Klotter Avenue

Conroy Street

Central Parkway

W McMillan Street

West McMicken Avenue Historic District

Halstead Street

Western Hills Viaduct Subway Tunnel Portals

W McMicken Avenue

W McMillan Street

Fairview Park Road

Straight Street

Draper Street

Alfred Street

Cook Street

Straight Street

Colerain Avenue

52

75

127

27

Multimodal Exhibit

Legend

- New Sidewalk
- Replace Existing Sidewalk
- New Bike Lane
- Existing Bike Lane
- Replace Existing Bike Lane
- New Shared-Use Path
- Existing Shared-Use Path
- Existing Sidewalk Trail
- Future Shared-Use Path
- New Pedestrian Bridge
- Existing Pavement Converted to Green Space
- Bus Stop
- # Bus Route

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

Sheet 1 of 5

0 200 400 Feet

Aerial Imagery by Maxar, Microsoft, Maxar

Southgate Street
127
42
25
W Pike Street
Western Avenue
Worth Street
Devou Park
Kenton Hills
Lewisburg
Hermes Avenue
Neighborhood Park
W Pike Street
Lewis Street
Baker Street
Devou Drive
Western Avenue
Crescent Avenue
W Watkins Street
W 12th Street
W 11th Street
W 9th Street
Bullock Street
INTERSTATE 71
INTERSTATE 75
James Simpson Jr Way
Simon Kenton Way
Kavanaugh Street
Kenney Shields Park
Neighborhood Pool
SFC Jason Bishop Memorial Dog Park
Goebel Park
Match Line - See Sheet 2
Path location to be determined
Historic Linden Grove Cemetery & Arboretum
Westside
MLK Jr Boulevard
Goetta Place
W Pike Street
Philadelphia Street
Mainstrasse
Perry Street
Philadelphia Street
Main Street
York Street
Bakewell Street
W 7th Street
W 13th Street
Watkins Street
W 11th Street
Main Street

Multimodal Exhibit

Legend

- New Sidewalk
- Replace Existing Sidewalk
- New Bike Lane
- Existing Bike Lane
- Replace Existing Bike Lane
- New Shared-Use Path
- Existing Shared-Use Path
- Existing Sidewalk Trail
- Future Shared-Use Path
- New Pedestrian Bridge
- Existing Pavement Converted to Green Space
- Bus Stop
- # Bus Route

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

Sheet 2 of 5

0 200 400 Feet

Aerial Imagery by Maxar, Microsoft

N

Match Line - See Sheet 1

Break Line - See Sheet 3

Wright Street
Botany Hills
Highway Avenue
Western Avenue
Crescent Avenue
W 3rd Street
Ohio River
New Companion Bridge
Existing Brent Spence Bridge
INTERSTATE 71
INTERSTATE 75
Path location to be determined
Goebel Park
Dalton Street
Philadelphia Street
W 7th Street
W 6th Street
W 5th Street
W 4th Street
Central Business District
Clay Wade Bailey Bridge
Kentucky
Ohio
Southbank Shuttle
Bakewell Street
40X 39X 8 7 5 3 1
Mainstrasse
George Steinford Park

Multimodal Exhibit

Legend

- New Sidewalk
- Replace Existing Sidewalk
- New Bike Lane
- Existing Bike Lane
- Replace Existing Bike Lane
- New Shared-Use Path
- Existing Shared-Use Path
- Existing Sidewalk Trail
- Future Shared-Use Path
- New Pedestrian Bridge
- Existing Pavement Converted to Green Space
- Bus Stop
- # Bus Route

BRENT SPENCE BRIDGE CORRIDOR

KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

Sheet 3 of 5

0 200 400 Feet

Aerial Imagery by Maxar, Microsoft, Maxar

N

Break Line - See Sheet 2

Match Line - See Sheet 4

Gest Street

Queensgate

W 3rd Street

6th Street Expressway EB

6th Street Expressway WB

W 8th Street

Clay Wade Bailey Bridge

W Pete Rose Way

CBD Riverfront

Paul Brown Stadium

W 2nd Street

(On Third St.)

Central Avenue

W 4th Street

W 5th Street

Firefighters Memorial

W 6thStreet

W 7th Street

West End

W 9thStreet

INTERSTATE 71

INTERSTATE 75

52

27

85

49

32 33 40 67

74X 52X 42X 23X 40 33 32 15

Multimodal Exhibit

Legend

- New Sidewalk
- Replace Existing Sidewalk
- New Bike Lane
- Existing Bike Lane
- Replace Existing Bike Lane
- New Shared-Use Path
- Existing Shared-Use Path
- Existing Sidewalk Trail
- Future Shared-Use Path
- New Pedestrian Bridge
- Existing Pavement Converted to Green Space
- Bus Stop
- # Bus Route

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

Sheet 4 of 5

0 200 400 Feet

Aerial Imagery by Maxar, Microsoft, Maxar

N

Queensgate
Lincoln Park - Union Terminal
Gest Street
Liberty Street
W 8th Street
Freeman Avenue
Western Avenue
Winchell Avenue
Mitchell Avenue
Match Line - See Sheet 5
49
49 (On Ezzard Charles Dr.)
16
52
INTERSTATE 75
Highway cap with green space
West End
Wade Walk Baseball Field
Lincoln Community Center
Court Street
Linn Street
Clark Street
Ezzard Charles Drive
Derrick Turnbow Avenue
Wade Street
Queensgate Playground and Ball Field
Match Line - See Sheet 3
32
33
27
67

Multimodal Exhibit

Legend

- New Sidewalk
- Replace Existing Sidewalk
- New Bike Lane
- Existing Bike Lane
- Replace Existing Bike Lane
- New Shared-Use Path
- Existing Shared-Use Path
- Existing Sidewalk Trail
- Future Shared-Use Path
- New Pedestrian Bridge
- Existing Pavement Converted to Green Space
- Bus Stop
- # Bus Route

BRENT SPENCE BRIDGE CORRIDOR
KYTC Item No. 6-17
ODOT PID 89068

TEAM KENTUCKY TRANSPORTATION CABINET

Ohio Department of Transportation

Sheet 5 of 5

0 200 400 Feet

Aerial Imagery by Maxar, Microsoft, Maxar

N

Connection to City of Cincinnati Western Hills Viaduct project

Western Hills Viaduct

Spring Grove Avenue

49 31 16

16 49

16 27 49

16 27 49

(On Bank St.) 31 27

27 (On Bank St.)

52

INTERSTATE 75

16 31 49

Dalton Avenue

16 31 49

16 31 49

Winchell Avenue

West End

Bank Street

Harrison Avenue

Central Parkway

127

W McMillan Street

27

64 31

W McMicken Avenue

31 64

Western Avenue

Winchell Avenue

Findlay Street

York Street

Dayton Street

31 27

31 27

Freeman Avenue

Patterson Street

27 31

Colerain Avenue

21 20 6

6 20 21

Kindel Avenue

64 31

Freeman Avenue

27 31

Dyer Park

Central Avenue

Central Parkway

W McMicken Avenue

31 64

Klotter Avenue

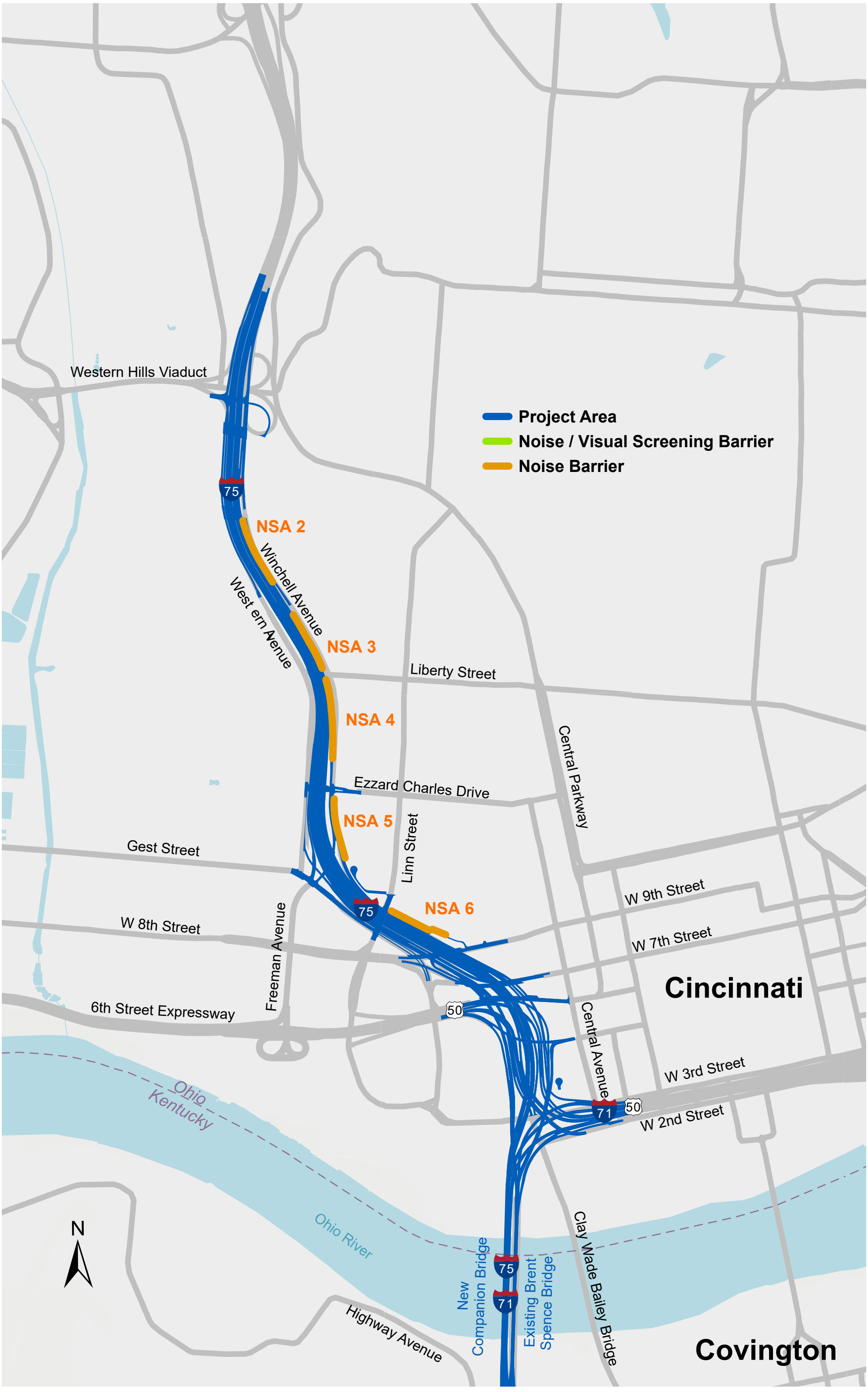
Conroy Street

Fairview Park Road

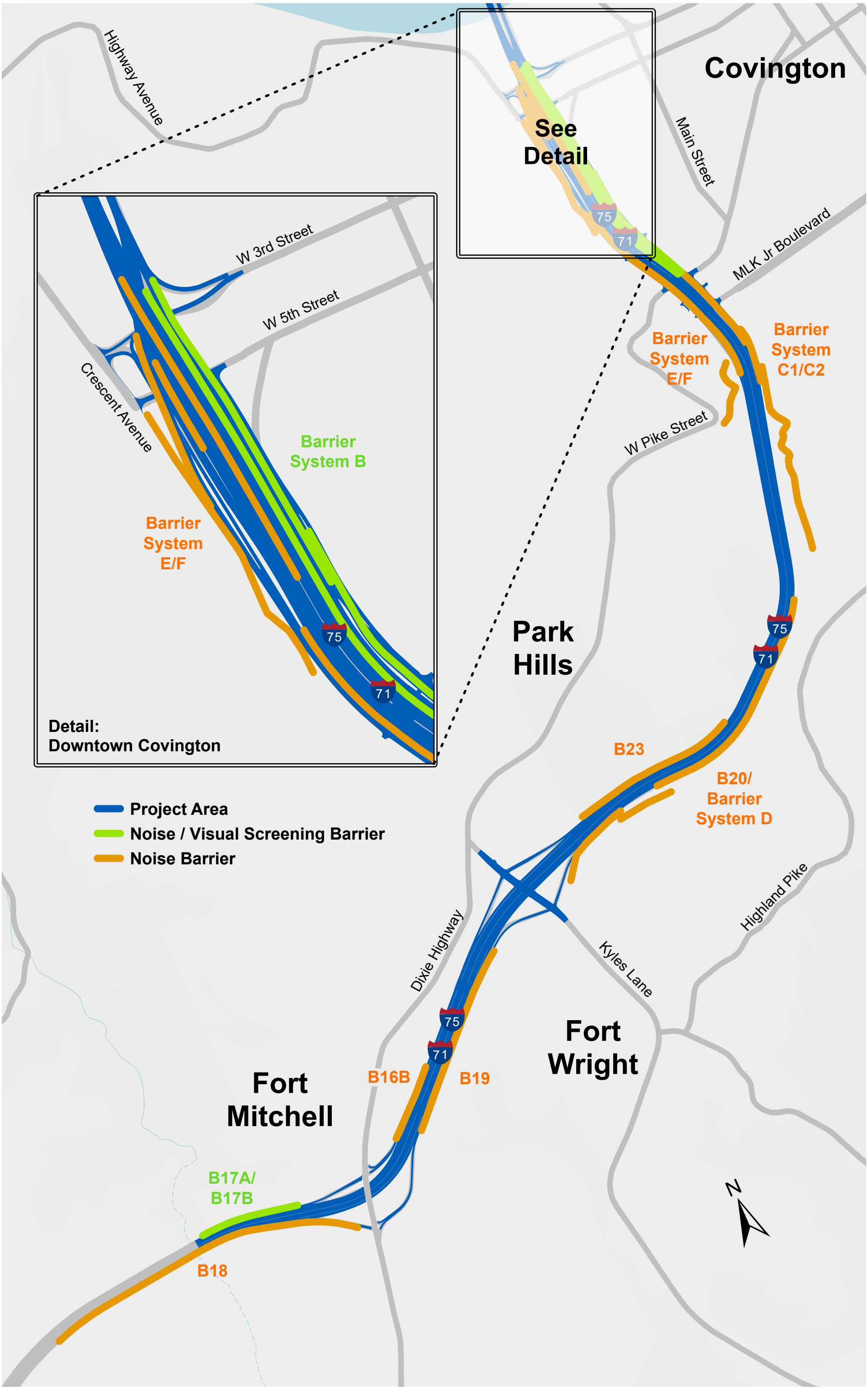
Poplar Street

Match Line - See Sheet 4

Noise Schematic



Noise Schematic



Appendix G:
Resource Cross Reference Guide

Brent Spence Bridge Corridor Project
Resource Cross Reference Guide

	State	U.S. Census Block Group (Map ID)	Older Adult[1]	Limited English Proficiency[1]	Adults with Disabilities[1]	Zero-Car Household[1]	Burdens for Disadvantaged Communities[1]	Noise Analysis Location[2]
Neighborhoods/Cities Adjacent to the Project Corridor								
Fort Mitchell	KY	71, 72, 74, 75, 76	Yes	No	Yes	No	N/A	16A, B16B, B17A, B17B, B18 (KY-S)
Fort Wright	KY	63, 69, 71, 72, 73, 74, 76	Yes	No	Yes	No	N/A	B19, B20 (KY-S)
Park Hills	KY	38, 63, 64, 69	Yes	Yes	Yes	Yes	Health Workforce Dev.	B23 (KY-S) NSA D (KY-N)
Peaselburg	KY	57, 58, 63, 64, 65, 66, 67, 69, 70	Yes	Yes	Yes	Yes	Health Housing Workforce Dev.	B23 (KY-S) NCA C, D (KY-N)
Lewisburg	KY	38, 39, 47, 48, 57, 63, 64	Yes	Yes	Yes	Yes	Health Housing Transportation Workforce Dev. Water/Wastewater	(KY-S) NSA B, F (KY-N)
Westside	KY	41, 47, 48, 49, 55, 57, 58, 59	Yes	Yes	Yes	Yes	Health Housing Transportation Workforce Dev. Energy	NSA B, C (KY-N)
Mainstrasse	KY	39, 40, 47	Yes	Yes	Yes	Yes	Health Housing Transportation Water/Wastewater	NSA B (KY-N)
Covington Central Business District	KY	33, 39, 40, 41, 49	Yes	Yes	Yes	Yes	Health Housing Transportation Water/Wastewater	NSA A (KY-N)
Botany Hills	KY	30, 31, 32, 33, 37, 38, 39	Yes	Yes	Yes	Yes	N/A	NSA E (KY-N)
Cincinnati CBD Riverfront	OH	23, 25, 26, 27, 28, 29	Yes	No	No	Yes	Health Housing Legacy Pollution Transportation Workforce Dev.	NSA 7, 8, 9 (OH)
Queensgate	OH	4	No	No	Yes	Yes	Health Housing Legacy Pollution Transportation Workforce Dev. Energy	West of I-75 (OH)[3]

Brent Spence Bridge Corridor Project
Resource Cross Reference Guide

	State	U.S. Census Block Group (Map ID)	Older Adult[1]	Limited English Proficiency[1]	Adults with Disabilities[1]	Zero-Car Household[1]	Burdens for Disadvantaged Communities[1]	Noise Analysis Location[2]
West End	OH	4, 5, 6, 11, 12, 13, 14, 15, 16, 24, 25, 26	Yes	Yes	Yes	Yes	Health Housing Legacy Pollution Transportation Water/Wastewater Workforce Dev. Climate Change Energy	NSA 2, 3, 4, 5, 6 (OH)
CUF	OH	2, 3, 6	No	No	No	No	Health Housing Legacy Pollution Transportation Workforce Dev. Energy	NSA 1 (OH)
Camp Washington	OH	1	No	No	Yes	No	Housing Legacy Pollution Transportation Water/Wastewater Workforce Dev.	West of I-75 (OH)[3]
Impacted Public Recreational Properties								
Goebel Park Complex	KY	39	No	Yes	Yes	Yes	Housing Transportation Water/Wastewater	NSA B (KY-N)
Firefighters Memorial	OH	28	No	No	No	No	N/A	NSA 7 (OH)
Queensgate Playground and Ball Field	OH	24	No	No	Yes	Yes	N/A	NSA 6 (OH)
Ezzard Charles Park	OH	11, 13, 14, 15	Yes	No	Yes	Yes	Health Housing Legacy Pollution Transportation Water/Wastewater Workforce Dev. Climate Change	NSA 4, 5 (OH)
Lewis and Clark National Historic Trail	Ohio River	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Brent Spence Bridge Corridor Project
Resource Cross Reference Guide

	State	U.S. Census Block Group (Map ID)	Older Adult[1]	Limited English Proficiency[1]	Adults with Disabilities[1]	Zero-Car Household[1]	Burdens for Disadvantaged Communities[1]	Noise Analysis Location[2]
Impacted Historic Properties								
Hillsdale Subdivision Historic District	KY	72	No	No	No	No	N/A	B19 (KY-S)
Elberta Apartments Historic District	KY	63	Yes	No	Yes	No	N/A	B23 (KY-S)
Lewisburg Historic District	KY	38	No	Yes	Yes	No	N/A	NSA F (KY-N)
Longworth Hall	OH	4	No	No	Yes	Yes	Health Housing Legacy Pollution Transportation Workforce Dev. Energy	West of I-75 (OH)[3]

Notes:

1. A "Yes" indicates presence in one or more census block group occupied by the resource.
2. Noise senstive areas are identified by the noise report in which they are addressed: Southern Kentucky (KY-S), Northern Kentucky (KY-N), and Ohio (OH).
3. The Ohio Noise Report did not designate a noise sensitive area west of I-75.