



As with the freeway segments on I-74, the I-75 build conditions are not having a significant impact on SR 562 because the capacity of SR 562 is not changing. The eastbound freeway segment between I-75 and Paddock Road will operate at LOS E with the existing geometrics as well as any of the build alternatives in the AM design hour. Westbound State Route 562 will continue to operate at LOS D with any of the mainline alternatives.

Each of the four mainline alternatives analyzed offer improved operations over the existing geometrics; however, none of the alternatives reaches LOS D for the entire corridor, primarily due to the fact that traffic relocates to the I-75 corridor from other routes as capacity is added.

### Consideration of Auxiliary Lanes

Capacity analyses have also been included for the freeway segments within the interchanges to aid in determining which locations should be further studied with respect to auxiliary lanes. While freeway segment analyses cannot be used to directly determine the benefit of an auxiliary lane, it can be used to determine which segments to study, because it details the difference in operational performance within interchanges and between interchanges.

Per AASHTO's Green Book, auxiliary lanes should be used in order to provide lane balance, supply adequate capacity, and/or improve route continuity. Based on the I-75 results summarized in this document, some segments of I-75 may need to be analyzed further with respect to auxiliary lanes; however, the number and location of the freeway segments investigated is dependent on the mainline alternative chosen and refined origin-destination information. At this time, no locations are being recommended for auxiliary lanes within the project limits based upon capacity analyses. The operational benefits of auxiliary lanes will be further evaluated in Step 6 of ODOT's PDP when certified traffic and origin-destination distributions can be evaluated and approved by ODOT's Office of Technical Services. Auxiliary lanes are, however, being recommended in some areas based upon geometric constraints, route continuity, and lane balance. The recommended locations are explained in the "Description of Mainline Alternatives" section of this document and will be further evaluated in Step 6.



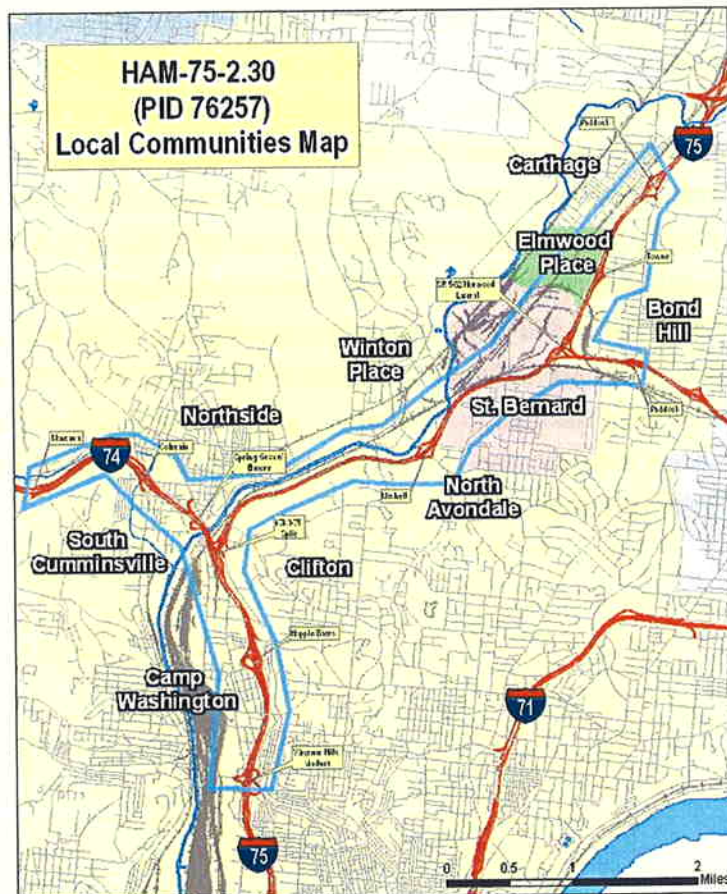
## Social and Community Impacts

**Community Description and Impacts.** The I-75 Mill Creek Expressway study area encompasses several communities, including the City of St. Bernard, the Village of Elmwood Place and a portion of the City of Cincinnati. Within the latter, the neighborhoods of Carthage, Bond Hill, Winton Place, North Avondale, Clifton, Northside, South Cumminsville and Camp Washington (from north to south) are within the study area. The primary impacts to the communities are expected to be realized due to access changes, property impacts, relocations, noise and park impacts. This section will focus on the community impacts of proposed changes to access. Each of the remaining impacts is discussed in greater detail elsewhere in this document.

**Elmwood Place:** The relatively small Village of Elmwood Place (0.3 square miles) was incorporated in 1889 and is bound by Cincinnati's Carthage Neighborhood on the north, I-75 on the east, the City of St. Bernard on the south and the Mill Creek on the west. The village is mostly residential, with fewer than 3,000 residents, but includes a commercial district along Vine Street and industrial facilities along the Norfolk Southern Rail line.

The partial Towne Street interchange provides access to Elmwood Place via northbound I-75 ramps. There are no southbound I-75 ramps at the Towne Street interchange. Therefore, southbound traffic must utilize one of the adjacent interchanges.

The majority of southbound I-75 traffic accessing Elmwood Place and the surrounding businesses utilize the Paddock Road interchange about ¾ miles north of the Towne Interchange.





From the Paddock Ramp, drivers have several options to travel southbound into Elmwood Place; however, these three are the most highly traveled routes:

- Paddock Road northbound to Anthony Wayne Trail/Vine Street southbound (1 mile)
- Paddock Road southbound to Seymour Avenue westbound to Vine Street south (1.1 miles)
- Paddock Road southbound to Towne Street westbound (1.2 miles)

Additional ramps at Paddock Road (along SR 562/Norwood Lateral) and Mitchell Avenue (south along I-75) provide access to Elmwood Place.

From the NSTI it was recommended that the Towne Street interchange be closed due to travel and safety issues. The Mill Creek Expressway study has carried forward that recommendation based upon the safety analysis.

Traffic currently traveling eastbound on Township Avenue cannot turn northbound on Vine Street. To travel on I-75 NB, this traffic can continue through the intersection to the existing ramps. However, if the interchange is closed, that traffic would have to turn SB on Vine then EB on Murray then either NB or SB on Paddock to access either the I-75 ramp or SR 562 ramp. It is recommended that if the Towne Street ramp is closed that the Vine/Township intersection be improved to allow all movements. Additional information will be developed in Step 6 to illustrate the consequences of allowing the Towne Street interchange to remain open for comparison against an evaluation of the consequences of closing the interchange.

**St. Bernard:** Incorporated in 1878, St. Bernard is located directly south of Elmwood Place and is bisected by I-75. The City of St. Bernard has a population of roughly 5,000 persons within 2.5 square miles. The northern half of the city is predominantly industrial and includes the Norfolk Southern and CSX railroads. The southern half of the city includes the commercial and institutional center of St. Bernard, which is surrounded by mostly residential areas.

The Mitchell interchange on I-75 and the Paddock Road interchange on the Norwood Lateral (SR 562) provide access to St. Bernard. The Paddock Road interchange will remain as is and the Mitchell interchange is proposed to be improved, therefore allowing better connectivity to St. Bernard.

**Carthage:** The City of Cincinnati neighborhood of Carthage is home to roughly 2,500 people in 0.8 square miles located just west of the Paddock Road interchange off I-75. Minimal improvements are proposed at the Paddock interchange and will only improve access to and from the Carthage neighborhood.



**Bond Hill:** The Village of Bond Hill was originally established in 1886 and then annexed into the City of Cincinnati in 1903. The Bond Hill neighborhood is a predominantly older residential community that was mostly built following World War I in the 1920s. The neighborhood covers roughly 2 square miles and is home to over 10,000 people.

The Bond Hill neighborhood utilizes the Towne Street partial interchange and the Paddock Road interchange off Norwood Lateral (SR 562). The Paddock Road interchange will remain as is and the Towne Street interchange is proposed to be removed due to travel and safety issues. Additional information will be developed in Step 6 to illustrate the consequences of allowing the Towne Street interchange to remain open for comparison against an evaluation of the consequences of closing the interchange.

**Winton Place:** The Winton Place neighborhood has a population of approximately 2,600 people and includes a mix of residential, commercial and industrial land use within its 1.9 square miles. The residents of the Winton Place neighborhood utilize the Mitchell Avenue interchange to access I-75. Proposed improvements to the Mitchell Avenue interchange will only enhance the access to and from Winton Place.

**North Avondale:** The North Avondale neighborhood includes approximately 3,500 people in about 2 square miles. The neighborhood extends from I-75 to I-71 and is bordered on the north by St. Bernard, the southwest by the Clifton neighborhood and the south by the Avondale neighborhood. The residents of the North Avondale neighborhood utilize the Mitchell Avenue interchange to access I-75. Proposed improvements to the Mitchell Avenue interchange will only enhance the access to and from North Avondale.

**Clifton:** The neighborhood includes approximately 9,000 people in the densely developed 2.25 square miles. A gaslight district and Mt. Storm Park add a historic and recreational character to this diverse community. The Clifton neighborhood includes over 130 acres of parkland between Burnet Woods, Bowdle Park, Dunore Park, Edgewood Grove, Mt. Storm Park and Rawson Woods.

Residents of the Clifton neighborhood utilize the Mitchell Avenue interchange, I-74/I-75 interchange and Hopple Street interchange to access I-75. Proposed improvements to the Mitchell Avenue interchange will only enhance the access to and from Clifton.

The I-74/I-75 interchange currently provides access to and from the two interstate highways as well as local access to Central Parkway on the east and Elmore Street (Colerain Avenue) and Spring Grove Avenue to the west. These local access ramps create a safety and congestion hazard because of low speed ramps and weaving conditions because of short merge lengths. The Elmore/Colerain and Spring Grove ramps are currently utilized by residents of the Northside and





South Cumminsville neighborhoods and industrial uses along Spring Grove Avenue (William P. Dooley Bypass) and Dreman Avenue.

All of the alternatives at the I-74/I-75 interchange recommend the closure of the Elmore/Colerain ramp and the Spring Grove ramp. Their removal would potentially improve safety and reduce congestion at a fairly minimal impact to surrounding residents and businesses. The surrounding businesses are mostly light and heavy industrial uses that do not require close access to freeways like retail locations. By closing the Spring Grove loop ramp, traffic would have to travel an additional  $\frac{3}{4}$  mile by taking Elmore Street WB to Beekman NB to I-74 EB. The potential closure of the Elmore Street/Colerain Avenue ramp would warrant that traffic continue WB on I-74 and taking the Colerain/Beekman (SR 27) ramp NB to Colerain SB requiring an additional 1.1 mile trip.

The I-74/I-75 Local Access Maintained alternative would construct new ramps from I-75 to Spring Grove Avenue at the intersection with Colerain Avenue.

One of the alternatives recommends the closure of the local access ramps to Central Parkway within the I-74 EB to I-75 NB ramp. That alternative is a system-only interchange eliminating all local access safety and congestion issues. The closure of these ramps would directly affect Cincinnati State Community College whose facilities are just east of the ramps and the surrounding Clifton neighborhood. Cincinnati State employees, students and teachers along with residents of the Clifton neighborhood would be forced to utilize the Hopple Street interchange to the south (2.2 miles of additional travel). Another alternative reconstructs the local access ramps to Central Parkway to create a standard T-type intersection.

The Hopple interchange provides direct access to all of the Uptown neighborhoods (which includes Clifton) in addition to the Cincinnati Zoo and Botanical Gardens, University of Cincinnati, Xavier University and numerous hospitals and other cultural facilities. The Hopple Street interchange alternatives have the potential to result in substantial benefits to the Uptown area. The existing skewed intersection of Central Parkway and MLK Boulevard is currently a safety and congestion hazard that not only affects intersection traffic, but adjacent intersections into the Uptown area to the east and west along Hopple. Improvements to the Hopple interchange would correct this arterial intersection, having a positive impact to this area by reducing congestion, improving safety, and creating the potential for a gateway into the Uptown area.

**Northside:** The Northside neighborhood is home to 10,500 people in approximately 1.8 square miles. The neighborhood is bounded by I-74 and I-75 on the south, Mt. Airy Forest on the west, the Spring Grove Cemetery and Winton Place on the east and the College Hill neighborhood on the north. The community is predominantly residential, but includes an aging industrial base in its most southern reaches.



Residents of the Northside neighborhood utilize the I-74/I-75 interchange and the Colerain Avenue/Beekman Street interchange. The impacts of the proposed closure of the local ramps that are a part of the I-74/I-75 interchange are included in the Clifton neighborhood description. The closure of the local ramps would potentially increase travel times for Northside residents accessing I-75 via the nearby Colerain/Beekman interchange.

The Colerain/Beekman interchange was originally meant to be a service interchange connecting I-74 with the proposed Colerain Connector. Therefore, the interchange is overbuilt for the current and potential future conditions. In addition, the Beekman NB to I-74 EB movement does not currently exist. Traffic coming from the Camp Washington and South Cumminsville neighborhoods must take Beekman NB to Elmore EB to Colerain SB to the Spring Grove loop ramp. The Spring Grove loop ramp provides access only to I-75 SB, there is no NB I-75 access.

The proposed improvements for the Colerain/Beekman interchange would all include the addition of the Beekman NB to I-74 EB ramp, improving service to Northside, South Cumminsville and Camp Washington.

**South Cumminsville:** The relatively small (0.87 square miles) South Cumminsville is home to over 4,400 people in the predominantly residential neighborhood. The neighborhood is bordered by I-74 to the north, the North Fairmount neighborhood to the west, the Mill Creek to the east and the Camp Washington neighborhood to the south.

The residents of South Cumminsville access I-75 via the Colerain Avenue/Beekman Street interchange along I-74 and the Hopple Street interchange along I-75. Proposed improvements to both interchanges will improve access to and from South Cumminsville. Details of the Colerain/Beekman access improvements are located in the Northside neighborhood write-up and the Hopple access improvements are included in the Clifton neighborhood write-up.

**Camp Washington:** Because of its proximity to the CSX Queensgate Yard, the neighborhood of Camp Washington contains a mix of industry related to the railroad along with pockets of commercial and residential. Just over 1,500 people call the Camp Washington neighborhood home, but over twice that work within the neighborhood.

The Camp Washington neighborhood is accessed by the Hopple Street interchange and proposed improvements will only improve that access. Details of the Hopple access improvements are included in the Clifton neighborhood write-up.



**Land Use.** Hamilton County is located in the southwest corner of Ohio. The county is bordered by the Ohio River and the State of Kentucky to the south and the State of Indiana to the west. The city of Cincinnati and a large majority of its metro-area are located within Hamilton County. The predominant land cover is the Mill Creek Valley bordered on either side by hills all within an urban setting. The I-75 corridor passes north-south through Hamilton County and the City of Cincinnati, and provides a connection between the states of Kentucky and Ohio.

The I-75 Mill Creek Expressway study area includes mostly commercial and industrial uses within the Mill Creek Valley and residential uses on the surrounding hillsides. The smaller communities of Elmwood Place and St. Bernard are located within the project area between Paddock Road and Mitchell Avenue, and include a mix of older residential homes combined with larger industrial plants. In addition, considerable portions of the study area are characterized by parkland (local and state) and railroad right-of-way.

Two noteworthy industrial centers are located on the northern and southern termini of the study area. On the north, stretching from the SR 562 to south of Mitchell Avenue, within the communities of Elmwood Place, St. Bernard and Cincinnati, are several large industrial plants surrounding the existing Norfolk Southern and CSX rail lines. On the south, stretching from I-74 to the Ohio River, is the CSX Queensgate Yard and the Norfolk Southern Gest Street Yard. Both of these massive rail facilities are surrounded by small and large scale industrial uses within the Mill Creek Valley.

## Environmental Justice

**Socioeconomic Characteristics.** US Census Bureau data were utilized to generally characterize the existing socioeconomic conditions within the I-75 Mill Creek Expressway Study Area. Analysis of the project area census data versus City of Cincinnati, Hamilton County and the Cincinnati/Hamilton CMSA, conclusions were drawn that the project area is losing population compared to the region and that will directly affect employment now and into the future.

**Environmental Justice Populations.** EJ laws, regulations, and policies are found in Title VI of the Civil Rights Act of 1964, the National Environmental Policy Act of 1969, Title 23 of the United States Code, Section 109(h), the Uniform Relocation and Real Properties Acquisitions Policy Act of 1970, and – most recently – Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations.

Disadvantage Populations include minorities (racial and national origin), low-income, elderly, disabled, and households without a personal vehicle. The first two groups, minorities and low-income, are specifically protected by environmental justice (EJ) regulations. EJ principles, as defined by the Federal Highway Administration are:



- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Environmental Justice data was collected for each census tract in the study area from the 2000 U.S. Census Bureau. Based on the EJ criteria, tracts with greater than 25% of the state average for disadvantaged populations are identified as noteworthy. The table on the following page illustrates the key disadvantaged populations within each Census Tract and includes an overall Census Tract average, Hamilton County, City of Cincinnati, Cincinnati-Hamilton CMSA and the State of Ohio data. In addition, the table illustrates the potential residential relocations within each census tract (further description is contained in the Property Impacts and Relocations section).

### Environmental Justice Populations Analysis

Tract	% Minority	Median Household Income (dollars)	Per Capita Income (dollars)	% of Population Below Poverty Level	% of Population Over 65	% of Population with a Disability	Potential Residential Relocations 4-lane	Potential Residential Relocations 5/4-lane	Potential Residential Relocations Interchanges
27	25.3%	\$30,446	\$23,968	23.23%	6.88%	31.71%	0	0	0
28	30.5%	\$23,352	\$10,127	29.36%	7.90%	41.09%	0	0	4 (Hopple)
29	29.0%	\$20,254	\$16,051	25.54%	9.91%	18.89%	0	0	9 (Hopple)
61	11.3%	\$27,364	\$19,121	15.67%	13.97%	52.45%	0	0	0
64	93.5%	\$32,923	\$19,579	18.65%	15.72%	43.53%	0	0	0
70	35.0%	\$35,927	\$26,071	19.41%	10.30%	23.81%	0	0	0
71	14.4%	\$34,643	\$33,629	10.56%	18.08%	29.25%	0	0	0
72	25.5%	\$27,074	\$24,346	20.65%	6.92%	26.06%	0	0	0
73	50.6%	\$31,571	\$15,265	9.52%	8.47%	34.89%	0	0	0
74	43.1%	\$25,932	\$10,606	34.22%	7.42%	54.05%	0	0	0
77	93.3%	\$11,120	\$8,604	54.11%	7.66%	40.88%	0	0	1 (Colerain)
78	39.9%	\$28,750	\$17,361	23.19%	9.21%	41.07%	0	0	0
85.02	97.3%	\$10,911	\$6,079	59.90%	3.79%	22.29%	0	0	0
257	6.9%	\$29,017	\$13,466	18.91%	10.15%	49.12%	4	4	0
258	7.3%	\$37,356	\$18,036	8.69%	15.45%	29.69%	5	5	0
<b>Average Per Tract</b>	<b>40.20%</b>	<b>\$27,109</b>	<b>\$17,487</b>	<b>27.10%</b>	<b>10.8%</b>	<b>34.9%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Hamilton County, Ohio</b>	<b>26.5%</b>	<b>\$40,964</b>	<b>\$24,053</b>	<b>11.56%</b>	<b>13.47%</b>	<b>29.66%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Cincinnati city, Ohio</b>	<b>46.3%</b>	<b>\$29,493</b>	<b>\$19,962</b>	<b>21.05%</b>	<b>12.27%</b>	<b>36.77%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Cincinnati--Hamilton, OH--KY--IN CMSA</b>	<b>14.2%</b>	<b>\$44,914</b>	<b>\$22,947</b>	<b>9.31%</b>	<b>11.68%</b>	<b>28.95%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Ohio</b>	<b>14.3%</b>	<b>\$40,956</b>	<b>\$21,003</b>	<b>10.60%</b>	<b>13.30%</b>	<b>16.80%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

Source: US Census ([www.census.gov](http://www.census.gov)), 1990-2000.





As a whole, the study area has a high concentration of minorities, percent of the population below the poverty level, persons with disabilities and low median household incomes. Six of the fifteen tracts have minority populations that are 25% higher than that of the state, and on average, the study area has a disproportionate share of minority persons (40.2%). Census Tracts 77 and 85.02 have over 50% of the residents living in poverty, and census tracts 61, 64, 74, and 257 have a considerable proportion of persons with disabilities. While the project is proposed to affect residential parcels in several census tracts, no one tract or environmental justice population bears disproportionate effects.

## **Parks and Recreation (Section 4(f))**

Section 4(f) refers to consideration of property that is publicly owned parks and recreational lands, wildlife and waterfowl reserves and historic properties. From the initial Red Flag review, project area mapping and site visits, Section 4(f) areas were identified. From the Cincinnati Area Geographic Information Systems (CAGIS) mapping, eleven parks, recreational areas and playgrounds were identified. This section of this report is not intended to serve as a Section 4(f) evaluation, but merely to inform regarding the resources present within the project area and the potential for impacts. Should any of these resources be impacted, the Section 4(f) process will be used to ensure that no feasible and prudent alternative to the use of the land exists and that the action includes all possible planning to minimize harm to the property.

*Impacts:* Beekman Park is located in the Camp Washington neighborhood at the northwest corner of Beekman and Elmore. The park is mostly wooded and contains no active facilities. The Colerain/Beekman interchange improvements would potentially affect the park. Alternative COL-A likely would affect 0.1 acres and alternative COL-B, 0.1 acres. (See Exhibit A-7a and A-7b.)

Bank Avenue Park is located within the City of St. Bernard just north of the Mitchell Interchange. Interstate 75 borders the park on its western edge, a housing development to the north and the former Erie & Ohio Canal bed borders the east and south. The park is the former location of the St. Bernard City Landfill and is subject to a Phase I ESA to determine the potential of encountering hazardous substances prior to construction activities. Currently the park includes a baseball and soccer field. The mainline alternatives would potentially affect 0.8 acres of Bank Avenue Park. (See Exhibit A-11.)

Maple Street Park is located within the Village of Elmwood Place and serves as their only baseball diamond. The park is bordered by I-75 on the eastern edge, and the surrounding residential neighborhoods on the north, south and west. The mainline alternatives would potentially impact 0.2 acres. (See Exhibit A-15.)